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INSIDE Out

Designing Outdoor Rooms that Make Attached Homes Stand Apart

By Scott Adams, AICP
Bassenian | Lagoni

> “This is what I prayed for… a piece of land—not so very big, with a garden, and near the house…”
>
> —Horace, 30 B.C.

Horace’s prayer—his wish—expressed more than 2000 years ago remains true to this day. Home seekers want that elusive connection with nature near the place they call home. Our challenge as planners, architects and builders is to integrate the architectural design with the site or lot, and in doing so create appealing and usable outdoor living environments. In attached projects, this requires collaboration among many disciplines—from architects to land planners, landscape architects, interior designers and especially builders.

Outoor living is created with private entry courtyards in the attached single-family homes of Santa Maria in the community of Stonegate in Irvine, Calif.

HOLDING COURT WITH COURTYARDS

Single-family attached homes can benefit greatly from indoor-outdoor courtyards. But typical townhome solutions require a careful review of some important design factors to ensure the courtyard location is providing the expected benefit. These factors include:

- the location of the home's front door
- the garage location
- the number of stories, and
- whether or not the home is at the end of a multiplex building or located in the middle.

Typically, we refer to an indoor-outdoor space as being in the front, middle or rear zone of the floor plan. Take a typical fourplex, alley-loaded townhome for example: A courtyard space can be integrated into any of those three zones in the end units. And while the two interior units have some additional design considerations, these can still offer opportunities to create outdoor space that sets your product apart in the market.

In a typical fourplex with rear garages, the end-unit will probably have an integrated entry porch for the front zone. Thus, additional indoor-outdoor space isn't necessary at this front zone location. Placing an indoor-outdoor courtyard in the middle of the home's depth instead would allow the designer a unique opportunity to locate rooms around and facing the courtyard. Windows and doors could access this private space—space that is precious to attached-home buyers.

The rear zone of end-units can offer outdoor living possibilities as well. If the footprint of an attached home is wider than the garage, the offset alongside the garage can be used to create an indoor-outdoor courtyard space. Since this location will likely be near the informal rooms of the home, it will be used frequently.

FRONT ZONE FRONT AND CENTER

The front zone of condominiums can be designed to create an appealing environment. In this condominium collection designed for Van Daele Homes, this alley-loaded design produced a site density of more than 17 homes per acre. The simple act of pulling the building apart allowed for private ground-floor entries and direct-access garages for every home. More importantly, the space between the homes allowed for additional windows to be placed down the sides of the entry apertures. The addition of side glass completely changes the usual windowless center-unit townhome, making it much more desirable to buyers. The best outdoor living environment is found in the front elevation, which disguises a density of 17.5 homes per acre.

INTERNAL ATRIUM

Santa Maria, located in the village of Stonegate in Irvine, CA, creates appealing outdoor spaces at a density of more than 14 homes per acre. The alley-load configuration features units separated by private entry courts, highly unusual for homes at this density. Carriage units (flats over garages) include high ceilings, a great-room floorplan and lots of natural light. Plan 2 includes an internal clear-to-sky atrium/patio directly in the middle of the home to provide a surprise space that has turned this plan into the best seller.

Townhome interior units can be challenging. They usually have two long windowless walls defining the width of the home—not a great way to define an indoor-outdoor casual lifestyle. Yet courtyard solutions can help make the interior unit as desirable as an end unit. (Garland Park, Plans 1 or 2) Integrating courtyards into the middle zone of these floor plans, creates a dynamic, eye-catching home. (Plan 2 at Santa Maria).

OPEN UP, BUT KEEP IT PRIVATE

Courtyard spaces provide a wonderful transition from indoor living areas to the common open spaces of the community. But they must be carefully considered for privacy, especially for townhomes. A designer needs to think through the courtyard's features. Outdoor fireplaces, water features (such as a fountain), flat screen monitors, expected seating areas, and the courtyard's relationship to the adjacent interior spaces must be carefully arranged.

Sliding or stacking window walls are popular not only because they allow interiors to flow seamlessly to the courtyard, but also because they visually enlarge and transform the rooms. This uninterrupted access lets buyers imagine friends and family enjoying the coolest party of the year. Even so, these social spaces necessitate privacy, requiring some sort of a vertical barrier to the common areas.

Every outdoor space should be designed with elements that integrate outdoor space with the exterior—using columns, pilasters, integrated roofs and other elements. The end result will excite prospective buyers, as they imagine themselves living in these wonderful indoor-outdoor courtyard spaces.

Scott Adams of Bassenian Lagoni is responsible for directing all comprehensive land planning efforts of the firm, including project direction, planning design and team management responsibilities.

North Pointe
model home backyard

NEXUS ENERGY HOMES

North Pointe photovoltaic solar panels

NEXUS ENERGY HOMES

North Pointe Geosolar townhomes in a row

NEXUS ENERGY HOMES

PROJECT TEAM

ARCHITECTS	Zavos, Caddworks and Nexus Energy Homes
INTERIOR DESIGNER	Nexus Interior Design professionals
ENGINEER	Harris, Smariga and Associates.

As GREEN as it Gets

These homes couldn't be a brighter shade of green.

By Paul Zanecki

At North Pointe, a 50-lot geosolar community in Frederick, Md., Nexus EnergyHomes is building a mix of single-family and multifamily homes that typically net little or no electrical energy usage and produce no carbon emissions. Some homes even return excess power back to the grid. The community features 24 duplexes, 19 townhomes and seven single-family homes in a revived urban downtown setting.

Geothermal well installation & SIPs envelope construction

NEXUS ENERGY HOMES

North Pointe model dining room

NEXUS ENERGY HOMES

Just a few years ago, this trendy downtown community was the site of a run-down public housing project. Nexus EnergyHomes bid to rebuild the site under Hope VI, a Department of Housing and Urban Development (HUD) program that aims to eradicate distressed public housing.

HUD required Nexus' homes to be affordable and energy efficient. But president Paul Zanecki went the extra mile. The builder spent three years schooling his management and architects in energy efficiency, in part through NAHB's Home Innovation Research Labs, ultimately learning to build to the most rigorous requirements of the ICC 700 National Building Standards (NGBS).

All 19 North Pointe homes delivered thus far incorporate energy savings of a whopping 60 percent or more, and have achieved NAHB Emerald Certification, the highest rating for a residential green building. The community boasts the largest concentration of Emerald Certified homes anywhere in the United States.

North Pointe photovoltaic solar panels

NEXUS ENERGY HOMES

Nexus North Pointe homes currently incorporate the cutting-edge combination of:

Super insulated building enclosures

- TECHNOLOGY: Structural insulated panels (SIPs), spray foam, and sealant
- BENEFIT: Super-insulated building shells eliminate heat transfer and are comfortable and quiet

Ultra efficient heating and cooling

- TECHNOLOGY: Geothermal (ground sourced) heat pumps
- BENEFIT: Ultra-efficient heating and cooling saves energy and optimizes comfort

Continuous ventilation

- TECHNOLOGY: Energy recovery ventilation (ERV) system
- BENEFIT: Continuous ventilation ensures even temperatures and fresh air while conserving energy

Superior indoor air quality

- TECHNOLOGY: ERV system, HEPA filtration, Nexus CleanAir systems, and whole-house central vacuum
- BENEFIT: Extremely clean indoor air reduces the impact of allergens

Reduced water heating

- TECHNOLOGY: A desuperheater preheats the hot water system using waste heat from the geothermal system
- BENEFITS: Reduces utility bills for water heating

ENERGY STAR qualified appliances and electrical equipment

- TECHNOLOGY: ENERGY STAR qualified not only ensures lower utility bills but enhanced quality, durability, and performance
- BENEFITS: Reduces utility bills

Photovoltaic solar panel power generation

- TECHNOLOGY: PV panels that generate electricity using renewable solar energy
- BENEFITS: Almost eliminates the remainder of utility bills
- Option to upgrade to the DOW POWERHOUSE™ Solar Shingles System

Reduced water usage

- TECHNOLOGY: EPA WaterSense labeled faucets, lavatory, etc. that use less water
- BENEFITS: Reduces water waste and water bills

State-of-the-Art controls and monitoring systems

- TECHNOLOGY: Complete home communication system including NexusVision™, an integrated monitoring system to better understand and then better manage your homes' energy usage
- BENEFITS: Allows owners to control energy use remotely

THE GAME CHANGER

You might call him forward thinking. Nexus Founder and CEO, Paul Zanecki has long believed there is demand for homes capable of generating as much energy as they use; homes that can save homeowners thousands of dollars on utility bills every year without adding significantly to construction costs. His goal: "I want to get homes powered by renewable resources and available to a broad segment of the homebuying public, change the way homes are built in this country, and create a new paradigm of home ownership," he says.

Zanecki acknowledges that his net-zero homes are about ten percent more expensive than conventional construction. Still, many—including all of the 2,000 square-foot duplexes at North Pointe—are priced under $325,000, a considerable feat in the greater Washington, D.C. market. More importantly, North Pointe buyers' higher mortgage payments are usually more than offset by lower electricity bills. A typical homeowner may pay an additional $40 each month more in his mortgage payment, Zanecki says, but they will probably save around $175 a month in utility expenses. That's $135 a month in savings, and it's not uncommon. "In most cases, homeowners should come out ahead and spend less than they would on a conventionally-built home," Zanecki says. In addition, in many cases buyers benefit from federal tax credits, state grants, and county incentives.

HIGH-TECH AND LOW-IMPACT

Each Nexus EnergyHome in North Pointe incorporates the latest technologies to enhance the indoor environment, conserve resources, reduce environmental impact—all while saving energy and, of course, money.

As one might expect, Nexus builds with sustainable materials like bamboo flooring, recycled countertops, and carpet made from recycled plastic bottles. But the builder also incorporates a web-based communication system that allows buyers to go online to track their home's security, energy production, and energy consumption. If a homeowner logs in remotely on her smart phone and sees that her home is using more energy than expected (or producing less), she can turn down the thermostat and turn off forgotten lights. The homes' security systems can also be controlled remotely.

Doing its homework has paid off for Nexus: North Pointe is enjoying a sales pace of 2 homes a month, coverage by local and national media, and prestigious building industry awards, including the EnergyValue Housing Award Builder of the Year in 2012.

Zanecki says it's a "quantum leap" to adjust to these building methods from traditional ones. But he has enjoyed the ride. His end result, he says, is not only a net-zero home, but also a home that performs better for homeowners in many ways. "It started as a pure quest for energy efficiency, but doing what we do has led us to create a home that gives buyers far better air quality, and state of the art control systems as well."

North Pointe Geosolar townhomes in a row.

NEXUS ENERGY HOMES

North Pointe model kitchen with EnergyStar appliances.

NEXUS ENERGY HOMES

Paul Zanecki is Founder and CEO for Nexus EnergyHomes.

the Missing Middle

Singles, childless couples and empty nesters have two things in common: They are growing in numbers, and they want a unique type of home. Here's how to take advantage.

Over the past 60 years builders and developers have done a great job of building housing at opposite ends of a spectrum: Single-family homes on one end, and stacked flats or garden apartments on the other.

But today, demographics are shifting. Childless and single-person households—in the form of empty-nester baby boomers and 20-something millennials—are growing continuously, and in large numbers. In 1970, 55 percent of American households had no children and 14 percent of all households were single-person households. By contrast, in 2000, 67 percent of households had no children and 31 percent were single-person households.

Many of these 20-something millennials and empty-nester baby boomers want walkable

Cottage Courts: This cottage court in the East Beach project, designed by Allison Ramsey Architects, integrates several small, detached cottages around a green space, creating a strong community oriented around the space.

ALLISON RAMSEY ARCHITECTS

By Daniel Parolek, AIA

urban living and a different type of home. Duplexes, fourplexes, mansion apartments, and bungalow courts often fit the bill. Because they have long been largely ignored, these types of multifamily homes are often called the “Missing Middle.”

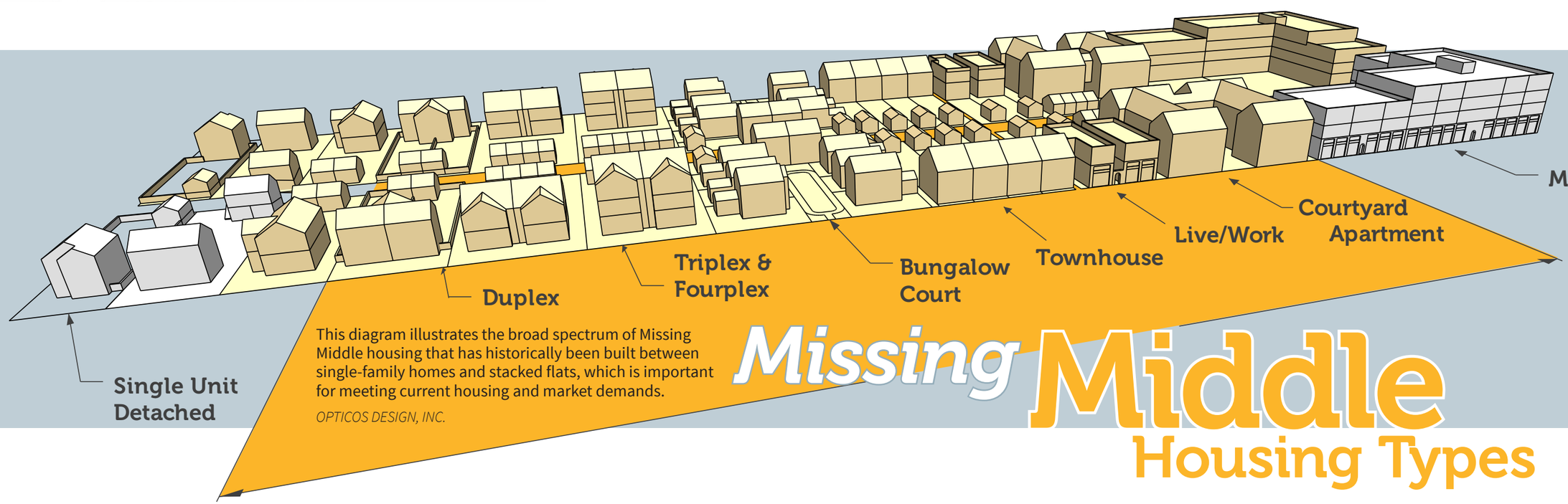
Missing Middle homes are intended for a different market segment than conventional multi-family products. These buyers prefer higher-quality, often smaller, multifamily options as an alternative to living in single-family homes. They are also willing to pay for quality. If done well, these housing types have little or no competition in their respective markets.

Live/Work Unit: This live/work building designed by Opticos Design in the recently developed South Main project in Buena Vista, CO, provides flex space on the ground floor with a separate entrance to the upper unit. The owner can use the space either to incubate their own business or rent it out to generate a monthly income.

JED SELBY, SOUTH MAIN.

Stacked Duplex: These two-unit buildings by Brown Design Studio in Habersham have one unit on the ground floor and a second unit above. Tall ceiling heights are an integral part of the design of these units.

HABERSHAM LAND COMPANY.



This diagram illustrates the broad spectrum of Missing Middle housing that has historically been built between single-family homes and stacked flats, which is important for meeting current housing and market demands.

OPTICOS DESIGN, INC.

Missing Middle Housing Types

HOW TO FILL THE VOID

These buyers, with their smaller and often childless households, will snap up homes that use the right formula, which includes these four elements:

Cottage Court: The Cottage Company's homes feature room-sized covered front porches. Danielson Grove, Kirkland, WA.

THE COTTAGE COMPANY

1 A **walkable** context

Homes for this demographic work best in an existing or newly created walkable urban context. Buyers or renters of these housing types often choose to trade larger suburban homes for neighborhoods that fit their lifestyle. They will happily give up the space and privacy of suburbia for a shorter commute and proximity to amenities such as restaurants, bars, and markets. They love not having a yard to maintain. And they enjoy the sense of community provided by either the development itself or the larger neighborhood context. As Linda Pruitt, President of the Cottage Company, which is building creative bungalow courts in the Seattle area, says, "The first thing potential customers ask is, "What can I walk to?"

"Baby boomers are tired of mowing the lawn—they're looking for a more diverse environment," says Chris Leinberger, chairman of the Center for Real Estate and Urban Analysis at George Washington University School of Business. With this in mind, well-designed site plans are vital to the success of these housing types and must be carefully designed, not just engineered.

2 Smaller, **well-designed** units

Interior: An open living room and kitchen provide high-quality, well-designed small spaces. Danielson Grove, Kirkland, WA.

THE COTTAGE COMPANY

Architects and builders new to this market often try to force suburban-unit types and sizes into urban contexts. Instead they should think small—as small as 650 to 700 square feet. Though challenging to design, if small spaces are well laid out and integrate features such as built-ins and tall floor-to-ceiling heights, they can be very comfortable and usable.

If unit sizes are too large, the developer will miss the market—based either on desired size, cost, or both. Smaller unit sizes enable developers to spend more per square foot to achieve a higher quality and hit a different niche market segment or to keep costs down, improving the pro forma performance of a project while making the homes appeal to a larger group of buyers or renters.

Three Generation House:
This multigenerational home designed by Opticos Design, which also fits within the Missing Middle types, allows three generations to have separate and shared living spaces in one home oriented around courtyard.

OPTICOS DESIGN, INC.

Mansion Apartment: This mansion apartment in the East Beach project in Norfolk, VA, by Brown Design Studio, looks like a large home and is seamlessly integrated onto a block with large single-family homes.

OPTICOS DESIGN, INC.

3 Fewer parking spaces

Because of their walkable urban location, Missing Middle homes don't need as much parking. They serve as an attractive alternative for households that choose to own only one car or use their cars less frequently—and they often are oriented on streets that offer supplemental parking. As a starting point, these homes should provide no more than one off-street parking space per unit. One good example: The recently built mansion apartments in the new East Beach neighborhood of Norfolk, Virginia. These homes include one off-street parking space per unit with ample street parking nearby. By contrast, when builders include more than one off-street parking space, the site plans cannot produce sufficient yields, shifting densities to less than 16 units per acre. Sixteen homes per acre serves as the general rule to support small, neighborhood-serving commercial amenities and existing or future transit alternatives.

4 They Feel Like a Home

Most important, Missing Middle housing must provide a similar experience and curb appeal of single-family homes. In the best examples, they face onto a neighborhood-scale, tree-lined street, and the buildings are of a scale similar to single-family homes. In addition, owners enter their home directly from a front porch, stoop or small courtyard, rather than down a long corridor to their unit. Providing a high-quality living experience, very similar to a single-family home, allows prospective buyers and renters to more easily shift to these multifamily homes than they would to garden apartments or mid-rise condominiums.

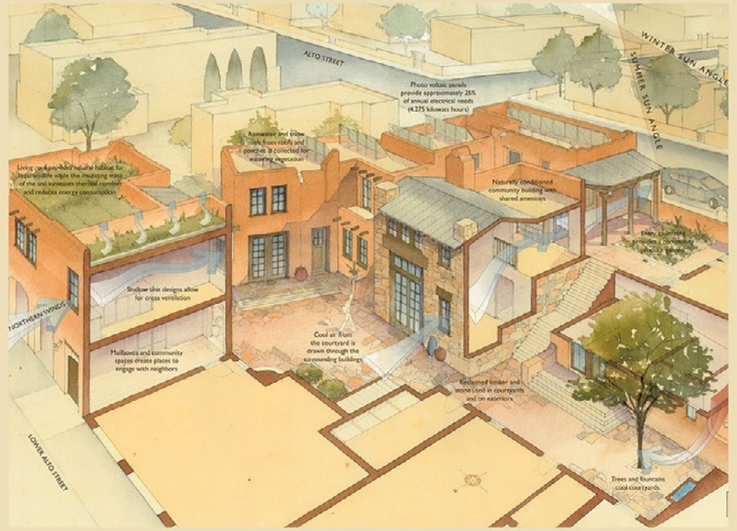
Missing Middle housing is an opportunity to think outside the box. Architects, builders, and developers can creatively address the mismatch between existing housing stock and today's market demands by designing and building these housing types. Those who do are creating vibrant, diverse, sustainable and walkable communities that buyers love.

The market is waiting. Will you respond?

Daniel Parolek, AIA, is Principal for Opticos Design, Inc.

Village Flats: These six-plex buildings by Brown Design Studio in Habersham, a new community in Beaufort County, S.C., are located adjacent to a new mixed-use town center.

HABERSHAM LAND COMPANY



Thoughtfully Integrating a Diversity of Green Elements

Santa Fe Courtyard Housing: This courtyard housing project in Santa Fe, NM, by Opticos Design integrates six units on a quarter acre oriented around a series of small courtyards. It is intended to serve as a model for green building and affordability.

THE Perfect Place

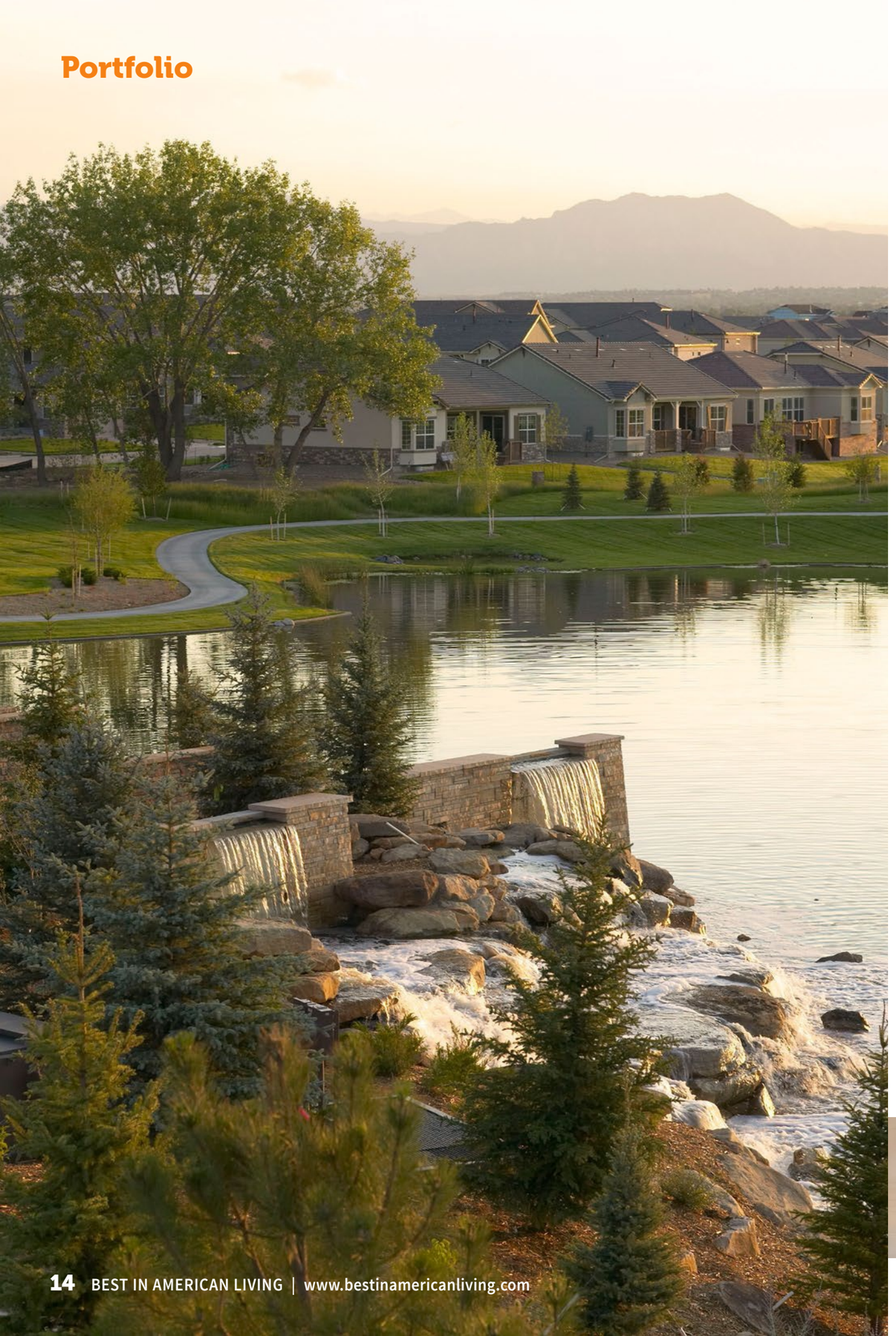
By Thomas W. Kopf
DTJ DESIGN, Inc.

Creating amenities to suit the lifestyles of various market segments has kept Pulte's Anthem community a success through both good times and hard times.

The Welcome Lodge was built in the spirit of the "new west" with a stone base and soaring roof looking towards the mountains.

PROJECT TEAM

ARCHITECT	DTJ Design
BUILDER	Pulte
DEVELOPER	Pulte/Del Webb



The Aspen Lodge caters to the active adult community with a variety of services and amenities in addition to fitness equipment and zero-depth pools.

Back when the 2,648-acre Anthem Colorado master-planned community was first conceived, developer Pulte Homes wanted to create a rich fabric of interwoven amenities, trails and open spaces to reflect the active Colorado lifestyle. The company understood that diversifying its product offerings and matching amenities to lifestyle would maximize market penetration. In hindsight, that decision proved instrumental in creating a thriving master planned community that remained one of the nation's most successful during the Great Recession. As one sales agent put it, "People come because of the view, but they buy because of the trails, open spaces and community feeling."

Pulte's Anthem Colorado community preserves the essential character of its site, opening long views to the mountains from key streets and open spaces.

LOOK TO THE SITE

An important design lesson for any new community is to preserve the essential site character, those qualities and natural amenities that will attract people to the property. The Anthem Colorado plan built on what was there—mostly views and drainages—and used that as a framework for siting the neighborhood recreation centers and connecting trails. Opening long views to the mountains from key streets and open spaces reinforced this connection to nature constantly. The Welcome Lodge, a community information center built early to showcase the variety of home choices, was designed in the spirit of the "new west," with a stone base anchored to the ground and a soaring roof looking west to the mountains. Cor-Ten weathering steel buffalo sculptures completed the imaginary link to the old west and created a unique memory point for buyers.

AMENITIES TO MATCH EACH BUYER'S LIFESTYLE

Key to Anthem's success was the creation of two distinctly different neighborhoods and amenities. Anthem Highlands was designed as a family neighborhood with larger single-family homes and entry-level attached townhomes. Thus, Highland's recreation center, Parkside, caters to families. It features active outdoor pools, a water slide, play fields and tennis courts. It also offers 32,000 square feet of indoor fitness space, lounges for kids and adults, child care and even a juice bar.

At the other end of the spectrum is Anthem Ranch, Pulte's active-adult community of predominately ranch homes. Because one size does not fit all—seniors have their own specific amenity needs—Anthem Ranch has its own recreation center, Aspen Lodge. It features not only fitness equipment, but also therapy rooms offering massage and chiropractic therapies, zero-depth easy entry pools, a coffee and tea bar, a life-long learning center/ library and multi-purpose meeting rooms.

An interconnecting network of trails flow from these activity centers throughout the neighborhoods, so adults and children can walk or ride their bikes to them along natural drainageways and open spaces. While providing great utility, these trail connections are relatively cost-effective,

A network of trails along natural drainageways connects Anthem's two large community centers to its neighborhoods.

Different buyers want different things

Baby Boomer, Active Adult

- Hiking and biking trails*
- Pocket parks*
- Natural areas, ponds and streams*
- Community center with social programs*
- Bocce ball*
- Cultural activities*
- Village-type neighborhoods

Gen X

- Trails*
- Walkable mixed-use
- Farmer's market
- Parks with multi-use areas and unique playgrounds*
- Low Impact Development and Green features
- Dog parks
- Family-oriented community center and activities*

Gen Y

- Walkable, urban energy, coffee shops
- Neighborhood Parks and connected open spaces*
- Community intranet fully connected*
- Diversity of housing*
- Community gardens
- Bike repair station and wash

SOURCE: DTJ DESIGN; RCLCO, NEW HOME SOURCE

**denotes amenities that are found at Anthem*

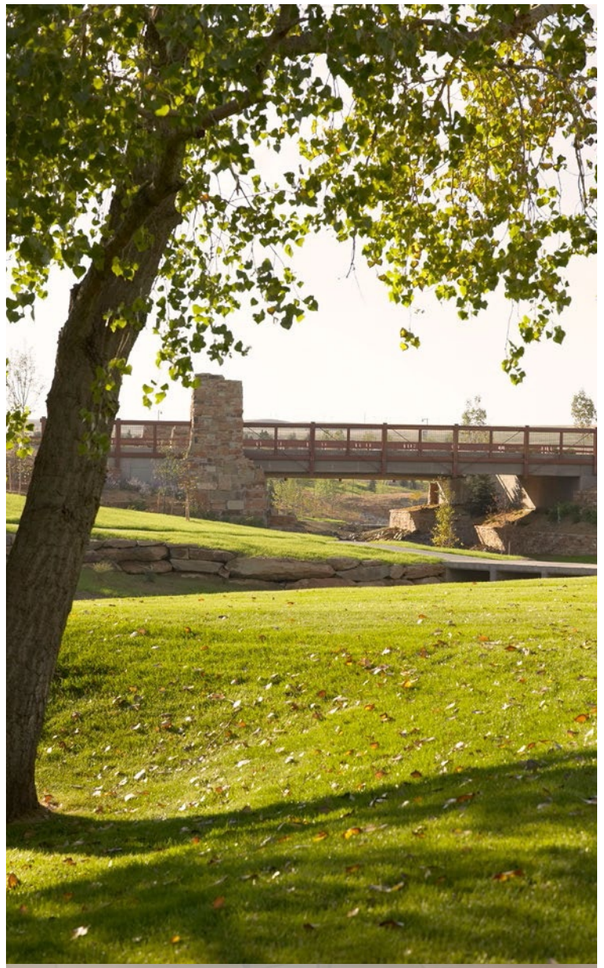
Community Website: anthemcolorado.com

> While we can build places for the events in peoples lives, it is the events themselves that generate an emotional link with buyers.

allowing more of the amenity budget to be focused on concentrated features.

AMENITIES: CREATING FRIENDSHIPS AND EMOTIONAL CONNECTIONS

Many builders and developers believe that the building is the amenity. But while we can build places for the events in peoples lives, it is the events themselves that generate an emotional link with buyers, turning them into effective sales agents. A typical week at Aspen Lodge has nearly 50 events scheduled, bringing people together in a way that builds community spirit. From evening bicycle trail rides to gentle yoga, there is something for everyone. At Parkside there are fitness classes and childcare (so moms can gather for some social time), swim lessons for the budding Olympian, and a family fun run. These activities bring a sense of belonging to the residents. They then share this with their friends by encouraging them to become part of their community—"the perfect place".



The design concepts and materials used in landmark buildings are reflected in the bridges, signage, and other landscape elements, creating a unified theme for the community.

Thomas W. Kopf is a Planner and Landscape Architect at DTJ Design, Inc.

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REMODELERS SURVEY

Helping Seniors Age in Place

By Paul Emrath, Ph.D.

Remodelers say bath modifications such as installing grab bars and curb-less showers are some of their most common aging-in-place projects.

By 2019, 45 percent of American households will be headed by someone 55 or older. Smart remodelers are already meeting the growing demand for aging in place.

Nearly three-quarters of remodelers modify homes to allow owners to age in place, according to those who completed the NAHB's most recent Remodeler Market Index (RMI) survey. The RMI is a national survey conducted quarterly among about 2,000 residential remodelers. In addition to questions on market conditions, special questions are often included. Prior to this quarter's survey, questions on aging-in-place were last asked in the fourth quarter of 2010.

The aim of aging-in-place work is to allow homeowners to live in their homes safely, independently and comfortably, regardless of age or ability level. The demand for aging-in-place home modifications will likely increase as the American population ages. NAHB's forecast shows that there are roughly 52 million households headed by someone age 55 or older, accounting for 41 percent of all U.S. households, and that this share will increase every year until the 55-plus age group accounts for nearly 45 percent of all households by 2019. AARP surveys show that an overwhelming majority of seniors prefer to remain in their homes as they age—but only half feel that their homes will be able to accommodate them well as they age. These homes are obvious candidates for aging-in-place modifications.

Many remodelers are already getting this business. In **Figure 1**, the share of remodelers who said they did aging-in-place work was roughly 60 percent in 2004 and 2006. It increased substantially the next year and has been relatively stable at or near 70 percent since 2007.

The survey also found 59 percent of the aging-in-place work was determined by the client, compared to 41 percent suggested by the contractor. This percentage has also been relatively stable over time.

As shown in **Figure 2**, the most common aging-in-place projects for remodelers involve bathroom

modifications. In the past 12 months, 87 percent of remodelers installed grab bars, 81 percent installed higher toilets, and 70 percent installed a curbless shower. It is likely that many of these projects were completed together for the same customers.

When younger buyers purchase new homes, however, bathroom modifications are not a selling point. In the 2012 NAHB study "What Homes Buyers Really Want" a large share of buyers said bathroom aids such as grab bars are an accessibility feature they don't want in their homes.

If these aids are not installed initially when the home is built, then it stands to reason they need to be added later.

Signicant numbers of remodelers also did aging-in-place jobs outside of the bathroom. In the past 12 months, 58 percent of remodelers widened doorways, 51 percent installed ramps or lowered thresholds, 46 percent added lighting, and 34 percent added a bedroom on the entry level. These types of projects are aimed at making it easier for seniors with mobility challenges to get around the house safely.

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*Owens Corning calculated energy savings for a 2'x4' wood stud cavity wall for the opaque wall surface modeled with R-13 and OSB sheathing compared to the same 2'x4' wood stud cavity wall with R-13 and R-5 FOAMULAR® Foam Sheathing located in each of the current energy code eight U.S. climate zones, based on ASHRAE Standard 90.2-2001, Oct. 2012. THE PINK PANTHER™ & © 1964–2013 Metro-Goldwyn-Mayer Studios Inc. All Rights Reserved. The color PINK is a registered trademark of Owens Corning. © 2013 Owens Corning. All Rights Reserved. Owens Corning Foam Insulation, LLC.

Modifications varied from region to region. For example, just 16 percent of remodelers in Western states added a bedroom on the first level while 54 percent of remodelers in the Northeast region did so. Differing characteristics of existing housing stock explains the disparity. According to the 2011 American Housing Survey (AHS), 50 percent of all owner-occupied units in the West Region include only one story. However, in the Northeast region only 7 percent of all owner-occupied units are one-story structures. Thus, the need for this modification does not exist as frequently in the West as in the Northeast.

The survey also asked remodelers to provide reasons customers undertook the work. The results are provided in **Figure 3**. The categories were not mutually exclusive, and many remodelers indicated more than one reason. However, 79 percent of remodelers responded that customers were planning ahead for future needs. The result suggests that many aging-in-place modifications were proactive.

Nearly half of the respondents—47 percent—said that living with older parents was at least one of the reasons behind making aging-in-place changes. Acute age-related disabilities proved nearly as common, with 46 percent of remodelers citing this reason. More than one-quarter of the respondents said acute non-age related disabilities were one reason customers undertook aging-in-place work. Acute

BUILD YOUR BUSINESS: Using the Data to Increase Sales

- Be prepared: Demand for aging-in-place modifications will continue to increase as the U.S. population ages.
- Understand and become experienced with making aging-in-place modifications. Research or attend seminars on needs of the aging. Consider obtaining the NAHB CAPS (Certified Aging in Place Specialist) designation.
- Become an expert in the most popular aging-in-place modifications: Installing grab bars, higher toilets, curbless showers, and ramps—as well as widening doorways and increasing lighting.
- Position your company as an expert in modifying for aging-in-place. Include before and after photos of aging-in-place projects in marketing materials.
- Suggest future aging-in-place modifications to empty-nester clients, even if they are hiring for non-aging-in-place projects.

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disabilities (non-age and age) represent reactive modifications typically requested after a medical event impairs mobility.

The survey also showed that consumers' familiarity with aging-in-place modifications greatly affects demand. The vast majority of remodelers, 77 percent, stated "some" consumers were familiar with the concepts, while just 11 percent said "most" of their customers were familiar. Twelve percent said none of their customers were familiar with aging-in-place modifications.

Forty-one percent of remodelers said their potential clients were very receptive to suggested aging-in-place modifications made by the remodeler, while 57 percent said their customers were somewhat receptive. Only two percent said potential clients were not at all receptive to incorporating suggested aging-in-place modifications. There was no noticeable difference in responses by region or from prior years.

As a second way to gauge increasing consumer demand for these modifications, the survey asked remodelers to estimate the change in requests for aging-in-place over the past five years. The vast majority, 68 percent, experienced some increase, 23 percent experienced no increase, and nine percent experienced a significant increase.

As the number of households headed by someone age 55 or older continues to grow in the decades ahead, demand for aging-in-place modifications will likewise increase. The aging of the American population represents a significant opportunity for remodelers interested in meeting future demand for aging-in-place modifications. ⌂

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Paul Emrath, Ph.D. is Vice President for Survey and Housing Policy Research for NAHB.

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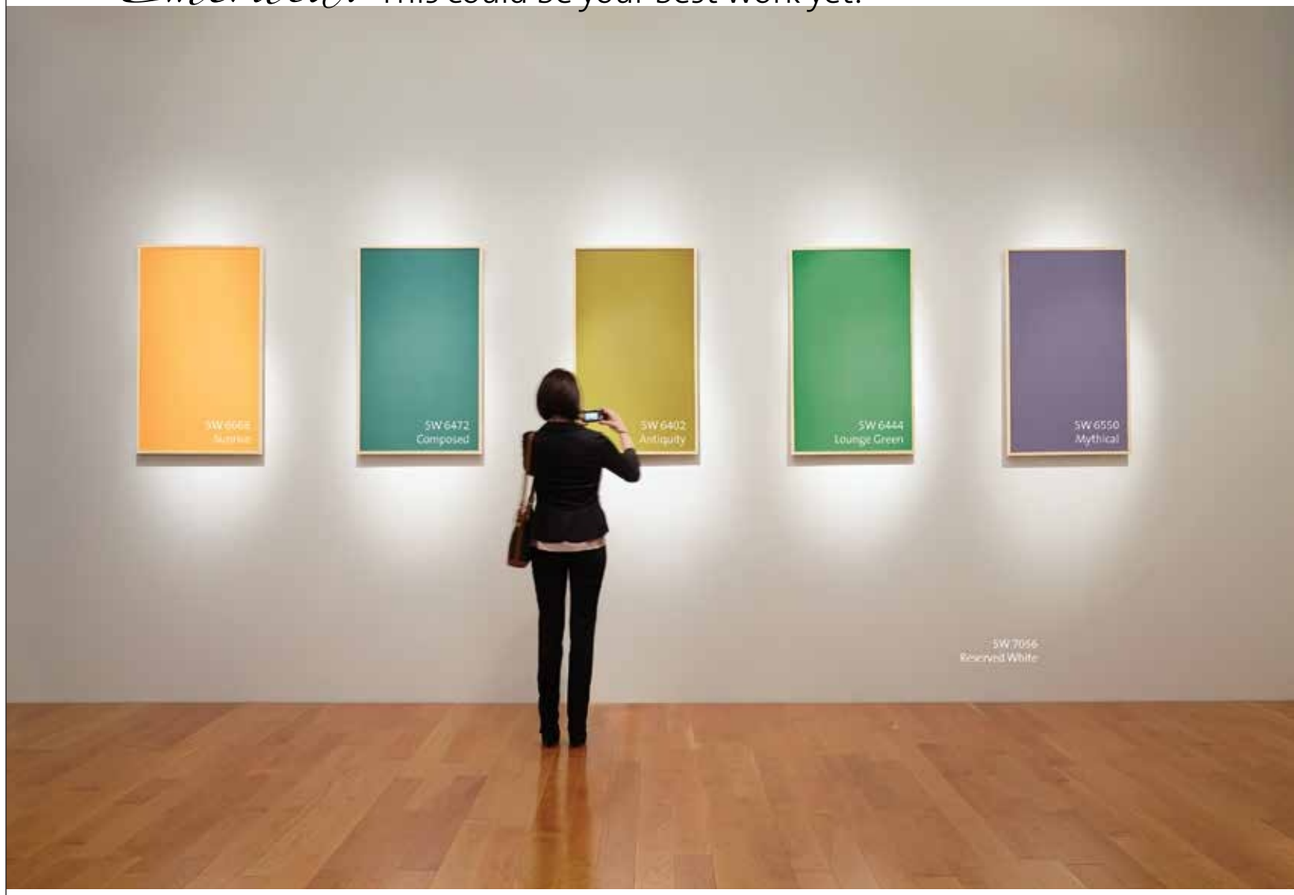

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CHANGING POLICY

for the National Flood Insurance Program

In July 2012, Congress passed and the president signed the Biggert-Waters Flood Insurance Reform Act (Biggert-Waters) into law.

Biggert-Waters reauthorized the National Flood Insurance Program (NFIP) for five years and made major reforms to ensure the fiscal soundness of the program. The most significant changes include modifications to the premium rate structure that will require some property owners to pay full-risk rates immediately, and the phasing out of previous subsidized and otherwise discounted policies. These changes have raised affordability concerns that will ultimately affect the housing markets in flood-prone areas.

THE NATIONAL FLOOD INSURANCE PROGRAM

The NFIP was established to provide flood insurance to bridge the gap that the private market was unwilling and unable to fulfill because of the unique risks related to flooding. It was designed to mitigate future flood losses nationwide and to provide access to affordable flood insurance for property owners. Administered by the Federal Emergency Management Agency (FEMA), the NFIP provides more than 5.6 million policyholders

By Tabby Waqar

National Association of Home Builders

Redefining Everything You Know About Design

2013 BALA Room of the Year, Lake Tibet, submitted by Phil Kean Design Group, Photo by Michael Lowry Photography

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with affordable flood insurance for homes and commercial real estate in flood-prone areas. To be eligible for flood insurance, a community must adopt and enforce a floodplain management ordinance to reduce flood risks in the designated Special Flood Hazard Areas (SFHAs) identified on the community's Flood Insurance Rate Maps (FIRMs). Once a community has done so, purchase of flood insurance is mandatory for all structures located within the SFHA that are secured by a federally backed mortgage.

While most properties insured by the NFIP already pay full-risk rates, just over 20 percent of policyholders, or approximately 600,000 structures nationwide, receive subsidized rates and generally pay 40–45 percent of the actual premium. Those subsidized rates tend to belong to structures known as pre-FIRM that were built pre-1974, or before the first FIRMs were established. This subsidy is mandated by statute and was originally designed to encourage participation and to accommodate homeowners who were unaware of their flood risk when the program was first adopted. Congress assumed that most of these subsidies would disappear over time, however, low home replacement rates have thwarted that view. Furthermore, even though the percentage of pre-FIRM properties is generally declining, the number of actual policies is growing because more pre-FIRM property owners are either voluntarily purchasing new flood policies or are required to buy insurance because they have been newly mapped into an expanded SFHA. Finally, "grandfathered" properties also are allowed to continue paying lower-risk premium rates even though a new flood map has located them in a higher-risk zone. According to FEMA, grandfathering was initially allowed partly as a result of external pressures to reduce the effects of rate increases.

CHANGES UNDER BIGGERT-WATERS

As part of the reforms under this new law, Congress modified the premium rate structure to increase the flood insurance rates for many pre-FIRM subsidized properties and rescinded the grandfathered rates. Specifically, Biggert-Waters phases out the pre-FIRM subsidized policy rates by requiring a 25-percent increase in premiums annually until the full-risk rate is reached. The first rate increase was implemented on January 1, 2013 for homeowners who had subsidized policies for secondary residences (e.g. vacation homes). The second rate increase took effect on October 1, 2013, and applies to owners of business properties, severe repetitive loss properties, and any property that incurred flood-rated damage claims exceeding the fair market value of the property. These policy rates also will rise in 25 percent increments until they reach their respective full-risk rates. Similarly, Biggert-Waters requires a 20 percent increase in premiums annually until the full risk rate is reached for properties located in newly designated SFHAs as shown on new or updated FIRMs—a change planned to be implemented late next year. Additionally, the new law requires an immediate shift to full-risk rates for all new and lapsed policies purchased after July 2012. This means that all currently subsidized policies will immediately increase to the full-risk rates when the home is sold—a change that became effective on October 1, 2013. Finally, Biggert-Waters applies a 25-percent annual premium rate increase to all structures that undergo substantial improvement that is greater than or equal to 30 percent of the value of the structure. Because the implementation of this change is subject to rulemaking, the effective date is not yet certain.

CONCLUSION

The NFIP has suffered a number of significant losses over the past several years and is currently in debt by more than $19 billion. By reforming the program to better plan for the growing intensity of flood related events and ensure the long-term financial stability of the NFIP, Biggert-Waters intended to strike a balance between making the program fiscally solvent without placing additional risk on taxpayers. In doing so, however, it has significantly changed the program's dynamics, altered real estate markets in flood-prone areas, and impinged on the finances of the people it was meant to serve.

RESOURCES

FEMA's Flood Insurance Reform Act Webpage ▶
Official Site of NFIP ▶

Tabby Waqar is Program Manager for Environmental Policy for NAHB.

[GOING GREENER]

Building Community Through Community Gardens

By Anna M. Castle

Feed a kid a vegetable and he will be healthy for a day. Teach a kid to grow his own vegetables and he will be healthy for a lifetime.

Call it taking green to the extreme: Smart developers, entrepreneurs and non-profit groups are now installing community gardens in their developments and local neighborhoods, beautifying while enhancing social ties. Such gardens have risen from being simply local beautification projects to being recognized by the ICC-700 National Green Building Standard (NGBS)™ as a substantial green feature in any new or existing community. Gardens not only offer a chance for families and communities to engage in wholesome outdoor activity but also provide opportunities for people of all ages to learn to cultivate their own very local food source.

Tools & Techniques

Organizing a community garden may not sound like a full-time job, but farming entrepreneur Daron "Farmer D" Joffe, CFO and founder of Farmer D Organics, has made it his. Joffe is a seasoned expert in community garden development, experienced in designing and developing community gardens and finding work for volunteers.

Many of the developers, designers and managers involved in community garden work emphasize the importance of teaching young children how to grow and sustain their own food sources. Joffe agrees. "By showing someone how to grow vegetables on their own, we provide them with the knowledge to continue this process for the rest of their lives," he says. "This positively influences their diets for life, rather than just a single meal," To further this ideal, Joffe created a program called Teach To Grow. The program provides discounted or free community garden development in needy areas and teaches young children how to cultivate and sustain their own gardens. Community gardens provide families with a family friendly outdoor activity and the opportunity to cut their food budget by farming their own vegetables.

Joffe's main goals when creating a community garden? "We want to provide a place for members of the community to get to know one another," he says, "and a place for all ages to engage in wholesome, rewarding and outdoor activities together."

Before the process of creating a community garden can begin, however, a development team must take some preliminary steps. According to Bill Maynard, Vice President of the American Community Garden Association (ACGA), the team must set up meetings to gather public support, ideas and opinions on the future garden. This is a key step in encouraging people to use the garden. Not only do public forums and meetings create a platform for people to voice their ideas, but they also allow the development team to gage the number of potential members they may have. "Sometimes three people show up, sometimes fifty; you never know," Maynard said.

When developers W. Don Whyte and Jeff Haws set out to design community gardens for Utah's new Daybreak development project, they never anticipated the residents' eagerness and enthusiasm. "The first 50 plots created went so quickly we soon realized we were going to have to change the project's original design to include more garden space," Whyte said. The development, located in Salt Lake Valley, Utah, now contains *hundreds* of garden plots—and still has a waiting list. Whyte and Haws enlisted the help of Joffe, and together the three developers went through a trial-and-error process to figure out how to best manage this growing community's passion for gardening.

They began with an in-ground row concept, in which gardeners' plots space is designated but not physically separated by any structure. The developers found that it was hard to allocate space fairly with this method. For example, if a member planted a vigorous plant such as a Marigold, the plant would quickly make its way into neighboring plot space.

So the trio eventually replaced their in-ground rows with a square-foot gardening concept. This technique utilizes a number of 3-foot by 12-foot raised beds, eliminating both space and soil issues. Since the Utah ground soil contains a lot of clay, the raised beds allowed for management to control the soil mix while leaving three inches of the bed's soil capacity vacant for members to fill in their own mix. In addition to the regular 47 raised beds within the gardens, the developers also integrated two to three accessible beds that stand 18-22 inches tall to meet Americans

Successful community gardens like this one in Daybreak, Utah are part of the community's open space plan, making them more conveniently accessible to residents.

Making gardening a family affair is a good way to teach life lessons and encourages kids to spend more time outside.

with Disabilities Act (ADA) requirements.

The ADA-accessible beds are something that Maynard's Sacramento team has adopted in many of its recent projects. Along with using the square-foot gardening concept, Maynard's team has switched from raised wooden beds to concrete keystone blocks. While wood beds require replacement every five years, concrete ones prevent weathering effects and require no maintenance.

Developers also emphasize the importance of a garden's location and accessibility. A walkable location allows members to fit gardening into their daily routine, Joffe explains. "If the garden is easy to get to, people will go there often. You want to build it in a location that doesn't require people to get into their cars." Urban community gardens present an exception to this rule, however. In city settings, members will not only use gardens near their homes, but also near their offices. These gardens allow commuters to stop by on their way in and out of the city.

As community gardens gather momentum in popularity and recognition, the ICC 700 National Green Building Standard (NGBS)™ Consensus Committee has taken notice. After going through a revision and update process in 2012, the NGBS modified its original point system. It now awards three points to any community that includes a garden. The NGBS recognizes that these gardens provide wholesome outdoor family activities, healthy diet opportunities and environmental benefits, as well as community beautification.

Anna Castle is English major at Indiana University with a double minor in business and communications. She worked for NAHB in Land Use & Design as an intern last summer.

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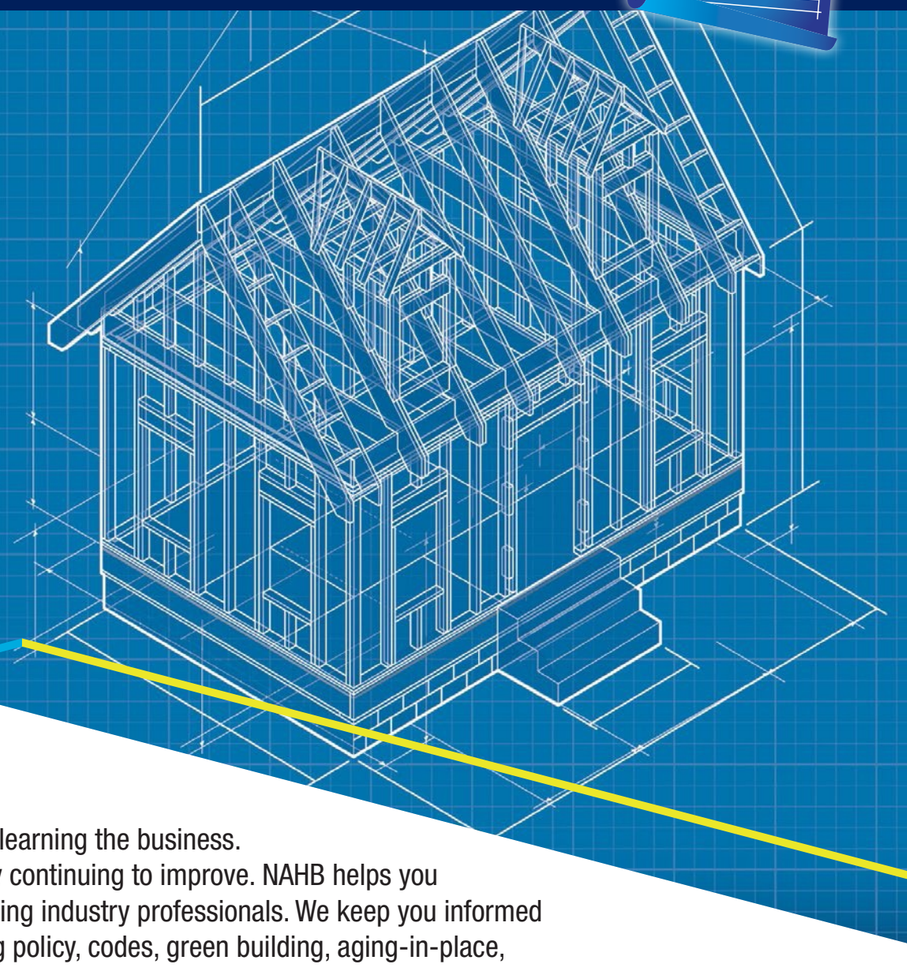

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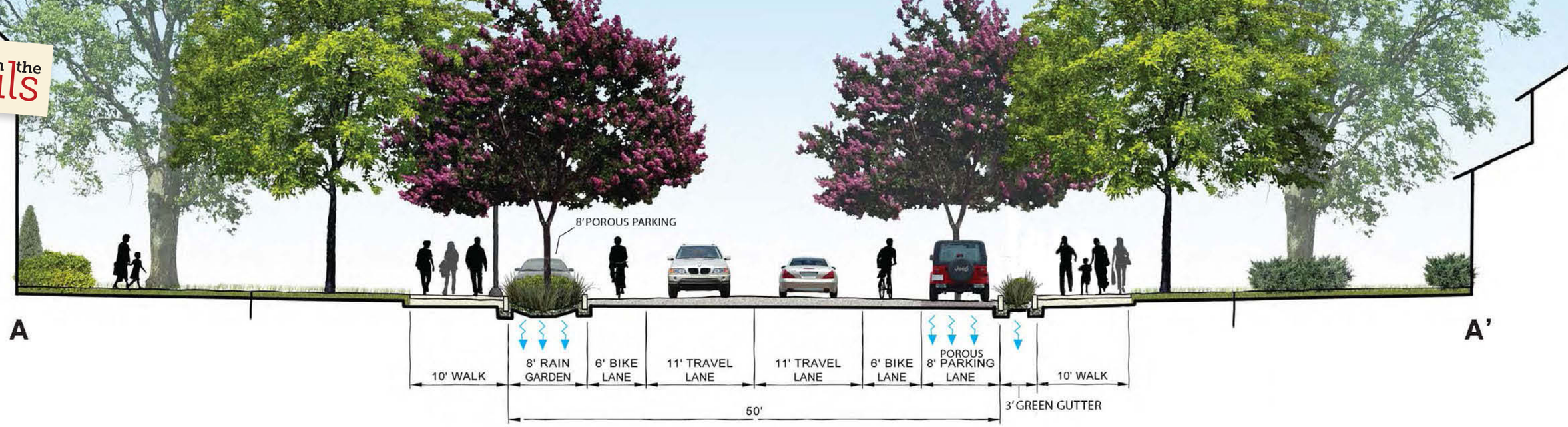

Green Streets

Today's best urban designers are using innovative techniques to mitigate stormwater runoff pollution. Here's how.

Roads and highways play a vital role in shaping a community's economic prosperity and its citizens' quality of life—we can't do without them. Unfortunately, the cars and trucks we use on those roads pollute our air and water. And while air quality concerns are well known, stormwater runoff pollution often goes unaddressed. Common stormwater runoff pollutants include oils and grease, worn tires, rust and road salts. As these chemicals make their way through our watersheds to our groundwater, rivers and oceans, they wreak havoc on our environment.

The good news is that landscape architects are introducing design elements that address stormwater runoff problems and improve water quality. Today, designers are increasingly incorporating these environment-saving solutions, referred to "green infrastructure" into street designs. Here's how to get a green street started.

Thomas Tavella, FASLA, is the president of the American Society of Landscape Architects and the president of Tavella Design Group, LLC in Orange, Connecticut.