

# multifamily housing today

## 7 EXCITING, INSPIRING INNOVATIONS



Amenities like the hotel-quality lobby and billiards room distinguish the College & Crown, New Haven, Conn., developed by Centerplan with interiors by Carlin & Company.

COURTESY CENTERPLAN

### LEARNING OBJECTIVES

After reading this article, you should be able to:

- + **DISCUSS** the movement toward smaller residential unit sizes and more amenities—including indoor-outdoor living—in multifamily developments.
- + **LIST** approaches to more sustainable and energy-efficient multifamily buildings.
- + **DESCRIBE** the benefits of improved indoor environmental and water quality in multifamily projects.
- + **EXPLAIN** how new waterfront and coastal structures address the need for more resilient, effective housing.

### BY C.C. SULLIVAN, CONTRIBUTING EDITOR

The multifamily sector is not showing any signs of slowing down. The U.S. market needs to add at least 400,000 rental units a year to serve the nation's housing needs, according to the National Multifamily Housing Council and the National Apartment Association (see: <http://nmhc.org/Apartments-Economic-Impact/>). On the side of homeownership, U.S. Census data shows that three-quarters (76%) of condominium and cooperative units that came on line in Q4/2015 were sold within three months of completion ([www.census.gov/housing/soma/](http://www.census.gov/housing/soma/)).

The demand is being found not just in big cities like Fort Worth, Texas, Charlotte, and Nashville but also in second-tier metros like

Charleston, S.C., and Harrisburg, Pa. San Antonio's Broadway Corridor, Austin's Riverview area, and Downtown Los Angeles, known as DTLA, are hot markets that have used local ordinances and targeted investment to create 24-hour dining and shopping zones to lure young professionals and growing families into these new residential enclaves.

Let's look at seven novel approaches developers and Building Teams are taking to respond to competitive pressures and build more quickly and with more attractive offerings in new and reconstructed multifamily developments.

## 1 } SMALLER UNITS, BUT MORE ELABORATE AMENITIES.

At least for the short term, the trend in new and renovated multifamily buildings is toward smaller unit sizes. Behind this strategy are high costs to acquire land, escalating construction prices for labor and materials, and the need for better project economics, says architect John Cetra, AIA, Founding Principal, CetraRuddy. "Developers are able to lease or sell these [small-unit] apartments at very high value ratios but with equivalent or even lower costs than the larger units on the market," Cetra says, citing research by the Urban Land Institute (<http://bit.ly/1Fssg4c>) and UC Davis. "In some areas, the rents are 20% lower than competitive offerings."

But higher rents and sales prices mean that many apartment and condo dwellers are paying more than 30% of income just on their housing costs, according to a recent analysis by the University of Chicago and New York University. Average monthly rents are hitting record highs, according to Citi Habitats. In Manhattan it was about \$3,440 in 2014—more than \$40,000 a year.

To hedge their bets, some developers are using flexible, convertible layouts that allow them to consolidate side-by-side micro-units back into conventional 1BR and 2BR units, should demand shift abruptly, according to the ULI's annual Emerging Trends in Real Estate. "With smaller units and micro-units entering the market, the rewards go to innovative layouts that maximize flexibility and privacy, along with a carefully planned amenity experience," says Cetra.

It's not just the amenities—shared gathering areas, bookable office space, basketball courts, indoor dog parks—but more the "designed experience" of those spaces that counts in today's multifamily market. "Instead of unit size and more space as the ultimate luxury, buyers are looking for an authentic and engaging experience, handcrafted elements, refined and exotic materials, and clever details," says Nancy Ruddy, Founding Principal, CetraRuddy.

Cetra says there's a huge need for more affordable options. "Will these be cohousing solutions with more communal space, or more micro-housing? Probably both, because there's a shortage of supply and people's lifestyles and preferences are adapting," he says. Architect Christopher Bockstael, AIA, Svigals+Partners, New Haven, Conn., says that, in some secondary cities, developers are creating options for short-term rentals for people who want to rent an apartment for as little as a week.



New York luxury tower One Madison, designed by CetraRuddy, inspired a new generation of high-rise multifamily projects.

DAVID SUNDBERG / ESTO

## 2 } HEIGHTENED BRANDING, ROOTED IN 'AUTHENTICITY.'

Design-based innovation is enabling some design firms to uncover new lifestyle concepts, says Gordon Carrier, FAIA, Founder/Design Principal, Carrier Johnson + Culture. "In many of our projects, the developers are seeking building solutions true to their places, people, and legacies, which makes them more authentic." Brand differentiation is critical not just in urban markets but also in fringe suburban locations, says architect Andrew Franz, AIA, LEED AP. "In many cases, the best residential solutions marry contextual materials with modern layouts, and they show how to realize the potential of an area's rich geography and culture," he says.

To make this happen, branding, marketing, and graphics professionals are being folded into Building Teams, to help uncover the brand "narrative" of the developer or project. The team's output, called *dimensional branding* by Carrier's firm and *branded developments* by others, integrates brand identity on every level of the housing, amenities, and experience. "This approach translates the past, present, and future into built space, telling the story with experiential architecture and interiors, environmental graphics, spatial relationships, signage, and wayfinding," says Carrier. The more genuine and consistent the message, the more marketable is the residential community.

This approach also helps developers capitalize on the essentials: who they are, what makes them successful. For Detate Property Group, a Dallas-based developer, owner, and operator of commercial and residential real estate, the "core belief" is that communities benefit from three elements: faith, culture, and entertainment, says Edwin Tatum, Detate's President/CEO. "In second-tier markets,

these kinds of vibrant communities attract significant attention, investment, and growth.”

In Downtown Los Angeles, for example, the 700-unit Eighth & Grand development from San Francisco-based Carmel Partners employs a chassis-based, modular steel framing system under its lively, seven-story façades. The high-strength structure allowed the architects, Daryoush Safai and Carrier Johnson, to maximize window area and support a 40-foot resort-style rooftop pool amid barbecue grills and a Zen sculpture garden. Interiors by Commune Design include a large, club-like lounge space with an espresso bar and original artwork. The anchor retail tenant is Whole Foods, a first in the area.

In other markets, the branded approach is reaching greenfield developments at the edge suburbs outside such cities as Fort Worth, says Detate’s Tatum, who has completed about 20 redevelopment projects and is currently working on a new mixed-use destination for a younger urban clientele. The best opportunities are near mass transit and have convenient indoor parking.

In Glendale, Calif., Holland Partner Group has developed the Brand Apartments, a nine-story, mixed-use project of 401 units—studios, one-, two- and three-bedroom units, and live/work townhouses. Designed by Carrier Johnson, the podium-style complex reflects its target market—young creative professionals who enjoy downtown living with access to nearby shopping, dining, and outdoor fun at Griffith Park and the Verdugo Mountains. The building’s image is decidedly funky, with colorful cladding and varied exterior expression. The development’s name is highly visible, day or night, on its prominent corner façades.

For some projects, the branding helps visually identify a multifamily project in its urban context, says Svigals+Partners’ Bockstael. Developer Centerplan’s 160-unit luxury development College & Crown, in New Haven, Conn., features handmade sculptures in fiberglass and metal that recall elm leaves and the area’s rivers. The artwork reinforces the local sense of community and history, he says.

### 3} EMPHASIS ON INDOOR-OUTDOOR LIVING.

The love of windows and daylight reflects a growing interest in multifamily offerings with a more indoor-outdoor feel, says Michael C. Johnson, AIA, NCARB, Design Principal/Managing Partner, Carrier Johnson + Culture. His firm expanded the notion of skylife in downtown San Diego and Los Angeles by activating upper-story outdoor spaces that energize the urban realm above the street, often linked to inventive residential layouts and expression. “Shared terraces, balconies, and roof gardens with picnic tables, fire pits, and pools add vibrancy and a sense of community to the urban realm, increasing real estate values across the board,” says Johnson.

In many new communities, says Detate’s Tatum, more indoor experience is also expected, such as indoor structured parking, often with more design flair and amenities to make entering and leaving the premises an elegant experience.

As for outdoors, the benefits include daylight, big views, and, in cold climates, some warmth. Even with the trend toward Passive House and greener multifamily solutions, prospective tenants and buyers are still looking for units with more window area—and as much operable fenestration as possible. “Windows are not getting smaller,” says Cetra. “Buildings are getting more efficient for the envelope, but we still want as much natural light as possible. It really enhances the feeling of a home.”

For this reason, more residential developers are using advanced glazing. Glazing-to-floor-area ratios are regulated by code in some cities, while others are self-regulated and often in the overall range of 12% glazing to floor area in temperate zones. However, some developments reach and exceed ratios of 25%, which can cause significant glare and solar heat gain unless the buildings use solar control and highly insulating glazing with low U-factors—0.30 or lower for double-pane products and 0.15 for some triple-pane windows, according to the Efficient Windows Collaborative.

“Low U-factors are most important in heating-dominated climates, although they are also beneficial in cooling dominated climates” according to the group.



Huge windows and a wood/glass open stair exemplify indoor-outdoor living at the penthouse of 12 E. 13th St., New York.

COURTESY CETRARUDDY AND CANTOR-PECORELLA

The Battery Wharf mixed-use development on Boston Harbor is built on piers with a reinforced seawall for greater resiliency against weather events.



COURTESY THE ARCHITECTURAL TEAM

#### 4} NOVEL WATERFRONT MULTIFAMILY BUILDING SOLUTIONS.

Some U.S. cities with coastal areas and river frontages are experiencing fast multifamily growth in these environs. At the same time, we're seeing the adoption of codes and regulations restricting or significantly altering how developments can be implemented and what they'll look like upon completion. Some land will be off limits. A 2015 executive order by President Obama updated a 1977 rule limiting development on floodplains with a 1% or greater chance of flooding. The order also raised base flood elevations by two to three feet, according to the National Association of Home Builders.

These regulations could throw a monkey wrench into hundreds of proposed new projects. "In some instances, placing new habitable space above anticipated flood elevations puts them above the existing street elevation in those building sites located in coastal areas or on floodplains that are regularly inundated," says Michael Liu, AIA, NCARB, Principal, The Architectural Team, Boston. Potential flooding can reach surprisingly far inland, encroaching several blocks from the waterfront. Recent projects in coastal towns just north of Boston have had to elevate their first occupied floors seven feet or more above existing street level.

Liu cites NOAA surveys showing that, from 1980 to 2014, at least 178 weather events costing \$1 billion or more afflicted the United States, including many coastal storms and floods. The required regulatory restrictions can have the unintended consequence of changing the building-to-street relationship and the pedestrian experience—for example, storefront retail, designed for street-level visibility and access, could be negatively impacted if raised to the second floor.

Structural and architectural innovations can overcome these problems, says Liu. "Not all waterfront sites require a seawall or other hard water barriers in order to be resilient and protect developments

and communities from severe weather," he says. For the \$190 million Clippership Wharf project on Boston's Inner Harbor, a condominium and apartment community developed by Lendlease and WinnDevelopment, Liu's firm intentionally removed the seawall, recreating a living shoreline and forming a lagoon to help absorb storm surges while allowing residents access to the water. Residents of the 490-plus units can enjoy a harbor promenade, along with canoe and kayak rental facilities.

Another way pedestrian connection to the waterfront can be accomplished is through terraced piers, similar to those at the Battery Wharf mixed-use development, which accommodate a more intimate pedestrian relationship to the water while leaving the building at a higher, safer elevation.

In coastal cities from Philadelphia and Baltimore to San Francisco and San Diego, Building Teams are raising multifamily projects on new and reconstructed finger piers. Some are made with precast concrete panels, poured-in-place caps, and structural steel supports.

Strategies like these can be used to enhance land values along river, lake, and ocean frontages, including in areas that traditionally held industrial uses, now recaptured for residential, community, and mixed-use development, says Liu.

#### 5} INNOVATIVE BUILDING ENVELOPES AND RAINSCREENS.

Many Building Teams are focused on the project exterior for better performance and long-term value for the owners and residents, says Jorge Mastropietro, AIA. His firm, JMA, has gained national attention for creating modern façades of wood, glass, and metal that pass muster in highly regulated historic districts with landmark neighbors. The firm's methods for creating contextually appropriate but contemporary façades in New Jersey have been incorporated as best practices in the historic district guidelines for such places as Boulder, Colo.

Multifamily and mixed-use projects—in California, New York, Oregon, Pennsylvania, and Washington, D.C.—have adopted climate-specific *passive design methods* and *Passive House standards* to ensure comfortable interiors and super-efficient operations. "These multifamily projects are being built at little to no additional cost compared to a conventional building," says Katrin Klingenberg, Co-founder and Executive Director, Passive House Institute US ([www.phius.org](http://www.phius.org)).

To test this assertion, Uptown Lofts, a 24-unit affordable Passive House apartment complex planned for Pittsburgh is being constructed simultaneously with a nearly identical 23-unit project, built to code energy standards, to compare their long-term operations economics. "The application of Passive House can help reduce energy consumption by up to 90%, while still ensuring beautiful designs and cost-effective construction," says architect Gita Nandan, RA, with the New York firm thread collective.

## TODAY'S APARTMENTS AND CONDOS:

What smart Building Teams are delivering

1. **Smaller units**, more elaborate amenities.
2. **Heightened branding**, rooted in “authenticity.”
3. **Emphasis** on indoor-outdoor living.
4. **Novel** waterfront multifamily building solutions.
5. **Innovative building** envelopes and rainscreens.
6. **Highest levels** of indoor air and water quality.
7. **Focus** on workforce housing and affordability.

*Rainscreen façades* are another value-enhancing technology in the multifamily sector, says CetraRuddy's Cetra. “Rainscreens are getting more popular because they improve thermal performance of the wall, with insulated materials that are much more energy efficient and better than envelopes constructed in the past,” he says. Rainscreen systems also allow for the use of a variety of cladding materials, allowing more innovation in building aesthetics and function. Cetra used large-format porcelain ceramic tile in the rainscreen of a new 20-story multifamily building. “This is a truly exciting alternate material, because porcelain panels can be very cost effective, and they provide a sophisticated look in a wide variety of colors, textures, and sizes,” he says.

Fiber-cement rainscreens are being used in developer Schafer Richardson's Third North Apartments in Minneapolis, built by Kraus-Anderson Construction, and in the 355-unit, five-story Berkshire Terminus apartment building in Atlanta, designed by Lord Aeck Sargent and built by Living Stone Construction.

### 6} HIGHEST LEVELS OF INDOOR AIR AND WATER QUALITY.

Multifamily buildings can also provide for better indoor environments and occupant health, two valuable selling points in a market that has spawned wellness condos, spadominiums, and apartments designed to meet the WELL Building Standard. New projects like the Delos Residences in New York's Greenwich Village were designed to “actively and passively support health, well-being, and lifestyle,” according to its developers. Other multifamily projects are enticing buyers with posture-supporting floors, sound-wave amplifiers that ease stress, lighting that supports natural circadian rhythms, and advanced indoor air-quality control systems.

“People are more concerned about health today, and they are asking about IAQ and water quality as well as any toxic materials that could be contained in building materials,” says Cetra. He says Building Teams should design ways to bring more fresh air into spaces, including conditioned and filtered supply air and systems

for stale or dirty air to be exhausted, especially from kitchens and bathrooms.

Privacy, especially ensuring visual and acoustic separation, is one of the most valuable interior amenities, adds Cetra: “Bedroom doors shouldn't open right into living rooms or kitchens. As for acoustics, it helps to minimize disruptions between spaces, such as between the home office and other areas for lounging and relaxing. You don't want to feel like the office is always in your face.”

For work or for play, another concern is the strength and reliability of broadband service, whether through cables and WiFi systems or with area cellular services. Developers serving young professionals and young families, like Detate Property Group, are offering bandwidths that provide service that's 10 times faster than what cable operators can offer and even up to 50 or 100 times what a typical residential service might offer. In Chicago, developer Antheus Capital offers 1-gigabit broadband in an adaptive reuse of a 1920s hotel into apartments, called the Shoreland.

Elevator systems are more sophisticated, too. Some can read a fob in the resident's pocket to automatically select the appropriate floor. “This cuts down on waiting time, but it also raises some privacy concerns,” says Cetra.

### 7} FOCUS ON WORKFORCE HOUSING AND AFFORDABILITY.

In the face of stagnant wages and rising costs of living, many individuals and families find themselves priced out of the markets where they reside. Their options are few: find a roommate, opt for multigenerational lifestyles, or get in line for subsidized affordable housing.

Developers are aiming solutions at the so-called “middle market” through cost-effective new construction and by applying adaptive reuse and moderate rehabilitation methods. In some cases, significant financial, tax, and regulatory incentives are available, according to Bruce A. Percelay, Chairman, The Mount Vernon Company, an East Coast developer of middle-market rental housing. These could include the 10-year tax exemptions offered in New York, or the application of higher densities, reduced parking requirements, expedited permitting, or allowances for residential labor rates on smaller multifamily projects with hybrid or wood-framed structures.

There are at least 16 new real estate finance vehicles yielding about \$2 billion to help build and preserve workforce/affordable housing, according to the Urban Land Institute. These financial approaches will help rehabilitate and develop a total of about 60,000 units, all offering investors potential returns of 6–12%.

### > EDITOR'S NOTE

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