



eBook

The Future of Construction & Commercial Real Estate

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The state of commercial real estate

Less than two years ago, commercial real estate was predominantly an office-centric industry. Following the pandemic, leaders across every sector are left with the same question: What does the future of work look like?



COVID-19 transformed every industry, and the commercial real estate (CRE) space was no exception. Virtually overnight, businesses adapted and implemented new strategies that aligned with best safety practices and workers' expectations. Now, with the return to the workplace in full swing, balancing considerations ranging from health and safety to flexible schedules and a work-life balance is at the top of every organization's mind.

In an age where employees and consumers can work or shop from anywhere, leaders across the CRE industry are driving digital transformation, deploying tools like digital twins to redefine how we interact with the world around us.

The current state of the CRE industry

Although the office market is facing its highest vacancy rate in recent decades, that doesn't mean the days of the physical workspace are over. Instead, the traditional concept of the office is receiving an upgrade.

However, leaders aren't only facing workers' evolving expectations. New market realities must also be addressed, including environmental, social, and governance (ESG) concerns, growing competition, and a tightening labor market.

Employers are considering cost-effective locations while also providing added amenities like customizable spaces, real-time workplace information, and interactive maps, helping employees navigate campuses while reconnecting with one another. Additionally, the ongoing multi-family housing hot streak shows no signs of slowing, setting a precedent for higher demand across all areas, especially within secondary and suburban markets.

In the months ahead, the value of a property won't be defined by its size or location, but instead by its ability to combine the power of infrastructure and technology-driven solutions.



The future of work

Looking ahead, workplace flexibility will be an embedded piece of our culture, with 87% of companies planning to adopt a hybrid model. During this transition, employers will need tools that help them redefine the office as a place for both collaboration and connection.

The solution? Property technology.

Property technology, or “proptech,” represents a growing category of technology used to solve some of the most pressing needs of today’s real estate market. One of the most exciting proptech trends? The increasing application of digital twins: virtual replicas of physical spaces.

These 3D, interactive models will be essential in the future, empowering CRE leaders to easily design and develop engaging spaces that evolve alongside workers’ needs. Additionally, digital twins offer the potential to transform the face of facility management, helping to create comfortable, productive, and environmentally responsible properties.

Read on to discover how leaders such as Savills, Cushman & Wakefield, ATI, and others are already using digital twins to drive digital transformation.



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Promoting spaces

Virtual spaces offer enhanced marketing experiences, decreased physical site visits, and help orient prospects to spaces in just hours rather than days.

Savills is using Digital Twin to advise clients on how to optimize their CRE portfolios to take advantage of real estate that offers hybrid office models — a combination of home working, local office hubs, and a head office — reducing overhead and enhancing employee well-being, sustainability, and organizational resilience.

“With Matterport, we can bring buildings and spaces to life. We want to ensure that we’re providing our clients with the right tools and data to make the best leasing decisions,” said Sarah Dreyer, Vice President and Head of Americas Research at Savills.

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SARAH DREYER

Vice President and Head of Americas Research at Savills



Digital twins empower CRE leaders like Savills, helping them match prospects and existing clients with commercial spaces perfectly suited to their needs.



Promoting spaces (continued)

The CRE industry is fast-paced, with prospective buyers and tenants eager to get space and landlords ready to quickly close deals. When it comes to success, time is of the essence.

As a leading global commercial real estate services firm, Cushman & Wakefield knows that keeping pace with the demands of property owners and tenants means making the most of available technologies. With properties in nearly 60 countries, the company needs to reach a broad range of customers — quickly.

“Using the Digital Twin technology has allowed our commercial real estate professionals to provide our clients with better insights and decision-making, and offer a more convenient and improved method of viewing space to investors, occupiers, developers, and asset managers,” says Oliver Skagerlind, Global Head of Client and Business Solutions. “Digital Twins have supported large-scale, international listings while enabling us to deliver personal attention to customers everywhere.”

By transforming the way clients market properties, Cushman & Wakefield has enhanced its overall customer service platform while also achieving 53% cost savings.

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OLIVER SKAGERLIND

Global Head of Client and Business Solutions



Overseeing repairs and insuring spaces

When disaster strikes, the use of digital twins can do more than save time and money for insurance and restoration businesses — they can help people get back to their lives faster.

ATI Restoration, the largest family-owned disaster restoration contractor in the United States, uses Matterport technology to manage an immersive visual library of properties.

“When a policy is first written,” Robert Harrel, Director of Operational Improvements and Technology at ATI says, “Matterport can help a carrier understand the risks. After disaster strikes, a Matterport digital twin accurately captures the damage and the repairs while they’re in progress, and then shows what the property looks like after all repairs are completed.”

Another valuable benefit for the insurance and restoration industries is the ability to archive content. “If there’s a property loss on a property three or even five years from now,” Harrell says, “we’ll be able to download the 3D digital twin from the cloud and see what the property looked like before it was damaged. Something that wasn’t even possible when most current insurance policies were written.”

When another disaster strikes, the use of Matterport will do more than save time and money for insurance and restoration businesses —it will help people get back to their lives as quickly as possible.

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ROBERT HARREL

Director of Operational Improvements and Technology at ATI



Capturing operational efficiencies

Digital twins offer property owners deeper insight into not just what a space looks like, but also grant the visibility needed for an accurate scope of work and more effective coordination with contractors. This saves time and resources while ensuring every property feels cohesive.

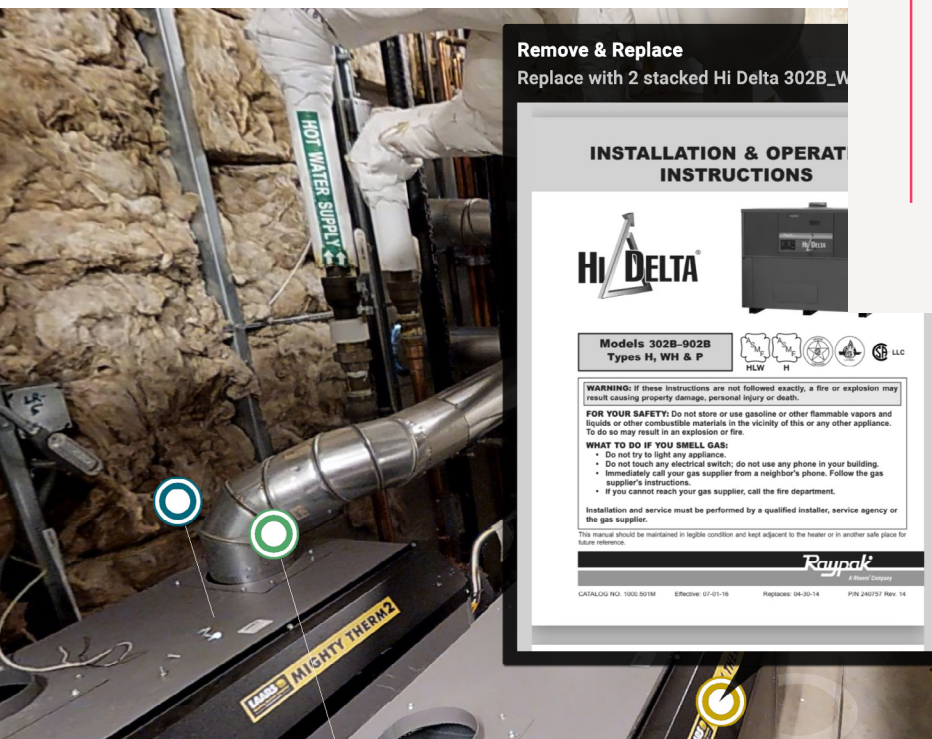
ID Plans is a commercial real estate software and services company that prides itself on serving some of the largest real estate investment trusts in the United States and to small- and medium-size property owners.

Allowing prospective tenants to virtually tour a commercial space is only the beginning. ID Plans uses Matteredtags to embed additional information about the assets it captures, such as HVAC units, service panels, and electrical meters. Information is embedded in the digital twin and can be accessed with a click of a button by any person

who needs it: landlords, prospective tenants, property managers, construction managers, architects, insurance adjusters, and property inspectors.

There are benefits on the operations side too. After a lease is signed, property owners need to get the tenant into the space, and there's a lot of planning, construction, and coordination involved. ID 360 and Matterport help owners get accurate bids and help contractors efficiently plan construction projects and get the right measurements and the right tools. Projects are completed more quickly and at a higher quality with less need for expensive rework. "Having real information and vivid imagery that's up to date and interactive is priceless," says Jordan Hearin, Chief Product Officer at ID Plans.

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Accelerating Design-Build Projects

Previously, staging a property was a time-consuming and expensive process, requiring agents to source and arrange physical furnishings to market properties. However, virtual staging solutions such as those provided by Matterport partner VRPM help overcome these challenges.

Through its virtual staging services, VRPM helps real estate companies think beyond sterile, empty spaces by using Matterport to create visually engaging and immersive virtual tours that help entice commercial clients to lease or buy properties.

“At VRPM we’re focused on making virtually staged spaces feel realistic, thoughtfully considered, and well-designed,” says Mike Merron, Founding Director of VRPM. “Seeing

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MIKE MERRON

Founding Director of VRPM



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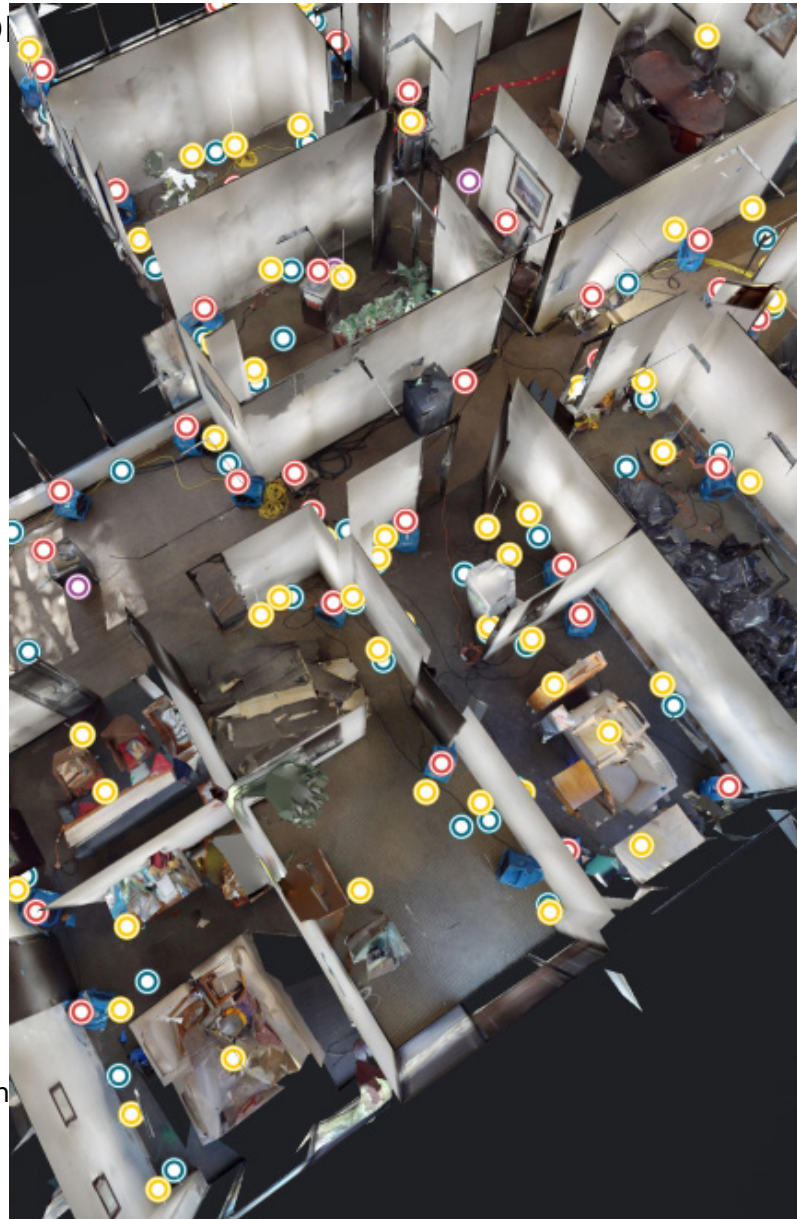
Supporting Collaboration and Accountability

Gilbane, a leading integrated construction and real estate development firm, relies on Matterport to help with accountability throughout the design and build phases, saving clients an average of 25% to 30% in time and money.

“Especially when we have multi-site programs, Matterport technology delivers a huge benefit,” says Joel Vande Boom, Director of Strategic Projects. “We can easily toggle between digital twins and sites to examine aspects of bigger issues that impact multiple locations. As a result, team members can resolve questions together on one quick phone call.”

Gilbane captures a final digital twin at the end of projects too. “It’s valuable for the punch list, aiding our communications with the customer, for example, about whether there was a ding in the wall at the time of handover. The digital twin provides that single source of credibility to help both sides navigate project completion,” shares Vande Boom.

The team uses Mattertags to detail key features in the construction of a building and its systems, linking to helpful information and procedures to maintain the facility as part of digital twin-enhanced Operations and Maintenance (O&M) manuals it hands over to clients. Gilbane also uses this approach for rough construction submittals, the official documentation that the materials used in the project match the intent of the architect, engineers, or property owner.



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JOEL VANDE BOOM

Director of Strategic Projects



Building for optimized operations

Before office and retail tenants ever occupy a new space, they need to ensure operational readiness and address any issues that could arise as foot traffic returns.

ARUP Global, a design-led architecture practice, leverages technology and an analysis-led approach to optimize construction of all types, including the refurbishment of existing buildings. Using progression documentation with Matterport, ARUP project leads are identifying and addressing issues earlier than ever before.

“Sharing the Matterport 3D model with employees or tenants ensures they are operationally ready to occupy and operate the space from day one,” says Farbod Mehr, Senior Technology Consultant at ARUP.

Using digital twins to understand how end-users will interact with a space before it's ever occupied allows for properties to be built or refurbished with operational readiness as a top priority.

ARUP



The next steps for commercial real estate

The demand for better-equipped and dynamically designed properties is on the rise. Now more than ever, industry leaders need to invest in a transformative digital strategy as we prepare for what the future of work may look like.

Digital twins are the key to fulfilling the demand for spaces that are more efficient, sustainable and mindful of social distancing while still creating an engaging environment. They offer capabilities such as interactive virtual walk-throughs as well as the tools to better design, plan and build optimized spaces catered to evolving consumer demands.

By investing in a transformative digital strategy and Digital Twin technology, CRE professionals can capture new competitive advantages and succeed today and in the future.

CONTACT AcuTwin LLC

About Our Platform Partner

Matterport is the industry leader in 3D capture and spatial data with a mission to digitize and index the built world and advance the way people interact with the places they inhabit and explore. Matterport's all-in-one 3D data platform enables anyone to turn a physical space into an immersive digital twin and share it with others to connect and collaborate in 3D, radarte.ch develops innovations and API's to best utilize this digital asset.

radarte.ch | radarx.ai | radarx.eth

A commercial partner of the Matterport platform has helped companies realize the full potential of a space at every stage of its life-cycle including planning, construction, appraisal, marketing, and operations. The company has been serving the real estate and photography industry since its inception and is also being adopted by major brands in architecture, engineering, construction, facilities management, insurance, restoration, retail, travel, and hospitality. Learn more at **radarx.ai** Or contact your regional office today at **info@AcuTwin.com**

