

Commercial Real Estate Development FALL 2020

Development[®]

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of the Year 60

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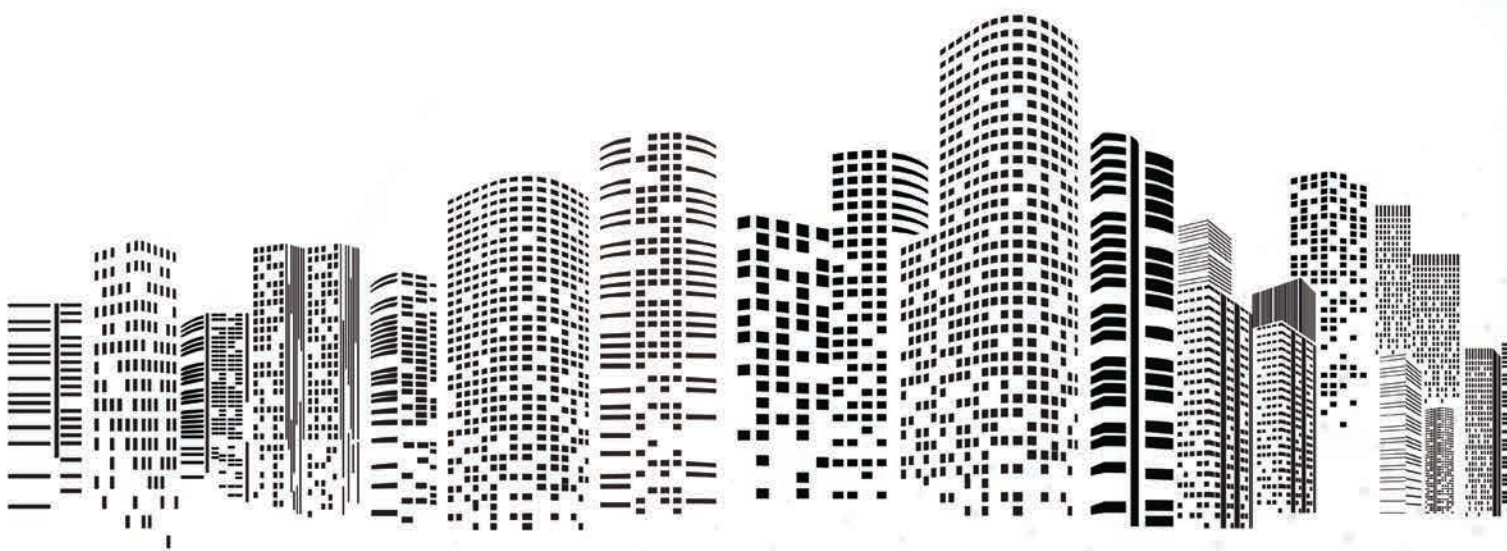
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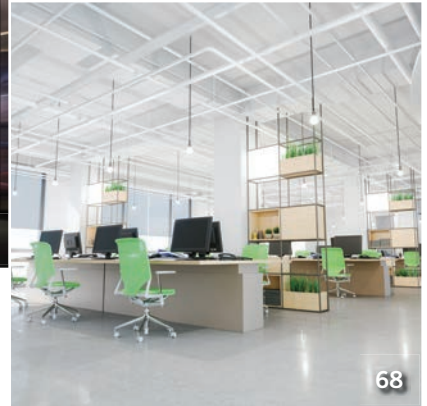
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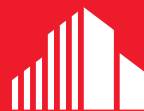
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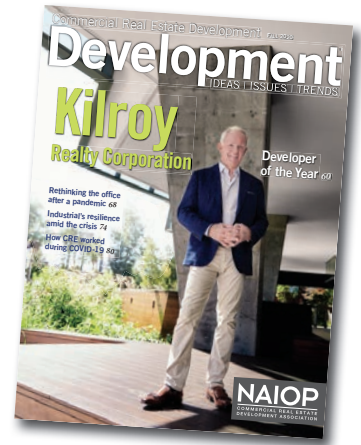


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Lawrence Anderson Productions

John Kilroy is the chairman, president and CEO of Los Angeles-based Kilroy Realty Corporation, NAIOP's 2020 Developer of the Year.

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#WFH Now, But We'll Return to the Office

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Submit manuscripts that are educational and focus on industry trends, recently completed development projects and other issues of interest to NAIOP members. For more information, see www.naiop.org/magazine. Submit all inquiries to developmentmagazine@naiop.org.

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Hope Amid a Long Recovery

The pandemic's effects on the global economy will continue well into next year. However, there are signs of optimism in our industry.



Jennifer LeFurgy

People are slowly returning to the office, and the workplace is changing as a result. The industrial sector is strong and adapting to current challenges. As events continue to unfold, NAIOP is dedicated to keeping its members engaged with virtual education and networking opportunities.

I encourage you to take advantage of one of NAIOP's webinars, roundtables or education courses to help stay informed and connected as we weather this storm together.

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

Kilroy Realty Corporation, NAIOP's 2020 Developer of the Year, focuses on sustainable development in major markets along the West Coast. (Page 60)

An emphasis on cleanliness and employee health and well-being will help office properties stand out in the post-COVID world. (Page 68)

From remote work to new technologies, the COVID-19 crisis has forced the commercial real estate industry to find new ways of getting the job done. (Page 80)

The industrial sector stood strong during the pandemic, which was a major topic of discussion during NAIOP's I.CON Virtual 2020, held in June. (Page 74)

The COVID-19 pandemic has highlighted the importance of cold storage, a market that is expected to see explosive growth. However, it's crucial to be aware of the costs and complexities. (Page 16)

Correction

The wrong NAIOP chapter was identified as a webinar host on pages 29, 50 and 58 of the Summer issue of Development magazine. The correct chapter is NAIOP D.C.-Maryland. ■

The pandemic could force cash-strapped municipalities to raise taxes on commercial properties. Here are some of the difficulties — and opportunities — to consider during tax appeals. (Page 27)

To mitigate flooding, a mixed-use development in Boston's Seaport District incorporates several unique design features. (Page 23)

COVID-19 continues to rattle construction spending, labor, and materials cost and deliveries. (Page 10)

Two recent projects in the Atlanta area showcase the opportunities available for transforming suburban office parks into mixed-use developments. (Page 20)

The regulations around Opportunity Zones were recently updated. While the law wasn't significantly modified, investors should still be aware of these changes. (Page 14)

Demand for truck parking currently exceeds supply in many parts of the country. That could be a problem as e-commerce boosts demand for more ground shipping. (Page 54)

A mass-timber building in San Francisco demonstrates the potential of engineered wood products, which provide a strong yet light alternative to concrete and steel. (Page 48)

Most Popular From Summer 2020

1. **"Experts Speak: COVID-19's Impact on Commercial Real Estate"**
(www.naiop.org/20experts, page 70)
2. **"Amazon Could Provide a Peek at Industrial's Post-COVID Future"**
(www.naiop.org/20amazon, page 62)
3. **"Will Teleworking Change the Future of the Office?"**
(www.naiop.org/20teleworking, page 46)
4. **"This is Not a Financial Crisis. This is a Natural Disaster."**
(www.naiop.org/20naturaldisaster, page 36)
5. **"Five Issues Landlords Should Consider Regarding a Pandemic's Impact on Commercial Tenants"**
(www.naiop.org/20landlords, page 16) ■

Public art such as sculptures can provide important tax benefits to commercial real estate developers and investors, but it must be approached with caution. (Page 29)

Accessibility is an important consideration for office design, and Microsoft's real estate division takes a broader view that goes beyond the typical definition of "disability." (Page 38)

Kimberly Sherman Stamler, the president of Boston real estate firm Related Beal, talks with Development magazine about the COVID-19 pandemic and her perspectives on the industry. (Page 32) ■

Development Magazine, NAIOP Honored for Editorial Excellence

Development magazine and NAIOP recently won seven awards in the 42nd annual American Society of Business Publication Editors (ASBPE) Azbee Awards of Excellence. The Azbees honor outstanding writing and design work in magazines, newsletters and digital media from association, B2B, trade and professional publications.

Contributing Editor **Ron Derven** received a national silver medal in the category of Company Profile – Less than \$3 Million Revenue for his feature article on NAIOP’s 2019 Developer of the Year, Alexandria Real Estate Equities. That article also won a gold medal in ASBPE’s Mid-Atlantic region.

Managing Editor **Trey Barrineau** and contributor **Aaron Ahlburn** won a national bronze medal in the Single Topic Coverage by a Team category

A Z B E E S

ASBPE Awards of Excellence

for a collection of stories that examined how technology is disrupting the commercial real estate industry. Those articles won a silver medal in ASBPE’s Mid-Atlantic region as well.

Derven and Development Editor-in-Chief **Jennifer LeFurgy** won a Mid-Atlantic region gold medal in the Enterprise News Story category for their article “Retail-to-Warehouse Conversions Gain Momentum.” Contributor **Anthony Paletta** received a Mid-Atlantic region gold medal in the Case History category for his article

about an adaptive-reuse project at a former textile mill in Charlotte, North Carolina.

NAIOP’s Market Share blog received a Mid-Atlantic region bronze medal in the Trade Show/Conference Coverage category for its reporting from the association’s CRE.Converge 2019 in Los Angeles. The blog authors were **Brielle Scott, Kathryn Hamilton, Shawn Moura** and Barrineau from NAIOP; and **Darcie Giacchetto, Jessica Spaulding** and **Julie Goodman** from the Spaulding Agency. ■



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Construction Uncertainty Continues as Pandemic Persists

The outlook remains hazy as COVID-19's broad impacts disrupt the country.

By Ken Simonson

After more than six months of pandemic-related turmoil, there is no sign that the outlook is getting clearer for construction spending, labor, or materials cost and deliveries. Additionally, the back-pedaling in states that had reopened has made the uncertainty about the future even greater.

Like many sectors, construction experienced enormous upheavals in the spring. After employment reached a 13-year high of 7.6 million in February, the industry lost more than 1 million jobs during the next two months. The industry added back 611,000 jobs in May and June as construction firms made rapid use of Paycheck Protection Program loans to recall furloughed workers and restart projects in states and cities that ended shutdown orders. Despite the rebound, total construction employment in mid-June (the monthly employment counts are based

on the payroll period covering the 12th of each month) was nearly half a million jobs shy of the February level.

Struggles Ahead

That might suggest that the longstanding scramble by contractors to find enough workers has eased. But the virus has created new challenges.

A survey by the Associated General Contractors of America (AGC) in mid-June found that 24% of respondents said projects had been delayed or disrupted because of a shortage of craftworkers or subcontractors — a percentage that had barely budged since early April. In addition, more than half of the firms that had tried to recall employees reported that some had refused to return — because of illness or family obligations, or a preference for receiving unemployment benefits, which were boosted by \$600

per week until the end of July under the federal government's Pandemic Unemployment Assistance (PUA) program.

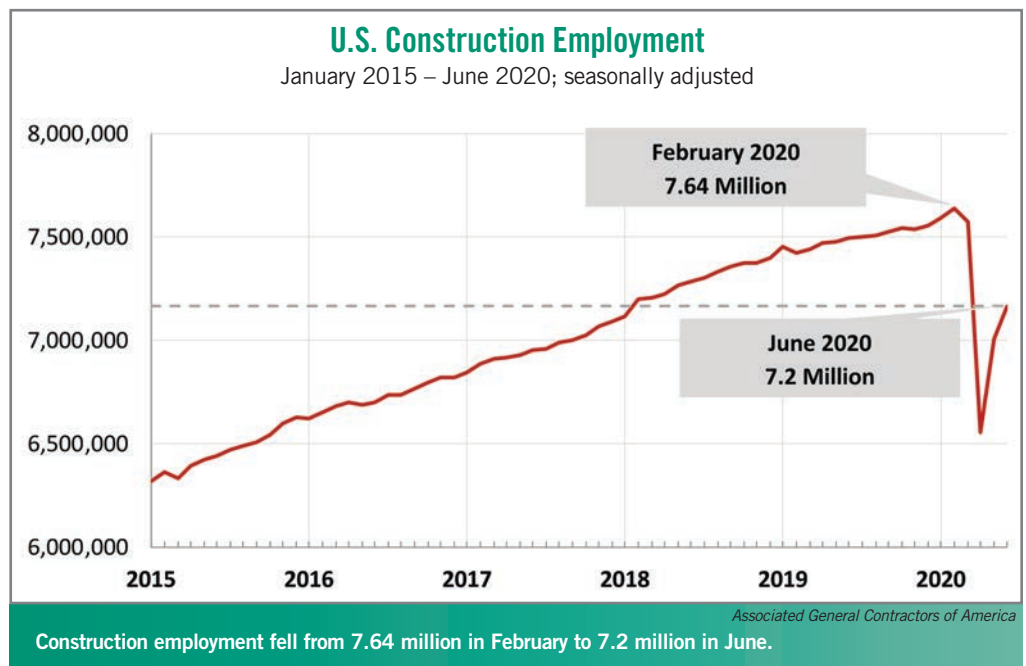
The longer workers are laid off or choose to stay away, the harder it will be for contractors to get them back or attract new entrants. In the last downturn, construction employment began declining more than a year before the rest of the economy and did not start increasing until nearly a year after other sectors. Reports of craftworker shortages began soon after.

Unfortunately, recent indicators suggest that construction will again be late to recover.

The American Institute of Architects' Architecture Billings Index, which the institute says leads nonresidential construction spending by nine to

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Like many sectors, construction experienced enormous upheavals in the spring. After employment reached a 13-year high of 7.6 million in February, the industry lost more than 1 million jobs over the next two months.



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By the Numbers

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12 months, plunged to record lows in April and May, with even lower readings for architecture firms with predominantly commercial/industrial practices. Dodge Data & Analytics' Momentum Index, a monthly measure of the initial report for projects in planning, which the firm says has been "shown to lead construction spending for nonresidential buildings by a full year," fell 13% from the first quarter of 2020 to the second quarter. And at the end of June, the Census Bureau's Small Business Pulse Survey found that more than one-third of construction firms indicated it would take more than six months for their business to return to a "normal level of operations relative to one year ago."

No Clear Path Forward

If demand for projects and labor is declining, does it follow that pricing

A survey by the Associated General Contractors of America (AGC) in mid-June found that 24% of respondents said projects had been delayed or disrupted because of a shortage of craftworkers or subcontractors — a percentage that had barely budged since early April.

will ease for owners who do want construction? That depends on the type of project and location. Although demand is likely to be sluggish for many categories of construction, remodeling and renovation work will remain hot, as will warehouse construction. The producer price index (PPI) for new nonresidential construction decreased by 2.0% from June 2019 to June 2020. But the indexes for two items heavily used in remodeling increased sharply: the PPI for fabricated structural metal for non-industrial buildings jumped 12.1%, while the PPI for lumber and plywood climbed 6.6%.

Construction costs — and completion times — may be higher than before

in some areas if there are not enough government inspectors, permit issuers or other officials, or if requirements for greater worker spacing, sanitizing and other measures reduce productivity. Late or canceled deliveries of materials — an issue cited by more than one-third of the respondents to AGC's mid-June survey — may also drive up costs.

But for some project types and locations, contractors may be eager to take on more work and will bid accordingly. However, the overall outlook remains hazy, even in places where there are enough contractors and workers available. ■

Ken Simonson is the chief economist for the Associated General Contractors of America. He may be reached at ken.simonson@agc.org.

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Opportunity Zone Updates: 2020 and Beyond

Recent clarifications didn't significantly change the law, but investors should be aware of these modifications.

■ By Daniel Pessar

The 2017 Tax Cuts and Jobs Act introduced tax benefits to incentivize investment in specially designated zones (Qualified Opportunity Zones, or QOZs) in all 50 states, the District of Columbia and five U.S. territories. The Opportunity Zone laws generated buzz because, among other benefits, they allowed qualified projects held for at least 10 years to exclude capital gains upon sale.

After more than two years, it is time to consider the state of the law, the response of the investment community and some of the ways Opportunity Zone investment activity might develop in the years ahead.

The Law

The Opportunity Zone law offers incentives to investors making certain qualifying equity investments before mid-year 2027. These investments must be made within 180 days after a sale or exchange of property that generates capital gains. The absence of recently realized capital gains does not preclude participating in Opportunity Zone investments as an advisor, developer or even as a regular equity

investor. However, if these parties do not make equity investments after gains have been generated, they will not qualify for the Opportunity Zone tax benefits.

The substantial-improvement requirement is another Opportunity Zone rule that keeps many real estate investors on the sidelines. It stipulates that real estate investments seeking to benefit from the QOZ tax incentives must begin significant construction or renovation within a relatively short period of time. For example, if a property is purchased for \$9 million with a building value of \$6 million and land value of \$3 million, the developer must invest at least \$6 million in improvements within 30 months of acquisition, subject to certain allowances for unforeseen delays. While making substantial improvements in a short time period is par for the course for developers, many investors have a much lower appetite for risk and prefer more stable cash-flow investments.

Final Opportunity Zone regulations issued in December 2019 clarified certain aspects of the law and made it more accessible to investors in several ways. Most notable were the changes that did not happen. While many small adjustments were made to accommodate investors, such as adding flexibility for investing in a Qualified Opportunity Fund (QOF) after selling assets in installment sales, expanding the definition of vacant property and allowing simpler QOF structures to enjoy the tax benefits in certain situations, the framework put into place by the two rounds of proposed regulations were mostly left intact.

Additionally, actions that many investors feared, such as dramatically increased reporting requirements and a curtailing of the tax benefits, did not materialize in the final regulations. Although a newly updated IRS Form 8996 for QOFs asks for more information about investments (including information about the location, value and Employer Identification Number of certain assets), investors are now more certain about what to expect when putting money into this long-term investment. Form 8996 is used to certify that the corporation or partnership is a QOF and to report whether the QOF met the investment standard during the preceding tax year.

Response of the Investment and Development Communities

Early beneficiaries of the Opportunity Zone laws were projects already in progress, such as the Hamilton Court rental apartment property in Philadelphia. Like several other high-profile Qualified Opportunity Zone redevelopment projects, Hamilton Court involved a well-located historic property that was ripe for redevelopment even without the new law. However, not all development projects in Opportunity Zones are funded with qualifying capital. Hackensack, New Jersey, for example, has thousands of residential units under construction in the downtown Opportunity Zone that were not funded through the program.

Investors, developers and fund managers are still navigating the structures that work best to bring QOZ deals together with qualifying capital. For example, a fund manager can invest in a qualifying project as a limited

After more than two years, it is time to consider the state of the law, the response of the investment community and some of the ways Opportunity Zone investment activity might develop in the years ahead.

Final Opportunity Zone regulations issued in December 2019 clarified certain aspects of the law and made it more accessible to investors in several ways. Most notable were the changes that did not happen.

partner without much cooperation from the developer except for carrying out the business plan according to the proposed schedule.

Another issue is managing risks and paying for proper QOF administration. Because noncompliance with simple regulations can result in a denial of Opportunity Zone benefits when they are sought 10 years after making the investment, it's crucial to ensure and pay for responsible administration. Well-positioned development projects in QOZ locations can be hard to come by. That's why investors in some cases have agreed to pay an additional layer of fees on assets under management for Opportunity Zone administration, on top of standard fees for development and asset management.

And while the fees designate the sponsor as the party responsible for QOF administration, the duty of care binding the sponsor is another key provision to be negotiated. Developers may simply refuse to take the liability that comes with the highest duty of care and only agree to a reasonable standard.

Future Possibilities

While development opportunities inside QOZs will continue to lower the cost of capital for developers in certain cases, there are specific scenarios and strategies that drive pockets of QOZ activity for developers. There are several businesses that are good fits within the Opportunity Zone program because they require significant investment capital relative to the purchase price of land or buildings, as well as having most deal returns generated upon disposition. As long as the sale of the investment occurs at least 10 years after the purchase, the investor will enjoy the QOZ tax benefits on the sale-generated gains.

First, developments of brownfields, energy infrastructure projects (both traditional and alternative energy) and data centers can do well in QOZs. These products can sometimes be

geographically flexible, and even if they're not well suited for all QOZs, there may be numerous QOZ sites that fulfill the product criteria. Certain corporate expansion efforts — dialysis facilities, for example — can also fall into this category as long as the QOF is not simply developing triple-net space, a nonqualified investment under the QOZ regulations.

Second, new or expanding businesses with expensive mobile assets like trucks, airplanes or construction equipment will need help understanding how they might store those assets in QOZs in order to enjoy QOZ tax benefits. The final regulations clarify how a business with mobile tangible property can qualify under the law. Depending on the asset and the business, there are certain requirements relating to the number of consecutive days that assets can be located outside of a QOZ. Many owner-operators and lessors of equipment will need real estate partners who can help develop solutions that can enable their operations to comply with the site-specific requirements.

Finally, some scenarios lend themselves to significant QOZ investments. For example, investors with failed Section 1031 like-kind exchanges can still obtain a certain amount of capital-gains deferral if they can meet the QOZ investment timeline. More developed secondary markets for QOF interests can help investors to easily acquire equity stakes in a variety of projects.

The Coronavirus Opportunity

In response to the coronavirus disaster, the Secretary of the Treasury issued regulatory flexibility to current and future QOF investors that makes it easier to comply with various investment requirements. For example, property that a QOF holds directly or indirectly for the purpose of substantial improvement — a development site, for example — can now

be improved over a longer period of time. Although the law and regulations require that significant value be added to substantial improvement property within a 30-month period, the new relief excludes the period from April 1, 2020 to December 31, 2020 from this count. This extra time gives more flexibility to QOFs and makes it easier to comply with time-sensitive regulations relating to the deployment of capital in QOZs.

These relief measures can serve to boost investment opportunities in QOZs hit hard by the coronavirus pandemic or by rioting. Disruption to various sectors will greatly impact assets such as properties with upcoming lease maturities, speculative development sites and businesses disfavored in a social-distancing environment. These challenges represent opportunities for repositioning and investment returns in QOZs that can be enhanced by available tax benefits.

Putting It All Together

The final QOZ regulations made important clarifications to the law and resulted in a significant reduction in uncertainty. Engagement with a new law was all the more daunting to many investors when the specter of final regulations hovered in the background. With the regulations finalized, significant creativity can be utilized in bringing QOZ benefits to a variety of real estate development scenarios.

Investors interested in enjoying the tax benefits must hold their investments for at least 10 years, and the regulations anticipate some investors holding their interests until 2047 or later. There are more than six years remaining to lay the foundation for a successful project with a tax-advantaged exit, and many ways to get involved. ■

Daniel Pessar is a student at Harvard Law School. Before law school, he worked in real estate private equity for six years.

Cold Storage Can Be Complex and Costly

However, surging demand could lead to greater investment in the near future.

■ By Brielle Scott

When people hear the term “cold storage,” many envision a large freezer building, said **Corey Singer**, vice president of business development with FCL Builders. In truth, the universe of cold storage goes far beyond that, Singer said during a session on refrigerated storage facilities at NAIOP’s I.CON Virtual 2020, which was held in late June. It can include grocery and food service firms, import/export companies, manufacturers and agricultural storage businesses.

“It’s a broad spectrum, and there is a lot of nuance within the different segments,” said **David Sours**, a senior vice president with CBRE.

Kate Lyle, a senior project architect with Ware Malcomb, agreed.

“‘Cold’ doesn’t necessarily mean food,” she said.

Lyle pointed out that cold and freezer

space can be used in many ways. This includes everything from airline parts to medical supplies and biopharmaceuticals. The latter is a major growth area in cold storage.

Lyle added that demand for cold storage had been rising even before the COVID-19 pandemic. This is largely due to changes in the ways that Americans are eating. High-pressure pasteurization has allowed for more fresh foods, meal kits like Blue Apron and Hello Fresh have gained popularity, and companies like Impossible Meat, which creates meat substitutes made from plants, have been gaining in popularity and require refrigeration. This trend will most likely continue; a recent CBRE report suggested that an additional 75 million to 100 million square feet of industrial freezer/cooler space will be needed to meet the demand generated by online grocery sales in the next five years.

“I think the next wave of that will come with the changes in the agricultural supply chain,” Lyle said. “We’ve seen a lot more international products come in. However, we may see some more onshoring for foods that were previously imported now moving to domestic production.”

Expensive Proposition

Cold-storage facilities can be capital-intensive projects to build and operate. While supply-chain drivers such as automation have helped bring down costs, the outlay is still significant.

“We spend a lot of time educating investors about the costs behind cold and freezer facilities,” said **Scott Per-tel**, president and CEO of Cold Summit Development.

For example, **Carmen Dodaro**, executive vice president and CEO of FCL Builders, noted that high-speed doors used in these facilities can cost as much as \$25,000 each. (These are doors that open and close rapidly to keep the cold air in.)

“Embarking on a cold-storage project is not for the faint of heart,” Dodaro said of investing in cold storage. “It’s not a \$200,000 investment. It’s a tens of millions of dollars investment, and you have to know it’s in the right spot. You have to know how it’s being built, and you have to know what’s being built.”

Lyle said a rule of thumb is that a cold building is going to cost three times as much as a dry facility.

“I like to say that’s your starting point,” she said. “I do \$300-plus per square foot on processing buildings. But the more complex the building is,



The Seafriigo cold-storage facility in Elizabeth, New Jersey, demonstrates the vertical stacking of products, which can help bring down refrigeration costs.

NAIOP

An online course from the NAIOP Center for Education, “Understanding the Temperature-Controlled Environment,” notes that existing facilities can be expanded or retrofitted for about 40% of the cost of building a new facility.

those numbers just skyrocket.”

And while converting an existing dry building to a cold-storage building might seem like an appealing option, Pertel warned that conversions can be no more cost-effective than starting from scratch because of the complexity involved.

“It’s really difficult to take an average, vanilla dry building and say, ‘boom, I’m going to make it cold,’ ” he said. “It’s not that simple.”

According to Pertel, there are many considerations and renovations required to pull it off. These include flooring changes, additional power requirements, and structural steel support and insulation for refrigeration systems.

“You have to commit early in the design process whether you want to build a chilled, a frozen or a dry,” he said. (Chilled facilities maintain temperatures between 32° to 33° Fahrenheit, while frozen facilities range from -10° to -20° Fahrenheit.) “There is no defined break point in deciding to go dry and then converting to cold as you’re going through that process. The way that we approach every assignment is actually building a facility or designing a facility around the racking plan with the end user in mind, whether that be a freezer user or cooler user.”

New & Noteworthy

5.7 million sq. ft.

CT Realty has begun development of 5.7 million square feet of large-scale warehouse and distribution space in **Columbus, Ohio**. The eight-building project is within the **Rickenbacker Industrial Park** and is close to a Norfolk Southern intermodal yard, the Rickenbacker International Airport and ground transportation routes.

The first phase of development began in the first quarter of 2020 and consists of two buildings totaling 1,146,780 square feet. A completion date in early 2021 is planned for these buildings.



1 million sq. ft.

KDC recently entered into a development partnership with the **Research Triangle Foundation of North Carolina**, the not-for-profit organization that manages Research Triangle Park, to build 1 million square feet of **office space** as part of **Park Center East, LLC**. The development will begin with the 43 acres on the east side of the property, and it will include the 1 million square feet of office, as well as at least one hotel with up to 375 rooms, 850 residential units and 150,000 square feet of retail space.



803,700 sq. ft.

Goettsch Partners recently completed **Park Tower at Transbay**, a new 45-story **office building** in **San Francisco** developed by The John Buck Company, Golub & Company and MetLife. The tower will be fully occupied by Facebook in the largest single-lease deal in San Francisco’s history. The 803,700-square-foot, 605-foot-tall tower is designed with a massing that integrates three different floor plates. Within these distinct floor plates, a series of large outdoor terraces provide outdoor tenant amenity spaces. At the base of the tower is a covered 3,600-square-foot outdoor plaza.



(c) Tim Griffith

However, Pertel said that conversions can usually be completed faster than new construction.

“We typically look to a conversion process of six to nine months for a dry warehouse,” he said. “If we’re building a new building, it could be anywhere from nine to 15 months, depending on the complexity of that build.”

An online course from the NAIOP Center for Education, “Understanding the Temperature-Controlled Environment,” notes that existing facilities can be expanded or retrofitted for about 40% of the cost of building a new facility.

Going Up

According to “Understanding the Temperature-Controlled Environment,” cubic feet can be a more important metric than square feet for many developers and operators of cold-storage facilities. That’s why many of them are getting taller. While the average height for cold buildings ranges from about 36 to 40 feet, Pertel said he’s seen a few facilities with 140-foot clear heights. Automation and robotics play major roles in those warehouses, particularly automated storage and retrieval systems (AS/RS).

Fire can be a danger in refrigerated buildings. These facilities use a lot of polyurethane insulation, which can burn easily. They also rely on ammonia-based refrigeration equipment, and the chemical can accelerate combustion at concentrations between 15% and 28%, according to a 2019 article from the NFPA (National Fire Protection Association) Journal.

Lyle noted that when refrigerated buildings exceed 45 feet in height, they will start to require cutting-edge, specialized fire-suppression systems that will not freeze the water supply in the cold environment. These include Tyco’s Quell system, which uses a

Looking Ahead: Cold-Ready Facilities

The demand for cold buildings has been steadily growing even before the current e-commerce surge. Food is moving away from canned and packaged goods to fresh and frozen options. As the variety of foods available evolves, new standards in food safety have made some older cold buildings a liability.

Cold storage buildings have traditionally been developed as build-to-suits, but a new trend is starting to emerge — developing cold buildings on spec.

Ware Malcomb recently collaborated with Hunt Southwest on the first spec cold building in the Dallas/Fort Worth area that was planned as a “cold ready” facility, with multitenant capability designed to serve the surging demand for cold storage.

Ware Malcomb recently launched a comprehensive spec “cold ready” development strategy that allows developers to significantly reduce the initial capital investment while providing the building shell with the very specialized features that allow for a quick conversion to a cold building. Three spec cooler buildings are on track to start construction in 2020.

An upcoming issue of Development magazine will examine this emerging asset class. ■

“surround and drown” method to encircle and douse the fire area with large volumes of water.

However, she said there are still some jurisdictions that have hesitations about Quell systems because the product hasn’t completed NFPA certification.

“We think it’s going to be another two years before we really start to see Quell be universally accepted once it gets through the NFPA process,” she said.

Despite that, Lyle said that taller warehouses can be more cost-effective to operate.

“What drives a lot of the desire for verticality is that you can bring down your refrigeration costs per pallet,” she said. “You can get more pallets stacked vertically rather than side to side.”

Having an early conversation with the design team and bringing in the right people to do due diligence can make the difference in a successful cold storage project, she said.

“If I’m coming in late, there have already been some missed opportunities, and there will be some surprises

with utilities and design changes,” Lyle said.

Getting it right takes research and study, Dodaro said.

“Speed to market is very important; however, refrigeration equipment is not an off-the-shelf product, and it can take six to 12 months to be delivered and installed,” he said.

He added that these facilities are often major power users and can require significant water treatment and sanitation capabilities. For example, Dodaro said cold facilities that process food can require 60,000 to 100,000 gallons of water a day.

As for power usage, an article in the Spring 2020 issue of Development magazine pointed out that refrigerated warehouses consume an average of 24.9 kilowatt-hours (kWh) of electricity per square foot each year. By comparison, dry warehouses use an average of 6.1 kWh of electricity per square foot each year.

But these buildings can last. Dodaro has seen facilities that are 40 to 50 years old with upgraded systems.

According to “Understanding the Temperature-Controlled Environment,” cubic feet can be a more important metric than square feet for many developers and operators of cold-storage facilities. While the average height for cold buildings ranges from about 36 to 40 feet, many newer facilities are significantly taller.

“I think you’ll see an increase in value for second-generation cold space,” said Sours.

Finally, Lyle said the technology in these buildings will keep on evolving.

“If you think about a refrigerator in your house that was built in the 1980s vs. a refrigerator you get now, it’s significantly more energy efficient,” she said. “It’s the same in cold storage.” ■

Brielle Scott is senior communications manager at NAIOP. Managing Editor **Trey Barrineau** contributed to this report.

Learn More About Cold Storage

The NAIOP Center for Education is currently offering an online course, “Understanding the Temperature-Controlled Environment.” It examines trends and the current market landscape for cold storage facilities. It also details how these environments differ from traditional industrial projects, the specialized building features required and the challenges associated with these facilities.

To sign up for the course or to learn more, visit: learn.naiop.org/products ■

New & Noteworthy

707,000 sq. ft.

Oxford Properties Group recently unveiled plans to develop Canada’s first large bay **multi-level industrial property**. Comprising 707,000 square feet over two levels, the project will be built at Oxford’s **Riverbend Business Park** located in **Burnaby, British Columbia**. The ground floor comprises 437,000 square feet with 32-foot clear heights. The second story, which is accessible to full-size transport trailers via a heated ramp, consists of 270,000 square feet, 28-foot clear heights and a 130-foot truck court. The project is expected to complete in 2022.



633,000 sq. ft.

The Douglas Alred Company of San Diego recently opened a 633,000-square-foot **build-to-suit campus** in **Chandler, Arizona**, for **Northrop Grumman**, which will serve as the home for its launch vehicles business. Arizona Gov. **Doug Ducey** was on hand for the ribbon-cutting in November 2019. It was one of the largest construction projects in Phoenix in recent years. **Wes Balmer Architects** served as the architect, and it was constructed and delivered in 17 months.



215,000 sq. ft.

Hines, along with partners **Westdale Real Estate Investment and Management** and **Ivanhoé Cambridge**, will develop **The Stack**, a 16-story, **mixed-use building** with 15,000 square feet of street-front retail and approximately 200,000 square feet of office space in **Dallas’ Deep Ellum neighborhood**. The partnership is targeting both LEED Core & Shell and WELL certifications for The Stack. At completion, the project will be one of Dallas’ first new-construction projects to receive WELL certification.



There's Opportunity at the Office Park

COVID-19 could spur greater interest in transforming suburban office parks into mixed-use developments.

■ By Ray Kimsey

Suburban office parks were already experiencing a renaissance in the years leading up to the COVID-19 pandemic. A combination of rising commercial and residential rental rates in urban core areas and the desire of millennial workers to reduce their commutes had led real estate developers to transform older office parks into competitive properties by offering the right mix of uses and amenities.

The pandemic, which may have effectively reset corporate America's work/life balance equation, has given new impetus to this strategy. Nearly a third of Americans are considering moving to less densely populated areas in the wake of the pandemic, according to recent data from a Harris Poll conducted among 2,050 U.S. adults from April 25-27. This could significantly impact the attitudes of both office tenants and residential buyers regarding location and amenities. It would also be happening as futurists predict a "new normal" following the pandemic where remote working could become more accepted. In addition, even when restrictions are lifted, there will be an emphasis on outdoor amenities that support social distancing.

As commercial real estate leaders plan for the future, many are evaluating changing user preferences and are looking for creative solutions to meet the needs of changing demographic preferences. Here are some insights into reimagining aging office parks by realigning space and tenant engagement strategies through the introduction of residential and mixed-use elements.



A view of The Bishop mixed-use development from Peachtree-Dunwoody Road north of Atlanta. The location was formerly a suburban office park.

Photo by Thomas Watkins, courtesy of Niles Bolton Associates

Considerations and Challenges

Predictability Benefit. Repurposing and introducing mixed-use elements in an existing office park is in many ways more predictable than a greenfield site development project. There is no need to deal with entitlement issues, unknown soil and environmental conditions and the development of a stormwater management system. This allows siting solutions to be determined more efficiently.

Cost and Risk Mitigation. Local municipalities often welcome new tax-revenue-producing elements because they provide a benefit to the greater community. The ability to re-use existing roads, sewer lines and utilities on the site also reduces upfront costs and minimizes risk.

Cost and Complexity of Adding New Program Elements. When planning to add new program elements to an existing office complex, approach it with surgical precision. That means understanding exactly which new spaces

and building types will offer the most impact, as well as balancing new and existing construction to achieve overall harmony and balance. Also, avoid disruptions to existing building operations. This may require innovative scheduling and night construction.

Traffic. Traffic and site circulation are two of the most important aspects to consider when introducing new mixed uses in an existing office park. Adding residential and retail elements may dramatically increase traffic during different times of the day, especially after the traditional 9-to-5 office crowd has left. Community outreach programs can help convince residential neighbors that the project will accommodate increased vehicular and pedestrian activity.

Placemaking is Paramount. Leverage design, amenities and technology to create a new identity and a community with a sense of place. The goal should be to go beyond simply improving an aging suburban office park to increase rental rates. Commit to maximizing the

Repurposing and introducing mixed-use elements in an existing office park is in many ways more predictable than a greenfield site development project.

value of the improvements by including architectural features and design elements that work together to create a true live-work-play experience. Consider including innovative food and beverage offerings as well as recreational facilities and community green spaces that encourage interactions among the workforce population, residents and the community at large.

Rebranding as a Tool to Raise Profile.

It may not be enough to add additional mixed-use elements to an office park — rebranding is often a critical component of a successful redevelopment strategy. Prospective tenants and brokers may hold a negative perception of an older office park based on its earlier uses and its condition before redevelopment. Changing these perceptions generally requires a developer to devote time and resources to building a new brand identity for the property that reflects its new uses, design elements and amenities.

From Surface Parking to Residential Property

The Bishop in Atlanta is an example of how to breathe new life into an existing office property. The mixed-use development consists of more than 375,000 square feet of residential, retail and parking in the suburban Perimeter Center area north of Atlanta along Peachtree-Dunwoody Road. It's adjacent to two office buildings. With a mix of REIT equity and bank financing, commercial real estate developer RangeWater (formerly Pollack Shores Real Estate Group) leveraged a competitive land cost deal and converted

New & Noteworthy

207,635 sq. ft.

Archway Properties and **Ridgeline Property Group** recently completed the **Telge 290 Logistics Center**, a 207,635-square-foot **Class A industrial building in Cypress, Texas**. It is located approximately 24 miles from downtown Houston and George Bush Intercontinental Airport. The facility has 32-foot clear heights, an ESFR sprinkler system, 47 dock-high doors, two drive-in ramps and a 180-foot truck court. Telge 290 Logistics Center is the second joint venture project in Texas between Ridgeline Property Group and Archway Properties.



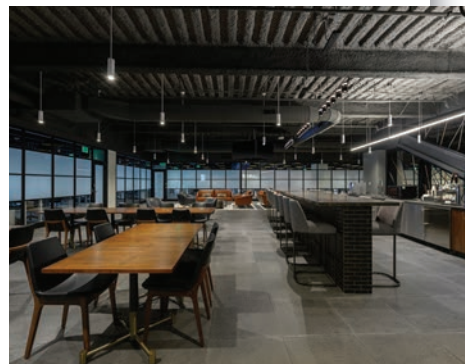
77,840 sq. ft.

Miami-based developer **Terra** has completed its **Mary Street development**, a former parking garage transformed into a new contemporary **mixed-use office and retail development** in the heart of **Coconut Grove's commercial district**. Developed in partnership with **Mayfair Advisors**, the adaptive reuse-designed building includes 77,840 square feet of Class A office space. Mary Street is among the first newly delivered Class A office spaces in Coconut Grove's business district in more than 20 years.



35,000 sq. ft.

Construction is now complete on **Flex by BXP** in **Boston**. It's a 35,000-square-foot full-floor first-class **flexible office space** in the 31-story Phase III office tower at Hub on Causeway for developer **Boston Properties**. Corderman & Company provided construction management services on the project. The \$6 million project on the third floor, designed in collaboration with architecture and interior design creative agency Design Farm, provides tenants with short-term, modular, plug-and-play space solutions in an open industrial environment.



existing surface parking into multi-family buildings.

The Bishop and the newly created Springwood Connector that runs to Peachtree-Dunwoody Road have transformed a suburban office park by creating a lively mixed-use streetscape complete with a public plaza and greenspace for the residents and office tenants to enjoy. Pedestrian walkways carve through the buildings, allowing access to restaurants, retail and a nearby Starbucks.

There were some hurdles to overcome. Even though original permit drawings were available, the team decided to invest in a full survey of the site and underground utilities, including ground-penetrating radar, to ensure that new structural foundations would not interfere with existing utilities.

With the existing and proposed uses of the sites so close to each other, maintaining separation between office tenants/employees and construction activities proved difficult in many instances, especially regarding traffic. A parking garage was constructed on the south end of the property to replace the lot that became the site of the apartment buildings. However, the new south garage could only be erected at night so that trucks would not block office traffic during the day. The city would not allow deliveries at night, so the pre-cast panels and tees had to be delivered to a remote location on the site away from the offices and then moved through the existing internal office roads after business hours.

This was an especially unique project from an approval perspective, as the site straddles the border between two counties. Improvement district standards covering the perimeter area helped make connecting the two sites painless, as did easement agreements allowing work to continue along the borders of both properties.

Related Research

In August 2019, the NAIOP Research Foundation published “Profiles in the Evolution of Suburban Office Parks.” The report looks at five developers who have recently updated suburban office parks in the U.S. and Canada to learn how they made these properties relevant for today’s market.

To view and download the report, visit:

www.naiop.org/Research-and-Publications/Research-Reports ■

The Bishop has several upscale amenities including a rooftop pool that overlooks the city and access to ground-level retail, all within walking distance to nearby shopping and restaurants. The project features two five-story buildings with a connecting public plaza and two precast parking decks for residents and retail visitors. Other amenities include dry cleaning, pet area, fitness center, and an outdoor courtyard with pool and grilling stations.

The façade is divided into two distinct masses. A dramatic masonry form anchors one corner and floats over ground-level restaurants, while contrasting gray tones and double-height balconies differentiate the adjacent shotgun-style units. Duplicate amenities are housed within each of the two buildings, allowing for the potential sale of the development as two independent properties.

Increased Residential Density = Higher Property Value

Peachtree Corners, another suburban Atlanta community, worked with real estate developer Brand Properties to assemble several parcels through public-private partnerships, land donations and density credits. The goal was to maximize property values and attract tech-focused millennials seeking live-work-play communities.

One parcel was within Technology Park, a sprawling office park from the 1970s with numerous low-rise brick office buildings. Some of the buildings were demolished, and Brand Properties constructed the 296-unit Echo Lakeside apartments.

The land assemblage presented significant challenges in the planning phase due to the steep terrain of the overall

site. To compensate for the drop in elevation across the site, the project incorporates full-story steps and terrace levels.

Leasing demand was greater than expected. Brand Properties was able to pre-lease the property at a rate above any of its previous properties, and occupancy has remained high since the development opened in 2018.

It appears that strategically increasing residential density can help improve property values. Prior to demolishing the office buildings for the new apartments, the office park property sold twice, once for \$2.2 million in 1995, then again for \$2.8 million in 2004, the Atlanta Business Chronicle reported. Brand Properties recently sold the development to Cortland Properties for \$66.1 million.

The project offers several distinctive features including a uniquely shaped pool, coworking spaces and a fitness center. It is bordered by two lakes where residents can fish and includes a boat dock for kayaking and an outdoor cabana/lounge. Land donated back to the city was developed as an 11.5-mile multi-use nature trail that connects to a larger trail system winding throughout Peachtree Corners.

Whether or not the migration to the suburbs continues in the aftermath of COVID-19, live-work-play communities will remain popular among millennials and soon-to-be empty-nesters. The common desire to enjoy the benefits of a dynamic, walkable lifestyle is contributing to the growth of this “new suburban” development model that continues to drive the transformation of aging office facilities. ■

Ray Kimsey, AIA, LEED AP, is president of Niles Bolton Associates.

New & Noteworthy

Future-Proofing Through Design: Resiliency in Boston's Seaport District

The Ora mixed-use project features elements that aim to mitigate flooding.

■ By Joe Sirkovich

Since 2010, the roughly 1,000-acre Boston Seaport District has rapidly developed into a vibrant neighborhood with accessible, year-round activity between Fort Point Channel, South Boston, the Marine Industrial Park and Boston Logan International Airport. Located on the far eastern edge of the Seaport, Arrowstreet's 2.5-acre Ora is poised to open this fall. It is a new gateway development with direct access to a stop on the Massachusetts Bay Transportation Authority's Silver Line bus rapid transit line.

A primary focus of this 500,000-square-foot residential, hotel, restaurant and retail development was to incorporate community-oriented urban design that also addresses the resiliency challenges of the Seaport District.

During the initial phases of design, the Massachusetts Port Authority's (Massport) floodproofing guidelines were instrumental in providing a framework to address the resiliency challenges of the Seaport District. Since many of Massport's properties, including Ora's Parcel K, are located on the edges of Boston's Inner Harbor, they are more prone to flooding hazards caused by extreme storms and rising sea levels. Therefore, in November 2014 Massport developed a Floodproofing Design Guide into its capital planning and real estate development processes to

26,000 sq. ft.

Northwell Health recently opened the **Cohen Children's Northwell Health Pediatric Cardiology Clinic**, an adaptive-reuse warehouse renovation in **Lake Success, New York**. It features 34 exam and consultation rooms, administrative offices and support space. The interior has floor-to-ceiling windows, high-end fixtures and a playful color scheme designed to appeal to both children and teenaged patients. Each of the corridors has either a yellow, green or blue theme and kid-friendly murals. Administrative offices are situated at the rear of the clinic, with exposed structure and original clerestory.



18,922 sq. ft.

Ware Malcomb recently rebuilt the **corporate offices and showroom for Sam Clar Office Furniture** in **Concord, California**. Construction began in 2018 on the renovation of the company's facility, which was severely damaged in a fire on Thanksgiving Day in 2015. The interior design features a mixture of permanent hard wall construction, as well as demountable walls for future flexibility. A living green wall provides a natural accent to the space. The exterior of the building features new custom steel storefront systems, steel canopies, textured stucco finishes, wood finishes and new paint.



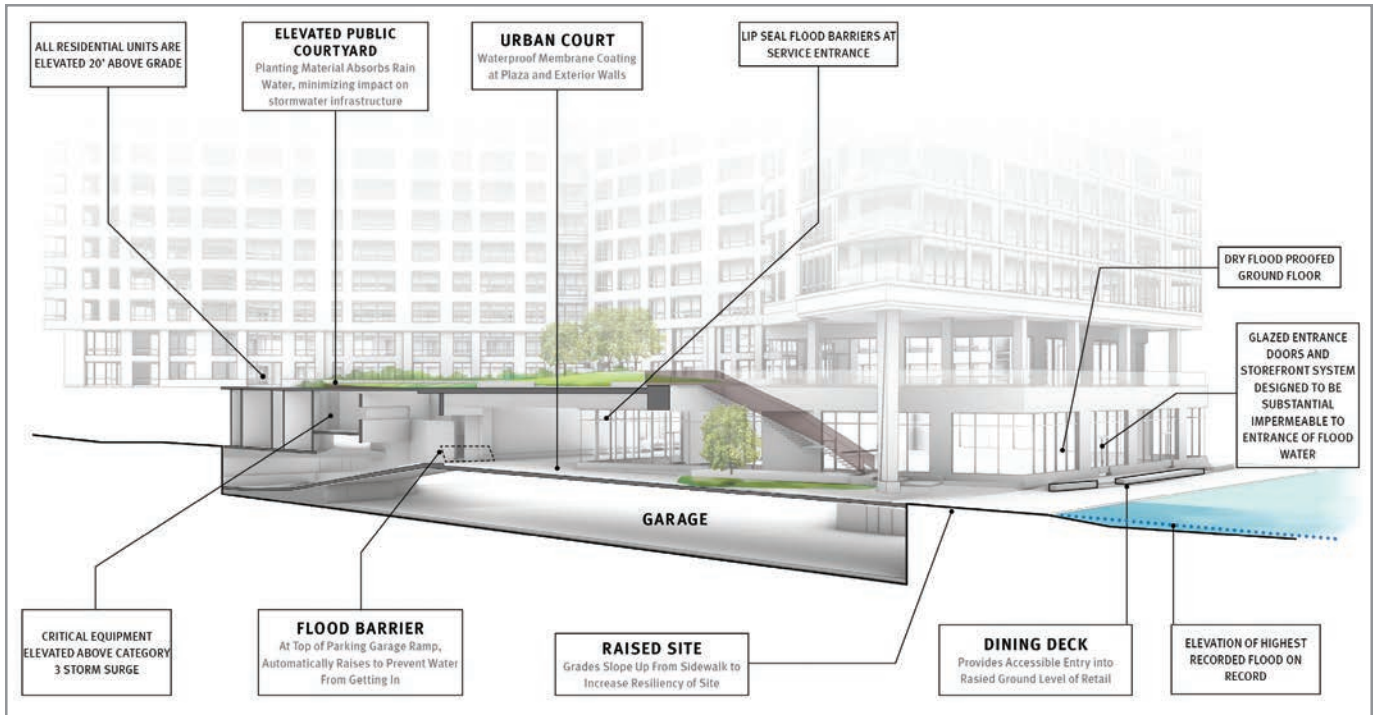
11,325 sq. ft.

RevOZ Capital, a real estate investment firm specializing in Opportunity Zones, recently broke ground on an 11,325-square-foot, build-to-suit **office project** in **San Bernardino, California**. Previously a residential one-story triplex, the single-story facility will house San Bernardino County's **Children's Department of Behavioral Health**, providing mental wellness care to some of the most vulnerable and underserved members of the community. Construction is scheduled to complete by December 2020. ■



Pings Architecture

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.



Courtesy of Arrowstreet

This schematic rendering shows some of the floodproofing measures at the Ora Parcel K development in Boston's Seaport District.

make its infrastructure and operations more resilient. The guidelines address both existing buildings and new construction and include information on current design flood elevations, practical applications of both wet and dry floodproofing strategies, building performance standards, how to protect critical building infrastructure systems, and the processes for review and approvals. The document will be regularly updated with the latest proven best practices and advancements in technology.

As one of the first new Massport developments to comply with the floodproofing guidelines, Ora has a variety of interwoven public spaces that accommodate a mix of uses but still offers a level of protection from rising tides and storm surges.

Water Hazards

Like much of the Boston area, including East Boston, South Bay, Cambridgeport and the Back Bay, the Seaport District is mostly filled land with an average elevation that's just a few feet above sea level. Arrowstreet, in partnership with Lincoln Property Company and Phoenix Property Company, developed a project that could mitigate the coastal flooding risks while complying with the Federal Aviation Administration's height restrictions due to the site's proximity to the airport.

The design and development team took an approach to resiliency with initiatives that address immediate needs while incorporating long-term strategies. To address storm surge and rising sea levels in the near future, the development has a number of climate-

resilient elements for the unique challenges within Boston's Seaport District.

Ora is the first project in Boston to use passive flood barrier gate technology. This four-foot-tall gate protects the lower parking level and is recessed in the concrete floor at the top of the garage entry ramp. The gate is only activated by rising water.

The floodgate is actually a buoyant panel constructed of hollow aluminum extrusions. The extrusions are designed to be structural while also providing excellent floatation. The rising floodwaters create the hydrostatic pressure to float the buoyant aluminum beam and flip it into a vertical position. This process also activates self-sealing rubber gaskets located at both ends of the gate. In addition, the extrusions are chambered to provide floatation even if a panel is compromised. The cost for such a system can range from \$110,000 to \$124,000.

continued on page 26

A primary focus of this 500,000-square-foot residential, hotel, restaurant and retail development was to incorporate community-oriented urban design that also addresses the resiliency challenges of the Seaport District.

THE LAST MILE

Rockefeller Group is focused on developing properties designed to connect customers with products as quickly as possible. We plan our projects for the most efficient access from ports and inland distribution hubs to the nation's major population centers. Over the past two years, we've completed more than 4 million square feet of industrial development from California's Inland Empire, to Northern New Jersey, Atlanta and Charlotte, N.C. Combined with a Foreign Trade Zone Services division with decades of national expertise, we're proud to be a partner of choice for leading businesses, investors and joint venture partners.

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Flood-resistant aluminum doors and storefronts on the first floor are custom-designed to blend into the overall window walls and door frames and offer waterproof protection from up to four feet of rising waters. These reinforced and gasketed doors look like typical storefront systems but are designed to meet Federal Emergency Management Agency (FEMA) flood testing standards.

The project's design specifications required in-situ testing of the assembled system. A large chamber was built on site around an exterior portion of the doors and storefront and filled with several hundred gallons of water to simulate flood conditions. The water level was elevated to four feet above the finished floor for one hour to simulate flood conditions and hydrostatic pressures. Interior seepage was measured every few minutes and compared to allowable FEMA testing standards. The installed system performed well and exceeded the required testing criteria.

Landscaping elements such as planters, sloped walks and walls that can double as outdoor seating integrate into the raised entry areas and seamlessly boost the elevation of the ground floor to further protect it from flooding. These passive systems eliminate the need for more traditional deployable flood barriers and fences that would be assembled around the entire building. Traditional systems also need a lot of storage space, a team of staff to implement and disassemble them, and regular training to anticipate flood events. Instead, integrated and passive flood resistance within the building envelope and site elements minimizes the possibility of costly mishaps and errors inherent in traditional systems.

As one of the first new Massport developments to comply with the floodproofing guidelines, Ora has a variety of interwoven public spaces that accommodate a mix of uses but still offers a level of protection from rising tides and storm surges.

To address long-term resiliency and climate projections, the entrance level, comprised of restaurants, retail and innovation spaces, has been elevated and dry-floodproofed to meet the design flood elevation (DFE) as recommended by the Massport floodproofing guidelines and the Boston Planning and Development Agency's Coastal Resilience Design Guidelines.

Additionally, the ground floor is much taller than typical ground-floor spaces. This allows for future adjustments to the first level if the adjacent roads and sidewalks are raised to prevent flooding. It's a strategy that Miami Beach has evaluated to protect its assets, and it's also one measure the city of Boston is considering through its new Coastal Flood Resilience Design Guidelines, which are expected to go into effect this year.

All residential living spaces and hotel guest rooms are also raised 20 feet above the grade level to protect residents and guests. Extensive landscape elements at the rooftop, courtyard and second levels are strategically located to absorb rainwater. The hotel and apartments are also seeking LEED Silver certification. One of the many LEED points being pursued by Ora's owners is a Hazard Assessment prerequisite that also requires at least one of two options — Climate Related Risk Management Planning or Emergency Preparedness Planning.

Go High

To maintain uninterrupted building and service operations, all emergency generators are roof-mounted, well clear of potential floodwaters. Fuel

storage tanks, electrical transformers and building operations offices are raised well above the ground floor at a secure mezzanine level. During the design phase, Arrowstreet employed its Virtual Reality Studio to present sea-level-rise scenarios and probable impacts to the site. This process allowed the client to more clearly appreciate the consequences of such events while presenting a visualization of a measured and passive response. In addition, potential storm surge and sea-level rise were presented through clear drawings, diagrams and models. This was a critical step to get all stakeholders to agree about how best to protect this asset.

The final neighborhood-oriented design solution includes a thoughtful balance of property types. The project integrates 304 units of housing, 423 spaces of underground valet parking, the 297-room Hyatt Place Boston Seaport District Hotel, flexible office space, restaurants and retail — with all programmatic elements focused on resiliency. Implementing many of these resiliency features came with some added costs that the owners were fully aware of and willingly promoted in order to protect their investment, their tenants and the residents.

In the end, the cost for these additional resiliency systems will be measured over the long-term performance of a building that should be able to withstand a major disruptive event within expected parameters, recover within an acceptable time and minimize risks to property and occupants. ■

Joe Sirkovich, AIA, LEED, is a senior associate with Arrowstreet.

How to Fight Excessive Property Taxes During COVID-19

Cash-strapped municipalities may look to extract more revenue from commercial properties.

■ By J. Kieran Jennings and Greg Hart

It would be difficult to conceive of a more impactful event for the commercial real estate market than the coronavirus pandemic. Short of finding a cure for COVID-19, the tremendous state of flux in the sector will test the resourcefulness of commercial property owners and operators for months or years to come.

Market changes always create winners and losers; the more dramatic the shift, the greater the wins and losses. In the current market shakeout, commercial property owners are asking how to best position themselves to land on the winning side. The old standby that “cash is king” is sure to apply as the economic fallout settles, and reducing the real estate tax burden is a great way to conserve capital.

But it won't be easy. Taxpayers who plan to contest high taxable values on their commercial properties face an uphill climb. Here are some common difficulties to expect, along with opportunities to consider in tax appeals.

Valuation date dilemmas. The first problem for many owners who want to reduce their tax burden relates to the timing of the pandemic. Most U.S. communities began feeling the impact of COVID-19 in March or later. However, most jurisdictions had already assessed properties with a fixed valuation date of January 1, 2020. Also, most assessors are unwilling to consider the coronavirus in valuation until January 2021.

Damage provisions. Some jurisdictions have statutory provisions that may apply to properties for the damage done by COVID-19. There is a push to clarify Ohio's statute to recognize the effects

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of COVID-19, for example. There are similar provisions under consideration in Illinois. Additionally, Pennsylvania has valuation dates that could prove useful for taxpayers. NAIOP and other real estate organizations have supported these actions at various levels. Owners should determine whether they can claim pandemic-related damages in contesting tax bills they are now receiving.

What about next year? Even if a taxpayer cannot pursue a challenge on the current assessment, they can take steps to reduce future assessments. This means meeting with the local assessor to establish a proper assessment before it becomes final.

For taxpayers who choose to follow this advice and address future assessments now, make sure to treat any informal meeting as if it were a hearing. Come prepared — with accurate data demonstrating the impact on property value. Discussing anecdotally that stay-at-home orders and other restrictions affected the property value is insufficient — these circumstances are the reason the taxpayer can begin the conversation, but not the substance of a compelling case for revaluation.

Substantiate arguments. Show the assessor hard numbers demonstrating how COVID-19 or the post-COVID economy affected the specific property. Have social-distancing measures, residential migration or other changes created density challenges? Is there a measurable decline in occupier demand, or a decline in foot traffic and business activity at tenants' businesses? What is the economic feasibility of the tenant base? Whatever the reasons

Show the assessor hard numbers demonstrating how COVID-19 or the post-COVID economy affected the specific property.

for revisiting the valuation, the property owner should be prepared to show the impact with the same supporting material they would use to pitch the project to investors or lenders. Use facts and figures. Bring in experts. Many taxpayers are fighting for the survival of their investment, and they should act accordingly.

Vet the team. Insist that any outside tax counsel or consultants understand the taxpayer's position. This is not business as usual, so educate advisors about the real estate's value. Work as a member of the team and communicate with its members, from local counsel

Some jurisdictions have statutory provisions that may apply to properties for the damage done by COVID-19. There is a push to clarify Ohio's statute to recognize the effects of COVID-19, for example.

to the valuation expert, and talk with the individual who will meet with the assessor. Formulate a plan together and then be flexible, allowing people to pivot when they see something changing. If the team understands how to determine assessed value and understands the owner's position, then trust them to make changes in the moment as they see fit.

Anticipate challenges. How can a taxpayer prove what the assessment should be amid so much uncertainty, and with little to no sales evidence to assist in determining value? Always attack the obvious head on. For instance, if the price paid for a recently purchased property is unhelpful, analyze the sale using the same expectations established in due diligence. This may eliminate the sales price as an indicator of market value, allow-

Insist that any outside tax counsel or consultants understand the taxpayer's position. This is not business as usual, so educate advisors about the real estate's value.

ing the team to then present more beneficial and relevant points. Use the law, use facts and use prior experience where similar facts lined up.

Prepare for resistance. State and local governments are in a tough spot. All over the country, there are budgetary shortfalls at the local level because of the pandemic. Many communities and schools rely on income tax, sales tax and property tax, but in the current environment there is little sales tax revenue, and it appears income tax will take a hit. Property tax is all that is left.

Appeals will not be easy. The team's appraiser must be able to establish a value and defend it. Their testimonial skills, whether in court, at a hearing or informally, are as important or more important than the valuation itself. Also, contact a local expert; market value may not be the only available avenue to a fair and uniform assessment. Owners fortunate to have their commercial properties fairly and uniformly assessed (and not negatively impacted in the pandemic) can perhaps refrain from filing an appeal. In a state where a board or court can raise assessments, an unwarranted appeal may lead to an increase in assessment, although in most states, increased assessment from a tax appeal is rare. ■

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The Tax Benefits of Turning Art into Real Property

Proposed regulations could help developments financially as well as aesthetically.

■ By Daniel Pessar

A 14-foot steel sculpture of a red balloon rabbit adorns the lobby of 51 Astor, a Class A office building in Manhattan developed and owned by Edward J. Minskoff Equities. The piece's value may be difficult to appraise, but any estimate would probably be substantial: In 2019, a three-foot steel bunny by the same artist, **Jeff Koons**, sold for more than \$91 million.

Bringing an impressive piece of art into the lobby can elevate the status of a property and serve as a welcome amenity for tenants. But significant tax benefits can flow from incorporat-

ing art into real estate projects.

Under the 2017 Tax Cuts and Jobs Act (TCJA), assets such as airplanes, ships and art can no longer benefit from like-kind tax-deferred exchanges provided for in Section 1031 of the Internal Revenue Code. Like-kind exchanges allow property owners to avoid triggering a taxable gain when selling property as long as they purchase property of a similar type during the same time period.

Before Congress changed the law, investors selling pieces of art at a gain could purchase other pieces and enjoy

Section 1031 benefits in the same way that real estate investors do. The TCJA, however, limited Section 1031 benefits to real estate. Investors in a variety of industries, including the art world, lost this tax benefit.

The REIT regulations include an example citing that sculptures can qualify as inherently permanent structures and, therefore, as real property.

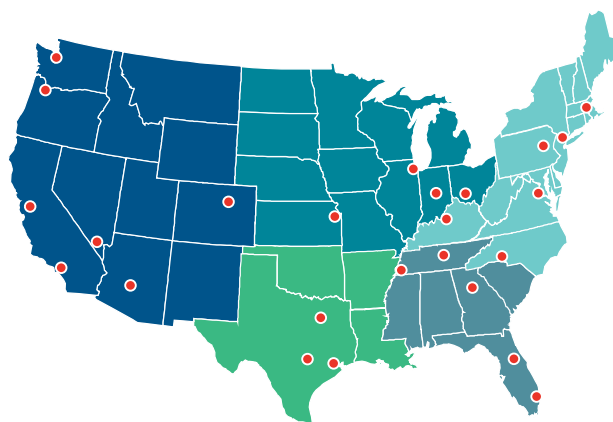
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But while Section 1031 is now limited to real property exchanges, the definition of real property eligible for Section 1031's benefits is not clear in the tax code. In contrast, Treasury Regulation Section 1.856-10(a), interpreting the section which defines real estate investment trusts (REITs), includes a definition of real property: "inherently permanent structures" (e.g., permanently affixed cell towers, fences or railroad tracks) and "structural components of inherently permanent structures" (e.g., fire escapes, doors and chimneys if integrated into the inherently permanent structure and owned together with that structure).

The REIT regulations cite a sculpture as an example of something that qualifies as an inherently permanent structure and, therefore, as real property. In that example, an office building atrium is described with a sculpture that "measures 30 feet tall by 18 feet wide and weighs five tons. The building was specifically designed to support the sculpture, which is permanently affixed to the building by supports embedded in the building's foundation. The sculpture was constructed within the building. Removal would be costly and time consuming and would destroy the sculpture."

The REIT regulations include a test to determine whether assets not specifically listed in the rules are considered to be real estate, and the sculpture example is analyzed in the regulations using that rule.

Until recently, however, Section 1031 investors did not have clear guidance about which assets purchased or sold with a building sale would qualify for the tax-deferred exchange. Wrongly assuming that certain assets constitute real estate could result in an exchange that might be challenged by the IRS in whole or in part. And assuming that certain assets could not be included



"Balloon Rabbit (Red)" by acclaimed sculptor Jeff Koons greets visitors to the lobby of 51 Astor in New York City.

Photo by Janine and Jim Eden, License: Attribution 2.0 Generic (CC BY 2.0)

within the exchange, selling them in a simultaneous transaction that did not benefit from tax-deferral benefits could cause investors to trigger gains unnecessarily or to pursue a less beneficial course of action.

In response, the IRS issued proposed regulations in June that were taken in large part from the REIT regulations. As in the REIT rules, the proposed Section 1031 regulations provide examples of "inherently permanent structures" and "structural components of inherently permanent structures" and provide a test for determining whether an asset is an inherently permanent structure that qualifies as real property for Section 1031 purposes. The determination is based on the following five factors: "(1) The manner in which the distinct asset is affixed to real property; (2) Whether the distinct asset is designed to be removed or to remain in place; (3) The damage that removal of the distinct asset would cause to the item itself or to the real property to which it is affixed; (4) Any circumstances that suggest the expected period of affixation is not indefinite; and (5) The time and expense required to move the distinct asset."

The proposed regulations even include an example involving a statute that is almost copied word-for-word from the REIT regulations. All five factors clearly support the sculpture as an

inherently permanent structure, and the proposed regulations make clear that the sculpture would be real property. In certain cases, this can mean a valuable tax deferral for developers despite the 2017 changes to Section 1031. But the IRS's proposed treatment of art as real estate is solely for the purpose of the like-kind exchange tax provisions. Tax benefits such as depreciation deductions, which are generally not available for art assets, will not become accessible to art owners as a result of the proposed regulations.

In the new proposed regulations, the IRS made clear that taxpayers may rely on the proposed regulations pending the enactment of final regulations. As a result, developers might consider making art an important part of current and future project plans. There will be a wide array of possibilities for incorporating art into real property in a way that qualifies the pieces as inherently permanent structures.

For example, the regulations provide that "affixation to real property may be accomplished by weight alone." Yet the new rules, and the five-part test presented by the IRS, require qualifying art to be permanently affixed, a feature that may involve planning by designers, architects and developers. ■

Daniel Pessar is a student at Harvard Law School. Before law school, he worked in real estate private equity for six years.

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CEO On Leadership: Kimberly Sherman Stamler, President, Related Beal

The leader of this Boston real estate firm talks about the COVID-19 pandemic and shares other perspectives on the industry.

■ By Ron Derven



Kimberly Sherman Stamler

Development: *How is your company coping with the COVID-19 emergency?*

Kimberly Sherman Stamler: First and foremost, we've prioritized the health, safety and well-being of our Related Beal team members, our tenants, residents and partners. And, like most companies, we have been managing through the past few months while staying in close touch with our tenants and with each other. We've been able to pull through this difficult period because of the strong team we've assembled and the fact that all of us have been in constant communication.

Throughout the COVID-19 pandemic, our office buildings continued to operate — with strictly enhanced safety protocols — so essential workers could continue to do their jobs. Our building teams have done an excellent job throughout. We also adjusted our residential programming to keep the residents engaged, entertained and informed.

Early on, we took the time to thoughtfully plan for a safe reopening for tenants, residents, employees and partners. As a result, we've implemented strict protocols across our buildings and on our construction sites to ensure that social distancing is observed, that cleaning is at the highest standard, and to make sure that we're communicating all of this clearly.

Finally, we've used the past few months to look at how our industry may change and what we can do to anticipate what's coming next. We are exploring new touchless and cleaning

technologies for residents and tenants, as well as new communication strategies that will help keep us connected.

Development: *How is the city of Boston coping with the many challenges of COVID-19?*

Stamler: Boston is a collaborative city with great leadership. We have a strong foundation built on the fundamentals of community and collaboration. So, at challenging times like these, we are well positioned to rally together to keep moving forward.

Development: *COVID-19 has impacted our industry, but it's unclear what the long-term effects will be. How does your firm plan for the inevitable downturns?*

Stamler: As a company, we are always trying to be forward thinking. We build a plan for what's in front of us, and also what may be ahead.

Development: *What is your outlook for the commercial real estate industry in Boston and the region over the next three to five years?*

Stamler: Boston is an extraordinary city. People want to live here, work here, attend school here and vacation here. The city has world-class medical facilities and educational institutions; it is rich in history; it is innovative; and it has a powerful sense of community that we all share. This all provides a unique foundation that has made Boston the remarkable city that it is. I am very excited about the growth of

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“I love the diversity of the projects. Real estate development is about where people live, work and engage in their communities — dining, exploring parks and new neighborhoods and always having the ability to do or see something new.”

— Kimberly Sherman Stamler

Parking Design That Supports the Customer Experience



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the city — and the region — in the near and long term.

Development: *What attracted you to a career in commercial real estate?*

Stamler: Even as a child I was drawn to the intricacies of how cities work, and although I didn't realize it then, I was fascinated by the built environment — things like transportation networks, building design and construction, and public space and seeing how all the aspects of a city come together. I was an urban studies major in college, where I got to study a range of disciplines from urban economics to zoning and education, and my senior thesis was on public-private partnerships. I became focused on how cities grow and thrive, and, for me, that translated into real estate development. I love the diversity of the projects. Real estate development is about where people live, work and engage in their communities — dining, exploring parks and new neighborhoods, and always having the ability to do or see something new.

Development: *Tell us about how you got started with The Related Companies, developer of Hudson Yards in New York City, the largest real estate project in U.S. history?*

Stamler: I was an intern at Related in college, and then started my career at Related after graduation. One of the earliest developments I worked on was a residential rental project with an affordable-housing component that came out of the rezoning of the West Chelsea neighborhood in Manhattan.

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I then worked on increasingly larger projects for the firm. One of my favorite developments was Riverwalk on Roosevelt Island, which is a 19-acre, nine-building mixed-income, mixed-use community. While in New York, I began working on my first Boston project (The Clarendon/One Back Bay, a mixed-use development with rentals and condominiums). I fell in love with Boston, eventually moved there as COO of Related Beal and was named president in 2016.

Development: *What is your primary role as president of Related Beal?*

Stamler: We have a talented team here, and my primary role is to support — with finance, construction, design, management — all of the different areas of our business.

Development: *What qualities do you look for when hiring senior staff?*

Stamler: Our team is filled with people who are intellectually curious, collaborative, innovative and nimble. We want to build on that culture, so I look for people who are enthusiastic about the work, excited to learn from others and willing to listen to different ideas.

Development: *How do you resolve the inevitable conflicts that arise within the company?*

Stamler: I address conflicts head on. With everything we do, we have constant opportunities to learn, and conflict is yet another of these opportunities. I always want to know and learn what got us here, how do we resolve it and how do we move forward.

“The advice I have for women is the same advice I have for anyone coming into commercial real estate today — work hard, pay attention, be willing to learn and realize that there is always something more to do, even if it is not specific to your job.”

— Kimberly Sherman Stamler

Development: *Although women are finally moving into senior positions in the commercial real estate industry, it is still a male-dominated sector. What advice do you have for women entering the business today?*

Stamler: The advice I have for women is the same advice I have for anyone coming into commercial real estate today — work hard, pay attention, be willing to learn and realize that there is always something more to do, even if it is not specific to your job.

There are so many opportunities in this business — finance, marketing, design, construction and operations to name a few — that there is always someone in our industry who you can learn from. I encourage people at our company to make those connections. Maybe it is reaching out to a colleague, following up with a speaker on a panel, or connecting with someone in a different industry.

Development: *What was the best advice you were given starting out in the business?*

Stamler: Focus on the people in the company, what the company is doing and how it all gets done.

Development: *What are the crucial lessons you have learned from your years in business?*

Stamler: I'm going to twist the question in a bit of a knot, because I think the larger point is more important than any single lesson. Every situation in business presents a unique learning opportunity. Every day is different, and though a challenge may seem similar to one that you've faced in the past, there's always the opportunity to take something new and valuable away in each instance.

Development: *How do you manage your time to successfully run a major development company and to give back to the community and industry?*

Stamler: I have the support of a wonderful family, colleagues at Related Beal and the people on the boards on which I serve.

Development: *How do you de-stress on your time off?*

Stamler: By spending time with my family and embracing downtime. It could be sports-related, visiting a new neighborhood in Boston or a new city, experiencing the great outdoors in New England, or perhaps starting a new art project with my kids. ■

Ron Derven is a contributing editor for Development magazine.

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Improved Office Accessibility Can Benefit Everyone

A broader definition of “disability” makes the workplace easier to navigate for all employees.

■ By Brian Collins

The core duty of Microsoft’s corporate real estate team is building and managing productive work environments. Ensuring that the company’s workplaces support the productivity needs of a globally diverse employee population is its biggest challenge.

As part of its workplace planning, Microsoft gives ample consideration to workforce members who face impairments in vision, hearing or mobility. For the company’s real estate and facilities team, “disability” is not a personal limitation, but a spatial one in which the work environment fails to match what a person wants to achieve given a particular physical circumstance.

For instance, not everyone will experience a permanent disability, but almost all people occasionally need some accommodation. Every doorknob, curb, stairway and bathroom fixture becomes an obstacle when hands are full, a person is in an arm sling or on crutches because of an injury. These are the times when a truly accessible workplace benefits everyone.

Higher Standards

Many countries, including the U.S., Canada, U.K. and Australia, have well-defined, strictly enforced accessibility codes, while others have less-



The Americans with Disabilities Act (ADA) Standards for Accessible Design set out a range of parameters for mobility-impaired users in offices and other buildings. Microsoft has its own standards that it says exceed the ADA's.

Getty Images

defined codes or no codes at all. The Americans with Disabilities Act (ADA) Standards for Accessible Design in the U.S., for example, specify a broad selection of parameters for mobility-impaired users, such as the dimensions of curb ramps, the heights of counters, the minimum size of washrooms and the placement of automatic door openers. These and other rules represent

what Microsoft thinks of as a baseline, but because Microsoft pursues inclusivity for all users and is a global organization, its real estate group has developed its own Accessible Workplace Standards to ensure a consistent experience across its portfolio. These standards often exceed the minimums required by host countries (including the ADA in the U.S.), and Microsoft is working to upgrade all its offices to meet them.

To help track and evaluate success in this area, the company recently launched a global “building accessibility scorecard,” which documents the specific accessibility features already in place at every site. The scorecard acts as both a starting point and a checklist for updating existing offices

For instance, not everyone will experience a permanent disability, but almost all people occasionally need some accommodation. Every doorknob, curb, stairway and bathroom fixture becomes an obstacle when hands are full, a person is in an arm sling or on crutches because of an injury.

to the company's baseline standard, as well as for building advanced accessibility features into all full renovations and new builds.

Moreover, many of these accessibility features are not high-cost items per se, especially during a remodel or new design. Most just require thoughtful design and someone to ensure it gets done.

For instance, if a lobby renovation includes new furniture, why not offer a table-height option for wheelchair users, and not just couches and coffee tables? Similarly, if a ramp needs to be added into a design, why not integrate it into the general office circulation?

The Best Accessibility Goes Unnoticed

Microsoft believes the best accessibility solutions are universal and don't call attention to themselves in ways that single out the user as requiring accommodation. Automated front door entries, grab bars in bathrooms, door handles instead of knobs and many other assistive solutions are natural for anyone to use and form the baseline accessibility features being added to all current Microsoft offices.

Renovations and new builds typically receive universally useful features such as roomy, accessible showers; automatic soap dispensers, faucets and toilets in washrooms; and kitchen and washroom sinks with faucets installed to the side of a basin instead of the back, so water is easier to reach. At a leased building in Israel, Microsoft negotiated with the building owner for an oversized revolving entrance door to easily accommodate those with wheelchairs, carts or suitcases. All of these accessibility features — simple, practical and of universal value to all users — never imply they are designed only for someone with a "disability."

Yet the Microsoft Accessibility Design Standards add many other, less-obvious, solutions that engender a

culture of inclusivity for all visitors and employees. For instance, meeting rooms are equipped with taller whiteboards designed to give those who sit and those who stand a place to write. Height-adjustable touchscreens

in common areas, signage with both Braille and high-contrast lettering, foot-height mechanisms to call elevators, and a selection of low-, tall- and mid-height tables are other common requirements to help all users function



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with equal ease. All of these can be added at negligible cost during the design phase.

Microsoft prefers designs that elegantly integrate stairs and ramps, such as those at Buildings 40 and 41 at the company's main campus in Redmond, Washington. Steps are sometimes removed altogether in favor of a long, gentle slope, which is practical for outdoor areas and wide interior thoroughfares. Such solutions democratize the space and eliminate a subtle form of segregation for less mobile users.

Reception desks receive equally careful thought. Rather than just providing a lower section at the end of the check-in area where a wheelchair user is expected to face a host sideways, lobby desks have an open space below

the counter so people can wheel straight in to be greeted and signed in while facing forward. Surface tablets enable visitors with hearing impairments to communicate easily during check-in. When added during design development, simple changes like these give everyone a front-and-center lobby experience for little to no extra cost.

For employees with impaired sight and mobility, safe, integrated, easy-to-follow travel paths are achieved with well-planned railings, furnishings and changes in flooring texture. Visitors and employees at the Microsoft office in Bengaluru, India, for example, find tactile floor surfaces and continuously graspable handrails. Concrete "roads" through many dining venues at the Redmond, Washington, campus guide disabled people through congested

Moreover, many of these accessibility features are not high-cost items per se, especially during a remodel or new design. Most just require thoughtful design and someone to ensure it gets done.

queues. Many Microsoft offices in other countries have food service operations with specific payment terminals for wheelchair users and those who are blind or have low vision.

For those with low vision, the company also considers how color and pattern choices affect their ability to get around. Barriers such as glass walls can be difficult to detect, for example. At an office in the Netherlands, foiled glass in different colors was used to increase visibility. Similarly, careful attention to acoustics management, such as the use of sound-buffering surfaces and small "focus" rooms set off from open spaces, can make it easier for hearing-impaired people to follow a conversation amid surrounding noise and activity.

It's Better for All

Microsoft values creating workplaces that support people across the entire spectrum of being human. Universal accessibility, when done well, quietly fosters a culture of inclusivity by putting everyone on equal footing in the workplace.

It's also a business practice that helps landlords and property owners make their own spaces more adaptable and attractive to tenants. Everyone may face disability at some point — and a well-thought-out, accommodative environment serves us all. ■

Brian Collins is senior planning manager with Microsoft Real Estate.





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SOFR, the new U.S. dollar replacement rate, differs in crucial ways from its longstanding forerunner.

■ By Lisa Pendergast

The London interbank offered rate, or LIBOR, is a critically important number in the world of finance. It is the basis for hundreds of trillions of dollars in contracts around the world. These include everything from complex derivatives to home mortgage loans.

According to calculations from the Federal Reserve, the estimated exposure for U.S. dollar LIBOR alone is approximately \$200 trillion. Despite that large number, the underlying transactions that help determine LIBOR are a mere fraction of this amount. The rate is primarily based on submissions by certain banks based on what they estimate they would be charged to borrow from one another.

In 2012, as a result of various LIBOR scandals uncovered in the aftermath of the financial crisis, the U.K.'s newly created Financial Conduct Authority (FCA) was given regulatory oversight of LIBOR. Then, in 2014, the Financial Stability Board (FSB) published a report recommending the transition away from LIBOR to new reference

rates supported by actual market transactions as opposed to bankers' judgments. Soon after that, regulatory bodies and governmental agencies around the world worked to identify these new reference rates.

Finally, on July 27, 2017, FCA Chief Executive **Andrew Bailey** announced that the FCA would no longer compel banks to submit quotes for LIBOR after 2021. That left a little more than four years (now less than 18 months) for the eventual phasing out of LIBOR. The announcement galvanized global efforts to transition to these new reference rates.

The New Replacement Rate

In the U.S., the Federal Reserve formed the Alternative Reference Rates Committee (ARRC), a group of private-market participants, in November 2014 to identify a replacement rate for LIBOR. In June 2017, it announced the selection of the Secured Overnight Financing Rate (SOFR; pronounced "so-fer") as its preferred rate.

SOFR is a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury repurchase agreements ("repo"). Currently averaging well over \$1 trillion in daily trading, transaction volumes underlying SOFR (which began publication on April 3, 2018) are far larger than the transactions in any other U.S. money market, and they dwarf the volumes underlying LIBOR.

Beyond transaction volumes, SOFR differs from LIBOR in other fundamental ways (as shown in the table below). For example, SOFR is an overnight, secured, nearly risk-free rate, while LIBOR is an unsecured rate with a "term structure," as it is published at several different maturities (e.g., one-month, three-month, etc.).

Commercial Real Estate Finance and the LIBOR Transition

Commercial real estate (CRE) debt exposure to LIBOR is roughly \$1.3 trillion, of which approximately \$200 billion is securitized. The key securitized CRE/multifamily asset classes

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	LIBOR	SOFR
Definition	Unsecured wholesale interbank lending rate	Secured overnight repo rate
Maturity / Term	Various tenors, all forward-looking	Currently only overnight (in arrears)
Risk	Unsecured	Secured
Bank Credit Premium	Yes	No
Methodology	Subjective trimmed mean of panel bank submission rates	Objective volume-weighted median for various USD Treasury repo datasets
Underlying Daily Transaction Volume	~\$500 million; Very limited underlying transactions	More than \$1 trillion; Very deep pool of underlying transactions
Robustness	Low	High



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<p>SOFR Compounded "In Arrears"</p>	<p>Computed by compounding the daily/overnight SOFR that is reported each day during the interest period. For example, for the one-month interest period beginning on April 1, daily SOFR rates from April 1 through April 30 would be compounded.</p>	<p>Pros:</p> <ul style="list-style-type: none"> A. Rate can be optimally hedged given that there is no basis risk since the derivatives market uses an identical compounding convention; B. Reflects the actual path of interest rates during the interest period <p>Cons:</p> <ul style="list-style-type: none"> A. Rate is not known in advance (unlike LIBOR); B. Challenging to operationalize
<p>SOFR Compounded "In Advance"</p>	<p>Computed by compounding the daily/overnight SOFR reported each day during the month prior to the interest period. For example, for the one-month interest period beginning on April 1, daily SOFR rates from March 1 through March 31 would be compounded.</p>	<p>Pros:</p> <ul style="list-style-type: none"> A. Rate known in advance (similar to LIBOR); B. Easy to operationalize; C. GSEs adopting this approach <p>Cons:</p> <ul style="list-style-type: none"> A. Backward-looking by one month (assuming a typical monthly-pay CRE loan); B. Rate cannot be perfectly hedged (basis risk exists since the derivatives market uses a different compounding convention)

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that reference LIBOR comprise both agency (i.e., Fannie Mae and Freddie Mac) and private-label commercial mortgage-backed securities (CMBS) and CRE Collateralized Loan Obligations (CRE CLOs). Within the CMBS market, single-borrower (SASB) CMBS transactions represent a significant component of LIBOR-based private-label transactions.

Over the past year, the CRE/multifamily finance industry has made meaningful strides in the transition from LIBOR to SOFR. Most new floating-rate CMBS transactions now include some form of the new contract language recommended by the ARRC. Among other things, this language identifies the waterfall of rates that would replace LIBOR following a transition event (or “trigger”) from LIBOR to SOFR.

In December 2019, Freddie Mac issued a CMBS transaction with a SOFR bond class; in February 2020, the Federal Housing Finance Agency

(FHFA) announced that after December 31, 2020, Fannie Mae and Freddie Mac (the “GSEs”) would no longer purchase multifamily loans indexed to LIBOR.

The market continues to await the issuance of private-label floating-rate CRE securitizations indexed to SOFR; the absence thus far is largely due to the current differences between LIBOR and SOFR as it relates to term. As noted earlier, SOFR is an overnight rate while LIBOR is published at several different maturities. A SOFR term rate is currently unavailable as the market waits for heightened volumes and liquidity in the SOFR derivatives markets. Until then, markets are utilizing an *average* of the daily SOFR rate in place of the relevant term LIBOR (e.g., one-month, three-month, etc.). However, this is easier said than done as a simple or compound average may be used. Further complicating the issue is that two conventions exist to de-

termine the period of time over which the daily SOFR should be observed: “in arrears” or “in advance.” Each of these conventions has its advantages and disadvantages.

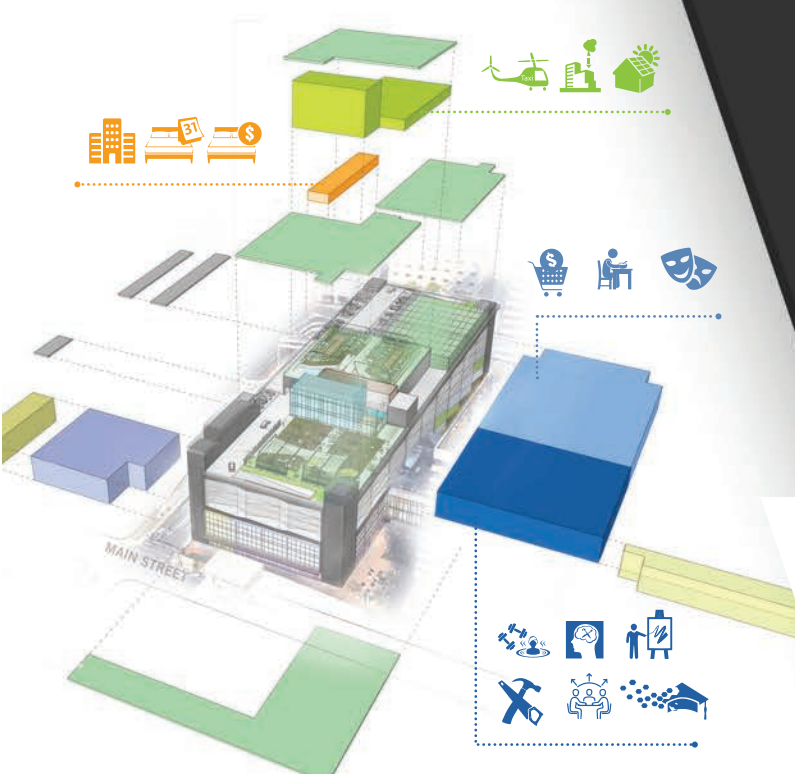
As a point of reference, the derivatives market has settled on using a compound average of SOFR “in arrears.” The securitizations market, however, has only coalesced around using a compound average, but has yet to decide on a convention (i.e., “in arrears” or “in advance”). The table above highlights the differences between these two conventions.

The pivotal difference in deciding between “in arrears” and “in advance” is that borrowers will want to know their interest rate before the beginning of the payment period and thus prefer “in advance,” while investors will want to know their return based on rates over the actual payment period, i.e., “in arrears.” According to research from the ARRC, differences in interest amounts

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calculated under the two conventions will tend to net out over the life of a loan if it remains outstanding for more than a few years. However, differences could crop up in any given period, and investors could gain or lose from one structure relative to the other. Frequency of payments could also be important, though the overall difference will typically be small in a loan that pays monthly compared to a loan with less frequent payment dates.

Next Steps for CRE Finance

The CRE Finance Council (CREFC) and the CRE/multifamily debt markets are narrowing in on a compounding convention for SOFR. Once this occurs, many other pieces in the transition will fall into place. These include the technology and systems enhance-

ments needed to support SOFR across originations, trading and servicing. Many vendors have made significant progress, but are waiting on guidance from the industry on how it wants to use SOFR in transactions.

CREFC, which is a member of the ARRC, is working with its membership on selecting a compounding convention and a spread adjustment, as well other key sticking points, including facilitating vendor readiness, related to the LIBOR transition. Once the industry unites around these key conventions, it should pave the way for the issuance of SOFR-indexed CRE loans and securitizations, and accelerate the overall progression away from LIBOR. ■

Lisa Pendergast is executive director of the CRE Finance Council.

Don't Wait to Comply with ASC 842

New accounting standard requires many types of leases to be added to corporate balance sheets.

■ By Bart Waldeck

Compliance with ASC 842, a new lease accounting standard from the Financial Accounting Standards Board (FASB), has preoccupied the accounting and finance departments of many companies since it was finalized in February 2016. The deadline for public companies to comply was December 2019, and while that date has come and gone, a Deloitte survey released earlier this year shows that after the deadline, 77% of respondents said their companies were either unprepared or only somewhat prepared to comply with ASC 842. The original regulations granted private companies an additional year to comply.

Public companies have faced many challenges since the deadline passed,

Public companies have faced many challenges since the deadline passed, with inadequate software often being the top issue. These challenges, which were exacerbated by the COVID-19 pandemic, have prompted FASB to enact a one-year extension for private companies. The new deadline is December 2021.

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Rules of Thumb for Distribution/Warehouse Facilities Design

Author **Byron Pinckert**, former principal with HPA, Inc., has drawn on his decades of industry experience to share best practices for planning and designing warehouse facilities in this publication. It has been updated with new information and detailed illustrations.

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- Field-tested approaches to complex design features.
- Material handling equipment.
- Racking system layouts.

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The introduction of ASC 842 means that almost every lease less than a year in duration — real estate, equipment and service leases — must be reflected on the balance sheet.

with inadequate software often being the top issue. These challenges, which were exacerbated by the COVID-19 pandemic, have prompted FASB to enact a one-year extension for private companies. The new deadline is December 2021.

The impact of this delay is significant. While it provides some breathing room, private companies should not wait to start working toward compliance. They should avoid the pitfalls of public companies that struggled with the compliance deadline, and they must develop a long-term, sustainable approach to adopting ASC 842.

What is ASC 842?

ASC 842 compliance involves many steps, and the first is understanding the implications of the regulation.

Previously, operating leases were “off-balance-sheet” and were only disclosed in the notes to a company’s financial statements. The introduction of ASC 842 means that almost every lease less than a year in duration — real estate, equipment and service leases — must be reflected on the balance sheet. This affects liabilities and many other financial ratios. The change in regulations is intended to improve investor transparency, but it is also resulting in increased hurdles for accountants and auditors.

Achieving compliance also means understanding the new definition of a lease, which for the purposes of the standard now includes not only property leases, but also equipment

and embedded leases. From there, companies must develop processes to manage and inventory all leases. After that, companies need to implement a new lease administration and accounting solution and then, because compliance is not a one-time event, develop ongoing processes and controls to sustain compliance.

Because of this impending deadline and the complexity of compliance, managing leases through spreadsheets is no longer an option. Most companies are turning to lease accounting software to ensure compliance. Among other benefits, lease accounting software can reduce compliance risk, create process and operational efficiencies, increase control over spending and provide better visibility into the entire lease portfolio. That, in turn, facilitates faster, more informed decisions. Aggressive, proactive management of lease-related expenses typically results in substantial savings by ensuring a company only pays what is contractually required under each lease.

Opportunities Ahead?

When it comes to leases, regulatory concerns are only half the battle. Ac-

It’s important to note that real estate, equipment and embedded leases can be complex, dynamic and challenging to manage, but the benefits are disproportionately larger if managed holistically, as occupancy costs represent a top-five expense for most companies.

tive administration and financial management are also critical. The challenge for many companies is that the type of lease management solutions traditionally available to them have often been deficient. Most solutions address only one of the three areas related to leases — administration, finance or accounting. They fail to achieve the benefits of addressing them together.

It’s important to note that real estate, equipment and embedded leases can be complex, dynamic and challenging to manage, but the benefits are disproportionately larger if managed holistically, as occupancy costs represent a top-five expense for most companies. Additionally, the pandemic reminded many companies that having the right tools will help them react faster to unexpected situations. Active management of their leases and access to key lease data enables them to respond quickly and take appropriate steps, whether that is assessing their office and store locations for closure or renegotiation with their landlords, or reviewing key lease terms that will enable them to reduce their occupancy costs. Real estate companies could benefit from gaining the visibility and insights they need to help them make better decisions about their leased assets — and avoiding the downside of mismanagement, including legal issues, loss of prime locations and avoidable expenses.

Because most companies lease assets to preserve capital, provide flexibility and increase purchasing power, this new standard has created a perfect storm. And while the pressing issue for companies right now continues to be ASC 842, it is important to realize that with a little more foresight and effort, companies can reap substantial administrative and financial benefits, not just lease accounting compliance. ■

Bart Waldeck is CMO and senior vice president of product strategy at Tango Analytics.

A Mass-Timber Building Rises in San Francisco

Engineered wood products provide a strong yet light alternative to concrete and steel.

■ By Alice Devine

Stepping inside 1 De Haro, San Francisco's first mass-timber building, feels a bit like entering a spruce forest. Honey-colored wood stretches along the ceiling, down the timbered columns and across the floor. Its woody fragrance permeates the space, a reminder of the grove of trees that, until recently, grew in a Canadian forest.

San Francisco-based SKS Partners, in partnership with a local family who has owned the site for nearly 100 years, embarked on constructing the four-story, 130,000-square-foot building in December 2018 with completion slated for October 2020. Situated on a corner, its distinguishing pointed edge has been dubbed the "shark tooth," a harbinger of differentiated construction materials. The building will house a mix of office and light-industrial uses. While sustainability and construction speed prompted the developers to use mass timber, they quickly realized its other benefits.

A Mass-Timber Primer

Mass timber buildings use solid or engineered wood, such as panels and cross-laminated timber, to bear the structure's load. An engineered product in which several layers of wood are laminated and compressed, CLT (cross-laminated timber) is part of a wide — and growing — range of products under the broad category of mass timber. CLT uses boards set at right angles to one another, which are then laminated to create panels that can be used in floor, wall and roof assemblies. Proponents of mass timber tout its sustainable elements, reduced labor and construction times, and pleasing aesthetic.



1 De Haro during construction. Wood is one of the most ancient building materials used by humankind, appreciated for its warm hues and connection to nature. The timbers, mostly unmarred by knots or blemishes, give a modern sensibility to the building.

Alice Devine

Of course, consideration of sustainability involves a myriad of factors — product, manufacture, delivery and impact on occupants. In 1 De Haro's case, Nordic Structures and its sister company, Chantiers Chibougamau, harvested the timber from a Canadian forest the size of Connecticut. The timber, black spruce, has a 50-day annual growth cycle in the cold northern climate. Innovative lamination processes allow wood providers to make the most of the entire tree, including the crown and small branches typically left behind on the forest floor.

The long-term environmental impact of these materials could be substan-

tial. Using sustainably managed wood products instead of steel and concrete could help reduce global CO2 emissions somewhere in the 14% to 31% range, according to Yale and University of Washington researchers.

Further, sustainability advocates argue that the entire journey — from forest to installed wood panel — uses fewer resources and costs less than traditional steel or wood. For example, the wood product weighs about one-fifth as much as concrete or steel. As a result, when Nordic Structures placed the prefabricated panels for 1 De Haro on a train from Montreal, Canada, to Stockton, California, the transportation

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A construction worker stands in a construction site, saluting. He is wearing a white hard hat with the HITT logo, safety glasses, a blue face mask, a high-visibility yellow and orange safety vest over a dark blue suit jacket, and brown work boots. The background shows a complex network of steel beams and pipes.

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consumed far less energy than needed for heavier materials. The result, according to **John Fisher** of SKS Partners is, “a dramatically reduced construction carbon footprint vs. a concrete or steel building.”

Construction Cost Savings

While mass timber’s direct cost is higher, its indirect costs are lower, making the overall cost equation difficult to untangle. At 1 DeHaro, the premium timber material expenses were offset by reduced labor and a shortened schedule, resulting in construction costs equal to those of traditional steel or concrete. Industry estimates place premium materials at a 20% to 25% increase, although architect **Matt Covall** of Perkins + Will says the wood products at 1 De Haro

Further, sustainability advocates argue that the entire journey — from forest to installed wood panel — uses fewer resources and costs less than traditional steel or wood. For example, the wood product weighs about one-fifth as much as concrete or steel.

were “slightly more expensive.” A 2018 case study by the Central City Association of Los Angeles suggests that mass timber construction costs 5% less than the same project constructed from concrete.

The prefabricated nature of wood panels reduces labor costs and trash, and shortens construction times. Fisher

notes that a crew of six workers installed 1 De Haro’s CLT panel system for the 30,000-square-foot floorplates rather than the 30 or more individuals typically required for a concrete pour of the same area. Research estimates that construction schedules are 20% shorter when using mass timber products. While the COVID-19 pandemic slowed 1 DeHaro’s progress, that time-savings estimate proved applicable. In turn, the rapid installation by fewer workers can translate to abbreviated construction schedules that allow for rent-paying tenants to occupy the space sooner.

Additionally, there’s little need for expansive on-site staging areas, a boon for urban or tight sites. Owners realize

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added savings by cranes they don't need to rent and the inefficiencies of storage and a second staging.

Despite environmental and scheduling advantages, mass timber construction faces some hurdles due to the relative scarcity of such projects. For instance, the market lacks an established supply chain. Developers can encounter a small field of experienced contractors, which becomes problematic when seeking competitive bids. And contractors and owners may contend with insurance policies that reflect traditional wood-frame construction as opposed to mass timber. A November 2018 case study by the DLR Group, "Tall with Timber," states that "products such as cross-laminated timber have been proven through rigorous testing to externally char and maintain

structural integrity in a fire situation."

Compliance Issues

Regardless of construction speed, code compliance can be a complicated web. Currently, light or mass timber can be used to construct commercial buildings up to 85 feet tall, and can exceed these heights only with extensive testing and documentation. Newly adopted rules in the 2021 International Building Code, however, will allow for timber structures up to 18 stories tall. Additionally, California-based developers face an array of seismic codes. These encourage owners to consider the relatively lighter mass-timber because weight drives seismic force. And as Fisher observes, the lighter weight required 150 piles rather than 300 at the 1 De Haro project. That's important, because Fisher says "pile driving

Currently, light or mass timber can be used to construct commercial buildings up to 85 feet tall, and can exceed these heights only with extensive testing and documentation. Newly adopted rules in the 2021 International Building Code, however, will allow for timber structures up to 18 stories tall.

is the riskiest thing we do" thanks to the unknown subterranean.

In 1 De Haro's case, the four-story commercial building contains a first floor constructed of concrete, with the upper three floors made of mass timber. The overhead beams fit cleanly into place, in a sophisticated Lincoln-log style. And while sprinklers and lighting are surface-mounted, there are intermittent holes cut into panels, minimizing the ceiling clutter. The exposed wood lends a warmth and texture to the space that create a unique yet welcoming office environment.

1 De Haro's owners, in the space grab that so often defines the current San Francisco market, leased the entire building to one tenant before the last wood beam placement.

1 De Haro's owners proved willing to exchange traditional building for a sustainable approach with little change to construction costs. In fact, some may argue that the beauty and health inherent in a wood building allowed this owner the potential for higher rents and quicker occupancy, leading to greater economic benefit. San Francisco's first mass-timber commercial building created a built environment that might make working at the office seem like a stroll in the park. ■

Alice Devine, author of *Suite Deal: The Smart Landlord's Guide to Leasing Office Space*, is the recipient of the 2019 Bruss/Robinson Award from the National Association of Real Estate Editors.

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Parking: The Long-Distance Truck Driver's Prayer

Demand for truck parking exceeds supply in many parts of the country.

■ By Robert T. Dunphy

Traffic congestion is a growing concern for motorists, but parking is generally not, except for a few problem areas. Drivers can generally expect to find a convenient, and free, space near their destination thanks to generous local parking standards. This is especially true in the suburbs, which have created an abundance of parking.

However, that's not the case for large commercial trucks. Federal Highway Administration (FHWA) studies have found that demand for truck parking exceeds the available supply in public and private facilities across much of the country, and this shortage is particularly severe in some regions. This includes major economic centers such as Chicago, the Interstate 95 corridor and the Northeastern states clustered around the New York City metropolitan area, and I-5 and the western corridor connecting major West Coast ports and freight activity. Their surveys found that four out of 10 drivers reported taking an hour or longer to find parking. If parking was not available in a designat-

Federal Highway Administration (FHWA) studies have found that demand for truck parking exceeds the available supply in public and private facilities across much of the country, and this shortage is particularly severe in some regions.



Getty Images

Parking for long-distance truckers can often be dangerous. It can also be difficult to find.

ed truck area, options were shopping centers, delivery locations, off ramps, or an abandoned lot or isolated area.

Eighty-eight percent of truck drivers said they felt unsafe while parked during mandatory rest or while waiting for pickup or delivery of a load during the past 12 months. Greater awareness of this issue came in response to the 2009 murder of truck driver **Jason Rivenburg**, who was shot and killed while parked at an abandoned gas station in South Carolina. The federal legislation requiring more provisions for truck driver safety was named Jason's Law in his memory.

Demand Keeps Rising

Demand for truck parking has increased with e-commerce booming, "hours of service" rules that force drivers to take breaks and the growing difficulty in developing new parking.

Truck travel is growing faster than passenger driving. The FHWA predicts that

travel by combination trucks will grow at more than twice the rate of passenger vehicles and light trucks between 2017 and 2047 — 1.9% annually, compared to 0.7% for light trucks and passenger vehicles.

Truck safety rules mandate that after 11 hours on the road, the driver must park and begin a 10-hour rest break. Unlike passenger cars, which can cruise for a space when encountering parking difficulties (and usually find one quickly), trucks are under the regulatory gun to find something fast and convenient — legal or not.

Most designated truck parking spaces are privately owned. A total of 272,698 spaces (88%) are at private truck stops; 36,222 spaces (12%) are at public rest areas. Developers of expanded or new lots face the challenges of limited and expensive sites, as well as zoning issues and public opposition to loud noises and pollution generated by trucks.

Additionally, formerly rural areas have seen expanded growth from once-distant metro areas as competition from urban uses raises land prices.

The long-term solution to the truck-parking shortage is expanding parking. That is a special challenge for the mostly private operators who must find accessible, affordable sites, get them permitted and built, and operate them profitably. However, there is a growing list of successes, and many of them have been documented by the National Coalition on Truck Parking, which was created by the FHWA.

In Wamsutter, Wyoming, the Wyoming Department of Transportation (WYDOT) used a state grant to build a facility for 43 long-term truck parking spaces in a secure, lighted area adjacent to Interstate 80. WYDOT constructed these spots next to an existing truck stop offering food and shelter, which are important amenities for long-distance truckers. The project also helps alleviate local complaints about makeshift parking within the community and spillover problems from weather-related highway closures. The project cost \$916,000, with FHWA contributing \$829,000.

A joint venture called National Truck Parking acquired a 51-acre truck-and-trailer parking facility near Miami International Airport for \$8.1 million in 2019. The site is for the storage of trucks not in use — overnight parking for local trucks or longer-term parking for trucks that are awaiting shipments. The site has 1,300 parking spots, with controlled access and on-site property management, and the owner intends to expand access to neighboring mechanic and tire services. It operates

Trucking in a Pandemic

The COVID-19 pandemic has reinforced the importance of trucking to society, the economy and consumers. During the height of the crisis, trucks delivered medicines, medical supplies, food and fuel, and a variety of online orders as an option to shuttered retail stores.

The Department of Homeland Security declared truck drivers, and employees at truck stops and rest areas, to be essential workers. That meant they could continue operations as state and local governments implemented curfews and shelter-in-place mandates. The Department of Transportation suspended some regulations requiring drivers to take off-road breaks while making deliveries, and Customs and Border Protection, which partially closed the U.S. borders with Canada and Mexico to “non-essential” travel, deemed truck traffic as essential and permitted trucks to continue to cross. Travel plazas and truck stops converted their restaurants to allow for take-out options. Meanwhile, fewer people were driving. That was a major hit to federal and state gas tax revenues, which are a critical source of revenue to highway trust funds.

According to a study by the road ecology project at the University of California, Davis, vehicle miles traveled in California were down statewide between 61% and 90% as a result of various stay-at-home orders issued by Gov. **Gavin Newsom**. That decline reduced fuel tax funds for California transportation projects by an estimated \$46 million per week.

The impacts on trucking travel have been mixed. According to a study by the American Transportation Research Institute, there was an increase in truck traffic from early February into March for the states studied, reflecting high consumer demand for items such as non-perishable food and paper products, as well as much-needed emergency medical supplies. However, the stay-at-home orders that shut down major segments of the economy resulted in a decline in April trucking operations. ■

similar to a self-storage model, where every space is like a locker. A simple license is used for tenants, which include big companies and independent owner/operators.

A truck parking facility will be developed as part of a \$55 million reconstruction of a major interchange on I-95 in northern Miami-Dade County. The Florida Department of Transportation (FDOT) owned land at one of its interchanges that contained a park-and-ride transit facility. It is being redeveloped with improved passenger facilities near a rail stop. The Golden Glades Truck Travel Center (GGTTC), located on a 17-acre parcel, will

provide 135 truck parking spaces, fuel pumps and amenities. These could possibly include a truck electrification system, an electrical connection that allows a truck to run cabin heat or air conditioning without idling the engine. The GGTTC is envisioned as a public-private partnership, according to the project director **Carlos Castro**, freight coordinator for FDOT. FDOT expects to issue an RFP in 2021.

Demonstrated Need, Challenging Solutions

The critical need for additional truck parking is clear. Federal and state transportation leaders recognize and are planning for solutions, although

it is not yet a major concern for the broader public. It is unlikely that privately developed truck stop operators will be able to expand quickly. Many of these operators report that parking is generally available except during certain peak hours, and especially in the East Coast and certain urban areas where demand exceeds supply. In these locations, the costs of most needed sites is prohibitive, and their availability is scarce because of local opposition.

Development of new sites in certain high-cost regions is a possibility. Creating a supply of targeted sites by local/state initiatives as part of a strategic program seems the most likely path to deliver the necessary inventory, likely

Technology Helps Locate Truck Parking

With the growing automation of the trucking industry and highway travel, one approach to making parking easier is better information on available spaces for truckers. Such a program was developed with help from a U.S. Department of Transportation grant. Eight states launched a truck parking information management system or TPIMS in 2019 to help truck drivers more easily locate available commercial vehicle parking spaces at state-run rest areas and select private truck stops around the Midwest. The system, called "Trucks Park Here," collects truck parking availability data using a variety of in-pavement and parking lot entrance/exit sensors. Each state takes a slightly different approach on where the data is displayed. Some place information on digital message boards on the roadway, while others make information available to existing in-cab systems or via apps for drivers. ■

through a public/private program. Initiatives such as those in Wyoming and Florida prove it is possible. Similar efforts, through financial assistance, could make sure that the needed funding is available. To make a meaningful

dent in the problem, they must be widely replicated. ■

Robert Dunphy is a transportation consultant, an Emeritus Fellow of the Transportation Research Board, and an Adjunct Professor in Georgetown University's Real Estate Program in the School of Continuing Studies.



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Building Urban Streets from Scratch in Pittsburgh

Hazelwood Green's Lytle Street showcases a rare opportunity for developers to use newer technologies that ease traffic and boost walkability.

■ By Todd Stern

Hazelwood Green, a 178-acre site along the Monongahela River in Pittsburgh, is one of the few remaining large-scale brownfield redevelopments in a city entering a new era of post-steel recovery and revitalization. The former home of LTV Steel, Hazelwood Green will encompass a mix of offices, research and development, light manufacturing, housing, retail, public green spaces, trails and transportation.

The site's horizontal development includes approximately 4.5 miles of new rights-of-way that will be converted to public streets and serve to reconnect neighborhoods. Lytle Street, Hazelwood Green's main pedestrian-oriented street, will incorporate public amenities and art installations, as well as facilities for festivals, block parties and other special events.

Lytle Street builds a case for why pedestrian-oriented infrastructure proj-

Lytle Street builds a case for why pedestrian-oriented infrastructure projects are important, demonstrates what can be built through a truly integrative process, and it provides a number of lessons learned for future projects.



Photo courtesy of Hazelwood Green

Lytle Street in Pittsburgh's Hazelwood Green development will provide innovative traffic-calming technologies, as well as design elements to improve walkability.

ects are important, demonstrates what can be built through an integrative process, and it provides a number of lessons learned for future projects. By encouraging and prioritizing multiple modes of transportation, the street design aligns with the vision established for Hazelwood Green and its objective to meet climate, social equity and health goals.

The city of Pittsburgh's mobility team worked closely with the Hazelwood Green project team to balance progressive design solutions with practical maintenance and safety requirements. Because these streets are maintained by the city, it was important to strike a balance between the design vision and practical day-to-day concerns. For example, when elements such as chicanes (slight curves in the road that are designed to slow traffic), raised intersections, designated bike and pedestrian lanes, and other features are added to a street, it impacts how

those streets are maintained, cleaned and cleared.

About the Project

Almono LP, Hazelwood Green's landowners, is comprised of three local foundations (The Heinz Endowments, the Richard King Mellon Foundation and the Claude Worthington Benedum Foundation) that came together to take on the estimated \$10 million Lytle Street project. The costs were primarily funded through the Almono partners and will be repaid through future tax increment financing (TIF). Lytle Street, together with Beehive and Eliza Streets, were completed in February.

Lytle Street employs several firsts for Pittsburgh: protected sidewalk-level bicycle lanes, chicanes with alternating on-street parking, raised intersections, floating bus islands, and an emphasis on green infrastructure and landscaping. These street-design guidelines

and traffic-calming tools are being deployed in other cities, including Boston, Seattle, Minneapolis and Austin. They have been in use in Denmark and the Netherlands for decades.

The new street is designed for a target speed of 20 miles per hour. Rather than relying on drivers to voluntarily maintain the speed limit, the street's design — a shifting center line (chicane), narrow travel lanes and raised, textured crosswalks — discourages drivers from speeding.

Over a two-year design and construction process, the team (including Re-Make Group and Oxford Development Company) collaborated with the city's Department of Mobility & Infrastructure (DOMI) to ensure that the design addressed safety and maintenance concerns.

Though this project was on a tight timetable, the project team was able to work with DOMI to keep things moving forward through design, permitting and construction while taking pauses when needed to re-evaluate or adjust design elements prior to construction. Those design pauses yielded at least three innovative elements for the project.

The first was the implementation of the chicanes to facilitate on-street parking alternating between sides of the street. This helps circulation and parking access while acting as an effective traffic-calming tool to achieve lower driving speeds.

The second was the selection of detectable warning pavers to act as an off-the-shelf product that the city could reuse elsewhere. These products employ raised surfaces that delineate the boundary between the sidewalk

Lytle Street employs numerous firsts for Pittsburgh: protected sidewalk-level bicycle lanes, chicanes with alternating on-street parking, raised intersections, floating bus islands, and an emphasis on green infrastructure and landscaping.

and the street, helping pedestrians with vision impairments cross roadways safely.

The third was the use of a basket-weave pattern in the stamped concrete crosswalks. This allowed the project team to take advantage of both the signaling of a textured surface and the proven, improved visibility of a piano-key crossing overlaid on top.

Counting the Traffic

An early investment in quality bicycle and pedestrian infrastructure is key to supporting the project's approved Traffic Impact Study (TIS) for the first phase of development, which can support up to 1.5 million square feet of commercial development and 17,000 vehicle trips. In order to monitor and show that Hazelwood Green is meeting the estimates in the TIS for the number of trips generated and the transportation modes used, sensor-based counters were installed in three locations to keep track of pedestrian and bicycle movements. By providing reliable, consistent data, the counters will also help the developers, city and region understand if and how they might need to adjust investments and programming if the transportation mode shares are not on track with their goals.

What is TIF?

According to a 2002 study by the NAIOP Research Foundation, tax increment financing (TIF) "is a method of allocating a portion of property taxes in a certain area or 'district' to finance economic development or capital improvements. Typically, in using tax increment financing, a local government or quasi-municipal corporation issues bonds to finance public improvements in a specified area or special district. The public improvements attract outside investment, causing the property values within the district to rise over time, which in turn increases property tax collections. The difference between the existing property tax collections in the district and the higher property tax collections — the increment — is used to pay off the bonds." ■

The installation of these counters, which will continue to be privately owned and maintained by Almono LLC, presented several challenges. These included working with the project's contractors (Mele & Mele and Vantage Corporation) to learn how to install the new devices and navigating the city permitting process for locating these within the right-of-way. Purchasing, installing and launching the counter system took nearly a year.

The counter data has since been made publicly available on the Pittsburgh Bicycle & Pedestrian Counts website in coordination with the Pittsburgh Downtown Partnership (PDP), a local business improvement district that operates the only other bicycle counters in the city. ■

Todd Stern is managing director for U3 Advisors.

Kilroy Realty Corporation:



Lawrence Anderson Productions

The Sunset Media Center, a 21-story office tower in Los Angeles, showcases Kilroy Realty's efforts to include public art at its properties. The lobby features "The Hot One," a painting done in acrylic and spray paint on canvas by artist David Flores.

Commitment, Culture, People

This West Coast-based REIT has a strong focus on sustainable development.

■ By Ron Derven

Los Angeles-based Kilroy Realty Corporation develops sustainable, modern business environments in San Francisco, Seattle, Los Angeles and San Diego. Its strategy involves focusing on these high-growth, coastal gateway markets and through leading-edge design, driving employee retention for many of the world's leading companies.

In 2019, Kilroy Realty executed 3.5 million square feet of leases across its portfolio, a new all-time record for the company. It achieved remarkable spreads on leases with rents increasing 30% on a cash basis and 52% on a GAAP basis.

At the end of 2019, its portfolio was 97% leased (only 5.5% of leases were up for renewal in 2020).

That same year, Kilroy Realty initiated construction on more than one million square feet of space in three new projects, moving its total investment to nearly \$2.8 billion.

It has secured lease commitments on about 90% of the office and life science space, which was approximately 24 months ahead of company projections.

NAIOP has named Kilroy Realty Corporation as its 2020 Developer of the Year for its innovative and sustainable approach to development, outstanding quality of its products and services, its active support of NAIOP, the company's financial stability and adaptability, and its contributions to the communities in which it works.

"This award reflects the commitment, culture and people of Kilroy Realty Corporation," said **John Kilroy**, the company's chairman, president and CEO. "I am blessed to be surrounded with an amazing team of innovative and industrious thinkers. And I include both our in-house team as well as our outside architects, consultants and thought leaders."



Lawrence Anderson Productions
John Kilroy, chairman, president and CEO of Kilroy Realty Corporation, leads a publicly traded real estate investment trust that is a member of the S&P MidCap 400 Index.

73 Years and Growing

Kilroy's father, **John Kilroy Sr.**, started Kilroy Industries in 1947. John Jr. joined the firm in the 1967. In the early 1990s, the younger Kilroy agreed to buy out his father.



The Exchange in San Francisco features office and retail space in four interconnected buildings. The office space has been 100% leased to Dropbox.

Richard Barnes/JBSA

“With the severe recession at the time, it crystalized in my mind that we needed to change the financial structure with regard to our holdings,” said Kilroy. “I bought out my father and took the company public. That was the beginning of Kilroy Realty Corporation.”

Today, Kilroy Realty Corporation (NYSE:KRC) is a publicly traded real estate investment trust (REIT) and member of the S&P MidCap 400 Index. It is listed in the Dow Jones Sustainability World Index and has been lauded by industry organizations around the world for its innovation and leadership in sustainable development. Kilroy Realty’s stabilized portfolio was 66% LEED-certified and 43% Fit-wel certified as of June 30, 2020.

In December 2019, Kilroy Realty was recognized for the sixth time

by the Global Real Estate Sustainability Benchmark (GRESB) as the sustainability leader across all asset classes for North and South America. Other honors include its sixth straight “Leader in the Light” award from the National Association of Real Estate Investment Trusts and ENERGY STAR Partner of the Year for seven years, as well as ENERGY STAR’s highest honor of Sustained Excellence for the past five years.

Kilroy Realty’s human-capital development efforts have focused on enhancing employee growth, satisfaction and wellness while maintaining a diverse culture. The company was recently named to Bloomberg’s 2020 Gender Equality Index, which recognizes companies committed to supporting gender equality through policy development, representation and transparency.

Reducing the Portfolio’s Carbon Footprint

Kilroy Realty has long been committed to reducing the carbon footprint of commercial and multi-family buildings. To that end, it has embraced LEED certification and National Green Building Standard (NGBS) certification as pathways to achieving environmentally friendly buildings.

The company is also striving to build more all-electric development projects to reduce its carbon footprint. It provides all-electric core and shell buildings, and there are no natural gas hookups in the core and shell design at On Vine in Los Angeles or 2100 Kettner, a mixed-use project in San Diego.

Carbon Neutral by Year End

CEO John Kilroy aims to reduce the carbon footprint of the company’s



Spencer Lowell

Key Center in Bellevue, Washington, is a 22-story tower. The lobby features a mural by artist Jonathan Wakuda Fischer that is spray-painted onto maple paneling.

portfolio even more. He and **Sara Neff**, Kilroy Realty's senior vice president of sustainability, want to reach a carbon-neutral footprint by the end of 2020 — a goal other real estate companies are talking about achieving by 2040 or 2050.

"She told me it would be difficult," he said. "I said that's what we do best at Kilroy Realty — we do difficult. We will be carbon-neutral by the end of 2020; we are the first real estate company in the world to do this."

Becoming carbon neutral involves three approaches. First, Kilroy Realty works diligently and continuously to reduce energy consumption at its projects. Second, it takes advantage of all onsite solar and battery installation opportunities to reduce consumption still further. As a third step, in 2018, it added off-site renewable energy capacity through a power purchase agreement that allows Kilroy Realty to pull it into the grid at its discretion.

The CEO's next big target for conservation and sustainability is

**"That's what we do best at Kilroy
— we do difficult."**

— *John Kilroy, chairman, president and CEO,
Kilroy Realty Corporation*

Sustainability Case Study at Kilroy Realty

Located in the transit-connected and amenity-rich University Towne Centre in San Diego, 9455 Towne Centre Drive is a 160,000-square-foot state-of-the-art life tech facility that blends form and function. The project is targeting LEED Platinum certification and is fully leased with expected occupancy in 2021.

9455 Towne Centre Drive's features include:

- Exterior skin to bring daylight deep into the floorplate.
- Highly energy-efficient glass with low solar heat gain.
- A 589 KW solar array with bifacial panels that will offset approximately a third of the project's energy consumption.
- Highly efficient water fixtures such as 1.1-gallon-per-flush toilets that reduce water consumption by 41%.
- An efficient mechanical system and the onsite solar array that reduce energy consumption by 53% over the LEED baseline.
- Materials purchasing focused on recycled content, regional sourcing, responsibly managed wood products, an enhanced commissioning program, electric car-charging stations and more. ■



Kilroy Realty calls 100 Hooper, a mixed-use development in San Francisco, “a micro-community of progressive thinkers and skilled makers connected by sky-bridges and common goals.”

to reduce the massive amounts of energy consumed in the construction of buildings.

“Our goal for construction is a 30% energy reduction by 2030 and a 50% energy saving by 2050,” he said. “I’ve been told this will be very difficult to achieve. Yes, we may never get a 30% or 50% energy reduction in construction. However, we will get to a place where we dramatically reduce the amount of energy that goes into buildings. I am an explorer; this is an exploration.”

Financial Stability

With decades of experience with real estate cycles, Kilroy Realty is careful and disciplined in the way it handles financing.

“If we can’t make money being conservative, we won’t agree to the deal,” said Kilroy. “Real estate companies crash and sink during financial storms because of their

Innovative Leasing and Marketing Communications

Kilroy Realty invests heavily in technology and visuals for its remarkably successful leasing efforts. This includes “experience centers” with media walls, visual projecting tools, high-caliber renderings and photography, gallery walls, architectural fly-through videos, apps, building animations and custom websites, to name a few. Tech and visual communication tools help Kilroy Realty tell compelling and complex stories about its properties in a unique way. ■

debt. When a downturn hits — just when you need to replace your debt most — you cannot replace it.”

According to the CEO, Kilroy Realty has internally funded its acquisitions and development over the years. It has no short-term debt today.

“We do this, in part, by selling assets that don’t fit into our strategy,” he said. “For example, we sold our industrial portfolio, some office buildings and low-performing properties. We redeployed that money into state-of-the-art world-class

buildings with returns that were much higher than the returns we would have received had we continued to hold the older assets.”

In 2010, after the Great Recession hit, when other real estate companies had little stomach or cash to buy projects, Kilroy Realty aggressively purchased projects in San Francisco and later in Seattle.

“We bought these buildings at terrific prices,” said Kilroy. “Anywhere from 25% to 40% below replacement value. From there,



Lawrence Anderson Productions

'People-First' Experience at Kilroy Projects

Beautiful settings, design

and amenities and public art are some of the hallmarks of Kilroy Realty projects. John Kilroy said that well-designed workplaces are not just about architecture, but also about integrating into, improving upon, and expanding the fabric of a community.

"We think of our projects as living, breathing organisms that create a strong sense of being and purpose," he said.

A notable feature of Kilroy Realty projects is the impressive collection of public art on display. According to the company, it appreciates great art that represents an alluring peek into the collective consciousness. ■

values soared in these markets in subsequent years. You need to be defensive in order not to shipwreck your company in a downturn. But you also need to be offensive to take advantage of opportunities."

The company recently replenished its future development pipeline with three acquisitions totaling \$359 million in the West Coast's best submarkets. It also advanced the entitlement process for its 2.3-million-square-foot Flower Mart project in the Central SOMA district of San Francisco, receiving unanimous approval from the city's board of supervisors.

Market Adaptability

Kilroy said his company had no way to anticipate COVID-19, and he does not yet have a clear picture of how the pandemic will play out in the months or perhaps years ahead. But in a broader sense, the company has long been prepared for setbacks.

"Our platform allows us to pivot our operations as needed based on market conditions," he said. "We have a strong balance sheet and our development program allows us to build based on operational needs vs. relying on a single product type. This leaves us agile, flexible and free to focus on the needs of our tenants."

NAIOP Participation

Kilroy Realty has made a strong commitment to NAIOP to the mutual benefit of both organizations.

"There is not a better real estate organization than NAIOP," said Kilroy. "Twenty of our people are heavily involved in the Washington State, San Francisco Bay Area, Southern California and San Diego chapters. We are strongly committed to sponsoring chapters and events. In addition, many of our people have graduated from the Young Professionals Group. At NAIOP, the networking opportunities are terrific, and some of our stars at the company have taken on chapter leadership positions."

Working with Local Communities

When it comes to community involvement, Kilroy Realty employees take a truly hands-on approach to giving back.

"Our employee volunteerism and philanthropy programs have two core areas of focus: Strong Communities and Healthy Planet," he said. "As individual employees, regional groups and as a company, those concepts inspire our volunteerism and philanthropy initiatives."

"Real estate companies crash and sink during financial storms because of their debt. When a downturn hits — just when you need to replace your debt most — you cannot replace it."

— John Kilroy, chairman, president and CEO, Kilroy Realty Corporation



Columbia Square in Hollywood is an adaptive reuse of a complex that was once the West Coast headquarters of television and radio giant CBS.

Lawrence Anderson Productions

In 2018, Kilroy Realty launched the Kilroy Culture Crew. It's comprised of employees from all four regions of the company who are interested in developing a culture-building program. The Culture Crew focuses on three initiatives: philanthropy, health and wellness, and social. Each region has an annual dedicated budget, and the regional teams create a variety of activities that support the Culture Crew's initiatives. Typical events include community service and employee health and wellness activities including group fitness classes and meditation, as well as outings and social activities such as sporting events, happy hours, art classes and an annual family picnic.

Each of the four Kilroy Realty regions has the goal of organizing at least one employee volunteer event annually, which strengthens communities while giving regional

Building Health Certifications

Kilroy Realty finished 2019 with 19 Fitwel certifications. Fitwel is a healthy building certification system operated by The Center for Active Design (CfAD). The Fitwel standard supports healthier workplace environments based on seven health impact categories. According to the Fitwel website, these are “impacts surrounding community health; reducing morbidity and absenteeism; supporting social equity for vulnerable populations; instilling feelings of well-being; enhancing access to healthy foods; promoting occupant safety; and increasing physical activity.” Recently, Fitwel announced the launch of its Viral Response module, which provides annual, third-party building certification of policies and practices informed by the latest public health research on mitigating the spread of infectious diseases. ■

“Our platform allows us to pivot our operations as needed based on market conditions.”

— John Kilroy, chairman, president and CEO, Kilroy Realty Corporation

“There is not a better real estate organization than NAIOP.”

— John Kilroy, chairman, president
and CEO, Kilroy Realty Corporation

teams the opportunity to connect outside of the office. In 2019, all regions met this goal, with most regions organizing multiple events. These events ranged from beach cleanups, to reading programs, to assembling backpacks for victims of domestic violence, to packing lunches for people experiencing food scarcity. Also, many properties host community events such as blood drives, safety events with local law enforcement and Earth Day celebrations.

In 2019, Kilroy Realty conducted its first-ever companywide Week of Service, which further dedicated the company and its people to giving back to the communities where it operates.

Kilroy Realty also provides financial support to charitable organizations and has a program to match employee contributions to 501(c)(3) nonprofit groups, schools and universities. Its philanthropic philosophy is to provide unrestricted grants so that organizations it believes in can execute their programs most efficiently. More than 63 nonprofits are supported by these efforts.

Kilroy Realty's philanthropic efforts reach well beyond the local communities in which it works.

It supported an international team of scientists, innovators and material experts who participated in the Hudson River Microplastic

Sampling Expedition — more than 3,000 miles from the company's headquarters in Los Angeles. That team collected more than 600 soil, water and air samples in and near the Hudson River, the first-ever four-dimensional microplastic study of the waterway. Investigating microplastics in the water, soil and air will help identify the multiple sources of this pollution, and knowing the sources will lead to solutions to reducing microplastic pollution. According to the U.S. National Oceanic and Atmospheric Administration, microplastics are

any type of plastic fragment that is less than 5 mm in length.

In recognition of John B. Kilroy, Sr.'s longstanding role as chairman, the company established the Kilroy Scholarship at Loyola Marymount University in 2013 with a gift of \$100,000 each year for 10 years. The scholarship supports undergraduate students in the Frank R. Seaver College of Science and Engineering who are pursuing degrees in environmental science. ■

Ron Derven is a contributing editor to Development magazine.

High-Profile Assets

With more than 20 million square feet of office, life science, mixed-use, retail and residential space under management, Kilroy Realty continues to attract top corporations to its projects. These include Netflix, Dropbox, Amazon, Cisco, Sony, Viacom and Adobe, to name only a few.

Notable projects include:

- **333 Dexter** in Seattle contains 635,000 square feet of office space in two 12-story interconnected towers. The LEED Gold development is 100% leased to a Fortune 50 company.
- **The Exchange** in San Francisco features 750,000 square feet of office and retail space in four interconnected buildings. It's rated LEED Platinum; 100% of the office space is leased to Dropbox.
- **350 Mission** in San Francisco is a 455,000-square-foot LEED Platinum, zero-waste building occupied by Salesforce.
- **Flower Mart** in San Francisco is a development project that includes approximately 2.3 million square feet of urban campus, large-scale office, food and beverage, and public open spaces on more than 15 acres. The targeted LEED Platinum development is the second-largest project in the city's history.
- **Kilroy Oyster Point** in South San Francisco features approximately 2.5 million square feet of multiphase development of office and life science space on 50 acres. Phase 1 is under construction and is 100% leased; Phase 2 is currently scheduled to start construction in 2021, subject to market conditions.
- **Columbia Square**, in Los Angeles on the former site of CBS Studios, is a 483,000-square-foot mixed-use campus with 200 residential units.
- **On Vine** in Los Angeles offers 355,000 square feet of office space with 193 luxury residential units. It is targeting LEED Gold, and 100% of its office space is leased to Netflix.
- **One Paseo** in San Diego is a 22-acre mixed-use project with 380,000 square feet of office and retail space and 608 residential units. ■

Rethinking Real Estate: The Office of the Future



Returning to the office will be challenging for many businesses in the aftermath of the COVID-19 pandemic, which forced many to close for months starting in February or March.

Getty Images

Safety, health and wellness in buildings and workplaces may become as important over the next 10 years as LEED certification has been over the past decade.

■ By Ron Derven

Cool, transit-rich urban office projects of the future and their suburban counterparts will offer tenant-attracting amenities and design, but what may actually close the deal will be the safety, health and wellness features of the building. That's according to recent interviews with office developer/owners who are on the front lines of making their projects safe places to work.

Getting Offices Open

Health and safety concerns about COVID-19 drove people out of their offices to isolate at home in February and March. Alleviating those concerns will help encourage people to eventually return to these workplaces, according to the developers and owners. They are currently focused on efforts to build office-user confidence by implementing screening procedures for visitors, employees and contractors; creating staggered work times and lunch times to ease the burden on elevators; continually cleaning facilities, buttons and doorknobs; making elements in the building as

touchless as possible; encouraging social distancing in every public area of the building, specifically lobbies and elevators; improving air quality; adding safety- and health-related signage; and much more.

Remote teams have demonstrated productivity, so large companies are not in a hurry to send their employees back to the office. Some tech firms want their people to return to the office by January 2021, but Google may have set the standard by recently announcing that its 200,000 employees can continue to work from home until the summer of 2021.

Nevertheless, developer/owners are preparing facilities for the eventual return of workers. According to **Michael McNerney**, executive vice president with Lowe Enterprises Real Estate Group in San Diego, there are three phases to getting offices open.

"The current phase is a reactive phase to get people to feel better and safer about coming into the

office," he said. "The second phase is about cost-effective retrofits that can be done to existing buildings to make them safer. The third phase is looking at the things that can be done to give people a greater comfort level and greater flexibility going forward."

Not every office building is completely deserted at this point. McNerney pointed out that people were returning to its Denver building earlier than in other parts of the country.

"We've gotten good feedback from tenants there," he said. "It comes down to clear communication with tenants. We are letting them know that we are doing everything we can to make the building safe and to help them feel safe about returning to work."

Suburban office projects will probably open up before urban office buildings, said **Paul F. Ciminelli**, president and CEO of Ciminelli Real Estate Corp., in Buffalo, New York.

"People can come and go to the suburban office in cars," he said.

“In a city, many office users depend on mass transit to get them around, which is a big concern to people right now.”

Richard S. Gottlieb, president and CEO of Keystone Property Group in Conshohocken, Pennsylvania, said his firm is making the common areas in buildings as clean and comfortable as possible.

“We have signage, we watch the elevators, we clean all the time with sanitizer, but until there is a vaccine, I don’t think people will feel 100% comfortable [working at an office],” he said.

For the office buildings of the future, lobbies are an uncertain area in the post-COVID world, according to **Collin E. Barr**, Central U.S. president for the Ryan Companies US, Inc., in Minneapolis.

“We will have to see how post-COVID life transitions,” he said. “We are all hopeful that we will all be able to go out and socialize. If we continue to get hit by wave upon wave of these diseases, then I would surmise that some amenities such as the office building lobby will be turned into private office space, not amenities space, because people will not be willing to use it.”

Health and safety concerns about COVID-19 drove people out of their offices to isolate at home in February and March. Alleviating those concerns will help encourage people to eventually return to these workplaces, according to the developers and owners.



Getty Images

High-touch areas in offices will be a critical focus of cleaning and sanitation efforts as workers return to buildings.

Is Working from Home the Future?

The office of the future could be an employee’s kitchen table — or maybe not. Working from home is likely not the wave of the future for most people, according to a recent survey by Gensler. It found that only 12% of U.S. workers want to work from home full time. Most want to get back to the office, but have flexibility. The developers interviewed estimate that one or two days a week working from home and three to four days at the office would satisfy most people.

“Working from home or working in the office is not a one-size-fits-all concept,” said Ciminelli. “There are many hybrid forms of this arrange-

ment. It could mean that certain people do not come in on Fridays or perhaps everyone comes in just four out of five days a week.”

Gottlieb said that remote working has been successful for many companies. People can work at home one or two days a week and be highly productive, but a study published in July from software firm Aternity shows that if people work at home more than two days a week, productivity tends to drop.

Does working from home help or hinder work-life balance? According to Gottlieb, work-life balance gets more out of whack if one telecommutes all the time because the fragile line between work and personal life becomes blurred.

“If someone at work wants to have a meeting with you at noon, they don’t care if you want to have lunch with your husband or wife,” he said. “If they want to reach you at 10 p.m., they will assume that you are right there.”

Safety and Wellness in Buildings of the Future

While the sleek office tower and workplace of the future will look and feel a lot like the office tower

The developers interviewed estimate that one or two days a week working from home and three to four days at the office would satisfy most people.

of today, the guts of the building will feature key safety and wellness equipment, Barr said. The HVAC systems in new and retrofitted buildings will be an effective barrier to keep disease transmission at a minimum. The same goes for materials used in office space. Barr anticipates antimicrobial materials — now used in medical office settings and hospitals — will be installed throughout offices to kill viruses and microbes.

“These changes will cost a lot of money,” he said. “But these are changes that tenants will value.”

Developer/owners are making quick fixes to HVAC systems to cut down on the transmission of the virus. Long-term, many systems will have to be replaced and upgraded at considerable cost.

“There are a number of next steps that our company is looking into regarding air filtration systems and being able to kill germs at the source of the incoming fresh air,” said **Gregory P. Fuller**, president and COO of Granite Properties, Inc., in Plano, Texas. His company recently announced an initiative to invest more than \$10 million across its portfolio to improve air quality and add more touchless technology. “An effective way to do this is with MERV 13. MERV 13 filters trap virus particles. Using MERV 13 filters in conjunction with a bipolar ionization unit at the HVAC unit will kill germs. We will do that in all of our buildings.”

MERV stands for Minimum Efficiency Reporting Value. It’s a scale developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

Changes Coming to the Office

While the office of the future may have the look and feel of the office of today, big changes will come to make these structures safer and healthier.

Here is what to expect:

Office surfaces. Walls, countertops and other surfaces will be made of anti-microbial materials that are used today in hospitals and other medical facilities to reduce the possibility of getting sick.

Virtual meetings. Most stay-at-home employees are meeting virtually today. When they return to work sometime in the future, rather than crowding into a stuffy conference room for a meeting, they will continue to meet virtually. In-office or remote, many meeting attendees will meet on the small screen.

Work stations. Instead of typical 4-foot-by-3-foot work areas, the office of the future will furnish more space per person, perhaps 6 feet by 6 feet or even 6 feet by 8 feet. Rather than a single panel at the work station, there will be three panels to give the user more protection from those sitting nearby.

Shared private offices. Look for more private offices that can be shared by different employees who need to make a private phone call or meet one-on-one while properly social distancing.

Collaborative space. Break-out and conference spaces will be much like they were before with little opportunity to social distance in those areas.

Coworking space. The WeWork coworking model may not be optimal in the future, but building owners and managers will continue to offer flexible spaces in buildings that they manage.

Greater employee flexibility. After many companies discovered that their teams can work well remotely, employees will likely seek more flexibility for remote and in-office work.

Building lobbies. The lobbies in new and retrofitted office buildings may or may not be used as they were in the past, depending on how comfortable office users feel in the space.

Touchless technology. Common areas will become as touchless as possible, from the time someone enters the building, to when they get on and off the elevator, to when they arrive at their desk.

Doorless restrooms. Restroom entrances in office buildings will have no doors, similar to those in airport terminals.

Better building ventilation. Older buildings may be retrofitted with better HVAC systems, and new buildings will likely be fitted out with state-of-the-art equipment. ■

to show how well filters can remove particles of different sizes. The bigger the MERV number, the smaller the particles that can be captured.

Bipolar ionization systems, which are specialized tubes added to HVAC equipment, release charged atoms that can deactivate harmful substances like viruses. In-duct UV lights, ultraviolet lights placed inside the ductwork of an HVAC system, kill germs and viruses before they are pushed into occupied space by the air flow. Fuller said that not every building can utilize MERV 13 filters because they require a large amount of fresh air. Buildings constructed in the 1980s and 1990s were not designed to handle that much air flow. If a code requires that a building needs 30% to 40% fresh air intake, those old buildings would not meet the requirements.

“In those buildings, however, you can do bipolar ionization and in-duct UV light,” he said. “So there are workarounds for older buildings that require less than tearing out the entire building. Even in an elevator cab, you can install a bipolar ionization unit. The downside is that if someone gets on the elevator who is sick, there is a chance of transmitting the virus because these units do not kill a virus instantly.”

TI Costs Likely to Jump

Installing tenant improvements in the office of the future will likely cost more, according to Barr. No one will be able to simply move into a previously occupied office, lay down carpet and paint the walls.

“They will need to rip out all the drywall, probably a lot of the HVAC and the electrical system,” he said.



Getty Images

One-way foot traffic patterns are already commonplace in many public spaces. They will also become common in offices.

“Additionally, they’re going to want more private office spaces that can be shared. There will be greater investment in workstations as well.”

Barr said in pre-COVID offices, eight people could be squeezed into a 16-foot-by-16-foot quad, but that simply won’t work anymore.

Coworking Space Viability

What’s ahead for coworking office space? Will it stay, go or change? It will likely stay in some form.

Ciminelli expects coworking space to come back strongly once the pandemic has passed.

“We have coworking space in our buildings, and we are a big fan of it,” he said. “I prefer our model, where we own the coworking space, control it and use it as a building amenity vs. the WeWork model. Moving forward, coworking will be beneficial because office users will have a greater need for flexibility.”

Ryan Companies had considered a number of anchor tenants for coworking space and ended up not doing it, according to Barr.

“Coworking stations [of the future] will be a different configuration than today with larger workstations that have three or four sides,” he said. “There will be less of a wide-open environment.”

McNerney suggested that coworking will need to confront the same issue as every other space user in a post-COVID world.

“You will need more space between people, better building air filtration and touchless technology,” he said.

Large Office Footprint

In the office of the future, will large companies continue to occupy huge office footprints or will they spread employees out into a number of satellite offices? Most of those interviewed agreed that large companies would want to keep people together in a big facility. But some see a future where companies might go with a different arrangement.

“There may be a lot of hub-and-spoke arrangements where you have a mothership office and then you have a lot of smaller offices,” said McNerney. “It would add to flexibility for employees. That is, people may not want to work from home all of the time, but they may prefer to work at a small satellite office rather than commuting to the main office.”

What Lenders Will Look For

What will lenders and investors look for in a post-COVID office investment?

“Institutional investors will look more at what a building is doing

Bipolar ionization systems, which are specialized tubes added to HVAC equipment, release charged atoms that can deactivate harmful substances like viruses. **In-duct UV lights, ultraviolet lights placed inside the ductwork of an HVAC system, kill germs and viruses before they are pushed into occupied space by the air flow.**

from a health and wellness perspective,” said Fuller. “They will want to know what will attract customers to the building now and in the future. Lenders, on the other hand, will look at whether or not the building will have an income stream. Lenders are cautious right now because

they do not know what the next six months will bring.”

Tech's Role in the Future Office

Technology has played a starring role in the COVID-19 crisis and will continue to do so in the future. (See

related story, page 80.) Companies told their employees to take their laptops home on a Friday afternoon in February or March to work remotely. On Monday morning, the home-based team members were up and running on Zoom, Webex, GoToMeeting or similar software.

Relevant NAIOP Research

The NAIOP Research Foundation recently released three research briefs that can help developers and owners make sense of the market in the wake of COVID-19.

“Using Capital Improvements to Create Competitive Advantage in the COVID-19 Era” by **Dustin C. Read**, Ph.D./J.D., Associate Professor, Virginia Tech and **Sam Kuprianov**, undergraduate Real Estate major, Virginia Tech. This brief evaluates the merits of frequently discussed capital investments and their potential to create durable competitive advantages. It draws from an analysis of recent coverage in commercial real estate trade publications, as well as conversations with seven industry practitioners that took place in June 2020.

“Navigating a Safe Return to Work: Best Practices for U.S. Office Building Owners and Tenants” by **Shawn Moura**, Ph.D., Director of Research for NAIOP. Measures to contain the coronavirus outbreak temporarily slowed economic activity and dramatically reduced occupancies at many commercial buildings. As state and local governments outline plans for a phased reopening of the economy, office building owners and employers are formulating plans that will allow employees to return safely to work.

“Working Together as a Team: Negotiating With Tenants and Leasing Space During COVID-19,” also by Moura. This research brief draws from interviews with brokers and building owners, news sources, NAIOP webinars and NAIOP survey data to identify best practices for triaging office and industrial tenant requests, offering reasonable accommodations to those tenants who need short-term assistance, and responding to uncooperative tenants. The brief also examines how owners are adapting the ways they show and lease space to new tenant preferences and safety expectations.

To view and download the reports, visit www.naiop.org/Research-and-Publications/Research-Reports ■

Employees have adjusted well to Zoom, according to Gottlieb. While the virtual meeting will continue once employees return to work, these gatherings will be different than in the past. People may choose to stay away from stuffy, cramped conference rooms and instead meet virtually at their desks with other team members — in the office and working remotely.

Facility apps of every stripe will play a big role in the office of the future.

“Any time you have change in the world, technology usually fills the void,” said Fuller.

For example, Ciminelli was impressed with the technology he saw at a building he recently visited in Vancouver, British Columbia.

“One of the new high rises downtown has been designed with smart technology where you as a tenant in the building have an app that automatically gets you through security and to the destination elevators that drop you off at the floor you need to go to,” he said. “The app can track you anywhere you are in the building. So I think there will be more enhanced technology and buildings will be designed even smarter from a public health standpoint.” ■

Ron Derven is a contributing editor to Development magazine.

Industrial Emerges from Pandemic in Relatively Good Health

Panelists at NAIOP's I.CON Virtual 2020 shared good news about the sector's resilience.



Getty Images

E-commerce played a critical role in the relatively strong performance of industrial real estate during the height of the COVID-19 pandemic.

■ By Trey Barrineau, Kathryn Hamilton, Shawn Moura, Ph.D., Marie Ruff and Brielle Scott

When the COVID-19 pandemic struck the U.S. earlier this year, it was unclear what the effects would be on industrial real estate. But nearly six months into the crisis, it appears that the sector has been more resilient than others.

The pandemic was a significant topic during NAIOP's I.CON Virtual 2020, which was held online in June.

"I don't think we're immune to what's happened, but we've held up well," said **David Fazekas**, a senior managing director with the Black Creek Group, during a panel discussion at the event.

E-Commerce Booms

An explosion in e-commerce activity at the height of the pandemic, when much of the country was under stay-at-home orders, is a major factor behind the industrial sector's stability. According to payments processor ACI Worldwide, global e-commerce sales rose 28% in June 2020 compared to June 2019. That was the largest year-over-year increase in sales since COVID-19 restrictions were put in place in March.

"Accelerated adoption of e-commerce was definitely a positive trend of the pandemic," said **Michael Coppola**, a partner with Bluewater Property Group. "E-commerce has changed our industry. We'll all be attuned to how much of that sticks."

Although JLL expects that online sales will decline from a recent peak

of 26% of all sales, they will likely remain in the low 20s for the near future. This should lead to continued demand for last-mile facilities.

"Is e-commerce going to save us all?" JLL President of Industrial Brokerage **Craig Meyer** asked rhetorically during another panel at I.CON Virtual 2020. "For the time being, probably yes."

According to **Barbara Perrier**, vice chairman with CBRE, COVID-19 accelerated the e-commerce trend by five years.

"Everybody talks about Amazon, but companies like Walmart, Target and Costco have really gained market share during this period," she said.

Jeremy Giles, global head of customer-led solutions for Prologis, said the current crisis has led to growth not only in total online sales volume, but also in the number of e-commerce customers, and that related demand growth will likely be sticky. Along those lines, panelists noted that demand for industrial space held up well during the crisis, and e-commerce giant Amazon is a significant reason for that. The company added 175,000 employees at a time when more than 30 million Americans were out of work.

"The space that is coming online is getting gobbled up by Amazon," Coppola said. "That's certainly going to help rent growth."

Amazon has taken at least 25 million square feet of space so far

in 2020, and that doesn't include what the company has in escrow. Third-party logistics providers and logistics companies are also taking vast swaths of inventory, as well as spaces suited for the reshoring of manufacturers.

Opportunities and Markets

Coppola said that his company, which is focused on the Northeast, looks to continue investing in that region.

"These Tier 1 infill markets are insulated from long-term trends that COVID-19 is not going to change," he said. "COVID has only accelerated a lot of those trends. We don't see anything in the way of distress, unless it's a one-off like a retailer or someone with liquidity needs. We're in a bit of a wait-and-see period. Buyers are being appropriately cautious right now."

Fazekas said values have held up really well in industrial space, despite a lack of data points because of closures related to the pandemic.

"We were really worried about how we were going to get surveys and titles recorded with courthouses closed," he said. "We had a few hiccups along the way, but we were able to navigate that. Inspection and permitting were delayed, but most municipalities quickly moved to virtual, which was surprising."

Other panelists echoed that sentiment.



Getty Images

Most U.S. industrial development remains in the big-box space. Roughly 50% of construction in the first quarter was in the 500,000-square-foot format.

“We were impressed with municipalities that really adapted better than we thought they would, whether with Zoom or teleconference meetings,” Coppola said.

The panelists all agreed that lenders are more cautious in the current climate.

“They’re still in a bit of triage mode trying to figure out their mandates going forward,” Coppola said. “Caution is definitely the word in the lending market now. If you get a loan, it’ll probably have some kind of recourse tied to it. That’s why relationships are more important than ever.”

Fazekas agreed.

“Spreads have widened,” he said. “Leverage levels have increased. We’ve gotten more requests for recourse.”

Prior to the pandemic, both the economy and the market for industrial properties were strong.

“Going into late February, it was as robust a capital markets environment as I’ve ever seen,” said **Nicholas Pell** of Link Industrial Properties. “There was a deep buyer pool and a scope of assets for buyers to pursue. Then COVID hit, and every thing sort of stopped overnight.”

Perrier concurred.

“At the beginning of 2020, we all thought it would be a banner year,” she said. “Then it all halted, and the only thing moving was single-tenant, long-term deals in core markets.”

Fortunately, the pause was short and far less damaging than initially projected.

“The East Coast and West Coast have snapped back quickly, and the center of the country is getting there, but just not quite as fast,” said **James Clewlow** of CenterPoint Properties. “Leasing was off some, but a lot depended on the market

and what level of shutdown was happening there. For example, Houston was very strong all the way through, and so was Florida.”

CBRE is seeing positive leasing activity too, said Perrier, and broker sentiment is high.

“The winners are those with great locations,” said Clewlow. “The ‘location, location, location’ adage is very applicable to industrial today. Companies like Amazon and Wayfair want to be near their customers, and the issue is what kind of building works for them. Does it have to be new? Not always.”

The demand for these prime spaces is reflected in rents. There are rent spikes for the best locations and challenges for the worst.

“A building may be functional by all standards but not in the right location, and those are the ones slower to lease,” Clewlow said.

Traditional multitenant industrial

business parks are also still emerging from COVID's impact.

"A lot of those deals were shelved because of uncertainty on the rent roll," said Perrier. "Disruptions were short term, and collections have been strong at 90%-95%. We expect to start seeing multitenant parks coming back online soon, with very active third and fourth quarters."

Investors are still eager for deals. Pell said Link has actively pursued deals too, closing \$1.9 billion in acquisitions and selling \$900 million in dispositions this year.

There's a lot of capital chasing infill markets, especially if pricing is right, noted Perrier, referencing large site sales that CBRE just completed near both Los Angeles International Airport and Hawaii's Port of Oahu.

"A lot of lenders want to get into industrial space, and it's a good opportunity now because it's a safe haven," she said.

With regards to deal flow between Tier 1 and Tier 2 markets, Perrier said she believes Tier 1 has returned to pre-COVID pricing, but there is differential in Tier 2.

"My sense is that the definition of what's Tier 1 and Tier 2 is changing," she said. "It's going to be tied more to where population is, because of e-commerce."

Perrier also predicts a shift in retail conversions to industrial space to accommodate the last mile, which will necessitate conversations with cities and municipalities that will see fewer sales tax dollars but will benefit more from occupied spaces rather than vacant ones.

Future CRE Leaders Share Thoughts on I.CON Virtual 2020

Because of the COVID-19 pandemic, NAIOP's I.CON event was hosted online. A group of Prologis interns were invited to attend, and they shared their impressions of the virtual conference.

Madison Strasmann, University of California, Berkeley

"If I were to describe the I.CON event in three words, they would be 'concise,' 'thought-provoking' and 'well-planned.' Each topic that was chosen had great moderators, speakers and an engaged audience. I found Tuesday (the first day) to be beneficial to someone like myself. I am relatively new to industrial real estate. The topics covered on Tuesday gave more of an overview on the industry and changes occurring due to our society's current state. Overall, I loved this event!"

Caitlin Ramirez, University of Michigan

"I loved the conference! I thought that the round-table events were very well put together, and the event definitely covered so many topics within the industrial sector that I found myself learning way more than I planned."

Jackie Chan, University of California, Berkeley

"I.CON was the first real estate seminar that I've ever attended, and I honestly learned a lot. The first day was great for a broad industry overview, and the sessions that followed were extremely informative on more specific areas. There was something for everyone, and I strongly believe that more students should be getting involved."

Tommy Waller, UCLA

"As an intern at Prologis who is relatively new to the industrial real estate sector, my opinion of I.CON is that it was well prepared, engaging and very informative. Although I had a bit of a unique experience because this year was its first online, I thoroughly enjoyed the event and would recommend it to other university students who are looking to expand their knowledge of the industry. I genuinely enjoyed my experience at I.CON, and I will look to continue to make use of NAIOP in the future." ■

Investing Outside the Big Box

While multimillion-dollar projects in prime industrial markets may make headlines, 85% of industrial transactions come in under \$20 million and are taking place in secondary and tertiary markets throughout the U.S. A session at I.CON Virtual 2020 focused on the investment dynamics of this vast, active and diverse sector within the industrial market.

The industrial market benefits from the massive growth trajectory of e-commerce, as online sales growth outpaces traditional retail sales. With brick-and-mortar stores closed due to the pandemic, it's hardly surprising that this trend has accelerated — and the rate of growth is astounding.

"It's a trend that's already in place but it's a COVID-accelerated trend," said **AI Pontius**, senior vice

president and national director, office and industrial, healthcare and special assets with Marcus & Millichap.

The global health crisis has exposed flaws in the increasingly interlinked supply chain, Pontius said, which could lead to more U.S. onshoring of manufacturing to curtail some of these risks.

Other potential outcomes:

- Industrial demand may increase as diversification in sourcing, routing and distribution becomes more important.
- There will be a thorough review of "just in time" supply chain systems as businesses weigh redundancy vs. efficiency.
- There may be increased industrial and warehousing demand as companies expand inventories



Getty Images

Automation and robotics are playing bigger roles in industrial properties. However, these technologies can use a lot of electricity.

to accommodate greater “safety stock.”

Industrial construction for the first quarter of 2020 remains highly concentrated in top markets like the Inland Empire, Dallas-Fort Worth, Houston, Chicago, Atlanta, Phoenix, and several other metro areas as measured by completions, according to Marcus & Millichap Research Services and CoStar Group data.

Meanwhile, industrial supply pressure was reduced in smaller metros like Milwaukee, Salt Lake City, Las Vegas, Detroit and Columbus, Ohio.

“It is interesting how Detroit, over the last 10 years, really snuck up on the marketplace,” Pontius said. “A lot of people had written off Detroit.”

The city had a 3.8% industrial vacancy rate in the first quarter of 2020 with completions as a percentage of inventory of just 0.8%.

“Columbus, Charleston, Salt Lake City...I’m seeing these as hot spots,” said **Curtis Spencer**, president of IMS Worldwide. Spencer noted that cities like Columbus

have done well throughout the COVID-19 crisis thanks to excellent logistics locations and infrastructure. He called Charleston, South Carolina, which is a base for Volvo and Mercedes, “a real sleeper” and said the city has several new deliveries being made for build-to-suit opportunities.

Pontius noted that U.S. industrial development remains primarily in the big-box space; 50% of construction in the first quarter was in the 500,000-square-foot format. In select markets (such as Charleston, Denver and Detroit), it’s even more pronounced — up to 54%.

“We have to distinguish between the pre- and post-COVID economy as the U.S. economy struggles to regain its footing following the initial devastation caused by the pandemic,” said **Michael Brennan**, chairman and managing principal of the Brennan Investment Group. “These smaller markets have a user demand that’s on par with the rest of the nation.”

The driving force behind it is e-commerce, he said.

“E-commerce demand is broad-based, so you’re seeing absorption numbers in smaller markets that are sort of identical to the larger market overall,” Brennan said. “Some of these markets that most people had written off are coming back and in a significant way — you wouldn’t have seen that 10 or 15 years ago. This is a different pattern of absorption than the nation has seen before.”

Spencer agreed.

“Even though these markets have a lot of similarities in terms of the product size, you are also seeing that rent rates are nearly the same,” he said. “The similarities between the primary and secondary or tertiary markets blew my mind. As an investor, or broker or lender, this may help you expand your opportunities.”

Building Design

The design and constructability of industrial projects has changed immensely over the past decade, alongside growing e-commerce demand, population density and trends like grocery delivery.

NAIOP's New E-Book: 'Rules of Thumb for Distribution/Warehouse Facilities Design'

Do you ever lie awake at night wondering what the functional width of a truck yard is? Do you yearn to know more about the thickness, curing and sloping of slab floors? Or how to prevent condensation from forming under a warehouse roof? Answers to these questions and more can be found in NAIOP's new 60-page e-book, "**Rules of Thumb for Distribution/Warehouse Facilities Design**," now available for sale on the association's website.

Originally published in 2005, the book has been significantly updated and expanded to include new information and illustrations on industrial site design, floors, racking systems and aesthetics. Author **Byron Pinckert** of HPA, Inc. observes that, in the past 15 years, the guidelines for industrial properties haven't changed as much as they've been extended.



"In 2005, a large distribution center building had a footprint of a few hundred thousand square feet," he said. "Today, a large building is in the range of a million square feet. The 2020 rules of thumb extend the guidelines from the 2005 edition to illustrate all the new approaches to optimize this new scale of facility."

"Rules of Thumb" provides not only the numbers behind successful warehouse design but also the reasons for these recommendations.

"This book doesn't just say the appropriate depth of a truck yard is 130 feet, it explains why it is 130 feet and under what circumstances it would make sense to be something different than 130 feet," Pinckert said. "Both industrial real estate developers and brokers will be able to use this information to have more meaningful dialogue with end-users."

www.naiop.org/en/Research-and-Publications/Rules-of-Thumb ■

Robert Murray, senior vice principal at Alston Construction, noted that buildings are getting taller; 40-foot clear buildings are now commonplace, and 48-foot clear buildings are increasingly entering the market. Taller buildings are also becoming more common in last-mile facilities located close to dense urban areas.

There is also greater adaptation of robotics and autostore systems to increase building throughput. However, automated systems and HVAC systems also sometimes require the installation of additional sprinkler systems and have contributed to increased electrical requirements in buildings. Murray observed that new buildings with automated systems frequently require the installation of three or four transformers and large backup generators to ensure that systems can remain in operation during a power outage.

Space usage at a site is also beginning to shift. Many facilities, especially those in the last-mile category, can now accommodate additional parking for delivery vans and workers. Conventional buildings are still being built with 50-foot bays to service truck deliveries, but buildings increasingly use truck queueing systems to allow more on-site space to be devoted to parking.

Jinger Tapia, principal, design at Ware Malcomb, noted ways that buildings are being designed to be more flexible and identified design elements that can allow for more efficient use of space. For example, to accommodate a future change of use, designers can ensure that a wall initially designed for truck docking is not load-bearing so it can be reconfigured or moved.

Tapia also outlined potential approaches to making large buildings

"more efficient on smaller acreage of land, closer in to the buyers who are looking for delivery." These include placing loading zones in a central corridor along the middle of a building instead of at a building's sides, and surrounding each side of a loading zone with mezzanines and vertical lifts.

Tapia and **Brook Melchin**, a senior architect/director at Riddell Kurczaba, observed that there has been a recent trend toward increased building amenities and designing buildings for occupant health and wellness, a trend they expect to accelerate in the wake of COVID-19.

Tapia indicated that these trends are similar to those occurring for attracting and retaining employees

at office buildings; tenants are increasingly interested in providing employees with amenities and attractive external spaces. "In years past, it was minimal landscape," he said. "Now we are seeing plans on various levels of industrial to add amenity spaces and walkable paths and connecting with nature."

Melchin said he expects that social distancing will also become a long-term design consideration, and that this will lead to a new pandemic certification for buildings that is based on a wellness framework. ■

Trey Barrineau is the managing editor of publications at NAIOP. **Kathryn Hamilton** is vice president of marketing and communications at NAIOP. **Shawn Moura**, Ph.D., is research director at NAIOP. **Marie Ruff** and **Brielle Scott** are communications senior managers at NAIOP.

Doing CRE During a Crisis: Remote Work, New Technologies

COVID-19 is forcing the industry to embrace teleworking and a wide array of digital tools.



Getty Images

Video conference software such as Zoom helped workers in the commercial real estate industry stay in touch at the height of the pandemic.

■ By Trey Barrineau, Daniel Levison and Turner Levison

The COVID-19 pandemic

has introduced a great deal of uncertainty into the commercial real estate industry. It has also forced CRE companies to come up with solutions to keep operations running when it's not feasible for everyone to be in the office. That includes adopting new technologies and embracing remote work.

"I think there will be lots of new investments in collaborative technology to enhance the growth in working remotely," said **Gregory May**, executive vice president and West Region market leader for Newmark Knight Frank, during a NAIOP webinar this spring. "As brokers, we're used to working remotely. About 90% of our day is out of the office or in our cars. I think it's something that's here to stay."

While the pandemic has been the catalyst for a surge in new technologies, the commercial real estate industry has been moving toward this moment for several years. Brokers in particular have been working to adopt digital solutions that can boost back-office efficiency and streamline operations.

Remote Work in CRE

The social-distancing aspect of the coronavirus pandemic rapidly introduced remote work to millions

across the U.S. According to Stanford University economist **Nicholas Bloom**, it was a crucial tool for both fighting the disease and reducing its economic impacts.

"Without this historic shift to working from home, the lockdown could never have lasted," he said in an interview with Stanford News Service in June. "The economy would have collapsed, forcing us to return to work, reigniting infection rates."

Telework has also proven to be popular. A survey of U.S. consumers conducted in April by the IBM Institute for Business Value revealed that more than 75% of respondents said they want to work from home at least occasionally, and 54% want it to be their main way of working.

The commercial real estate industry has fully embraced telecommuting. For example, NAIOP's monthly Coronavirus Impact Survey, which began in April, shows that an average of about 55% of commercial real estate firms were asking employees to work remotely from April through June.

During a series of NAIOP webinars in March, when COVID-19 was rapidly becoming a crisis in the U.S., commercial real estate professionals discussed some of the challenges of the transition to telework.

"At the time we started this, we didn't know where it was going to go," said **Barry Blanton**, a founding principal of Blanton Turner, a real estate management and consulting firm based in Seattle, an early COVID-19 hot spot. "We just knew that whatever we were going to do, it needed to ramp up as the pandemic grew and ramp back down as the pandemic was brought under control and the recovery kicks in."

Appraisers were prepared to deal with the shelter-in-place rules, according to **Jim Amarin**, CEO of the Appraisal Institute.

"Maybe everyone was not quite as efficient as they would have been otherwise, but if we have a strong internet connection and the ability to pick up a phone and talk to market participants, we can do a lot," he said during a NAIOP webinar. "We can view digital files to show how a property exists on a particular date. All of this is done while working in conjunction with property managers."

Almost overnight, virtual inspections of properties became a necessity.

"There's nothing in the uniform standards that appraisers must follow that says you must do a physical property inspection," Amarin said. "But one of the requirements is 'can you gather enough informa-

tion to a credible opinion of value,' and technology has really helped appraisers be able to deal with those issues."

According to **Nick Romito**, co-founder and CEO of commercial leasing platform VTS, showing properties virtually has grown tremendously during the pandemic.

"Eighty-two percent of tenants are not comfortable touring space in person," he told Propmodo in September. "If you are not able to provide a digital way for people to understand space, you can't even play the game, let alone win."

Romito said brokers are using digital analytics to help in negotiations.

"We had a broker tell us that while in a negotiation they saw the virtual tour views go from a few dozen to a few hundred," he told Propmodo. "That told them that the property was being looked at by the entire management team, and so they knew they would likely not need to make a concession since the company was already preparing for move-in."

Teleworking Drawbacks

May said his first week of working remotely in March was "actually kind of fun."

"I felt like I could wake up and I was in the office," he said.

That changed about a week later, however.

"I started realizing that I really missed the people," May said. "I missed the collaboration, and I missed the opportunity to spend time in the office. I think we learn a lot in those environments. As much



Getty Images

There were more than 18 million coronavirus-themed malware and phishing emails sent each day in April, according to Google's Threat Analysis Group.

as we have found this to be fairly productive, there's a big element that's missing. It's that interaction with people in the work environment."

But the absence of collaboration isn't the only problem related to working from home. According to social media startup Buffer's 2019 State of Remote Work report, 49% of remote workers said their greatest challenges were related to mental health. Specifically, 22% said they were unable to unplug from work, 19% suffer from loneliness and 8% struggle with motivation. Proactive communication can help eliminate feelings of disconnection and isolation among staffers.

An inefficient home-office setup can be a major problem as well. According to Bloom, more than half of Americans who are now working from home are operating out of a bedroom or another shared room.

Security is a major concern with teleworking, too. Home-based internet connections can be much less secure than those in an office setting that can be closely monitored by IT staff. Possibly because of that, hackers have increased

their efforts during the COVID-19 crisis. For example, Google's Threat Analysis Group detected more than 18 million coronavirus-themed malware and phishing emails each day in April.

Connection and Communication

Many individuals working remotely have experienced connectivity issues when trying to access necessary files and manage workflows. In fact, Bloom said only about 65% of Americans have a home internet connection that's fast enough to support video calls. One of the first steps an organization might need to consider is providing key executives and administrative support team members with home internet benefits. It will ensure that they can operate efficiently without significant bottlenecks.

Blanton said his company prepared for emergencies by setting up its entire operation to be cloud-based.

"In our system, we can do management, accounting, human resources, marketing and virtual leasing all on the cloud," he said.

CRE Teleworking Dispute Leads to Lawsuit

Attorney Amy Reggio is suing her former employer, Dallas-area real estate investment and development firm Tekin & Associates, after she said she was fired in late March for refusing to come into the office during the COVID-19 pandemic.

According to the lawsuit, Reggio told Tekin & Associates President **Mark Tekin** that she could perform her work from home after Dallas County, where she lived, issued a shelter-in-place order that went into effect on March 23. (Tekin & Associates is located in nearby Collin County.) Dallas County Judge **Clay Jenkins**, who announced the order, made clear that it would apply to county residents regardless of where they work.

“It doesn’t matter if your job is in Fort Worth or whether your job is in downtown Dallas or Plano,” he said during a news conference on March 22. “If you live here, you’re under this order.”

Jenkins’ order indicates that real estate and inspection services in Dallas County could be considered essential and remain open, “but only for the purpose of title work and closing; in-person open houses and showings are prohibited.”

The lawsuit shows that Reggio sent Tekin an email on March 27 that reads, “My hope in writing you this email is that you will stop trying to require me (and other Dallas County residents and residents of other counties with the same orders) under the threat of termination to come to the office in violation of various government orders/laws that will subject me to criminal penalties.”

According to the lawsuit, Tekin immediately fired Reggio after receiving the email.

Reggio had served as general counsel for Tekin & Associates since December 2019, according to the lawsuit. She is seeking \$1 million in damages. ■

NAIOP’s monthly Coronavirus Impact Survey, which began in April, shows that an average of about 55% of commercial real estate firms were asking employees to work remotely from April through June.

Another crucial early step in setting up an effective remote workforce is selecting the right communications and remote tools. Some of the more frequently used internal and external communication tools are Slack, Microsoft Teams and UNITE. Popular remote-connect tools are LogMeIn and Splashtop. Each has various levels of service with additional upgrades and can support even the largest businesses.

Everyone wants normalcy and connection in times of uncertainty. During the pandemic, video communication has proven that it can go a long way toward providing those intangibles.

“When utilized correctly, videoconferencing means we don’t have to give anything up,” **Adam Gower**, an authority in content marketing for the real estate industry, wrote in an article for National Real Estate Investor in March. “It allows us to be anywhere and everywhere in a way that even the novel telephone never possibly could.”

Some of the best-in-class videoconferencing platforms are Zoom, Webex provided by Cisco, GoToMeeting, Skype and Google Hangouts.

While Zoom emerged as the most popular platform during the pandemic (its stock value has increased 400% since the start of the year), it’s been plagued by high-profile security issues. One of the biggest was the “Zoom-bombing” phenomenon, in which hackers were able to access private video conferences and disrupt them. Webex, which is used by the federal government, is considered to be more secure by many cybersecurity experts.

The Future of High-Tech Brokerage Operations

The coronavirus crisis did more than bring telecommuting to the forefront of the commercial real estate industry, however. It has also highlighted a long-term need for greater automation in back-office brokerage operations. That, in turn, will require a different mix of skills than were needed in the past.

A recent report in Inc. Magazine found that the most desired skills for future back-office professionals include strategic thinking, adaptability to new and evolving technologies, and good collaboration skills. Financial knowledge is still essential, but it’s no longer a prerequisite.

While COVID-19 has accelerated changes, revolutionary technological advances have been on the horizon for a while. Development magazine’s Winter 2018-2019 cover story, “How Technology Will Change the Brokerage Business,” touched on the disruptions that are on the way or already here. **Joan Woodard**, the former president and CEO of Simons & Woodard in Santa Rosa, California, wrote that “brokerage firms are investing in and building out their own technological solutions for more extensive data collection and compilation, marketing, space visualization, client contact-management and other competencies.”

Better technology promises to help back-office staff become more productive. Firms can concentrate on assisting ownership with cash-flow management and forecasting.

Unfortunately, not everyone in the industry is adapting at the same rate. In an article for Forbes in October 2018, **Robert Finlay**, CEO of Lyra Intel, noted that most real estate business organizations had not yet invested significant time and resources to streamline their back-office operations.

So what are some best practices to put into place to help run brokerages digitally and effectively during the next disruptive event?

Those who worked through the commercial real estate downturns in 1989, 2001 and 2009 learned firsthand that vendors and lenders favor those who pay their bills in a timely fashion. Moving to automated cloud-based applications can effectively manage these functions. It can also allow a brokerage business to run more profitably and productively.

In a recent study by Wells Fargo, organizations identified manual processes as the No. 1 operational challenge for their back-office staff. The three most time-consuming and frustrating activities reported by back-office personnel were managing payments to vendors and



Electronic payments are potentially a major growth area for the commercial real estate industry.

Getty Images

employees, forecasting cash flow and accurate budgeting.

Today's cloud-based systems not only automate a company's back-office processes, they also provide a central, easily accessible hub for all payments and related files. Additionally, having a system that doesn't require personnel to physically go into the office can relieve ownership of potential liability that might arise during a government-mandated shelter-in-place order.

Most banks and accounting systems provide multiple electronic options for customers to make payments to vendors, employees and commission-based agents. However, bill-pay features via a bank still must go through a clearing house, which issues a paper check that is

ultimately mailed to the recipient. This option can easily take 10 days to reach its destination and then must still be deposited.

For additional fees, banks can allow customers to internally create automated clearing house (ACH) and wire transfers. This allows direct deposits into the recipient's bank account within one to three days. Typically, these upgraded options have built-in approval processes to protect customers. Accounting software packages also have features that allow direct-deposit transfers for payments.

As a real estate company transitions to a digital back office, it's important to make sure that software vendors provide an engaging and responsive customer success team. There is a standard metric within the software-as-a-service (SaaS) industry that measures how well organizations provide outstanding customer service. The metric is known as the Net Promoter Score (NPS). Requesting the metric from a potential provider can illuminate the quality of the company's customer support. Scores range from a low of -100 to a high of 100.

Moving to a digital cloud-based system requires increased caution with email communications. The risk of fraud can potentially increase with cloud-based platforms.

Florida Removes Witness Requirements for Leases

As a response to the challenges of doing business during the COVID-19 pandemic, Florida recently enacted a bill that gets rid of the requirement of witnesses for commercial and residential leases.

The Florida chapter of NAIOP lobbied to get the legislation passed. The new law went into effect on July 1.

"The witness requirement is a cumbersome and unnecessary holdover from the pre-digital era," said NAIOP Florida President **Darcie Lunsford**, executive vice president of Butters Realty & Management. "This is particularly crucial in the post-COVID environment, where we are looking for ways to limit interpersonal contact while still trying to conduct business, keep our economy going and our buildings full." ■

The most common platform for managing commission split plans is still Microsoft Excel, which provides limited transparency and considerable room for human error when there is more than one agent per transaction.

However, utilizing an internal instant-messaging application such as Slack or Trello can significantly reduce the opportunity for scammers to capture a company's sensitive information through email phishing attacks.

Despite that, there is still a danger that the accounts of individual users on those chat apps can be compromised, so approach them with caution.

Receivables and Invoicing

At many companies, the only method for processing invoices is through a desktop computer setup at the office that requires someone to physically be there. Several CRE-centric invoice solutions have entered the marketplace in recent years. Based on the brokerage's desired level of accounting detail and reporting capabilities, managing principals, CFOs and controllers have several options to consider.

To fully move into a digital back-office process, companies must also utilize an option to electronically accept vendor payments for commissions and related fees. A few of the more popular are PayPal, Stripe and Chargebee. For national and global brokerage operations, Braintree, owned by PayPal, offers more robust options.

Expenses, Payments and Platform Integration

Research indicates that most CRE brokerages spend up to four to five

hours processing each new transaction. This can involve determining where each agent is in their split plan, setting up and manually producing invoicing, and making agent and referral payments.

The most common platform for managing commission split plans is still Microsoft Excel, which provides limited transparency and considerable room for human error when there is more than one agent per transaction. As automation is introduced into back-office operations, the tools needed to efficiently generate budgets, cash flow management and financial reporting must become instantly available to principals and business ownership.

Technology that can integrate legacy data between applications should figure into the decision-making process for upgrading back-office operations. The strategies should consider whether the platform provides integration with commercial real estate customer relations management (CRM) systems. It should also integrate with accounting software and property-management software.

Existing software solutions often can't be integrated with new platforms because they were developed with older software applications and closed systems. To provide complete functionality and maximize productivity, determine if it is necessary to upgrade more than one application within the organization to improve operational efficiency.

Transparency between managing principals and agents allows them

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For more information, follow this link: learn.naiop.org/products/brokering-in-the-digital-age-course ■

to see the entire revenue picture of their business. It's also important for managing brokers and agents to communicate digitally during unforeseen circumstances. This is especially true for inexperienced younger agents, who will need additional support and guidance during situations such as COVID-19.

Having an organized approach that lets brokers track their future opportunities can boost efficiency and lead to a higher closing percentage. A study by the Harvard Business Review found an 18% difference in revenue growth between companies that define a formal and structured sales process, which includes tracking future opportunities, and companies that don't.

Most of the CRE-centric CRM technology and back-office solutions developed over the past several years include future-opportunity tracking. Some are significantly more complicated than others. ■

Trey Barrineau is managing editor of publications for NAIOP. **Daniel Levison** is the chairman of CRE Holdings. **Turner Levison** is the CEO of CommissionTrac.

Not Your Father's Mall Anymore

Developers are unlocking the value of old retail centers by adding new uses, from charter schools to distribution centers.

■ By Shawn Moura, Ph.D.

A generation ago, traditional malls thrived by offering shoppers a range of retail options in a single location. Both smaller retailers and large department stores benefited from their ability to generate foot traffic. However, growing competition from more convenient or less expensive e-commerce and discount retailers has led to the closure of hundreds of shopping malls across North America in recent decades.

While many of the remaining properties may no longer support a traditional mall, they are often strong candidates for redevelopment. The NAIOP Research Foundation has published a new report titled “Repurposing Retail Centers: Profiles in Adaptation, Repositioning and Redevelopment,” by **Jason Beske**, AICP. Through five case studies, the report examines how developers in the U.S. and Canada are stepping in to transform struggling or closed shopping centers into properties that are adapted to current market conditions and serve the needs of their surrounding communities.

Mall properties are often located near freeways and public transit, making them viable candidates for office, industrial or multifamily uses. Many malls are also surrounded by large parking lots that allow room for additional construction.

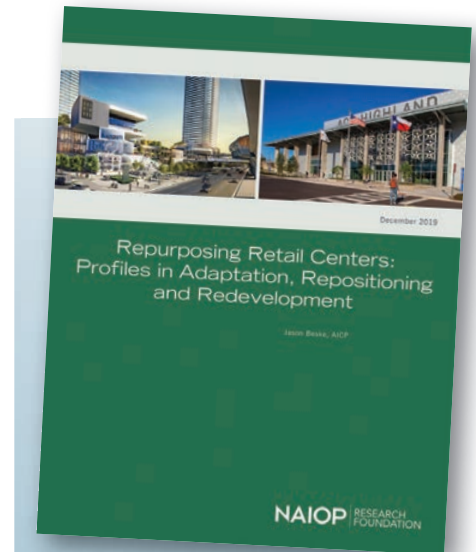
Finding Value in Old Shopping Centers

If a mall has closed or experienced high vacancy rates for a prolonged period, it likely means that the local market will no longer support a center that is exclusively devoted to retail. But shopping centers — particularly large, traditional malls — often possess characteristics that make them attractive for other uses. Mall properties are often located near freeways and public transit, making them viable candidates for office, industrial or multifamily uses. Many malls are also surrounded by large parking lots that allow room for additional construction. Some shopping centers include outparcels that can provide developers with additional redevelopment opportunities or a source of lease income during a project. These attributes can make a mall attractive to developers interested in either completely redeveloping the property or supplementing retail with new uses.

Mall properties can also be attractive candidates for uses that require a large footprint. For example, Austin Community College (ACC) found the Highland Mall's layout to be ideal for its purposes: retail shops have been transformed into classrooms and study areas that are linked together by the building's central corridor. RedLeaf Properties, ACC's partner in the redevelopment of the mall, was able to transform large portions of the mall's parking field into retail, residential and office buildings, creating a mixed-use community anchored by the college.

Partnering with Communities

While malls can present unique redevelopment opportunities, developers



Get the Report

To view and download “Repurposing Retail Centers: Profiles in Adaptation, Repositioning and Redevelopment,” visit www.naiop.org/Research-and-Publications/Research-Reports.

also need to be aware of their economic and social importance to surrounding communities. As the report's case profiles demonstrate, local communities are often eager to work with a developer to repurpose a failing mall. However, the developers profiled in the report also recognized the importance of working closely with communities to ensure that redeveloped properties meet local needs.

The projects profiled in the report have created new jobs, and several have brought additional benefits to local communities, such as attractive public spaces and new services. Developers planning a mixed-use project can benefit from public outreach and consultation when designing amenities

that are accessible to both tenants and the public. Both Highland and Amazing Brentwood near Vancouver, British Columbia, include publicly accessible amenities such as parks, trails and plazas that create a sense of place, benefit the local community and increase foot traffic for retail tenants.

Redevelopment can also bring important services to a community, such as when ATR Corinth Partners redeveloped a portion of the 100 Oaks Mall in Nashville to host the Vanderbilt Medical Center, or when the Movement Foundation transformed portions of a shopping center in Charlotte into a charter school and affordable housing. The new ACC Highland campus has also significantly expanded the community college's ability to serve the surrounding community in Austin.

Working closely with community leaders is also critical to successful project completion. Redeveloping a shopping center often requires modifying a property's original zoning and adjusting connections to public infrastructure. For example, Industrial Commercial Property (ICP) had consulted with officials in North Randall, Ohio, for years prior to acquiring the Randall Park Mall and its rezoning for industrial uses. Continued close collaboration with local leaders helped ICP convince Amazon to locate a distribution center on the site. Transforming a shopping center's parking lots with new construction and traffic patterns often requires adjusting connections to public roadways, which can benefit from public investments such as new traffic lights or access roads. In ICP's case, the state of Ohio made improvements to a nearby high-

Working closely with community leaders is also critical to successful project completion. Redeveloping a shopping center often requires modifying a property's original zoning and adjusting connections to public infrastructure.

way ramp to accommodate a new traffic flow pattern.

The continued expansion of e-commerce and discount retail suggests that the recent trend of widespread mall closures is not yet over. However, the projects profiled in this report demonstrate that many of these properties can be successfully repurposed to meet current market demand and benefit local communities. ■

Shawn Moura, Ph.D., is the director of research for NAIOP.

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2030 is ambitious. But by imposing this requirement only on new buildings — combined with tax incentives to offset the substantially higher upfront costs of efficient technology — the proposal appears to present a far more realistic and workable framework than its predecessors.

Elsewhere, it acknowledges the benefits of adaptive reuse of older buildings and calls for an expansion of the Historic Tax Credit, which provides a 10% tax credit for rehabbing historic, income-producing buildings. Retrofitting would also be incentivized through a new small business energy efficiency grant program. It also calls for the implementation of a national energy benchmarking program and highlights EPA's Energy Star program as a logical solution.

That said, the plan is short on details when it comes to the value and scope of these incentives. This information will be critical in determining whether the plan is feasible, or yet another unfunded — and unworkable — mandate.

Efficiency in the Wake of COVID-19

In a sign of the times, the proposal ties the need for a clean and sustainable economy to the coronavirus outbreak. Its preface reflects on the tens of millions of Americans who have lost jobs due to business closures, and it argues that solving the climate crisis can “propel the economy forward” and provide a “pathway to millions of good-paying, high-quality jobs that can fortify and expand America's middle class.”

These are laudable goals, and there is certainly evidence suggesting the positive economic impact that invest-

ment in green technology can have. But the report does not mention a key constraint: the fact that coronavirus safety measures and energy efficiency are often at odds.

Take, for example, the guidelines laid out by the Centers for Disease Control and Prevention regarding office buildings. To ensure the safety of occupants, the federal agency recommends increasing the circulation of outdoor air “as much as possible by opening windows and doors, using fans, and other methods.” While certainly feasible in more moderate climates, bringing in outside air on a 100-degree summer day in Miami necessitates additional energy usage, as HVAC systems work harder to keep

temperatures at an acceptable level. It's a similar story when it comes to higher-rated filtration systems, which are more effective at blocking particles but reduce airflow as a result. Both of these precautions would make it harder to comply with stricter efficiency mandates.

As businesses reopen and the “new normal” stage of the pandemic begins, lawmakers must balance efficiency goals with the increased burdens placed on property owners to keep their tenants safe.

Weighing Costs and Benefits

One of the 12 policy “pillars” laid out in the proposal calls for quantifying the benefits of federal climate action.

Impacts on the Building Sector

The “Solving the Climate Crisis” report released in June by Democrats on the House Select Committee on the Climate Crisis calls on Congress to do the following with regard to the built environment:

- Eliminate emissions from new buildings by 2030 by requiring federal buildings to follow net-zero-emission building codes and incentivizing states and cities to adopt net-zero codes.
- Invest in energy-efficient public buildings and communities by increasing funding for the State Energy Program and reauthorizing the Energy Efficiency and Conservation Block Grant program.
- Increase the availability of energy-efficient, affordable housing by increasing funding for energy-efficient public, federally assisted, and unsubsidized multifamily housing.
- Drive energy retrofits of commercial buildings and businesses through tax incentives, a small business energy efficiency grant program and commercial building benchmarking requirements.
- Boost onsite clean energy generation and beneficial electrification by increasing tax incentives and rebates and establishing model standards and codes.
- Reduce emissions from building materials by incentivizing building reuse, requiring federal use of performance-based construction specifications, and establishing green building material databases and labels.
- Demonstrate federal leadership in building efficiency by setting ambitious energy and emissions reduction targets, requiring deep energy retrofits, and increasing federal use of energy savings performance contracting. ■

From "Solving the Climate Crisis," published June 2020 by the House Select Committee on the Climate Crisis

If Democrats emerge victorious in the November elections, the issue of climate change is sure to take center stage, and this proposal will serve as a roadmap for future legislative action.

This empirical approach is warranted, given the vast capital expenditures that would be needed to implement the plan as envisioned.

At first glance, it appears the report follows this model. But, as economist (and recent NAIOP webinar speaker) **Douglas Holtz-Eakin** points out, the devil is in the details. In a blog post for the Aspen Institute, he explains how the proposal, if enacted, could open the door to analyses that overstate the benefits of new regulations and mandates simply by tweaking the assumed “cost to society” of certain actions.

The government should take into account real-world data, as well as payback periods, and return on investment and present-value considerations

when enacting new policies. Using these metrics helps ensure investments that target the highest return for taxpayers without exaggerating the expected benefits.

NAIOP's Position

NAIOP has long championed sensible approaches to incentivizing energy efficiency and reducing emissions. But arbitrary mandates that ignore economic and technological realities can have severe consequences, and ultimately could be counterproductive. However, the “Solving the Climate Crisis” report lacks a number of crucial

details that are needed to assess its potential viability.

Climate Crisis Committee Chairman Rep. **Kathy Castor**, D-Florida, has said that climate action “should not be a partisan issue.” In reality, climate change and the environment are two of the most polarizing topics among Americans. As a result, the fate of the climate action plan largely rests in the hands of voters, who head to the polls on November 3 in this high-stakes election year. ■

Alex Ford is the director of federal affairs for NAIOP.



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NAIOP's Visionaries Graduate to Governors

Six members of the inaugural group assume greater responsibilities for shaping the association's Research Foundation.

■ By Trey Barrineau

In 2017, the NAIOP Research Foundation created the Visionaries program to recognize outstanding real estate professionals in the early stages of their careers. Foundation leaders, known as Governors, mentor participants, who can also be part of Foundation committees. Visionaries also develop camaraderie and meaningful connections with each other.

The inaugural class of 10 young professionals tapped to take part in the Visionaries program represented different geographic regions and diverse disciplines within the commercial real estate industry.

The Next Step

Three years later, that first group of 10 has doubled to 20, and in July, NAIOP announced that six of them have chosen to become Research Foundation Governors. It's a lifetime appointment for those NAIOP members who have demonstrated their commitment to the Foundation's mission by making a substantial contribution to its endowment fund. As Governors, they will be able to take their engagement with NAIOP to a deeper level by sharing their thought leadership and lending their expertise to shape the Foundation's research agenda.

The new Governors are **Lewis Agnew**, CCIM, president, Charles Hawkins Co., Nashville; **Kate Nolan Bryden**, vice president of development, MRP Industrial, Baltimore; **Megan Creecy-Herman**, vice president, market officer, Prologis, Scottsdale, Arizona; **Drew Richardson**, director of leasing and property management, Primera Companies, LLC, Dallas; **Lex Rickenbaker**, executive director – investments, USAA Real Estate Company, Atlanta; and **Colleen Wevodau**, partner, Baker Tilly Virchow Krause, LLP, Vienna, Virginia.

"I am exceptionally pleased that these six individuals, all part of our inaugural cohort of Visionaries, elected to become Governors," said **Marc Selvitelli**, CAE, executive director of the NAIOP Research Foundation. "Their industry experience and involvement the past three years as Visionaries make them outstanding additions to an already impressive group of Research Foundation Governors."

Barbara Schaefer McDuffie, managing director with Baker Tilly in Vienna, Vir-

ginia, is the chair of NAIOP's Visionaries committee and had a significant role in conceiving the Visionaries program. She said it was launched with the hope that all Visionaries would become Governors at the end of their three-year terms.

"When I became a Governor, I realized that the majority of the Governors were over 50 or 60," she said. "In order to have a sustainable model, I felt we needed to encourage NAIOP members under the age of 40 to engage with the Governors for three years so they might understand the value of the Foundation. At the same time, they would gain industry knowledge through interaction with the Governors. To ensure that interaction happened, we also instituted a mentor program, whereby Visionaries can select several Governors as their mentor each year. This has been valuable for the Visionaries, but also for the Governors. We never stop learning!"

Mentorships That Matter

Creecy-Herman, who is also a member of the NAIOP Board of Directors, said she would highly recommend the Visionaries program to her peers in NAIOP.

"I am continually impressed with the quality of the research, the events, the overall program and how many doors it can open for future CRE leaders," she said.

Agnew said one of the biggest benefits of the Visionaries program has been the mentorship opportunities.

"This allowed me to meet a wider selection of governors than I had previously gotten to know, and the sched-

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The New Governors



Lewis Agnew



Kate Nolan Bryden



Megan Creecy-Herman



Drew Richardson



Lex Rickenbaker



Colleen Wevodau

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uled calls and meetings enabled deeper connections,” he said. “Professionally, it is always good to spend time around smart, accomplished professionals, and I have learned a lot through my involvement with the Research Foundation. Personally, I’ve enjoyed the friendships and relationships that have been formed.”

Those personal connections also informed his decision to become a Governor.

“Real estate is a relationship business, and the more involved I became with the Visionaries program, the more I appreciated the caliber of the other Visionaries and Governors,” Agnew said. “It was relatively easy to decide that I’d like to spend more time with

folks like that. Furthermore, the work and research reports that are published through the Foundation are cutting-edge topics that have helped me grow and learn.”

For Wevodau, her experience in the Visionaries program directly inspired her to become a Governor.

“Based on the relationships I have already formed in the Visionaries program, I knew being a Governor would only take these relationships a step further,” she said. “Being a Governor would increase my exposure, allow me to interact with leaders and ultimately expand my commercial real estate knowledge and business expertise.”

Much like Agnew, Wevodau cited the ability to have one-on-one interac-

tions with industry veterans as perhaps the biggest benefit of the Visionaries program.

“I have access to some of the top leaders in the industry,” she said. “I have the opportunity to interact with them and ask them questions and simply just learn from them through several of the meetings the Visionaries attend. To help facilitate the conversations, we actually select up to three mentors a year, which allows us to have more personable and in-depth conversations. As a Visionary, it’s all about learning and absorbing as much as you can from others, and the program does just that.”

And beyond education and networking, there’s a pleasant social aspect that provides opportunities for members of both programs to get to know one another on a personal level.

“There are very enjoyable Foundation dinner events at the fall and spring conferences, but we Visionaries have had so much fun that we are getting together on our own for the next conference,” Agnew said.

The NAIOP Research Foundation was established in 2000 as a 501(c)(3) organization that accepts tax-deductible contributions. Its mission is to provide practical research and education that allows commercial real estate owners and developers to successfully capitalize on new trends and address challenges in the industry. ■

Trey Barrineau is the managing editor of Development magazine.

Want to Learn More?

For more information about the Visionaries program, contact **Bennett Gray**, vice president of the NAIOP Research Foundation, at gray@naiop.org or visit www.naiop.org/Research-Foundation/Visionaries ■

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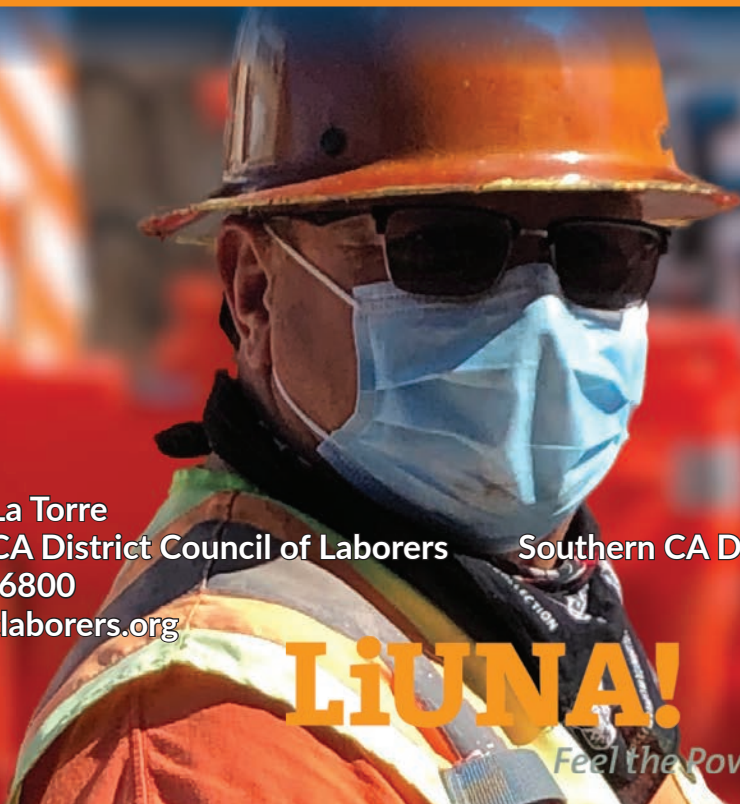
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Four Students Receive NAIOP Diversity Student Scholarships

This year's scholarships were awarded to commercial real estate graduate students from backgrounds that have been traditionally underrepresented in the industry.

■ By Hannah Buckles

NAIOP is pleased to announce the recipients of the 2020 NAIOP Diversity Student Scholarships.

The scholarship program was established in 2016 to support students at NAIOP university-member schools who are pursuing degrees that will lead to careers in the commercial real estate industry. Preference is given to students from backgrounds that have traditionally been underrepresented in the industry.

A panel of industry experts reviewed dozens of applications before selecting these four candidates. All winners are NAIOP student members involved in commercial real estate through NAIOP events, club memberships, and volunteer or work experience.

The graduate students will receive \$5,000 to apply toward their education.

The scholarship program was established in 2016 to support students at NAIOP university-member schools who are pursuing degrees that will lead to careers in the commercial real estate industry.



Kimberly Morey has held various positions within the commercial real estate industry in Arizona, from in-house counsel to senior closing specialist.

In 2019, she decided to elevate her career and skills with a Master of Real Estate Development from the W.P. Carey School of Business at Arizona State University. Morey completed her degree in May 2020 with plans to pursue development and acquisitions. She says she looks at projects with a focus on how people will use the space over several decades.

Morey has been active in her community, taking part in a variety of charity and professional volunteer positions. For example, she has served as a team captain for Brokers for Kids, which helps academically motivated children in need to meet their full potential. She has also been a Boy Scout Den Leader and a W.P. Carey MRED Ambassador, assisting prospective students in learning more about the degree program.



Xiaofei Ren, a graduate student at Portland State University, is expecting to receive her Master in Real Estate Development

in late 2020.

Ren is originally from China, where she graduated from Tianjin University. In 2012, she earned a Master of Architecture from Washington University in St. Louis.

Ren will use her new real estate development education to transition from architect to architect-as-developer and create projects centered on the lifestyle and professional needs of her community. She believes that her skills as an architect and her development acumen can help avoid mistakes that arise from a lack of overlap between designers and builders.

Ren has participated in several chapter activities and formed a valuable relationship with her NAIOP Oregon mentor, **Scott Elliott** of Edge Development.



Awais Qazi has a Bachelor of Architecture from the University of Maryland, College Park and is pursuing a Master of Architecture and a Master of Real Estate Development there. He expects to earn the dual degrees by late 2021.

Qazi wants to turn dilapidated buildings into mixed-use projects, with the hope of opening his own coffee shop in one. Additionally, he wants to emulate his father, a property manager, through a self-sufficient, diversified and flexible career in CRE.

Qazi has taken part in many competitions as a student. These include the U.S. Department of Energy's Solar Decathlon, the University of Maryland's Colvin Case Study Competition and the NAIOP Capital Challenge, sponsored by the association's D.C.-Maryland chapter.

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Glenn I. Gray Jr., a former professional in the motion picture industry who worked with directors such as **Spike Lee** and

Norah Ephron, is an Auburn University graduate student. He plans to earn a Master of Real Estate Development in Spring 2021. Gray is a licensed North Carolina commercial real estate broker and has developed single-family homes in downtown Durham. He aims to work as a commercial real estate investor and developer with a regional or national firm.

Gray learned economic empowerment through CRE at his childhood church, the Greater Allen AME Cathedral in Queens, New York. Under the leadership of Rev. **Floyd Flake**, the church acquired many properties and helped redevelop the local neighborhood.

Gray has plans to pay his success forward by mentoring other underrepresented individuals interested in a career in CRE. He has served as a member of several local charitable boards and as a mentor to at-risk youth. ■

Hannah Buckles is the member services coordinator for NAIOP.

A panel of industry experts reviewed dozens of applications before selecting these four candidates. All winners are NAIOP student members involved in commercial real estate through NAIOP events, club memberships, and volunteer or work experience.

Planning 2021 Compensation?

This **VALUABLE REPORT** includes current data provided by nearly **300 companies** on **up to 200 positions** reflecting **more than 100,000 distinct jobs** in **office, industrial and retail**, including **executive to administrative jobs** in the fields of **acquisitions, development, leasing, management, financing** and more.

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2020 NAIOP/CEL Commercial Real Estate Compensation and Benefits Report

OFFICE/INDUSTRIAL and RETAIL

DATA PRESENTED BY:

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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 non-competitive 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 and are mobile-responsive for those who want to read 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. ■

Experience the POWER OF NAIOP

Throughout the turbulence of 2020, NAIOP has remained steadfast in helping our 20,000 members — commercial real estate developers, owners, investors, brokers and more — advance their businesses and the industry. There's no better time to join forces with NAIOP.

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- Looking for expert insights so you can plan for 2021 and beyond? *We've got you covered.*
- Trying to find the ideal partner for a new project or deal? *You've come to the right place.*
- Interested in protecting your business on the local, federal or provincial level?
Make your voice heard with us.

Don't be isolated in your career or business, there's enough of that in this era of social distancing!

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KEYNOTES

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Donna Brazile
Veteran Democratic
Political Strategist

Donna Brazile will share candid insights on the latest developments of an ever-shifting political landscape, the critical issues facing America and what their impact means for our future.

A Winning Play: Las Vegas Sports Teams' Impact on the City



Marc Badain
President,
Las Vegas Raiders



Kerry Bubolz
President,
Vegas Golden Knights

Marc Badain and Kerry Bubolz will discuss how they are leading their teams through difficult challenges that can also present interesting opportunities, from the business and real estate aspects of their franchises to how they are addressing the pandemic and social issues of the day.

View the **agenda, speakers and sponsors** at creconverge.org. **Register today!**

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#WFH Now, But We'll Return to the Office

In mid-March, office workers abruptly shifted their workspaces from cubicles to dining room tables, collaborating and socializing with colleagues through Zoom calls instead of gathering in meeting rooms or around the water cooler.



Larry Lance

Open office concepts, collaboration spaces and shared amenities — once darlings of the modern office — are a distant memory. Almost overnight, the “where” and “how” of work completely changed for many of us.

It wasn't long before we settled into this new routine and speculation started: *Will we ever return? How will workspaces change? Is this the end of the office?*

Many of us are now cautiously transitioning back and following social-distancing protocols, and I believe we're seeing strong signs that the office is, in fact, here to stay.

I personally have mourned the synergy and strategy that comes from in-person collaboration. A recent article in the Wall Street Journal referenced the benefits of these spontaneous interactions — hallway conversations between peers that are much less likely to happen in a remote office environment. On-boarding new employees and enabling younger staff to learn from more experienced colleagues have presented big challenges, and some bosses fear productivity losses — however small — will impact the bottom line.

Employees miss being in the office, too. A Gensler study of 2,300 workers across the U.S. revealed that 44% say they want to return to the office five days a week, with 26% preferring one or two days at home and just 12% saying they'd prefer to work from home all five days. Respondents say they miss “collaborating and staying up to date on others' activities” and emphasized the value of physical presence and connections.

I believe what we'll see in the future is a hybrid of virtual and office environments, with workers splitting time between remote locations and coming into the office for dedicated opportunities to convene teams.

A McKinsey study found that “organizations could create workspaces specifically designed to support the kinds of interactions that cannot happen remotely,” and companies will examine how space locations and layouts contribute to workplace culture and productivity.

Tech firms Twitter, Facebook and Google have already announced that employees can work from home through mid-2021 at minimum, or perhaps indefinitely. In Boston, only 5% of office workers have returned to their workspaces, with most workers expecting to continue operating remotely through at least January.

Naturally, this has contributed to some anxiety about the future of office; however, many of these tech firms and urban offices have densely occupied footprints that do not allow for enough physical distancing to accommodate current health safety needs. Offering flexible policies accommodates those who are eager to return to the office and others who choose to continue teleworking, while giving employers time to rethink their office space designs.

Research by GWL Realty Advisors, our parent company, notes that office demand is not static. Many firms are growing, especially technology firms that have even seen demand for their products or services expand during the global pandemic. These companies will need even more office space in the coming years, even if they allow for some flexibility when it comes to working from home when appropriate.

NAIOP, through the National Forums, conferences and research, will continue to keep its finger on the pulse of office demand, how it is changing and what we can expect as more workers return to the office. I invite you to access our research briefs on the topic and share your experiences during our CRE.Converge Virtual conference, October 7-8, online.

We're also planning a dedicated series of virtual discussions on the future of office in November 2020, featuring high-level thought leaders on such critical topics as tenant requirements, shifts in office locations, investment trends, and space solutions — from traditional leases to flexible space. If you're in office real estate, these are conversations you won't want to miss. ■

Larry Lance, Executive Vice President, Everwest Real Estate Partners
2020 NAIOP Chairman

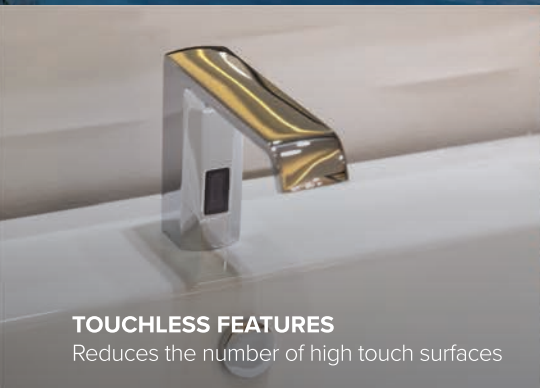
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