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Designing for Kids

AS THEY GROW

By Doris Pearlman, MIRM

Merchandising bedrooms that appeal to teens takes some special consideration. Simplicity is the key.

Kids who are growing from their pre-teens to young adulthood want their rooms to reflect just that: the maturity they're on the cusp of. Designing a room with age flexibility will keep growing children happy—and be a little easier on their parents' wallets. A room transformation doesn't have to be an overwhelmingly costly venture. Simply follow these guidelines to design a room that will transcend the phases of young adulthood.

1. SIMPLIFY, SIMPLIFY, SIMPLIFY

Organization and simplicity play a key role in this child-teen-adult transformation. The design process must begin by clearing the clutter and downsizing the shelves of trinkets, trophies, stuffed animals, and countless childhood crafting that have accumulated over the years. *Less is more.* The room will immediately feel more open, more airy—and most importantly, more mature.

2. BOYS VS. GIRLS

Throughout this design transformation, the young adult should be kept in mind as the ultimate “designer.” The room is meant to be an expression of him or her. And remember, the approaches to redesigning a boy's room and a girl's room are vastly different.

Drawing Board

To girls, color scheme is *everything*. It is also the most costly and time-consuming part of any remodeling project. So steer your design in the direction of color schemes that are timeless and do not tire easily.

The use of complementary colors plays a key role in the room's makeover. Using two color accents throughout the room affords the opportunity to stick with one color and swap out the other in the future. Or, use a black and white color scheme with one “pop” color accented throughout the room. Either approach will add to the room's design maturity, while keeping a simple scheme and long-term vision in mind.

As for her walls, not all upgrades have to be expensive. Do-it-yourself projects are all the rage and often the best form of self-expression. From mason jar candle holders to feather dream catchers—she can deck out her walls using the latest ideas from DIY boards on Pinterest.

Boys aren't nearly as interested in color schemes as they are getting a bigger bed, updating to modern light fixtures, and swapping out their Matchbox car sheets and curtains for a more mature look. Hint: long drapery and solid colors go a long way. Also, when in doubt, go for navy. It's the perfect, timeless color that will last through the years and make him feel as though he's transitioning from boyhood to young adult. Lastly, re-arranging his bed and furniture is the simplest approach to giving the room an entirely fresh look—one he'll appreciate.

3. KNOW WHAT TO INVEST IN (AND WHAT NOT TO)

Invest in bedding. It's time to ditch the excessive ruffles and cartoon themes that were once “adorable.” Bedding is what ties the room together and plays a key role in transforming a child's room to pre-teen or young adult. Bedding can also be a strong expression of self, so it should have character but remain simplistic enough that they will not tire of it in a few years.

Invest in furniture that will accommodate changing needs.



Furniture is always a sound investment, as its designs are constantly being recycled and made “vintage.” You can even transform a current piece of furniture with a simple paint job or changing the knobs. There is lots of room for creativity here and no new purchases are necessary!

Design wall treatments that are ageless. Always be thinking futuristically and be wary of themes. If we're being true to age flexibility, what might seem like a cute idea at the time—like an airplane or horse-back riding theme—will lose its appeal in two years. Trust us.

Two examples follow. These are projects we've completed and designed for young adults as they mature and grow in their design sensibility.

RYE BROOK (BOY'S ROOM)

The room pictured above is the epitome of the simplistic, yet masculine design that accommodates the age flexibility required for this room transformation. The wood wall, minimal sports décor, leather night stand, and matching headboard come together to create the perfect space for any growing pre-teen and future adult. (Note the long drapery as suggested in Step 2 above).

The gray, navy, and light blue color palette allows for a “coming of age” feel, while remaining timeless through the years. The room is punctuated by the wood wall—a nod to simplicity. If having a wood wall is out of your price-range for this particular project, try Wallquest for 3D wallpaper that look just like authentic, rustic wood boards (our favorite timeless feature for any room).



Drawing Board



LENAH MILLS (GIRL'S ROOM)

The room pictured above is the perfect combination of girly chic and maturing fashionista. While the theme of the room should be based on her specific interests, keeping a simplistic vision in mind is the key to conquering any remodel, and the key to her still loving her room in years to come.

The lavender, black and white color scheme allows for a sophisticated feel, while allowing her girl-not-yet-a-woman mindset come through. The simplicity of the room allows for a space that is *hers* and hers to grow into. The room is free of childhood clutter and childish themes and a breath of fresh air for any maturing teen. The chandelier, fashion wall art silhouettes, oversize mirror, and purple pillow accents are all elements that exemplify her switch from adolescence to young adulthood.

Whether you're a designer, a parent, or a teen, creating a room that maintains its appeal throughout the teenage years has lots of advantages. The key to sustainability is simplifying—by decluttering, by selecting simple colors, and by staying away from themes. Simplicity will create the base for a range of flexibility in the future. 🏡

Doris Pearlman, MIRM, is President of Possibilities for Design, an award-winning interior merchandising firm based in Denver, Colorado.



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What Does Green Mean to Homebuyers?

By Jaclyn Toole, Assoc. AIA, CGP

A new NAHB study reveals how to effectively market green features to potential buyers.

With home buyers becoming increasingly concerned with efficiency, green homes are developing into an emerging growth market. Not only are these homes in demand, they also have broader implications due to their low impact and environmental responsibility. The growing popularity of green and high performance homes offers builders an opportunity to provide the high efficiency features that clients are seeking. However, the green building field has quickly become saturated with a myriad of terms and home features—so much so that both consumers and builders can become confused.

The NAHB Sustainability & Green Building Department and the Economics & Housing Policy Groups conducted a 2015 study of consumer preferences to better understand consumer awareness and perception of green home features. This information has been published in “What Green Means to Home Buyers” and is available through builderbooks.com. The report surveyed recent home buyers, those looking to purchase a home in the

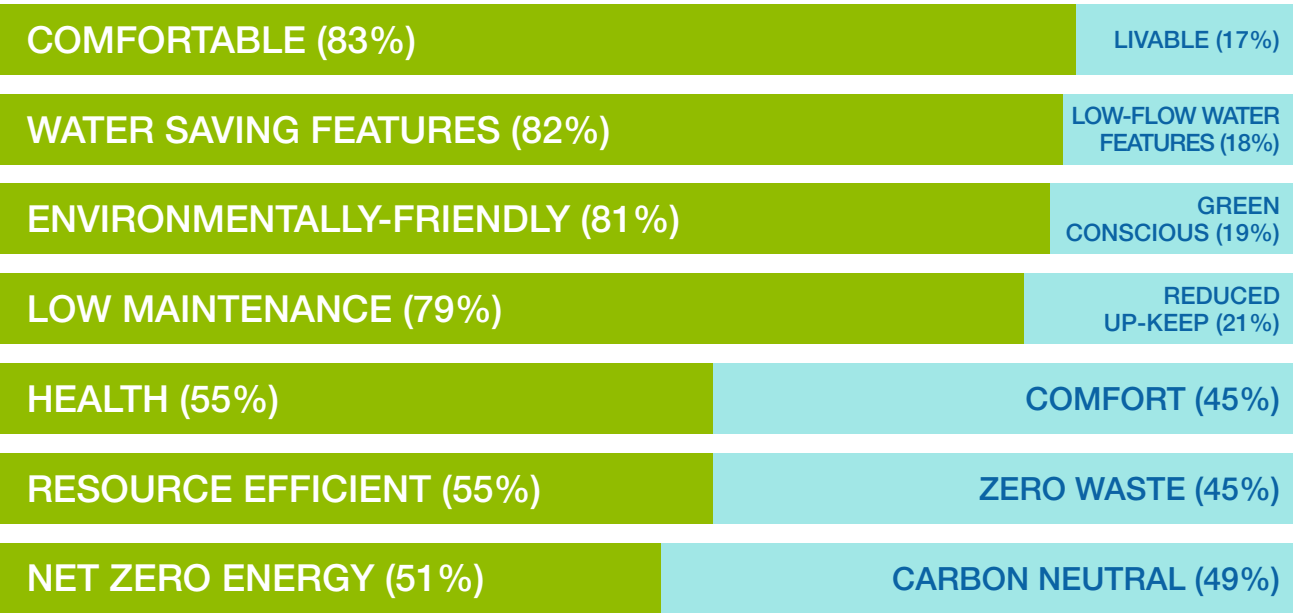
next few years, and those investing in a major home renovation (more than \$25,000). The results provide insights into the green terms, features, and programs that consumers respond most positively to. This information is then grouped into various demographics such as buyers’ age, and price of the home. These findings not only offer a glimpse into consumer preferences, but also help green builders understand how to best promote their services to home buyers who may be unfamiliar with this new market segment.

Results of the report show that the words used to market green homes really can make a difference—even for words that have essentially the same meaning. In a field where there are so many terms used to describe green values, it is important for builders to know which ones will provoke a stronger positive

response from clients. The report asked consumers to choose between two words and to indicate which they felt conveyed the most value. Certain word pairings showed a significant consumer preference for one term over another, while

other pairs showed a more or less equal preference. This data can help builders understand when it is in their best interest to use one term over another. The report examines more than 20 word pairings, a few of which are listed here:

As a Home Buyer, Which Description Would Make You Feel the Most Benefit/Value?

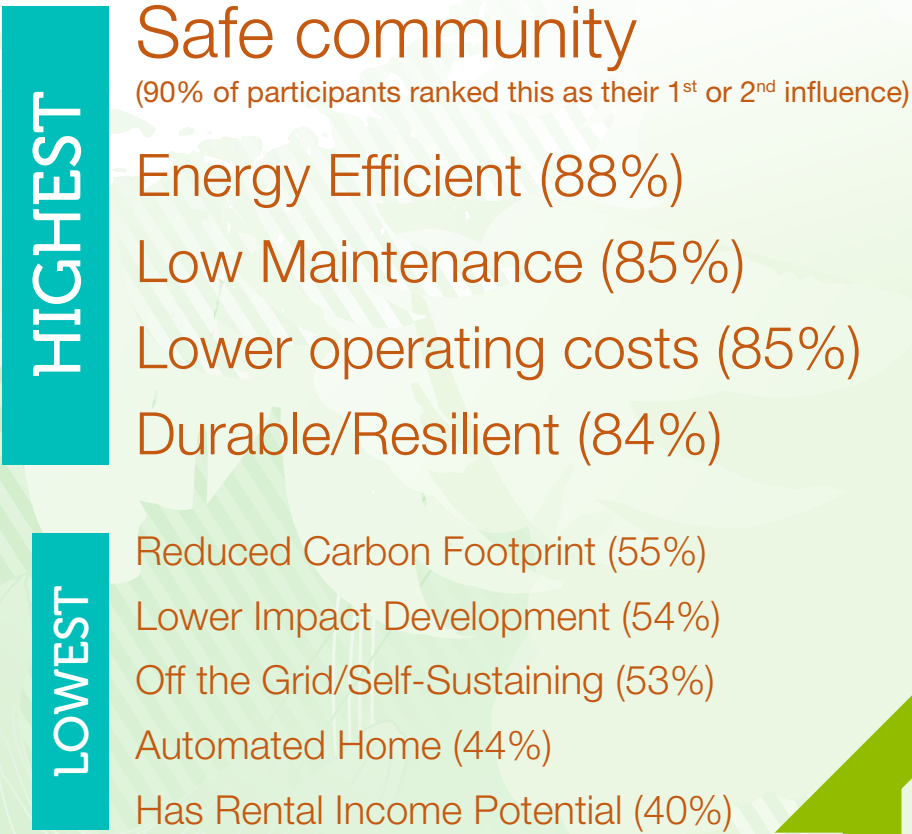


Going Green

Thus, the language builders use on their website and in their brochures is crucial. And when speaking to clients about a home’s amenities, using the words “environmentally-friendly” as opposed to “green conscious” can make a big difference in the consumer’s mind.

The new report also looks at which home features will most likely influence a buyer’s decision. While many components can be included in a green home, knowing which aspects will most likely influence a consumer’s decision allows builders to decide which features to emphasize in their marketing, and which are less important. An expanded list with over 30 ranked features can be found in the published report. Here are the features that scored highest and lowest:

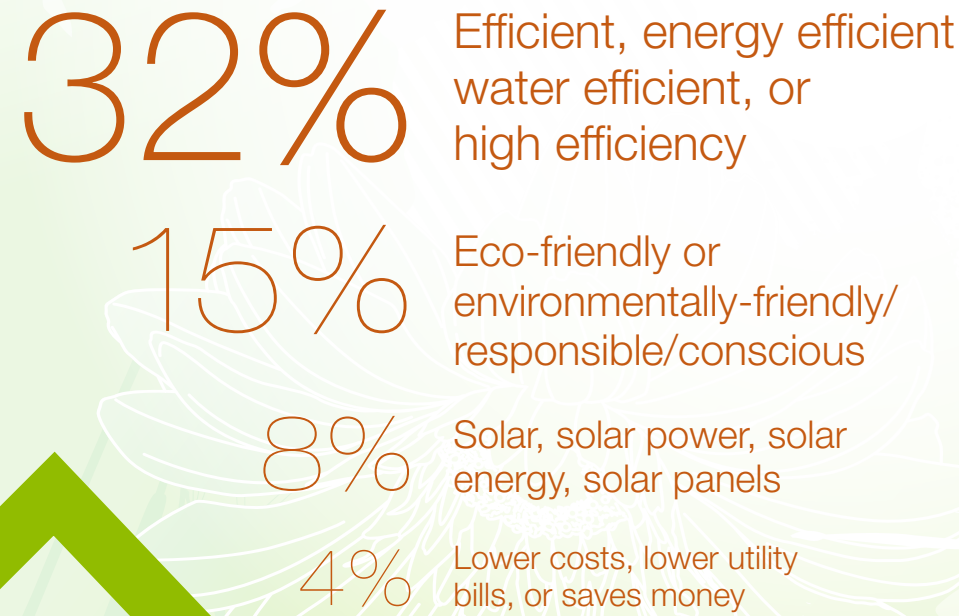
Likelihood Feature Would Influence Purchase Decision:



Builders will want to ensure that the features most likely to influence buying decisions are mentioned first and foremost by salespeople, and given the most prominence in marketing materials. Discussing reduced carbon footprint before mentioning energy efficiency could make it harder to connect with consumers.

A third question in the survey asked participants to provide their own description of a green home. This concept is at the very heart of the report because it specifically identifies “what green means to home buyers.” Each green home can be entirely different from the next and have completely different technologies. Therefore, it is important for builders to understand which features clients immediately associate with green homes. Below are some of the most common themes participants used to describe green homes:

Most Common Words Consumers Would Use to Describe Green/High-Performance Homes:



While this study shows what to emphasize when marketing green homes, responses to these questions also reveal areas where consumer knowledge may be lacking—or simply in which features consumers don’t place as much value. This provides an opportunity for green builders to educate the consumer. Web pages and links, videos, brochures, model home and sales office displays— not to mention well-trained salespeople—are a few ways to build perceived value. Additionally, testimonials from past clients, estimates of monetary savings, or discussion of increased home value can also help customers see the merits of a particular feature. Overall, this report provides a unique and rare view into green home buyers’ perceptions, and can help green builders hone marketing strategy. The full report, available at builderbooks.com, includes more detailed information about the questions presented here as well as results for questions not included in this article. ■

Jaclyn S. Toole, Assoc. AIA, CGP, is Senior Program Manager, Sustainability & Green Building at NAHB.



Reimagining the Suburbs

By Chris Grady
and Jeff Neulieb

Communities need to create walkable suburban downtowns, do strategic infill development, and improve existing infrastructure in order to retain and attract new residents.

Typical American suburbia has always had its drawbacks. And now, changing demographics means many buyers have new ways of thinking—and want new ways of living.

The New Year marks the time in society when people examine everyday decisions to improve their quality of life. Suburban regions across America are going through the same process to maintain and attract new residents. Since the 1950s the trend was to leave the urban core behind and head for the peace and serenity of the suburbs. Now, 60 years later, the demographics of these regions are shifting, following a new mentality and different lifestyle choices. These days, many suburbanites prefer urban settings, reducing their dependence on the automobile. With the majority of housing stock found in the suburbs, it's becoming more important to reimagine these areas. This demographic shift has created a renewed interest in first-tier suburbs and new suburban downtowns, providing an alternative lifestyle choice in the hopes of bringing new life to these areas.



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Marketplace



Apartments, condos, and townhomes—like these in Belmar—increase neighborhood density to allow proximity to restaurants, entertainment, and services.



NEW SUBURBANITES + WISH LIST

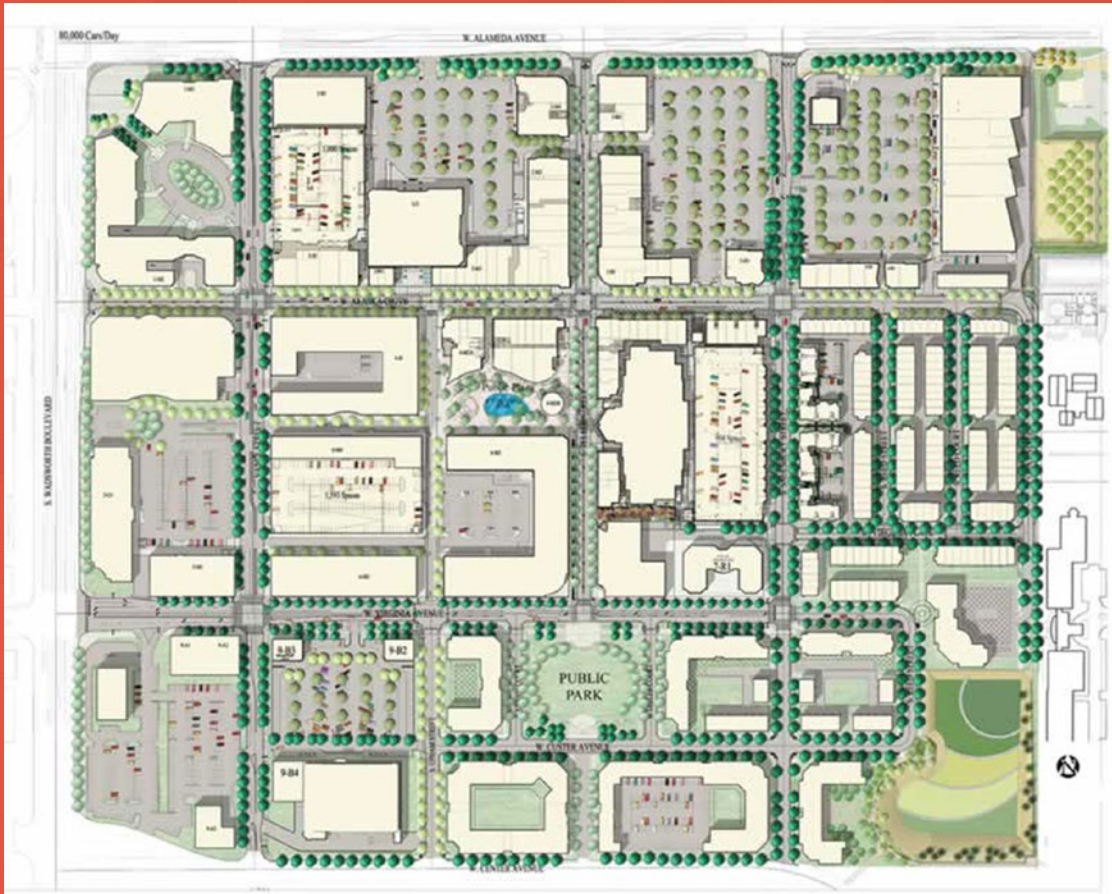
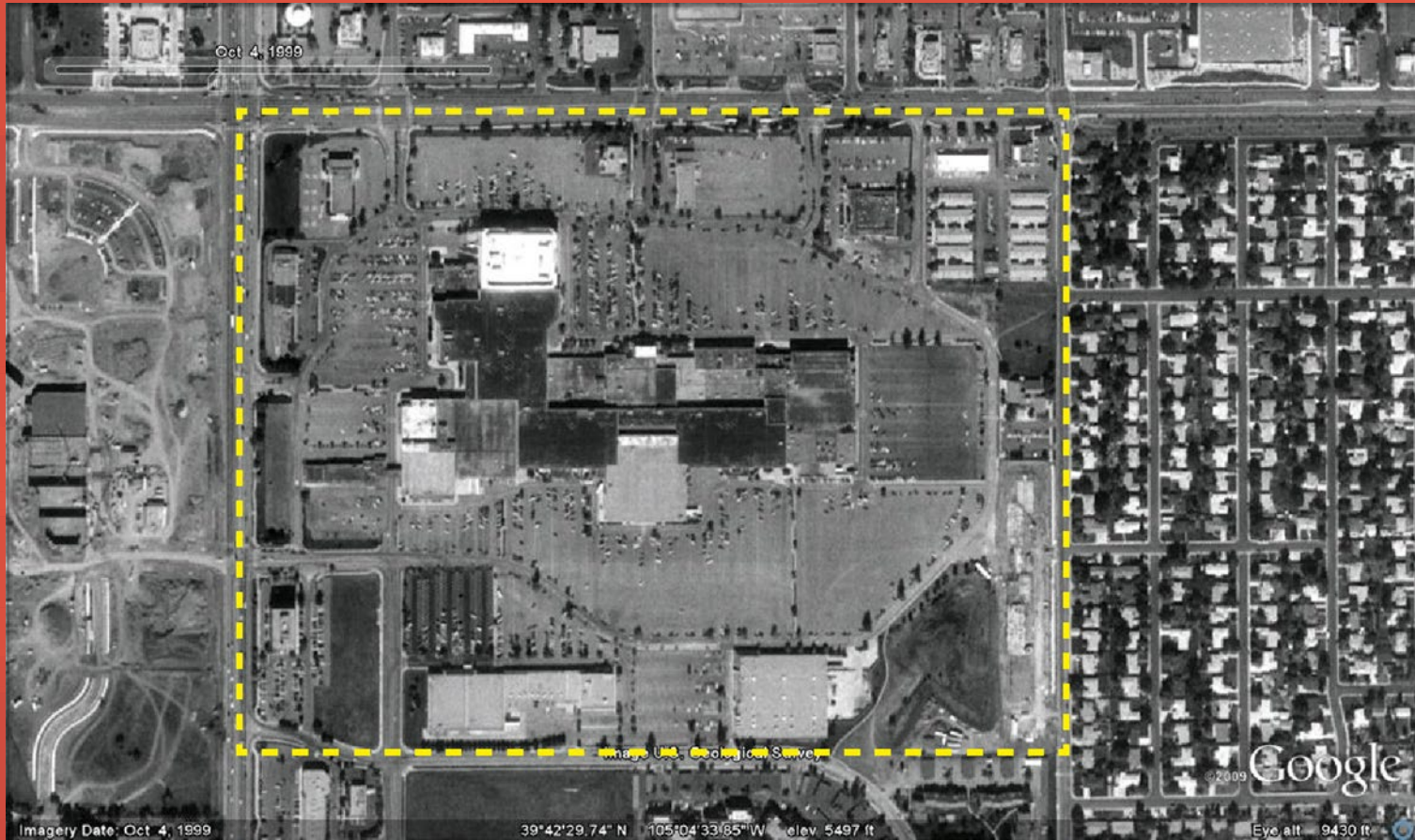
The look and feel of the suburbs has drastically transformed over the past two decades. Once full of homogeneous families with young children, these communities are becoming increasingly diverse in income, race, and ethnicity. This trend results from continued immigration, population growth, aging of the baby boomers and millennials, and the rise of the childless household. According Ellen Dunham-Jones, author of *Retrofitting Suburbia*, “singles and childless households make up a significant segment of the suburban populace and will continue to do so in coming decades.” This changing suburban demographic means a modern style of living with an entirely new preference of amenities. In these neighborhoods, suburbanites are looking for a wide range of modern housing typologies varying from apartments and townhomes to condos and compact

single-family homes. These smaller lot housing solutions demand ample quality open space for recreational opportunities. In addition, young suburban families desire to be located within a quality educational system where children can continually grow and develop.

Americans are realizing the challenges associated with suburban living. The sprawled, disconnected form has pushed residents away from their favorite destinations and has led to reliance on cars. Access to more transportation options plays a bigger role now in influencing where people want to live, as light-rail and bus-rapid transit, walking, and biking offer alternatives to the hassle of commuting by automobile. With the rising cost of energy, suburbanites are looking to ditch their cars and live in complete neighborhoods where key amenities like restaurants, entertainment, and services are within a convenient five to ten minute walk or bike ride. John Levine author of

The aerial photo on the left shows Lakewood, Colorado's Villa Italia Mall, an auto-centered shopping mall typical of those built in the mid-1960s. Lakewood transformed the declining area by creating Belmar, a vibrant mixed-use community.

Belmar is organized around a central main street lined with shops and restaurants. The street grid reconnects with the existing adjacent neighborhoods to maximize walkability.



The Next Slum states, “One in three homeowners prefers to live in a walkable urban setting.” As a result of this, interest in older, first-tier suburban communities is now beginning to resurface.

RE-EMERGENCE OF FIRST TIER SUBURBS

First tier suburbs, located between the central city and the exurbs, were formed in the early decades of the 20th century. Local municipalities now fear neglect and blight with the aging housing in these areas. To adapt, neighborhoods are making an effort to become local destinations. According to the *First Suburbs Coalition Idea Book*, “In order to continue to attract and retain families and businesses, first-tier suburbs need to find ways to maintain their housing, business structures, utilities, and renew and revitalize these facilities.” With the resurgence of the housing market, many buyers and renters are looking for affordable

housing in these regions. House-by-house, sustainable urbanism strategies like green roofs and rain gardens are being infused into existing homes to attract new buyers.

To ensure growth of these neighborhoods, existing infrastructure is redeveloping to support connectivity and walkability. Multimodal and public transit options are being added to support a healthy quality of life and economic growth. Retaining top-notch educational systems is also essential to keep existing residents and their tax base, while attracting new residents as well. New zoning updates are supporting density and mixed-use opportunities. Tax increment financing (TIF) districts and private development partnerships are being used to regenerate neglected areas of the community. First-tier suburbs need to continually adapt to the changing demographics through innovative new urbanism strategies.

LOOK OF THE NEW DOWNTOWN SUBURBIA

One of the newest trends taking place in the suburbs is the walkable centralized urban downtown. Suburban communities have been retrofitting failing shopping centers and auto-oriented retail properties into compact mixed-use developments with vibrant main streets. Employment centers mixed with residential and commercial options create neighborhoods where residents can live, work, and play. Increasing density in these communities provides a variety of housing options. An abundance of choices in favorite places and hangouts creates a highly desired environment. Bike infrastructure and public transit connect residents to employment and regional amenities outside of their community. Central plazas or parks that host a variety of annual festivals and events become excellent community gathering places.



Belmar's central open space is the epicenter for cultural, artistic, and educational events.

The vision for Belmar was to build a downtown with a real sense of community, by celebrating the public rather than the private realm.



Belmar in Lakewood, Colorado exemplifies a dying suburban mall that was transformed into a vibrant mixed-use community. The Villa Italia Mall, built in Lakewood in 1966, began to significantly decline in the early 1990s. The city saw the need to revitalize the area, and the vision for Belmar centered on four primary goals:

- Build a downtown with a real sense of community.
- Reconnect the site to the surrounding area.
- Celebrate the public rather than the private realm.
- Create a diverse environment promoting the pedestrian and public transit rather than the personal automobile.

Belmar is organized around a central main street lined with a variety of shops and restaurants. A central open space is the epicenter for cultural, artistic, and educational events. The street grid reconnects with the existing adjacent neighborhoods and amenities to maximize connectivity and walkability. Commercial and green spaces are activated through an array of housing typologies. Belmar’s thoughtful design by Van Meter Williams Pollack has created a highly desired new suburban downtown core for the city of Lakewood.

A new demographic shift has driven the push for reimagining the suburbs. Communities need to create walkable suburban downtowns, do strategic infill development, and improve existing infrastructure in order to retain and attract new residents. Providing residents with a variety of transit, recreation, employment, services, and educational opportunities creates highly desirable neighborhoods and favorite places. With the majority of housing located in the suburbs, it is continually crucial to rethink the suburban lifestyle and reimage how we live. 🏠

Chris Grady and **Jeff Neuilieb** are land planners with KEPHART community :: planning :: architecture in Denver, Colorado.



Photo: 2015 BALA Home of the Year, Werner Segarra Photography

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STUDENTS SOAR WITH SOLAR

By John Ritterpusch



This year's student-designed winning home in the DOE's Solar Decathlon offers a shining example of sustainability combined with durability.

Each year, the U.S. Department of Energy (DOE) holds its Solar Decathlon, a remarkable intercollegiate competition that challenges students to design, finance, and build homes that are both solar powered and fully functional. According to the DOE ([insert link to program](#)) the program seeks to provide “participating students with unique

Shelter3 (pronounced “shelter cubed”), is a Solar Decathlon entry from two Missouri schools—Crowder College in Neosho and Drury University in Springfield. This disaster-resilient house was designed to accelerate the recovery of those affected by tornadoes and counter the affects of future catastrophes. Its name alludes to the team's design philosophy: Respond, Recover, and Resist.

Portfolio

training that prepares them for the clean energy workforce,” as well as, “[educate] the public about the money-saving opportunities and environmental benefits presented by clean energy products and design solutions.” NAHB has taken pride in sponsoring this program for many years.

The homes have evolved since the first event, held on the National Mall in 2002. But they have always reflected not only the latest technological advances in energy efficiency, but also the creative genius of the students who discover new paths to reducing the energy footprint of shelter.

This year’s event, Solar Decathlon 2015, was no exception. Held in Irvine, California in October, the program featured 14 collegiate teams, representing more than 20 colleges and universities ([link to list participants](#)) from around the world. Each team proudly displayed the culmination of their incredible designs at the Orange County Great Park.

INhouse, the entry from California Polytechnic in San Luis Obispo, was designed for California’s coasts. It includes a constructed wetlands system that cleans and recycles all the greywater the house produces and directs it to be used for landscape irrigation.



The contest criteria focuses on six categories of utmost importance in home building: Architecture, Market Appeal, Engineering, Communications, Affordability, and Comfort. These criteria reflect the factors that every home builder knows are essential in building and selling homes.

Moreover, this program provides the students with an immersive dive into the mechanics, art, and science of homebuilding. Beneath their exteriors, these shelters exemplify single-family construction. The homes are not mere mock-ups, but actual residences, and many serve as

permanent housing after the event. Built to the International Residential Code and the National Electrical Code, the homes must comply with the same exacting standards of those in the building industry. Failure to meet these requirements will limit or prevent participation.

While these homes are beautiful to the eye, the design components go beyond the visual. Careful integration of whole-house design ensures these buildings are energy efficient, water saving, resource friendly, and durable. With so much attention to detail, one can well imagine the many hours these students spend toiling day and night in researching and experimenting with prototypes, just to get to the point

The University of California-Davis created a zero-net-energy home designed to provide better quality of life for underserved farmworkers. Dubbed “Aggie Sol”, its design addresses problems like inadequate heating and cooling, poor air quality, and work-related debris—at a price that public and private housing providers can afford.

“The Solar Decathlon reflects the latest technological advances in energy efficiency and the creative genius of the students who discover new paths to reducing shelter's energy footprint.”

of a final design. And then, there is learning curve in actually transforming that idea into a three dimensional reality that not only works as a system, but works well!

To witness the assemblage of all these homes on a single site is an awesome experience. The entire construction process includes tireless hours of manual labor mixed with the students' boundless zeal, enthusiasm, and unflagging commitment. There is truly a collegial manner evident as competitors treat each other as colleagues: friendly and encouraging of each other through trials and accomplishments.

With so many wonderful projects to review, the judges had their work cut out for them. But when all the points were tallied up, DOE announced the Stevens Institute of Technology's "SURE HOUSE" took the overall top

Just as birds use materials from their environment to build their homes, Missouri University of Science and Technology reused common materials to build its entry, called "Nest." Three refurbished shipping containers form the structure of the house and repurposed materials are used throughout. Innovative technologies such as greywater reclamation and a home automation system pair with passive design techniques.



honors by, "designing, building, and operating the most cost-effective, energy-efficient, and attractive solar-powered house."

The origins of the SURE HOUSE began after Superstorm Sandy ravaged the New Jersey shoreline back in 2012. The Stevens Institute decided to focus not only on solar and energy efficiency, but also on constructing a home to better resist whatever the Atlantic coast weather could throw at them. The Institute combined the words **S**ustainability with **R**esiliency to name its winning entry.

The Stevens Institute says it, "merged the inherently efficient indoor/outdoor rooms and open floor plan of the quintessential 1960s-style modern beach cottage with state-of-the-art

The entry from California State University-Sacramento, was created with the belief that net-zero design will achieve widespread application only when homebuyers realize that sustainability can be achieved without sacrificing accommodations. Inspiration for the exterior is drawn from Sacramento's Craftsman bungalows and small mid-century ranch homes.

building science, the latest renewable energy technologies, and fiber-composite materials repurposed from the boat building industry." The end result is a raised residence that is "armored" to resist severe coastal weather.

The students' design did not stop there. They powered the home with a solar energy array that would continue producing power when storms knock out the power grid. And if that was not enough, this residential shelter becomes a "hub to for emergency power to the neighborhood", by providing neighbors the opportunity to charge their electrical devices.

The SURE HOUSE uses 90 percent less energy than a comparable home in that area within a design that blends form



with function. The Stevens Institute’s online computer animated walkthrough provides a view of the home’s creation from concept to a finished product.

This house is just one of the many jewels to be discovered at a Solar Decathlon event, where there is always something to learn and to marvel at. One of the best reasons for attending is the prospect of being able to talk to the students themselves and hear first-hand about their learning process and adventures in bringing these homes to fruition. Their enthusiasm and passion is contagious.

As a Solar Decathlon contributing sponsor for many years, the National Association of Home Builders is proud of these Decathletes, as they explore new ways to provide energy efficient and sustainable shelter. We look forward to a bright future with these students as they move into the home building industry. 🏠

John Ritterpusch is NAHB's Assistant Vice President of Energy and Green Building



**MORE INFORMATION
ON THE WINNING HOME**

The winning entry, “SURE HOUSE,” was created to provide a low-energy, solar-powered, storm-resilient home for vulnerable coastal communities. The SURE HOUSE doubles its usable space in the summer months by opening up to the outdoor decks.



DISCOVER THE LANGUAGE TO SELL MORE HOMES



What are top-of-mind terms that consumers think of when it comes to green homes? And, what are the most important elements of a green-built home? In the new NAHB “What Does Green Mean to Home Buyers” survey, consumers were asked their level of awareness of green features — and their impact on purchasing and renovation decisions.

Find out what concepts resonate most, which demographics prefer which sustainable features, what language to use when marketing your green options and much more in this in-depth report.



To purchase the report, visit **BuilderBooks.com.**



HomeStyle 2016

By Heather McCune

COMMUNITY CREATION

The nation's best designers, merchandisers, and architects recently revealed the trends that will attract buyers in 2016.

What's new? What's hot? What's the next big thing? These are questions NAHB Design Committee members attempt to answer each year at their Fall Design Trends presentation and conversation. Allied professionals—builders, architects, designers, interior merchandisers and land planners—share the best new ideas from their marketplaces. Here's a recap of the latest insights in community creation, architectural solutions, and interior design.

COMMUNITY CREATION: PLANNING FOR INDOOR/OUTDOOR, COMMUNITY-SUPPORTED AGRICULTURE, AND PEDESTRIAN-FRIENDLY RENTAL NEIGHBORHOODS

The nature of community changes, often during the duration of creating it. Diana Rael of Norris Design in Denver shared these thoughts on the ongoing development of Denver's "Midtown" community:

- Design every inch of the community
- From the outset, rethink the traditional housing mix



PHOTO: THE SHED AT MIDTOWN, RON RUSCIO PHOTOGRAPHY



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The nature of community changes, often during the duration of creating it. Diana Rael of Norris Design in Denver shared these thoughts on the ongoing development of Denver's "Midtown" community:

- Design every inch of the community
- From the outset, rethink the traditional housing mix



Midtown, an infill community in Denver, integrates a mixed-use core with different product types—for sale and for rent—in front-loaded and alley-loaded layouts.

PHOTO: THE SHED AT MIDTOWN, RON RUSCIO PHOTOGRAPHY

HomeStyle 2016

By Heather McCune

COMMUNITY CREATION

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Designers of Midtown, an infill community in Denver, planned for indoor/outdoor living at both the home and the community level.

PHOTO: MIDTOWN, RON RUSCIO / VIC MOSS



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Norris and many other participants noted that community-supported agriculture is a hot amenity, piggybacking on the farm-to-table movement in restaurants. A few panelists cautioned, though, that some suburban developers embraced the idea and created community gardens, only to find they had to repurpose the space because too many home owners didn’t have the time to use them.

Community planners also are rethinking rental communities, making them far more more pedestrian friendly. Larry Garnett Designs combines rental detached cottages, townhomes, and flats in a community with greenways, parks, walking trails, and more.

ARCHITECTURE

Change is afoot in the still-hot apartment market. Lessard Design, Vienna, Va., shared ways to reduce the long corridor by designing two boutique cores and jogs that mean half of all units are corner units with windows on two sides. Similarly, outdoor space design is as important as inside design in apartment communities.

Other design trend highlights include:

- **Designing for Density:** On infill parcels, maximizing the number of homes is important to making the deal pencil. In a stacked and packed townhome configuration, Lessard shared a design that includes a unit every 10.5 feet linear length with individual entry and two-car direct access garages.
- **Elevation Evolution:** As the character of new homes take on a more modern vernacular—modern farmhouse, contemporary, etc.—design details, color and material choices must change as well. KGA Studios in Louisville, Colorado, describes

The trend of blurring lines between indoor and outdoor living continues to grow.



“appropriate” color as contextually and stylistically correct with the appropriate balance of color and material.

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PHOTO: REINTERPRETED MID-CENTURY MODERN, IBI DESIGNS, INC.

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This stacked and packed townhome design for Little Falls Place, an infill community in Bethesda, Maryland, includes a unit every 10.5 feet linear length with individual entry and two-car direct access garages.

PHOTO: LITTLE FALLS PLACE, TOM HOLDSWORTH; THOMAS ARLEDGE

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PHOTO: HOLLY RIDGE REMODEL, JOHNSON PICTURES

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ARCHITECTURE



This curbless shower with built-in shower seat offers enough space to accommodate a wheelchair, providing the opportunity to age in place without looking institutional.

PHOTO: MONACO AT ESTANCIA, ERIC LUCERO

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Chelsea Heights, a smart-growth brownfield redevelopment, features beautifully designed contemporary Craftsman townhome exteriors which offer a seamless transition from bustling downtown high-rises to the quaint single-family homes of the adjacent community.



PHOTO: CHELSEA HEIGHTS BY EYA, THOMAS ARLEDGE

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INTERIOR DESIGN



Interior design trends include the expansive use of glass, geometric shapes, and high contrast color schemes.

INTERIOR DESIGN

The changing character of elevations is changing interior design as well. The Modern Farmhouse trend, for example, is being expressed inside with exposed beam ceilings, open kitchens with a center island, large farmhouse sinks, and open shelving in place of some cabinets. Similarly, the Mid-Century Modern design trend continues, putting minimalism in vogue again—particularly among the millennial generation.

Other hot interior trends include:

- Expansive use of glass throughout the home to add light and height to any space
- Geometric shapes with extremely high contrast
- Stairway design with open risers and glass railings
- Asymmetrical balance in fireplace, feature walls, lighting, mirrors, and architecture
- Less cabinetry in kitchens and bathrooms—making way for beautiful shelving designs and exposed displays of necessities
- Large porcelain tiles (18"x36" or 24"x28") rather than natural stone

Once again, the Fall Design Trends presentation revealed what many builders will incorporate into their next projects as they move into a new year with a bright forecast for new home building and sales. 🏠

Heather McCune is Director of Marketing for Bassenian Lagoni, an architecture and planning firm based in Newport Beach, California.



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Buyers can't seem to get enough of extremely high-contrast color schemes--like this black marble on white cabinetry and pale gray tile.



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The trend toward Mid-Century Modern design continues, including stairways with open risers and glass or metal railings.

PHOTO: GALLERY HOUSE, BENJAMIN BENSCHNEIDER



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PHOTO: PEACH STREET, DROR BALDINGER



Mid-Century minimalism is particularly in vogue among the millennial generation.

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INTERIOR DESIGN



The expansive use of glass, in combination with glass stair railings, adds light and height to this minimalist space.

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PHOTO: APEX AT CIVITA PLAN ONE, ARON PHOTOGRAPHY

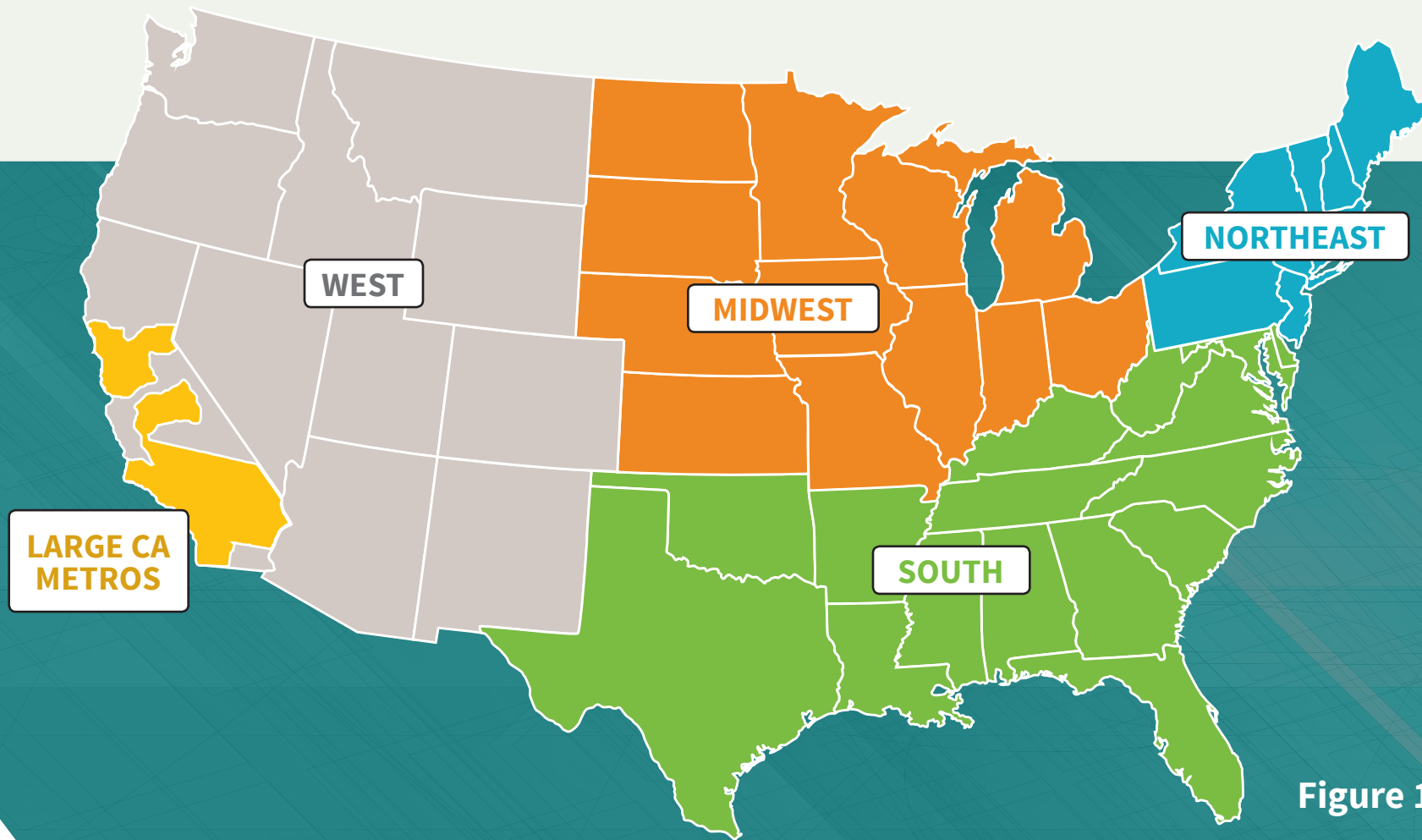


Figure 1

By Paul Emrath

NAHB's home price estimator offers a unique statistical look at the way features affect home pricing.

NAHB recently updated its online home price [estimator](#). The estimator is a unique way for builders to evaluate the impact a particular feature, or group of features, adds to the price of home.

The estimator is the result of a statistical model calibrated with data from the most recent (2013) American Housing Survey (AHS). AHS is a nationally representative survey of housing units funded by the Department of Housing and Urban Development and conducted by the U.S. Census Bureau. A

notable strength of the AHS is the amount of detail it contains on each home. There are nearly 3,000 different variables per home in the 2013 public-use AHS file.

While the number of home variables makes for good pricing estimation, the AHS does not offer specific geographic detail. The survey only identifies a home's location is in one of the four principal census regions. And while some of the larger metropolitan areas are identified, there are generally too few observations in any one metro to it treat separately. That said, NAHB has been able carve out a number of large metro areas in California and treat them as a separate "region" (**Figure 1**).

Even when it doesn't name the specific metropolitan area, the AHS does provide enough information to determine whether

a home is in a central city area, in a suburb (territory inside a metropolitan area but outside of its central city), or outside of a metropolitan area altogether. By crossing region with metropolitan status, NAHB's online tool estimates an average house price in one of 14 relatively broad geographic areas.

As an example, **Figure 2** shows a set of standard features for a home built recently in a southern central city, as well as the estimated price for a home in that location with these characteristics. The estimated price in this case is \$173,530.

It's important to remember that this is an average across a fairly broad geographic area, rather than the price of a specific home in a specific neighborhood. House prices within a region can vary. Prices of similar homes in Oklahoma City and Washington D.C.,

Figure 2. Characteristics and Estimated Price of the Standard Home

Region	South
Metropolitan status	Central City
Year the home was built	After 2009
Size of the home in square feet	2400
Number of full bathrooms	2
Number of half bathrooms	0
Number of bedrooms	3
Number of dining rooms	1
Number of family rooms	0
Number of rooms not included above	3
Central air conditioning	Yes
Fireplace	No
Basement under at least part of the home	No
Does the home have a garage or carport?	Yes
Is the property located on a waterfront?	No
Is the property near water, but not on the waterfront?	No
Is there a park or other open space within 1/2 block?	No
Access to subway/commuter rail less than 1 mile away?	No
Access to subway/commuter rail less than 1/2 mile away?	No
Can residents walk to personal services (e.g., a hair salon)?	No
Can residents walk to entertainment (e.g., eating places)?	No
Is police protection in the neighborhood satisfactory?	Yes
Is there an abandoned building within 1/2 block?	No
Any buildings w1th bars on the windows within 1/2 block?	No
Is there bothersome trash or litter within 1/2 block?	No
Are any roads in the area in need of repair?	No

Estimated Price: \$173,530

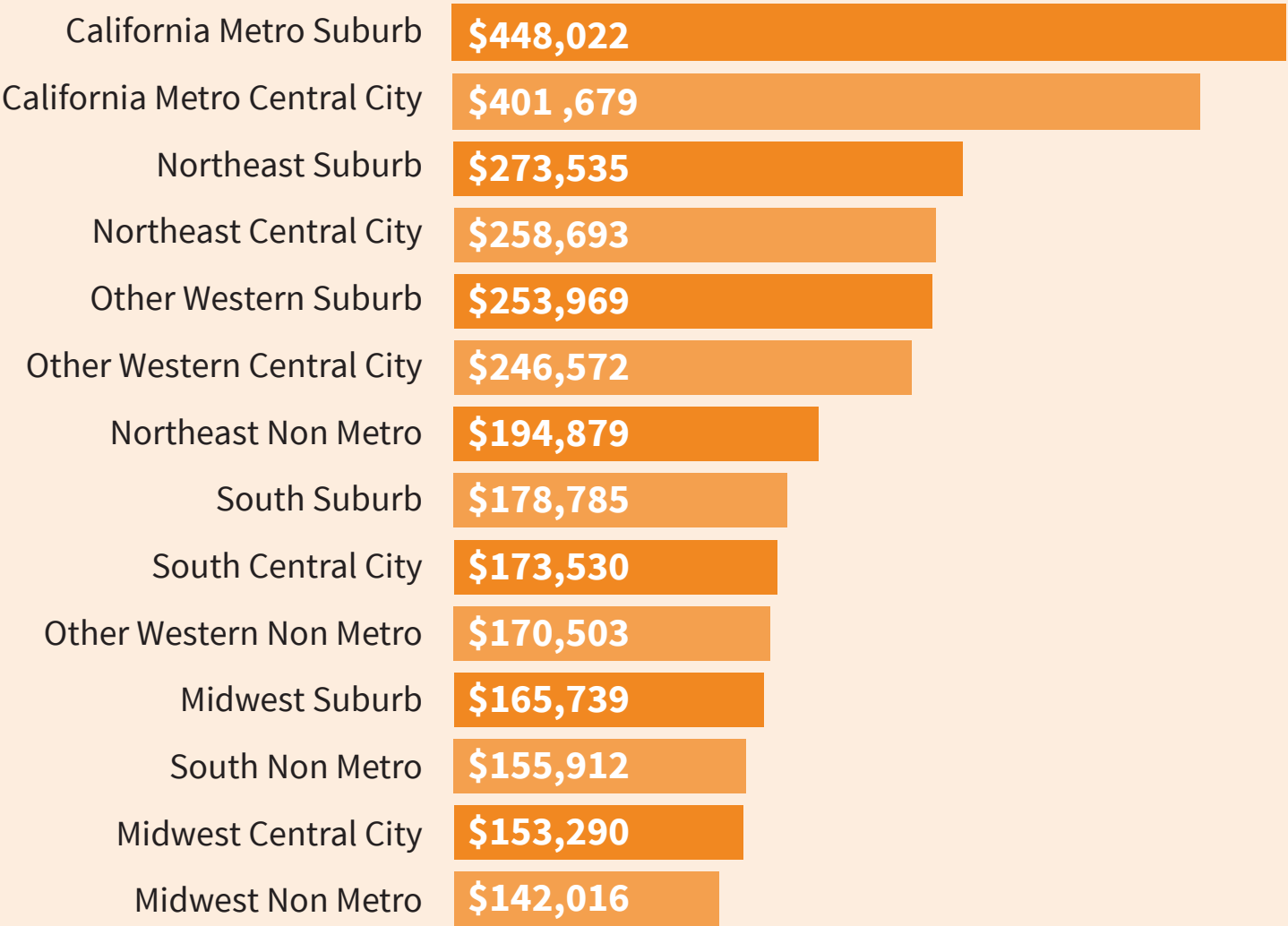
for instance, may be quite different, even though both locations are central cities in the South Census region.

Figure 3 shows how the estimated price of the standard recently built home varies across the 14 region/metro status combinations. The price ranges from only about \$142,000 if built outside of a metropolitan area in the Midwest

Census region, to over \$400,000 if built in a central city or suburb of the large California metro areas.

Figure 4 shows how the estimated price of the home changes with the home’s physical features. Holding square footage and other features constant, a bed, dining, or miscellaneous room, changes the estimated price by \$10,000

Figure 3. Estimated Price of a Standard Recently Built Home by Location



Source: NAHB hedonic regression model for owner-occupied, single-family detached homes; based on data from the American Housing Survey, U.S. Census Bureau and the Department of Housing and Urban Development.

or slightly less. Of the features in the figure, an extra full bathroom has the largest impact, increasing the estimated price of the standard home by about \$37,000.

The house price estimator finds that owners prefer a home with one more bedroom than bathroom, and attach somewhat less value to additional rooms as the home diverges from this ideal. In **Figure 4**, adding a fourth bedroom to a standard home with two bathrooms increased its value by 5.6 percent. If the standard home instead started with only one bathroom,

adding a fourth bedroom would increase its value by 4.3 percent. All else equal, the third bathroom makes the fourth bedroom more valuable (and vice versa).

Other than an extra full bath, the largest price impacts in **Figure 4** come from adding a full basement (increasing the value of the home by \$34,000) and fireplace (\$27,000) to the standard home.

As mentioned above, the AHS data set contains information on a large number of home features, and NAHB experiments

with many combinations of features to extract information as precisely as possible from the data. However, no data set or model can capture every relevant feature for a commodity as large and complex as a house. There’s always a chance that some particular feature is acting partly as a proxy for others.

For example, if homes with fireplaces were also more likely to have tray ceilings, crown molding or other decorative trim (features not captured by in the AHS) the estimated value of the fireplace could in part be picking up the value of these omitted features. This is one reason the estimated value of a feature may differ from the cost of constructing it.

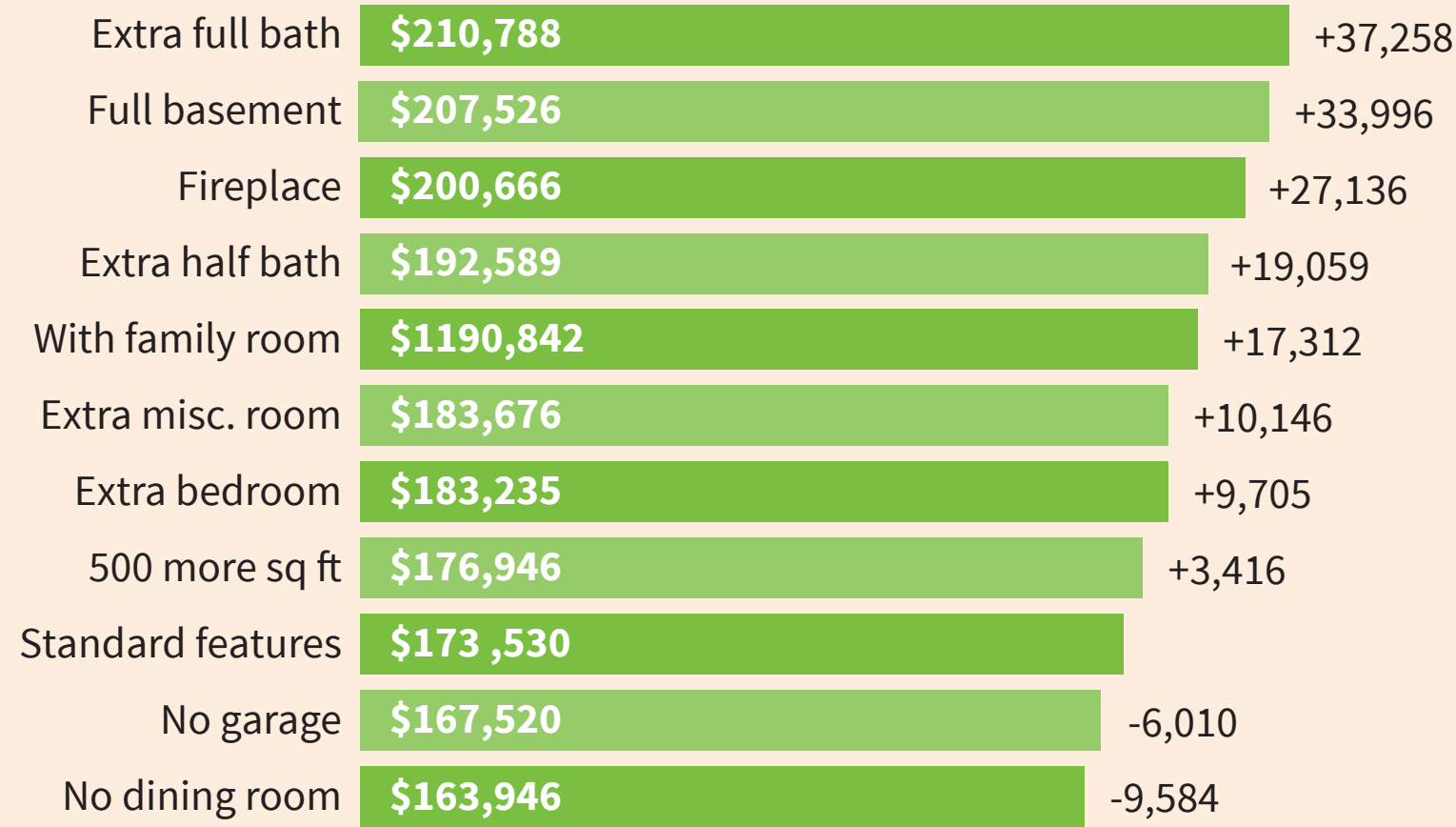
While only a few of the possible applications of NAHB’s house price estimator are illustrated here, many others are possible. For example, a developer could use the estimator to see the impact neighborhood features have on a standard home’s price to help evaluate the suitability of different building sites.

Readers who would like to experiment can access the interactive [House Price Estimator](#) on NAHB’s web site. The interactive version is a “macro-enabled” Excel file that requires a fairly recent version of Excel, with security adjusted to allow macros to run. Those attempting to use the house price estimator should start on the [landing page](#) and read the instructions at the bottom before clicking on the link that actually opens the estimator. 🏠

Paul Emrath, Ph.D., is NAHB’s Vice President for Surveys and Housing Policy Research.



Figure 4. Price of a Recently Built Home in a Southern Central City:
Impact of Changing the Home's Physical Features



Source: NAHB hedonic regression model for owner-occupied, single family detached homes; based on data from the American Housing Survey, U.S. Census Bureau and the Department of Housing and Urban Development.

A topographic map background with brown contour lines and blue water features. The title 'Fitting the Plan to the Land' is overlaid in a large, bold, sans-serif font. 'Fitting the Plan' is in a golden-yellow color, 'to the' is in a dark grey color, and 'Land' is in a dark green color. The text is positioned in the upper half of the image, with 'Land' being the largest word.

Fitting the Plan to the Land

By Tony Green



The Pinehill's Summerhouse Cottage neighborhood boasts homes that take advantage of both their proximity to the town center as well as the grade of the knoll of land on which they sit.



How the tree-covered rolling topography of The Pinehills inspired unique homes that take full advantage of the land's varying elevations.

The Pinehills, a mixed-use community on 3,200 acres of knobby, forest-covered hills in the world's third-largest pine ecosystem, approaches land and trees as treasures of historic, cultural, and environmental significance.

Respecting the inherent value of this place, the plan for The Pinehills saves two acres of open space for every acre that is developed. Open space is the theme of the whole community, and it both separates and connects neighborhoods. Here, homes and neighborhoods are made to fit the land, rather than the other way around. This approach saves trees and excavates less earth by preserving the hilly topography rather than flattening it. Homes are sited before roads, where they belong, with an emphasis on views and grades. Walk-out lower-levels to the rear result in higher first-floors—and views are *always* better up high. Roads are what they used to be, a way to get from here to there, rather than “driving” the land planning process.



Front porches on many of the Summerhouse Cottage homes take advantage of the homes' adjacency to a park.



Proximity to the town center and its park makes these homes attractive to residents who want to leave their cars at home and walk to local amenities.

The living choices at The Pinehills are broad: from apartments to condominium townhomes, to cottages, to custom single-family homes. What is consistent across home types is the approach to siting for view and grade. One notable example: The community's Summerhouse Cottage neighborhood. These single-family homes take advantage of both their proximity to the town center (the "Village Green") as well as the grade of the knoll of land on which they sit. The mix of home designs in the neighborhood includes 14 homes with front porches on a park, 16 homes that use the grade to create walkout lower levels, and four homes dubbed "Flex Cottages" because they use the hillside to create flexible live/work or multigenerational living.

FLEX COTTAGES: HOMES FOR MULTI-GENERATIONAL LIVING OR LIVE/WORK

These four homes on 65- by 100-foot lots, take advantage of a unique situation to create a charming mixed-use atmosphere—using the grade to create separation between the business and neighborhood parts of the building. Front to back, the lots slope down at a 12 percent grade from a cottage residential streetscape to a commercial street in the rear.

The home plans have a private home fronting the neighborhood street, and underneath, a lower level business or apartment space. Each home has two distinct access points—one for the home, and one for the flex space—from two different streets.

Buyers have the option to finish the walk-out lower level—either as a work space with a distinct "business" entrance, or as an apartment



Summerhouse Cottage Neighborhood Facts and Figures:

- Residential cottage neighborhood in a mixed-use area
- 34 lots (27 sold, 6 available, 1 model)
- Adjacent to two other neighborhoods of 16 smaller cottages and 192 apartments
- Purposely built on smaller lots (50' x 100' and 65' x 100') to create density in the central area of the community
- Design guidelines include:
 - Porches across front façade with one story eave
 - Rafter tails
 - Four trees per lot—2 front and 2 back, saved or 4-inch caliper, to break eave line
- Home prices from high \$600s to over \$1 M



- Many of the homes face a pocket park, and all are connected by walking paths leading to the town center with market, stores, restaurants, bank, post office and hotel.
- Proximity to the town center and its park makes these homes attractive to residents who want to leave their cars at home and walk to local amenities.



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to accommodate extended family. This serves as an attractive selling point for those who run businesses from their homes, as well as the increasing number of buyers who live with adult children or older parents.

These Flex Cottages speak to several growing lifestyle trends and consumer demands. As recent research shows, many buyers today want to park their cars at home after work and on weekends and walk to amenities like restaurants, stores, and town parks. Further, these homes address the growing trend of working from home, as well as the trend toward multi-generational living. Thus, these unique homes take what may have been considered “difficult” topography and create an elegant solution that adeptly meet the wants and needs of the consumer. 🏡

Tony Green is Managing Partner,
Pinehills LLC



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It's all in the details

Seeing the MATH in Design

By Kevin Holdridge

Not sure what's a little "off" about a home design? It could be you need to do some math.

Whether in nature, art, or building design, there are certain rules and ratios that can account for an aesthetically pleasing composition. Mathematicians have studied the "golden ratio" for thousands of years. This golden ratio appears everywhere and can be calculated with formulas, number sequences, and even displayed graphically. The golden ratio is 8:5 or 1.618. Leonardo Fibonacci identified a sequence of numbers that also have golden ratio implications. The Fibonacci sequence adds the sum of the two numbers prior to find the next number. The Fibonacci sequence is 0,1,1,2,3,5,8,13,21,34,55,89,144, etc. By taking the relationship of the two numbers next to each other we will find the golden ratio. Example: $8/5=1.6$, $89/55 = 1.618$, $144/89 = 1.618$.

These golden ratio numbers can also be found by looking in the mirror or by looking

around at nature during a walk in the park. The segments of a human finger are all 1.618 larger than the next segment. The human ear has a nautilus shell shape. This shape is created by what is called an equiangular spiral, or "golden spiral"—meaning the length of the chord in each arc is 1.618 larger than the next. The golden ratio is also seen in what's known as a "golden triangle," an isosceles triangle where one side is shorter than its two equal sides in that 1.618 proportion. When these triangles are nested inside of one another, it creates the "golden spiral" shape.

The human body shows examples of the golden ratio all over it, from the spacing of facial features, to the relationship between someone's height and arm span. Examples of the golden ratio are easy to spot in trees and plants, too, since both naturally grow to the golden ratio. Flower pedals, for example, naturally come in Fibonacci sequence numbers. A flower will normally only have 1,2,3,5,8 or 13 pedals—which is why those four-leaf clovers are so hard to find. Even in music for instance,

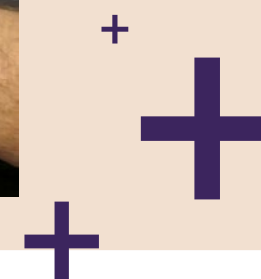
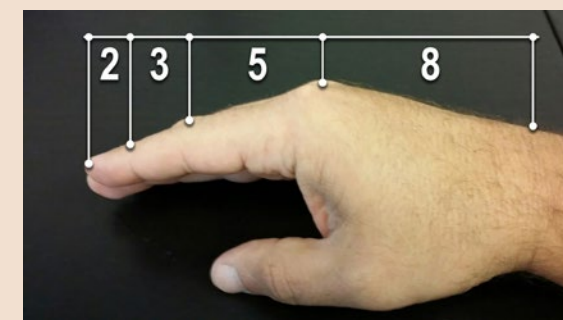
one octave on a piano contains 13 keys, 8 white keys and 5 black keys.

So, what does this all mean when it comes to home design? Often, when drawing and designing homes the artist will simply see the math unknowingly. When designing, it is very common to continue to draw until the home looks pleasing to the eye. The human eye will pick up on anything that falls outside of the golden ratio as disproportionate and displeasing. Graphically, designers can use regulating lines (bisecting angles) which will hit key points of the building to check their proportions.

So if something seems a little "off" in the design of your next home, it may be because

Many items in a home's design can be proportioned by using math. The relationships of space within the home can be improved if they are spaced using a derivative of 1.618 away from each other.

Regulating lines can be used to check proportion by drawing angled lines from key points of the home. Angled lines should originate from the centerline of the front door and be extended to adjacent window midpoints or the eave lines and/or ridge lines of the home. The eaves and roof lines should have a proportional relationship with the windows and doors.



some aspect is slightly outside of the golden ratio. Using regulating lines and Fibonacci numbers may well fix the problem. Try superimposing the golden spiral onto your computer generated elevations to check for proper proportions as in the examples shown here.

Being aware of the golden ratio, including the golden spiral and golden triangle, will undoubtedly improve your design.

Sometimes it simply helps to do the math. 🏠

Kevin Holdridge is President of KDH Residential Designs in Huntersville, NC.



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The width and height of features of the home like a porch or covered entry can be measured to the golden ratio by having a 1.618 relationship.

The sound in media or music rooms will resonate better if the room is designed using the golden ratio of proportion for the relationship between the length, width and height of the room.



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