Commercial Real Estate Development SPRING 2022

Development®

IDEAS | ISSUES | TRENDS

A New Life for Old Offices

From Workplace to Living Space *46*

Industrial Project Brings Opportunities to Indiana Town *54*

Large-format Multilevel Industrial Buildings Are On the Rise *60*

NAIOP Research Foundation Annual Report *67*

NAIOP
COMMERCIAL REAL ESTATE DEVELOPMENT ASSOCIATION

Contents

Development® Spring 2022

Volume LIII No. 1

Development on the Web

NAIOP COMMERCIAL REAL ESTATE DEVELOPMENT ASSOCIATION

Read Development® magazine anywhere, anytime at **www.naiop.org**

Connect with NAIOP

www.facebook.com/NAIOP Corporate

twitter.com/DevMagNAIOP

LinkedIn

http://bit.ly/9zYNI4 (NAIOP)

http://bit.ly/c5gNMO (NAIOP Developing Leaders)

YouTube

www.youtube.com/user/NAIOPCorporate

GOLDEN TRIANGLE INDUSTRIAL PARK
North Las Vegas, NV
2,403,340 SF
Sold on behalf of:
Washington Capital

40-40 NORTHERN BOULEVARD
Long Island City, NY
699,668 SF of FAR
Sold on behalf of:
Girt Realty LLC

TASMAN TECH
Milpitas, CA
608,968 SF
Sold on behalf of:
Lionstone Investments

KANSAS CITY LAST MILE PORTFOLIO
Kansas City, MO
2,162,572 SF
Sold on behalf of:
Private Equity Fund

400 NATIONAL
Simi Valley, CA
290,220 SF
Sold on behalf of:
Greenlaw Partners

4240 W 190TH
Torrance, CA
307,487 SF
Sold on behalf of:
Private Equity Fund

NEW ENGLAND LOGISTICS PORTFOLIO
Clinton, Norton and Brockton, MA
1,078,011 SF
Sold on behalf of:
Marcus Partners

XR1 INTERNATIONAL
Salt Lake City, UT
457,320 SF
Sold on behalf of:
Greenlaw Partners

NEWMARK

Thank You to Our World-Class Clients For Your Trust & Friendship

2021 Industrial Investment Sale Highlights

NORTH COUNTY CORPORATE CENTER
Vista, CA
493,898 SF
Sold on behalf of:
Barings

112 BARNUM ROAD
Devens, MA
402,000 SF
Sold on behalf of:
Artemis Real Estate Partners

PORTSIDE 55
Tacoma, WA
428,101 SF
Sold on behalf of:
Avenue 55

NORTHBAY LOGISTICS CENTER
Vacaville, CA
843,248 SF
Sold on behalf of:
LDK Investments

15 FREEDOM WAY
Franklin, MA
260,000 SF
Sold on behalf of:
Barrett Distribution

8215-8220 WELLMOOR COURT
Jessup, MD
191,700 SF
Sold on behalf of:
Spector Family, LLC

4700 ISLAND AVENUE
Philadelphia, PA
19 Acres
Sold on behalf of:
InterPark

THE BOX YARD
Los Angeles, CA
261,528 SF
Sold on behalf of:
Bridge Industrial

nmrk.com

Contents

Development® Spring 2022

Kip Dawkins Photography

Park+Ford in Alexandria, Virginia, is a former 1980s-era office park that was recently transformed into upscale apartments.

COLUMNS

Development®
(ISSN 0888-6067) is published quarterly and © 2022 by NAIOP, 2355 Dulles Corner Blvd., Suite 750, Herndon, VA 20171. 703-904-7100 FAX 703-904-7942

Subscription rate is $35/year for nonmembers. Periodicals postage paid at Dulles, Virginia, and additional mailing offices. POSTMASTER: Send address changes to DEVELOPMENT, 2355 Dulles Corner Blvd., Suite 750, Herndon, VA 20171.

Advertising for Development is accepted for quarterly issues: Spring, Summer, Fall, Winter. Insertion orders are due by the first of the month, two months preceding the month of publication. Rates are available upon request. NAIOP reserves the right to reject advertising that is inconsistent with its objectives.

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.

Reprints and PDF files are available for a small fee; contact Kathy Jackson at jackson@naiop.org for more information. You can also share your favorite articles with colleagues and clients via email and social media, with links to articles online (www.naiop.org/magazine).

A Note From the Editor

Two Steps Forward, One Step Back

The gradual transition of COVID from pandemic to endemic has frustrated all of us. Return to the workplace for some has been delayed, yet the office sector continues to rebound, with absorption inching toward the positive. Industrial demand continues unabated despite supply chain and labor issues.

Jennifer LeFurgy

What is now top of mind for many in CRE is the specter of "entrenched" inflation. This will mean even higher labor, materials and borrowing costs for developers, and in some instances, the delay or cancellation of planned projects. What happens with inflation will largely be determined by Fed policy and if they will be able to slow its growth without triggering a recession.

NAIOP will be watching this topic closely over the next year. But as we have learned repeatedly, the CRE industry is remarkably resilient, and with adaptation comes innovation.

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

Most Popular From Winter 2021-2022

1. **"Brownfields Redevelopment Requires a Cautious Approach"** (naiop.org/22brownfields), page 46
2. **"The Benefits of Real-Time Cost Estimating"** (naiop.org/22costestimating), page 18
3. **"CEO on Leadership: Molly McShane, CEO, The McShane Companies"** (naiop.org/22mcshane), page 28
4. **"All Eyes on the Global Supply Chain"** (naiop.org/22supplychain), page 54
5. **"The Challenges of Building for Sustainability"** (naiop.org/22sustainability), page 74 ■

In the Virginia suburbs of Washington, D.C., an adaptive reuse project demonstrates the potential of converting old office space into new apartments that appeal to millennials. (Page 46)

The arrival of a large tire-storage facility in a small Indiana town offers lessons for developers on how to work with communities for the betterment of both. (Page 54)

Future NAIOP Events

- **I.CON West 2022: The Industrial Conference**, March 23-24, Long Beach, California
- **National Forums Symposium 2022**, May 10-12, Houston
- **I.CON East 2022: The Industrial Conference**, June 8-9, Jersey City, New Jersey
- **CRE.Converge 2022**, October 9-12, Chicago

For the most current information on upcoming NAIOP events, both virtual and in-person, visit naiop.org/Events-and-Sponsorship ■

Large-format multilevel industrial buildings are starting to crop up across North America after several years of strong growth for this product type in Asia. (Page 60)

The NAIOP Research Foundation's annual report for 2022 highlights a busy year filled with practical research for professionals in the commercial real estate industry. (Page 67)

Development magazine chats with **Adrian G. Washington**, the founder and CEO of the Neighborhood Development Co. in Washington, D.C. (Page 28)

An adaptive-reuse project in Pittsburgh transforms a historically significant automobile manufacturing facility into high-tech lab space. (Page 32)

Real estate crowdfunding has seen strong growth in recent years, and that should continue. However, it could be tempered by unrealistic expectations and the possibility of an economic downturn. (Page 36)

A new transit-oriented development in the Boston area will provide easy access to commuter rail. It's part of an effort in Massachusetts to provide multifamily housing near mass transit. (Page 44)

Zero-waste efforts in the construction industry are starting to attract greater attention. A new certification program, TRUE, is applying metrics to this growing trend. (Page 40)

Stormwater management in densely built-up areas can be a complex task for developers, especially since the standard design practices for these systems can clash with conditions encountered at urban sites. (Page 20)

Population shifts noted in the 2020 U.S. Census could hold major implications for the commercial real estate industry. (Second of a two-part series.) (Page 18)

Amid uncertain times in the construction industry, it's important to remember that adhering to the basics can solve many problems before they appear. (Page 10)

NAIOP's Chapter Merit Awards honored outstanding work by its chapters, volunteers and leaders in 2021. Read about all the winners. (Page 84)

Jeff Milanaik, partner, Northeast Region with Bridge Industrial, is NAIOP's chair for 2022. Development magazine asked him to share his thoughts on the industry and the association. (Page 96) ■


REIMAGINE

Construction Firms Foresee More Projects, More Problems

Shortages of workers and supplies could mean higher costs and longer timelines for projects.

By Ken Simonson, Associated General Contractors of America

Construction contractors have high expectations for several types of projects in 2022. But they are wary about the impact of acute workforce shortages, along with continuing supply-chain bottlenecks and volatile materials costs. Those were some of the conclusions to be drawn from the 2022 Associated General Contractors (AGC) of America/Sage Hiring and Business Outlook Survey.

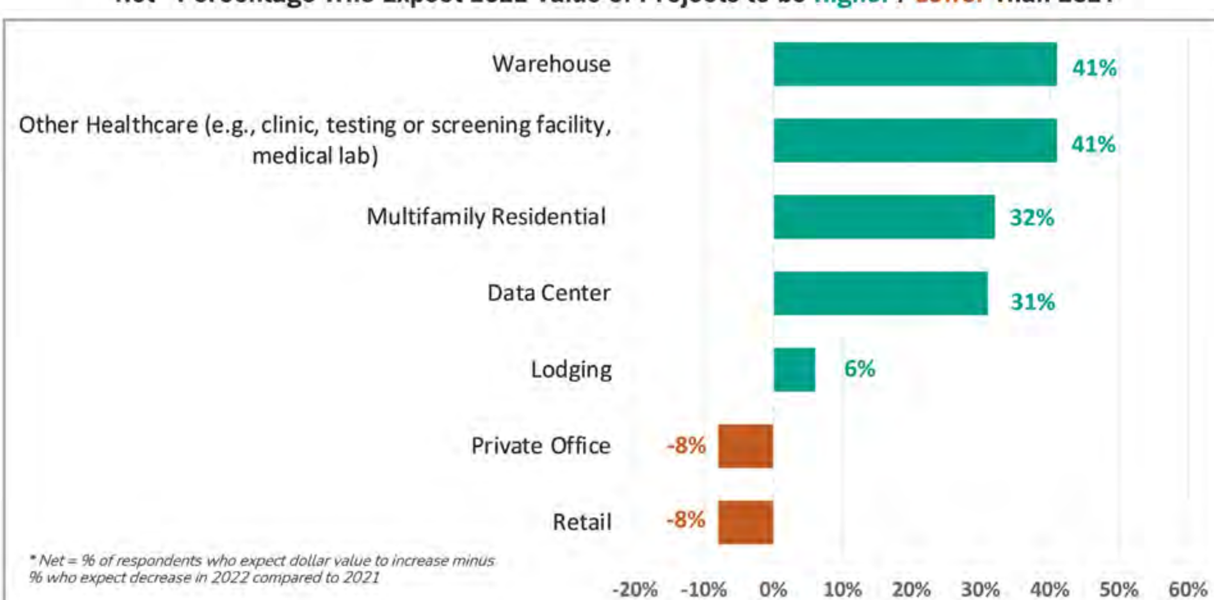
More than 1,000 contractors from every state responded to the survey, conducted in late 2021 and released on January 12. Collectively, AGC members perform every type of construction other than single-family, and they displayed broad optimism as to whether they expected the dollar value of projects available to bid on in 2022 to be higher or lower than in 2021. For 15 of the 17 project types, more respondents said they expected an increase than a decrease in potential work. The results are shown in the chart below for seven predominantly private-sector building categories.

The bars indicate the "net reading"—the percentage of respondents who expect more projects (by dollar value) minus the percentage who expect less. For example, 52% of respondents expect warehouse construction spending to increase in 2022, while 11% expect spending to decrease (with the remainder expecting little change), for a net positive reading of 41%.

At the same time, contractors are bracing for a difficult year executing projects. While 74% of the survey respondents expect to boost headcount at their firms in 2022, 83% reported

At the same time, contractors are bracing for a difficult year executing projects. While 74% of the survey respondents expect to boost headcount at their firms in 2022, 83% reported having a hard time filling some or all positions. Three out of four say it will be as hard or harder than in 2021 to hire.

AGC Outlook Survey:
Net* Percentage Who Expect 2022 Value of Projects to be Higher / Lower Than 2021



Source: AGC 2022 Outlook Survey; 1,019 total respondents having a hard time filling some or all positions. Three out of four say it will be as hard or harder than in 2021 to hire.

Indeed, data from the Bureau of Labor Statistics' (BLS) Job Openings and Labor Turnover Survey show there were 273,000 job openings in the construction industry at the end of 2021. That was a nearly 30% increase from a year earlier and greatly exceeded the 220,000 employees that the industry hired in December. In other words, more than half the jobs that contractors sought to fill in December were still vacant at the end of that month.

With so many unfilled positions, it is not surprising that the industry is raising pay. Construction industry wages, salaries and benefits climbed 3.8% in 2021, up from 2.8% in 2020. But those increases did not keep up with the overall private sector, which boosted wages 5.0% as many historically low-paying industries offered dramatically higher starting pay, bonuses and other inducements.

The implication is that contractors will have to spend much more in labor-related costs in 2022. These might take the form of higher straight pay, overtime, recruitment and training costs, and investment in equipment and processes that reduce the required number or skill level of jobsite workers. Developers should be aware that these costs are likely to be passed on and may be associated with longer completion times.

In fact, 84% of participants in the AGC survey reported projects in 2021 cost more than anticipated, while 72% reported they took longer than anticipated. These impacts stemmed from worker shortages, higher materials costs and longer delivery times. As a result, 69% said their firms were putting higher prices into bids and contracts, and 44% said they were quoting longer completion times.

With so many unfilled positions, it is not surprising that the industry is raising pay. Construction industry wages, salaries and benefits climbed 3.8% in 2021, up from 2.8% in 2020. But those increases did not keep up with the overall private sector, which boosted wages 5.0% as many historically low-paying industries offered dramatically higher starting pay, bonuses and other inducements.

On the whole, contractors expect further growth in warehouse, medical, multifamily, data center and lodging construction. They are slightly pessimistic on net about the prospects for retail and private office projects. They have been raising pay but are experiencing a surge in job openings. They anticipate continued difficulty hiring workers and expect project completion times will lengthen. ■

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

Navigating Construction Risk in Uncertain Times

Getting back to basics can solve problems before they appear.

By Chase Callaway, Intersect Development Group

Most developers have been dealing with once-in-a-generation construction problems for the past 18 months. From delays, to material escalations, to labor shortages — the list of woes seems endless.

Amid the uncertainty created by the COVID-19 pandemic, it won't come as a surprise that construction hard costs are much higher than previous years. Project schedules are at the mercy of manufacturers, and the ongoing supply chain challenges are impacting material availability and distribution on a global scale. With so much uncertainty, what can owners and developers do to responsibly mitigate risk and give their projects the best chance of success?

It is not feasible to anticipate and prepare for every potential scenario or outcome within complex systems. Instead, it is critical to focus on the fundamentals — the easily controllable elements of the process that, if addressed, can consistently result in successful outcomes.

There are countless examples of experts in every field taking time to ensure they are still executing the basics of their craft with excellence. That's why professional football coaches continue to run players through simple blocking and tackling drills. The development and construction of commercial real estate is no different.

Getty Images

To ensure success on a construction project, it's important to have a clear plan at the beginning, a robust construction contract and a disciplined approach to project documentation.

Real estate magnate **Steve Wynn** highlighted the importance of going back to basics in a December 2007 interview with Esquire magazine.

"If you don't have a voice that forces you back to basics ... you're at risk, and the people with you are at risk," he said. "I'm not a daredevil. I don't fly without a safety net."

Amid the uncertainty created by the COVID-19 pandemic, it won't come as a surprise that construction hard costs are much higher than previous years.

Construction Risk Management: The Basics

Construction risk management is a broad and nuanced field. Most owners or developers of commercial real estate likely have neither the time nor the inclination to contemplate every line of contractual language that they are agreeing to — whether in an insurance policy or in a contract with a builder. They likely don't have specialized training to perform a forensic schedule delay analysis. (According to a March 2017 newsletter from the Smith Currie law firm, a forensic schedule delay analysis "is the study and investiga-

It is difficult to overstate the importance of taking time to develop and document a clear understanding of the project plan prior to beginning construction.

tion of events ... to establish the cause and extent of delays and to resolve construction delay claims through negotiations or legal proceedings.")

Owners and developers focus on getting their projects finished — on time and under budget. So, what are the basics of risk management that they should focus on?

While there are many things that impact a construction project's success, including good leadership and other human factors such as trust, open communication, transparency and accountability, there are several concrete best practices in risk management that owners and developers should implement to protect their interests. These best practices can be boiled down to three attributes necessary to give a project the best chance of success — a clear plan at the beginning, a robust construction contract and a disciplined approach to project documentation.

A Clear Plan

It is difficult to overstate the importance of taking time to develop and document a clear understanding of the project plan prior to beginning construction. Discussion and documentation of the facts available and assumptions used to develop the baseline schedule, budget and contractual scope gives a developer the tools to accurately analyze claims by a contractor throughout the project for extensions

New & Noteworthy

626,348 sq. ft.

Alere Property Group is developing two industrial **warehouse complexes** at two separate locations in **Chino, California**. The speculative ground-up development projects will add approximately 626,000 square feet of industrial space to the Inland Empire West submarket. Euclid Industrial Park is a 360,000-square-foot development consisting of eight warehouse buildings. Chino Commerce Park will consist of four buildings totaling approximately 266,348 square feet.

370,973 sq. ft.

Duke Realty is building a 370,973-square-foot **speculative industrial building** in **Woodridge, Illinois**. The facility is located within minutes of Chicago's airports, close to major thoroughfares and rail lines. The building, which is located on 21 acres, will have 36-foot clear heights, 37 dock doors, four drive-in doors, 44 trailer spaces and 343 parking spaces. These facilities will be built to LEED certification standards.

286,476 sq. ft.

Park Kennedy, designed by **GTM Architects**, is a **multi-family mixed-use project** in **Washington, D.C.** It consists of 262 apartments along with below-grade parking and more than 16,000 square feet of ground-floor retail space. This newly constructed building is a wood-over-concrete podium structure ranging from four to seven stories. The façade was designed to complement the established neighborhood's traditional school buildings from the 1900s.

of time, requests for additional funds and possible changes in the scope of the project. (According to the Project Management Institute's "Guide to the Project Management Body of Knowledge," managing the scope of a project "is primarily concerned with defining and controlling what is and is not included.")

In addition to the benefits of having a well-documented baseline against which to assess future claims, the process of discussing the schedule logic, material procurement and scoping assumptions provides an owner/developer the opportunity to fine-tune their project and trim out any potential areas of excess spending that may have gone unnoticed.

A Robust Construction Contract

A common idea taught by motorcycle safety instructors is that a rider should always *dress for the crash, not for the ride.* This same principle applies to construction contracts.

The primary piece of advice is to engage with legal counsel that can review the contract and provide recommendations on language that will protect the developer/owner while remaining fair to all parties in the agreement.

In response to the specific challenges seen throughout the industry today, pay special attention to several subsections of the contract including clauses related to force majeure, material escalation, delay claims or time impact analysis requirements, liquidated damages, and duty to mitigate delay.

Robust language throughout the construction contract acts as the helmet and leather padding in the event of a contractual dispute and provides the development team with a clear path to recourse and recovery of damages.

A Disciplined Approach to Project Documentation

At this point, developers and owners should have a clear picture of the project plan prior to the rubber meeting the road. Ideally, there is a robust construction contract that provides protection in the event a dispute arises during or after the project. Next, it is critical to maintain a steady course throughout the construction phase of the project.

During this phase, it is important to keep thorough and consistent records of what is happening on the project site. These records include schedule updates, status reports, meeting minutes, progress pictures, and any official correspondence such as letters of notice. One best practice is to follow up any verbal discussions with an e-mail or similar form of permanent record that can be referenced in the future. This helps avoid getting into a dispute regarding the barely remembered details of a phone call that took place several months in the past.

Another best practice is to create a new "issue" folder within the company's filing system as soon as there is an inkling that a potential impact to the project is bubbling up. Save all contemporaneous documentation related to that topic in real time, with the date in the file name. This will create a chronology of any issues that do bubble up to the surface and also serves as a great refresher in case several weeks or months have passed since you last thought the issue was resolved.

Pulling it All Together

In summary, the blocking and tackling of construction risk management for owners and developers comes down to clear communication from the start; thorough, but fair, contractual protection; and a high level of documentation throughout the project.

While these fundamentals cannot guarantee that a project won't experience bumps along the way, they will certainly create a much stronger position in the event a dispute does arise. ■

Another best practice is to create a new "issue" folder within the company's filing system as soon as there is an inkling that a potential impact to the project is bubbling up. Save all contemporaneous documentation related to that topic in real time, with the date in the file name.

In addition to the benefits of having a well-documented baseline against which to assess future claims, the process of discussing the schedule logic, material procurement and scoping assumptions provides an owner/developer the opportunity to fine-tune their project and trim out any potential areas of excess spending that may have gone unnoticed.

Chase Callaway is director of construction with Intersect Development Group.

Solera: Where Suburban Form Meets Urban Function

This unique mixed-use project offers large affordable units for families.

By Mark Stine, Tiscareno Associates

Solera is a master-planned community in the Seattle suburb of Renton that combines family-oriented mixed-income housing with a variety of commercial uses. Multiuse projects of this scope present plenty of challenges, but they will become increasingly relevant in areas with constrained supplies of affordable housing.

Filling a Need

With approximately 37,000 square feet of commercial space, 590 rental apartments and as many as 96 attached townhomes on more than 10 acres, Solera is first and foremost a large redevelopment project. The site contains older affordable housing that is not dense enough to optimally address the housing crisis that has plagued King County in recent years. According to the King County Affordable Housing Committee, about 68% of low-income households in King County spend more than 30% of their income on housing. Additionally, there are on average only about 27 affordable housing units available per 100 extremely low-income households in the area.

To address this problem, the city took the long view, seeking a developer with a broader revitalization vision than just replacement of the affordable housing. After other developers failed to make such a project pencil out, Bellevue, Washington-based developer DevCo proposed one that did:

New & Noteworthy

279,872 sq. ft.

The Opus Group is developing a 279,872-square-foot **speculative industrial building** in the **Midwest Transportation Center** in **Kenosha, Wisconsin**. The building features 28 rear-load dock doors expandable to 44, two drive-in doors, 60 dedicated trailer parking stalls, 199 vehicle parking stalls, 32-foot clear height and LED lighting throughout. Capable of accommodating one or multiple tenants, it will be suitable for warehouse distribution operations or light manufacturing.

234,478 sq. ft.

Creation, an alternative investment and real estate development firm, is building the **Northmark Commerce Center** in **North Fort Worth, Texas**. The 234,478-square-foot, **Class A industrial space** will feature a 104-trailer stall drop lot, 19 trailer stalls, 32-foot clear heights and more. It will offer convenient accessibility to major travel hubs including Meacham International Airport, Fort Worth Alliance Airport, and highways including Loop 820, Interstate 35W, TX-121 and Interstate 30.

200,000 sq. ft.

Guitar manufacturer **C.F. Martin & Co.** recently moved into a **new warehouse** in **Tatamy, Pennsylvania**, that was built by **Quandrel Construction Group, Inc**. The warehouse includes an HVAC system that maintains a constant temperature of 68-75 degrees and a relative humidity of 40%-46%. This is crucial for proper storage of guitars, even for short periods of time. Additionally, the entire space is protected by 13.5 inches of multi-layered insulation to maintain the proper environmental atmosphere.

Courtesy of Tiscareno Associates

Solera, in Renton, Washington, aims to provide affordable housing in an area where that can be hard to find.

a mix of affordable rental apartments, market-rate housing units, community amenities, a daycare, and flexible commercial space on a site adjacent to planned bus rapid transit, parks and a new public library. Most notable is Solera's uncommonly high number of multi-bedroom apartments: 218 two-bedroom, 111 three-bedroom and 45 four-bedroom. The project broke ground in August 2021 and is expected to be completed in 2024.

Design Considerations

Once Tiscareno Associates was hired on to design the two buildings that comprise the commercial and rental properties of Solera (the townhomes are being designed independently), the usual questions arose. How would residents circulate within their own homes and throughout the complex? How to design for commercial tenants that are still unknown?

For the first question, the architects had to be both good listeners and experienced planners — to provide what the community wanted, but also what the community needed. The latter was tougher, as different sorts of businesses require different circulation paths, ventilation, restrooms, parking and more. A unique aspect of Solera is its dual identity as a family-oriented housing development and a commercial project. This brings the potential for a symbiotic relationship between residential and commercial, which is being maximized at Solera with a daycare and other possible tenants to enhance its family-oriented identity.

Solera's other dual identity — affordable-housing vs. market-rate apartments — brought challenges of its own. The developer originally intended both designations to share space within both buildings, but lenders can be reluctant to fund such projects. As a result, most of Solera's affordable-housing units are in one building and all its market-rate units are in the other. These were designed so that passersby would have no idea which is which. Both have similar amenities spaces and parking spaces. Without making them identical — they have slightly different color palettes and different modulation to accommodate different unit mixes — both buildings feature tripartite facades and dark, neutral colors to reinforce a sense of unified community.

Family Priority

DevCo's niche is affordable housing for a demographic group not typically provided for in multifamily developments: larger families. Thus the "different unit mixes" mentioned above refers to the relative preponderance of multibedroom units in the affordable-housing building, which holds all 45 four-bedroom units.

According to the King County Affordable Housing Committee, about 68% of low-income households in King County spend more than 30% of their income on housing. Additionally, there are on average only about 27 affordable housing units available per 100 extremely low-income households in the area.

Multifamily architects are often tasked with squeezing as many units as possible onto a site. But Solera's even greater challenge required Tiscareno to take the multibedroom units originally spread across both buildings and puzzle-fit them into one. Since the four-bedroom units are most practically situated on corners, this was a thorny challenge, driving the shape of the buildings and dictating more and smaller windows (so that every room could have views of the outdoors) than smaller units require.

Here it's worth noting that the affordable-housing building at Solera, which wound up with 275 units, is large enough to fit closer to 375 units of a size more typical for these projects. Renton does have density limits, but Solera's relatively high number of larger units along with the lower-density townhouses created a mix that passed restrictions and penciled

New & Noteworthy

180,000 sq. ft.

Vari, a Texas-based workspace innovation company, and Adolfson & Peterson Construction, are partnering on **VariSpace Coppell** in **Coppell, Texas**. The 180,000-square-foot **office building** will serve as Vari's new global headquarters as well as a multitenant campus. The tilt-wall building will sit on a 10-acre site with surface parking and feature 120,000 rentable square feet of flexible office space with large exterior balconies that will allow companies and tenants to tailor areas to meet their specific needs.

125,000 sq. ft.

White Point is developing **Horseshoe at Hub RTP**, a 125,000-square-foot **mixed-use project** in North Carolina's **Research Triangle Park (RTP)**. Horseshoe is part of Hub RTP, a 100-acre mixed-use development being master-developed by the Research Triangle Foundation (RTF). Horseshoe will feature approximately 25,000 square feet of retail space surrounding a large outdoor plaza, along with 100,000 square feet of creative office space offering terraces and views of the plaza and greenspace.

35,000 sq. ft.

H. Hendy Associates, an interior architecture firm, has completed **JLL's** new 35,000-square-foot **office** at **Intersect in Irvine, California**. The interior architecture aims to reflect an industrial California coastal look and feel. A large boardroom includes operable glass walls that open into the reception area, and the nearby breakout and media room features a newly installed 15-foot-by-45-foot double-pitch skylight.


Courtesy of Tiscareno Associates

From the outside, the market-rate and affordable housing at Solera in Renton, Washington, is nearly indistinguishable.

out. The family priority extends to the amenities DevCo has planned for the community, which in addition to the typical meeting rooms, business spaces, fitness centers and coffee lounges include an indoor half-court basketball gym in each building and play areas on the courtyard level of the affordable housing building. Finding space for these extra-large facilities required early planning.

A unique aspect of Solera is its dual identity as a family-oriented housing development and a commercial project. This brings the potential for a symbiotic relationship between residential and commercial, which is being maximized at Solera with a daycare and other possible tenants to enhance its family-oriented identity.

Adequate parking presented a similar challenge, as DevCo bucks the current fewer-parking-spaces trend in favor of supporting lower-income workers' more frequent use of cars over transit to commute. The goal was 1.5 parking spaces for every apartment, which is more than is typically seen in Seattle, where no parking is required for apartments. Tiscareno designed a large parking garage beneath Solera and constructed the buildings in a "wrap" formation to conceal much of the rest of the parking behind it in compliance with the city's zoning codes.

Unique Financing

According to a September 2021 article in The Registry, Solera is being financed through private capital and public funding.

The Washington State Housing Finance Commission awarded Solera $70 million in federal tax-exempt bonds in August 2021. Those funds are augmented by proceeds from the Evergreen Impact Housing Fund (EIHF).

According to the article, the EIHF is "a collaboration between the Seattle Foundation and five area credit unions — BECU, Salal Credit Union, Sound Credit Union, Verity Credit Union and WSECU — to help finance affordable housing projects." Those organizations combined to contribute $11.1 million to the EIHF.

Solera is the EIHF's first project.

Distinguishing Identities

Finally, while care was taken not to signal any difference between the market-rate and affordable housing, it was very important to distinguish the residential and commercial identities of this multiuse project. This is a tall order when both share both buildings. For privacy, access to residences needed to be kept separate from access to businesses. It is critical to ensure that home feels like home for the residents, so an apartment door wouldn't go next to a popular restaurant, for instance.

For this reason, Tiscareno Associates worked with the city to make sure that residential entryways were permitted along the quieter back side of the development, with the commercial entryways on the more visible front side along the state route. Likewise, both buildings have courtyards that are not public space but private to the residences — all part of an effort to imbue the private portions of the buildings with a more tranquil sense of place while increasing the accessibility of the public parts.

These dual identities can be signaled with different design features, and a lot of effort went in to making the buildings read "commercial" and "residential" as appropriate. For instance, the ground-floor commercial space is clad in a regular pattern of

Finally, while care was taken not to signal any difference between the market-rate and affordable housing, it was very important to distinguish the residential and commercial identities of this multiuse project.

high, dark brick masonry columns and glass storefronts for a modern look. Residential areas are signaled by incorporating warm wood-like siding and painted panels in neutrals above with balconies and shed roofs.

A Different Kind of Project

Once complete, Solera will present a clear suburban identity, with plentiful parking, a location in a bedroom community with wilderness close at hand, nearby single-family neighborhoods, and a strong family orientation. On the other hand, its location on a state route in a recently upzoned neighborhood, proximity to multiple transit options, walkable shopping and public library across the street bring a definite urban flavor.

Projects like Solera are helping to blur the categories "suburban" and "urban" into a new kind of hybrid. Many of Seattle's former bedroom communities are urbanizing with higher density and mass transit, because density and transit promote sustainability. At the same time, Seattle's urban core — amply stocked with multifamily units built for singles or roommates — remains painfully low on affordable units for larger families. It may be that "hybrid" developments like Solera can offer just the kind of crossover template this moment calls for. ■

Mark Stine is a principal with Tiscareno Associates in Seattle.

New & Noteworthy

16,147 sq. ft.

Minneapolis-based **Davis** has begun construction of a 16,147-square-foot **Class A medical office building** in **Wayzata, Minnesota**. The two-story building was designed by Synergy Architecture Studio of Minneapolis, and the general contractor is Timco Construction of Plymouth, Minnesota. It offers ample parking, signage opportunities and is adjacent to a newly built Walgreens, along with other retail offerings.

10,000 sq. ft.

Ware Malcomb recently completed construction on **Princeton Longevity Center**, a **preventive medicine facility** located on the 71st floor of **1 World Trade Center** in **New York**. The 10,000-square-foot facility is a new build-out that includes a 2,000-square-foot imaging-diagnostic licensing suite, including advanced technology imaging rooms and a CT scan room. The space also includes a reception area, a lounge, individual patient rooms, exam rooms, offices and a fitness room.

8,535 sq. ft.

Commercial construction firm **Swinerton** recently moved its regional headquarters into a **new office** in **Station West**, an adaptive reuse development in **Charlotte, North Carolina**. The 8,535-square-foot office features a mass timber mezzanine, skylights, an architectural feature wall and demountable partitions. Roll-up patio doors provide flexible workplaces away from desks. ■

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.

Demography is Destiny for Commercial Real Estate

Population shifts could portend big changes for the industry.

By Anirban Basu, Sage Policy Group

Second in a two-part series.

While it is often said that the performance of an individual property is a function of three factors (location, location, location), one could make the argument that the performance of the overall commercial real estate segment is a function of its own triad of elements: demographics, demographics, demographics. Indeed, over the course of time, there is a strong correlation between demographic trends during a given decade and the performance of commercial real estate during that decade and the next.

Take the 1980s as an example. During that decade, Americans migrated toward cities in massive numbers. The New York metropolitan area remained America's largest, of course, but that's not where the population growth was concentrated. Regional population growth in New York that decade was in the range of 3%.

It was in the Sun Belt where population really took off. The Orlando metropolitan area expanded its population by more than 50%. Other movers and shakers included Phoenix and San Diego, where population expanded 41% and 34%, respectively.

But the primary point is that metropolitan areas throughout the nation continued to expand as farming productivity surged and as fewer people were needed to operate rural economies. An analysis by the USDA's Economic Research Service found that between 1948 and 2011, the U.S. population more than doubled as did agricultural output, even though the segment used about 25% less farmland and 78% less labor.

Meanwhile, the emergence of professional and financial services created new opportunities for highly educated workers, with virtually all those opportunities located in cities and upscale suburbs. Many young professionals headed to cities to become lawyers, doctors or stockbrokers. All of this was good for commercial real estate, which surged in value for much of the 1980s.

Of course, other factors were at work, including the pre-1986 tax code, declining inflation and interest rates, and the acceleration of globalization. In 1981, President **Ronald Reagan** signed the Economic Recovery Tax Act of 1981 into law. That legislation included several provisions that improved rates of return on certain types of properties, including by accelerating depreciation of commercial real estate.

Nonetheless, demographics were critical in leveraging these other factors. A February 1991 New York Times article indicated that for the first time in U.S. history, most of the country lived in metropolitan areas of more than one million people. No wonder the '80s and '90s were associated with the construction of so many residential and commercial high-rises.

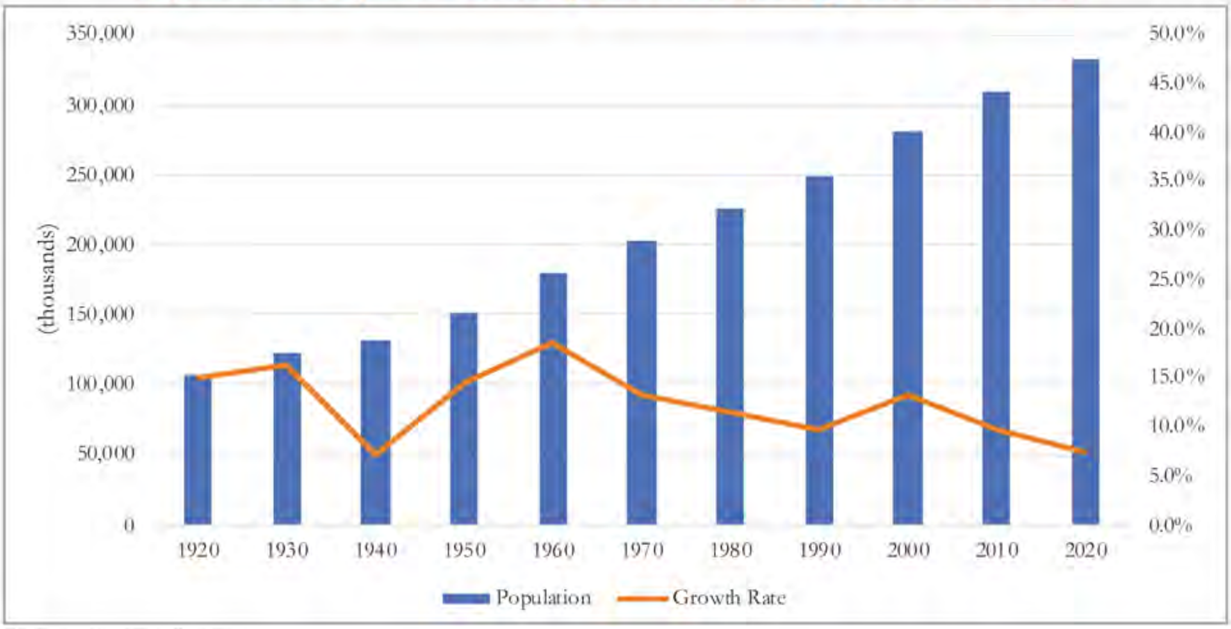
There was another major factor at work — immigration. An analysis of data from the Census Bureau's decennial census and population estimates program found that between 1980 and 1990, more than one-fourth of America's growth was attributable to immigration. Many of those immigrants ended up in cities. From 1980 to 1984, metropolitan areas grew only about one and a half times as fast as nonmetropolitan areas. But from 1984 to 1988, metropolitan areas expanded population nearly four times as fast as nonmetropolitan areas.

If demographics are destiny, these trends do not portend favorably for commercial real estate, at least in large, older American cities. The confluence of the pandemic and the technological response to it will place further pressure on commercial real estate occupancy and valuation.

Times Have Changed

That was then; this is now. America's population growth has slowed in recent years. (See "Preliminary Census Findings and Their Implications for Commercial Real Estate" from the Fall 2021 issue of Development magazine.) That was certainly true of 2021. The Census Bureau's Vintage 2021 Population Estimates indicate that the nation's population expanded only 0.1% last year. Census Bureau data also indicate that 2021 is the first time since 1937 that America's population expanded by less than one million people.

Population and Population Growth by Decade in Percentage Terms, 1920 – 2020



Source: U.S. Census Bureau

As indicated by the bureau, slower population growth has become a feature in the U.S. for several years, the result of declining fertility, slower net international migration, and increased mortality due to an aging population and more recently COVID-19. Since the mid-2010s, births and net international migration have been in decline while deaths have been on the rise. In many instances, population is in decline.

Nowhere did population fall faster in 2021 than in the District of Columbia, which recorded a 2.9% decline in population. Other geographies associated with declining population are New York, Illinois, California and Massachusetts, states that are collectively home to many of America's largest cities. Meanwhile, the list of states with the fastest population growth in 2021 includes Idaho, Utah, Montana and South Dakota.

If demographics are destiny, these trends do not portend favorably for commercial real estate, at least in large, older American cities. The confluence of the pandemic and the technological response to it will place further pressure on commercial real estate occupancy and valuation.

According to an economic report published by Glassdoor.com, the share of job searches that included remote opportunities grew 360% between June 2020 and June 2021. According to the Bureau of Labor Statistics, approximately 42 million American workers have the ability to work remotely. Thus, while U.S. gross domestic product surged past its pre-pandemic level by 2021's second quarter, U.S. office vacancy continued to rise during 2021's latter half.

Business meetings conducted via Zoom, Microsoft Teams or other platforms create additional issues for commercial real estate, as does the growing pervasiveness of online shopping. While growth in certain communities like St. Petersburg, Florida, or Austin, Texas, can more than countervail these centrifugal forces on cities, many other communities will find increasingly barren central business districts, delinquent shopping centers, marginal hotels and semi-abandoned office buildings.

As always, there are actions that real estate operators can take. A survey conducted by Clever Real Estate in December 2020 asked respondents what office-building amenities were most appealing to them. At the top of the list was close proximity to coffee shops and lunch options, with nearly half (49%) of respondents including those in their response. Close parking (45%) and on-site food options (44%) were also near the top of the list.

In the final analysis, the economics of commercial real estate will remain challenging in 2022. In addition to behavioral changes that have altered (and often reduced) spatial requirements, the year will likely be associated with lingering labor market tightness and rising interest rates. Of course, it is conceivable that by year's end, we could be talking about yet another resurgence of the pandemic. ■

Anirban Basu is the chair and CEO of the Sage Policy Group in Baltimore.

A Look Ahead

Sub-Surface Recharge Systems Require Careful Planning

Stormwater management can be a challenging, complex task for developers, especially in urban areas.

By Sean P. Donlon, Jr., P.E.; Cory A. Cormier, P.E.; and Bryan P. Strohman, P.E., G.E., Simpson, Gumpertz and Heger

Although sub-surface recharge systems promote responsible and sustainable development by returning stormwater runoff to the groundwater after filtering it through underlying soil, implementing these systems in urban settings can be risky. They must be carefully planned and designed to minimize risks and avoid costly disruptions.

Standard design practices for these systems, however, can conflict with the conditions encountered on urban sites. When implementing a recharge system, many risks are unavoidable and often become the developer's responsibility.

Several cities, such as Washington, D.C., Boston and New York, have implemented retention-first stormwater-management policies that require developers to manage some amount of stormwater onsite. For instance, Washington, D.C., municipal regulations require the retention of a 1.2-inch rainfall event for major land-disturbing activities. The Boston Water and Sewer Commission Stormwater Permit Regulations require the retention and recharge of an inch of runoff from impervious surfaces on nearly all projects and 1.25 inches of runoff for projects greater than 100,000 square feet of floor area. New York City's Unified Stormwater Rule establishes stormwater-management practices that prioritize retention-first strategies.

One goal of retention-first stormwater management is to offset the presence of impervious areas. Retention strategies reduce the runoff volume to downstream drainage infrastructure and water bodies by retaining some runoff from impervious areas onsite; recharge systems return this runoff to the groundwater. Sub-surface recharge systems, such as perforated pipe, chambered systems or vertical recharge wells, are often implemented in urban settings.

Courtesy of Simpson Gumpertz and Heger

Sub-surface recharge chambers are one of several technologies available for returning stormwater runoff to the groundwater after filtering it.

Conventional External Systems

Placing a sub-surface recharge system outside the building on a project site is not always feasible. In urban settings, buildings often occupy most of the available property. Urban conditions often do not allow for the

continued on page 22

continued from page 20

typical setbacks from structures and vulnerable underground spaces that are needed for sub-surface recharge systems. Seepage flows can introduce hydrostatic pressure on foundation walls and slabs, which can lead to unwanted leakage into below-grade spaces and affect the stability of foundation systems.

There is some uncertainty concerning the recommended setback distances for minimizing disturbances to adjacent structures and properties. For example, the Massachusetts Stormwater Management Standards' "Rules for Groundwater Recharge" suggest a minimum setback of 10 feet from building foundations and property lines. Detailed site-specific seepage analysis and knowledge of adjacent conditions may reveal that further separation is needed.

Urban settings introduce scenarios where it may not be possible to implement a sub-surface recharge system with the appropriate setbacks and the inherent reliability that comes from using standard design practices. These scenarios force the developer to accept or mitigate the related risks. Mitigation efforts can include structural and waterproofing upgrades to adjacent foundation systems. These are often quite costly.

Types of Sub-Surface Recharge Structures for Managing Stormwater

The Massachusetts Department of Environmental Protection's Clean Water Toolkit describes four different types of sub-surface recharge structures that can be used to control runoff.

Infiltration pits: These are typically precast concrete or plastic barrels with uniform perforations. The bottom of the pit should be closed with the lowest row of perforations at least 6 inches above the bottom, to serve as a sump. Infiltration pits typically include an observation well.

Chambers: These are manufactured modular systems containing open bottoms and sometimes perforations. The chambers are placed on top of a stone bed.

Perforated pipes: In this system, pipes containing perforations are placed in a leaching bed, similar to a soil absorption system.

Galleys: These are similar to infiltration pits. Some designs consist of perforated concrete rectangular vaults. Others are modular systems usually placed under parking lots. ■

Available sub-surface space outside buildings in urban settings is often occupied, to some extent, by existing underground utilities. Records for these utilities are often incomplete and can be expensive to validate and supplement with test pits or other sub-surface utility location techniques. The location of the sub-surface recharge system must be separated from each utility; however, the actual positions of these utilities can be uncertain. Additionally, utility owners may not allow the recharge system to raise the groundwater to unacceptable levels near their infrastructure. The discovery of a conflict during construction will significantly disrupt progress and may prevent the installation of the recharge system altogether.

Retention strategies reduce the runoff volume to downstream drainage infrastructure and water bodies by retaining some runoff from impervious areas onsite; recharge systems return this runoff to the groundwater.

It is not uncommon to encounter fill materials in an urban setting. The highly variable properties of urban fill introduce additional uncertainty for the size and performance of a sub-surface recharge system. Soil permeability directly affects the time required for the system to drain, which is limited by local codes. Because of this, lower-permeability soils result in larger system footprints, complicating the layout challenges for recharge systems in urban areas.

The discovery of groundwater at a shallow depth can further complicate this issue as authorities typically require a minimum separation between the bottom of a recharge system and seasonal high groundwater. Additionally, when considering the effects of the localized increase in groundwater elevation associated with discharge from the system, simplified analyses with conservative input parameters may not yield a workable footprint for the design and require additional investigation and sophisticated analyses.

continued on page 24


Hilco
Redevelopment Partners
We transform.
When we clean up sites, we transform economies. Take Philly, where we're creating 19,000 jobs and appealing to world-class tenants. Find out what we can do in your city. hilcoredev.com

continued from page 22

Developers must also screen project sites for latent environmental issues that may be affected by changing the sub-surface flow characteristics of the site. Due to the discovery of environmental issues or other non-compatible sub-surface conditions, there are situations when developers cannot feasibly implement a sub-surface recharge system. Washington, D.C.'s Municipal Regulation 526 allows a developer to apply for "Relief from Extraordinarily Difficult Site Conditions." However, the developer must provide acceptable documentation demonstrating the technical infeasibility or potential environmental harm. Without explicit relief provisions, site constraints can lead to negotiations with the approval authority or even stop the approval process altogether.

Developers must also screen project sites for latent environmental issues that may be affected by changing the sub-surface flow characteristics of the site.

Internal Systems

Site constraints in urban settings can prevent the installation of a conventional external sub-surface recharge system. Engineers and developers in these circumstances are beginning to consider a sub-surface recharge system within the building as a potential solution. However, this can be a complex and risky proposition.

Internal systems introduce additional challenges relative to the typical external recharge systems. The design team must thoroughly coordinate the proposed internal system with several disciplines, including civil, geotechnical, structural, architectural, mechanical, electrical and plumbing, as elements under the control of any of these disciplines could potentially introduce a conflict with the proposed system. Structural and foundation components, interior utility systems, and the layout and use of the interior space must be considered and arranged to allow for the contemplated sub-surface recharge system and access for maintenance. Given an issue with the system's performance, removing and replacing an internal system is more involved. It will likely include disruption to the occupied finished space, removal of finishes, structural slabs and other necessary elements.

A vital consideration is how the internal recharge system behaves during extreme events. The design must provide an overflow to prevent flooding into the finished space during severe rain events. Additionally, the design team must consider backflow prevention on the outlet pipes for flood-exposed sites and how the system behaves in flood conditions to prevent the discharge of flows into the finished space. The hydrostatic uplift of the system under flood conditions must also be considered and mitigated.

The effects of seepage flow from an internal system are also important considerations. Sub-surface structural elements can impound seepage flows, introducing potentially unexpected hydrostatic pressure and leakage. Detailed seepage analysis can yield some insight into the preferential path of the sub-surface flows; however, these models are typically based upon available limited information, assumptions and judgments. Because of that, they contain some level of uncertainty and risk. Ultimately, even if these risks are acceptable to a prospective project, the impacts on adjacent properties may be problematic and result in performance problems or disputes.

A vital consideration is how the internal recharge system behaves during extreme events. The design must provide an overflow to prevent flooding into the finished space during severe rain events.

Putting it All Together

Projects in urban settings will continue to see requirements for the onsite management of stormwater. Retention-first strategies are likely to become more prevalent over time and will continue to introduce complexities and risks to projects. These requirements are manageable, but engineers and developers must be conscious of them and the related risks to integrate recharge systems successfully in their future urban projects. ■

Sean P. Donlon, Jr., P.E., is a senior project manager with Simpson Gumpertz and Heger; **Cory A. Cormier**, P.E., is a consulting engineer with Simpson Gumpertz and Heger; and **Bryan P. Strohman**, P.E., G.E., is an associate principal with Simpson Gumpertz and Heger, which is an engineering firm based in Waltham, Massachusetts.

The New Office is Outdoors

In Atlanta, a project connects with nature and the surrounding community.

By Michael Howell, Lincoln Property Company

Rendering by RCH Studios; courtesy of Lincoln Property Company

The $250 million Echo Street West development in Atlanta is a 19-acre mixed-use village that aims to maximize its sustainability and wellness benefits.

COVID-19 did not kill the office. On the contrary, 87% of workers say they are ready to return in some capacity, according to a survey conducted by OnePoll in December 2021. However, the pandemic did change the thinking around the workday and what employees need out of their workspaces to be successful.

One development rising in Atlanta's Westside has many features that may fit well in the post-COVID office experience. Designed many months before the pandemic, the $250 million Echo Street West development is a 19-acre mixed-use village under construction on the edge of the growing West Midtown market. Located on the Atlanta BeltLine's Westside Connector Trail, the project intersects a fast-rising technology hub with a historically underserved black neighborhood called English Avenue. Lincoln Property Company, the developer behind Echo Street West, saw an opportunity to bet on a neighborhood that has seen years of disinvestment and create a modern, amenitized place that would appeal to tech companies and the surrounding community. According to a January 2021 article by the Atlanta Journal-Constitution, the project will be developed in phases over the next five to seven years.

Echo Street West's design features sustainability and wellness benefits while appealing to the existing residents of English Avenue and the talent pouring into Atlanta's Westside from Microsoft, Georgia Tech, Apple, Amazon and Atlanta's historically black colleges and universities. The first phase, under construction now, comprises 50,000 square feet of retail, 292 multifamily units, 3.4 acres of outdoor entertainment and greenspace, and

300,000 square feet of creative spec office. It emphasizes physical and psychological wellness in the workplace through its physical structure, outdoor amenities and access to natural light.

Elevating the Office Experience

Companies still value central office space where employees can come and bounce ideas off one another and feel connected to the organization's culture. A PwC survey conducted in January 2021 found that 87% of company leaders believe the function of the office is important for team building and collaboration. However, the look and feel of office environments is changing.

Developers are investing in projects with physical, mental and emotional wellness in mind. They're using more sustainable materials, creating spaces for employees to relax and re-energize, building on sites near walking trails, offering access to desirable outdoor workspace and creating great places to gather and connect with their community. For example, Fast Company took a look at buildings across the country and found that new and renovated offices are being designed to include more options for workers to get away from their desks and go outside, promoting opportunities to enjoy a rejuvenating break and gather with co-workers or take their laptops outdoors and work from a secluded enclave.

Developers are investing in projects with physical, mental and emotional wellness in mind. They're using more sustainable materials, creating spaces for employees to relax and re-energize, building on sites near walking trails, offering access to desirable outdoor workspace and creating great places to gather and connect with their community.

Echo Street West follows the same line of thinking. The development strives to create a village-like feel with a decentralized master plan that has "no front door." Instead of a corporate campus, the goal is to create a welcoming community with warm wooden structures and ample outdoor space that invite workers and the community into the development. To make this happen, Lincoln deployed three major design elements: timber construction, thoughtful outdoor spaces and community gathering hubs.

Benefits of Timber Construction

For the office building, Lincoln opted for an exposed five-ply cross-laminated timber (CLT) structure, with steel frame and concrete floor topping. CLT was chosen for a variety of reasons, including its health and sustainability benefits, durability and a warmer aesthetic than is often seen in office and retail environments.

CLT buildings are sustainable, which can be a key value millennials look for when deciding where they want to work. Additionally, many tenants consider sustainability to meet their environmental, social and governance (ESG) promises to their partners. WoodWorks recently commissioned a life-cycle assessment (LCA) to evaluate the opportunities for wood construction. Compared to a steel building of the same size, the wood building saves 642 metric tons of carbon dioxide, which is equivalent to 9,116 gigajoules of nonrenewable energy use.

Commercial and industrial buildings often need to be flexible as tenants' needs change over time. Wood-framed buildings have immense durability with a lifespan of hundreds of years, which allows the building to be used for different purposes and tenants along the way.

Wood is also often associated with positive feelings, bringing a sense of comfort and peace of mind to the workplace. A study in Australia found that the vast majority of those surveyed think of wood as being natural, warm and relaxing, and it can offer workers a connection to nature inside the workplace. Additionally, satisfaction with both the working life and physical workplace increases steadily with the proportion of natural-looking wooden features.

Connections to the Outdoors

The next major design strategy Lincoln is deploying at Echo Street West is connection to outdoors and incorporating biophilia. The Natural Resources Defense Council (NRDC) defines biophilic design as utilizing natural patterns, materials and phenomena to maintain a connection to nature within the built environment. In addition to being aesthetically pleasing, biophilic design has also been found to support cognitive function, physical health and psychological well-being.

Pre-pandemic, an employee typically spent around eight to nine hours daily sitting in an office. This can take a toll on the human body, resulting in decreased metabolism rates, increased risk of depression, and pain in the neck and lower back. However, ArchDaily suggests that when architects integrate biophilic designs into modern workspaces, it increases productivity and creativity and decreases employee absence. Thus, the more the office doesn't look or feel like an old-school office, the better.

In addition to incorporating wood, Lincoln is turning the office workspace into a front door to nature. First, the design leans into the existing scale of the neighborhood. It's a historically low-scale area, so the heights of the buildings are lower, and the underground parking garages help keep heights in check. The floorplans are open, letting in abundant natural light. Echo Street West will be the first exterior core office building in Atlanta, meaning tenants can get to their spaces via outdoor elevators and staircases with open-air corridors and meeting areas. Every vertical means of moving through the building provides light, air and places to hang out — from the landings of exterior stairs to large covered porches with ceiling fans for tenants.

For the office building, Lincoln opted for an exposed five-ply cross-laminated timber (CLT) structure, with steel frame and concrete floor topping. CLT was chosen for a variety of reasons, including its health and sustainability benefits, durability and a warmer aesthetic than is often seen in office and retail environments.

There are biophilic elements throughout the entire community, including large windows to take in the surrounding treetops and walkable trails, wood interiors and decisions to not overpave the landscape to preserve the feel of working among nature. When the desire to work outside kicks in, there are outdoor enclaves suitable for conference rooms, secluded and shaded woodland areas for meetings, fire pits for the colder months and covered porches with ceiling fans during the warmer months.

Importantly, the outdoor workspaces are Wi-Fi enabled, with electrical outlets available to charge devices and stay connected.

Community Gathering Hubs

Lastly, Lincoln has made a strong investment in community gathering hubs that invite English Avenue residents, surrounding communities and office workers to come together. Employees want to live and work in areas that embody "a sense of place" and offer access to dining, entertainment, retail and lifestyle amenities. Echo Street West will strive to do this with two unique social spots — a luxury residential-style clubhouse for office workers and Westside Motor Lounge, an expansive entertainment space for the community.

The amenitized freestanding clubhouse anchors a greenspace called the Plaza, located in the center of the property. Equipped with indoor/outdoor garage doors, the clubhouse replaces the traditional office lobby and provides a unique place for office workers to socialize, grab some fresh air and convene for meetings outside of their normal office space and conference rooms.

Lincoln also recognized an opportunity to restore three vacant automotive repair shops and transform them into Westside Motor Lounge, a large indoor/outdoor bar and restaurant with a variety of seating, lounging and interactive spaces. The entertainment-driven concept is organized around an expansive courtyard with shuffleboard, yard games, and a stage and screen for small concerts and events. Being only a mile down the new BeltLine trail from the Mercedes Benz Stadium, Westside Motor Lounge could serve as a location for tailgating before games and concerts, a spot to take a break from a hike on the BeltLine trail, and an opportunity for coworkers, friends or families to hang out and enjoy the space for hours.

There are biophilic elements throughout the entire community, including large windows to take in the surrounding treetops and walkable trails, wood interiors and decisions to not overpave the landscape to preserve the feel of working among nature.

Communal spaces like these are especially important in office environments as they create a compelling reason for workers to leave their homes. Organic conversations and impromptu brainstorms rarely happen in isolation. Echo Street West was branded a "village of ideas" before the pandemic hit, and the concept has only grown in importance as companies rethink the future of work and what they'll need from their office space to be successful. ■

Michael Howell is a senior vice president for office with Lincoln Property Company.

CEO on Leadership: Adrian G. Washington, Founder and CEO, Neighborhood Development Co.

The leader of this Washington, D.C.-based firm talks about the challenges of growing his company into a multifamily developer of affordable and market-rate housing and commercial projects.

By Ron Derven


Adrian G. Washington

"We started out doing very small projects — single-unit buildings and brownstone renovations. Now we are involved with boutique condominiums, rental apartment buildings and some commercial projects."

— Adrian G. Washington, Founder and CEO, Neighborhood Development Co.

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

Adrian Washington: It is a passion to create, and real estate development is a super-creative field. You can take the raw materials like a piece of land. Then you bring together talented architects, designers, contractors and engineers. You put together the financing. You envision the project. If you are successful, you create something that is beautiful and that makes a permanent mark for the better on a community.

***Development:** Could you tell us about launching and growing Neighborhood Development Co. (NDC)?*

Washington: We started out doing very small projects — single-unit buildings and brownstone renovations. Now we are involved with boutique condominiums, rental apartment buildings and some commercial projects. We develop our residential products for the entire spectrum of incomes: moderate- and low-income apartments to luxury.

***Development:** What were your greatest challenges in growing the company?*

Washington: Finding and keeping the right people is the biggest challenge, because your success can depend on them. We identify people who are talented and good to work with. Then we try to retain and recruit talent while fostering harmony.

***Development:** The market has experienced tough financial challenges over the past 20-plus years, such as the Great Recession of a decade ago. How did you and your company weather those storms?*

Washington: Those were challenging times, and I am proud that we worked through them. Part of it was strategic. We have always had a balanced portfolio working with both market-rate and affordable properties. During the past 23 years, it was sometimes very challenging to develop market-rate properties, but affordable housing was booming. The other part of it was keeping the company flexible. We have never waited around for the old days to come back. Instead, we've always looked for new product types, new financing sources and new partnerships.

***Development:** Could you expand on your concept of NDC as a triple-bottom-line real estate development company? Why is this important to you?*

Washington: The triple bottom line is profits, planet and people. We are primarily a business, and if we are not profitable, we will not be around next year. So everything we do has to be fiscally responsible, earn a reasonable profit and be financially sustainable. We pride ourselves on being a leading-edge developer in terms of sustainability. Next year, we will break ground on our first net-zero project. The final part is people. We are respectful of the communities in which we work. We do a lot of work with affordable housing. Our commercial work is often mission driven, appealing to the neighborhood and serving the people who live in the neighborhood. We try to balance all

"Finding and keeping the right people is the biggest challenge, because your success can depend on them. We identify people who are talented and good to work with. Then we try to retain and recruit talent while fostering harmony."

— Adrian G. Washington, Founder and CEO, Neighborhood Development Co.

three of those p's — profit, planet, people. That's what we are about.

Development: *What is your primary role as CEO of NDC today?*

Washington: Two things: one is a focus on the strategic direction of the company, and the other is relationships, internal and external. Regarding internal relationships, I am talking about getting good people, motivating them, working with them, understanding what they want and creating a climate in which they can succeed. As for external relationships, my focus is on investors, community leaders and members of government.

Development: *What are your greatest challenges in leading the company?*

Washington: The greatest challenges are reacting to changes in the world and the marketplace, while remaining true to our main strategy and our core competencies. Flexibility is critical.

Development: *What qualities do you look for in hiring senior leadership?*

Washington: We have been successful hiring senior people with decades of experience, as well as people right out of school with no experience in commercial real estate. For the senior positions, I want people who know the industry. For younger people, it is much more about their intelligence, drive, curiosity and willingness to learn.

Development: *How has the pandemic impacted the company and affected your workforce and tenants?*

Washington: The pandemic has affected the different stakeholders differently. For the company, we first went to working 100% remote. Then last summer we developed a hybrid model, which has worked out well. We have systems in place, cloud storage, Zoom capability and teleconferencing. In terms of our residents, it has been a challenge as many are lower-income. Many are the frontline workers, and they have been affected both in terms of employment in the beginning of the pandemic and in terms of health issues throughout. Sometimes people have had trouble paying the rent. When they tell us they cannot pay the rent, it is because they really cannot pay the rent — not because they don't want to — so we work with them. As for construction during the pandemic, the supply chain for certain materials and products — such as appliances and light fixtures — has lengthened. Schedules have been pushed out, and it has been difficult to meet our construction timelines. We have some commercial tenants that have experienced setbacks, such as restaurants and daycare centers.

Development: *How do you see 2022 shaping up for commercial real estate? Where do you see the industry going in the next few years?*

Washington: Rising construction costs are a concern. It is driven by general inflation in the economy, supply chain disruptions and long-term labor shortages. People in the baby boom generation are retiring, and they are not being replaced by younger workers in the numbers that we need. So we're trying to address that by looking at more disruptive, innovative ways to build.

Development: *One of those ways is through a new system you are developing. Could you tell us about the formation of your latest venture, Platform LLC?*

Washington: Platform LLC is a startup that I launched about a year ago, separately from Neighborhood Development Co. It goes to the point I made earlier about rising construction costs and lengthening construction schedules. A major pain point in the industry is the underground portion of the building — the excavation, the [concrete] shoring, ensuring the foundation, the site, the utilities. There was no real innovation going on there. What Platform LLC does is provide a single point of contact, one-stop shopping for everything underground. Our goal is to provide an integrated delivery system so that

"Rising construction costs are a concern. It is driven by general inflation in the economy, supply chain disruptions and long-term labor shortages."

— Adrian G. Washington, Founder and CEO, Neighborhood Development Co.

the building platform can be delivered faster, cheaper and better.

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

Washington: The most important is to develop projects that you believe in. It's got to be a project that you're passionate about, that you want to build, because you're not in this for the money; you're in it because you love to build.

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

Washington: The advice I would give is along the same lines. Don't come into this business thinking that you will make tons of money, that it's going to be glamorous and easy. Come into the business because you love to see buildings come out of the ground. Have that passion drive you, because that is what it takes to be successful.

"Don't come into this business thinking that you will make tons of money, that it's going to be glamorous and easy. Come into the business because you love to see buildings come out of the ground. Have that passion drive you, because that is what it takes to be successful."

— Adrian G. Washington, Founder and CEO, Neighborhood Development Co.

Development: *What crucial lessons have you learned in the decades you have been in the business?*

Washington: Work with good people and good partners.

Development: *How do you de-stress during your off hours?*

Washington: I love to read. I've always been an avid reader. I read a book a week. I like physical activities, such as working out, hiking in the warm weather and playing golf. I try to stay physically active because I think it's good for your body and it's good for your mind. ■

Ron Derven is a contributing editor to Development magazine.

The Assembly Builds on the Past

An adaptive-reuse project in Pittsburgh transforms a historically significant manufacturing facility into high-tech lab space.

By Sami Proctor, Wexford Science & Technology

Rendering by ZGF Architects

The Assembly in Pittsburgh opened in 1915 as a manufacturing plant for the Ford Motor Company. It has been reimagined as a high-tech home for biomedical research.

Adaptive reuse projects present plenty of challenges for real estate developers, but when the right project comes along, the rewards have the potential to be more than worthwhile in terms of profitability and tenant engagement.

In 2018, the University of Pittsburgh partnered with Wexford Science & Technology, LLC, a national real estate developer that focuses on projects for universities, academic medical centers and research companies, to transform a former Ford Model T assembly plant into The Assembly, a new home for research related to cancer and other biomedical fields.

Built in 1915 by the Ford Motor Company, the historic assembly plant in Pittsburgh's Bloomfield neighborhood was designed by famed architect **John Graham**. The building was originally a one-stop shop for the iconic Ford Model T, which went from assembly line to showroom floor within the eight-story building. The facility's manufacturing operations closed in 1932, but it continued to serve as a Ford dealership until 1953. For the next few decades, the building hosted a variety of uses. In 2018, the University of Pittsburgh bought it from the University of Pittsburgh Medical Center.

With the support of the Pennsylvania State Historic Preservation Office, the shuttered Ford building was placed on the National Register of Historic Places in 2018. Wexford then teamed up with Ventas, Inc., Bank of America, ZGF Architects and Turner Construction to complete the facility's transformation.

Built in 1915 by the Ford Motor Company, the historic assembly plant in Pittsburgh's Bloomfield neighborhood was designed by famed architect John Graham. The building was originally a one-stop shop for the iconic Ford Model T, which went from assembly line to showroom floor within the eight-story building.

Historic tax credits were used on the project, which made the restoration of significant historic features such as the crane shed financially feasible. (Bank of America served as the historic tax credit investor.)

In 2018, Turner began its work by uncovering the past — formerly transparent window blocks covered in years of dust and grime; floors filled with rubble; retired railroad tracks sitting silent — and began restoring the historic building. Since the building is on the National Register of Historic

Wexford and its team were able to restore and showcase the significant historic features, such as the crane shed and Model T showroom, to enrich the space for tenants and the community. In addition to the physical space, building artifacts were discovered, including an old steering wheel, sales receipts, time clocks and furniture. Wexford intends to preserve these historic items.

Places, Wexford wanted to ensure the crane shed was restored, not torn down and rebuilt, although the second option would have been more cost effective. Due to its age and the fact that it had stood abandoned for many years, the exterior of the building was in poor condition both structurally and cosmetically, which increased the anticipated redevelopment costs.

Additionally, there are two very large storm sewer culverts deep below the lowest elevation of the crane shed. This required a very specific and expensive below-grade structural system to support the future intended use.

The Assembly

The Assembly's name pays homage to the building's history and legacy. The new facility totals 355,000 square feet and features three building components: the 245,000-square-foot historic industrial plant; a new addition that has 110,000 square feet of laboratory, R&D and office space; and an in-building 325-car parking facility. In November 2021, Turner Construction completed the first phase of the $330 million project, which included the renovation of the core and shell of the historic industrial plant — the focal point of the project.

Many of the old factory's features — large floor plates, generous slab-to-slab floor heights, exposed steel beams and an industrial architectural style — are also ideal for modern laboratories.

Wexford and its team were able to restore and showcase the significant historic features, such as the crane shed and Model T showroom, to enrich the space for tenants and the community. In addition to the physical space, building artifacts were discovered, including an old steering wheel, sales receipts, time clocks and furniture. Wexford intends to preserve these historic items.

ZGF created a "main street" concept that joins the existing building and new addition while providing circulation to all major programmatic elements. A landscaped terrace between the plant and the new tower connects the structures but visually demarcates between the old and the new. Located adjacent to the brick plant, the new laboratory tower and parking facility are clad in precast terracotta to complement the old brick façade's industrial character while remaining architecturally distinct.

To service the building's tenants and community members and to attract top talent, The Assembly features an extensive list of amenities including a restaurant and café; a secured bicycle room and shower facilities; conference rooms; a 250-seat auditorium; and event and gathering spaces. The iconic gathering space features the plant's five-story crane shed — a distinct architectural element that was used to hoist parts unloaded from the adjacent Pennsylvania Railroad tracks to the appropriate level for assembly. It has been restored and transformed into an atrium where researchers, entrepreneurs, thought leaders, artists and the community can connect. The former five-story assembly crane shed features restored exterior glass and distinctive enclosed platforms that create "pop-out pod" meeting spaces on the upper floors and a dramatic atrium space that functions as the centerpiece of the project, with flexible seating and formal conference facilities.

Not Without Challenges

"As with any project over a hundred years old, there were challenges in the building's existing conditions and a team effort to restore this piece of Pittsburgh's history," said **Will Masters**, The Assembly's project manager from Turner Construction.

One year into construction, the emergence of COVID-19 posed significant challenges for the project. The site was idled for two weeks in accordance with the state's mandated shutdown until the development team received an exemption to restart construction. Remarkably, only four weeks were lost from the construction schedule due to COVID. Wexford received an exemption from Pennsylvania's mandated shutdown since The Assembly is considered a health care facility.

In addition to social distancing and managing personal protective equipment, supply chain shortages also affected the development of The Assembly. Turner used SourceBlue, the company's supply chain service provider, to prefabricate the mechanical penthouse in North Carolina. The 34 modular pieces, which averaged 14 feet by 48 feet, traveled to Pittsburgh via truck for installation. This helped to significantly reduce the project's timeline. It is estimated that the prefabricated mechanical penthouse saved six months on the project's ultimate delivery date.

The iconic gathering space features the plant's five-story crane shed — a distinct architectural element that was used to hoist parts unloaded from the adjacent Pennsylvania Railroad tracks to the appropriate level for assembly. It has been restored and transformed into an atrium where researchers, entrepreneurs, thought leaders, artists and the community can connect.

Opening Soon

This spring, The Assembly will welcome the first wave of the anticipated 500 researchers and support staff. In addition to the laboratories for University of Pittsburgh cancer researchers, the facility will feature build-to-suit leasable laboratory and office space for industry partners and startups focused on life sciences and technology.

Over a century ago, the Ford plant epitomized American innovation and led to the connection of rural America to urban America. Today, the adaptive reuse of this historic building has transformed it into a center of biomedical research that will provide an attractive, engaging space for employees and the community. The Assembly demonstrates how yesterday's industrial architecture can be revitalized for tomorrow's economy. ■

Sami Proctor is senior director of marketing at Wexford Science & Technology.


BUILDING ON OUR PROMISE TO YOU
Alston Construction's success begins and ends with our approach to planning, scheduling and choosing the right team. We have been adhering to an open and collaborative approach since our founding more than 35 years ago.
We can build, refurbish and extend buildings from our network of offices throughout the United States, which means we have partnerships with designers, subcontractors, consultants and local communities.
Our differentiators define those aspects of our business that make us stand out from our competitors. We have spent more than three decades constructing impressive buildings across the United States.
Learn more:
alston CONSTRUCTION
www.alstonco.com

Real Estate Crowdfunding: Solid Growth, But Challenges Remain

Among them: Unrealistic expectations and the possibility of an economic downturn.

By Adam Gower, Ph.D.

The real estate crowdfunding industry has been growing steadily for years, and with each turn of the calendar it becomes more firmly established as an attractive option to traditional property syndications or mainstream passive investments, such as stocks and bonds.

After years of building solid track records, albeit in a conducive environment of rising real estate values, the only challenge to the real estate crowdfunding industry is itself — how does the industry continue to maintain growth at the explosive pace seen during the past few years?

The Backstory

According to the author's analysis of data from the Securities and Exchange Commission, crowdfunding industrywide produced 25% of all capital raised for real estate private equity in 2020 despite being "born" — actually, merely conceived — only 10 years ago.

According to the author's analysis of data from the Securities and Exchange Commission, crowdfunding industrywide produced 25% of all capital raised for real estate private equity in 2020 despite being "born" — actually, merely conceived — only 10 years ago.

The largely unheralded inception of the real estate crowdfunding industry was in the Jumpstart Our Business Startups or "JOBS" Act, passed by Congress in 2012. This modified or expanded certain restrictive aspects of the 1933 Securities Act.

In a nutshell, the key feature of the JOBS Act was that it allowed for general solicitation — including, in the modern age, the online solicitation — of investors for private-equity offerings.

Before 2012, the traditional real estate syndications industry, which is part of the private-equity-raising trade, had been something of a small club. It was often uncompetitive and lacked transparency. Real estate syndication offering memorandums were paper documents, and investors had difficulty comparing one syndicator's offerings against industry averages, or even finding past track records. The opaque nature of the industry led to predictable shortcomings.

Thanks to the internet, most real estate crowdfunding offering memorandums are online. As can be seen in Figure 1, the majority of real estate crowdfunding deals are Reg D 506 (b) transactions (the middle, lighter gray line). These allow for solicitation of only investors with whom the sponsor has a pre-existing relationship. This is the pre-JOBS Act, pre-crowdfunding formula for raising capital, where sponsors were required by regulations to conduct one-on-one, in-person meetings with investors.

The new Regulation 506 (c) (the lower, slightly darker line) shows the growth trend since the passage of the JOBS Act (the inception of crowdfunding)

By forcing everyone to work remotely and avoid in-person meetings, the pandemic has accelerated the trend for capital formation to be conducted online.

and the subsequent ability for sponsors to market themselves and their deals openly, online, with no requirement for a pre-existing relationship with a prospect.

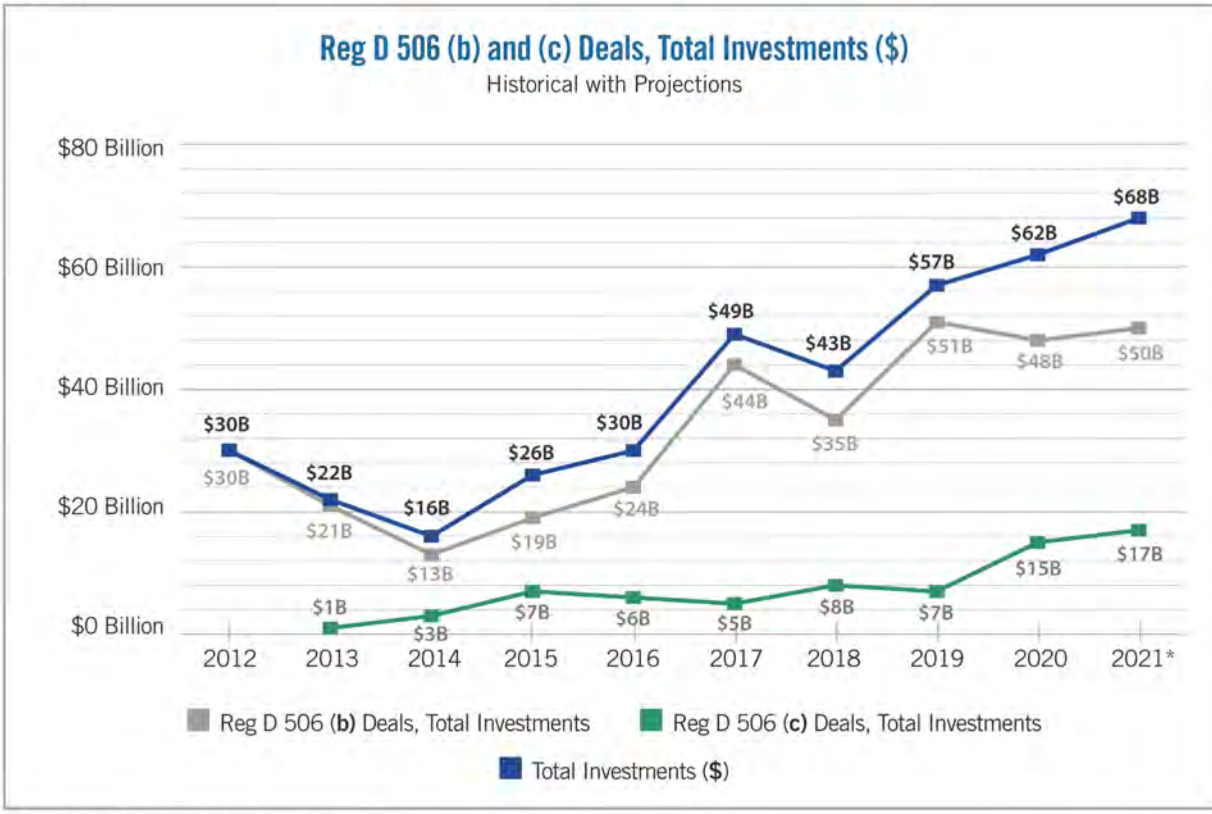
By forcing everyone to work remotely and avoid in-person meetings, the pandemic has accelerated the trend for capital formation to be conducted online. As shown in Figure 1, crowdfunded syndications more than doubled in dollar volume from \$7 billion in 2019 (pre-pandemic) to \$15 billion in 2020. Notable also is that during this same period, 2019-2020, traditional capital formation (the non-crowdfunded method) actually declined from \$51 billion to \$48 billion.

The crowdfunding model for commercial real estate capital formation appears to be catching up with traditional means of raising capital. Sponsors and individual investors are now allowed to meet remotely online, establish a relationship without the need for direct, personal interaction, and engage in commerce together.

Outlook

In general, the outlook for the real estate crowdfunding industry is bright, and even the rising specter of inflation

Figure 1



Source: https://learn.gowercrowd.com/unleashed/

The best remedy for private-equity transactions that are lopsided in favor of the sponsors is exposure, and real estate crowdfunding deals are put together and executed in bright sunlight.

in 2022 could be as much a boon as a pitfall. As inflation rises, investors seek ever-increasing yields, and hard assets like real estate offer compelling options that are now available for the first time to everyone thanks to the growth of crowdfunding.

Crowdfunding has revealed the inner workings of real estate investing to the public, making it less opaque and easier for individuals to understand, assimilate and invest. As real estate investment opportunities become even more widely visible online, demand should continue to rise as investors seek not only alternatives to stocks and bonds, but also a hedge against inflation.

Apart from the rapid growth of the industry during the pandemic, leading crowdfunding platforms like CrowdStreet are seeing increasing interest in crowdfunding by institutional investors and sponsors nationwide. For example, they have seen individual crowdfunded equity capital raises exceed $40 million — a hitherto unimaginable scale for what many continue to erroneously think is a donation- or startup-based way to raise capital.

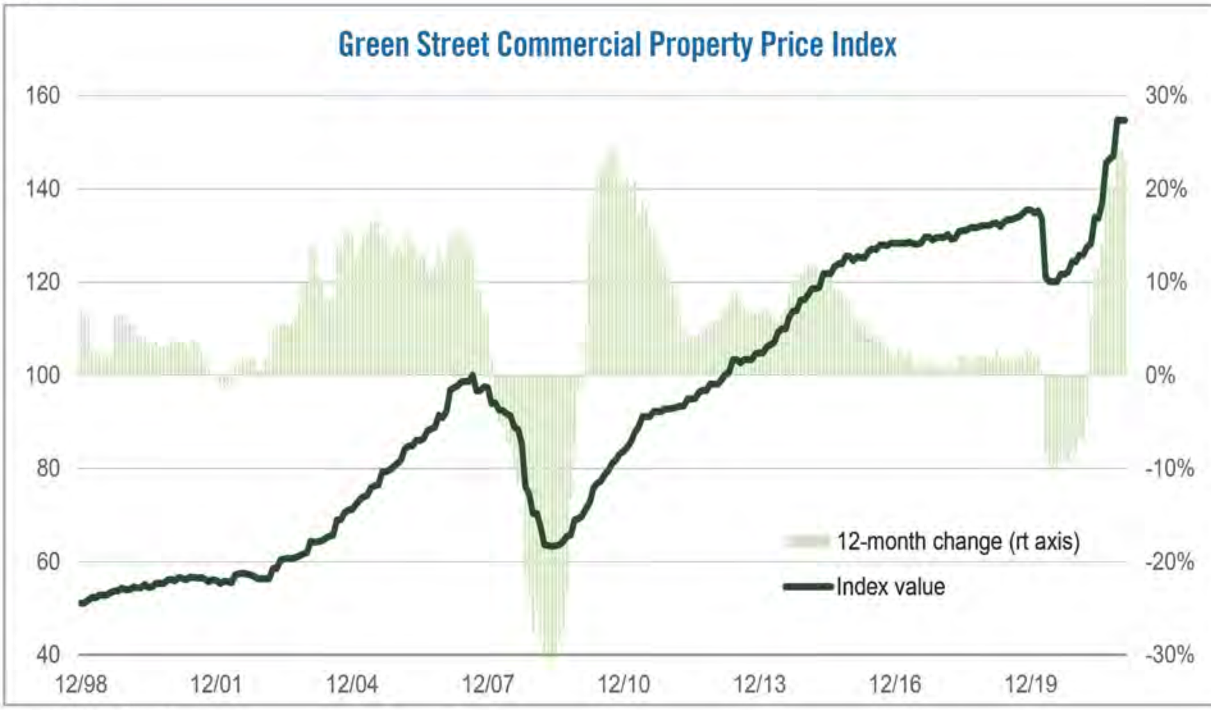
The Challenges

Nevertheless, the challenge to the real estate syndication industry is real, and there are legitimate concerns about what will happen to the image of crowdfunding when there is a sustained decline in general real estate values during the next economic downturn.

Many crowdfunded transactions, as seen in offering memorandums, assume a robust rise in the value of the relevant real estate or portfolio en route to an exit strategy, often in connection with a property makeover. When those expectations are not met, a naïve community of first-time real estate investors will learn the hard way that real estate, like all other asset classes, is subject to cyclical ups and downs.

In general, the outlook for the real estate crowdfunding industry is bright, and even the rising specter of inflation in 2022 could be as much a boon as a pitfall.

Figure 2



Source: Green Street

Certainly, optimism is necessary in any business, and without projections few would invest in any enterprise, real estate included. Still, the pattern seen in past real estate downcycles will be repeated: Investors get angry at scant returns or even losses, and then start hiring lawyers and forensic auditors to review profit splits, management fees and sponsor prerogatives.

Naturally, the financial-media headlines will center on the worst-performing deals, as well as those crowdfunded transactions that favored the sponsors most over the passive investors. The cases of simple fraud and busts will also get plenty of coverage, and the crowdfunding industry will have to weather the storm.

Sustained declines in property values are hardly the stuff of legend, even if presently the prospects for a real-estate sector value slump appear remote.

As seen in Figure 2, general commercial real estate values tumbled nearly 40% in the Great Recession of 2007-2009, and they did not nominally recover until nearly 2014. It's notable that during the decline in values at the onset of the pandemic, crowdfunded transactions more than doubled. That suggests a hunger for the asset class among the investing public despite temporary market upsets.

Yet many present-day crowdfunded real estate syndications assume 20%-plus rises in property value en route to their eventual sale, when investors expect the bulk of their gains to be realized.

Many crowdfunded transactions, as seen in offering memorandums, assume a robust rise in the value of the relevant real estate or portfolio en route to an exit strategy, often in connection with a property makeover.

If there is a real estate contraction, investors will not reap the projections featured in offering memorandums, and even if the market is at fault, the sponsors — and crowdfunding — will get the blame.

Because of this, the crowdfunding industry may wish to consider measures that encourage conservative or at least multiple scenario-dependent financial projections, and to standardize sponsor literature, fees, payouts and profit splits.

And investors would be wise to disavow themselves of the tendency to expect returns on a quarterly basis that they have become accustomed to with traditional investments such as stocks. They should take the long-term view that prudent real estate veterans know will see them through the bad times to the brighter days that always return. ■

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


Get going.
Get growing.
Granite's **evolve** Ready Collective suites take shared workspace to the next level with private, fully furnished suites and exclusive on-floor amenities that elevate and simplify how you office. It's the perfect hybrid between co-working and traditional leasing.
PRIVATE, FULLY FURNISHED SUITES FOR 10-20
EXCLUSIVE ON-FLOOR AMENITIES
PART OF THE GRANITE COMMUNITY
Now leasing at Eldridge in Houston, TX and @TheBrand in Glendale, CA.
evolve by Granite
Ready Collective
evolvegranite.work/ready-collective

Construction Sites Build a Circular Economy

Zero-waste efforts attract greater attention, including a new certification program.

By Alice Devine

New buildings can create architecturally pleasing skylines and yet leave construction debris in their wakes. In fact, the U.S. Environmental Protection Agency estimates that construction and demolition debris accounts for more than twice the amount of generated municipal solid waste in the U.S.

Environmentally minded owners and developers are changing that statistic, however, with zero-waste approaches backed by certification. Encouraged by local ordinances as well as potential cost savings, owners are discovering ways to divert waste, improve safety on site and achieve certification that distinguishes their property in the marketplace. Despite construction's outsized impact on landfills, zero-waste practices demonstrate the real estate industry's commitment to a circular economy and suggest true reductions in the use of landfills and incineration.

Photo courtesy of Phase 3 Real Estate Partners

Phase 3 Real Estate Partners' Genesis Marina, a 550,000-square-foot life science development south of San Francisco, is the nation's first precertified TRUE zero-waste project.

TRUE Certification

The TRUE zero-waste program and certification is administered by the Green Business Certification, Inc., which also oversees the Leadership in Energy and Environmental Design (LEED), the world's largest building rating system. As such, the program benefits from peer review, experience in sustainability and expert resources.

TRUE certification requires more than 90% of waste to be diverted from landfills and incineration. Additionally, a project applicant must have a zero-waste policy in effect. A points system allocates approximately 10% to each of the following significant components: reduction, reuse, compost, zero-waste purchasing and training. In addition, TRUE requires an on-site assessment. Like other net-zero initiatives, data is predicated on documented performance, rather than initial intention or design. To achieve zero-waste status, owners use a tiered approach with precertification and certification phases, starting at the project's inception.

TRUE certification requires more than 90% of waste to be diverted from landfills and incineration. Additionally, a project applicant must have a zero-waste policy in effect.

Genesis Marina, a 550,000-square-foot life science development in Brisbane, California (just south of San Francisco), is the nation's first precertified TRUE zero-waste project. The owner, Phase 3 Real Estate Partners, engaged the design and development teams early. **Denise Braun**, principal at All About Waste, a California-based consultancy, says "early decisions on schematic design and more importantly, on specifications, matter." With drawings and specifications that note zero-waste aspirations, such documents work as a contract of sorts for the general contractor and trades.

A zero-waste mindset allows other early-bird decisions at the pre-construction stage, too. Braun cited an example involving concrete forms. Traditional poured-in-place concrete methods use

In Charlotte, North Carolina, an electrical subcontractor reused large wooden cabling spools for a 48-story skyscraper by "using reverse logistics." Rather than allowing delivery trucks to make return trips empty, the project team would transport empty spools to the vendor to be rewound.

single-use wooden forms. Sometimes, these forms are burned on-site after use. A waste-reduction strategy would design and create a metal form that can be used iteratively, as the floors are constructed. Even more progressively, contractors are experimenting with rammed earth to use as a form rather than metal or wood.

Reuse

Reuse is an important part of zero waste, especially for deliveries and packaging. For instance, wood pallets typically litter a construction site. For Genesis Marina, the contractor stores its own wood pallets in a large warehouse and uses them to deploy equipment and materials to the building site. Once delivered, the pallets are gathered and sent back to the warehouse, ready for the next large-scale delivery.

Susie Westrup Vincent, director of client solutions for the U.S. Green Building Council, illustrates another example of reuse by building trades. In Charlotte, North Carolina, an electrical subcontractor reused large wooden cabling spools for a 48-story skyscraper by "using reverse logistics." Rather than allowing delivery trucks to make return trips empty, the project team would transport empty spools to the vendor to be rewound.

Packaging can also be reduced by converting to fewer boxes and wrapping. Braun cites the example of a mechanical, electrical and plumbing contractor who arranged for products to be consolidated into a single large delivery container. Previously, the contractor had dedicated one employee to opening and verifying box contents as parts arrived singly, in separate boxes. Freed from the labor-intensive job (which also included disposing of all those boxes), the contractor could allocate that employee to other tasks, saving time and expense.

Waste Separation

Selecting a demolition and debris hauler is important, but presorting efforts facilitate the process. On the construction site, color-coded bins labeled in several languages create wayfinding, like signage in a building. This shorthand educates all the workers on site, so that an experienced team builds habits and can bring its knowledge to the next construction project.

Training

Successful zero-waste construction strategies require training for on-site workers.

Vincent notes that for general contractors, the "owner's goals are your goals." Still, employing zero-waste policies in a top-to-bottom effort takes practice. Braun emphasizes the importance and value of superintendents and forepersons because of their leadership and presence on the construction site. Such employees communicate diversion efforts in a daily field crew meeting, sometimes just 10 or 15 minutes long.

One South San Francisco site, for example, is constructed on a landfill, making smoking a dangerous activity given the levels of methane gas. Of course, smoking is not part of any sustainable effort, but the crew leadership assures cooperation from workers. Companies offer recognition in the form of a bonus, employee award or social event such as a barbecue.

The construction trailer serves as another example in a zero-waste initiative. Genesis Marina's jobsite trailer allows only reusables in the pantry, uses hand dryers in its bathroom, reduces plastic bottle usage, and repurposes catering carts into hydration and handwashing stations. Outside the trailer, a dashboard communicates the site's progress and engages the crew in the collective effort.

Multiple Benefits

Braun says that while there's not enough data yet on the market value of a zero-waste certification, "waste is a waste of money." Braun refers to the cost associated with hauling demolition debris, especially to landfills whose costs are on the rise and increasingly refuse to accept certain materials.

In another instance, the city government in Martinez, California, has circumvented hauling expenses by deconstructing and donating building components including light fixtures, furniture, door frames and even doorknobs. The result is a less expensive demolition-and-hauling line item for the city's budget.

In addition, Vincent maintains that "a well materially managed job is a safe job," resulting in fewer incidents and worker-compensation claims. Like the home garage filled with storage boxes that can fall or require lifting, a cleaner site can protect workers and reduce an owner's potential liability.

Finally, the novelty of zero-waste construction can elevate a property's profile, giving it a market advantage. Phase 3 Real Estate Partners and Bain Capital Real Estate have received attention at Greenbuild, the nation's go-to sustainability conference, by virtue of having the first pre-certified TRUE zero-waste building in the country — indeed, in the world.

Finally, the novelty of zero-waste construction can elevate a property's profile, giving it a market advantage. Phase 3 Real Estate Partners and Bain Capital Real Estate have received attention at Greenbuild, the nation's go-to sustainability conference, by virtue of having the first pre-certified TRUE zero-waste building in the country — indeed, in the world.

"We are proud to be at the forefront of this growing movement and believe Genesis Marina could be a model of how TRUE can be successfully implemented at premier projects," says Phase 3 Leasing Manager **Becka Studer**.

Although Studer recognizes there is a challenge to "ensure the sustainability goals met throughout construction continue to be supported as the building is occupied," tenants who share like-minded corporate environmental and social governance directives will find the space and its goals desirable.

Ordinances and Regulations

As is often the case, regulatory guidelines accelerate the adoption of more progressive building practices. While less rigorous than TRUE standards, San Francisco has adopted a construction and demolition ordinance. In brief, the ordinance demands an overall minimum 65% recovery rate and reporting of mixed construction and demolition debris. San Francisco requires a permit for debris boxes and a list of permitted transporters for such containers and hauling, as well as registered facilities for processing of such debris. These registered facilities must use certified scales integrated with an automated record-keeping system to measure each incoming load of construction debris.

Other cities that have made commitments to zero waste include New York City, San Diego, Los Angeles, Washington, D.C., Seattle, Austin, Texas, and Minneapolis, reflecting a national focus on the issue. ■

Alice Devine is the author of the award-winning "Suite Deal: The Smart Landlord's Guide to Leasing Real Estate," and a lecturer at UC Berkeley's Haas School of Business.

BUILD BETTER
BUILD SAFER
BUILD with LiUNA!

The Laborers' International Union (LIUNA) knows that it's members success goes hand-in-hand with the contractor. By cooperating with signatory contractors, LIUNA provides the best trained, hardest working and safest people in the construction industry.

However, LIUNA and its employers know that isn't enough. In partnership with developers and contractors, LIUNA has crafted streamlined, industry-specific agreements for the commercial real estate market and has offered valuable support to projects before elected officials, regulators, and public forums.

For your next project, Build with LIUNA to raise industry standards, promote quality construction, improve contract procurement, and most importantly, protect the bottom line.

SAFE | ON-TIME | UNDER BUDGET

Oscar De La Torre
Northern CA District Council of Laborers
(925) 469-6800
www.ncdclaborers.org

Jon Preciado
Southern CA District Council of Laborers
(626) 350-6900
www.scdcl.org

Laborers International Union of North America
LiUNA!
Feel the Power

Transit-Oriented Housing Fills a Need in the Boston Region

A new development will provide easy access to commuter rail.

By Mike Henehan, Bozzuto Development Company

Just south of Boston, the city of Quincy is undergoing a renaissance. While its growing business community, golf courses and critically acclaimed dining scene are drawing new residents, an important aspect of Quincy's rebirth is its convenient location to mass transit, which allows commuters to access jobs all over the Boston metropolitan area.

Seven years ago, Bozzuto, a Washington, D.C.-based real estate company, began discussions with Hingham, Massachusetts-based Atlantic Development to explore the possibility of building in Quincy. Soon after, they saw the potential in an underutilized site directly above the Massachusetts Bay Transportation Authority (MBTA) Red Line station in North Quincy. Bozzuto and Atlantic Development then teamed up and moved forward with the project. They eventually broke ground in 2019 on what is now The Abby, a 700,000-square-foot multifamily housing development.

Bozzuto

The Abby in North Quincy, Massachusetts, is located on a site directly above a Massachusetts Bay Transportation Authority (MBTA) Red Line subway station.

Third Time's a Charm

The seven-acre MBTA Red Line parking lot that is now home to The Abby was originally zoned for office use in the 1990s. Plans then shifted to a large movie theatre megaplex, but that never came to fruition.

In April 2016, the MBTA Fiscal and Management Control Board granted lease rights to Bozzuto and Atlantic Development for a mixed-use development that would include housing, a new parking garage that is shared between The Abby and MBTA commuters, and retail space. Due to the complexity of the project, it was nearly four years from the original MBTA invitation to bid in July 2015 to the groundbreaking in February 2019.

The Abby development is arriving as Massachusetts is taking steps to increase transit-oriented development. In January 2021, an economic-development bill that was signed into law requires communities in the state that are served by MBTA to provide "at least one zoning district of reasonable size in which multifamily housing is permitted as of right" within a short walk from a transit facility.

Bozzuto worked closely with the city of Quincy, the MBTA and the Massachusetts Department of Transportation (MassDOT) to structure a public-private partnership that provides tax revenue, jobs, a $4.8 million commitment to Quincy's Affordable Housing Trust and ground rent for 99 years. (According to an April 2016 report from the Quincy Patriot Ledger, the 99-year lease is expected to generate about $230 million for MBTA.) The agreement also includes improvements to public spaces within neighboring North Quincy High

School and drainage infrastructure improvements for the city.

The Abby development is arriving as Massachusetts is taking steps to increase transit-oriented development. In January 2021, an economic-development bill that was signed into law requires communities in the state that are served by MBTA to provide "at least one zoning district of reasonable size in which multifamily housing is permitted as of right" within a short walk from a transit facility. (See box below.)

Massachusetts Aims to Boost Development Near Commuter Rail Lines

A new zoning law requires communities that are served by the Massachusetts Bay Transportation Authority (in short, a majority of the municipalities in the eastern third of the state) to provide for multifamily housing in proximity to mass transit. The details:

- A minimum gross density of 15 units per acre.
- The zoning district can't be located more than half a mile from a commuter rail station, subway station, ferry terminal or bus station.
- No age restrictions on tenants.
- Must be suitable for families with children.

According to the law, communities that don't adapt the zoning law would lose access to some state funding programs. ■

During the early stages of the project, it was imperative to maintain safe and clear access to the North Quincy Station because construction was taking place over the public pathway used by commuters to access trains.

An article in the Boston Business Journal in September 2021 indicated that more than a third of the renters at The Abby will use public transportation to go into Boston for work.

During the early stages of the project, it was imperative to maintain safe and clear access to the North Quincy Station because construction was taking place over the public pathway used by commuters to access trains. The configuration of the area constantly changed throughout the course of construction, so Bozzuto was in close contact with local and state government as well as MassDOT and the MBTA to ensure there was a safe path from the main roadway to the station.

In 2020, Bozzuto encountered several challenges as the construction industry struggled during the height of the COVID-19 pandemic. Work on The Abby slowed down during this time, but it never stopped.

The Community

Named after influential first lady, human rights advocate and long-time Quincy resident **Abigail Adams**, The Abby is a three-building residential development community that features 610 modern luxury rental apartments and 20,000 square feet of amenity space. The outdoor amenities include a rooftop pool, grilling stations, fire pits and a courtyard with pergolas and phone charging stations to enable outdoor work. Inside, there is a solarium with a library and kitchen for group entertaining, a wellness center, a lobby lounge with a two-story fireplace and a pet spa.

The development also includes approximately 50,000 square feet of ground-floor retail including a Target, which opened in October 2021. The parking lot adjacent to North Quincy Station contains 1,519 spaces for MBTA commuters, residents and retail patrons. As part of its ongoing focus on sustainability, Bozzuto included electric vehicle charging stations within the garage, and The Abby has earned Green Globes Certification, a sustainability certification customized to meet the needs of individual projects.

Bozzuto partnered with RD Jones and Associates on the interior design of the three interconnected buildings. Bozzuto also worked with Boston Art to choose a series of pieces from local artists to incorporate into its design choices.

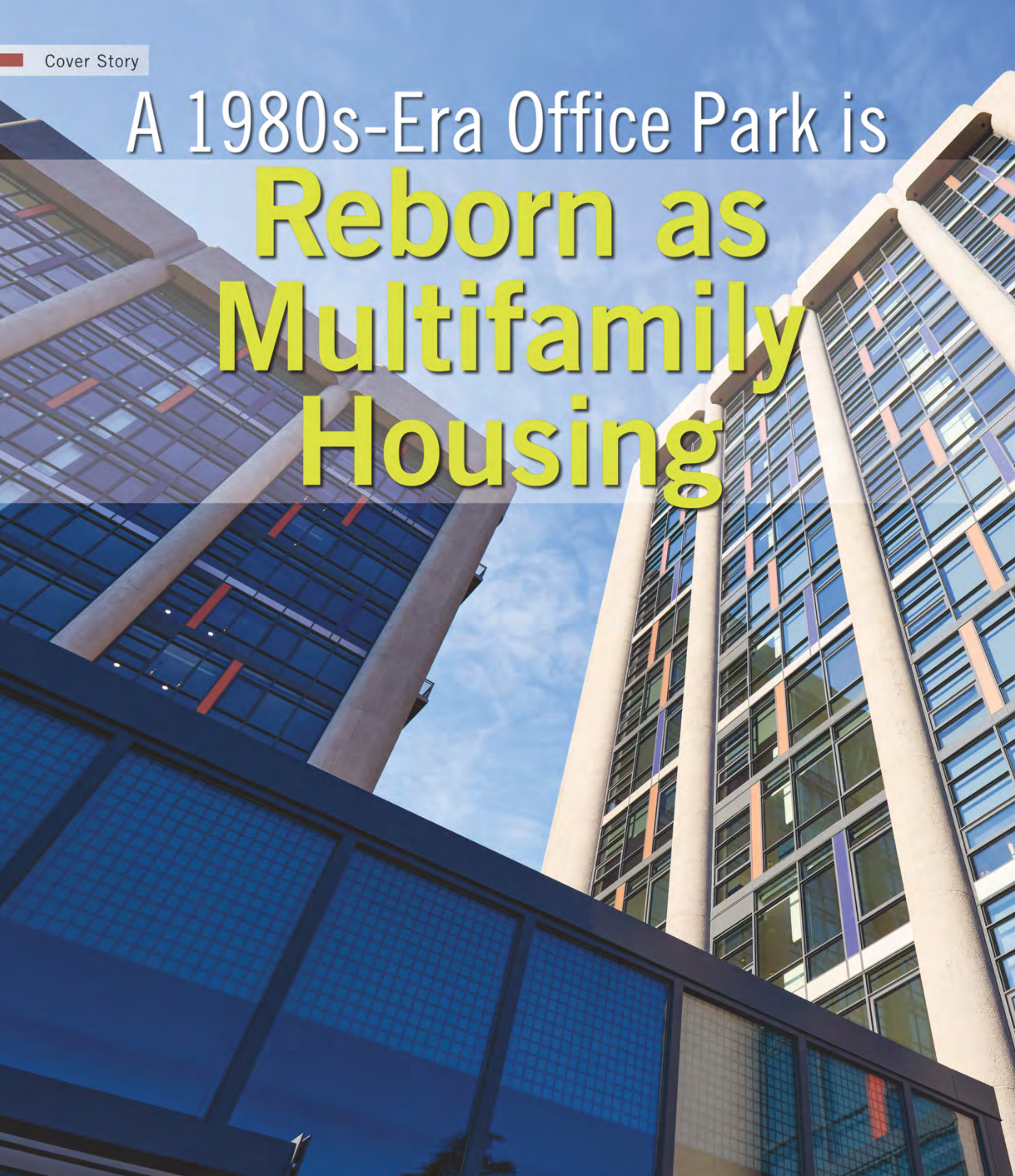
Currently, Phase 3 of construction is underway with the first and second of its three buildings, 255 and 285 Hancock Street, completed and almost fully leased. Leasing has started for Building 3, 225 Hancock Street.

The project is Bozzuto's first New England development. The company also serves as the property manager for The Abby. Callahan Construction is the general contractor. ■

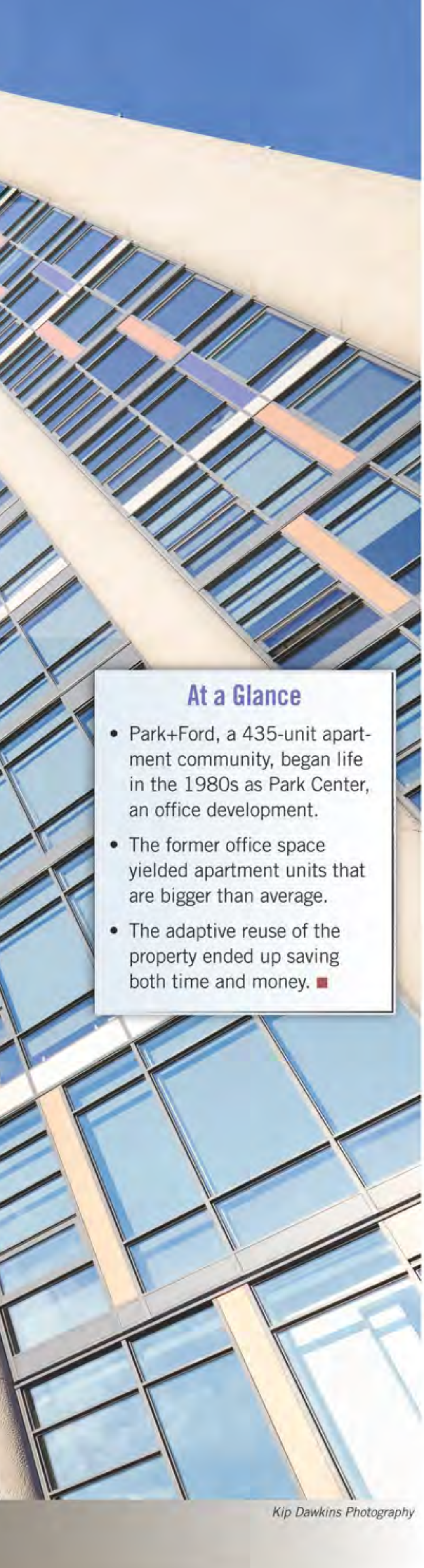
Mike Henehan is president of Bozzuto Development Company and Bozzuto Homes, Inc.

Cover Story

A 1980s-Era Office Park is Reborn as Multifamily Housing



The Park+Ford development in Alexandria, Virginia, represents a growing trend in commercial real estate — the repurposing of aging office buildings. In this case, an office park from the 1980s was converted into luxury apartments.


Kip Dawkins Photography

An adaptive reuse project in the Washington, D.C., suburbs shows the potential for converting old office space into apartments.

By Mark Rivers, Lowe

At a Glance

- Park+Ford, a 435-unit apartment community, began life in the 1980s as Park Center, an office development.
- The former office space yielded apartment units that are bigger than average.
- The adaptive reuse of the property ended up saving both time and money.

The future was bleak for Park Center, a 566,000-square-foot, three-building Class B- office park in Alexandria, Virginia, when it came to market in 2016. The property consisted of two 14-story office towers and one four-story building, half of which was occupied by a full-service fitness center.

Although it was 86% occupied, one of the 14-story office towers was one-third empty and the other was about to be vacated by the U.S. Department of Agriculture (USDA). With uninspiring architecture and low tenant demand, there was little interest in acquiring these tired buildings.

However, national real estate investor and developer Lowe envisioned a future for Park Center as an apartment community. Lowe believed it presented a good value for a developer that was willing to invest the time, resources and creativity required to realize a new future for the property and transform it to viable use. Lowe partnered with USAA Real Estate to acquire Park Center in January 2018.

Park Center has been transformed into a major redevelopment now known as Park+Ford, a 435-unit apartment community. Along the way, the team encountered the unexpected, as is often the case in adaptive reuse, but not everything they found was problematic. In fact, some potential setbacks became opportunities.

In particular, in June 2020, as other businesses were pausing work amid the uncertainty of the early months of COVID-19, Lowe was able to realize significant construction cost savings and decided to proceed with construction. While it was unclear how long the pandemic would impact the rental housing market, the team was confident the market would recover by the time the renovation wrapped up. This timing proved fortuitous, and the property opened in a market where people are looking for the offerings at Park+Ford — large units with abundant on-site amenities, and close enough to commute to business centers without being dependent on public transportation.

Good Location, Good Bones

When Park Center was constructed between 1981 and 1986 along Virginia Route 7 and I-395 — major commuter roads in the Northern Virginia area — it was a single-purpose office park amid a residential area. While shops and dining are nearby, they weren't walkable or convenient for office tenants.

A before-and-after look at the exterior of Park+Ford in Alexandria, Virginia. The dated office park is now a 435-unit apartment community.

Since that time, the standards for desirable office locations have changed. Businesses are now looking for walkable environments that offer a mix of restaurants, shops and services. The residential area around the site, which is a short commute to major employment centers, is five miles south of Washington and approximately 3.5 miles from the Pentagon.

Park Center also had space. It's located on a 4.6-acre site and includes a 1,472-space garage — more than enough parking for apartments. The two 14-story towers feature 16,000-square-foot floorplates that allowed for efficient residential conversion.

Lowe negotiated a deal to acquire the property for $39.5 million — a significant value compared to new construction. For example, replacing the parking garage alone would cost $50 million to $60 million. Lowe and USAA secured a loan from Voya to carry the project through from acquisition to construction and closed in January 2018.

Vacating the Office Buildings

When Park Center was being marketed for sale in 2016, the largest tenant, the USDA, occupied nearly all of one of the 14-story towers. The agency planned to vacate when its lease ended in May 2017. The second tower had about 58% occupancy with approximately 22 tenants. They had leases running for various terms of up to seven years; some had renewal options. The four-story building was half leased to XSport Fitness, a 24-hour facility popular with tenants and neighbors. It offers a four-lane lap pool, indoor basketball court and a variety of fitness classes and equipment, plus a salon and daycare center.

The leasing situation was beneficial when considering a conversion. With the USDA set to vacate one tower but holding over, Lowe negotiated a lease extension to keep the agency in the building until its space was ready for occupancy at

Park Center has been transformed into a major redevelopment now known as Park+Ford, a 435-unit apartment community. Along the way, the team encountered the unexpected, as is often the case in adaptive reuse, but not everything they found was problematic. **In fact, some potential setbacks became opportunities.**

Left, JLL Capital Markets; right, Kip Dawkins Photography

Lowe negotiated a deal to acquire the property for $39.5 million — a significant value compared to new construction. For example, replacing the parking garage alone would cost $50 million to $60 million. Lowe and USAA secured a loan from Voya to carry the project through from acquisition to construction and closed in January 2018.

another building. Coupled with cash flow from the second building, Lowe had reliable income during the predevelopment period, along with certainty that it would have one vacant building and time to work with tenants in the second tower.

Lowe was able to negotiate lease terminations and facilitate relocations for the remaining 22 tenants. At the time, the local market was favorable for office deals. Facing the prospect of being in the middle of a two-year renovation process as work started on the neighboring building, tenants were open to working with Lowe on a termination plan.

A New Residential Plan

At the same time Park Center was for sale, the Alexandria Economic Development Partnership was developing a policy for the city to facilitate the conversion of obsolete office buildings to residential uses. City officials understood that having an inventory of attractive, modern offices was crucial to growing its business base, but underused office buildings in areas that were no longer favorable for business were a drain on the tax base. With these pro-economic development policies and a need for additional housing in the city, Lowe was able to close on its acquisition with some assurance that the city council would embrace its adaptive reuse plan.

Lowe met no resistance from the community regarding the conversion, particularly as traffic counts for the new apartments are well below what was being generated by the office use. In addition, in the decades since the office buildings were constructed, the surrounding area had transformed into a community with several high-rise multifamily developments. The residential reuse plan aligned with that environment.

The city approved the adaptive reuse plan with only a few requirements, mostly related to conforming with updated residential site plan conditions. A road behind the property was initially developed as four lanes, but as the area had become more residential, the community sought a more pedestrian-friendly street. Lowe reduced it to two lanes and added curbside parking, which has slowed traffic and created a calmer street environment.

Affordable housing also was important for the city, and Lowe made the choice to include 10 units of low-income housing on site, with rents at or below 70% of the area median income. Additionally, all the apartments at Park+Ford offer rents that are lower than more costly new construction. This was another appealing aspect of the project to the city of Alexandria.

While the Lowe team worked on the tenant terminations, its architects and consultants started on plans for the reuse. They analyzed building codes for residential use, determined necessary building systems improvements, and developed design schemes for the exterior and interior renovations. Lowe was able to use the existing rental income from the buildings to complete the design work and permitting. The pre-construction activities were scheduled so that the permit would be in hand as the office tenants began to vacate. This allowed the contractor to begin work soon after the buildings emptied out.

As part of the building design, Lowe reviewed apartment trends and changing demographics, identifying what would appeal to future renters. Understanding the immediate neighborhood, as well as the greater DC area, Lowe determined potential renter interest would come from maturing millennial professionals beginning to emigrate out of DC and wanting a little more space, potentially coupling up and thinking about starting a family. This led to designing slightly larger apartments overall, and more units with dens or second bedrooms.


Kip Dawkins Photography

Individual units within Park+Ford are larger than most apartments. For example, they feature 9.5- to 10-foot ceilings, compared to the 8.5- to nine-foot ceilings typically seen in a residential unit.

Building amenities were also designed with the millennial in mind, providing outdoor children's play areas in addition to grilling and picnic areas and plenty of work-from-home spaces. Additionally, the design includes a dog run and pet spa.

Advantages of Office Space for Apartments

The project's apartment residences are larger than are typically developed with new construction. Park Center's large office floors were approximately 90 feet deep. If floors are too deep when designing residences, that can leave too much space toward the center of the building. That, in turn means rooms will be too far from the windows, making them dark and unappealing. Lowe's plan for larger units allowed for configurations using interior dens with openings to the living space to capture natural light. This allowed a rather conventional layout of the remainder of the units toward the exterior wall. The floor-to-ceiling window walls provide abundant natural light into the living spaces.

In addition, the buildings have higher slab-to-slab dimensions than in most new residential construction. Lowe was able to create units with 9.5 to 10-foot ceilings, compared to a typical residential unit with 8.5 to nine-foot ceilings.

Office buildings require multiple elevator banks to move tenants, and the occupant load is typically three times that of a residential building. At Park Center, each of the towers had six elevators, yet only three are necessary for the lesser demands of residential use. This excess former elevator space was transformed into trash chutes (including one for recycling), as well as space for mechanical, electrical and plumbing risers. Another elevator shaft was filled in and incorporated into residential units.

Common-area restrooms happened to be located where they could be easily demolished, with the space merged into the residential units.

Abundant Options for Amenity Space

Modern apartment buildings are now judged largely on what amenities are available to tenants. The former lobbies at Park Center became communal amenity areas with a variety of uses. They include a concierge, coffee bar and self-service grab-n-go market;

At the same time Park Center was for sale, the Alexandria Economic Development Partnership was **developing a policy for the city to facilitate the conversion of obsolete office buildings to residential uses.**

A Trend to Watch

A January article about Park+Ford in the Wall Street Journal cites Yardi Matrix data revealing that 151 commercial properties were converted into apartments in the U.S. in 2021. Additionally, the article notes that CoStar data shows "there are nearly 1,000 relatively new office buildings that developers might view as candidates for residential conversion: properties built since 1980, measuring more than 100,000 square feet and at least 50% vacant."

Modern apartment buildings are now judged largely on what amenities are available to tenants. **The former lobbies at Park Center became communal amenity areas with a variety of uses.**

a coworking area; a social lounge with interactive games including multisport simulators with baseball and golf; a club room with kitchen, dining area, fireplace; and a sunny conservatory. All these spaces are fitted with a variety of seating for casual or community-organized events. Residents also have access to a private dining room and a catering kitchen for meetings or social gatherings. Children even have their own space at Park+Ford — a kids' room stocked with toys and games.

The layout of the buildings on the property allowed for the creation of many inviting outdoor spaces as well. Park+Ford offers The Yard, a large landscaped area with a bocce court and nearby sundeck with misting spray systems, chaise lounges and a waterfall fountain. The plaza offers outdoor dining, grilling stations, fire pits and private cabanas. Residents also have a fenced-in dog park with shade, seating and water stations.

With plenty of parking and a garage with both above- and below-grade floors, Lowe was able to capture some of the top floor parking for a new use. That space accommodates a daycare center, a feature that Lowe says is in demand by young working families who appreciate an on-site facility as an option when either working at home or away. The daycare will be open to the public, with Park+Ford residents prioritized on the waiting list.

Construction Benefits and Challenges

In March 2020, just as the COVID-19 pandemic was escalating, Lowe secured a construction loan from PIMCO. It began the adaptive reuse work at Park Center in June 2020. The construction timeline was approximately 20 months vs. 32 months or more for new construction.

Lowe's decision to proceed with construction during the early months of the pandemic, while others chose to halt or delay projects, proved to be financially significant. The company secured materials before there were supply chain shortages and negotiated a several-million-dollar reduction in costs, thanks to the brief but sharp drop in demand caused by the pandemic. This allowed the company to open Park+Ford in an improving market with little competing new product.

One of the more challenging aspects of the project was transforming the exterior from a tired 1980s office structure to a modern 2022 residential building. To achieve this, Lowe undertook a significant façade redesign.

Park+Ford retains most of the precast elements. Removing them would have been expensive and difficult; the building sits atop the parking garage, so cranes could not reach the pieces, and the risk of dropping a large chunk of precast would have caused major structural damage to the garage below. A window wall system with operable windows and balconies replaced the existing curtainwall.

Lowe believed balconies were an important feature to make the building more appealing. The challenge was to devise a way to add balconies so they do not look like an afterthought. The usual method would be to tack the balconies onto the façade with visible suspension cables. Lowe's design and engineering team found a way to attach the new balconies onto the building by through-bolting the anchor plates to the existing concrete floor slabs.

An observer looking at the two towers might think they were similar structures, yet they were completely different. One tower is constructed of conventional composite deck, rebar and concrete. The other is post-tensioned concrete. This is a process where cables are laid prior to pouring concrete, at which point the cables are stressed, which strengthens the concrete. Those cables could not be cut, so coordinating the installation of the balconies was tricky.

Residential buildings require a lot of openings for infrastructure such as electrical, plumbing and mechanical risers. To determine where they could safely drill these holes

Lowe's design and engineering team found a way to attach new balconies onto the buildings at Park+Ford by through-bolting the anchor plates to the existing concrete floor slabs. Usually, the balconies would be attached to the façade with visible suspension cables.

in the post-tensioned building, the contractor used ground-penetrating radar (GPR) to scan all the concrete slabs to locate the cable and determine the layout of the unit's plumbing and for other penetrations.

Something to consider when working with older buildings is sagging. As with many things, gravity takes a toll. At the Park Center buildings, Lowe found that the concrete slabs sagged up to two inches. In new buildings, that figure might be a quarter of an inch. Early in the design process, Lowe found a window wall system that could accommodate significant slab deflection. After installation of the unit framing, the floors were leveled using a self-leveling floor compound.

Reuse Advantages

At Park Center, the buildings were stripped down to the structures, a process that went relatively quickly. Unlike new construction, Lowe avoided the time-consuming first steps including excavation, foundation work and the expensive construction of below-grade structured parking.

One surprise at the Park Center buildings was discovering asbestos in some of the window sealants. Multiple environmental studies conducted over the years, by prior owners as well as Lowe's environmental consultant, didn't reveal any asbestos. And, based on the period in which the windows were constructed, it was unlikely asbestos products would have been used. During demolition of the exterior wall assembly, the contractor identified materials that looked like asbestos. Those materials tested positive, and the construction team began a remediation program. This added a bit to the cost and the timeline, but not beyond what was already in the contingency.

Adaptive reuse inherently has many green features. According to the U.S. Green Building Council, adaptive reuse extends the life cycle of existing building stock, conserves resources, reduces waste and reduces environmental impacts of new buildings related to materials manufacturing and transport. Additionally, the American Institute of Architects notes that adaptive reuse also makes sense from the standpoint of embodied energy as it can take 80 years for a new building to overcome the climate-change impacts of its construction.

Opening the Doors at Park+Ford

In November 2021, Lowe received the initial Certificate of Occupancy for Park+Ford, opened the on-site leasing office and welcomed its first tenants. Leasing appointments were scheduled for COVID safety to reduce the number of people in the office at any one time.

Park+Ford had another unusual leasing experience as the larger units, the one-bedrooms with dens and the two-bedrooms, were rented first, whereas five years ago two-bedroom units were tougher to lease. This validated the original thesis about the prospective ten-

Left, JLL Capital Markets; right, Kip Dawkins Photography

ants and what would be appealing in terms of unit floorplans and amenities. The pandemic also drove demand for larger units as people moved to more work-from-home days.

Monthly rental rates at Park+Ford currently range from $1,700 to $3,700, which compares favorably to the surrounding market.

Since starting Park+Ford, a variety of new technologies emerged, particularly during the pandemic, which Lowe adopted at the property. In addition to the latest proptech that has streamlined property management and reporting, residents have a host of app-driven, on-demand services such as package notification, keyless entry, HVAC controls, super-fast Wi-Fi, and away-from-home care when tenants are traveling.

So far, the adaptive reuse of office for residential appears to be a good model for communities, the environment and Lowe's business. ■

Mark Rivers is executive vice president with Lowe.

At Park Center, the buildings were stripped down to the structures, a process that went relatively quickly. Unlike new construction, Lowe avoided the time-consuming first steps including excavation, foundation work and the expensive construction of below-grade structured parking.

Project Summary

Project Location		4401 Ford Avenue, Alexandria, Virginia
Project Name		Park+Ford
Type of Site		Urban
Development Type		Redevelopment, Adaptive Reuse, Mixed Use
Transportation Modes		Car, Transit/Bus, Pedestrian
Mix of Uses		
	Office	60,000 sq. ft.
	Retail/Restaurant	10,590 sq. ft.
	Residential	435 units 460,000 sq. ft., +/-
	Other	Xsport Fitness Club 55,000 sq. ft.
Number of Floors		14 total
Parking	Underground	1,250 spaces, 5-level underground garage
Site Dimensions		Total Acreage 3.35 acres
	Total sq. ft.	145,936 sq. ft. property lot area
Office and/or Retail Tenants		
	Day Care Center	10,590 sq. ft. Garage Level A
Retail Rents and Lease Terms		10-year term
Development Team		
	Developer	Lowe
	Project Architect	Bonstra I Haresign ARCHITECTS
	Interiors Architect	ESG I Architecture & Design
	General Contractor	Whiting Turner
	Leasing Agents	Bozzuto
Financial Partners		
	Co-owner	USAA Real Estate
	Construction loan	PIMCO
Timeline		
	Land Acquisition	January 2018
	Phase I Completed	November 2021
	Project Completed	Final Certificate of Occupancy due April 2022
Development Cost		
	Acquisition Cost	$8 million
	Phase I Hard Costs	$100 million
	Soft Costs	$18 million
	Total Project Costs	$126 million ■

How Industrial Projects Can Spur Economic Growth

A large tire-storage facility in a small Indiana town offers lessons for developers on how to work with communities.

At a Glance

- The Cooper Tire facility in Whiteland, Indiana, is located near several major highways.
- Facilities used for storing tires have stringent requirements for fire safety.
- Representatives of Mohr Capital took part in many meetings with the community about the project.

By Gary Horn, Mohr Capital

The new Cooper Tire and Rubber Co. warehouse and distribution center in Whiteland, Indiana, along with the 475-plus-acre Mohr Logistics Park, is bringing new employment opportunities and economic growth to this small town of 4,400 people 20 minutes south of Indianapolis.

Dallas-based Mohr Capital focuses on the development of large-scale projects across the nation and has extensive experience working with municipalities and townships. Despite its familiarity working with town managers and city planners, as well as its understanding of the intricacies of comprehensive plans, bringing the Cooper Tire project and Mohr Logistics Park to fruition required creativity, patience and cooperation.

Searching for the Perfect Parcel

Findlay, Ohio-based Cooper Tire and Rubber Co. is a long-term client of Mohr Capital. The firm built the tire manufacturer's former 807,042-square-foot facility in Franklin, Indiana. At the time of construction 12 years ago, it was the largest LEED-certified building in the United States.

Even though Mohr and Cooper Tire designed and developed the

Studio13 courtesy of Mohr Capital

The 996,930-square-foot Cooper Tire and Rubber Co. warehouse and distribution center in Whiteland, Indiana. Mohr Capital broke ground on the project in June 2020, and it was ready for occupancy in January 2021.

facility to be operational for several decades, the company outgrew the space. Additionally, changes in the supply chain market made operations at the facility challenging, especially as it related to trailer storage capacity. The existing site could not accommodate Cooper's growth. As the lease expiration approached, Mohr began searching for a replacement property that better suited Cooper Tire's long-term needs and could provide better economics.

To meet Cooper Tire's growth expectations and operational needs, it required a minimum of 60 acres to build a facility with more square footage and more trailer parking. Moreover, the company wanted to remain in the county or the immediate vicinity because of its existing workforce, which boasts a labor pool of 30,550 potential workers within a 30-minute commute.

Cooper Tire's site selection team, led by Mohr Capital, searched for two years to find the right location and available land for the new facility. The site Mohr identified was located in Whiteland, a small town of about 4,400 residents. It is situated five miles south of I-465 off I-65.

The site of the new location is also close to I-70 — only 19 miles away — and other logistics hubs: 25 miles to Indianapolis International Airport's FedEx hub and 102 miles to the UPS hub in Louisville, Kentucky.

Additionally, the site is eight miles north of Cooper Tire's previous facility in Franklin, Indiana, and is surrounded by industrial uses — two truck stops are nearby and an Amazon fulfillment facility is just across the road.

Prior to construction, there were only two industrial facilities in Whiteland. Mohr Logistics Park, at full buildout, will contain more than 6 million square feet spread across eight to 10 buildings.


Studio13 courtesy of Mohr Capital

Facilities used for storing tires feature unique design and construction requirements. Rubber is potentially flammable, so these warehouses have special fire code requirements including specific sprinkler heads, interior fire walls and water supply requirements.

Designing to Unique Building Requirements

Mohr broke ground on the 996,930-square-foot warehouse in June 2020. It was ready for occupancy in January 2021, ahead of schedule and under budget. Cooper Tire's facility sits on 61 acres and serves as the company's distribution hub for the Midwest region.

Cooper Tire signed a 12-year lease and achieved $15 million in relocation savings through below-market rent equal to $10 million over the lease term, as well as a real and personal property tax abatement valued at more than $5 million.

The Cooper Tire project is unique, not only because of its size — it's the largest warehouse in Johnson County, as of January 2022 — but also because it stores and distributes tires.

Tire facilities have unique design and construction requirements. Because rubber is potentially flammable and tires are kept within portable steel modular racking, tire storage buildings are limited to 32-foot clear heights, less than typical warehouse facilities being built today. They also must meet special fire code provisions including specific sprinkler heads, interior fire walls and water supply requirements. These may include the addition of a supplemental water tank to augment municipal supply, among other safety features.

While some developers won't consider building facilities for tire manufacturing or tire storage because of the distinct and lasting odor and fire danger, Mohr has developed more than 5 million square feet of tire distribution centers for major tire manufacturers. It is crucial to work with these manufacturers to find solutions to their specific challenges, including high pile storage, and it is important to study and understand municipal overlays that impact tire distribution centers.

Using its own capital, Mohr invested $43 million in the building, including $4.7 million to buy the property. Meanwhile, Cooper Tire invested $10 million to install new portable steel modular racking systems and other equipment in the facility.

Aggregating Hundreds of Acres

A portion of the land Mohr identified for Cooper Tire had been optioned by developers in the past, but the overall land assemblage for the industrial park was a matter of Mohr being in the right place at the right time. Since the developer was able to aggregate hundreds of acres, a large-scale industrial park made sense, so it quickly capitalized on the opportunity.

As of January 2022, Mohr was under development on five speculative buildings within Mohr Logistics Park: an 827,000-square-foot warehouse, which is now complete and under lease discussions, a 1.057-million-square-foot warehouse, an 845,000-square-foot warehouse, and two 125,000-square-foot warehouse/manufacturing buildings.

Cooper Tire signed a 12-year lease and achieved $15 million in relocation savings through below-market rent equal to $10 million over the lease term, as well as a real and personal property tax abatement valued at more than $5 million.

Mohr will develop the park in several phases consisting of additional land acquisitions and the construction of four to five additional speculative facilities. Two of the planned

After Mohr presented its vision for the master-planned industrial park and participated in several meetings to address resident questions, **the town of Whiteland took several steps to accommodate the project.** Specifically, it annexed 340 acres from unincorporated Johnson County and rezoned the land to light industrial.

Welcoming Freight to the Neighborhood

Industrial real estate contributes valuable jobs and services to local economies, but it's not always well understood by those communities. Concerns about traffic and adjacent land uses may also exist. In a session at NAIOP's I.CON East in Jersey City, New Jersey, in November 2021, a panel of experts discussed effective practices for engaging with local officials, decision makers and community members about the role of industrial facilities as a "good neighbor."

The panelists agreed that conversations with local municipalities about a proposed development project should be an ongoing dialogue that begins early.

"Start the conversation early, make it continuous and involve everyone," advised session moderator **Anne Strauss-Wieder**, director of freight planning with the North Jersey Transportation Planning Authority.

"You have to be patient with anyone you're working with — municipalities, regulatory agencies — to move forward," said **Clark Machemer**, senior managing director with Crow Holdings Industrial. "You also have to do education about what these buildings actually are and how they operate."

Many people are not familiar with modern warehouses and are more likely to imagine a dusty box they saw in a 1980s movie rather than the sleek, tech-infused operations of today. Developers need to bridge the education gap so municipalities and regulatory agencies better understand the realities and benefits of bringing infrastructure into a community.

Three major considerations for local communities include:

Environmental impact. "We need to look at what we're doing from a stormwater perspective and a land-planning perspective and talk about the improvements we're doing and how we're giving back to the community," Machemer said.

Truck and automobile traffic. A lot of local governments require truck traffic studies, so they know exactly what kinds of traffic are coming into and out of these facilities, said **Brad Stewart**, senior transportation planner with the Lehigh Valley Planning Commission in Pennsylvania. "[Consider] what the largest vehicle is that will frequent that site. Can these roads take a certain amount of truck traffic? We have to analyze that. Are the bridges sufficient to take the heavy truck loads traveling across them? Some bridges are owned by the state, some by the counties and some by local government."

Labor. "Labor is a top consideration for location: quality, quantity and getting them there," said Strauss-Wieder. It's crucial to talk about labor recruitment and retention as part of the larger discussion with local communities about development benefits. ■

— By **Marie Ruff**, communications senior manager, NAIOP

buildings will be at least 1 million square feet, while the remaining two buildings could be as large as 350,000 square feet.

Mohr's corporate leasing team is currently negotiating with two large users — an e-commerce company and a third-party logistics company. In addition, Mohr is in discussion with a smaller food-grade user and an e-commerce distribution company in need of a 1.4 million-square-foot facility.

The e-commerce companies would bring 1,000 jobs each to Whiteland and invest $150 million to outfit the facilities with conveyors and robotics. One potential occupier, which is currently operating out of Indianapolis, intends to establish a corporate campus in Mohr Logistics Park, initially leasing one building and optioning three more buildings.

Re-Imagining the Comprehensive Plan

Like most municipalities, the town of Whiteland had a comprehensive plan that outlined its future commercial and residential growth. However, that plan didn't take into account the economic opportunities a substantial development like Mohr Logistics Park could bring to the area.

After Mohr presented its vision for the master-planned industrial park and participated in several meetings to address resident questions, the town of Whiteland took several steps to accommodate the project. Specifically, it annexed 340

Studio13 courtesy of Mohr Capital

Mohr Capital invested $43 million in the Cooper Tire building. Cooper Tire spent $10 million on new portable steel modular racking systems and other equipment.

acres from unincorporated Johnson County and rezoned the land to light industrial.

Originally, Whiteland zoned the land for agricultural and residential use. Several acres were owned by local farmers, and one was an apple orchard that was fallow and unproductive when Mohr moved to acquire it.

Meanwhile, Mohr needed to relocate several long-term homeowners to accommodate Mohr Logistics Park. Mohr offered the landowners well above appraisal values and worked with the sellers to accommodate scheduling requirements for their relocation at no cost.

While the U.S. Corps of Engineers identified only 2.97 acres as officially protected wetlands, Mohr plans to donate a large tract to the town of Whiteland for recreational use, walking trails and a park. This area is located in the wooded area behind a cluster of homes east of Cooper Tire's building.

Winning Over Reluctant Residents

The Cooper Tire facility, and Mohr Logistics Park overall, could be seen as an example of a successful public-private partnership.

Mohr representatives attended upwards of 15 public hearings and meetings to get to know council members, community leaders and neighbors and share its vision of the industrial park.

Though the project generated some resistance from homeowners and residents who prized the surrounding farmland and opposed new development, Mohr worked hard to gain support from the town and its residents. Given the size of the project, the company knew community cooperation was critical, and it overcame resistance by listening to concerns and making several development accommodations.

Many residents and town council members expressed enthusiasm about Mohr's vision to develop a master-planned industrial park rather than a series of one-off buildings, or a disparate and disjointed collection of warehouses. The company aims to create a cohesive and consistent look and feel that encompasses abundant landscaping, signage, building design, roadway improvements and building colors.

Mohr increased its budget for additional landscaping on this project, spending roughly 50% more than it usually does in order to create a park-like environment. It also invested in berming, extensive setbacks from residents and landscape buffering to shield views of the buildings and create separation from the industrial park and any residential uses in the area.

Additionally, Mohr took on roadway improvements, utilities, sewer upgrades and water distribution management. The company modified two sharp 90-degree turns on a critical access road, turning them into a softer "S" curve to accommodate vehicular traffic and tractor

Relevant Research

The NAIOP Research Foundation recently commissioned the creation of an index that allows commercial real estate professionals to compare development-approvals processes in different jurisdictions. The tool, which is highlighted in a new NAIOP Research Foundation report entitled "The Development Approvals Index: A New Tool to Evaluate Local Approvals Processes," can help developers "make more informed decisions and helps local governments benchmark their processes against neighboring jurisdictions."

To view or download the report, visit naiop.org/Research-and-Publications/Reports/Development-Approvals-Index

In May 2020, the Whiteland Town Council voted unanimously to declare 121 acres of Mohr Logistics Park an Economic Revitalization Area and authorized a 10-year tax break on real property.

trailers. The company also expanded and resurfaced all roads within Mohr Logistics Park.

As part of the development, Mohr created a comprehensive drainage plan for the entire park. When the company rebuilt the access road described above, it took an extra step by adding drains into the resident's yards across the street that tied into the larger overall drainage system of ditches and detention areas. The solution will help prevent flooding and oversaturation, thereby achieving "positive" drainage.

Creating Economic Growth

In May 2020, the Whiteland Town Council voted unanimously to declare 121 acres of Mohr Logistics Park an Economic Revitalization Area and authorized a 10-year tax break on real property. Over the course of 10 years, the town will abate 49.5% of the taxes for a total of $5.3 million. The town will also collect $5.4 million in new property tax dollars, compared to the $862,680 that it would have collected during the same period on the 123-acre vacant lot.

Mohr made a diligent effort to honor the community by developing quality assets and attracting quality tenants. Additionally, the company has worked to weave itself into the fabric of the community by getting involved with several private and public organizations.

Mohr sponsors Whiteland Community High School's football team, basketball team and track team, and plans to purchase new walkie-talkies for the town's police force. So far, the company has donated approximately $15,000 to various organizations and programs in Whiteland.

Mohr is committed to being a partner of the Whiteland community for many years to come. The company and the park will continue to contribute to the area, creating additional sources of tax revenue and employment. ■

Gary Horn is the chief development officer with Mohr Capital.

Project Summary

Project Location	Whiteland, Indiana (suburb of Indianapolis)
Project Name	Mohr Logistics Park
Type of Site	Suburban - Rural
Development Type	Ground Up/ New Development
Transportation Modes	Car, Truck
Division of Uses (in sq. ft.)	Distribution 6.5M sq. ft.
Parking	Surface only
Tenant(s)	TBD
Rental Rates	$3.45-$4.75
Lease Terms	7-15 Years
Site Dimensions and Density	
Total Acreage	475 acres
Total Sq. Ft. Approved (excluding parking structures)	6.5M sq. ft.
Total Built to Date	1.85M sq. ft.
Total at Buildout	6.5M sq. ft.
Development Team	
Developer	Mohr Capital
Master Planner/Landscape Architect	American Structurepoint
Architect	Curran Architects
General Contractor	Pepper Construction
Leasing Broker	Mark Writt, CBRE
Financial Partners	
Municipal Funds or Tax Incentives	Town of Whiteland
Construction Loan	Various Dallas lenders
Equity	Mohr Capital solely
Timeline	
Land Acquisition	May 2020
Planning Started	October 2019
Initial Plans Submitted	February 2020
Approvals Obtained	May 2020
Construction Started (Infrastructure)	June 2020
Construction Started (Buildings)	June 2020
Construction Complete	TBD
Development Cost	
Total Project Costs	In excess of $450 million ■

GOING BIG:
Large-Format Multilevel Industrial Buildings

At a Glance

- Multilevel logistics facilities were first noted in urban sites under one acre.
- These facilities are best suited for areas with a tight supply of land and large populations.
- There are many challenges in bringing these products to market. ■

The Riverbend complex in Burnaby, British Columbia is a two-story, 707,000-square-foot industrial building on 21 acres.

Oxford Properties

These facilities can be important in areas with a constrained supply of land.

By Eric Aderneck

In response to strong demand for industrial space and limited land supply in some regions, more developers are exploring industrial densification. These new built forms fit more floor space onto a given amount of land, using a valuable resource more efficiently. This is particularly important during a time of low vacancy rates and rising rents.

Taking it Higher

The trend of industrial intensification began on high-value urban sites under one acre. These buildings are typically four stories, with light industrial uses on the ground floor with a mezzanine. The upper floors feature office space. Additionally, there is a level or two of underground parking in these smaller facilities and rooftop amenities, all connected by a freight elevator. (See "From Horizontal to Vertical: Industrial Intensification Grows Up" by the author in the Spring 2020 issue of Development magazine.) In these settings, the office component, often occupied by businesses in the technology sector, helps support the financial viability of the overall project.

At the other end of the spectrum, larger suburban sites (10-plus acres) that need highway access and space for trucks are now experiencing their own intensification. Multilevel warehouses already exist in East Asian markets to accommodate small-scale production and local distribution, with access for small trucks via a circular ramp. However, industrial intensification has only recently gained popularity in select North American cities.

Industrial development is the ultimate in "form follows function" — operational requirements are paramount, while aesthetics come later. Typical distribution centers range from 400,000 to 600,000 square feet. With decks up to 130 feet deep, they provide ample maneuvering space for 53-foot-

Rendering courtesy of Prologis

Georgetown Crossroads in Seattle has been called the first modern three-story industrial warehouse in the U.S. It features truck ramps leading to loading docks on the second level and a third floor, along with forklift-accessible freight elevators.

long tractor trailers. These facilities also have high dock door ratios, 40-foot-by-40-foot column spacing, and 32- to 40-foot-high ceilings for greater cubic volume, with small mezzanine and office areas. They may have a single tenant or multiple tenants.

Conventional one-story structures can achieve optimum floor area ratios (FAR), a measure of a building's total floor area relative to the size of the land that it sits on, through efficient building siting. This can also optimize truck loading areas and surface parking lots. The next step is literally going to the next level — two- or three-story buildings with a truck ramp to the upper levels.

Drivers and Opportunities

In areas with limited industrial land and a strong market with millions of consumers increasingly expecting e-commerce home deliveries, firms face the dilemma of either building up or moving out to find more suitable accommodations. Soaring prices for land are both the response to its scarcity and the impetus for its more efficient use.

With industrial densification, the opportunity is to build higher to

In areas with limited industrial land and a strong market with millions of consumers increasingly expecting e-commerce home deliveries, **firms face the dilemma of either building up or moving out to find more suitable accommodations.** Soaring prices for land are both the response to its scarcity and the impetus for its more efficient use.

There is a long list of challenges for multilevel buildings: unconventional approvals, high construction costs, multifaceted designs and complex structural requirements. These buildings are much heavier, which may require foundations with more pre-loading or piling, especially on sites with issues around geotechnical stability and poor soil conditions.

allocate land costs over greater floor area. The wider community can benefit from efficient use of land, the increased capacity to accommodate jobs, and improved transportation infrastructure around the project. Potential transportation improvements could include a more effective drayage system (because trucks don't have to travel as far) and transit service for workers.

Challenges Abound

There is a long list of challenges for multilevel buildings: unconventional approvals, high construction costs, multifaceted designs and complex structural requirements. These buildings are much heavier, which may require foundations with more pre-loading or piling, especially on sites with issues around geotechnical stability and poor soil conditions. Thicker floor slabs and more columns are needed to support live loads in the order of 500-750 pounds per square foot on the lower floor and 250-300 pounds on the upper floors. Super-flat floors are also required for racking systems and automation equipment.

To complicate matters, the need for stairs, ramps and other common facilities in multilevel buildings reduces the amount of usable space. Single-level industrial buildings are basically 100% efficient in that the entire gross building area could be leasable. This is not the case for multiple-level buildings, because some space is lost to accommodate elevators and stairs. Additionally, tenant operations are affected by larger columns and tighter column spacing, which are needed to support the weight of the upper floors. Otherwise, it may not be possible to reach the high ceilings seen in some modern one-story buildings.

The first generation of tenants may not need all these building features, but including them can extend the functional lifespan of the investment for the long-term benefit of the landlord. In certain strong markets, some properties with these features are even being built on spec, with expectations that tenants can be secured during construction.

However, construction costs for these products could be 2.5 times higher than traditional development. Taller buildings cannot use tilt-up panel concrete walls; they require prefabricated components and steel reinforcement. Longer timelines and complex developments elevate the project risk and financing profile. Furthermore, multilevel buildings cannot be delivered in phases over time to meet market demand. They must be built all at once, which can be a challenge to pre-lease.

Viability requires the availability of large sites, government agency approvals, efficient designs, manageable construction costs, adequate economies of scale and high rents.

Industrial Design

As noted earlier, multilevel designs require reinforced columns to support the weight of upper floors and large decks that allow trucks to access loading docks. They also must satisfy code conditions to protect against the spread of fires, to allow for fire truck access and to provide adequate vertical circulation. Upper-level access may be via a straight truck ramp on the side of the building, or a smaller ramp or freight elevator to move lighter goods to the top floor. Column spacing is particularly an issue; the larger columns must line up vertically to avoid transfer slabs between floors.

Along with upgraded utility connections such as electrical service, there are ever-increasing sustainability provisions such as insulated walls, LED lighting with motion sensors, stormwater treatment and electric vehicle charging. In short, these buildings are facing higher construction costs on multiple fronts — not just because of multilevel construction and more foundations and columns, but also due to greater expectations for sustainability features.

As for parking, accommodating the proper number of spaces for workers and fleet vehicles is another challenge. Underground parking facilities, while more common in smaller facilities, are usually not possible for large industrial buildings. Light vehicles might be able to park on the roof, although it would require ramp access and additional structural support. Some developers have explored alternative designs, such as placing parking in a deck between the upper and lower levels to achieve structural efficiencies. Sites with a slope can allow access to the building's lower level from one side and the upper level from another side, eliminating the need for ramps.

Prologis

Seattle's Georgetown Crossroads at night. The Prologis-designed 590,000-square-foot, 14-acre development has more than 100 docks and 635 parking spaces.

These buildings are filled by distribution facilities for large retailers or third-party logistics firms. These businesses typically want to invest their capital into their operations rather than real estate, so lease tenure rather than ownership is more common. (The inverse is often the case for smaller units, which may be bought as strata pre-sale investments.) Thus, an institutional developer such as a pension fund or REIT investor is likely to retain long-term ownership of the property, rather than a merchant developer.

Development Examples

The Georgetown Crossroads project in Seattle is an example of a large multilevel distribution center. Designed by Prologis, the three-story, 590,000-square-foot building features truck ramps leading to loading bays on the second floor, with the third floor accessible by freight elevators. The 14-acre development site achieves 40% coverage, with reduced building size on the upper floors, up to 100 docks on both levels and 635 parking spaces. It has a FAR of 1.0. It is located five minutes from downtown Seattle and the Port of Seattle, with easy access to highways and transit.

In British Columbia, the City of Burnaby near Vancouver is the home of Oxford Properties' Riverbend complex. The two-story, 707,000-square-foot building on 21 acres has coverage of 50%, a heated outside ramp with 6.8% grade, 739 parking spaces, and ceiling heights of 32 feet on the ground floor and 28 feet on the second floor. The FAR is 0.8.

Other examples in North America include 2505 Bruckner in The Bronx in New York, a two-story, 968,000-square-foot urban logistics facility on 20 acres, with ceiling heights ranging from 28 feet on the upper floor to 32 feet on the lower floor, and coverage of 34%. Also in the New York area, the 18-acre Sunset Industrial Park in Brooklyn has an intricate ramp and access design that allows each level to have cross-dock potential. The

To encourage higher-density industrial development, municipalities should consider updating zoning provisions and planning policies to accommodate new built forms. This may mean adjusting limits to density such as maximums for building height and site coverage, and permitting traditional and new industrial uses while prohibiting non-industrial uses.

Making Multistory Industrial Work

E-commerce is driving growth in neighborhoods where malls used to stand tall, and multistory is the name of the game in industrial development today. In Brooklyn, the Sunset Industrial Park is home to a four-story, 1.3-million-square-foot distribution center — the largest multistory warehouse in the U.S. It's groundbreaking in its scope and design, but not without its own issues. So what are the challenges with multistory and how can developers make it work? A panel at NAIOP's I.CON East 2019 sought to answer this tough questions.

Leslie Lanne, managing director with JLL, said the primary driver behind multistory is getting as close as possible to the consumer base. This proximity is more than just mileage — it's the time it takes to get the goods to the consumer. For example, a warehouse in New Jersey is located only five miles from Brooklyn, but it can be tough to achieve a trip from the warehouse to consumers and back in less than two hours.

"Rent costs are a small part of the overall price of logistics," said **Dov Hertz**, president of DH Property Holdings. The bigger fixed costs are in transportation — costs for vans, gas and tolls — and labor. If a driver can make more deliveries based out of a location like Brooklyn vs. the Meadowlands in New Jersey, the rental costs are essentially absorbed by the cost of logistics.

The biggest challenge for Hertz is identifying an appropriate site that works for multistory.

"Finding a large enough piece of industrial land that is in the appropriate subsection of industrial zoning code (qualifies land for tax abatement) to build a functional, Class A building is literally like looking for a needle in a haystack," he said.

Hertz said he believes the minimum land size for multistory is four acres, which gives the land enough depth to ramp up to a second story.

And don't forget financing.

"If the first barrier is finding a piece of land, the second is convincing equity partners that this actually will pencil," Hertz said. "Equity partners say they want to do it and believe in the product, but say it will be impossible to get the project past the investment committee. Then there's one — one that believes in the project and will put their money where their mouth is."

Once a capital partner is committed, though, they'll look at it as a longtime hold, said **Jeff Milanaik**, principal with Bridge Development Partners.

"These sites are so few and far between that investors realize they'll never be able to replicate it again," he said.

Other challenges come in the form of tenant expectations, particularly tenants who are used to more wide-open spaces like the Meadowlands.

"A lot of tenants are used to having plentiful surface parking, which isn't the case in urban multistory," said **Brian Milberg**, senior partner with Sitex Group.

Multistory isn't a fit for every tenant.

"If your company doesn't have to be in these well-located multistory buildings, it's not going to be," said Lanne. "Some companies will stay in areas like the Meadowlands instead of coming into Brooklyn. And if a company doesn't need to be there, it will go south or west. It essentially becomes a matter of supply and demand, and the companies that have to be in the more urban markets will make it work."

Getting the goods in and out of the facility can be a challenge, particularly for projects like the Sunset Industrial Park that are surrounded by streets that can't handle multiple large trucks. This means that goods come in at off-peak hours, said Milanaik, and sometimes goods are transferred from large trucks to smaller vans to make it into the facility.

What can be learned about multistory industrial development from Asian markets where multistory has been developed for more than a decade? The panel agreed on one answer: It works.

— By **Kathryn Hamilton**, CAE, vice president for marketing and communications at NAIOP.

building covers 1.3 million square feet, providing for a density of 1.66 FAR. (See box above.)

Access to major transportation networks such as highways, port facilities and rail terminals is crucial for large distribution operations. Because they need more space for trucking and loading, the building site coverage may be half the near 90% achieved in small-form urban industrial properties that have rear-lane access.

Policy Examples

The Vancouver region has a constrained land supply while being the home of the largest port in Canada and a growing population. These factors have a major impact on policy responses.

Policies could include incentives such as waiving development charges/fees for industrial floor space on upper levels, assisting with land assembly, infrastructure servicing and soil remediation. Strategies such as these could target older properties that could be redeveloped into higher-density industrial uses.

The Metro Vancouver Regional District, which undertakes long-range growth management, has been exploring industrial land use issues for decades. It recently completed a Regional Industrial Lands Strategy, which "establishes a vision for the future of industrial lands across Metro Vancouver to the year 2050, and provides a set of recommendations to guide a broad range of stakeholder actions to achieve that vision." It also conducts a comprehensive regional industrial land use inventory every five years, studies industrial lands intensification and densification possibilities, and updates the regional growth strategy to enhance policies to protect and utilize industrial lands.

A novel Trade-Oriented Lands Overlay, for uses such as terminal facilities, distribution centers, warehouses, container storage and freight-forwarding activities associated with national trade, covers large sites that are close to major transportation infrastructure. It protects such lands from stratification tenure and small lot subdivision.

Within the region, the City of Richmond undertook an Industrial Lands Intensification Initiative to document industrial utilization rates using a range of different measures. It also seeks to advance densification by testing the financial viability of different built forms. Richmond, which has a significant amount of port-related and logistics uses and a protected agricultural base, wants to accommodate more industrial activity on a fixed industrial land stock. The city amended its industrial zones to remove outdated caps on building densities and adjust permitted uses to remove some non-industrial activities and add new types of industrial.

Lessons Learned

To encourage higher-density industrial development, municipalities should consider updating zoning provisions and planning policies to accommodate new built forms. This may mean adjusting limits to density such as maximums for building height and site coverage, and permitting traditional and new industrial uses while prohibiting non-industrial uses. Also, parking standards may need review. In the future, a greater reliance on automation in logistics facilities will mean fewer employees, which may reduce the need for onsite parking. Other facilities may be more employee-intensive and need parking for company vehicles, which could possibly be addressed through allowance for shared parking facilities.

Policies could include incentives such as waiving development charges/fees for industrial floor space on upper levels, assisting with land assembly, infrastructure servicing and soil remediation. Strategies such as these could target older properties that could be redeveloped into higher-density industrial uses.

Developers can pursue land assembly to create larger sites that achieve efficiencies. For example, unique sites with grades might not need ramps. A combination of additional rental space and increased lease rates could offset development costs. In some cases, developers have owned the lands for years, thereby allowing them to use their historic lower land prices to rationalize the higher construction costs.

From small-form urban intensification to large-format suburban densification, the way to increase industrial capacity on a fixed amount of land is through building up. Only a few years ago there was much skepticism about multilevel industrial designs, yet now they are being built. The industrial-sized opportunity to meet the challenge will require innovative planning and development solutions. ■

Eric Aderneck, RPP, MCIP, is an industrial lands planning consultant. He can be reached at eric@aderneck.ca. His website, www.MVindustriallands.com, includes resources about industrial lands planning and development matters.

Relevant Research

In October 2020, the NAIOP Research Foundation published a report titled "The Evolution of the Warehouse: Trends in Technology, Design, Development and Delivery," by **Steve Weikal** and **James Robert Scott**, researchers at the MIT Real Estate Innovation Lab. Weikal and Scott reviewed recent publications on emerging logistics and building technologies and interviewed industry practitioners to evaluate how these technologies will influence the future of logistics real estate. Continued advances in automation, data analytics and artificial intelligence promise to make industrial assets more productive and profitable, create new opportunities in building design, and blur traditional boundaries between property types.

To download the report, visit naiop.org/Research-and-Publications ■

NAIOP | RESEARCH FOUNDATION

Cutting-edge Research That Has an Impact

2022 ANNUAL REPORT

Each year, the NAIOP Research Foundation identifies and examines the latest trends and hot-button issues of importance to the commercial real estate industry. The Foundation delivered several reports, briefs and forecasts in 2021, as the industry endured a year of continued uncertainty and transition amidst the COVID-19 pandemic, subsequent variants of the virus stalled back-to-office plans, and supply chain choke points put increased pressure on already overheated e-commerce and distribution networks.

But there have been bright spots too. The Foundation's Governors and Visionaries found new means to collaborate and connect throughout the year — both remotely and in person — sparking innovative ideas and approaches to the Foundation's work.

To demonstrate how these new approaches can have far-reaching effects, a quick history lesson: In 2019, Lewis Agnew and Colleen Wevodau, members of the Visionaries program at that time, encouraged the Foundation to commission a white paper on forming and operating a private equity fund, as the real estate private equity fund industry had grown into a multi-billion-dollar global business. While there was some skepticism at first, Agnew and Wevodau ultimately succeeded in getting the project approved.

The white paper they championed had one of the highest download rates on the NAIOP website, and still sees strong traffic today. In light of that continued interest and positive feedback, NAIOP will soon launch a new,

interactive on-demand course on the topic. "Private Equity Fund Structure and Management" will be released through the NAIOP Center for Education in early 2022.

This is just one example of how the Governors and Visionaries work together, exchange ideas and collaborate to create insights and research that are meaningful and practical for NAIOP's members and the industry at large.

Looking into 2022, the Foundation remains committed to exploring the trends and transformational shifts that impact where all of us live, work, shop and play.

> "I'm enthusiastic about the young professionals coming into commercial real estate... This generation grew up in a technology-driven world, and they offer unique perspectives into the data and trends shaping commercial real estate."
>
> – F.E. "Skip" Kalb, 2022 Chair, NAIOP Research Foundation

The Latest in Innovative Research

Economic Impacts of Commercial Real Estate, 2022 U.S. Edition

Development and construction of new commercial real estate in the United States — office, industrial, warehouse and retail — generates significant economic growth at the state and national levels. This annual study, published by the NAIOP Research Foundation, measures the contribution to GDP, salaries and wages generated and jobs supported from the development and operations of commercial real estate.

In 2021, combined commercial, residential, institutional and infrastructure development and operations of existing commercial buildings generated the following economic benefits:

- Contributed $4.8 trillion — 21% of U.S. GDP
- Supported 32.7 million American jobs (a measure of both new and existing jobs)
- Significant personal earnings and state revenues, adding inventory to attract new businesses and jobs

The Development Approvals Index: A New Tool to Evaluate Local Approvals Processes

Obtaining entitlements and permits, a vital step in the development process, can present substantial risks. Jurisdictions that have slow, inconsistent and unpredictable development approvals processes increase costs for projects and may divert development to neighboring communities. Since information about approvals processes in different jurisdictions is often limited, developers who are new to an area often lack critical information that would allow them to evaluate whether a new project would be viable.

The NAIOP Research Foundation commissioned the creation of an index that compares development approvals processes in different jurisdictions so that developers can make more informed investment decisions and local governments can benchmark their processes against neighboring jurisdictions.

naiop.org/developersindex

Looking Ahead

JAN

Recognize Sustainers Fund donors who supported the Foundation with an annual gift

Economic Impacts of Commercial Real Estate, 2022 U.S. Edition

Seeing Past the Pandemic: Industrial Demand and U.S. Seaports

Disruptions to global supply chains have underscored the importance of maritime ports and industrial real estate to the economy. The NAIOP Research Foundation has commissioned Avison Young to author a research brief on how trends in international trade are affecting regional demand for industrial real estate near U.S. ports.

FEB

An Overview of Emerging Construction Technologies

The NAIOP Research Foundation commissioned this report to explore emerging construction technologies and their implications for the construction and real estate development industries. The authors draw from interviews with researchers and industry practitioners to evaluate the current benefits and limitations of new technologies.

naiop.org/constructiontech

A Two-Dimensional Approach to Evaluating Commercial Real Estate Markets

This NAIOP Research Foundation report by Maria Sicola, Charles Warren, Ph.D., and Megan Weiner builds on the 2020 report on market tier and ranking systems by describing a two-dimensional approach to evaluating and comparing commercial real estate markets. The report examines 15 years of market data to test multiple two-dimensional models for evaluating the 50 largest industrial and office markets in the United States.

naiop.org/2DApproach

> "It's an exciting time to be in the commercial real estate industry, and to be part of an organization like NAIOP that is committed to keeping their fingers on the pulse of our business while keeping our membership informed and aware."
>
> – Daniel Levison, CEO, CRE Holdings.

Q1 Industrial Space Demand Forecast

New Uses for Old Office Buildings

This report will examine the opportunities and risks associated with converting traditional office buildings to life science, medical office and multifamily uses. It will describe how the design and location of an office building affects its suitability for conversion and will include case studies of recent and ongoing conversion projects.

MAR

Economic Impacts of Commercial Real Estate, 2022 Canadian Edition

Wellness in the Industrial Workplace

This project will examine design features that can improve employee health and well-being in warehouses and distribution centers. It will expand on existing wellness standards for commercial buildings to develop a framework that is tailored to the needs and unique characteristics of logistics facilities.

How the Other Half Builds: Small-Scale Development in Tertiary Markets

While they may not be at the center of the action, tertiary markets are home to about half the U.S. population and represent a significant share of the commercial real estate market. This research brief by Shawn Moura, Ph.D., research director, NAIOP, provides owners, investors and developers with insights into the risks and opportunities associated with developing, owning and operating small buildings in tertiary markets.

naiop.org/smallscale

Industrial and Office Space Demand Forecasts

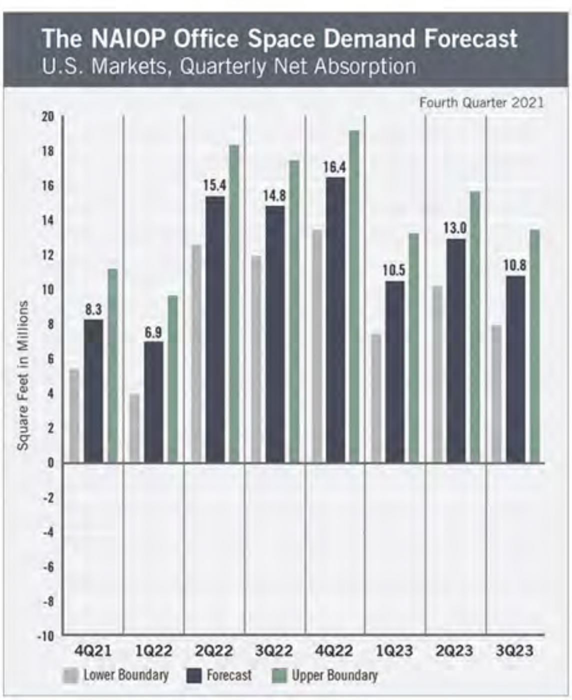
These forecasts provide an outlook on current and future conditions in the U.S. commercial real estate market. The reports help to define linkages between economic and specific sector activity and the demand for office and industrial real estate.

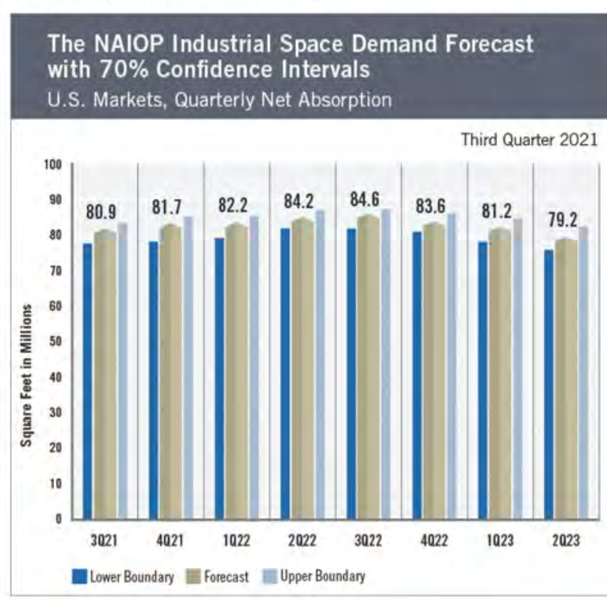
The most recent **Office Space Demand Forecast** (Q4 2021) states that although office net absorption remained negative throughout 2021, it is gradually climbing toward the positive side of the scale. Total net absorption in the third quarter of 2021 was -5.2 million square feet, back from a near record of -34.8 million square feet at the end of the first quarter of 2021. As the unemployment rate declines, more workers return to the office and the economy continues to improve, the office space net absorption forecast has been revised upward from 1.8 million square feet to 8.3 million square feet in Q4 2021. (See chart at lower left.)

naiop.org/officedemand

The most recent **Industrial Space Demand Forecast** (Q3 2021) states that demand for industrial real estate continues to be strong as the long-term trend toward e-commerce (and away from in-store sales) continues with no end in sight. The report's authors forecast that total net absorption in the second half of 2021 will be 162.6 million square feet with a quarterly average of 81.3 million square feet. In 2022, the projected net absorption is 334.6 million square feet with a quarterly average of 83.6 million square feet. (See chart below.)

naiop.org/industrialdemand





APR · MAY · JUN

New Governors and Visionaries inducted

Governors, Trustees and Industry Trends Task Force meet at National Forums Symposium

Q2 Office Space Demand Forecast

New Places and New Spaces for E-commerce Distribution

This report will examine the convergence of retail and distribution uses and its implications for developers, investors and building owners. It will explore three related trends: the conversion of retail centers to last-mile distribution centers, the addition of distribution activities within operational retail outlets and the development of distribution-anchored mixed-use projects.

Meet Our Distinguished Fellows

The Research Foundation's Distinguished Fellows Program engages the nation's foremost commercial real estate, economic and public policy experts. Distinguished Fellows are active participants in NAIOP and contribute articles to NAIOP's Development magazine, present to the association's leadership via the Board of Directors or National Forums, participate on corporate committees, and provide advice, feedback and information regarding research being conducted in commercial real estate.

Mirle Rabinowitz Bussell, Ph.D.
Associate Teaching Professor and Director of Undergraduate Studies in the Department of Urban Studies and Planning, UC San Diego

Chris Caplice, Ph.D.
Silver Family Research Fellow Senior Research Scientist, The MIT Center for Transportation & Logistics, Massachusetts Institute of Technology

★ **Suzanne Lanyi Charles, Ph.D.**
Associate Professor in the Department of City and Regional Planning and the Baker Program in Real Estate, Cornell University

Jim Clayton, Ph.D.
Professor and Timothy R. Price Chair, Brookfield Centre in Real Estate & Infrastructure, Schulich School of Business, York University

Mark J. Eppli, Ph.D.
Director, James A. Graaskamp Center for Real Estate, University of Wisconsin-Madison

Julia Freybote, Ph.D.
Assistant Professor of Finance and Real Estate, Portland State University

Kat Grimsley, Ph.D.
Director, Masters in Real Estate Development Program, George Mason University

Keven McGhan
Instructor, JR Shaw School of Business, The Northern Alberta Institute of Technology

Glenn Mueller, Ph.D.
Professor, Franklin L. Burns School of Real Estate and Construction Management, University of Denver

Anthony Pennington-Cross, Ph.D.
Robert Bernard Bell Sr. Chair in Real Estate, Marquette University

Dustin Read, Ph.D.
Professor and Director of the Master of Real Estate Development Program, Clemson University

Spenser Robinson, Ph.D.
Associate Professor and Director of Real Estate, Central Michigan University

James D. Shilling, Ph.D.
George L. Ruff Chair in Real Estate Studies, DePaul University

Mark Stapp
Fred E. Taylor Professor of Real Estate, Executive Director of Real Estate Programs, W.P. Carey School of Business, Arizona State University

Zhou Yang, Ph.D.
Associate Professor of Economics, Robert Morris University

Read more about this elite group at **naiop.org/distinguishedfellows.**

★ *Denotes new Distinguished Fellow*

JUL

Summer Research Foundation E-newsletter

Terms and Definitions update

AUG

Q3 Industrial Space Demand Forecast

The Future of Data Analytics in Commercial Real Estate Siting, Design and Valuation

This report will explore current and emerging applications for data analytics in the location, design and valuation of commercial real estate. It will identify ways that developers and investors can use data analytics to identify new opportunities, maximize building value and improve project outcomes.

SEP

Foundation Research in the News

Research by the Foundation has been cited in leading news publications:

Ramping Up Warehouse Safety

"In the long term, technology will play an even more vital role in the new era of industrial property safety. Automation could offer a major part of the answer, observe Steve Weikal and James Robert Scott of the Massachusetts Institute of Technology's Real Estate Innovation Lab in an October 2020 NAIOP report."
Commercial Property Executive | March 4, 2021

Logistics Getting on a Quicker, More Focused Track

"A report released in October, 2020 by the Research Foundation of [NAIOP] the Commercial Real Estate Development Association, addressed the demands of e-commerce. It found that e-commerce supply chains require more than three times the distribution space required by traditional retail supply chains centered on brick-and-mortar distribution."
Business Xpansion Journal | April 25, 2021

Solving for the Property Industry's Talent Shortage

"Before the pandemic began, commercial real estate was experiencing a labor shortage, recognized by NAIOP. As the labor market heats up and employers struggle to fill roles, the looming problem of the commercial real estate workforce is being brought to the forefront."
Propmodo | June 9, 2021

NAIOP Report Explores Emerging Construction Tech

"A recent report commissioned by the NAIOP Research Foundation explores emerging construction technologies and their implications for the construction and real estate development industries."
Construction Business | July 15, 2021

Why Industrial Space Demand Exceeds Expectations

"The latest NAIOP Industrial Demand Forecast notes that nearly 100 million square feet of new industrial space has been completed so far this year, and it's still not enough to meet the demand."
Commercial Property Executive | Aug. 19, 2021

Office Gaining Momentum For Big Return In 2022, NAIOP Predicts

"Workers will return to offices in great numbers in 2022 and 2023, provided the U.S. economy continues to improve, according to a new forecast by the NAIOP Research Foundation."
Bisnow | Nov. 23, 2021

OCT

Governors, Trustees and Industry Trends Task Force meet at CRE.Converge

National Research Directors gather for annual meeting

Fall Research Foundation E-newsletter

NOV

Q4 Office Space Demand Forecast

DEC

Winter Research Foundation E-newsletter

Ways to Support the NAIOP Research Foundation

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

Sustainers Fund

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

Honor a Loved One or Colleague

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

Planned Gifts

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

The *Legacy Society* recognizes those individuals who have made estate plans to benefit the Research Foundation.

Thank you to our founding Legacy Society members, **Ron Rayevich** and **Joan Woodard**, for their commitment to the Foundation's future.

Please contact **Bennett Gray** at the Research Foundation for more information or to discuss giving options.

Sustainers Fund – 2021 Donors

We are grateful to the donors who generously contributed to the Sustainers Fund in 2021. With their help, we exceeded our goal for the year.

CHAIRMAN'S CIRCLE ($5,000 and above)

Bilijack R. Bell
Anne Evans Estabrook
Jordan W. Lott
Eugene F. Reilly

BENEFACTORS ($2,500–$4,999)

William E. Hunt
James M. Irving
Joseph S. Taylor

LEADERS ($1,000–$2,499)

Paul F. Ciminelli
Peter J. Cocoziello
Stephen A. Crosby
Robert G. Cutlip
Christopher P. Haley
Ralph Heins
Douglas Howe
F.E. "Skip" Kalb, Jr.
S. Alex Klatskin
Larry Lance
Michael M. Mullen
Ronald L. Rayevich
Jonathan Tratt

DONORS ($500–$999)

Marc Selvitelli, CAE
Eva B. Stevens

SUSTAINERS ($250–$499)

Bennett L. Gray
Joan C. Woodard

Foundation Leadership, Governors and Visionaries

LEADERSHIP AND TRUSTEES

F.E. "Skip" Kalb, Jr.
Principal, Skip Kalb Strategies, LLC
Chair, NAIOP Research Foundation

Jean Kane
Vice Chair,
NAIOP Research Foundation

Alexander B. Rickenbaker
Executive Director – Investments, USAA Real Estate Company
Secretary/Treasurer,
NAIOP Research Foundation

Thomas J. Bisacquino
President and CEO,
NAIOP

Lewis Agnew
President, Charles Hawkins Co.

Tracy Allen
Vice President, Director of Client Relations, ECS Mid-Atlantic, LLC

Frank P. Baird
CEO, Capital Associates

Collin E. Barr
President – Southern and Western Divisions, Ryan Companies

Bilijack R. Bell
Partner, Wilson, Hull & Neal

Nino Pedrelli, Ph.D.
Principal, State Street Realty Advisors, LLC

Eva B. Stevens
Retired

Douglas Swain
Senior Vice President Development, Mohr Capital

GOVERNORS

Lawrence R. Armstrong
Chairman,
Ware Malcomb

Jody Walker Belsick
Practice Builder, Kimley-Horn and Associates

Kate Nolan Bryden
Senior Vice President Development,
MRP Industrial LLC

Richard M. Cannon
Retired

Molly Ryan Carson
Senior Vice President of Real Estate Development,
Market Leader,
Ryan Companies

Roger D. Christianson
Managing Director,
The Public Private Development Collaborative

Paul F. Ciminelli
President and CEO,
Ciminelli Real Estate Corp.

Peter J. Cocoziello
President and CEO,
Advance Realty

Megan Creecy-Herman
Senior Vice President, Head of West Region Operations,
Prologis

Stephen A. Crosby
Retired

Robert G. Cutlip
President,
Gladstone Commercial

Dale R. Dekker
Principal, Dekker/Perich/Sabatini Ltd.

Daniel R. DeMarco
Partner,
Campanelli Companies

Ronnie E. Duncan
President, The Duncan Companies, Inc.

Anne Evans Estabrook
Chairman, Elberon Development Group

Mark S. Fornes
President,
Fornes Properties

Gregory P. Fuller
President and COO,
Granite Properties, Inc.

J. James P. Gelose
Principal,
DLR Group

David Gockel
President and CEO,
Langan Engineering and Environmental Services, Inc.

Susan H. Graham
Managing Partner,
Susan H. Graham, LLC

David Grissom
Managing Partner
Westport Residential, LLC

Christopher P. Haley
Partner, Palladian Realty Capital LLC

Ralph Heins
President,
Primera Companies, Inc.

Douglas Howe
CEO, Howe Family Holdings LLC

GOVERNORS – CONTINUED

William, E. Hunt
President, Elmhurst Group

James M. Irving
CEO,
Irving Interests, Inc.

Alan B. Kahn
President,
Kahn Development

Nazir Khalfe
Principal, Powers Brown Architecture

Ed Klimek, AIA, NCARB
Partner,
KSS Architects

S. Alex Klatskin
General Partner,
Forsgate Industrial Partners

Larry A. Lance
Executive Vice President
Asset Services,
EverWest Real Estate Investors

Rod Lawrence
Managing Partner,
Network Realty Partners

Daniel Levison
Chairman,
CRE Holdings

Mark G. Levy
President,
BBX Industrial

Jordan W. Lott
President,
Lake Washington Partners

Barbara Schaefer McDuffie
Retired

Robb Merritt
President,
Merritt Properties, LLC

Jeffrey J. Milanaik
Partner, Northeast Region,
Bridge Industrial

William A. Mitchell
Chairman Emeritus,
Carter & Associates

Michael M. Mullen
Industry Veteran

Robert E. O'Neill
Owner,
Southgate Corporation

Jon M. Peterson
CEO,
Peterson Companies

Patrick Pierce
President, Selwyn Property Group, Inc.

Ronald A. Pizzuti
Chairman and CEO,
The Pizzuti Companies

Lawrence A. Pobuda
Executive Vice President,
General Manager,
Opus Group

Ronald L. Rayevich
President,
RayMar Associates, Inc.

Eugene F. Reilly
CIO,
Prologis

★ Drew Richardson
Director,
Primera Companies, Inc.

John M. Schultz
Retired

John Schwab
Partner, National Industries Leader,
Wipfli LLP

Thomas D. Senkbeil
Principal,
Senkbeil Associates

Alan C. Sheppard
Shareholder,
Greenberg Traurig

Kenneth Stiles
CEO and Board Director,
Stiles Corporation

Robert B. Stofer
Director, Rialto Capital

Gerard H. Sweeney
President and CEO,
Brandywine Realty Trust

Dwight S. Taylor
President,
Stonegate Partners, LLC

Joseph S. Taylor
President and CEO,
Matrix Development Group

Rick Tollakson
President and CEO,
Hubbell Realty Company

Jonathan Tratt
Principal,
Tratt Properties, LLC

★ Colleen Wevodau
Partner,
Baker Tilly U.S., LLP

Joan C. Woodard
Retired

Richard L. Woodruff
Real Estate Consultant,
Boulder Creek Neighborhoods

★ Christopher Zarek
Development Partner,
Cowboy Partners

★ Denotes Former Visionary

VISIONARIES 2022–2024


Matthew Ela
Senior Vice President, Operations, Bixby Land Company


Jordan Kovalsky
Senior Vice President – Midwest Markets, Faropoint


Maria Elena Poyer
Development Manager, Amazon.com


Bryan Rosenberg
Director, Eastdil Secured


Philip Storch
Vice President, Construction, Ancora Real Estate


Graham Wahlberg
Vice President, Investment Management, Goodman

VISIONARIES 2021–2023


Justin R. Basie
Senior Vice President, Mark IV Capital, Inc.


Laurel Casey
Vice President of Investments, GCP


Cassie Catania-Hsu
Managing Director, CBRE


Michael Chukwueke
Vice President, Asset Management, BentallGreenOak


Ryan Elazari
Senior Director, Empire Management


Daniel Vickerman
Associate Vice President – Investment Research, Heitman

VISIONARIES 2020–2022

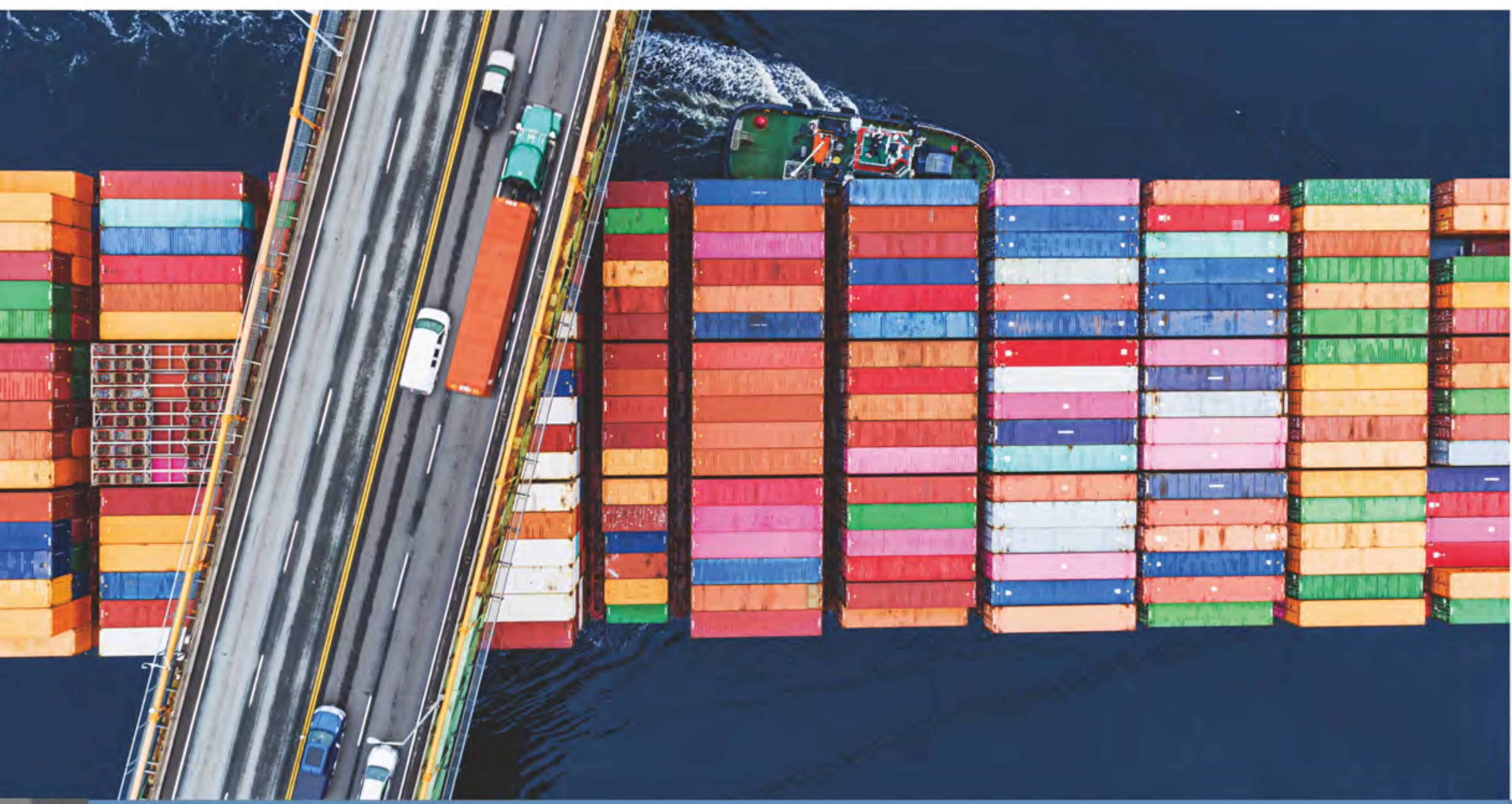

John P. Drachman
Co-founder, Waterford Property Company


Kelsey Perrin
Vice President, Investment Officer, Prologis


Marie Purkert
Senior Director of Corporate Strategy, christopher consultants, ltd.


Michael L. Riopel
Assistant General Counsel, Northwestern Mutual Real Estate Investments, LLC


Raymond Zavalla
Director of Business Development Southwest, The Renaissance Companies



The NAIOP Research Foundation welcomed its 80th Governor in 2021, a significant milestone for the program which initially aimed to bring together 40 Governors total. We celebrate the continuing growth of this dedicated and accomplished group of senior industry professionals who are united in their desire to provide the profession with the tools to thrive now and in the future.

Contact Us

Marc Selvitelli, CAE
Executive Director,
NAIOP Research Foundation
selvitelli@naiop.org
703-904-7100, ext. 107

Bennett Gray
Vice President for the
Research Foundation,
NAIOP
gray@naiop.org
703-904-7100, ext. 168

Jennifer LeFurgy, Ph.D.
Vice President for
Knowledge and Research,
NAIOP
lefurgy@naiop.org
703-904-7100, ext. 125

Shawn Moura, Ph.D.
Research Director,
NAIOP
moura@naiop.org
703-904-7100, ext. 117

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



Infrastructure Bill: A Down Payment on Addressing Climate Change, Energy Transformation

Recent federal legislation on greenhouse gas emissions gives the commercial real estate industry an opportunity to advocate for incentive-based policies.

By Aquiles Suarez

The need to reduce greenhouse gas emissions resulting from carbon-based sources of energy (oil, coal and natural gas) has been a major public policy issue for many years, with policymakers focusing on different aspects of the problem. These range from reducing energy usage in different industries, including the real estate sector, either through government mandates or economic incentives, to proposals that would ensure a total transformation of the nation's energy sector to renewable sources of energy, such as wind and solar power.

Getty Images

Solar energy programs are a key part of the Infrastructure Investment and Jobs Act, which was signed into law in November 2021.

Like so many other issues in the political arena, agreement on the scope of the problem and the measures needed to address it are far from universal. Despite that, Congress did make what is essentially a down payment on addressing climate change last November when it passed the bipartisan Infrastructure Investment and Jobs Act.

Build Back Better Falls Apart

Ironically, the enactment into law of climate and energy provisions in the Infrastructure Investment and Jobs Act was overshadowed by the subsequent debate over **President Biden**'s "Build Back Better" social spending and climate change legislation, which stalled in the Senate in December. That bill provided approximately $550 billion in federal spending and tax incentives for clean energy initiatives. These range from expansion of investment tax credits for clean energy projects, to increasing the number of chargers for electric vehicles, to renewable energy standards that would eventually reduce the use of carbon-based fuel sources. The legislation failed to advance primarily because of opposition from Democratic Senator **Joe Manchin** of West Virginia, a coal-producing state. While Manchin opposed some of the energy proposals in the House-passed version of the Build Back Better legislation, his concern with the overall size and likely true cost of the total package of social spending and climate change provisions led to his refusal to support the bill.

It is unlikely that this will be the only legislation Congress passes where substantive energy and climate change provisions are considered and debated, even if Republicans regain the majority in the House of Representatives in the upcoming November midterm congressional elections as many political analysts expect.

Understandably, after the bipartisan infrastructure bill was passed in November 2021, the news media and advocates for climate change initiatives immediately turned their attention to the legislative drama surrounding the Build Back Better legislation. While

The focus on the built environment's contributions to greenhouse gases, as a result of energy usage primarily derived from carbon-based sources, is expected to continue at the federal level. More importantly, it will also continue at the local level, through ordinances and efforts mandating increased energy-efficiency goals for buildings, banning natural gas use and other measures targeting the real estate industry.

the increased spending for roads, bridges and railways that constituted the largest segment of the infrastructure bill did garner significant coverage, there was not a corresponding acknowledgment that the bill also devoted billions to promoting clean energy infrastructure and increasing the climate resiliency of our communities.

For example, the Infrastructure Investment and Jobs Act provided $65 billion for research, development and deployment of new clean-energy technologies and new transmission infrastructure that would, among other things, connect new renewable and clean power sources to the nation's power grid. The nearly $90 billion provided for public transit included funding to replace current high-emission fleets with clean-energy-powered vehicles. The bill provided funding for electric and low-emission school buses, and for the development of electric vehicle charging networks to speed up the adoption of electric vehicles. It also included $47 billion for climate resilience measures, to assist localities in upgrades for critical infrastructure to better withstand damage from extreme weather events.

It is unlikely that this will be the only legislation Congress passes where substantive energy and climate change provisions are considered and debated, even if Republicans regain the majority in the House of Representatives in the upcoming November midterm congressional elections as many political analysts expect. There are many provisions and initiatives to reduce greenhouse gases and promote more renewable energy usage that enjoy bipartisan support, and Republicans as well as Democrats support funding to help their constituents and communities deal with increased flooding and fires that have been linked in some measure to increased temperatures.

The focus on the built environment's contributions to greenhouse gases, as a result of energy usage primarily derived from carbon-based sources, is expected to continue at the federal level. More importantly, it will also continue at the local level, through ordinances and efforts mandating increased energy-efficiency goals for buildings, banning natural gas use and other measures targeting the real estate industry.

A Role for Real Estate

Regardless of which political party holds power in the nation's capital, the broad issues of reducing green-

To that end, while the Infrastructure Investment and Jobs Act may be a down payment on the broad effort aimed at reducing greenhouse gases, a wide swath of the real estate industry will continue to advocate for specific measures to help reduce its carbon output.

house gases and increasing the use of renewable energy, and specific policies targeting the built environment, will remain a public policy concern. Without a doubt, Congress will have to provide additional incentives to enable real estate businesses to make the needed investments in low- and zero-carbon building systems needed to achieve these goals.

To that end, while the Infrastructure Investment and Jobs Act may be a down payment on the broad effort aimed at reducing greenhouse gases, a wide swath of the real estate industry will continue to advocate for specific measures to help reduce its carbon output. These include changes to investment tax credits so that thermal energy storage systems are eligible for the incentives, ensuring that efforts to expand electric vehicle chargers in parking lots include private lots serving residential and business tenants, and providing accelerated depreciation for heat pumps and other components to electrify commercial buildings.

Provisions affecting energy usage in commercial and residential buildings are likely to be debated in any upcoming tax legislation, appropriations bills or other legislative vehicles before the next presidential election. While some of these provisions will be unwise policy, these debates will also present opportunities for the industry to advance meaningful, incentive-based and realistic policies that enable the real estate sector to reduce the level of greenhouse gases and their corresponding impact on the climate. ■

Aquiles Suarez is senior vice president for government affairs at NAIOP.


PACIFIC
GEOSOURCE

NAIOP Chapter Merit Awards Salute Outstanding Efforts and Individuals

Education, membership, advocacy and special events were among the programs honored in 2021.

By Trey Barrineau

NAIOP honored outstanding work by its chapters and associated individuals in 2021 with the Chapter Merit Awards. The awards are traditionally given out during a ceremony at NAIOP's annual Chapter Leadership and Legislative Retreat (CLLR) in Washington, D.C., in early February. However, CLLR was canceled this year due to COVID-19.

"For me, these awards continue to demonstrate the flexibility, ingenuity and innovation of our chapters as they adapted to a new business paradigm while delivering exceptional membership value," NAIOP President and CEO **Thomas J. Bisacquino** said. "Congratulations to all the 2022 Chapter Merit Award winners and nominees for their significant accomplishments in an unquestionably challenging year."

The Chapter Merit Awards recognize success in education, special events, membership, legislative affairs, diversity, equity and inclusion, and leadership. Winners are selected by a volunteer committee of their peers. These programs included virtual events, charitable initiatives, competitions for college students and much more.

The Chapter Merit Awards recognize success in education, special events, membership, legislative affairs, diversity, equity and inclusion, and leadership. Winners are selected by a volunteer committee of their peers. These programs included virtual events, charitable initiatives, competitions for college students and much more.

Chapter of the Year

NAIOP Arizona was named Chapter of the Year in the Large Chapter category. In 2021, the chapter brought back its Signature Speaker Series as a live event. This year, the speakers were **James Jones**, general manager of the NBA's Phoenix Suns, and **Monty Williams**, the team's coach.

NAIOP Raleigh Durham was honored as Chapter of the Year in the Medium Chapter category. The chapter approved a four-year, $100,000 commitment to a new MBA concentration in real estate program at Durham's North Carolina Central University, a historically black college. (The effort was highlighted in the Winter 2021-2022 issue of Development magazine.)

Outstanding Leadership by a Chapter President

David Strickland of NAIOP Southern Nevada claimed top honors in Outstanding Leadership by a Chapter President in the Large Chapter category. Strickland's efforts to reduce expenditures and increase revenue significantly brightened what could have been a difficult financial year for the chapter.

The ceremony for NAIOP's Chapter Merit Awards wasn't held in person this year because the Chapter Leadership and Legislative Retreat was cancelled.

Mike Ferguson, president of NAIOP Raleigh Durham, won the award in the Medium Chapter category. Ferguson helped spearhead the partnership with North Carolina Central University described above.

Nick Lombardi, president of NAIOP Oklahoma, was recognized in the Small Chapter category. Lombardi was praised for his strong leadership during the COVID-19 pandemic, particularly for stepping into the role when another person was unable to fulfill their duties.

Chapter Volunteer of The Year

Rod Martin of NAIOP Southern Nevada took the Chapter Volunteer of the Year award in the Large Chapter category. Martin was praised for his willingness to help his chapter in innumerable ways.

"For me, these awards continue to demonstrate the flexibility, ingenuity and innovation of our chapters as they adapted to a new business paradigm while delivering exceptional membership value. Congratulations to all the 2022 Chapter Merit Award winners and nominees for their significant accomplishments in an unquestionably challenging year."

— Thomas J. Bisacquino, NAIOP President and CEO

Kirstyn Hobler NAIOP Central Florida received the award in the Medium Chapter category. Hobler volunteered for numerous committees in 2021, and she implemented several new ideas and standards.

Matt Harris of NAIOP Northern Nevada was honored in the Small Chapter category. Harris has been active on many committees with the chapter, and his contributions to the government affairs committee drew pointed praise from the nominating group.

Outstanding Contribution by a Chapter Executive

Debbie Koenig of NAIOP Georgia was honored for Outstanding Contribution by a Chapter Executive in the Large Chapter category. Koenig has spearheaded most of the chapter's diversity efforts through the years, including the launch of an internship program in the summer of 2021.

Jessica Freeman of NAIOP Raleigh Durham won the award in the Medium Chapter category. She played a critical role in the chapter's partnership with North Carolina Central University and its launch of the first MBA program in real estate at a historically black college.

Lexi Koplichack of NAIOP Dayton Area was recognized in the Small Chapter category. She was praised for elevating the chapter's communications efforts.

Education

NAIOP Southern Nevada took the Education award in the Large Chapter category. Judges singled out a roundtable discussion with five developers that was recorded and transmitted to members.

NAIOP Central Florida was recognized in the Medium Chapter category. The chapter was honored for a month-long series of discussions about the future of the Orlando industrial market.

NAIOP Austin was honored in the Small Chapter category. Its East Austin Update brought chapter members together to discuss a booming area of the city as part of a tour of a newly developed property.

Special Event

NAIOP Minnesota was honored for Special Event in the Large Chapter category for its 18th annual University

Real Estate Challenge, which involves teams from five local universities.

NAIOP South Florida was recognized in the Medium Chapter category for its bus tour of noteworthy office and industrial properties in Broward County.

NAIOP Northwest Florida was honored in the Small Chapter category for hosting a sporting clay tournament for its members.

Legislative/Government Affairs

NAIOP Southern Nevada was honored for Legislative/Government Affairs in the Large Chapter category. Among the chapter's many efforts was sharing an economic analysis of the impact of land constraints on the economy of Southern Nevada.

NAIOP New Mexico brought home the top prize in the Medium Chapter category. The chapter played a key role in ensuring passage of New Mexico's Broadband Access and Expansion Act, as well as an extension of the state's sustainable building tax credit until 2026.

NAIOP Northern Nevada won the award in the Small Chapter category for its efforts to provide feedback to the city of Reno's rewriting of its 700-page development code.

Diversity, Equity and Inclusion

NAIOP Georgia was honored for Diversity, Equity and Inclusion in the Large Chapter category. The chapter launched a paid summer internship program for minority college students.

NAIOP Greater Philadelphia took top honors in the Medium Chapter category. For several years, the chapter has teamed with Drexel University to run a summer enrichment program for minority high school students who are interested in careers in commercial real estate.

Membership

NAIOP Central Florida won the Membership award in the Medium Chapter category for an extensive program of special members-only events designed to enhance renewals and retention. ■

Trey Barrineau is the managing editor of publications for NAIOP.

U.S. Ports Anchor Growing Demand for Industrial Space in Select Markets

A new NAIOP research brief examines the relationship between imports and site selection for logistics centers.

By Shawn Moura, Ph.D.

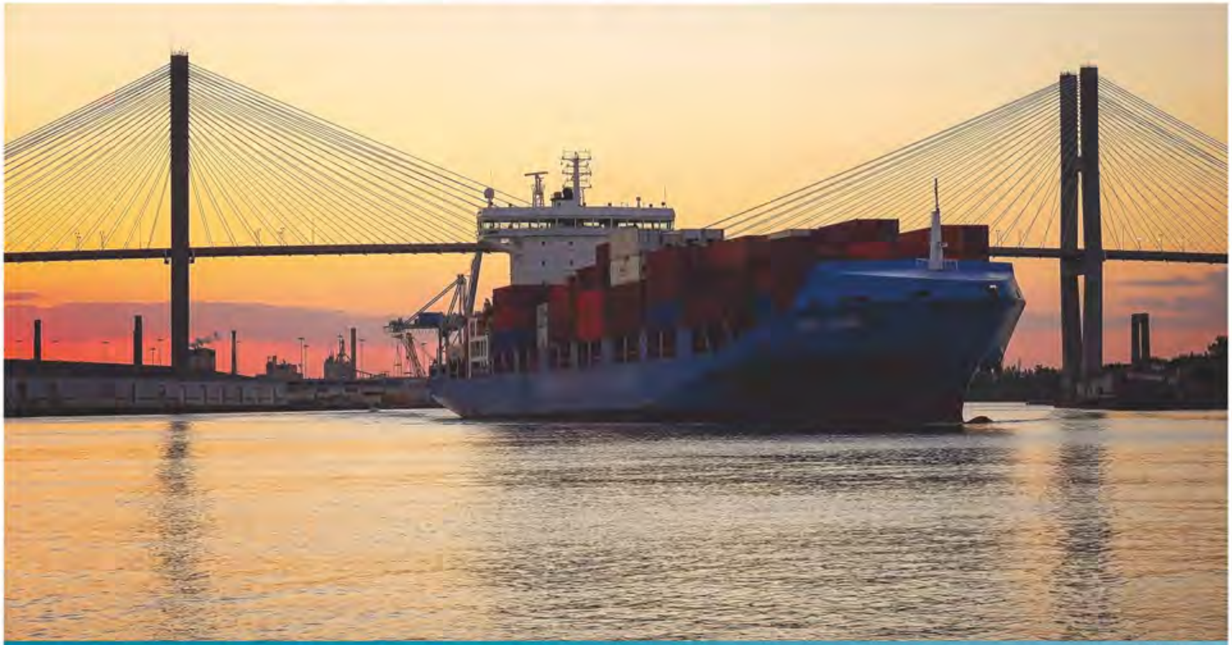
Delays, shortages and price inflation associated with COVID-19's disruption of global supply chains have brought unprecedented attention to U.S. ports and their importance to the American economy. In the early months of the pandemic, lockdowns in Asia and then the U.S. and Europe paused most maritime trade. By the summer of 2020, American consumers — buoyed by stimulus checks and with limited appetite to spend on services — began spending more on consumer goods than they had before the pandemic. Retailers quickly depleted their inventories and ramped up orders for goods, leading to a surge in imports. At the same time, the U.S. logistics industry has struggled with labor shortages and limited available warehouse space near key ports. These factors have contributed to long lines of container ships outside major U.S. ports and have slowed the distribution of imported goods across the U.S.

Rising import volumes have supported improving fundamentals for industrial real estate in most U.S. port markets.

The surge in trade has buttressed already strong demand for industrial real estate in major port markets, but will demand for this space fade once import volumes normalize? "Seeing Past the Pandemic: Industrial Demand and U.S. Seaports," a brief recently published by the NAIOP Research Foundation, examines the relationship between activity at the largest U.S. ports and demand for industrial space in adjacent markets. The authors of the brief, Avison Young researchers **Brian Harper** and **Aaron Ahlburn**, reviewed historical trends in shipments to and from individual ports, local logistics employment, and rents, vacancy rates and absorption rates in major port markets. Building on these observations, they developed a regression analysis that models the relationship between port activity, truck traffic and industrial space absorption to predict how changes in import volumes will affect space demand in the largest port markets. Their analysis suggests that industrial demand will remain robust near U.S. ports so long as imports continue to grow.

Import and export volumes at major U.S. ports have increased substantially over the past 15 years, despite dips in trade volumes following the global financial crisis, during trade disputes in 2019 and in the first months of the

This model confirms that import volumes have a significant effect on industrial absorption. The effect varies by market, however. The more that a market's industrial activity is linked to a port, the more industrial absorption is affected by changes in import volume.



Getty Images

A new brief from the NAIOP Research Foundation argues that greater import activity at U.S. ports such as Savannah, Georgia, will positively impact demand for industrial space near those ports.

COVID-19 pandemic. Rising import volumes have supported improving fundamentals for industrial real estate in most U.S. port markets. The Los Angeles-Long Beach port complex has experienced the largest gains in import volume, contributing to a decline in industrial vacancies and an increase in rents despite increased construction activity in recent years. Many smaller ports have also benefited, with some experiencing faster relative increases in demand for industrial space. The opening of larger locks at the Panama Canal in 2016 was accompanied by capacity expansions at several East Coast ports.

Many smaller ports have also benefited, with some experiencing faster relative increases in demand for industrial space.

Some eastern port markets, such as Savannah, Georgia, have experienced a particularly sharp increase in absorption following the expansion of the canal.

The research brief includes an analysis of geospatial data on truck trips from major ports. The authors examined the distance and destination of these trips to provide a more detailed profile of the industrial real estate that serves each port. They then combined this analysis with historical data on trade volumes and local real estate markets to create a model that describes the relationship between import volumes and industrial occupancy in each major port market. This model confirms that import volumes have a significant effect on industrial absorption. The effect varies by market, however. The more that a market's industrial activity is linked to a port, the more industrial absorption is affected by changes in import volume.

Get the Report

To view and download "Seeing Past the Pandemic: Industrial Demand and U.S. Seaports," visit naiop.org/Research-and-Publications/Research-Reports.

While the COVID-19 pandemic has led to unprecedented congestion at U.S. ports, the brief's analysis of long-term trends suggests that demand for industrial space in major port markets is likely to remain strong long after the maritime traffic jam has cleared. Developers and investors can refer to the brief's findings to identify the markets that are most likely to benefit from future increases in trade.

Shawn Moura, Ph.D., is research director at NAIOP.

The Most Valuable Asset: Expanding the CRE Talent Pool

There are many ways to identify and recruit new workers for the industry.

By Rochelle Broder-Singer

A study published in 2017 by the Bella Research Group and the Knight Foundation revealed that white men held more than 75% of C-suite jobs in the U.S. commercial real estate industry, while Black men held just 1.3% of those positions. White women represented 14.1% of senior executive-level jobs, while minority women held only about 1%.

Additionally, more than 60% of commercial real estate firms "are facing a talent shortage or talent challenge," according to a September 2021 report from Bisnow.

To address those ongoing talent shortages and to better reflect the communities it serves, the commercial real estate industry must look outside of traditional recruiting avenues and consider people with nontraditional career paths.

Ten years ago, great employees seemed much easier to find — an organization might find three excellent candidates for any one open position. Currently, it seems like there are few ideal candidates available.

Getty Images

It's important to cultivate connections with potential employees across a wide range of networks.

"I know we're all dealing with labor shortages," said **Celeste Tanner**, chief development officer at Confluent Development, during NAIOP's CRE.Converge 2021 in Miami Beach, Florida. Given how busy most of the

Eight Ways to Expand the CRE Talent Pool

- Be on the lookout for people with drive in unrelated industries.
- Make every employee responsible for finding great untapped talent.
- Look internally, especially for individuals who may have the desire and talent to switch to a different discipline.
- Share all opportunities internally.
- Have a well-structured internship program.
- Build relationships with younger people in the industry.
- Be a proactive ambassador for the industry.
- Teach courses and keep an eye out for talent among the students in your classes. ■

> "I know we're all dealing with labor shortages. Real estate is for everyone, so you need [perspectives from] every different type of occupier."
>
> — *Celeste Tanner, chief development officer, Confluent Development*

industry is, she added, it is tempting to look for talent through what she called "the path of least resistance" — often a local university's real estate program. While university programs remain an important source of commercial real estate talent — and many are making big strides to increase their diversity — companies need to develop many other pipelines.

Seek Talent in Other Fields

"Some of our best development, property management and capital markets people did not come out of a real estate program or a real estate background," said **Molly Carson**, senior vice president of real estate development, market leader, at Ryan Companies US, Inc.

> **"Some of our best development, property management and capital markets people did not come out of a real estate program or a real estate background."**
>
> *— Molly Carson, senior vice president of real estate development, market leader, Ryan Companies US, Inc.*

People from other industries can bring new perspectives to the table — which is critical in real estate.

"Real estate is for everyone, so you need [perspectives from] every different type of occupier," Tanner said.

Kate Bryden, senior vice president development with MRP Industrial, agreed.

"That's development in a nutshell," she said. "It's making sure everyone in the room has not only a seat at the table, but a voice in the room."

Don't Ignore Internal Talent

That's not to say there isn't a well of underutilized talent already within the industry. **Stephanie Rodriguez**, regional senior vice president — Florida for Duke Realty, said Duke has had success giving employees opportunities in new disciplines. She urged companies not to ignore talent already in the organization who may be in a completely different role.

One way to uncover talent is through internal mentorship programs that allow employees to learn about different jobs from the people currently doing them. Posting and communicating about openings within the company is also critical.

"Capitalize on the assets you already have," Rodriguez said.

> **"Building those relationships is so critical to finding your next great people."**
>
> *— Lizabeth Theiss, DPR Construction*

Cultivate Relationships with Young Talent

Internship programs can also broaden the talent pool, both directly and indirectly. For example, Ryan Company's internship program has been its greatest source of excellent new talent across the country, Carson said. The company has nearly tripled the number of interns in its summer program. Certainly, not every intern will end up working for the company — either immediately or in the future. But even those who don't can refer quality talent to the company.

Cultivate connections with young, diverse talent beyond your own internship program, whether through industry mentoring programs, connections with college students or other channels.

"Building those relationships is so critical to finding your next great people," said **Lizabeth Theiss**, who is in business development at DPR Construction. She noted that her most recent hire was someone she had mentored several years ago through a local NAIOP program. ■

Rochelle Broder-Singer is an independent business writer and editor with more than 25 years of experience.

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

Programs and Services

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

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

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

National Forums
Special-interest groups that comprise senior-level NAIOP members in a 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. ■

* *This is a listing of NAIOP members who are mentioned in this issue, as well as paid advertisers, which appear in bold.*

2022 Industry Partners

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

Premier Industry Partners

CenterPoint
Majestic Realty
Prologis
CBRE
Link
Marcus & Millichap
Rockefeller Group
FCL Builders
Moody's Analytics CRE
Newmark
USAA Real Estate

Platinum Industry Partners

CoStar
LoopNet
Ten-X
JLL
Cushman & Wakefield

Gold Industry Partners

Alston Construction
Brookfield Properties

Chairman's Circle

BREEAM USA
Clarion Partners
Bridge Investment Group
Global Roofing Group
LiUNA!
Granite
Powers Brown Architecture
Duke Realty
Hudson Pacific Properties
Pave Ahead Concrete
First Industrial Realty Trust
KSS
Uprite Construction

Bronze Industry Partners

Colliers
Lee & Associates Commercial Real Estate Services
Ware Malcomb
Wonderful Real Estate

Getting to Know New Chair Jeff Milanaik

The success of any business or organization lies in its people. NAIOP members come together in countless ways to share, learn, advocate and do business, and NAIOP's history shows that we provide real value at every level of member engagement. I'm excited to lead NAIOP in 2022, and I look forward to meeting so many of you as I visit chapters this year. Development magazine asked me to share my thoughts on our industry and association.


Jeff Milanaik

What are your goals as 2022 chair?
This year, I believe we must inform and unify our members around NAIOP's efforts to address legislative initiatives that could unduly impact the industry, hamper the post-pandemic economic recovery and hinder development. I also plan to extend NAIOP's commitment to educate our members on the importance of diversity, equity and inclusion (DEI), as well as helping our members understand the importance of working toward environmental, social and governance (ESG) goals. Finally, I plan to reinforce the value proposition and strength of NAIOP membership, through both good times and bad.

Why do you believe NAIOP members should be involved in advocacy efforts?
We are navigating one of the most complex sets of political initiatives and agendas that I have seen in my lifetime. This is particularly true on the federal level, but also in local and state government. Our collective voice is so important, and I believe we can make a tremendous impact by working together, staying ahead of initiatives that could have an adverse effect our businesses, and making sure that our elected officials understand the value of a healthy commercial real estate industry that creates jobs and generates valuable revenue.

You are a longtime National Forums member. What's the benefit of the program?
I was very excited when I was accepted into my National Forums group, and in many ways it validated my professional accomplishments to date. My Forums participation has helped me build terrific professional and personal relationships with the top leaders in my sector, industrial real estate. No other opportunity has allowed me to develop such close connections with the movers and shakers in our industry, and I'd recommend the program to anyone.

What can NAIOP do to prepare its members as we move into (hopefully!) a post-pandemic environment?
The past few years have proven that NAIOP is both resilient and able to reinvent itself to serve our members during challenging times. Through its education programs, research, and strong advocacy at the state, provincial and federal levels, our members will be both well-informed and equipped to deal with the challenges we will face moving forward.

Why do you find commercial real estate an engaging business?
I learned many years ago that the real estate industry has less to do with bricks and mortar — and everything to do with people. Working with best-in-class teams to solve complex real estate opportunities is one of the most challenging and exciting things I've ever done, and I look forward to doing it every day.

How long will industrial's surge continue?
Throughout my career, I have watched industrial real estate grow as a significant asset class. Well-located distribution centers in major markets will continue to be in demand to supply goods to densely populated geographic areas. Prior to the pandemic, we saw an increase in e-commerce. Since then, its growth has been explosive. This, combined with markets that I believe will stay in balance from a supply-and-demand perspective due to limited land availability, will benefit industrial real estate in 2022 and beyond. ■

Jeff Milanaik, Partner, Northeast Region – Bridge Industrial
2022 NAIOP Chair

Let's Get Personal

Education: Bachelor of Science in Mechanical Engineering, New Jersey Institute of Technology

Years in the industry: 35

Years in current position: Eight years as Partner, Northeast Region – Bridge Industrial

Family: My wife, **Judy**, and I have been happily married for more than 40 years. We have four wonderful sons, two amazing daughters-in-law, one beautiful granddaughter and another grandchild on the way. Ironically, I never encouraged my sons to enter the real estate industry. Yet today all four are successful professionals in the field.

Last book read: "Leading in Tough Times" by **John C. Maxwell**

Best vacation spot: Anything with a beach!

Favorite out-of-the-office activity: Many, including snow skiing, motorcycles and sporting clays.

Industry mentors: In New Jersey real estate, two icons that come to mind are **Ike Heller** and **Charles Klatskin**.

Best words of wisdom you ever received: Leaders lead by example … and never think you are the smartest person in the room. ■

Wonderful industrial park™

3800 FANUCCHI WAY, SHAFTER, CA 93263

FOR LEASE / ±1,063,100 Sq. Ft.

Now Under Construction / Delivery 2Q 2022

For more information, please contact:

Phil Lombardo
+1 909 942 4678
phil.lombardo@cushwake.com
Lic. #00892477

Andrew Starnes
+1 909 942 4667
andrew.starnes@cushwake.com
Lic. #01799801

Cruise Adams
+1 909-942 4641
cruise.adams@cushwake.com
Lic. #02075368

CUSHMAN & WAKEFIELD Wonderful real estate DEVELOPMENT™

Cushman & Wakefield of California | 901 Via Piemonte, Suite 200 | Ontario, CA 91764 | cushmanwakefield.com

View Site Specific COVID-19 Prevention Plan