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Rethinking Real Estate: The Office of the Future

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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.

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.

Getty Images

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

"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."

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 arrangement. 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."

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.

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.

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.

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 ■

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 processer 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.

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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 everything 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 ICON 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 **Al 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. ■

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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.

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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 Amorin**, 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," Amorin said. "But one of the requirements is 'can you gather enough informa-

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

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 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.

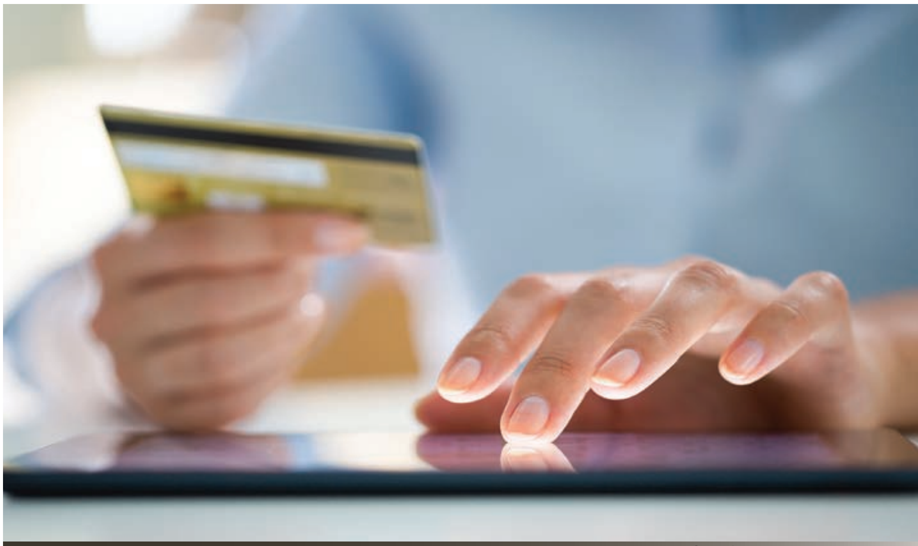
The Future of High-Tech Brokerage Operations

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.



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

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 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 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. ■

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NAIOP Virtual Course: 'Brokering in the Digital Age'

This introductory one-hour course provides several practical ways that brokers can leverage the tools available to them and cultivate long-term relationships with their clients beyond the initial transaction.

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