Commercial Real Estate Development SPRING 2019 Development Development SPRING 2019 Development Spring 2019

Re-examining Medical Office 42

Cities Embrace Right-sized Parking Solutions 50

Strategies for Smoothing the Approvals Process 56

Best Practices for Building a Diverse Workforce 74



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Contents Development[®] Spring 2019

Cover Story 42 Development/Ownership

The Changing Geography of Health Care Real Estate

As demand for health care grows, medical tenants enter new CRE markets and experiment with innovative products.

FEATURES

Business Trends **50** Lower Parking Minimums Mean Higher Value for Parking Spaces

Right-sizing parking can save money, lead to less congestion and create alternative land uses.

Development/Ownership 56 A Silver Linings Playbook for Controversial Development Projects

Turning public conflict into corporate goodwill requires thoughtful strategies and genuine concern for the local community.

Special Report 63 Cutting-edge Research That Has An Impact

The NAIOP Research Foundation's annual report highlights the relevant studies, activities and deep dives to come in 2019 and beyond.



NAIOP

Cutting-edge Research That Has an Impact

63

Development on the Web



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Contents Development[®] Spring 2019

COLUMNS

By the Numbers 10 What Do Warehouse Employees Want?

A Look Ahead 12

Opportunity Zones Aren't Just for Real Estate Development

Should Construction Consider a High-Tech Makeover?

The Workplace Makeover: From Office to Destination

How Health Care and Wellness Properties Can Anchor Mixed-use Developments

Prefabricated Wood Construction Shows Promise

Worth Repeating: Sound Bites from CRE.Converge 2018

New & Noteworthy Projects

The Entrepreneur 26

CEO on Leadership: Kim Roy, CEO, HITT Contracting Inc.

In Touch with Tenants 28 The New Health Shop on the Block

Inside Investment + Finance 32 Lessons from the Fall of RealtyShares

Strategically Green 34

Water Infrastructure and Adaptive Building Design: An Emerging Opportunity

Transportation + Mobility 38

Shipping Innovations Along Inland Waterways Present Opportunities for Developers

Research Update 72

Smart Sensors in Commercial Real Estate: The Next Generation

New Voices 74 Diversity & Inclusion Roundtable Delves Into 'Constructive Conflict'

Government Affairs 76

Facts Drive NAIOP Advocacy at the Local Level

Resources 78

People + Companies 79

At Closing 80 Getting to Know Greg Fuller



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The Legacy ER and Urgent Care in Allen, Texas, offers urgent care and emergency medical care services in a freestanding 8,432-square-foot building.

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6

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A Note From the Editor

Warm Greetings, and a Look Ahead

I'm pleased to be the new editor-in-chief of Development magazine. My background is a combination of public policy and real estate development with an eye to demographic changes.

The makeup of the United States is changing rapidly, but we also need to think about our place in the world. We are aging as a society and must rely on creative solutions from diverse, younger generations.

We are confronted with many challenges not only on the home front but also in the emerging markets. The rules have changed since the last recession, but "let cooler heads prevail" is a mantra that has gotten us through uncertainty in the past.

I view our readers not only as consumers of our content but also as contributors. We at Development welcome our readers' ideas and feedback. Please contact us and help NAIOP be the best organization it can be.

Stay informed, Jennifer LeFurgy, Ph.D. Editor-in-Chief

An aging population in the U.S. is changing the landscape for health carerelated properties as doctors move into new types of spaces and use traditional commercial real estate in innovative ways. (Page 42)

A national survey shows that warehouse employees are now making an average salary of \$14.30 an hour excluding benefits, a big jump from the average of around \$10 an hour that prevailed from 2002 to 2014. (Page 10)

Future NAIOP Events

- National Forums Symposium 2019, April 9-11, 2019, Vancouver, British Columbia
- I.CON '19 West: The Industrial **Conference**, June 6-7, 2019, Long Beach, California
- Innovation in East Asia: Industrial and Office CRE Tour. August 16-24, 2019, Hong Kong, Shenzhen and Tokyo
- I.CON '19 East: The Industrial **Conference**, September 12-13, 2019, Jersey City, New Jersey
- CRE.Converge 2019, October 14-16, 2019, Los Angeles

When municipalities reduce parking minimums, many discover that they can save money, create less congestion

and generate alternative land uses. (Page 50)

Productivity in construction has struggled to keep pace with other sectors of the economy, and one of the main reasons is a poor rate of adoption of high-tech labor-saving advances. Ongoing labor shortages might change

that. (Page 14)

When controversial development projects rile up a community, it's important to turn public conflict into corporate goodwill through thoughtful strategies and genuine concern for the local community. (Page 56)

Opportunity Zones are of great interest to the commercial real estate industry, but many other types of businesses stand to benefit from the significant tax breaks offered by the federal program. (Page 12)

The battle for top talent is bringing revolutionary changes to workplaces, which are morphing from drab office spaces to dynamic destinations that offer unique experiences and high levels of digital connectivity. (Page 18)



Most Popular From Winter 2018/19

- 1. "How Technology Will Change the Brokerage Business" (www.naiop. org/18technology, page 50)
- 2. "BridgePort I Logistics Center: From Abandoned Brownfield to Active Distribution Facility" (www.naiop. org/18bridgeport, page 56)
- 3. "Construction Costs Outlook" (www.naiop.org/18costoutlook, page 10)
- 4. "A Campus Project Packed with Extracurricular Challenges" (www.naiop. org/18cti, page 62)
- 5. "In the Ongoing Amenity War, Office Space is the New Battleground" (www.naiop.org/18amenities, page 22)

Kim Roy is the CEO of HITT

Contracting in Falls Church, Virginia, and one of the few female leaders in the construction industry, which is still about 90 percent male. She talks with Development magazine about that and other topics. (Page 26)

The collapse of RealtyShares, a real estate crowdfunding startup, shows that there is a gap in the middlemarket real estate finance world that can be filled by individual investors. (Page 32)

The expansion of container-on-vessel service along the Mississippi River and into the Midwest has the potential to increase demand for distribution facilities in those areas. (Page 38) ■

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What Do Warehouse Employees Want?

Higher pay, shifts that allow for work-life balance and reasonable, fair HR policies can draw better talent, according to a national survey.

By Trey Barrineau

A combination of record-low unemployment and higher consumer spending has warehouse operators scrambling to find qualified workers. To attract and retain the best talent, employers need to offer higher wages, earlier shifts and more flexible human resource policies, according to staffing service EmployBridge's 11th annual Warehouse Employee Opinion Survey, released in the fall of 2018.

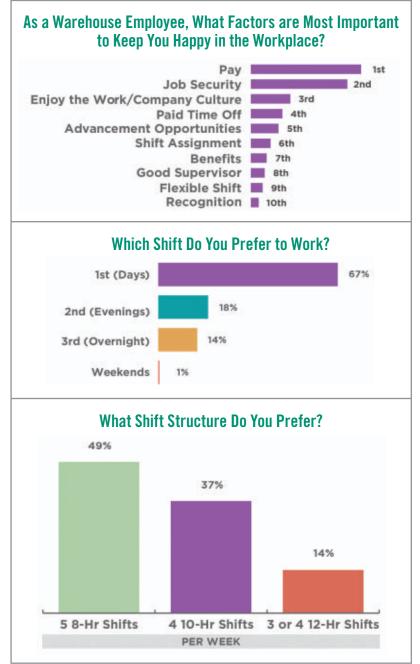
Not surprisingly, pay and job security ranked as the most important factors for warehouse workers — that's unchanged since the survey started in 2007. But for the first time, two-thirds of warehouse workers reported earning \$12 or more per hour, excluding benefits.

That's a huge change. According to EmployBridge, pay for warehouse employees averaged around \$10 an hour from 2002 to 2014, when it began to rise. By December 2018, average wages for warehouse workers had climbed to \$14.30 an hour.

"That really is troubling for a lot of companies, because for well over a decade, they didn't have to change their pay rates," says EmployBridge senior vice president **Brian Devine**. "Now, if they've just raised pay last year, they'll have to do it again."

Wages Catch Up to Cost of Living

Devine says for many years, pay rates for warehouse workers lagged the Bureau of Labor Statistics' Consumer Price Index (CPI), which measures the average change over time in the prices for consumer goods and services. From 2002 to 2014, wages for hourly workers only rose 5.5 percent while the



Source: EmployBridge

"That knowledge base will walk out the door to go down the street to make \$2 more an hour. Our surveys show that nobody leaves a job for money unless it's at least an extra dollar an hour, so if you're making \$13 an hour and you have a chance to make \$15 an hour, that's a game-changer."

— EmployBridge senior vice president Brian Devine

How Much Extra Pay Would Entice You to Leave Your Current Job?

\$.25 per hour	\$\$ 3%
\$.50 per hour	\$\$\$\$ 7%
\$.75 per hour	\$\$\$ 5%
\$1.00 per hour	\$\$\$\$\$\$\$\$\$\$\$\$ 24%
\$1.25 - \$1.50 per hour	\$\$\$\$\$\$\$\$ 17%
\$1.50 - \$2.00 per hour	\$\$\$\$\$\$\$\$ 17%
More than \$2.00 per hour	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$ 27%

Source: EmployBridge

cost of living grew 29 percent during the same period. But today, amid a shortage of qualified labor, companies are being forced to offer better pay to remain competitive.

"Because hourly wages for warehouse employees haven't kept pace with the CPI, there is now a correction," Devine says. "That's a big deal. We will continued to see pay rates increase for hourly workers."

Devine says if companies don't adjust their pay rates, they won't be able to attract new employees, and they'll also have to worry about turnover among their existing workforce.

"That knowledge base will walk out the door to go down the street to make \$2 more an hour," he says. "Our surveys show that nobody leaves a job for money unless it's at least an extra dollar an hour, so if you're making \$13 an hour and you have a chance to make \$15 an hour, that's a game-changer."

Many of those departing workers might be heading to an Amazon facility. The retail giant announced in October 2018 that it would start paying more than 250,000 full-time and 100,000 seasonal employees a \$15-an-hour minimum wage. More employees surveyed — 67 percent — said they wanted to work day shifts and preferred eight-hour workdays. However, Devine suggests that employers should think about adding 20-hour work weeks or shorter shifts. Those could expand the applicant pool by attracting students, working parents and the semi-retired.

"As a society, that's how we're going to have to tap into the workforce," Devine says.

Additionally, companies that require second or third shifts may need to offer higher pay. According to the survey, hourly workers on average want \$1 more per hour to work the second or third shift, compared to just 62 cents more per hour in 2011.

Relaxing Rigid Hiring Requirements

During the Great Recession when unemployment was 7 percent or higher, stringent hiring policies might have been necessary. Today, however, it doesn't always make good business sense, according to the survey.

"Just as employers in many other sectors are re-evaluating and relaxing their hiring criteria requirements and other policies to fill production-critical posi-

Who Does What in the Warehouse?

The breakdown of jobs in EmployBridge's 11th annual Warehouse Employee Opinion Survey: Forklift Operator: 32 percent

General Warehouse: 27 percent

Other: 13 percent

Loader/Unloader: 8 percent

Order Selector: 7 percent

Lead/Supervisor: 7 percent

Inventory Control: 3 percent Quality Control: 3 percent

Source: EmployBridge

tions, supply chain companies are beginning to do the same," says Devine. "This includes maintaining attendance policies that are reasonable and fair and that take into consideration the realities of hourly workers' limitations. And, given there are roughly 10.5 million U.S. workers with less than a high school diploma, we're seeing many customers revisit their education requirements and relax background screenings to secure much-needed talent."

EmployBridge and its specialty divisions ResourceMFG, ProLogistix and Select surveyed 15,883 workers across the country between February and April 2018. Respondents included job seekers, as well as those employed full-time, part-time or on a contingent basis, who had at least six months of warehouse experience.

Trey Barrineau is the managing editor of Development magazine.

Opportunity Zones Aren't Just for Real Estate Development

Main Street and industries also stand to benefit from the new tax incentive.

By Mary Burke Baker, K&L Gates LLP

Opportunity Zone incentives offer significant tax benefits to encourage longterm investment in low-income areas. Enacted as part of the tax reform bill that was signed into law at the end of 2017, Opportunity Zones sparked an initial wave of interest among commercial real estate developers, including those focused on affordable housing, office space and mixed use.

However, this early excitement led many in the real estate industry to overlook the fact that Opportunity Zones potentially can be used for any active trade or business. That includes manufacturing, retail, hospitality, medical practices, day care centers, research facilities, energy plants and grocery stores.

What Are the Tax Benefits?

Opportunity Zone tax benefits are available to investors who put capital gains into Opportunity Funds. These funds invest directly in qualifying tangible property or in qualifying businesses operating in Opportunity Zones. Federal income taxes on these capital gains can be deferred until 2026, with a 10-percent exclusion of deferred gains after five years and a total 15-percent exclusion of deferred gains after seven years.

Investing to Spur Growth

Fostering new businesses in disadvantaged areas was an important driver behind the Opportunity Zone legislation, which was intended to create long-term, sustained economic growth and well-paying jobs. Entrepreneurs and innovators interested in bringing economic vitality to an area, as well as investors who want to generate social and environmental improvements plus strong financial returns, can use Opportunity Zone businesses to achieve those goals.

Opportunity Zone Business vs. Direct Ownership

Investing directly in tangible property like a building may make sense for real estate developers. However, holding an equity interest in a qualified industrial, retail or technology business — to name just a few — allows an investor to have a stake in an entire company. That includes tangible assets such as buildings, production lines and machinery, as well as intangibles such as patents and the existing workforce.

In addition to direct investment in tangible property, Opportunity Zone benefits are available when an Opportunity Fund holds an equity interest acquired after December 31, 2017, in a partnership or corporation operating a qualifying business in an Opportunity Zone.



A Qualified Opportunity Zone business could be almost any kind of active trade or business that meets the requirements of the statute with the exception of a "private or commercial golf course, country club, massage parlor, hot tub facility, suntan facility, racetrack or other facility used for gambling, or any store the principal business of which is the sale of alcoholic beverages for consumption off premises."

Opportunity Funds/businesses share several rules. For example, a property

Zooming In on Opportunity Zones

Some facts and figures about Opportunity Zones from the U.S. Treasury Department:

- There are 8,761 census tracts in all 50 states, the District of Columbia and five U.S. territories that have been designated as Opportunity Zones.
- Nearly 35 million Americans live in these communities.
- The designated census tracts have an average poverty rate of more than 32 percent, compared with a rate of 17 percent for the average U.S. census tract.
- Median family income of the designated tracts are on average 37 percent below the area or state median.
- The unemployment rate in Opportunity Zones is nearly 1.6 times higher than the average U.S. census tract.

Opportunity Zones potentially can be used for any active trade or business. That includes manufacturing, retail, hospitality, medical practices, day care centers, research facilities, energy plants and grocery stores.

must have been acquired after December 31, 2017; its original use in the Opportunity Zone must be by the Opportunity Fund/business — if that's not the case, then the Opportunity Fund/ business must substantially improve the property within any 30-month period after the property was acquired; and at least 70 percent of the uses of the property must take place within the Opportunity Zone.

Opportunity Zone businesses face additional tests. More than 50 percent of gross receipts must be derived from the active conduct of the business in the Opportunity Zone. Further, a substantial amount of any intangibles held by the business must be used in the business, and less than 5 percent of the assets may be held in nonqualifying intangible property, such as ownership in another business and certain passive assets.

However, investment in an Opportunity Zone business offers notable exceptions from direct ownership in tangible property. That flexibility could make an equity investment even more attractive than direct investment, including for real estate.

For example, only 70 percent of tangible property held by a qualifying Opportunity Zone business must be qualifying Opportunity Zone business

New

1 million+ sq. ft.

Stockdale Capital Partners has acquired Horton Plaza, a 10-acre retail mall in the heart of downtown San Diego, and it plans to transform the

1980s-era mall into a high-density, mixed-use development anchored by tech-oriented office space with lifestyle retail, entertainment and public neighborhood amenities. The redevelopment, to be known as The Campus at Horton, will feature up to one million square feet of office space as well as retail space and an activated public boardwalk, amenity



deck and park. Construction is expected to begin in early 2019 and be completed in 2020. There are opportunities for an additional 1.5 million square feet to bring further density to the site.

1 million sq. ft.

Transwestern Development Co., in partnership with a private real estate fund advised by Crow Holdings Capital-Real Estate, will develop a specu-

lative 1 million-square-foot **industrial facility** in **Lakeland**, **Florida**, on a 183.5-acre site that was formerly a golf course. The project, called **University Park at Bridgewater**, is expected to be delivered in the second quarter of 2020. The facil-



ity will be designed to meet the specific requirements of e-commerce tenants, including heavy parking and trailer capacity, 36-foot clear heights and 185-foot truck courts. The project will be completed in two phases, with phase one comprising a single cross-dock building totaling 713,000 square feet. The second phase will expand the property by up to 292,000 square feet.

728,000 sq. ft.

Ridgeline Property Group will develop **McDonough Logistics Center**, a 728,000-square-foot Class A **industrial facility** in **McDonough**, **Georgia**,

that will feature immediate access to Interstate 75. The building is expected to be completed in the fall of 2019. Features of the cross-dock facility include 36-foot clear heights, 60-foot speed bays, 148 dock doors, four drive-in doors, TPO roof system, Ductilcrete slab, ESFR sprinkler



system, 210 trailer storage spaces and 311 car parking spaces.

A Look Ahead

property, compared to 100 percent when the tangible property is directly held by the Opportunity Fund. This means that some property can be located outside an Opportunity Zone or acquired before December 31, 2017. The 70-percent rule is good for investors because more businesses will meet the requirements to qualify for Opportunity Zone incentives. (It's important to note that the statute uses the word "business" to distinguish tangible property, from other Opportunity Zone property, including stock or partnership interests.)

A 31-month working capital safe harbor is available to qualifying Opportunity Zone businesses, easing concerns about potential bottlenecks and penalties at the Opportunity Fund level. Because investors must invest capital gains within 180 days, they could encounter problems if the Opportunity Fund isn't ready to spend down the capital, including running afoul of a rule that requires 90 percent of the Opportunity Fund's assets to be held in Opportunity Zone property.

Know the Options

Opportunity Zone incentives are resilient and flexible so that investors, developers and entrepreneurs will take advantage of them. While some investors may want to put their money directly into qualifying Opportunity Zone tangible property, others will find that investing in qualifying Opportunity Zone businesses will maximize tax benefits.

Whichever approach is used, investors should use care before making any decisions to avoid costly and irrevocable mistakes that could result in disqualification for preferential treatment of capital gains, as well as the loss of development and new businesses in designated Opportunity Zones.

Mary Burke Baker is a government affairs counselor with K&L Gates LLP in Washington, D.C.

Should Construction Consider a High-Tech Makeover?

The sector's productivity hasn't improved much in years, but that could be changing as workforce challenges increase.

By Trey Barrineau

Automation, robotics, the "internet of things" (IoT) and other technological advances are revolutionizing the commercial real estate industry in areas such as leasing, property management, building operations and financing. But construction, one of the most crucial aspects of the development process, hasn't kept pace when it comes to the adoption of high-tech labor-saving advances.

According to a February 2017 report from the McKinsey Global Institute, productivity in areas such as manufacturing, retail and agriculture has grown by as much as 1,500 percent in the U.S. since 1945, but it's barely budged in construction. Worldwide, the report finds that labor-productivity growth in the construction sector has averaged just 1 percent a year during the past two decades. By comparison, manufacturing productivity has risen an average of 3.6 percent a year during the same period, McKinsey says.

According to the report, if construction labor productivity could catch up with other sectors of the world's economy, the industry's value added could rise by \$1.6 trillion a year. That would be enough to meet half of the world's rising infrastructure needs.

Getting there won't be easy, though. In the U.S., construction ranked next to last on McKinsey's 2015 digitalization index, which examines 27 indicators to measure the digital assets, digital usage and digital workers in various sectors of the economy. McKinsey's report says the main reason construction fares so poorly in digitalization is because it's a highly localized, labordependent industry.

Why Construction Lags

There are several other reasons why high-tech solutions haven't caught on in the construction industry. First of all, there's the simple fact that construction is a fragmented process with many non-repetitive tasks, which don't easily lend themselves to automation. McKinsey's research also shows that the global construction industry is extensively regulated, over-dependent on public-sector demand and highly cyclical.

Additionally, many jobsite functions are often isolated from each other, which is linked to the design-bidbuild process that's prevalent in North American construction. In this system,

Rise of the Robots

Robotic solutions for the construction jobsite are in their infancy, but here are two notable examples that could become commonplace in the near future.

Japan's National Institute of Advanced Industrial Science and Technology has developed a robot named **HRP-5P that can install drywall autonomously** and may eventually be able to accomplish the task more efficiently than humans. However, the robot is in the development stage and still struggles with parts of the job.

Automated bricklaying robots such as **Hadrian can lay 3,000 bricks per hour** and complete the structure of a house in 16 hours.

According to a February 2017 report from the McKinsey Global Institute, productivity in areas such as manufacturing, retail and agriculture has grown by as much as 1,500 percent in the U.S. since 1945, but it's barely budged in construction. Worldwide, the report finds that labor-productivity growth in the construction sector has averaged just 1 percent a year during the past two decades.

a developer or building owner enters into separate agreements with architects, engineers, general contractors and subcontractors for a project. That means the building process isn't fully integrated from conception through final construction.

Single-Entity Solutions

Design-build, on the other hand, is a project delivery system in which most design and construction services are handled by a single entity. It's becoming an important part of the construction industry. A research study released in January 2018 by FMI, a construction management consulting and investment banking firm, estimates that North American designbuild projects will grow 18 percent between now and 2021 and make up 44 percent of total construction spending during that time.

One popular, technologically advanced technique for building commercial and residential structures is off-site construction. It's defined by the NaNew

433,945 sq. ft.

Mountain Development Corporation recently wrapped up construction on a newly renovated office complex, 56 at Roseland, in Roseland, New Jersey.

Ware Malcomb provided interior architecture and design services for the project, a four-story, 433,945-squarefoot office building in a campus setting on 56 acres. The project entailed the renovation and updating of most common areas and shared amenities. This included improvements to the building's two-story atrium lobby, conference center, courtyard patio and lounge area, a 400-seat café



(including serving and seating areas on two floors) and more.

378,405 sq. ft.

Ridgeline Property Group and its investment partner, USAA Real Estate, recently broke ground on **Interstate 80 Logistics Center**, a

378,405-square-foot Class A **logistics facility** in **Fairfield**, **California**. The project, which is expected to be completed in the summer of 2019, is located a mile from Interstate 80, the east-west route connecting the San Francisco Bay Area to Sacramento and the Central Valley. The project



includes a 36-foot clear height, cross-dock design, 69 dock-high doors, four drive-in doors, 56-foot by 60-foot column spacing with 60-foot speed bays, 31 dedicated trailer parking spaces and 192 auto parking spaces.

259,947 sq. ft.

Trammell Crow has begun construction on a Class A, 259,947square-foot **office building** for the General Services Administration in **Irving, Texas**. The

one-story structure, which will house the U.S. Citizenship and Immigration Services' Texas Service Center, meets the government's security and energyefficiency requirements. It will be completed in early 2020. The facility, situated at the northwest intersec-



tion of N. Belt Line Road and President George Bush Turnpike, will sit on approximately 27 acres and has a 40-year ground lease with the DFW Airport. Gensler is the project architect and Manhattan Construction Company is the general contractor. CBRE will handle property management.

A Look Ahead

Five High-Tech Construction Trends to Watch

A June 2016 report from the McKinsey Global Institute, "Imagining Construction's Digital Future," describes five trends that will shape construction and capital projects in the coming years:

Higher-definition surveying and geolocation. "New techniques that integrate high-definition photography, 3-D laser scanning, and geographic information systems, enabled by recent improvements in drone and unmanned-aerial-vehicle (UAV) technology, can dramatically improve accuracy and speed."

Next-generation 5-D building information modeling (BIM). "Next-generation 5-D BIM is a five-dimensional representation of the physical and functional characteristics of any project. It considers a project's cost and schedule in addition to the standard spatial design parameters in 3-D. The 5-D BIM platform allows owners and contractors to identify, analyze, and record the impact of changes on project costs and scheduling."

Digital collaboration and mobility. "Process digitization means moving away from paper and toward online, real-time sharing of information to ensure transparency and collaboration, timely progress and risk assessment, quality control, and, eventually, better and more reliable outcomes."

The "internet of things" and advanced analytics. "On a construction site, the 'internet of things' would allow construction machinery, equipment, materials, structures, and even formwork to 'talk' to a central data platform to capture critical performance parameters."

Future-proof design and construction. "New building materials, such as self-healing concrete, aerogels, and nanomaterials, as well as innovative construction approaches, such as 3-D printing and preassembled modules, can lower costs and speed up construction while improving quality and safety."

tional Institute of Building Sciences as "the planning, design, fabrication and assembly of building elements at a location other than their final installed location to support the rapid and efficient construction of a permanent structure."

According to the 2018 Off-Site Construction Industry Survey, nearly 88 percent of respondents said they had used off-site fabricated components on projects during the past year, and about 82 percent said they expected to do so in the coming year. Survey respondents said the main benefits of off-site construction are shorter project schedules, improved quality and lower costs. Off-site elements are being used to build commercial, industrial, health care, education, multifamily, hospitality and data center properties.

Construction startup Katerra, which has raised more than \$1 billion in venture capital in the past three years, has announced ambitious plans to vertically integrate the entire process — from architectural concepts, to designs, to finished buildings. The company says it envisions a jobsite that "more closely mirrors a process of precision-sequenced product assembly than traditional construction." So far, however, the company has experienced production delays and other problems.



Between 2018 and 2021, design-build spending has increased by **18%** in the nonresidential construction market.*





Labor Issues Fuel Innovation

In the U.S., a shortage of skilled workers looms over the U.S. construction industry, and it's not going to get better anytime soon as increasing numbers of older employees head toward retirement.

In 2017, there were 10.7 million workers employed in construction, according to the Bureau of Labor Statistics. About 4.8 million of them, or 45 percent, were 45 or older. Additionally, a 2017 survey from FMI shows that construction companies will lose between 14 percent and 20 percent of key workers such as executives, field managers, senior managers

In 2017, there were 10.7 million workers employed in construction, according to the Bureau of Labor Statistics. About 4.8 million of them, or 45 percent, were 45 or older.

and project managers during the next five years to retirement or attrition.

Those demographic changes are starting to push companies to adopt digital solutions to their labor challenges.

In January, a survey by the Associated General Contractors of America (AGC) and Sage Construction and Real Estate found that while 79 percent of construction firms plan to increase staffing in 2019, 78 percent say they're having a hard time filling craft positions. To ease those labor problems, 32 percent of the firms that took part in the survey said they're using high-tech methods such as "lean" construction (which focuses on ways to minimize waste of materials, time and effort), virtual construction techniques or off-site prefabrication to reduce overtime, while 28 percent are investing in laborsaving equipment such as drones, robots and 3-D printers.

The survey shows that 42 percent of respondents will increase their information technology (IT) investments in 2019, with 30 percent of firms planning to boost investments in project and document management software. More companies are moving data to the cloud as well - 31 percent said they are very comfortable doing that, up from 24 percent last year.

Trey Barrineau is the managing editor of Development magazine.

230,000 sq. ft.

Interior architecture and planning firm H. Hendy Associates recently completed a new 230,000-square-foot corporate headquarters for Behr Paint Company, one of the nation's largest suppliers of architectural paint

New CNoteworthy

and exterior wood care products. Located in Santa Ana, California, the building has formal training and meeting rooms; workstations to foster teamwork and ideation; data and innovation areas; and the Behr Den, an indoor-outdoor space featuring a large patio with tiered seating. The den can also be used as an event space and is designed to comfortably fit 500 people. A hallmark of the new space



is a 30,000-square-foot, state-of-the-art research and development laboratory featuring unique graphics, art and access to natural light.

152,618 sq. ft.

The C.W. Driver Companies recently completed California State University, San Bernardino's new \$78 million, 152,618-square-foot student

housing and dining commons. The 407-bed student housing complex and 750-seat dining facility provides much-needed accommodations for incoming students and supports the university's future growth. Sustainable features include the use of natural light and ventilation, energy-efficient LED lighting with day lighting controls and occupancy sensors, high-effi-



ciency fixtures and appliances, solar panels, energy-efficient mechanical and plumbing systems, and low-water landscaping with smart irrigation controllers.

100,000 sq. ft.

Fidelis Healthcare Partners has announced its first project, the five-story, 100,000-square-foot Saint Joseph Medical Office Pavilion on the Uptown

Denver campus of Saint Joseph Hospital. It will be located on a prominent 1-acre site on the campus at the intersection of Park Avenue, Ogden Street and 18th Avenue. Three floors will be dedicated to Class A medical office space; the ground floor will accommodate convenience retail and restaurant uses; and the rooftop will



offer wellness/fitness and entertainment options. The project also includes ground-level, covered parking for physicians and an adjacent parking lot that will offer free parking for patients, visitors and tenant employees.

A Look Ahead

The Workplace Makeover: From Office to Destination

To lure top talent, employers must integrate technology and unique experiences into their spaces.

By Diane Hoskins and Andy Cohen, Gensler

The future of cities is predicated on people. As engines of economic growth, urban areas are the life source of the built environment, with 80 percent of global GDP resulting from their output. The most vibrant cities are those that attract diverse talent with varied skills, perspectives and backgrounds. All of this is driving change and transformation in how people live, work and play.

Looking at the built environment, there is no place that is being more profoundly impacted than the workplace. To retain and inspire the best talent, the most successful organizations will be the ones that adapt their workplace strategies to focus on creating a destination with visceral experiences, an "always in beta approach" and purpose through space.

Creating Visceral Experiences

The reason people come into the office has been disrupted. Technology, coworking and remote work have become ubiquitous, making it easier for employees to work outside of the office. However, the 2019 Gensler Workplace Survey of more than 6,000 workers across the U.S. found that the most innovative and productive employees spend 80 percent of the week in the office and 20 percent in other locations. Moreover, when people are in the office, their expectation for a more enriched experience is higher than ever before. Unfortunately, our research has found that only 22 percent of people consider their own companies to be excellent at delivering a differentiated experience. To engage talent, the workplace must see experience as non-negotiable.

Hyatt's Chicago office understands this. The company's headquarters-relocation program sought to bring all of the hospitality corporation's colleagues together under one roof. Looking at the employee experience through the lens of their guests' experiences, Hyatt's new space incorporates a version of Hyatt's seven guest touchpoints arrival, social spaces, drinking and dining, work suites, activities and



Hyatt's Chicago headquarters includes Hub 8, a multipurpose space that can be used for social events, coworking or meetings.

Looking at the built environment, there is no place that is being more profoundly impacted than the workplace.

services, meetings and events, and departure — to build empathy between employees at headquarters and those working around the world.

As part of the overall design, Hub 8 was created. It's a multipurpose reception, coworking, meeting, event and food, and beverage-focused environment that provides additional spaces for free-address colleagues. Just as Hyatt is unscripting its hotels, this new headquarters frees its employees from a traditional work environment.

Adopting an 'Always in Beta' Approach

A key part of the modern workplace is technology, and organizations are being challenged to keep pace with it. In the face of this, the workplace must embrace technological disruption by maintaining systems that work, experimenting with new technology and implementing the latest and greatest. In essence, they will have to adopt an "always in beta" mentality. The built environment will become more integrated with our lives, and the expectations for a seamless transition from the digital world to the physical world will prevail.

DELOS, the wellness and real estate technology company that founded the International WELL Building Institute

New

100,000 sq. ft.

The TREO Group, a real estate investment firm in Miami, recently began construction on Regatta Harbour, a mixed-use waterfront development in

Coconut Grove's historic Dinner Key. The project will feature 100,000 square feet of retail, services and dining space, including three waterfront restaurants. It will also include specialty stores, marina services, floating docks, on-site parking and event spaces. Historic airplane hangars, used



in the early 1900s as the first continental U.S. naval air station and later as Pan Am's base of seaplane operations, will be renovated to create approximately 40,000 square feet that could be used for a gourmet food hall, specialty market, fitness or entertainment concept.

42,000 sq. ft.

Pier Property Group is carrying out a historic renovation of the Steelcote Manufacturing Company's Paint Factory Complex in midtown St. Louis.

Pinnacle Contracting, Inc., is targeting a spring 2019 completion for the 42,000-square-foot, \$9 million conversion that will create **31 residential units** in the landmark five-story building. Founded in St. Louis, Steelcote pioneered rubber enamel coatings for a variety of products and was once a world leader in the field. It opened the building on Edwin Street in 1922 and



finished building out upper levels in 1929. Listed on the National Register of Historic Places, the complex has been vacant since 2006.

39,200 sq. ft.

Foshee Residential is developing The Historic Bell Lofts, the only high-rise lofts in downtown Montgomery, Alabama. This mixed-use redevelopment will include 88 luxury lofts and several thousand feet of ground floor commercial space that can be used for restaurants or retail. Renovations on the 12-story, 39,200-square-foot building, which was built in 1907, are expected to be completed this spring. ■



Do you have a new and noteworthy project in the planning, design or construction stage that you'd like to share with fellow real estate professionals? Send a brief description and high-resolution rendering to developmentmagazine@naiop.org.

A Look Ahead

A growing number of workers are seeking more than the typical ladder of success. Instead, they're looking for places where they can make a difference, grow from new experiences, give back to society and pursue their passions.

and the WELL Building Standard, has incorporated technology into its own workplace framework by creating a branded digital experience. Throughout the office, DELOS has installations that showcase real-time visual renderings related to wellness. In the stairwell, digital displays foster an interactive experience that illustrates the number of people using the stairs. The technology at DELOS demonstrates the possibilities of an organization that embraces the latest advances.

Providing Purpose Through Space

A growing number of workers are seeking more than the typical ladder of success. Instead, they're looking for places where they can make a difference, grow from new experiences, give back to society and pursue their passions. Not only is meaning important to talent, but it's also a crucial factor for businesses; studies show that employees who find purpose in their jobs are more likely to continue with their organizations. The workplace can help bridge the gap.

When Reebok redefined its Boston headquarters, the goal was to attract talent, energize innovation and amplify its brand. It did this in a big way. In the office there is a two-story flagship gym, which can be viewed from



Reebok's Boston headquarters has a two-story gym that's visible from the street, a huge collection of shoes, a café and much more.

street level, a Maker Hub, one of the largest shoe collections in the footwear industry, immersive spaces, a café and more. The workplace also adopts unassigned team seating to encourage movement and interaction. The headquarters design embodies the evolution of the brand. When people walk into the office, they can see and feel the purpose of creating the brightest and fittest future.

The rising power of talent in the workplace and the pervasiveness of technology are eradicating the worklife divide. As people increasingly look for their work to provide purpose and connection, and aim to live more integrated lives, the workplace of the future must continue to evolve. Organizations that understand what motivates their teams — what drives them to succeed and engage — will have the tools to create a place employees want to be and an experience they will not forget.

Diane Hoskins and Andy Cohen are co-CEOs of Gensler.

How Health Care and Wellness Properties Can Anchor Mixed-Use Developments

The aging U.S. population could make this a commercial real estate trend to watch.

By Joseph Ballmer

Mixed-use real estate developments typically feature a blend of retail, office and restaurants adjacent to a residential community. They are usually pedestrian-friendly and possess an aesthetic harmony that evokes Main Street nostalgia.

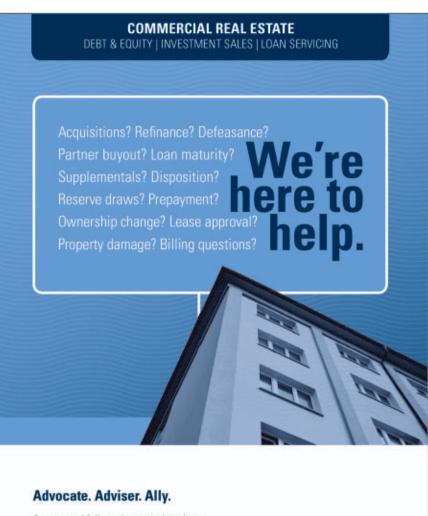
However, many wrestle with overwrought parking solutions (seas of asphalt) and a lack of authentic experiences for the consumer. But the real demon taunting retail-centric mixed use is an evolving and cyclical retail economy that's playing havoc with absorption, occupancy rates and consistent year-round vitality.

Getting the Mix Right

So what could a recession-proof, sustainable mixed-use property look like? Imagine a cluster of medical service buildings alongside restaurants, lodging, apartments, entertainment, retail and consumer services. Retail as an anchor can be fickle and seasonal; multiple health care and wellness tenants can be more sustainable, especially with complementary development that fosters convenient and positive consumer experiences. *(See cover story on page 42.)*

Consumers in all generations are pivoting from a "stuff and acquisition" mode to a "wellness and experience" mindset. Consider:

- The demand for medical care facilities to serve both aging and healthconscious younger consumers will be trending upward for decades.
- The health care real estate model is in transformation. The era of monumental health care facilities (mega-



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hospitals and sprawling campuses) is coming to an end. They are not consumer-friendly and tend to be an unpleasant clinical experience.

• Health care workers, as well as patients, can benefit from access to a variety of consumer services.

The employees and visitors at medical facilities are a consistent stream of consumers who would likely appreciate the convenience of combining medical appointments with the ability to run errands — walk a short distance to a healthy meal, pick up medicine at a pharmacy, or stop by a coffee shop before or after their appointments. The consumer who goes to the doctor is the same consumer who shops, eats and seeks entertainment.

A Real-World Example

What would a health care mixed-use development look like? A mini-version has blossomed in Cincinnati.

The Rookwood Exchange, developed by Jeffrey R. Anderson Real Estate in 2013, is a 12-acre development anchored by a 260,000-square-foot medical office building. It features physician's offices, physical therapy, six restaurants, two hotels, apartments, a parking garage, a social club, spa and vitamin retailer. The offices sit above street-level restaurants and services. The apartments have a dedicated parking garage, while the hotels and the office building share another parking garage.

As a mixed-use property, Rookwood is in the small category. So amp it up by a factor of 10 or 20 — what is possible on 100 or 200 acres? To start with, hundreds more apartment and single-family rental homes, retirement housing, an independent grocer, pharmacy, 24/7 dialysis center, 24/7 imaging center, daycare and elder care, fitness club, physical therapy/ rehab facility, dental and optometry services, urgent care facility, coffee shop/juice bar — essentially the universe of health and wellness providers that consumers are seeking out — all conveniently located within a walkable mixed-use development.

What Could Go Wrong?

The short answer: money and government. The concept may seem elusively utopian and could cause some investors to balk. This won't be done by a short-term investor. A well-capitalized long-term commitment is required.

The cooperation of visionary government is also needed. Today's Euclidean zoning regulations are still stuck with the DNA of their 1920s origins. Renaming a zoning code as a planning code and adding a category called "mixed use" does not change its stripes. Many communities still need to rip up their zoning regulations and embrace true community planning --especially with regard to density, massing, heights, parking and setbacks. Another key component is a willingness by that same visionary government to commit to tax increment financing and revenue bond financing for infrastructure — which would include parking structures.

What is already going right is this: consumers have pivoted their mindset from "experiencing stuff" to "experiencing wellness," and the real estate industry should respond with speed and conviction.

Joseph Ballmer is a real estate executive and registered architect.

Prefabricated Wood Construction Shows Promise

This efficient, environmentally friendly way to build could increase quality while reducing labor costs.

By Tom Chung, Leers Weinzapfel Associates

The shortage of construction workers in America has continued to intensify and building material costs are rising, leaving architects with the difficult task of completing projects that can meet demanding budgets. To remain profitable and meet project deadlines, architects and the industry at large must find creative methods to improve processes, increase return on investment (ROI) and introduce more efficient ways to source construction materials.

The University of Arkansas, in partnership with Leers Weinzapfel Associates, found an innovative solution to these challenges. The university used prefabricated wood construction to build the nation's first large-scale mass timber residence hall project and living/learning setting, the Stadium Drive Residence Halls. The 202,027-squarefoot project — envisioned as a creative learning environment within a relaxed, informal, tree-lined landscape — is being built from prefabricated wood, which has reduced on-site construction time and labor.

Prefabrication Explained

In the prefabrication (prefab) process, building materials are created off-site, typically using three-dimensional digital modeling technologies along with computer numeric control (CNC) machines that allow for complete



Alex Schreyer / UMass

Completed in 2017, the John W. Olver Design Building at the University of Massachusetts Amherst is one of the first cross-laminated timber (CLT) academic buildings in the United States.

precision. There are two types of industrialized approaches to prefabricated buildings: building kits and finished modules.

Building kits include prefabricated elements or sections that are delivered and assembled on-site. Typically, the construction of prefab midrise wood buildings is characterized by panelization, in which walls that have been prebuilt in sections are delivered to a jobsite ready to be lifted into place.

Finished modules are built in a factory, transported to the construction site and assembled into a single building. The modules can be placed side by side, end to end or stacked, allowing a wide variety of configurations and styles in the building layout.

Why Prefab?

Prefab is used in multifamily and commercial construction for a variety of reasons, including:

Efficiency. Prefabricated wood panels have precut openings for doors, windows, stairs, service channels and ducts. This allows them to be quickly and efficiently lifted into place, which can shave weeks and even months off of the construction schedule. In an industry with aggressive deadlines, this is a key benefit for developers and builders. This process also improves construction sequencing and scheduling, since materials are sorted and loaded onto trucks in a project-specific order to minimize on-site handling.

Safety and Productivity. The efficiency of prefabrication also improves worker safety and productivity. Construction time is shorter; that means crews spend less time on site, fewer workers are needed to climb high on scaffolding, and projects are less likely to experience weather conditions that can delay construction or make it more dangerous.

Quality and Precision. Prefabricated components are created in advance using sophisticated technology, which improves the quality and precision of materials.

ROI. Prefabrication means less time spent on construction, fewer redundancies and less waste — all of which reduce project costs. Using wood can further reduce costs since lumber is sourced locally and is often not as costly as competing building materials.

Timber Talk

These are the main types of engineered-wood systems used in tall mass timber construction:

CLT or Cross-Laminated Timber.

Consists of three to seven boards that are stacked in alternating directions.

Glulam or Glued Laminated Timber. Comprised of two or more layers of boards glued together.

NLT or Nail-laminated Timber.

Produced when lumber is stacked together on its edge and nailed together.

PSL or Parallel Strand Lumber.

A composite of wood strands with fibers that's considered the stiffest and strongest of the engineeredwood products available and the best for making large beams.

Environmental Impact. Creating building material sizes and dimensions in advance results in lower environmental impact by minimizing waste onand off-site. Additionally, using wood in prefab projects helps to improve the building's environmental impact. Wood is a sustainable resource that, along with a smaller embodied energy, sequesters carbon. That means it captures and stores atmospheric carbon dioxide through photosynthesis. Additionally, global life-cycle assessment studies have proven that wood can offer lower greenhouse gas emissions, less air and water pollution, lower volumes of solid waste and less ecological resource use than other materials. What's more, wood's strength and durability help it withstand high winds and seismic activities.

Prefab in U.S. Universities

Prefab, and particularly wood prefab, has the potential to transform many American institutions of higher learning because it can be a good choice for their time frames and budgets.

A Look Ahead

In addition to the University of Arkansas' Stadium Drive Residence Halls, which will be completed in the summer of 2019, the University of Massachusetts Amherst's four-story, 87,000-square-foot John W. Olver Design Building, completed in 2017, is one of the first cross-laminated timber (CLT) academic buildings in the United States.

During construction, mobile cranes dropped four 60-foot vertical crosslaminated timber panels into place, anchoring them into the foundation of the building to create lateral bracing at each core to withstand wind and seismic loads. The result is a beautiful, and highly visible, sustainably designed structure. It includes radiant flooring and chilled beams for energy savings; a central courtyard roof garden to provide maximum daylight to the building's interior; and a native bioswale landscape with small timber dams, which help mitigate site water runoff and naturally filters it before it ultimately leads back to the Connecticut River.

The Future of Prefab is Bright

In December 2018, the International Code Council (ICC) announced that its members had voted to approve 14 code change proposals related to tall mass timber. The proposals set fire safety requirements, as well as allowable heights, areas and number of stories, for tall mass timber buildings. The new provisions will be included in the 2021 International Building Code (IBC).

"The addition of tall mass timber to the International Building Code provides a comprehensive set of safety standards for these new types of construction," said Kenneth Bland, the vice-president of codes and regulations with the American Wood Council. "This vote caps off several years of scientific research and testing, and verifies that mass timber meets the robust performance standards called for by our nation's building codes."

The recognition of tall mass timber in the ICC shows that prefabricated wood can provide a strong, creative solution to the construction labor shortage, allowing architects to meet budgets and timelines while producing beautiful projects. Designers, builders, contractors or architects should consider prefab wood construction for upcoming projects.

Tom Chung is a principal with Leers Weinzapfel Associates.



Sound bites from NAIOP's CRE. Converge, held October 15-18, 2018, in Washington, D.C.:

- "Technology is causing a huge shift in value from physical assets to user experiences." Chase Barbarino, co-founder, HqO
- " What talent wants, landlords need, developers must build." Chris Kelley, co-founder, Convene
- "We are not in a marathon of an expansion. In a marathon, we have juiced the economy with stimulus, but now the Fed is saying wait a minute, we have to slow down and get over the finish line. "Diane Swonk, chief economist and managing director, Grant Thornton
- " We have built two inland ports in the last six years. Most port authorities don't do that." Micah Mallace, director of strategic projects, South Carolina Ports Authority
- "The biggest thing to keep in mind with industrial logistics is the available open space near population centers and transportation hubs got used up about two years ago. In economist terms, what this means is a supply bottleneck has come along ... This market is going to see continued growth of demand for

industrial space, and they will have to search harder to find that space. The owner of an existing industrial logistics facility is in a really good position in this market." Calvin Schnure, senior vice president of research and economic analysis, Nareit

- "Everyone is a little bit infatuated with industrial right now. It's whitehot — there are 240 million square feet of industrial currently under construction in the U.S. right now. But can that absorption continue over the next few years?" Joe Gorin, managing director and co-head of GSAM Private Real Estate, Goldman Sachs
- " Collecting data is all about taking information and breaking it down so that it's effective in helping us make business decisions." John Schwab, *Wipfli LLP, partner*
- ** What does your work desk look like when you don't ever need to type at a computer? Our workplaces have to have a flexibility woven into them so they can change with new technologies. Build flexibility into your strategy so your projects can thrive and adapt over time." Jordan Goldstein, global design synergy leader and regional managing principal, Gensler



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privately held companies are going to be just as crucial as large companies going forward.



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CEO on Leadership: Kim Roy, CEO, HITT Contracting Inc.

The leader of this Falls Church, Virginia, turnkey construction company and general contractor encourages young workers "to never stop learning and seeking new challenges."

By Ron Derven



"I embrace the adage that if you aren't making mistakes, you aren't growing. Our team members are supported by their senior managers to take risks, self-correct and find solutions to their mistakes."

> — Kim Roy, CEO, HITT Contracting Inc.

HITT Contracting provides a wide range of services, from base building construction and renovation to corporate interior fit-outs and emergency work. For 2018, it projects revenues in excess of \$1.9 billion. The company has more than 1,000 employees working at its 10 offices across the country. HITT attributes its success to its strong relationships with clients, partners and subcontractors.

Development: What is your primary role as CEO?

Roy: As CEO, I am responsible for defining key initiatives, identifying emerging markets and business opportunities, as well as executing the strategic vision for the company. I provide executive oversight for all corporate operations including HR, finance and risk management. Additionally, I lead the corporate steering committee and the firm's strategic planning committee. One of the elements of my job that I enjoy the most is developing our talent; in particular, mentoring senior managers through our corporate leadership counsel program.

Development: With women only representing about 10 percent of the construction industry, have you found your role challenging?

Roy: It has been challenging at times to be a female leader in a traditionally male-dominated industry. My hope is that my visibility as a female construction leader will attract other women to the industry. **Development:** What qualities do you look for when hiring senior staff?

Roy: When I seek leaders for our company, I look for excellent communication skills, sound judgment, passion for the building industry and a strong desire to mentor.

Development: What are some things you have discovered that you are not very good at personally or professionally?

Roy: I struggle with saying no, but I have grown more comfortable with it in the past few years.

Development: When one of your employees makes mistakes, how is it addressed internally?

Roy: I embrace the adage that if you aren't making mistakes, you aren't growing. Our team members are supported by their senior managers to take risks, self-correct and find solutions to their mistakes.

Development: What was one of the biggest mistakes your company made?

Roy: When the construction market slowed in 2008 in response to the recession, HITT did not hire entry-level construction professionals. Because it takes roughly five years to gain the critical knowledge and field experience to manage construction projects, by 2013 we had a major talent gap. As a result, we have become more forward-thinking in our approach to developing talent.

Development: Could you tell us how you go about developing talent today?

Roy: HITT University is the foundation of our internal development program and is based around three key principles: elevate, educate and empower. The university provided nearly 14,000 hours of instructional time in 2018, focused on areas such as safety, risk management, construction operations, software and systems, leadership development, culture and values, and emotional intelligence.

HITT provides other development and training platforms such as the Corporate Leadership Council (CLC), where high-potential team members from across business units and around the country collaborate on an annual research project. The group is then responsible for implementing the results and outcomes across the corporation. The CLC exposes our developing talent to executive leadership and helps them grow key business skills critical to their future roles as firm leaders.

Development: How is your company preparing to weather the inevitable economic downturn?

Roy: We have formulated and documented our approach for handling shifts in the market. This plan addresses critical responses such as corporate rebalance, which allows for shifting our team members to service sectors or markets with stronger performance. Our geographic and market sector diversification are key to ensuring HITT successfully weathers market downturns.

Development: Looking out three to five years, what do you see that will impact

the industry? What are you doing today to prepare for those challenges?

Roy: In the past 15 years, we have invested in the infrastructure of our company (leadership, tools, and processes). We are invested in R&D and seek to unlock a way to build smarter for our clients. We continue to research and study key innovations such as 5G, "internet of things," artificial intelligence and robotics.

Development: What is the best advice you have been given over the course of your career?

Roy: Ask the question. If you don't understand the plumbing detail, ask the foreman to explain it. If you want more runway in your career, ask for it. If you think there is something missing in your business, ask why. Co-Chairman Jim Millar taught me to always take care of the clients — relationships are everything.

Development: What advice would you give someone entering the commercial real estate industry today?

Roy: The commercial real estate industry, specifically the building industry, is full of opportunity. I encourage young talent to never stop learning and seeking new challenges. Find a great mentor and take risks!

Development: How do you de-stress?

Roy: When I get really stressed, you can find me at a local cooking class. I also love to read and travel, both of which help me recharge. ■

Ron Derven is a contributing editor for Development magazine. "Ask the question. If you don't understand the plumbing detail, ask the foreman to explain it. If you want more runway in your career, ask for it. If you think there is something missing in your business, ask why."

> — Kim Roy, CEO, HITT Contracting Inc.

In Touch with Tenants

The New Health Shop on the Block

Wellness programs housed in medical office buildings or near hospitals can engage the local community and entice potential customers.

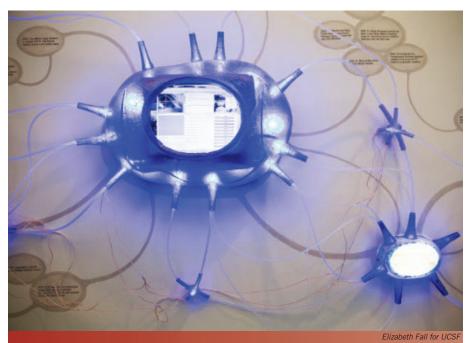
By Alice Devine

Those with chronic and acute medical conditions are defying stereotypes thanks to patient-outreach programs that stretch beyond the traditional hospital bed.

Today's medical offices and hospitals use ancillary wellness programs that engage the local community and serve as a gateway to traditional inpatient programs.

A Growing Need Spurs Unconventional Settings

Wellness programs are, in part, a response to the demographics of an aging population and rising health care expenses. The U.S. Census Bureau estimates that by 2030, one-fifth of Americans will be retirement age; by 2035, people 65 years and older will outnumber those under the age of 18 for the first time in our country's history. At the same time, the long arc of rising health care costs has placed pressure on the industry to lower expenses. Hospitals and medical buildings now focus on ambulatory care to address burgeoning demand in more efficient settings than conventional inpatient facilities. Shopping malls, vacant retail storefronts and develop-they're all fair game for a health care



Deborah Aschheim's works are among the art installations that have been displayed at the University of California San Francisco Mission Bay Hospital's "Art at the MacMAC," an acronym for the hospital's Memory and Aging Center.

approach that dissuades patients from making unnecessary and costly emergency room visits. (See cover story on page 42.)

Dubbed the "new retail," health care has expanded into brick-and-mortar spaces that have been shuttered

Dubbed the "new retail," health care has expanded into brick-and-mortar spaces that have been shuttered because of the growing success of e-commerce options. Convenient parking, accessibility, reduced waiting times and some neighboring stores — what's not to like? because of the growing success of e-commerce options. Convenient parking, accessibility, reduced waiting times and some neighboring stores what's not to like?

At Bisnow's National Midwest event in November 2018, developers alluded to "accordion-style" flexibility, where retail space might be repurposed as a health care facility (although demand for large office buildings with heavy medical infrastructure remains, too). Panel speakers acknowledged that filling former retail spaces might result in reduced building costs while reusing real estate in an efficient way.

Today's medical offices and hospitals use ancillary wellness programs that engage the local community and serve as a gateway to traditional inpatient programs.

Going Beyond Medical Care

Proximate wellness centers lure a captive audience with programs that create a front door to the health system. As an example, the University of California San Francisco's Mission Bay campus hosts "Art at the MAC," an acronym for the hospital's Memory and Aging Center. Interestingly, patients who lose cognitive function such as language sometimes develop new artistic skills. So by opening art galleries and funding visiting artists such as the theatrical monologist who uses improvisation to create comedic shows "that often deal with very serious subjects," according to the center, families learn about hospital resources. Caregivers may come for the show, but they stay for all sorts of aging care services.

At Mills Peninsula Hospital in Burlingame, California, the outpatient services read less like a hospital and more like an upscale spa. Although the therapy offerings include cardiac care, they also offer aquatic classes and hand treatment with therapeutic massage. And this isn't your grandmother's waiting room. Instead, living green planted walls and dramatic glass entries envelop waiting and treatment areas.

Conversely, other outpatient programs help patients avoid the hospital entirely. At California's Stanford Hospital, the Community Partnership Program targets lifestyle choices that play a role in chronic illnesses such as obesity and diabetes, infectious diseases and behavioral health. Stanford takes it outdoors with classes such as "Equine-imity: Stress Reduction in the continued on page 31

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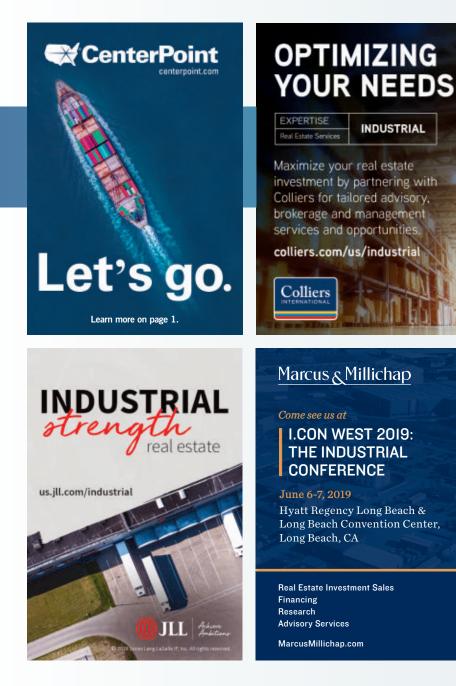
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continued from page 29

In Touch With Tenants

Company of Horses." Using techniques from medical gigong (a gentle movement-based yoga), participants focus on "observing, meeting, touching and breathing" with a herd of 10 to 14 horses. The program's director, Beverly Kane, suggests that humans can learn from a horse's nearly immediate ability to return to grazing after a stressful event. And at 40 heartbeats per minute, horses encourage lower heart rates in companions. While an equestrian center on the adjacent university campus makes such a class possible, Stanford reports that most people — even large-city dwellers live within 30 minutes of backyard horses, facilities or teaching centers. Participants in the eco-therapy class enjoy the much-documented sense of well-being when humans connect with nature.

A Boost For the Bottom Line

Regardless of creative programming, the underlying model for ambulatory centers is as profit and referral centers. Studies by the Medical Fitness Association suggest wellness center construction offers returns on investment between 6 and 10 percent. While profit varies depending on operational decisions and limits imposed by insurance companies, there's a national trend of increased outpatient revenue. Also, hospitals offer wellness centers for their own employees as well as for nearby employers, sometimes resulting in cost savings because of the in-house (or next-to-house) provider.

Whether as gateway to the hospital, an expanded community footprint or as preventative program, health care's evolving outpatient model continues to change lives, as well as impact commercial real estate.

Alice Devine is the author of "Suite Deal: the Smart Landlord's Guide to Leasing Real Estate," which was published in February 2019.

Lessons from the Fall of RealtyShares

The real estate crowdfunding platform lost sight of its core competency, but it also proved that there's a demand for what it provides.

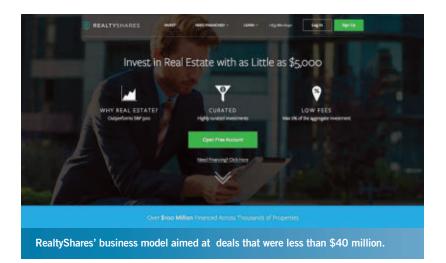
By Adam Gower

Several lessons can be learned from the recent collapse of RealtyShares, but the most important might be the realization that the demands of investors should serve as a guide and not the driver for a company's success.

Nav Athwal founded RealtyShares, a major real estate crowdfunding platform, in 2013. Before stepping down a year before it closed, he had grown it from two people in a living room to a company that had financed close to \$1 billion in deals and raised more than \$60 million in venture capital. RealtyShares had 100 employees and a business that spanned almost every state in the country.

The company's premise was that there is a segment of the commercial real estate finance world that is underserved by institutional capital. This is an area where deal sizes are below \$40 million, and the debt and equity requirements are small enough that it doesn't make sense for large institutions to fund them. While this premise remains true, RealtyShares sought its own

> The company failed because it was sustaining itself by external capital infusion and not internal profitability. When that dried up, the company had nowhere to go.



growth capital from the tech industry, which was out of sync with the world of real estate.

The Lessons

The first lesson is that any startup must remain focused on its core competency because it has limited capital and resources. RealtyShares funded multiple opportunities in pursuit of the rapid growth demanded by its venture partners, which created a difficult model for the company. It moved from single-family debt to commercial equity to broker-dealer. This created complexity for the company during its early stages of development that put excessive burdens on its systems.

The second lesson was that Realty-Shares forgot its real estate roots because it was being financed by capital from the tech world. Like the developer who builds where investors will provide capital even if there is little demand for the project, RealtyShares built and pitched a tech company when the focus should have remained more concentrated on the fundamentals of real estate. RealtyShares did not reach a point of independence from outside capital soon enough. Its business model was driven by its investors, who demanded rapid growth at the expense of fundamentals. The company failed because it was sustaining itself by external capital infusion and not internal profitability. When that dried up, the company had nowhere to go.

This put it at odds with timing. Realty-Shares became reliant on outside venture capital that demanded a business based on ultra-fast growth and a quick exit, seeking IPO-level scale within five to seven years. While growth rates for a healthy real estate company might be in the 30-40 percent range per year, the company's partners wanted growth rates of 100 percent-plus per year. For a startup putting out capital, growth rates that rapid can create an urgency to do deals that, as Athwal says, "you may not otherwise do or to grow in a way where cracks are forming in the company."

RealtyShares funded multiple opportunities in pursuit of the rapid growth demanded by its venture partners, which created a difficult model for the company. It moved from single-family debt to commercial equity to broker-dealer.

The third lesson was that finding people interested in the concept of crowdfunding was a lot easier than converting them into active investors, and then managing those investors once they came on board. RealtyShares' model was to create a conduit between investor and developer to remove the burden of investor relations from developers so that they could concentrate on development. The responsibility for investor management, therefore, fell upon RealtyShares to handle.

In the early days, having the individual investors was helpful because the company was able to aggregate them at a time when it didn't have the scale or volume. The deals RealtyShares funded and the volume investors expected were small enough to be able to cover a lot of the early deals. But as the platform scaled and the company started funding much bigger projects, the ability to scale was limited more by the capital base, made up as it was by individual investors, than by anything else.

In the end, the crowdfunding element of RealtvShares' business became a limiter.

"It required us to have to solve two parts of the two sides of the market at the same time," Athwal says, "which made it very difficult for us to create efficiency at a time when efficiency was key."

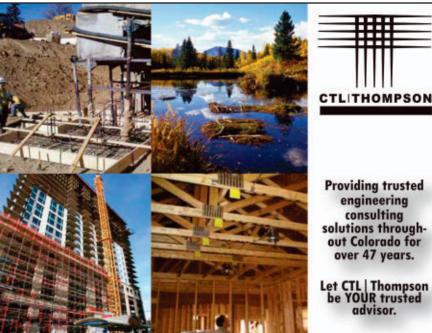
The Aftermath

RealtyShares allowed the capital that its business model relied on to dictate how the company was to be built. Rather than taking a lesson from its own

playbook by providing immediate returns to investors and seeking to generate positive cash flow early on, the company was subjected to the highoctane world of tech startups seeking super-rapid growth. RealtyShares lost sight of the sedate principles that drive prudent real estate investing, where a steady, long-term perspective is the key to longevity and wealth.

Despite what happened to Realty-Shares, the premise that undergirds real estate crowdfunding remains strong. RealtyShares proved that there is a gap in the middle-market real estate finance world that can be filled by individual investors. It is how the business model is built and what capital is utilized that needs to be thought through before entrepreneurs think about building online investment and syndication platforms for commercial real estate.

Adam Gower is the founder of the National Real Estate Forum podcast.



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Water Infrastructure and Adaptive Building Design: An Emerging Opportunity

Public-private partnerships can fund innovative, forward-looking solutions to help fight flooding in coastal cities.

By Kimberly E. Diamond and Paul M. Gelb

Flooding is a critical problem for property owners and developers in coastal areas. The search for solutions has opened the door to innovative approaches involving architects, city planners and investors.

Advanced adaptive architecture and design principles are creating buildings that use — and even benefit from — water flow in coastal cities. These promising technologies have the potential to generate opportunities for public and private investment.

In China, An Innovative Use of Water Flow

The Chinese government is investing heavily in its Sponge City Initiative, a program launched in 2015 that uses urban infrastructure and design projects to reduce flooding from rainwater runoff, increase groundwater absorption and replenish the water supply. According to CNN, the country's goal is to have 80 percent of its urban areas absorb and reuse at least 70 percent of rainwater by 2020.

Nanhui New City (Nanhui), renamed in 2012 from its former name of Lingang New City, is one of 30 Sponge Cities in China. Construction of Nanhui began in 2003. When completed in 2020, the city will have cost the Chinese government \$4.5 billion to build.

This city is a planned "green" community roughly 40 miles from Shanghai, and about 45 percent of the city rests on land reclaimed from the sea. Meinhard von Gerkan, a renowned German architect known for his contemporary designs, masterminded an ingenious



Marklin Ang, Singapore Tourism Board

Singapore's Supertrees have photovoltaic cells that capture sunlight during the day to power lights attached to the tree's branches during the night.

vision for the municipality. It's bursting with state-of-the-art "green" designs for integrating controlled water infiltration into Nanhui's urban landscape. He took inspiration for the city's layout from the image of a single drop of water creating concentric rippling circles — the city is divided into five circular zones with a large artificial lake at its center. The lakefront area includes a district with commercial and leisure facilities.

Different design elements are incorporated into the city's construction to maximize the urban landscape's ability to coexist with the sea and reduce flooding. In contrast to other cities that are impervious urban concrete deserts, Nanhui abounds with major green spaces, including wetlands and bioswales.

Bioswales are the larger cousins of rain gardens. Generally, a bioswale is an area located next to an impervious surface, such as a roadway, parking lot or sidewalk, that is composed of landscaped native plants and grasses that can withstand heavy rainfall. The mulch, well-drained soil and small stones generally found in a bioswale filter water through the roots of the plants so that it gradually seeps into the soil and then finds its way into the water table below the soil. While Nanhui is a city built from scratch in a relatively short amount of time, the architectural and design elements used there could be replicated in other countries and in large coastal cities such as Miami and New Orleans.

In Nanhui, streets are made of permeable pavement — also known as pervious asphalt or porous concrete — that turns the soil underneath into an aquifer for absorbing and storing fresh water.

One of the major benefits of a pervious roadway is that it traps sediment while providing a home for naturally occurring micro-organisms that digest oils from vehicles as well as other pollutants. This allows the contaminants to biodegrade within the pavement, leaving carbon dioxide and water as the remaining byproducts. Similar to a bioswale, this water percolates through the small rocks under the pervious pavement to recharge the groundwater aquifer.

Permeable roadways also reduce installation costs, because there is no longer a need for underground piping, storm drains or grading. Nevertheless, frequent maintenance may be needed to "vacuum" or flush the roadway so that solids and particles do not get trapped and clog the pavement's pores.

The widespread use of bioswales and permeable pavement, together with canals crisscrossing the city to accommodate incoming water, establish Nanhui as a water-resilient city of the future. Indeed, by pairing innovative, environmentally focused infrastructure and building designs, Nanhui has become a model city for the U.S. and elsewhere in terms of using science and engineering to inform waterfriendly architecture and adaptive infrastructure design.

Financing Partnerships

Nanhui hopes to become China's largest Sponge City, and public-private partnerships with international and local entities have helped finance the city's build-out.



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Advanced adaptive architecture and design principles are creating buildings that use and even benefit from — water flow in coastal cities. These promising technologies have the potential to generate opportunities for public and private investment.

According to Urban Transformations based at the University of Oxford in the U.K., the Shanghai Lingang Area Development Authority (SLADA) is responsible for developing Nanhui's master plan, allocating its resources and managing its land. Similar to how a developer engages its subcontractors, SLADA engaged eight major development companies, each having the responsibility to develop a section of Nanhui.

Although all of these development companies belong to the state, they operate like private companies whose purpose is to generate profit. Because these firms are located in China, it is difficult to obtain specific information regarding costs related to roads, power, water, buildings and key sources of renewable energy. However, despite the absence of this information, it is clear that public-private partnerships can play a crucial role in financing and accelerating resilient developments.

While Nanhui shows the potential of communities planned from the ground up, the Chinese model of populating a Sponge City is not viable for existing coastal cities.

Sponge Cities begin as "ghost cities" that are devoid of population while being built. Once construction is completed, the picture changes completely. China intends to "seed populate" these municipalities by locating university campuses — eight in Nanhui's case — as well as government headquarters, bank offices and state-owned companies in them.

By 2016, the universities in Nanhui had attracted approximately 100,000 students. Their presence has spurred economic growth, with various types of businesses opening to meet the burgeoning population's needs. The plan is for Nanhui to eventually support approximately 800,000 residents, and it will be a model for other Chinese cities in need of state-of-the-art water infrastructure design.

While Nanhui is a city built from scratch in a relatively short amount of time, the architectural and design elements used there could be replicated in other countries and in large coastal cities such as Miami and New Orleans. Of course, it would be nearly impossible and quite unrealistic to evacuate those densely populated areas and transform them, but modifying their existing built environments to embrace Nanhui-style adaptive architecture could be done.

Innovative Thinking

Many types of water- and eco-friendly architectural designs already exist. For example, fog catcher nets that collect fresh water from the air for irrigation and drinking are used in one of the driest place in the world, the Atacama Desert in northern Chile. Similar innovations could be a boon for coastal smart cities by making fresh water available from more sources.

Singapore's Gardens by the Bay nature park showcases a futuristic architectural project known as the Supertree Grove. Employing the concept of biomimicry, which Wikipedia defines as "the imitation of the models, systems and elements of nature for the purpose of solving complex human problems," each 25- to 50-meter-tall Supertree has photovoltaic cells that capture sunlight during the day so that lights attached to the tree's branches can illuminate the garden at night. While they don't have roots to trap rainwater, each Supertree is designed to channel water to irrigation systems as well as to fountains in the park. The Supertrees support more than 200 species and varieties of ferns, orchids, vines, bromeliads and tropical flowering climbers.

American architects have also conceptualized forward-looking inventions. One idea involves water-inflatable barriers that rise when higher tides endanger coastal cities. These can be deployed quickly, and they don't require the labor needed to build a levee or fill sandbags. Another innovation is buildings with water systems that fill aquariums throughout multiple floors. The fish in the tanks can be used either as a food source or as décor, with the fish-fertilized water being pumped to the top of the building to nourish plants growing in a rooftop garden.

Putting Water to Work

A combination of innovative design and adaptive architecture, backed by public-private partnerships, can leverage, instead of combat, water-rich environments. Cultivating the ability to use excess water and finding creative ways for city residents to benefit from it will make coastal cities more resilient. Making the urban landscape more permeable alleviates flooding and also is a catalyst to shift mindsets so that residents of coastal cities take a more sustainable approach toward the built environment and their surroundings.

Kimberly E. Diamond is an adjunct professor of energy law at Fordham Law School in New York City and is CEO of Boaz Energy Group LLC. Paul M. Gelb is an attorney in the Los Angeles office of Drinker Biddle & Reath LLP.

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Shipping Innovations Along Inland Waterways Present Opportunities for Developers

Container-on-vessel service along the Mississippi River and into the Midwest could increase demand for distribution facilities.

By Mary Lamie

While slow-moving barges laden with bulk cargo or containers are a familiar sight on the Mississippi River, they could soon be joined by a fleet of innovative ships providing new container-on-vessel (COV) service to the Midwest. As the new COV service picks up speed, it could provide opportunities for commercial real estate developers to build new logistics and distribution centers.

Why COV Matters

COV service is just like it sounds — a waterway vessel stacked with containers. However, unlike the oceangoing ships that carry containers to ports along the U.S. coasts, or traditional barges that move them along the lower

Mississippi, these vessels would be capable of carrying mass quantities of containerized freight on an all-water route, connecting ports in the St. Louis region and elsewhere in the Midwest to the lower Mississippi River — and ultimately to Asia, Europe and other foreign ports.

This new type of vessel is poised to take advantage of greater shipping volumes to Gulf Coast ports in the wake of the 2016 expansion of the Panama Canal. The decade-long, \$5 billion project allows larger ships to pass through the canal. According to the American Association of Port Authorities (AAPA), these newer vessels are up to 1,200 feet long and can carry



Courtesy St. Louis Regional Freightway

Cargo traffic passes the iconic Gateway Arch in St. Louis, which could be a major focus for the new container-on-vessel (COV) service that will ship freight to the Midwest via the Mississippi River.



Mary Lamie

as many as 13,000 containers. That's more than three times the capacity of earlier ships. Since the expansion, the traffic through the Panama Canal has increased from 330 million tons in 2016 to 442 million tons in 2018, according to statistics from the Panama Canal Authority.

American Patriot Holdings LLC (APH) is developing the specialized vessels that will provide COV service. They have patented features enabling high cargo payload and more rapid upriver speeds. APH's Liner vessel will carry up to 2,500 containers at speeds of 13 miles per hour with virtually no wake, making round trips from the mouth of the Mississippi to the St. Louis region possible in 10 days. That's significantly faster than other waterborne options.

"Cargo flows to the lowest cost and most efficient route, so all we had to do was build the lowest-cost, most efficient route," said **Sandy Sanders**, executive director of the Plaquemines Port Harbor and Terminal District (PPHTD), which is located at the mouth of the Mississippi River south of New Orleans. A new gateway terminal *continued on page 40*



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Transportation + Mobility

continued from page 38

is planned for PPHTD that would be part of a hub-and-spoke transportation system for container transport vessel shipments from Plaquemines to Midwest markets, which represent 40 percent of U.S. land area and 15 percent of the nation's gross domestic product.

APH's Hybrid vessels would be a little smaller and more nimble than the Liner ships. They would be able to make direct trips between Plaquemines and Midwest ports along the Mississippi while also connecting with other ports on the tributary rivers, where they could pick up additional freight. APH anticipates existing container-on-barge (COB) services would also support the hub-and-spoke system as feeder vessels. Final engineering and designs are underway for the ships, which recently completed model testing in Germany.

Sal Litrico, CEO for American Patriot Container Transport, a wholly owned subsidiary of APH, notes that the ability to move a critical mass of containerized product significantly faster than COB results in lower land-related transportation costs. Litrico said shippers could potentially save between 30 to 40 percent vs. other intermodal alternatives. With the additional travel time to the Gulf Coast offset by congestion-related delays and longer dwell times at the West Coast ports, this alternate route becomes even more viable for shippers.

A recent study by the Soy Transportation Coalition/Illinois Soy Association (STC/ISA), which represents 13 states and 85 percent of the soy production in the U.S., validates the projected savings. The study, conducted by Informa Economics, evaluated grain exports from the Midwest utilizing the APH/PPHTD all-water route to Asia vs.



River and its tributaries include Kansas City and Chicago.

Source: St. Louis Freightway

intermodal to the West Coast, concluding the all-water routing demonstrated significant savings.

"Our research highlights this innovative approach can provide a cost-effective, fast and secure transportation option to our international customers," said **Mike Steenhoek**, executive director of the STC.

The CRE Angle

The development of the new huband-spoke system would require the build-out of river terminals capable of loading and unloading containers. That could drive demand for logistics and distribution facilities to handle the increased freight moving into and out of the Midwest.

"What do you do with all that cargo, how do you sort it, where do you put it — that's the real issue," **Aaron Ellis**, public affairs director for the AAPA, told Redshift, an online publication that looks at the future of manufacturing, in May 2017. Anthony Johnson, executive vice president and shareholder industrial business unit leader for Clayco, a real estate, architecture, engineering, design-build and construction firm based in Chicago, thinks COV service could provide solid opportunities for the commercial real estate industry.

"The opportunity to bring the COV service to improve the movement of international freight into the St. Louis region is a positive step for the logistics and distribution industries," he said.

PPHTD has Memorandums of Understanding in place with the St. Louis Regional Freightway and various ports in the St. Louis region and throughout the Midwest, as well as an agreement with APH, all aimed at advancing the COV effort. The next step is continuing to line up cargo for the return trips back down the Mississippi River to the Gulf of Mexico.

Mary Lamie is executive director of the St. Louis Regional Freightway.



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The Changing Geography of Health Care Real Estate

Cowork Medical is envisioned as a network of coworking spaces for doctors. The first location is in this medical office building in Chevy Chase, Maryland, just outside of Washington, D.C.



As demand for health care grows, medical tenants are entering new CRE markets and beginning to use older properties in innovative ways.

By Camille Galdes

In the U.S., an aging population is increasing the demand for health care services and putting medical office space in the spotlight. However, today's consumers are not looking for a typical doctor visit; they want accessible, efficient and technologically savvy medical services. To meet the needs as well as the preferences of their patients, health care providers are moving into new types of spaces and using traditional commercial real estate in new ways.

Traditional Medical Office

The health care industry has been growing steadily, even throughout the Great Recession. Medical office space, the commercial real estate property type traditionally occupied by health care services, refers to multilevel office buildings with only medical tenants. According to CoStar, which tracks more than 900 million square feet of medical office space in the 54 largest U.S. metropolitan areas, this segment has been adding new supply twice as fast as overall office space since 2000. While total office inventory grew by 20 percent, medical office grew by 40 percent, and vacancy rates stand around 100 basis points below that of total office (8.7 percent compared to 9.8 percent).

Paul Leonard, managing consultant for CoStar Portfolio Strategy, calls the resiliency of demand for medical office "remarkable."

"Since the turn of the century, we've seen nothing but growth," he says. "Net absorption has not had a negative year for around two decades; it has slowed but never gone negative."

Demographic Forces

A central driver behind growth in health care has been the aging of America's historically large Baby Boomer generation. Born between 1946 and 1964, the Baby Boomers have been entering the 65-and-older population since 2011, an age

A central driver behind growth in health care has been the aging of America's historically large Baby Boomer generation. Born between 1946 and 1964, the Baby Boomers have been entering the 65-and-older population since 2011, an age cohort that tends to have increased medical needs.

cohort that tends to have increased medical needs. Over the past decade, this age group increased from 12.8 percent of the population to 16.1 percent. By 2030, more than a fifth of the population is expected to be over 65 years of age.

According to data from the 2010 Census, after age 64, more than two-thirds of people (66.5 percent) start frequenting the doctor three or more times a year, up from less than half of those aged 46-64 (44.2 percent). Furthermore, longevity has been steadily increasing for a century now, and a debate rages about how much people will be able to extend their lives through advances in science and technology. If futuristic anti-aging efforts are successful, the 65-plus population and its needs will increase.

Not only are the medical needs of the population increasing, but dwindling family sizes are also reducing the size of seniors' safety nets. The total fertility rate (TFR) stood at 3.65 in 1960 during the so-called Baby Boom, meaning there were an estimated 3,500 births per 1.000 women, or approximately 3-4 children per family. However, since 1972, when the Baby Boomers were having children, it has remained below "replacement" level, which is 2.1 or 2,100 births per 1,000 women, or approximately 2 children per family.

Since they bore fewer children than their parents, Boomers are facing a caregiver crunch in their golden years. **Beth Mace**, chief economist and director of outreach at the National Investment Center for Seniors Housing and Care, explains that the ratio of adult children aged 45-64 to one person over 80 stands at 7 to 1 today. It's expected to shrink to 4 to 1 in 2030 and to a mere 3 to 1 by 2050 based on population projections from the U.S. Census Bureau.

With fewer family members to care for them in their old age, Boomers are more likely to rely on private services more than their predecessors. When it comes to living arrangements, Mace believes they will also be more open to senior living establishments than prior generations because of the "hippie/commune" culture they encountered as young people in the 1960s and 1970s and their widespread college attendance.

"They will be more used to institutional settings as opposed to the Greatest Generation, for whom it was more foreign to move into senior housing or institutional settings," she says.

Mace predicts that in addition to senior housing, new types of services and living situations may crop up to serve this population, such as "Golden Girl-type arrangements," with friends taking care of each other.

"As the opportunity to serve this growing cohort becomes more recognized, I expect creative entrepreneurs to pursue other yet-to-beimagined solutions," she says.

Health Care: Market Disruption and Innovation

The growing need for medical care is clear, but what form will it take and what spaces will it occupy? Mark Stapp, executive director of the master of real estate development program at Arizona State University, says that technology, particularly the smartphone, is disrupting the health care market just as it has disrupted other industries. According to Stapp, the Affordable Care Act and the national dialogue about health care that it sparked "converged with the emergence of technology that connects people to services and allows consumers to have more choice, to better control their own lives." He says that patients having access to and control over their own data has enabled the consumer side of the health care market to push the supply side more than ever.

"We are seeing experimental models for how to attract users — market competition is now improving the patient experience," Stapp says.

Just as consumers can use online platforms and smartphone applications to request food delivery or compare household products, they can now complete a number of tasks associated with their medical care electronically. For instance, patients can request medical appointments or records, receive medical results and compare medical services using online platforms. Before arriving for an appointment, they can submit personal information rather than arrive early to fill out paperwork. A critical innovation is the ability for patients to maintain their own medical records, so they can bring them to specialists rather than request a primary care doctor send them — a task which



The Inova Urgent Care center in Vienna, Virginia, is part of a bustling strip mall that includes restaurants and a pharmacy. The building was once a grocery store.

can take a non-trivial amount of time and create costs for patients and providers.

Such advances are already saving substantial time and money for both patients and providers, an important achievement since health care costs continue to outpace the industry's share of U.S. gross domestic product (GDP). According to Marcus and Millichap's 2018 Medical Office Report, per capita costs have exceeded \$10,000 per year since 2016. Health care expenditures are only projected to grow, from 13.3 percent of GDP in 2000 to nearly 20 percent by 2026.

For example, a 2018 study in Health Affairs analyzed the impact of an electronic consultation platform and found that patients who had an eConsult rather than a face-to-face visit saved a monthly average of \$82 in episode-of-care costs per patient. The authors argue that "expanding the use of eConsults...could result in substantial savings while improving access to and timeliness of specialty care and strengthening primary care." Virtual doctor visits are also on the rise; another 2018 study in Health Affairs concluded that expanding what is being called "telemedicine"

may increase access to care and reduce costs.

The Decentralization of Health Care

When the Baby Boomers do start frequenting the doctor's office three or more times a year, it may look different than they're used to, in a good way, Stapp explains.

"Health care providers are competing for patients who expect more efficient service, so they are bringing health care to us, creating places that are accessible and desirable, and emphasizing the quality of experience," he says. To better serve choosier consumers, **providers are increasingly unbundling medical care, peeling off services that were traditionally offered only at large medical complexes** like hospitals and delivering them to consumers in more targeted ways.

To better serve choosier consumers, providers are increasingly unbundling medical care, peeling off services that were traditionally offered only at large medical complexes like hospitals and delivering them to consumers in more targeted ways. Marcus and Millichap reported in 2018 that developers are focusing on "off-campus locations," and medical providers are "[expanding] services into neighborhoods and locations farther away from hospitals and major medical centers."

Health care companies are also facing new market competition. According to **Eric Johnson**, national director for Transwestern's Health care Advisory Services Group, large retailers are getting into the health care game.

"Companies like Amazon and Walmart are looking to provide health care services to patients in more convenient ways and at lower costs," he says. This is all good news for the older adult population. No matter how Baby Boomers decide to live in their later years, by aging in place, living with family or entering age-restricted housing, medical services are likely to be closer to them and more accessible than ever. Specific services like urgentcare clinics, kidney dialysis centers, primary care practices and specialist practices will be positioned in smaller locations in more suburban, mixed-use environments near where Boomers are likely to be living or doing their daily errands.

The New Medical Real Estate: Retail

For health care moving into neighborhoods, what is the commercial

real estate segment of choice? Based on recent data, it appears to be retail space, thanks to its convenience and proximity to target populations.

The portfolio strategy team at CoStar analyzed its medical office and medical tenant data and found that while most medical tenants occupy office properties (70 percent), the next largest category is retail property (18 percent), with the remaining 10 percent occupying industrial and flex or R&D properties. Medical tenants have doubled their presence in retail properties over the past decade. In 2008, only 1.5 percent of retail occupancy was medical, growing to 2.3 percent in 2013 and to 2.9 percent in 2018. Medical tenants in retail properties now represent 150 million square feet of inventory. The share of office properties that are medical also grew from 5.2 percent in 2008 to 7.7 percent in 2018. Therefore, although medical tenants grew in both office and retail sectors, over the same decade they increased their presence in retail space at twice the rate. (See related story on page 21.)

Further, among all medical office tenants, only 13.6 percent leased retail spaces in 2008, while more than a third (33.5 percent) did in 2018. During the past decade, medical tenants have slightly decreased their presence in office properties (73 percent to 69.8 in 2018), as well as their presence in all other property types, such as industrial and flex properties.

The data also support the observation by the development com-

munity that ambulatory care is the type most likely to move into retail space. Medical tenants in retail space fall into five economic subcategories, and health practitioners and health care services — which cover services considered ambulatory care — represent 62.1 percent of all medical tenants in retail properties according to CoStar. Within these two categories, the top industries for medical office in retail properties are dentist offices (18.2 percent); offices of other health care practitioners (17.5 percent); outpatient care centers (9.7 percent) and physician offices (9.3 percent). The remaining categories - hospitals, nursing and residential care, and social assistance - refer primarily to in-patient medical services and social support programs.

Johnson explains that "hospitals will continue to move care outside their four walls to better address an array of primary, ambulatory and community-based care. This will include moving closer to the patient through retail locations, telemedicine and home health." Further, he says that hospital systems are increasingly catering to millennials, who "do research and demand convenience, technology and cost consciousness." He says hospitals are trying to figure out how to best deliver care to this generation, which "wants health care at its fingertips or down the street. Retail properties play into this strategy nicely."

A prime example of this strategy is Duke Health's renovation of a defunct shopping mall in Durham, North Carolina. They are in the process of consolidating outpatient



and primary care services into one 185,000-square-foot space. The new specialty clinic will provide internal medicine, primary care, urgent care, women's health, pediatrics, some orthopedics and cardiac care in one convenient residential location that is highly visible and easily accessible by local highways.

In addition to the convenience of retail locations, health care companies are choosing to move into existing retail space due to its usually ample parking, according to the transportation consulting firm Wells + Associates. Patients need to be able to park in close proximity to medical services, since they may not be able to walk far. Retail space also enables medical providers to open under tighter timelines and with less commitment than new construction.

Further, vacant parking lots associated with underutilized retail space

present development opportunities in themselves. Unused parking surrounding mall properties can be converted to pad site development relatively quickly when compared to greenfield development.

The movement of health care into retail space is symbolically fitting, since in many ways the industry wants to create a relationship with customers similar to that of retail. As Johnson explains, "We will continue to see health care take lessons from the retail and hospitality sectors with regards to the patient experience. Providers will create faster, much less expensive delivery models that will result in a better overall patient experience, but mostly at the outpatient level."

Coworking for Doctors Comes into Focus

Today, more physicians are being employed by health care organizations rather than setting up their own independent practices, a trend in primary care that may begin affecting real estate. Opening a practice comes with considerable startup costs, and many younger doctors cannot afford them given the high cost of medical school and associated student debt. The Physician Foundation reports in its 2018 survey of physicians that while 48.5 percent of doctors maintained an independent practice in 2008, only 31 percent do today. For those who wish to stay in private practice, it can be daunting to build out a space before establishing a steady patient base.

To address this situation, physician **Reza Mirali** and his partner **Reza Shahabadi**, a commercial real estate professional, have launched Cowork Medical (coworkmedical. org), a network of coworking spaces specially outfitted for primary care. Its inaugural location, in Chevy Chase, Maryland, a high-income To support high-quality primary care that serves both doctors and patients well, Cowork Medical is trying to make private practice feasible again. In addition to providing the flexible office space, the group is providing wrap-around administrative support services like practice management, professional accounting and legal services to doctors who lease with them.

suburb of Washington, D.C., is in a traditional medical office building and provides Class A consultation, exam and procedure rooms. By taking on the challenges of office buildout, Cowork Medical enables doctors to practice in a location they could not afford on their own, and with more square footage (1,500) than they could carry on their own. As a member of Cowork Medical, a doctor simply puts his or her name on a directory in the main lobby and, when seeing patients, uses an app to sign up for a private exam or procedure room within the space.

Mirali says working for a health care company rather than oneself puts pressure on doctors to spend too little time with patients, an outcome that both erodes the quality of care and drives doctors away.

"Doctors are rewarded by relative value units (a measure of value used in the Medicare reimbursement formula) that don't necessarily capture quality of care," he says. "When I have to see 40 patients in a day or my salary is being cut, I'm not going to be doing as good a job because I'm talking to patients for five to 10 minutes rather than 20-30 minutes."

Especially given that there is a serious physician shortage on the horizon, according to the Association of American Medical Colleges, these disincentives to entering primary care should be addressed. Further, Mirali believes that this model is contributing to the rising costs of health care.

"You would think that conglomerates would have economies of scale that help lower costs, but they don't," Mirali says.

To support high-quality primary care that serves both doctors and patients well, Cowork Medical is trying to make private practice feasible again. In addition to providing the flexible office space, the group is providing wrap-around administrative support services like practice management, professional accounting and legal services to doctors who lease with them. This new way of structuring medical space not only takes the risk out of setting up an office, but it also allows doctors to craft their own schedules and workloads. Doctors can lease only what they need as they build up a patient base without the pressure of a large mortgage or rent payment each month.

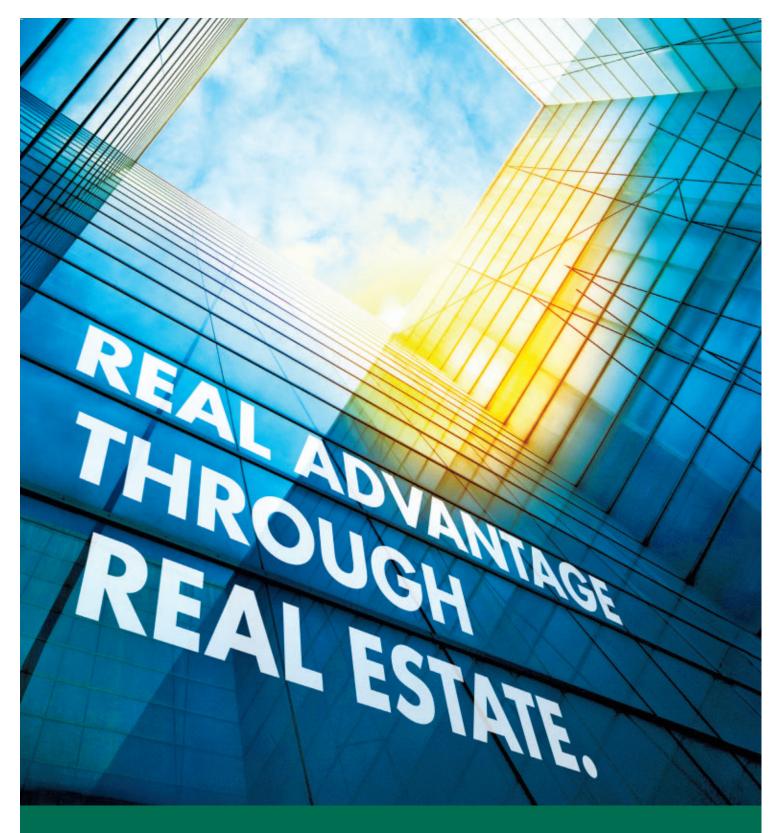
"We are not the first coworking model, but the most comprehensive. What distinguishes us is that we're not only a space — we also provide the management, and we're going to provide the resources doctors need as their practices grow," says Mirali.

Medical Space: The Next Creative Opportunity in CRE

The steady growth of health care is drawing more developers and service providers into the industry. But in order to be successful, they must understand the complexities underlying the strong demand for medical services. An aging population coupled with fewer people to take care of them is driving demand for a host of medical services and senior-living support structures. However, Americans are simultaneously expecting convenient, efficient service that they can access through online platforms and smartphone applications. Retail locations are increasingly being used as the CRE of choice for ambulatory care, but governmental restrictions, like zoning rules, may still be an impediment to health care entering the spaces consumers would like to frequent.

Although health care services are cropping up in smaller, more convenient locations, providers continue to be large health care companies rather than independent practitioners, which may not produce the value that consumers expect or the experience doctors desire. As the Boomers age in the coming decades, there are opportunities for creative solutions, such as coworking for doctors, to emerge and provide yet more options to patients. The health care real estate market will reward not only developers who invest in the growing medical office market but also those who innovate and find new ways to support medical services that are efficient and accessible for both consumers and providers.

Camille Galdes is an urban policy writer and researcher in the Washington, D.C., area.



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Lower Parking Minimums Mean Higher Value for



With parking minimums eliminated in the future, streets will be open, and mobility hubs such as the one shown in this artist's rendering will move traffic off the active roadway quickly using shared parking logistics lanes.

Parking Spaces



National Parking Association

Right-sizing parking can save money, lead to less congestion and create alternative land uses.

By Christine Banning, IOM, CAE, National Parking Association

Many cities and municipalities have parking regulations that don't right-size parking land use. Current parking codes and minimum requirements are an outdated concept that drive up real estate costs and shift the supply curve. Parking minimums cost developers money and take up land that could otherwise be used for public, retail or residential use. That limits the ability of cities to create and maintain vibrant communities.

Traditionally, municipalities have not allowed the cost burdens placed on developers to sway parking policy. However, more cities are learning how regulations that encourage driving are major contributors to traffic congestion. Easing gridlock has become a motivator for policymakers, and it's an issue that developers can get behind to increase the value of their commercial parking assets.

In the recently released report "An Ecosystem Approach to Reducing Congestion," Pricewaterhouse-Coopers, LLC (PwC) states that "although its congestion-fighting potential hasn't always been recognized, parking is important to the smooth functioning of a city's transportation ecosystem."

The report predicts that the reduction or elimination of parking minimums will promote development, spur urban renewal and drive more affordable real estate projects that will increase livability in U.S. cities. As the demand for mixed-use properties in walkable locations grows, jurisdictions should seek to adjust parking requirements in proportion.

Market Demand Drives Policy at the Curb

According to the PwC report, 85 percent of commuters drive to work, a trend that has remained steady for nearly 40 years. Americans are not ready to fully embrace rideshare, HOV and new forms of mobility (e.g. scooters, bike shares) as majority modes of transit.

There is a finite supply of real estate, roadways and parking in urban centers. The challenge for policymakers, planners and developers is to envision infrastructure systems that optimize the street for traffic flow. How the curb is used and how Parking minimums cost developers money and take up land that could otherwise be used for public, retail or residential use. That limits the ability of cities to create and maintain vibrant communities.

parking is priced on streets are crucial analyses. PwC notes that when there isn't the right type or amount of parking, or its prices aren't appropriately set on the street, drivers have more incentive to circle, cars clog streets looking for elusive spaces, and delivery trucks, taxis and ridesharing vehicles block the curb.

Off-street parking is an effective tool to get cars off the street, and it must be used to clear active roadways. Getting cars off the curb and into garages is a win-win for cities and developers. There are two approaches cities can take:

Repurpose or reprice on-street parking. Market prices will encourage parking spaces to turn over more frequently during peak periods. Cities will also increase revenue, which can be reinvested in the transportation system. Additionally, spaces can be repurposed for ride-hail pick-ups or drop-offs, or dedicated bus or bike lanes.

Reduce or eliminate parking minimums. Allow market demand to determine the appropriate supply of parking. This will reduce the cost of development and result in a better balance of parking supply and expected demand for the specific real estate application.

Cities in Action

The good news is that many cities have adopted these practices and amended their policies to better manage congestion. Some have even recognized the need to fully eliminate parking minimums.

In 2017, Hartford, Connecticut, became the first city in the U.S. to eliminate parking minimums citywide, leaving all parking supply decisions in the hands of developers, homeowners or business owners. According to the non-profit planning advocacy group Strong Towns, the transition happened over time — first in the downtown core, then citywide. After using the downtown as a test pilot and seeing how property owners benefited and development flourished, Hartford's Planning & Zoning Commission unanimously passed the citywide ordinance a year later.

San Francisco recently made headlines after the Board of Supervisors voted to eliminate parking minimums citywide, making it the first major metropolitan city in the U.S. to do so. Previously, the city participated in a two-year pilot program for a demand-based pricing system that used networked parking meters. San Francisco also worked with Sidewalk Labs (a



Mobility hubs lend themselves to future adaptive facility design. This will include designated cashless ticket lanes, enhanced wayfinding navigation and advanced reservations to find parking spaces quickly. They will also feature amenity services and retail.

subsidiary of Alphabet, the parent company of Google) on a curb visualization tool that mapped out all of the city's parking codes and rules. The pilot program aimed to help mitigate chaos at the curb and clarify enforcement for residents, delivery drivers, tourists and ridehail operators.

Other cities have started to set parking prices based on demand.

For example, Los Angeles launched Express Park, a program that fuses sensor-based technology with realtime updates to adjust parking rates to meet changing demand. The program aims to make traveling and parking in downtown Los Angeles easier by freeing up more parking. The system's target is to keep occupancy rates between 70 and 90 percent. There is a finite supply of real estate, roadways and parking in urban centers. **The challenge** for policymakers, planners and developers is **to envision infrastructure systems that optimize the street for traffic flow.**

Washington, D.C., has begun modeling demand-based pricing and sensors throughout the city to improve parking availability. Funded by a \$1 million grant, the program installed sensors and mobile cameras targeting 1,000 parking meters in the Chinatown and Penn Quarter neighborhoods. The District of Columbia Department of Transportation estimates that circling for parking accounts for 25 to 30 percent of congestion in Washington.

Pittsburgh's ParkPGH is a smart parking solution that uses realtime data to provide drivers with spot availability. It was developed by the Pittsburgh Cultural Trust, a non-profit arts organization, in 2010. Parking inventory is updated every 30 seconds, and drivers can see available areas on a color-coded map online or on a mobile app. A unique solution from a pricing standpoint comes from Aspen, Colorado. The city teamed up with the software company Smarking to do a real-time assessment of its seasonal parking demand. The data showed that the city was not optimizing its parking prices at the correct times. After elongating peak-season pricing and implementing variable time-of-day pricing, Aspen decreased peak occupancy by 12.5 percent, increased parking revenue by 26 percent and increased tax revenues by 20 percent.

Technology Supports Parking Policy

To obtain maximum benefits, developers and operators should provide off-street smart parking technologies to complement cities' new approaches. In order to facilitate easy egress/ingress into parking garages, enhanced wayfinding and availability tools are needed. These can make payments easier, improve navigation and make prices more transparent.

- Monitoring parking stall availability: Using sensors on each stall, parking facilities can determine available stalls, which will allow customers to easily locate available parking and decrease circling in facilities.
- Broadcasting parking availability and prices: Using demandbased pricing, facilities can broadcast parking prices in real time, based on time of day and demand. Broadcasting can be done via large dynamic screens at entrances and in the future

An "ecosystem planning" approach with citizens at the center helps ensure that one mode of transportation isn't favored. **Therefore, a transportation ecosystem is multimodal and supports consumer choice with many options.**

via vehicle-to-infrastructure (V2I) technology. (According to the U.S. Department of Transportation, V2I technologies "capture vehiclegenerated traffic data, wirelessly providing information such as advisories from the infrastructure to the vehicle that inform the driver of safety, mobility, or environmentrelated conditions.") Broadcasting availability and price allows vehicles to get off the street faster by taking the guesswork out of finding the best deal.

- Advanced navigation: Superior wayfinding, whether through signage or smartphone apps, provides alternative routes to parking locations based on price, distance and consumer preferences. Advanced navigation is currently used in many mobile GPS and parking apps such as SpotHero. These apps allow customers to reserve parking stalls ahead of their trip, ensuring a no-hassle experience.
- Frictionless payment technologies: Parking access and revenue control systems (PARCS) have long been the standard gatekeepers for parking facilities, controlling who enters and exits and how they pay. PARCS are transforming to allow for digital,

frictionless garage access and payment processing. Types of frictionless payment technologies include license plate scanning and recognition, automated mobile payments and mobile app integration.

Mobility Hubs and Citizen-Centered Cities of the Future

While cities work to fix parking policy today, it is important to consider the future of parking as it relates to congestion and the creation of livable cities.

An ecosystem planning approach with citizens at the center helps ensure that one mode of transportation isn't favored. Therefore, a transportation ecosystem is multimodal and supports consumer choice with many options.

The PwC report predicts that parking lots will transform into mobility hubs for many types of parking, from cars to bikes and scooters. They'll also become holding areas for package delivery and mobile storage units. Additionally, they will also provide car washes, vehicle repair and maintenance, dry cleaning delivery and other amenities in a frictionless payment environment.

Parking will evolve to offer microparking in minute increments,

Why Congestion Won't Get Better Anytime Soon

According to "An Ecosystem Approach to Reducing Congestion," a new study from PwC, the cost of traffic congestion in the U.S. is \$230 billion to \$300 billion each year. This includes direct costs such as lost time and indirect costs such as higher prices for goods and services. In 2017, the average person spent 41 hours in congestion, an increase of 8 percent over 2010. Here are six factors that are likely to make congestion worse in the future:

- **1. Economic conditions.** Vehicle miles traveled (VMT) is directly correlated to economic growth. VMT is expected to grow by 14 percent from 2017 to 2030, driven by an expected increase in gross domestic product (GDP).
- **2. Urbanization.** The U.S. population is growing and shifting from rural to urban. Eighty-one percent of the population lived in urban areas in 2010, and that is expected to rise to 85 percent by 2030.
- **3. Transportation network company (TNC) growth.** Ride-hailing has grown substantially and is shifting demand from public transit, which is putting more cars on the street and contributing to congestion at the curb.
- **4. E-commerce growth.** Deliveries are increasing, and they're not reducing private-vehicle use (such as driving to shopping malls) as much as was once expected.
- **5. Infrastructure underinvestment.** U.S. public infrastructure was awarded a grade of D+ by the American Society of Civil Engineers and requires significant investment to be on par with that of other developed nations.
- **6. Policy and program development.** Current policies and programs such as high-occupancy vehicle (HOV) and bus-only lanes have had mixed success in reducing congestion, with many leading to unintended consequences that can actually increase congestion.

short-term parking, and car share/ car lease pick-up and drop-off points at buildings in central business districts (CBDs).

With mobility hubs employing a "park once" philosophy, commuters can drive into a city, park one time and use shared mobility services to move around for short trips. Mobility hubs across city blocks or within CBD offices will feature retail, parking, drop-off zones and transfer points to use car share, rideshare or bike share, as well as public transportation. According to PwC, the concept is being embraced in San Diego, where the regional planning association San Diego Association of Governments (SANDAG) has developed a mobility hub strategy to address increasing population and congestion. SANDAG identified eight areas in the region where mobility hub prototypes will be created. Each will be located in areas with unique demographics and infrastructure and will include custom features to maximize effectiveness.

According to SANDAG, the mobility

hub prototypes will provide services such as bike share, car share, neighborhood electric vehicles, bike parking, dynamic parking management strategies, real-time traveler information, real-time ridesharing and micro-transit services, among others. Development of the sites will begin this year. The goal is to offer a number of services within a five-minute walk, bike ride or drive of the transit center.

Smart Parking for Smart Cities

Parking has the ability to reduce congestion to create livable cities. Right-sizing parking policy is the first step. Fewer parking regulations and requirements at the municipal level mean more opportunity for developers and garage operators. Mobility hubs will transform the way citizens move in and around cities, and smart parking technology provides a new value proposition for operators.

Parking is poised for growth and has a bright future as a valuable commodity for asset owners. In the new era of smart cities, rethinking parking is a smart business decision for developers.

Christine Banning, IOM, CAE is the president of the National Parking Association.

A Silver Linings Playbook

Public meetings can help inform the community about a development project, and they can also provide an opportunity to build goodwill.

Getty In

for Controversial Development Projects

Turning public conflict into corporate goodwill requires thoughtful strategies and genuine concern for the local community.

By Patrick Slevin

Who would want to oppose a new hospital, emergency room or medical complex?

Of all the types of real estate developments, medical facilities would seem to be the least likely to experience public opposition and political crisis. After all, hospitals and free-standing emergency rooms create high-paying jobs, attract physicians and nurses, generate tax revenue and improve the quality of life in the community. Yet some new hospitals and ERs cannot escape the costly process of community opposition.

For the most part, when medical projects experience opposition, it comes from competitors looking to protect their market share. However, there are a significant number of hospital projects strongly opposed by local citizens. It seems there are a growing number of media reports about local "hospital wars" — not just those launched by competitors, but also those brought on by local citizens. The latter often claim new hospitals increase traffic, depreciate property values, create water

runoff, and even elevate noise pollution with helicopters transporting patients for emergency treatment.

A recent Google search of the terms "Hospital" and "Opposition" produced more than 69 million links, many of them media accounts of communities attempting to stop hospital developments. The stories reveal patterns of crisis, not just in the health care development industry, but across every area of land use development. As the recent example of Amazon abandoning its headquarters in New York City in the face of huge opposition shows, being aware of this fact and knowing how it manifests is key to successfully generating corporate goodwill for projects facing more public scrutiny than usual.

Why Do People Oppose Development?

Benjamin Franklin coined the term about death and taxes being the only certainties in life. He neglected to add a third certainty, and that's *change*. As a constant force, change is often wrapped in uncertainty, which leads to emotionally charged anxieties. These anxieties can fuel the fear of change.

Developers introducing new landuse projects can unknowingly trigger a fear in people to maintain the status quo. "The devil you know" mindset can appear more desirable than embracing change. Moreover, when change is perceived as a loss equal to or greater than any proposed gain, citizens fall into a state of "loss aversion" that instigates and sustains community resistance.

In a 2018 Psychology Today article, Shahram Heshmat of the University of Illinois at Springfield noted that "loss aversion is an important aspect of everyday economic life. The idea suggests that people tend to stick with what they have unless there is a good reason to switch. The loss aversion is a reflection of a general bias in human psychology (status quo bias) that makes people resistant to change. So when we think about change, we focus more on what we might lose rather than on what we might get." When it comes to turning public conflict into corporate goodwill, it's important to know what motivates a community. In the case of controversial developments, understanding why people oppose projects and how they effectively defeat them is part of breaking the pattern of crisis.

It's important to note that not all opposition is unjustified or fueled purely by anti-development sentiments. A 2004 study from the NAIOP Research Foundation entitled "This Land is My Land ... But It Could Be Our Land: Developing Influencer Relationships to Accelerate Development Success," which was based on interviews with real estate developers and influencers from outside the commercial real estate industry, found that "diminishing open space is alarming people into action, as is the perceived poor track record of community planning and zoning in many areas." Additionally, the study noted that many groups "don't trust government agencies or planning boards to make what they feel are the right decisions for their communities."

In the context of land development and loss aversion, people can visualize and physically experience the pain of losing what they have more than they can see the benefits gained from a new hospital or medical practice. So when a few activists begin to speak out against a project via the digital grapevine, it can stoke the fears of residents. When enough citizens fear change, the press and elected officials begin taking notice, and projects find themselves in the crosshairs of public conflict.

Therefore, when something as logical as a new hospital offers the promise of good jobs, better quality of life and other improvements, the



It's important for developers to really listen to the community when planning a big project. However, that doesn't mean acquiescing to every request.

project can still be exposed to the risk of demonization by emotional fears of loss. Confrontation then becomes almost inevitable.

Dealing With Conflict

When it came to battle, Napoleon famously said that he preferred engaging the same adversary over and over, because he would become familiar with their tactics and use that knowledge against them. In the case of real estate development, those who are opposed to a project can have the upper hand, much like Napoleon, in exploiting developers' rigid, often predictable business practices.

On the internet, it's easy to find "how-to" advice for defeating developers. For example, a search for "how to defeat developers" turns up a June 2017 news story from the Charlotte Observer entitled "Neighborhood Organizers Offer Tips for Fighting Development: 5 Tips from Pros in the Trenches." (Sample quote: "City Council doesn't like (people) to show up to an ugly zoning meeting with a lot of 'no' signs.") An internet search for "how to oppose development" brings up 67 million hits. These links offer tactics for concerned audiences facing change and fear.

Historically, developers have often been defined by community activists (and a frequently willing news media) as Goliath poised to be slain by David at City Hall. Even when developers have successfully fought for their projects and won the license to operate, their reputations are often left bloodied and bruised.

"I find there is a tendency for antideveloper leaders in the community to speak louder, more often, and with cooler heads than developers," said a professor who took part in NAIOP's "This Land is My Land ... But It Could Be Our Land" study. "The anti-development caucus in the community may represent a minority, but they can dominate the debate."

In the digital age, opponents have even more avenues to attack future investments, so while one development battle can be won, the war for future approvals can still be lost.

Development opposition frequently relies on confrontation. It's no coincidence that the David vs. Goliath story template is replayed in thousands of media reports every year. Oppositional groups cannot exist without the confrontation and conflict that stokes political crisis. Therefore, an applicant operating under an "us vs. them" attitude unknowingly plays into the hands of those who wish to stoke conflict.

To turn public conflict into corporate goodwill, land-use profession-

Best Practices for Developers

What do developers do really well — and what do they do that annoys influencers? A study from the **NAIOP Research Foundation**, "This Land is My Land ... But It Could Be Our Land: Developing Influencer Relationships to Accelerate Development Success," lays out best practices for developers:

- **Don't assume stakeholders are enemies.** Prejudging others is one of the biggest obstacles to effective listening, yet it's common, especially when there is a history of adversarial relationships.
- Listen really listen. Listening does not mean accommodating every request. It does, however, mean acknowledging concerns, respecting them as valid and showing how accommodations can be made. If accommodations can't be made, patiently explain why.
- Understand and respect emotions. Many projects are opposed due to emotional issues, which can't be addressed by data points. Listen in order to uncover what's behind the emotion, and then address those root causes in a way that respects the feelings of the community.
- Flip your thinking: what's in it for them and you? Planning boards and other stakeholders want a balanced perspective on the economic, social and environmental impacts of development. Thus, emphasize more than the financial benefits. Focusing on relationships helps build common ground.
- Use one point-of-contact. Have one spokesperson work with all the stakeholders. This builds consistency of communications and understanding of issues for stakeholder groups. Never have outside consultants be the "face" of the project.
- Prepare to wear many hats coalition builder, communications expert, educator and psychologist. Both developers and influencers agree that successful developers need to be competent in areas far beyond financing, planning and technical issues. Specifically, developers need the listening, understanding and empathy skills of a good psychologist.

process to antagonize public officials and put them under political pressure and duress. It doesn't help if it's an election year.

There's No Crisis If There's No Conflict

Land-use professionals have often been given poor advice when it comes to dealing with their opposition. This includes traditional political campaign tactics that are predicated on the polarization and wedging of audiences. Operatives predictably proffer grassroots, direct mail, paid media, PR campaigns and coalition endeavors. These engagements might be necessary or useful, but frequently applicants are left to engage the community in a patchwork effort that unknowingly contributes to conflict. In other words, they are involuntarily working against themselves.

While it's often helpful for developers to host informational meetings before launching a project, the dynamic can change when the opposition creates a confrontational situation. Elected officials frequently get spooked and pressure applicants to host a town hall meeting. Confrontations during town hall meetings can embolden the pattern of crisis. That needs to change, but how?

What Not to Do

The first rule in crisis management is not to make a bad situation worse. So a developer should do

als must resist the tendency to put themselves in a combative public posture with the opposition. This approach is counterintuitive for many in the industry, but exhibiting non-confrontational actions will effectively take the wind out of the sails of the opposition. While it can be useful for developers to host informational sessions with the community before any formal votes on a project, it's important that they gain awareness about the noticeand-hearing process.

How the Notice-and-Hearing Process Works

The key to turning public conflict into corporate goodwill begins with developers realizing that the opposition doesn't exist without public anxieties to sustain them. In order to propagate public conflict and fears, some of those who are opposed to a project take advantage of the notice-and-hearing system and its flaws.

The notice-and-hearings process is not always handled in a logical and orderly manner. While most approvals run smoothly, if a real estate project becomes controversial, the process can become politically and emotionally chaotic.

One of the main reasons for the notice-and-hearing system is to facilitate public participation and education. In many cases, it does the exact opposite. The notice-andhearing process can spark rumors and create perceptions of favoritism to deep-pocketed developers. That, in turn, can empower opponents who are highly adept at exploiting the proceedings.

While most citizens who attend public hearings are airing legitimate concerns in good faith, some opponents hijack the notice-and-hearing the unexpected: Resist the urge to accommodate elected officials worried about re-election and don't embolden the media, which too often thrives on conflict. Take a deep breath and step back from potential confrontational situations. Doing this can give a developer time to regroup and determine next steps without exhibiting a defensive public posture.

After the initial news cycle or two, the intensity of the attacks will often decrease. Not participating in the confrontation helps the crisis begin to die down.

When it comes to highly contentious projects, don't engage the opposition in a public forum — at least while the crisis is still fresh in the minds of stakeholders. In many of these tense situations, town hall-type meetings can turn into circuses where opponents disrupt the proceedings and generate more negative publicity.

Don't appear to be strong-arming or insulting the elected officials' constituents. Make sure quotes and comments are constructive, sensitive and optimistic about the project. Staying above the fray as much as possible cultivates corporate and community goodwill.

Don't fall for the allure of making too many concessions as a means of climbing out of the crisis. In many cases, the more concessions offered, the more concessions the opposition will demand.

Don't have a bunker mentality during the crisis. Most developers either stick their necks out to overaccommodate the opposition or they go to the other extreme by keeping a very low profile. When developers keep too low of a profile, it alienates community leaders and influencers who remain supportive of the project. This is very important, because these are the people who have the ears of the elected officials. Developers should keep them informed and empowered, even when it gets ugly.

A Few Things to Do

Do engage media, but don't do it alone. It's one thing when the developer presents the facts about the project, but it's another when community leaders advocate for it. In a crisis, it's not what is said, but who says it, so enhance the credibility of the project with third-party influencers from the community who support the developer's goals.

To cultivate influencers, do have one-on-one meetings with them in the community before and during the crisis. These influencers can be current or past leaders of business, civic and residential organizations.

Do speak before membership groups. Reach out to realtor boards, homebuilder groups and other membership-driven organizations. They can provide valuable feedback and help craft strategies.

Do increase the visibility of the project by establishing a dedicated website and using social media platforms such as Facebook and YouTube. Social media presence encourages transparency and participation while dispelling negative perceptions about the project. Do transform the rational arguments for approving the project into an emotionally appealing, humanized narrative. It's easier for elected officials to reject sustainable real estate projects that seem to only benefit the developers, but it's harder for them to reject the project knowing citizens will be adversely affected.

Fostering Goodwill

In today's digital age, anti-development groups can quickly set in motion a pattern of crisis that delays, disrupts and potentially defeats any development, leading to significant losses of investment capital, shareholder value and revenue. However, it's possible for land-use professionals to cultivate corporate goodwill for their projects confidently. As this happens, the crisis is not only diffused, but arbitrary attacks are marginalized.

Developers no longer have to fight their way out of a crisis. Now, land use professionals can immediately begin breaking down the patterns of crisis using a thoughtful and non-combative posture that will foster enduring goodwill for their companies, their clients and their communities.

Patrick Slevin, a former Florida mayor, is a corporate consultant, speaker and trainer who heads SL7 Consulting, an integrated communications and stakeholder engagement firm. This article was derived from his presentation "Crisis Leadership: How to Turn Controversial Land Development into Your Finest Hour."

Get the Report

To download a copy of the NAIOP Research Foundation's report "This Land is My Land... But It Could Be Our Land: Developing Influencer Relationships to Accelerate Development Success," follow this link:

www.naiop.org/19influencer



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NAIOP RESEARCH FOUNDATION

Cutting-edge Research That Has an Impact

2019 ANNUAL REPORT

Through the development and dissemination of cuttingedge research and outreach activities, the NAIOP Research Foundation plays a vital role in helping the industry stay competitive by identifying best development practices, future opportunities and strategies.

Everyone involved in the work of the Foundation is a member of a community that is shaped by commercial real estate development. It is this sense of purpose, ownership, trust and giving back that drives the Foundation's work.

This annual report highlights some of the Foundation's activities in 2018, with an eye to the relevent research, activities and deep dives to come in 2019 and beyond.

To learn more, visit naiop.org/research.

The Latest in Innovative Research

Economic Impacts of Commercial Real Estate — U.S. and Canada

Development and construction of commercial real estate across North America — office, industrial, warehouse and retail — generates significant economic growth at the city, state, national and provincial levels. These studies measure the contribution to GDP, salaries and wages generated, jobs supported and more from the development and operations of commercial real estate in the U.S. and Canada. NAIOP has conducted this study for the U.S. annually since 2008, and a new biennial report for Canada was published in 2019.



- In the U.S. in 2018, commercial real estate development and operation of existing buildings generated the following economic benefits:
 - Contributed \$600.8 billion to U.S. GDP
 - Supported 4 million American jobs (a measure of both new and existing jobs)
 - Generated \$192.70 billion in personal earnings

This annual report also includes data by state. View the full report at naiop.org/contributions2019.







"Change won't slow down — it is speeding up. The Foundation is getting out ahead of what is going on today and how that will impact CRE. Having a disciplined look at what's going on now and in the future is really beneficial to all of us."

- Eva Stevens, Former President and COO, United Properties

In 2017, commercial real estate development in Canada:

- Contributed \$40.2 billion to GDP
- Supported nearly 420,000 jobs (a measure of both new and existing jobs)
- Generated \$10.1 billion in government revenues
- Generated \$25.2 billion in ۰ labour income

This biennial report also includes data by selected provinces and for six major cities. View the full report at naiop.org/canadiancontributions2018.



Beacons and Sensors in Commercial Real Estate

This brief provides an overview of some of the ways that tiny, affordable and ubiquitous sensors are being used in commercial real estate settings. It addresses radiofrequency identification, geofencing, beacon technology, and WELL™ and RESET™ technologies, and it concludes with the broader challenges associated with using networked digital data-collection systems.

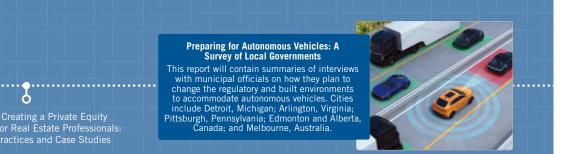
Visit naiop.org/beaconssensors to view the full report.



The Office Property and Big **Data Puzzle: Putting the Pieces Together**

The use of big data offers great potential, but also presents challenges. This white paper seeks to define big data and to identify some of the obstacles and opportunities associated with it in the context of managing office properties. It includes a general overview of the topic as well as examples of how property managers are collecting and analyzing data within their office properties.

Visit naiop.org/bigdata to view the full report.



New Report: Creating a Private Equity Fund, A Guide for Real Estate Professionals: Steps, Best Practices and Case Studies

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Visionary Mentorship Program

The Visionaries program was created in 2017 to better engage industry professionals age 40 and under in the work of the Foundation. It provides a select group of the industry's rising leaders an opportunity to engage with the Research Foundation and the Governors in a meaningful way. The mentoring component of the Visionaries program provides an opportunity for these exemplary professionals to gain industry and career development insight from Governor mentors. It also allows Governors to give back to both NAIOP and the mentee. The sessions provide a great opportunity for mentors to hear how rising stars see the future of the commercial real estate industry.







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Philip Down Vice President, Bentall Kennedy



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Innovation in East Asia: Industrial and Office CRE Tour

An educational trip to Hong Kong, Shenzhen and Tokyo is being planned for the NAIOP Research Foundation Governors and their guests. Governors will visit state-of-the-art commercial real estate projects, including office and multilevel industrial, hear from developers, learn about how business is conducted in Asia, and tour cultural venues of interest.



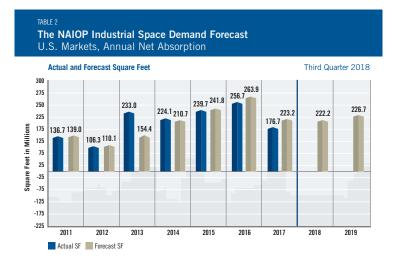


Industrial and Office Space Demand Forecasts

These forecasts provide an efficient, accurate outlook on current and future conditions in the U.S. commercial real estate market. The reports help to define linkages between economic and specific sector activity and the demand for office and industrial real estate.

The Industrial Space Demand Forecast has been exceptionally accurate when comparing actual vs. forecasted net absorption. (See Table 2)

Visit naiop.org/industrialdemand to view the methodology behind the report and semiannual forecasts.





"For an industry as important as ours, you need a group that not only addresses immediate trends, but puts strategic thought into issues coming down the pike five or 10 years from now."

- Nino Pedrelli, Principal, State Street Realty Advisors

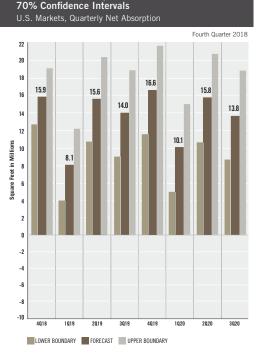


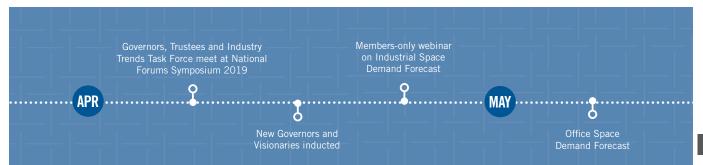
The most recent Office Space Demand Forecast (Q4 2018) predicted a resurgence in office leasing due to breakout economic growth and the subsequent demand brought about by jobs created in the office-using sectors. (See Table 1)

Visit naiop.org/officedemand to view the methodology behind the report and semiannual forecasts.

The NAIOP Office Space Demand Forecast with

TABLE 1







The Dynamic Role of Distinguished Fellows

The Distinguished Fellows program, supported by the NAIOP Research Foundation, engages North America's foremost experts in commercial real estate, economic and public policy, helping to create a link between research and practice by allowing academics and industry leaders to exchange ideas.

In 2018 there were 13 Distinguished Fellows representing universities in the U.S. and Canada. The following are highlights of some of the Distinguished Fellows' activities with NAIOP over the past year.

Jan deRoos, Ph.D., Cornell University, and Shaun Bond, Ph.D., University of Cincinnati, are writing a paper based on their two-part article for Development magazine, "How to Set Up a Private Equity Fund." The title of the report is "Creating a Private Equity Fund, A Guide for Real Estate Professionals: Steps, Best Practices and Case Studies." It is scheduled for release in March 2019.

David Dale-Johnson, Ph.D., University of Alberta, taught a NAIOP Investment Analysis Course in Edmonton in March 2018 and has been working with NAIOP Edmonton to establish a mentorship program with Developing Leaders and students in the University of Alberta's real estate program.

Mark Eppli, Ph.D., University of Wisconsin-Madison, interviewed Gary Anderson, Prologis' CEO for Europe and Asia, for the keynote at NAIOP's I.CON '18: The Industrial Conference (**pictured above**). Eppli was also the sole presenter at NAIOP Chicago's 2018 Forecast meeting, and he spoke at the NAIOP Wisconsin meeting, "Bulls or Bubbles: What's Next for the Industry?"

Josh Harris, Ph.D., New York University, spoke to several groups at NAIOP National Forums Symposium 2018 and continues to co-author the NAIOP Industrial Space Demand Forecast and NAIOP Office Space Demand Forecast.

Vivek Sah, Ph.D., University of Las Vegas, coordinated a partnership between NAIOP Southern Nevada and the LIED Institute for Real Estate Studies at the University of Nevada, Las Vegas, to host the annual Commercial Real Estate Summit in January 2019 in Las Vegas.

Learn more about the Distinguished Fellows program at naiop.org/research.



www.naiop.org

Ways to Support the NAIOP Research Foundation

There are a number of ways that your financial support can help to underwrite the important work of the Research Foundation, including special occasion giving, memorial gifts, planned gifts and annual donations.

Memorial Gifts

Tribute gifts support the mission of the Research Foundation and allow individuals, groups and organizations to make memorial gifts to remember someone who has passed away, honor a living person, or mark a significant life event. Notification of a gift received, along with the donor's name, is sent to the person or persons being honored or memorialized. Those being honored or memorialized are recognized in Foundation materials and online.



Planned Gifts

Planned gifts are designed to help you meet your financial and charitable goals while supporting the Research Foundation in the long term. By making a planned gift, you can make a lasting impact by expanding the Research Foundation's capacity to address the industry's most pressing issues through its cutting-edge research, education and outreach activities. You can provide significant support through a gift that costs nothing in your lifetime through a charitable bequest in your will.

Sustainers Fund

Income raised through the Sustainers Fund helps the Research Foundation continue to fulfill its mission by providing a sustainable and flexible source of unrestricted income to be allocated where it is needed most. Funds raised allow the Foundation to be more responsive to industry-related issues that arise throughout the year.

Please contact Bennett Gray for more information on these and other ways to support the Foundation.

Sustainers Fund 2018 Donors

We are grateful to the donors who made generous contributions to the Sustainers Fund in 2018. With their help, we exceeded our goal for the year.

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For more information about the work of the NAIOP Research Foundation, complimentary downloads of completed research, lists of Distinguished Fellows and Governors and more, please visit **naiop.org/research**.

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Smart Sensors in Commercial Real Estate: The Next Generation

A new research brief explores the uses — and concerns — of technologies that gather and transmit massive amounts of data.

By Jennifer LeFurgy, Ph.D., NAIOP Research Foundation

Beacons and sensors — digital devices that can collect and transmit vast amounts of information via radiofrequency identification (RFID) tags, Wi-Fi and smartphones — are making it easier than ever for business owners to track inventory, improve space utilization, lower operating expenses, enhance customer experiences and tighten security. However, turning huge amounts of data into actionable information can be a challenge, and many privacy issues are still being worked out.

A new research brief published by the NAIOP Research Foundation titled "Beacons and Sensors in Commercial Real Estate: Networked Digital Sensors Signal Change" offers insight into some

Beacons typically "push" information to a mobile device within a certain geographic area (e.g., a notification appears on smartphones when customers pass a store having a sale), while sensors "pull" information from the environment (e.g., room temperature, motion, lighting levels). of the ways that simple, tiny, affordable and ubiquitous sensors are being used in commercial real estate settings, as well as identifying the broader challenges associated with using networked digital data-collection systems.

How They Work

Beacons and sensors connected to the "internet of things" (IoT) can help the CRE industry make fine-tuned, datadriven decisions to increase operational efficiencies and improve experiences for tenants and customers. For example, in addition to tracking the movement of goods and people in warehouses or hospitals, IoT-connected beacons and sensors can monitor equipment and report on conditions such as indoor air quality. Data continuously streaming from these devices enables real-time analysis and visualization.

This integration with IoT will connect an estimated 20.4 billion "smart" technologies by 2020, according to Gartner, Inc.

Beacons typically "push" information to a mobile device within a certain geographic area (e.g., a notification appears on smartphones when customers pass a store having a sale), while sensors "pull" information from the environment (e.g., room temperature, motion, lighting levels).

Beacons and sensors are becoming more sophisticated. Instead of a single sensor performing one task, such as motion-detector lighting in conference rooms, devices are now networked to each other, connected to the internet, and collecting data that can be analyzed in many ways. The data collected are becoming increasingly valuable

Get the Report

To view and download "Beacons and Sensors in Commercial Real Estate: Networked Digital Sensors Signal Change," visit www.naiop.org/Research/ Our-Research

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because they can be monetized or used to improve outcomes.

However, the technology is changing so rapidly that keeping up with how to collect, store and protect data, and deciding which hardware and software systems to use, can be overwhelming. To speed up decision-making and reduce risk, companies are hiring IoT consultants who advise them about where to locate and connect sensors, as well as how to manage the data.

The use of sophisticated devices to monitor and assess environments, despite the challenges, will continue to bring about transformation in commercial real estate. As the rate of adoption increases, material and implementation costs will decrease and approaches will become standardized. Data privacy and protection will continue to remain a primary concern, even with increasing regulations.

The Underlying Technologies

Many beacons and sensors use technologies such a GPS, Bluetooth[™], radio waves and Wi-Fi to gather and transit information. RFID, an older form of tracking technology, uses radio waves to identify and track tagged objects. RFID is widely used to determine the location and identity of workers and equipment on construction sites, as well as enable robot pickers in warehouses to fill retail orders.

Geofencing makes use of GPS-enabled smartphones to determine when a person has entered into a geographic boundary or perimeter. For example, JLL developed PinPoint, a tool to monitor shoppers within a geofence at shopping centers the company manages or leases. The data collected by the geofence interface provides an exact count of foot traffic, as well as accurate and quantifiable examples of consumer behavior.

Beacons are used in location-based messaging and tracking, but the platform generally relies on Bluetooth technology rather than cellular or Wi-Fi networks. Beacons also have a smaller target range than a geofence. Initial beacon applications were limited to retail settings, but they are increasingly being used in other industries such as manufacturing, logistics and health care.

The WELL Building Standard has partnered to combine its performancebased system for measuring, certifying and monitoring features of the built environment that impact human health and well-being (such as air and water quality, optimal lighting and availability of fresh food) with GIGA's RESET ™ environmental sensors and cloud-based analytics. The sensors, placed around various locations within a building, collect ambient data and store it in a secure server where it can be analyzed and used toward building wellness certification. ■

Jennifer LeFurgy, Ph.D., is NAIOP's vice president for knowledge and research.

The use of sophisticated devices to monitor and assess environments, despite the challenges, will continue to bring about transformation in commercial real estate.

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Diversity & Inclusion Roundtable Delves Into 'Constructive Conflict'

Annual industry gathering examines best practices for building a workforce that reflects a rapidly changing population.

By Diana Tucker

More than 40 human resources executives from 27 CRE companies around the U.S. and Canada gathered in Atlanta, Georgia, in November for the third annual Commercial Real Estate Diversity & Inclusion Roundtable.

First launched in 2016, the one-day summit targets industry professionals who have initiatives in their firms to create a more diverse pipeline of talent for jobs in commercial real estate. Designed by industry HR professionals, the roundtable provides a forum for frank and open dialogue about how to increase diversity.

> "You can have a diverse team, but it might not be inclusive when they still cannot speak up with their different points of view."

> > — Joe Gerstandt

Through an interactive program that features speakers, networking and small-group breakout discussions, participants examined how to build an inclusive work culture and accelerate their diversity and inclusion programs with effective practices.

Building an Inclusive Model of Leadership

Corporate leaders can model and influence the behavior they want to see in their companies. The roundtable explored the impact of a corporate culture that empowers leaders to embrace differences both in perspectives and experiences.

Eva Spurgin of Duke Realty led the first discussion, which focused on Margaret Heffernan's TED Talk, "Dare to Disagree." Heffernan, who has been the CEO of five companies, says organizations should instill an environment of "constructive conflict" that encourages individuals to provoke discussion through disagreement.

After Spurgin's presentation, small groups broke off to explore ways to encourage individuals to speak up and to get organizations to value their ideas, even if they are different.

Here are some of the key takeaways generated during the discussions:

- Find thinking partners who are not "echo chambers."
- Seek disproving information to test your ideas.
- Identify people who are different from you and find ways to engage them.
- Be prepared to change your mind.

- If you like the culture that you cultivate, it is equally important to take personal responsibility to make sure the culture continues.
- Openness alone can't drive change; leaders must act to model the change they want to see.

Keynote speaker **Joe Gerstandt** followed with a presentation entitled "Inclusion by Design." It addressed one of the biggest corporate challenges: Organizations that have brought diversity into the workplace but haven't made it safe for individuals to be different on the job.

"You can have a diverse team, but it might not be inclusive when they still cannot speak up with their different points of view," he said.

Gerstandt stressed the impact of diversity on team performance and the value of making an organizational commitment to craft and deliver a more inclusive employee experience.

"Inclusion is the first product of real leadership today," he said.

Gerstandt further explained that "presenting a business case isn't enough; you have to have a personal narrative on why diversity and inclusion is important to drive change. Culture doesn't change until people start behaving in different ways."

Gerstandt added that if diversity and inclusion matters, it should be one of the things that drives your hiring and promotion decisions, not just high performance.

"We need to be able to get rid of high performers who aren't willing to align with your cultural values of diversity and inclusion," he said. "We need to be able to get rid of high performers who aren't willing to align with your cultural values of diversity and inclusion."

— Joe Gerstandt

Gerstandt posed the following key questions for consideration:

- What am I doing to be inclusive? (Do I understand that it takes action and not just saying that "I am inclusive"?)
- How psychologically safe are we?
- What am I willing to do to increase my comfort in having conversations about diversity?
- What am I doing to make sure my team members feel welcome?
- Am I taking personal ownership for diversity and inclusion outcomes?
- What do I do to bring diversity and inclusion into my network?

How to Accelerate Diversity and Inclusion Programs

Organizations across the commercial real estate industry are working on best practices to engage and recruit diverse talent to commercial real estate. During the roundtable, groups discussed ways to overcome stereotypes and how the industry can address three areas where unconscious bias and prototype bias (the tendency to choose the same people for certain assignments) can be found in the workplace: talent acquisition, development opportunities and advancement.

We Can Do Better

A 2013 study from the Commercial Real Estate Diversity Report found that white men, who make up 31 percent of the U.S. population, held the majority of executive (77.6 percent), managerial (68.9 percent), professional (58.5 percent) and technical (59.7 percent) jobs in the industry.

The full report can be found here (link opens as a PDF): www.naiop.org/19diversityreport

For more information, check out NAIOP's Diversity Resource Center online: www.naiop.org/Connect/Diversity-Resources

Several companies and non-profit organizations spotlighted their initiatives to attract diverse talent to the industry:

- Brandywine Realty Trust's community interface initiative supports multiple neighborhood engagement projects such as the Construction Apprentice Preparatory Program (CAPP), which trains students for careers in the building trades.
- CBRE analyzes demographics and cultivates relationships with communities of color, educates them about the company, and actively recruits at historically black colleges and universities.
- Hines' on-campus university recruitment program explains and exposes commercial real estate to college students. The program targets schools with diversity programs and students with less knowledge of the industry.
- SITE Centers' Women of Influence provides a mentoring program to connect employees with company leaders and strategize how to get more women and people of color into higher-level positions.

- CREW Network's Careers program builds industry awareness among middle and high school students in inner-city schools, funds scholarships, and finds paid internships for young members.
- Project REAP is a non-profit organization located in nine cities that's focused on connecting adult minority talent to career opportunities in the industry and growing a diverse talent pool through a 10-week educational program.
- NAIOP and three NAIOP chapters, along with the Real Estate Executive Council, has offered summer CRE Immersion Programs on university campuses taught by real estate faculty and industry professionals for gifted and talented minority high school students to introduce them to commercial real estate.

Seven organizations partnered in sponsoring the roundtable: Brixmor Property Group; Duke Realty; HFF; Hines; NAIOP; Prologis and SITE Centers. The program was developed in collaboration with Project REAP.

Diana Tucker, CAE, is NAIOP's vice president for membership and chapter relations.

Facts Drive NAIOP Advocacy at the Local Level

Reports from two chapters demonstrate the value of targeted research when it comes to influencing policymakers.

By Rich Tucker

Good policies transcend politics. That is true in Washington, D.C., of course, but also at the state and local level. Across the United States and Canada, NAIOP chapters are leading advocacy efforts in their communities on important issues surrounding the commercial real estate industry.

Recently two chapters, Upstate New York and Chicago, put together important reports showing the benefits of economic growth in their regions and recommending strategies to work with governments to maintain that growth. Both studies focus on delivering facts rather than opinions. Factual information is a fundamental principle of effective advocacy that has provided leverage in the policymaking process, giving both of these chapters a seat at the table with local officials.

Recently two chapters, Upstate New York and Chicago, put together important reports showing the benefits of economic growth in their regions and recommending strategies to work with governments to maintain that growth.

Spurring Growth in Buffalo

In Upstate New York, a recent white paper entitled "The Commercial Real Estate Climate in Western New York is Undergoing Fundamental Change" delivered useful data and important policy recommendations to help encourage growth.

"After generations of languishing in the economic doldrums, the last several years have seen a noticeable uptick in economic activity in Buffalo and western New York," the report finds. "Our region is at that juncture where it needs to advance beyond the traditional approach to economic development, proactively recognize emerging economic trends and development, and implement a series of new policies to position our economy to maximize the benefits of these new trends."

The report recommends specific steps policymakers could take. To begin, the region's governing bodies need to revise zoning standards to make it easier to build the housing and industrial property people need.

Buffalo has one of the lowest vacancy rates in the nation for industrial buildings, yet it has virtually no industrial space in development. To fill that need, local policies should provide incentives for developers to provide "move-inready" industrial space as opposed to "shovel-ready" parcels of land that still need to be developed.

At the same time, governments should take steps to make more of their underutilized property available for development.

"In western New York, much of the desirable land is controlled by govern-

ment and what land isn't requires at least a pilot agreement in order to make a speculative development viable," the report finds. "Thus, government action is required to address the market conditions."

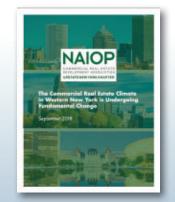
Also, the report explains that western New York needs better housing policies. It does not require policy interventions to lower the cost of housing; the median price of a house in the city of Buffalo in 2017 was just \$80,000. Instead, development agencies should move to incentivize the market, "including removing housing stock, expanding the boundaries of thriving neighborhoods and encouraging investment in single-family houses."

Talking Tax Benefits in Chicago

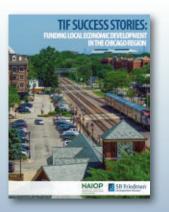
NAIOP's Chicago chapter released a study, "TIF Success Stories: Funding Local Economic Development in the Chicago Region," that highlights the important economic activity driven by a particular policy approach: Tax Increment Financing (TIF).

TIF creates public-private partnerships "that can help remedy site development barriers such as environmental contamination, lack of public infrastructure, or other 'extraordinary' costs that private developers do not undertake on their own or that make a project unfeasible," says the report, co-authored by NAIOP Chicago and SB Friedman Development Advisors.

It provides case studies of five Chicagoarea projects that were made possible because of TIF, which allocates increases in property taxes in a given area (TIF district) to pay for improvements within that area. Because TIF funding reallocates government spend-



 To download NAIOP Upstate New York's report "The Commercial Real Estate Climate in Western New York is Undergoing Fundamental Change," follow this link: www.naiopupstateny.com/ articles.php?id=22



 To download NAIOP Chicago's report "TIF Success Stories: Funding Local Economic Development in the Chicago Region," follow this link: www.naiopchicago.org/legislative/ tif

Whether it is affordable housing, TIFs or another policy initiative, it is important for NAIOP chapters to remain proactive and engaged in the policymaking process.

ing, some worry it will take money from other important areas, such as schools. However, as the report notes, "strategic investments should, in the long term, strengthen the overall tax base and fiscal foundation of local taxing bodies."

The economic benefits of the five projects cited in the report include:

Leveraging public investment. In each case, private investment in the TIF regions far exceeded public investment. In one case, TIF spending of \$300 million brought in \$1 billion in private investment. In another, an investment of \$2.8 million by a TIF led to \$41 million in private spending.

Creating economic activity. Economic value came in the form of new development, new employment opportunities, or an influx of residents to a previously uninhabited site.

Increasing tax base. Each project cre-

ated a new source of tax income for governments in the region. TIF-funded redevelopment projects in the five case studies triggered growth in area Equalized Assessed Value of between 1.4 percent and 38.3 percent. According to Chicago-based Kensington Research and Recovery, the Equalized Assessed Value of a property is "the product of the assessed value of your property (both land and improvements) and the State Equalization Factor, which is set by the Illinois Department of Revenue."

Radiating benefits. Together, the TIF projects resulted in the creation of thousands of jobs, ranging from 173 at one location to 8,300 at another project.

"The cases are varied not only in their location within the Chicago region, but also in their project goals, land uses, scale and surrounding demographics," the report points out. But each is tailored to its neighborhood, and each is creating partnerships between governments and private investors.

Get Involved

Whether it is affordable housing, TIFs or another policy initiative, it is important for NAIOP chapters to remain proactive and engaged in the policymaking process. Legislative issues can often start as an idea in a single city or community, then spread across a state or province and then throughout North America.

These reports show the influence that facts can have in driving the local policy debate. By standing for issues relevant to their communities, these chapters are making a difference on behalf of NAIOP and commercial real estate. Local policymakers are listening.

Rich Tucker is NAIOP's director for public policy communications.

NAIOP represents commercial real estate developers, owners and investors of office, industrial, retail and mixed-use properties. It provides strong advocacy, education and business opportunities, and connects its members through a powerful North American network. **For more information, visit naiop.org.**

Programs and Services

NAIOP Membership

For membership, information or changes to your membership record, contact membership@naiop.org.

Chapter Network

NAIOP chapters provide local and regional education, networking and legislative affairs.

naiop.org

NAIOP's central resource for industry and association news, programs, advocacy efforts and connections.

National Forums

Special-interest groups that comprise senior-level NAIOP members in a noncompetitive environment for exclusive networking and experience exchange.

Center for Education

The principal learning resource for the

commercial real estate development professional. Offerings include online, on-demand and live courses, plus two certificate programs.

Development Magazine

Current and past issues are available online. Readers can also access an interactive digital version and download a mobile app for Development magazine on-the-go.

NAIOP Research Foundation

Research projects and initiatives to improve the understanding of the built environment and the challenges that lie ahead for individuals and organizations engaged in real estate development, investment and operations.

Career Center

Online resource designed to help employers and job seekers find new commercial real estate job opportunities.

Business Development Industry Partners

Enhance your company's presence as an industry partner by sponsoring, exhibiting or advertising.

Government Affairs

Strong, effective support and guidance to create, protect and enhance development and property values. NAIOP's government affairs team is active on Capitol Hill, in state legislatures and in Canadian provinces.

Market Share Blog

Insights on trends, CRE-related topics and professional development tips. Subscribe to weekly posts, interviews and news at blog.naiop.org.

Mobile Apps

Take NAIOP wherever you go. Access the membership directory, find news, chapters and events, and connect on social media.



Your Insights and Experience are Valuable

Share your practical, real-world experience and best practices and give back to your industry by teaching a course through the **NAIOP Center for Education**.

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- Courses are presented online, so no travel is required.
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- Prepackaged PowerPoint slides contain instructor notes for the topic(s) you select.
- Courses are divided into eight week classes and presented in two-hour segments.

Learn more and apply online at naiop.org/faculty.



INDEX

Barr, Collin69	F
CBRE	Fi
CenterPoint Properties1	G
Ciminelli, Paul69	G
Commonwealth Land Title	Н
Insurance CompanyCover 4	Н
Crosby, Stephen69	H
CTL I Thompson33	Н
Cushman & Wakefield2	Н
Cutlip, Robert69	Ir
Dale-Johnson, David68	Jc
deRoos, Jan68	K
Eppli, Mark68	Le
Estabrook, Anne Evans69	Li

Fuller, Greg	80
Funk, David	69
Granite Properties	Cover 3
Gray, Bennett	69
Harris, Josh	68
Heins, Ralph	69
HMWC CPAs	39
Howe, Douglas	69
Hunt, William	69
Irving, James	69
Johnson, Eric	46
Klatskin, Alex	65
LeFurgy, Jennifer	8
LiUNA	37

Majestic Realty	9
Marcus & Millichap	62
Merritt, Robb	69
Mullen, Michael	69
Newmark Knight Frank	61
NorthMarq	21
Pedrelli, Nino	67
PGIM Real Estate Finance	3
Rayevich, Ronald	69
Reilly, Gene	69
Rockefeller Group	7
Sah, Vivek	68
Schultz, Jack	69
Schwab, John	24

Selvitelli, Marc	69	
Senkbeil, Thomas	69	
SIOR	71	
Stapp, Mark		
Stevens, Eva	47	
Taylor, Joseph	69	
Tucker, Diana	74	
Tucker, Rich	76	
USAA Real Estate	Cover 2	
Wonderful Real Estate	41	
W.P. Carey, Inc		

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2019 Industry Partners

NAIOP wishes to thank our Industry Partners, whose financial support helps us to provide quality programs and communications to you throughout the year. We encourage you as a NAIOP member to include these partners, wherever possible, when you are considering services and products for your business.



Getting to Know Greg Fuller

Already this year as chairman, I've had the opportunity to meet many members at the Chapter Leadership & Legislative Retreat, as well as during some chapter visits. To help others get to know me, Development magazine asked a few questions about my plans as chairman and my outlook for our industry. I'm pleased to share my responses with you here.



All About Greg

Education

At Closing

Bachelor of Arts in Economics, University of Missouri, Columbia, Missouri

MBA, University of Dallas, Dallas, Texas

Family

My wife Julia and I live in Dallas, and our daughter Elise and son Wesley are both in college.

Last book read?

"Grit: The Power of Passion and Perseverance" by Angela Duckworth

Best vacation spot and out-of-theoffice activity?

Location doesn't matter: beach, lake or mountains — but I like to golf wherever we go. ■

VIDEO: See Greg Fuller talk about his plans for NAIOP. www.naiop.org/gregfuller

What are your goals as chairman?

Throughout my 20 years of NAIOP membership, I've seen tremendous leadership at the helm of this organization. So, as a nod to their contributions, my biggest goal is not to derail any of the great work that's come before me! In all seriousness, I have three overarching goals for the year: 1) To continue our important work on increasing diversity in our industry through our initiatives and partnerships that focus on high school and college students; 2) to enhance NAIOP events and content specific to the office sector, since that sector is my primary area of focus; and 3) to help our National Forums program evolve and continue to grow, helping transition Developing Leaders onto Forums. I'm a 20-plusyear Forums member. I have found tremendous value in the program, and it's essential that we continue to fuel it with new voices and members.

Why is diversity in the industry so important?

Our industry has a lot work to do to attract and incorporate minorities and women into our businesses, particularly in leadership positions. (See related article, page 74.) Granite Properties, too, has made this a priority, and today 51 percent of our employees are women and 30 percent are in the executive ranks. Diversity by age is also very important, as it provides diversity of thought. Given the technological advances that have been made in the past decade, our companies must rely on younger workers who understand intuitively how technology can increase productivity and efficiency, and provide new ways to serve our customers.

Why should our members be engaged legislatively?

Because it matters. Whether you pay attention or not, what happens in Washington, D.C., in state houses and in provinces will eventually affect you and your business. It's imperative for our governments to understand that our industry drives millions of jobs and has a huge economic impact.

What can NAIOP do to prepare its members for an inevitable downturn?

Information is key to preparation. Navigating your career or company is all about implementing strategies today that prepare you for a better, or at least "less bad," future. Through its conferences, courses, Research Foundation and industry content, NAIOP empowers its members to be as well prepared as anyone in the industry.

What do you see in the future for office real estate, and what's shaping the sector?

Office has gone through a sea change in the past five years as we've seen a race to provide greater amenities and hospitality services to tenants. Technology is changing very quickly, both in terms of tenant interaction and how buildings function. Flexibility is high on the list of what customers want, through coworking, shorter-term leases and shared amenities. Automated cars, the evolution of shared workspaces and flexible leases, and same-day delivery are having big impacts on CRE now, and will continue to in the years ahead. ■

By **Gregory P. Fuller**, President and Chief Operating Officer, Granite Properties, Inc. 2019 NAIOP Chairman

Congratulations to our President and COO, Greg Fuller, on his new role as NAIOP Chairman.

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