



DESIGN QUAR- TERLY

ISSUE 15



REUSE AND REVITALIZATION
Finding new purposes for buildings

DESIGN QUAR- TERLY

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**THOUGHTS, TRENDS AND INNOVATION
FROM THE STANTEC BUILDINGS GROUP.**

The Stantec Design Quarterly tells stories that showcase thoughtful, forward-looking approaches to design that build community.

IN THIS ISSUE: REUSE AND REVITALIZATION



Finding new purposes for buildings

Building reuse isn't a new idea but is currently enjoying a resurgence, and with good reason. It offers distinct economic, social, and environmental advantages to our clients and communities. Reuse projects tend to have shorter delivery times, require less embodied carbon expenditure, can be less expensive than building new, and often give clients a chance to tap into history and storytelling to connect their brand and business to the communities they serve. With those benefits in mind, we're highlighting reuse as a strategy for urban revitalization. In this issue, we look at the power of reuse and revitalization to enhance wellness, equity, sustainability, affordability, and culture within our cities and neighborhoods.

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Escaping the wrecking ball

Restoring purpose by creating identities and crafting experiences **BY CHRIS KELLER**

Commercial property owners in North American central business districts face a conundrum: they must stand out from the competition and secure tenants in a competitive marketplace where vacancies are often abundant without undertaking the risk of complete renovations.

To succeed, these commercial buildings need to foster a new way of working, which requires more flexibility, inspiration, a sense of community, and user choice. Buildings need to adapt to changing uses and expectations.



Owners may want to take a second look at their public spaces. Often, these spaces were designed in an era when volume and prodigious marble surfaces made a professional, formal impression. Today, these communal spaces may simply be areas to pass through or dated and uncomfortable public-facing ground floors. Era-specific design and materials are just symptoms of a larger complication: how can we improve the performance of something perceived as so dated and permanent?

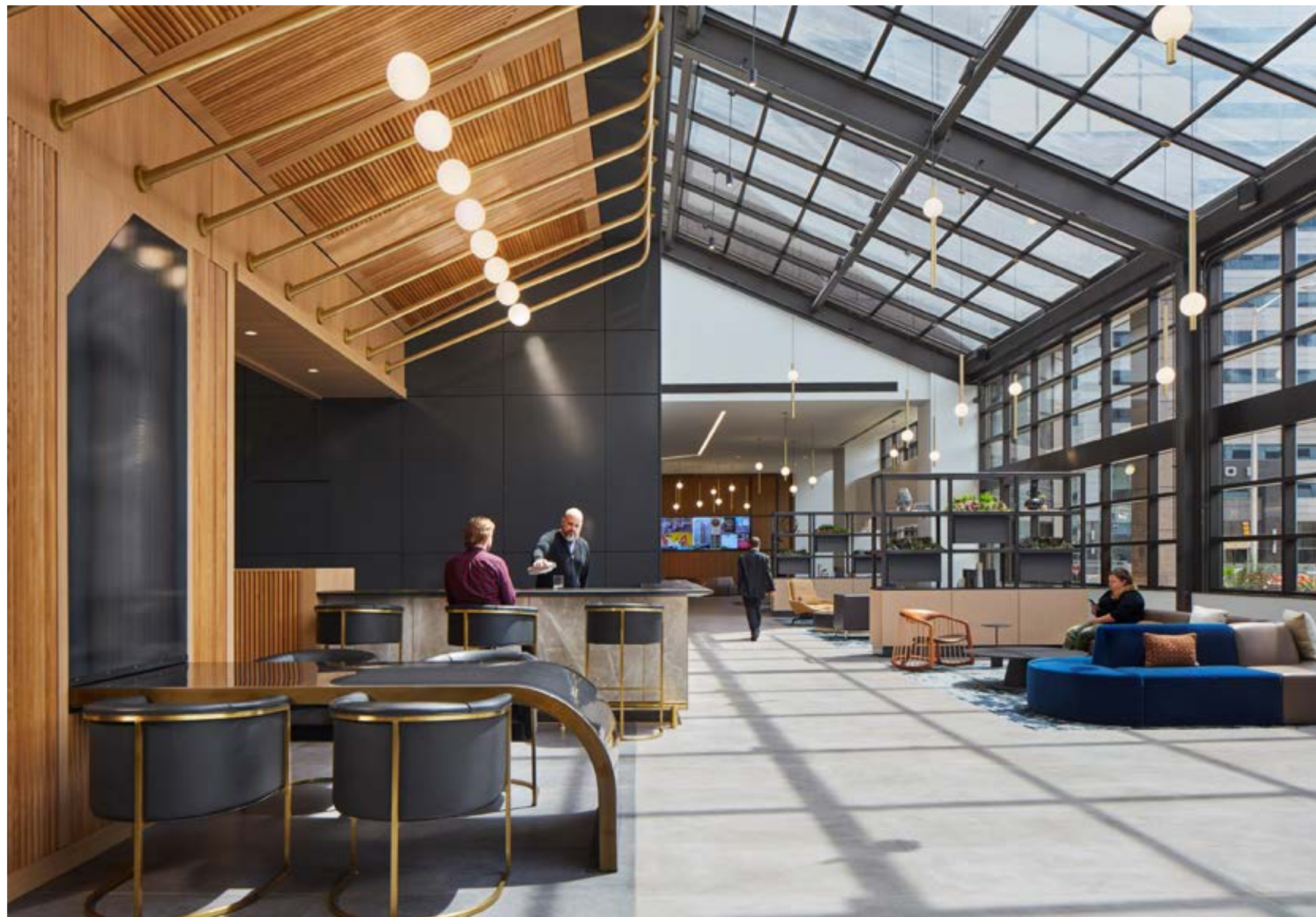
We believe we can turn around these oft neglected spaces through thoughtful design interventions that create a specific personality for the building. We take a holistic approach that

recognizes the quality of the entire asset relative to its communal spaces.

Today's user of commercial buildings is savvy with high expectations. To meet these expectations and create successful places, we need to dig deep so that asset repositioning does more than tick off boxes of program requirements. In reimagining the public spaces and amenities in the recent projects below, we looked to strategies grounded in storytelling such as creating an identity for the building, designing for authentic user experience, finding useful purposes for existing space, and enhancing wellness of occupants.

Capital Center Indianapolis, IN





Capital Center

INDIANAPOLIS, IN

The challenge: Era-specific pink granite predominated this late

1980's lobby space giving it a heavy, inaccessible feel. A large concourse with a glass roof and façade connects the building's two towers. The building had no identity and too

much space with no programmed use. Users had no choice in how to experience and use spaces. The challenge was to find a way to distinguish this property from the

competition, activate and update its public-facing spaces within a modest budget.

Give the building a unique identity.

We strove to find a

balance in the building between fitting in to the downtown and standing out on its own while avoiding an ostentatious repositioning that felt out of place. This space needed to say something relevant. As always, we focused on concept and storytelling in our design process. We also engaged Stantec's branding studio to focus on creating an identity for the building itself. We arrived at an urban conservatory concept which led us to a palette of lighter woods, organic patterns, and biophilia to update the lobby, concourse, and outdoor terrace. We gave the user an organic and natural way of moving through the spaces, with curated experiences along the way. And we made a concerted effort to bring a big-city-urban feel to the property.

With its rugged good looks, the social hub at the Capital Center has emerged as an after work destination for downtown professionals.



Create symbiosis between user and space.

We thought about creating an experience, not just a look. We considered the downtown worker and the progression of their day. This led us to recognize the potential for an energetic, sophisticated series of professional and social spaces that reflect the hard-working Midwest and satisfy a contemporary desire for comfortable third places between the office and home. The symbiotic relationship means that the building itself benefits from the user's presence—they activate it and become a beacon to fellow tenants and guests for social and professional functions alike.

Redefine or create useful purpose for existing spaces.

We looked for opportunities to activate the space by harnessing existing assets. At the Capital Center, we saw an opportunity to

embrace many existing elements: scale, the abundance of glass and daylight, high volumes, and lines of sight, while layering new functions on the otherwise transient concourse. To activate the space,

we added a handsome café/bar and social hub with unused space we discovered during design. We gave the public areas a rugged urban aesthetic, a balance of sophistication and grit, by layering

materials such as cold-rolled steel, natural white oak, and custom tubular brass lighting elements. This approach didn't require extensive demolition, which saved our client money and time.

Choose interventions

Harnessing the best of the building's existing assets presented its own design challenges which we used as opportunities to express this new building identity. For example, where a series of trusses and beams met in the café, we designed a feature portal to hide the structure, fit the urban conservatory design language, and highlight the entry to the new café/bar.

The conference center doesn't have access to natural light, so within that space we introduced more color to brighten the mood. We designed a curved feature wall with custom millwork louvers of changing hues that guide users' experience through the space, taking them through the new lounge and amenity pre-function areas we designed outside the training and conference rooms.



“ We looked for opportunities to activate the space by harnessing existing assets.”

Promote social connection and engage the community.

With before and after work experience in mind, we created new spaces for social connection and respite. The open atrium and

outdoor courtyard with fireplace offer the downtown professional additional space for mingling.

70 West Madison

CHICAGO, IL

The challenge: Located in the financial district of Chicago's Loop, 70 West Madison is no ordinary property with its sawtooth floorplate and a nine-story atrium lobby. The space itself was grand in scale but felt fragmented. Stylistically, it was heavy with monolithic brown metal panels and matching granite tiles, and a façade dominated by a white structural tube truss system. It needed attention that would quiet the visual noise, clarify circulation, and modernize the look and experience. To increase leasing velocity, the owner looked for a differentiator, a transformation of the public spaces and amenities that could



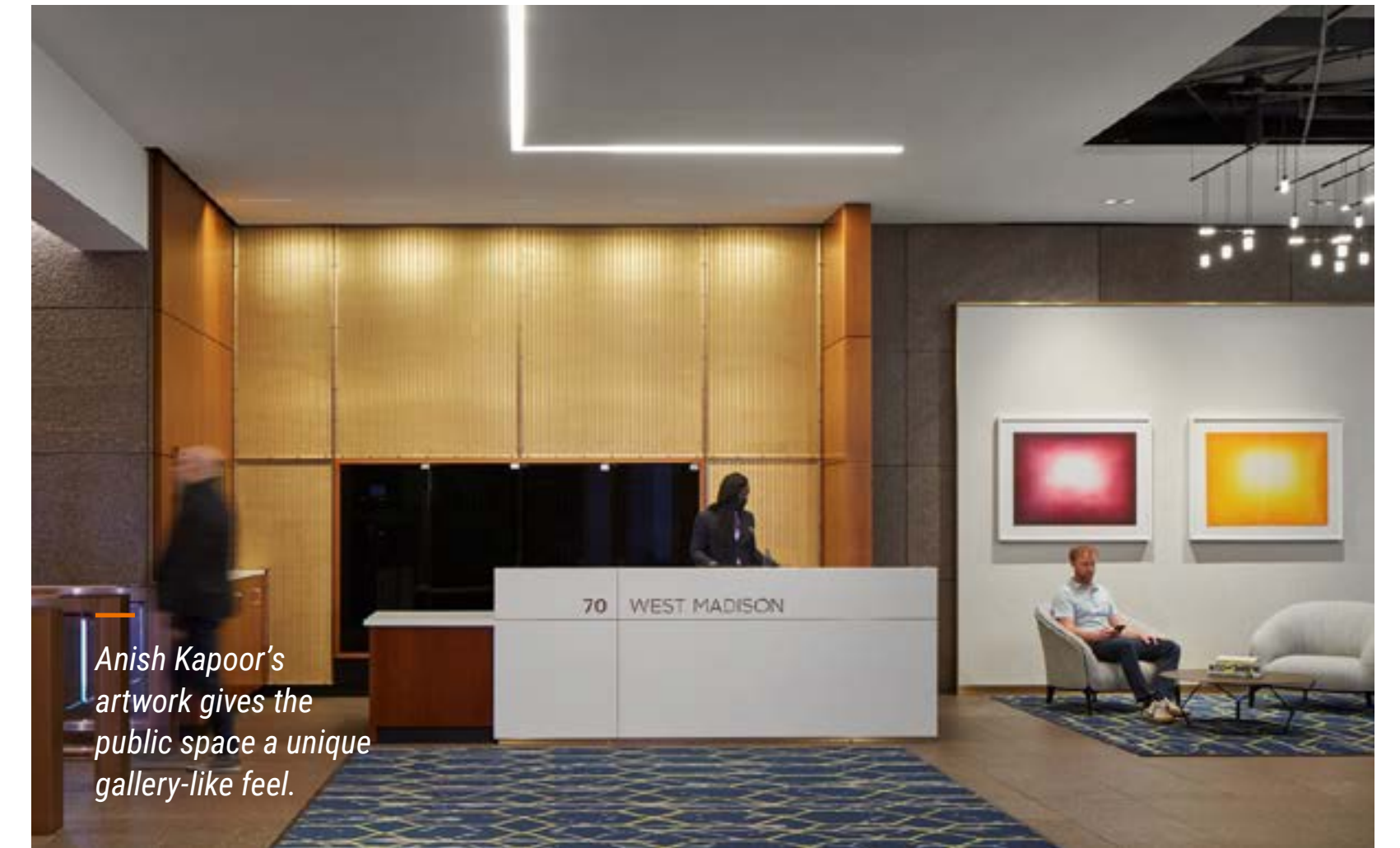
attract a broader range of tenants beyond what was historically professional services.

Break down the experience.

The concept creates connectivity between the spaces on the lobby and mezzanine levels by inserting installations in the voluminous space that break the experience down to the human scale, modernize it, and make it more accessible along major pathways.

Refocus the eye.

Interventions need to tell a story. And at 70 West Madison, we were lucky to have access to an extensive collection of paintings and prints by Anish Kapoor. Inspired, we designed gallery-like wall features to showcase the artwork and lighten the overall feel of the spaces.



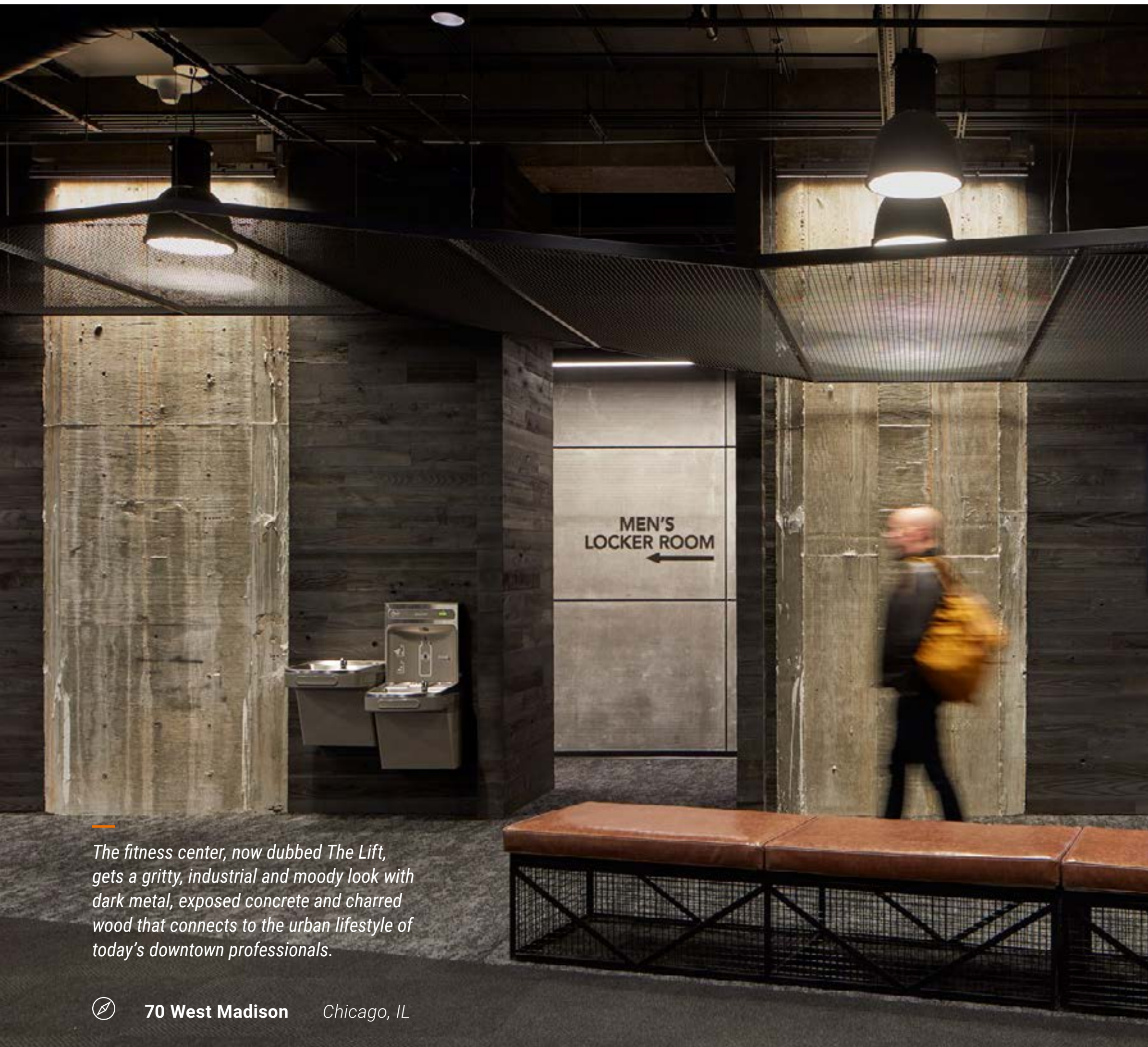
Anish Kapoor's artwork gives the public space a unique gallery-like feel.

Perhaps the most dramatic intervention was our use of six custom color-changing vertical light blades on the atrium wall to rationalize the visual noise in the lobby. This simple and distinct architectural gesture acts as a focal point, calms the eye, and prepares one to move from the first floor to the amenity mezzanine level.

Create visual connections.

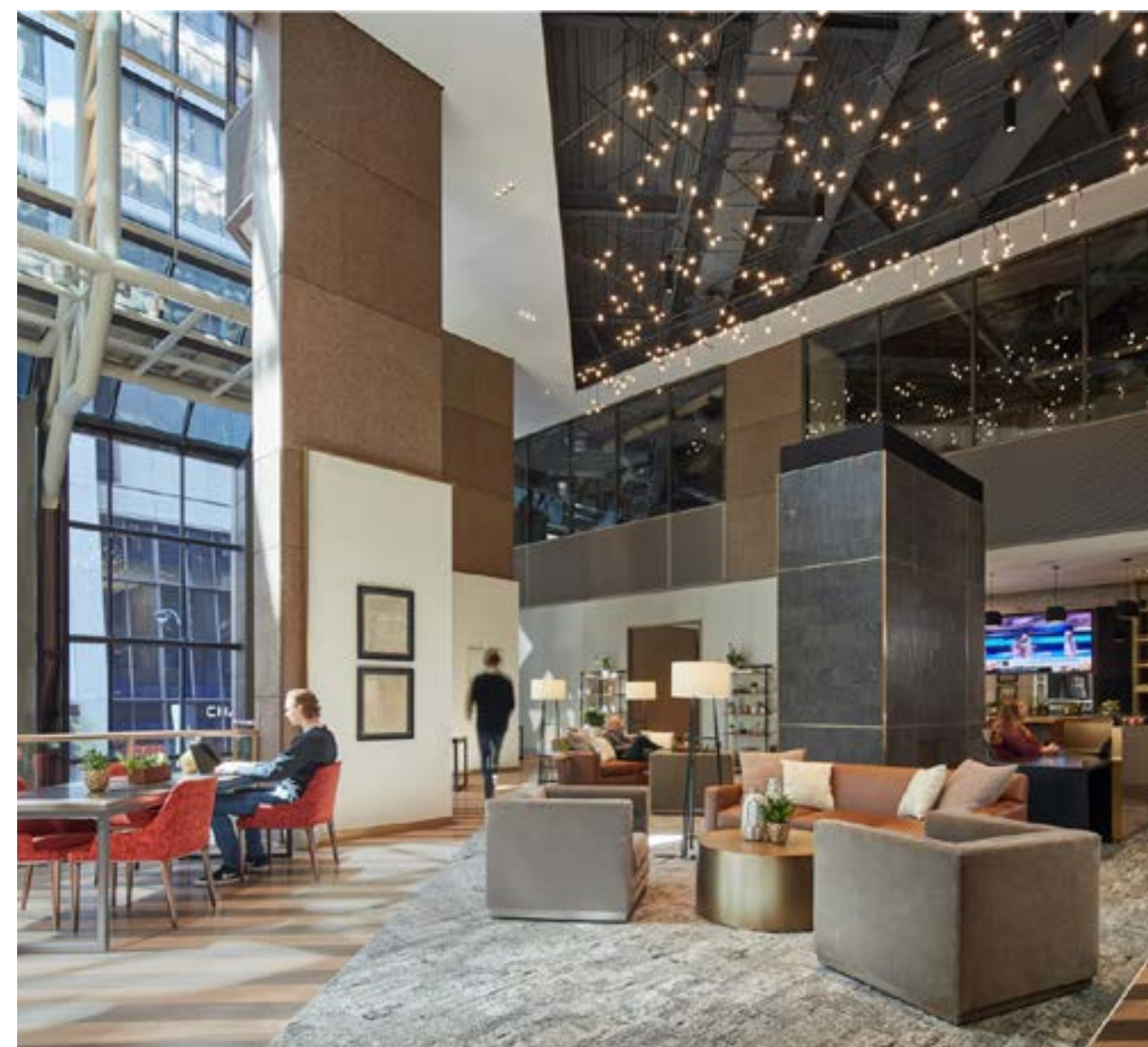
By removing a glass enclosure on the mezzanine lounge in favor of a clear railing, we connected the previously hidden space to the public atrium it overlooks. Now known as The Loft, the double height lounge welcomes visitors with a bar and fireplace as a warm, and much needed third place. Curated

furniture, finishes, decorative lighting, and artwork combine to evoke a comfortable residential feel. The Loft opens wide to the gallery-like circulation and reception areas, providing continuity and clarity of experience. The new design offers both visual relief and a variety of comfortable settings within a vast space.



The fitness center, now dubbed *The Lift*, gets a gritty, industrial and moody look with dark metal, exposed concrete and charred wood that connects to the urban lifestyle of today's downtown professionals.

 **70 West Madison** Chicago, IL




Enhance comfort, safety, and wellness.

We created warm and softly residential nooks out of areas that were once vestigial and cold. Redesigned reception and circulation makes them easily identifiable and modern. The new and enlarged fitness center, relocated from the fifth floor to the mezzanine helps bring all the building amenities together for convenient access.

Vary the rhythm.

At 70 W Madison, we took a tight a budget and applied it selectively in high traffic areas, creating moments that change the overall rhythm of the space, encouraging users to appreciate the continuity of experience while moving through it. We used existing conditions to our advantage, layering design elements over the architecture,

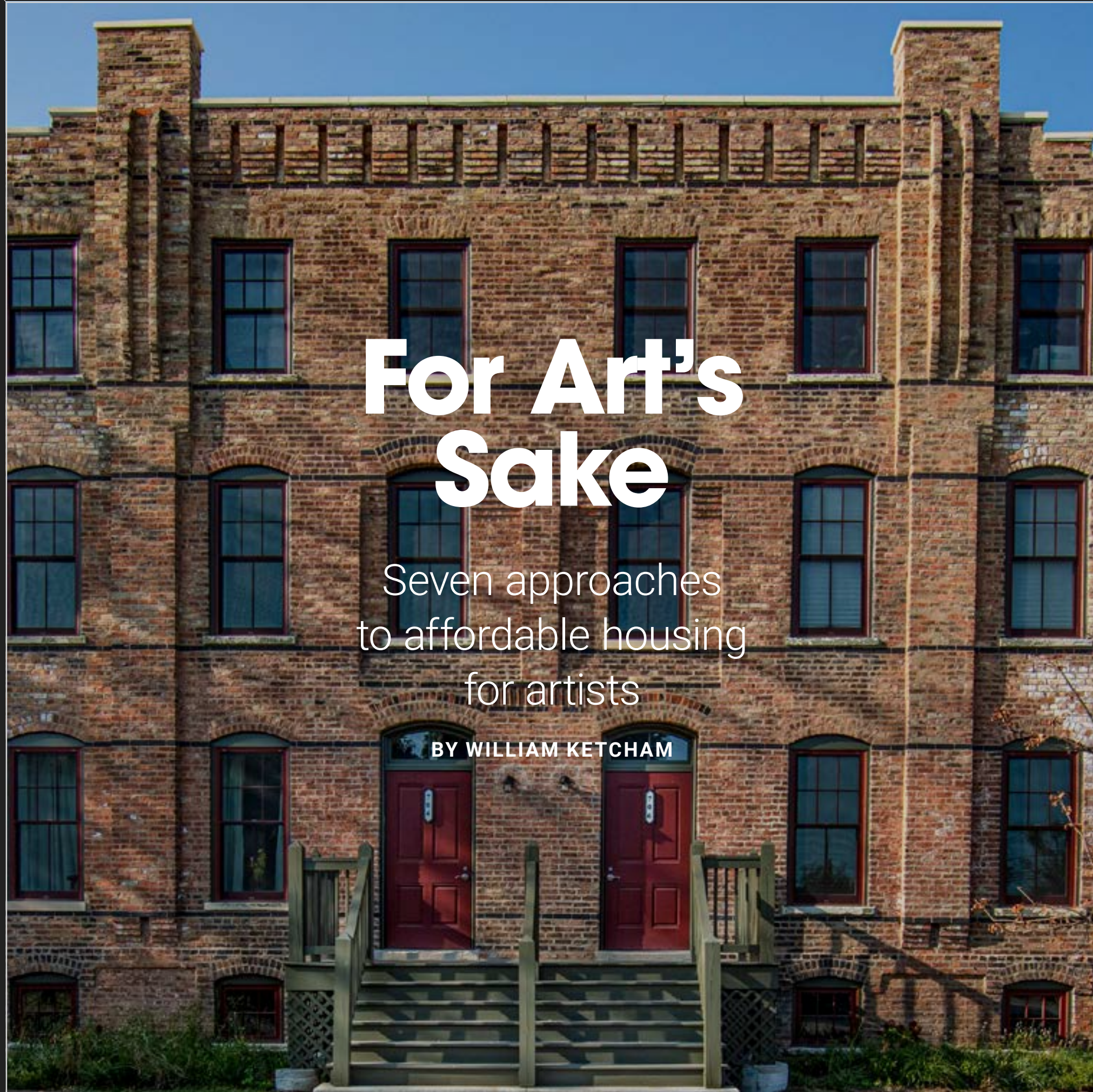
minimizing complexity and avoiding extensive demolition, while creating an elevated, modern experience.

These deliberate and selective interventions transformed these properties. Both have seen significant increases in leasing interest and velocity as well as an uptick in usage of the revitalized spaces. There's no better indicator of success than the presence of people. 

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MORE COMMERCIAL

Based in Chicago, **Chris** has a passion for concept-based experiential design which he applies to create unique environments for workplace, residential, and hospitality clients.



For Art's Sake

Seven approaches
to affordable housing
for artists

BY WILLIAM KETCHAM

Housing affordability is a significant challenge in many North American cities. The full-time artists in these cities who have gravitated toward low rent live/workspace in former industrial spaces are particularly vulnerable as those areas become revitalized. When real estate values in their neighborhoods skyrocket, rents go up, they're squeezed out, leaving behind a cultural vacuum in communities in which they're vested. Thus, many communities are looking for solutions that preserve housing affordability for professional artists in these neighborhoods.





The Pullman Artspace Lofts, a 52,000 SF development in Chicago's historic Pullman district, is a great example of how cities can preserve the cultural elements that have defined their neighborhoods. Pullman Artspace features 38 units of affordable housing with public and gallery space in a new building flanked by two historic 1870s brick tenement buildings.

This project challenged us to combine historic preservation, quality low-income housing, and dedicated arts space in a single building. Many of the challenges and opportunities we uncovered at Pullman can act as a guide to the reuse of historic buildings and designing of affordable housing. >

Historic neighborhood

Pullman is a unique place and landmark district. Built in 1881, the Town of Pullman was the country's first and most elaborate planned industrial village. Railroad car mogul George Pullman hired architect Solon Spencer Beman and landscape architect Nathan F. Barrett to realize his vision for a self-contained community where his employees would both live (he charged them rent) and work building Pullman sleeping railroad cars. At its peak, this company-owned town contained shopping, a church, and residences for more for 9000 employees and their dependents—a brief experiment in affordable workers' housing.

Following the tumultuous Pullman Strike, the neighborhood was annexed by Chicago. Since then, this historic working-class neighborhood has been saved from the wrecking ball several times by local civic organizations. In 2015 President Obama designated the Pullman Historic District a national monument.

While no two affordable housing projects are quite the same—regional differences, city policies, and financing mechanisms vary considerably—the approaches we took in designing the Pullman Artspace Lofts, have wide application. >



1

Design for context and storytelling.

The Artspace Lofts development represents an additional facet in the revival of the Pullman Historic District which includes the renovation of the Pullman Clock Tower as the Pullman National Monument's new visitor center and the restoration of historic Pullman Row Homes.

Block Houses A and C, the two buildings that are now part of the Pullman Artspace Lofts, were part of the original 1881 Pullman tenement housing for the lowest wage-earning employees. They served as a barrier between the factories and Pullman's residences. Our design was intended to contribute to efforts to protect and promote Pullman as a site for significant social, labor, and architectural history.

The team drew upon its experience with national historic landmark projects in Chicago—including Wrigley Field and the Overton Hygienic building. With Pullman Artspace Lofts, it was crucial that we design and preserve required historical elements to access historical tax credits which help make the project financially viable as affordable housing.



2

Listen to the community, be a team player.

As the first new housing development in the neighborhood in more than 60 years, it was important that this project succeed to show that revitalization can recognize the cultural and economic diversity that makes Pullman unique. The design team needed to take input from the many stakeholders to develop a community-oriented project that would succeed.

Pullman Artspace Lofts is the culmination of a partnership between the community development organization Chicago Neighborhood Initiatives (CNI), local arts programmer PullmanArts, and the Minneapolis-based non-profit developer Artspace. The project

included oversight and regulation from the National Park Service, The Secretary of the Interior's Standards for the Treatment of Historic Properties, State of Illinois Historic Preservation Division, recommendations outlined by the Beman Committee of the Pullman Civic Organization (PCO) and the Commission on Chicago Landmarks (CCL).

The planning process for Pullman Artspace Lofts began more than ten years ago, included 80 public meetings and events, and culminated with the design contest which Stantec participated in.

Thus, there was a wealth of thoughtful information from the

community on what it wanted from the project. It wanted safe and affordable work/live residence for artists. The developer team surveyed more than 380 artists and local residents to confirm the need and enthusiasm for the development of artist live/work space.

Today, Pullman Artspace Lofts features a mix of studio, one- and two-bedroom apartments, all reserved for low-income families. Priority is given to low-income artists and their families, with eight units reserved for individuals with supportive services needs through the state referral network. >

3

Preserve and restore when appropriate.

We used modern technology and clues from history in the design concept. Our design restores the exteriors of buildings A and C to their original appearances and carefully adapts the interiors to retain original historically protected millwork. The brick on both structures was carefully stripped of non-historic paint and repaired where necessary. The restoration project replaced non-historic windows on both buildings with period-correct type wood windows and replaced non-historic porches with wood porches. All exterior elements—window frames and trim, exterior doors, and exterior porches—were painted to match the original colors selected

by Pullman architect Beman in 1881. Importantly, we re-constructed the prominent mansard roof and brick parapet on Block House A's roof, which had been removed. Inside the buildings, the preservation effort focused on saving what historic elements remained including original staircases with wood newel posts and beadboard railings.

The new construction portion of the building is inspired by Pullman's aesthetic which is largely Beman's eclectic picturesque blend of historic styles. However, we made the new building easily distinguishable from the historic structures, in keeping with NPS's

Standards for the Treatment of Historic Properties. The new construction building complements the block houses and honors the craftsmanship of late 19th century Pullman without trying to look historic.

Pullman Artspace Lofts has won a host of awards including the 2021 Landmarks Illinois Richard H. Driehaus Foundation Preservation Award for Rehabilitation; the Chicago Building Congress Merit Award, Renovation and Adaptive Reuse Under \$15 Million; Landmarks Commission, Chicago's Best Preservation Projects of 2020; the 2021 Real Estate Journal Award for Affordable Housing; and the 2021 Real Estate Journal Award for Multi-family/Mixed-Use Redevelopment.

4

Balance affordability with quality and amenities.

This is truly affordable housing. An agreement with the Chicago Housing Authority ensures that apartments are reserved for residents making 30-60% of average median income for 30 years. The project receives Low Income Housing Tax Credits from the State of Illinois.

But it's also quality housing with art space and attractive amenities. Along with the 38 affordable live/work units for artists and their families, there is also on-site exhibition space, and ample community space.

Stantec designed the units themselves with artist-friendly features such as high ceilings, wide doorways, and large windows that are

conducive to a wide array of disciplines allowing for creation and transportation of large-scale artwork. The resident can shape the space in multiple ways as each unit features an open plan with moveable storage units and partitions that allow for maximum flexibility. Our design leaves the hallways as impromptu gallery space where residents can display their work and interact with neighbors. >



5

Tap into local culture.

Pullman Artspace Lofts connects to the neighborhood’s energetic creative community. Not only does it support an array of artists with affordable, flexible housing and workspace, it creates a mini hub for the arts in its public spaces. The Lofts reserve 2,000 SF of community space for use as a gallery, meeting place, and community room to host classes and cultural programs. PullmanArts, an organization which programs neighborhood gallery space, events,

studios, and arts education is located on the building’s ground floor.

6

Work locally.

The project also successfully engaged the workforce in the community—20% of the construction contracts went to minority and disadvantaged contractors, 47% of the labor was local to the community, and the design team had participation from minority and disadvantaged consultants.

7

Gain recognition.

By any measure, it’s been a smash success. A [Rustandy Center for Social Sector Innovation case study](#) at the University of Chicago Booth School of Business cites the Pullman Artspace Lofts and the revitalization of Pullman as national models for community renewal. Awards are a tool for recognition and inspiration, showing other communities, developers, and designers what’s possible. This design project has earned a host of awards and accolades.

Pullman Artspace Lofts may be modest in scale, but it is emblematic of creative approaches to housing that recognize context and history. But the most significant marker of success is that the apartments are 100% leased and fully occupied by multi-media artists, painters, photographers, musicians, and their families, and there’s a long waiting list to live at Pullman Artspace Lofts. **D**

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MORE MULTI-FAMILY RESIDENTIAL

Located in our Chicago studio, **Bill** is an architect and designer for numerous well-known projects and the principal in charge of the Higher Education and Residential sectors.



Image courtesy of ZGF Architects

Can adaptive reuse be the path to net zero energy?

Carbon reduction approaches to tip the needle from a competition winning concept

BY DARYL FONSLow





District Carbon concept

Rooftop open space



Today, 35% of Seattle's climate emissions come from building energy use. The [Seattle 2030 District](#) organization promotes building efficiency as a key element in making a more sustainable, resilient, and livable Seattle region. The 2021 Energy Design Competition asked competitor teams to demonstrate a path for existing buildings to reach net-zero energy (ZNE) by 2030. The resulting submission had to be 100% electric and address embodied carbon with a real budget and schedule.

Of three available options, the team selected a 33-story office tower built in 1980 and managed by Unico Properties located in Seattle's downtown core. The property included 6 levels of subterranean parking and an at-grade plaza fronting a bus transit corridor on Seattle's Third Avenue at the southeast corner of the site.

Inspired by progressive ideas and strategies for carbon reduction, we pushed the boundaries of current zoning and building codes on District Carbon.



Stantec teamed with ZGF Architects, KPFF, Lease Crutcher Lewis and various consultants on the competition entry we called District Carbon. Stantec performed energy modeling, mechanical/electrical/plumbing engineering and design visualization for the competition entry. In 2022, the Seattle 2030 District announced that District Carbon had won the first-ever Energy Roadmap competition.

Below, we're sharing some of the aspects of our approach, some broad, some specific that make District Carbon a powerful and realistic case study for reaching net zero energy performance in existing buildings.

1

Big ideas rooted in pragmatic thinking.

Our team approached the competition with big conceptual drivers—reduce Energy Usage Intensity (EUI) onsite to limit energy offsets, value carbon and energy equally, promote a walkable city—and these objectives guided our team from beginning to end. But we also designed within realistic limits. We would need to address seismic deficiencies, deal with legacy mechanical, electrical, and plumbing systems beyond their useful life, leverage viable existing equipment and shafts, maintain partial occupancy throughout construction, stay on budget, schedule and track phased investment, all while designing in response to current downtown zoning for livability and transit-oriented development. The result is a realistic concept that thinks big.

2

Reuse the building, efficiently.

Adaptive reuse is far more friendly to embodied carbon than new construction. Our reuse of the steel framed high-rise building required us to design for seismic upgrades and overcome existing conditions. We chose lighter cladding—low carbon, prefabricated panels with integrated photovoltaic film. Built offsite, these panels increase thermal performance, lower thermal bridging, and refresh the existing facade. The increased air tightness from the new envelope panels improved the performance of the proposed energy recovery system. >

3

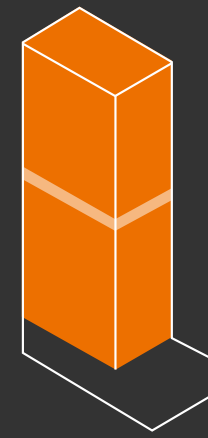
Rebalance program to reduce energy usage intensity.

We analyzed maintaining a full office program versus switching to a mixed-use program of residential and office with the goals of optimizing the building's energy use while allowing for some continued occupancy during phased construction. In either scenario, we would maintain many existing systems, which constrained the possibilities for core and shell reuse. Looking at the data, we arrived at a mix of 80% residential and 20% office which allowed for synergies in the building systems, reuse of existing shafts and hitting an EUI of 19.1, a significant improvement from the 53.4 EUI for a 100% office program.

The mixed-use nature of the building plays up livability. The team created a design concept that reached out to engage life on Third Avenue by adding shared amenities that make downtown living attractive and practical—recreation areas, rooftop terrace, daycare, electric vehicle charging, and bike parking.

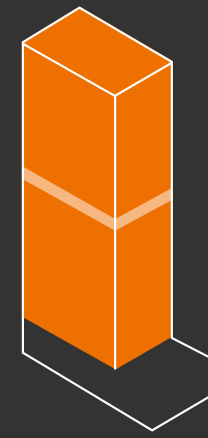
The existing building's 100% office program has a 53.4 EUI. We analyzed a series of program scenarios that would allow it to maintain consistent energy use and take advantage of synergies while reusing many existing systems and the core and shell of the building. We arrived at a program mix of 80% residential and 20% office that would enable us to apply energy conservation strategies to obtain an estimated EUI of 19.1.

ESTIMATED EUI BY PROGRAM MIX



EUI = 53.4

Baseline
100% Office



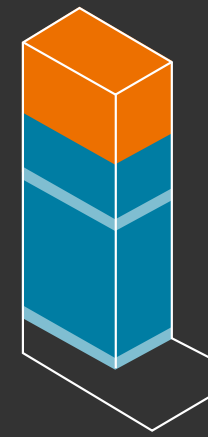
EUI = 23.2

Scenario 01*
100% Office



EUI = 22.9

Scenario 02*
50% Office / 50% Residential



EUI = 19.1

Scenario 03*
20% Office / 80% Residential

■ Residential ■ Office EUI = kBtu / sf / year

* Scenarios 01-03 include façade and MEP upgrades

4

Update power system for control and flexibility.

The building's aging power distribution system had become difficult for the owner to maintain. Rather than extend its life or replace in-kind, we looked for a system that could grow with the building and offer additional resilience. The concept includes a system that can plug-in to future renewables, initiate demand response and manage peak energy usage, layer in smart monitoring and control systems as needed, and harness the power and resiliency of emerging smart buildings technology. These strategies will enable the property manager to operate their building like a microgrid, adjusting energy use when appropriate.

5

Update mechanicals for efficiency.

We devised an active/passive hybrid mechanical solution with a new HVAC system. The design separates ventilation air from heating and cooling, so that residential units can leverage natural ventilation during the moderate weather months and utilize a modest volume of dedicated ventilation air during the more severe weather months or when air quality is poor. A four-pipe system delivers heating and cooling, leveraging a heat recovery chiller which supplies radiant panels on the office floors and fan coil units in the residential units. The temperate climate in Seattle makes this low energy intensity approach possible. >

ENERGY APPETITE REDUCTION

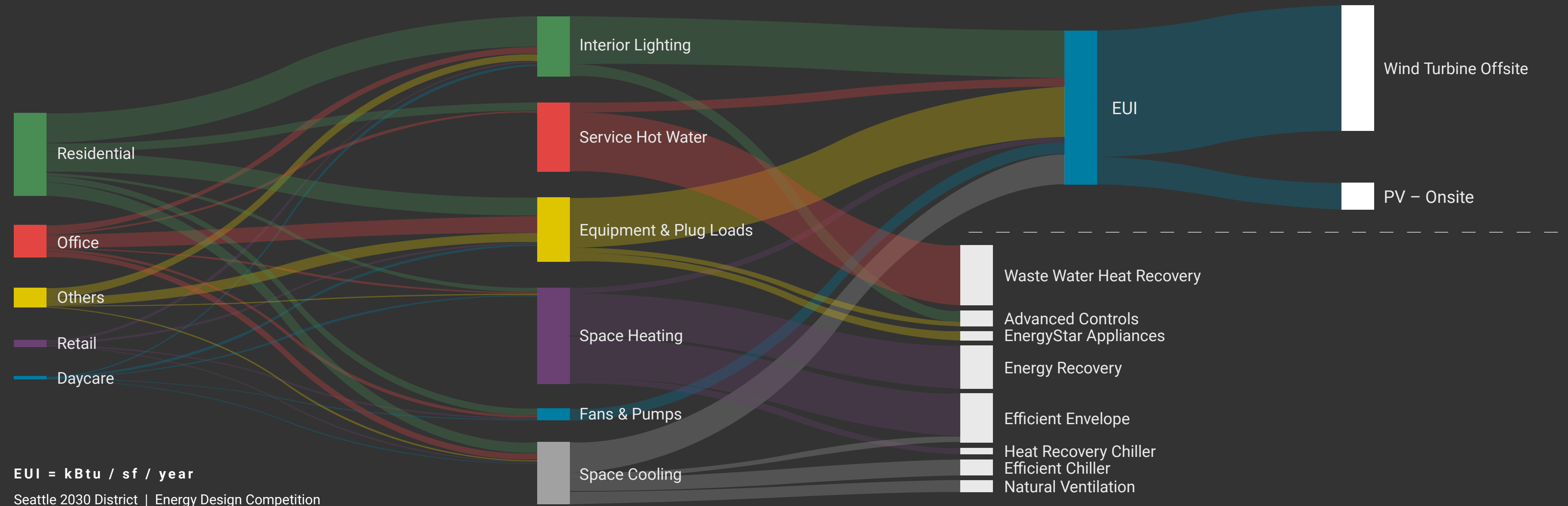


We organized the repositioned building's mixed-use program by space.

We calculated the building's energy loads by use resulting in 53.4 EUI.

We proposed various energy conservation and recovery strategies and technologies such as wastewater heat recovery to reduce the EUI.

The building's remaining energy use is offset through renewable sources including offsite wind turbine and onsite PV



EUI = kBtu / sf / year
Seattle 2030 District | Energy Design Competition

6

Find synergies.

Throughout this competition project, we looked for synergies. Within the building we looked to capitalize on the mixed-use program and found heat recovery and water cycle as the largest influencers of energy saving. The team considered district level ideas such as recovering heat from the public sewer line or from nearby buildings, and even sharing renewable sources with other buildings. In the end, we determined the most efficacy was found in building-centric synergies. We used heat recovery in both wastewater and return air systems, grey water production from residential covered water demands for the entire building, and multiple photovoltaic installations to drive EUI down substantially. We were able to offset 18% of the total energy usage of the building through on-site Building Integrated Photovoltaics (BIPV) on the facade and solar panels on the roof. >

PHASES

Phase 1

Office tenants start to move out as construction begins.

Phase 2

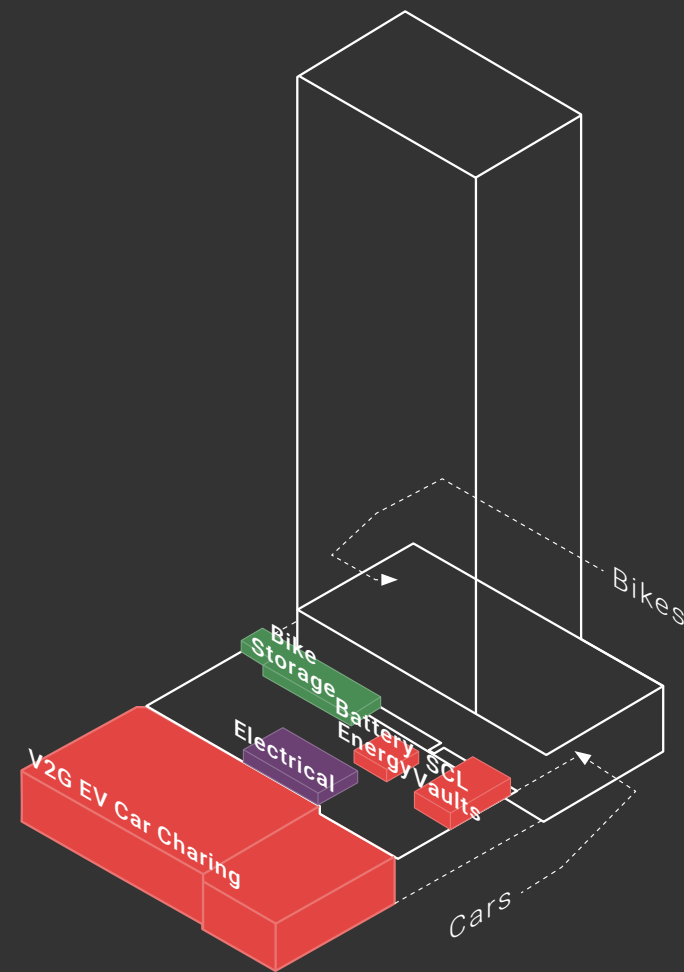
Building envelope removal and replacement utilizes a phased implementation approach, where several floors are completed simultaneously with downstream office build-out.

Phase 3

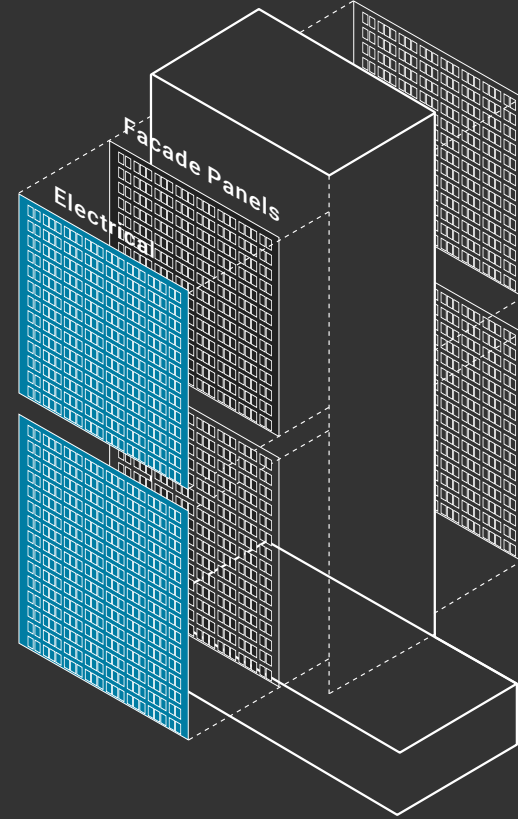
Office tenants can take occupancy.

Phase 4

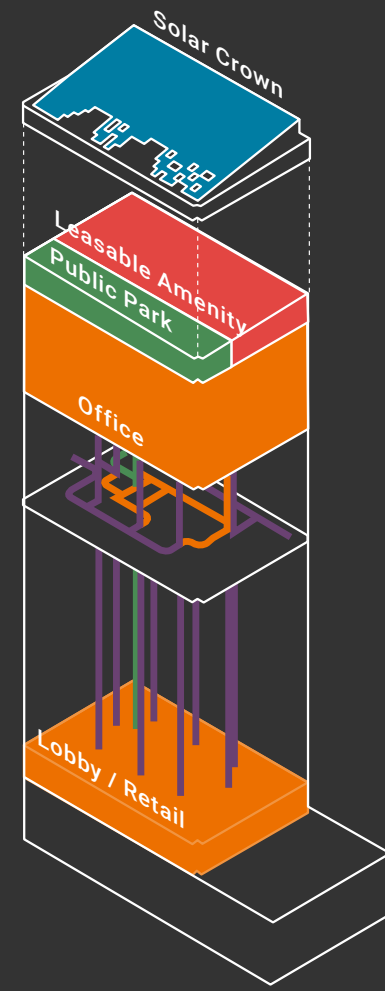
All building system enhancements and modifications are complete and the building can be fully occupied.



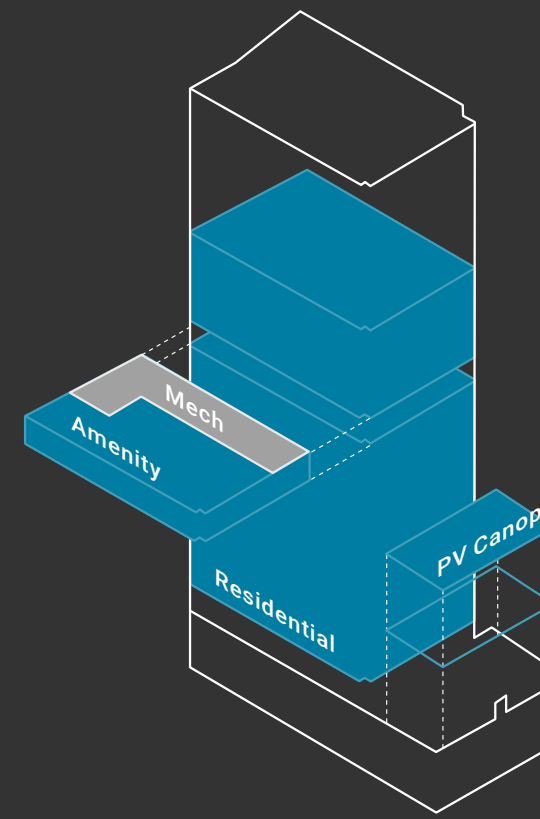
Infrastructure Upgrades



Envelope & Structural Upgrades



Warm Shell Office & Public Amenities



Residential Conversion

The 1111 3rd Avenue project is broken into four distinct construction phases: Infrastructure Upgrades, Envelope & Structural Upgrades, Warm Shell Office & Amenities, and Residential Conversion.

7

Design for energy resiliency

Today, we take the idea of personal vehicles for granted, but in ten years, we may simply pay for rides in autonomous vehicles. In the meantime, the idea of shared electric vehicles (EV) is appealing to city dwellers. So, we proposed that the garage should provide a building-owned fleet of shared EVs available to residents and office tenants for their use, as needed. In addition to a battery energy storage system, we utilized bi-directional chargers for the EV fleet which gives the property manager the flexibility to utilize the EV fleet as a battery storage medium (even emergency power) to enhance resiliency. Along with onsite renewables and a smart building monitoring and controls, this approach gives the property manager more capability to control peak energy usage, driving building utility costs down and lessening dependence on the city's power grid.

In this competition entry, the Stantec team developed building system engineering solutions that target net zero, energy resiliency, and a low carbon future for downtown high-rise buildings. While we thought big on the District Carbon, we grounded our approach in a suite of strategies that are available and applicable today. There's no reason we can't take this low carbon approach on building conversions today and tip the needle towards net zero for our clients and communities. **D**

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MORE MIXED-USE

Electrical engineer, project manager and LEED designer **Daryl Fonslow** leads Stantec's Seattle office and acts as principal in charge for projects across the higher education, science and technology, commercial, airport, and civic sectors.

AMPLIFYING EXPERIENCE

WHY AND HOW GATEWAY CITIES ARE REIMAGINING POPULAR MALLS AS BUZZING MIXED-USE COMMUNITIES.

BY DARREN BURNS



Prior to the pandemic, the typical mall owner would plan to reexamine and reinvigorate its spaces on a five-to-10-year cycle to reanimate, reactivate the mall, attract new tenants, increase dwell times and hit all the key metrics of retail success. Malls that might be struggling because of poor location or tenant mix would look to make changes to increase the quality of their tenants or leases per SF. The typical mall, an enclosed retail center with anchor tenants surrounded by a donut of surface parking, was judged, redeveloped, and refreshed by its owners from a retail perspective.

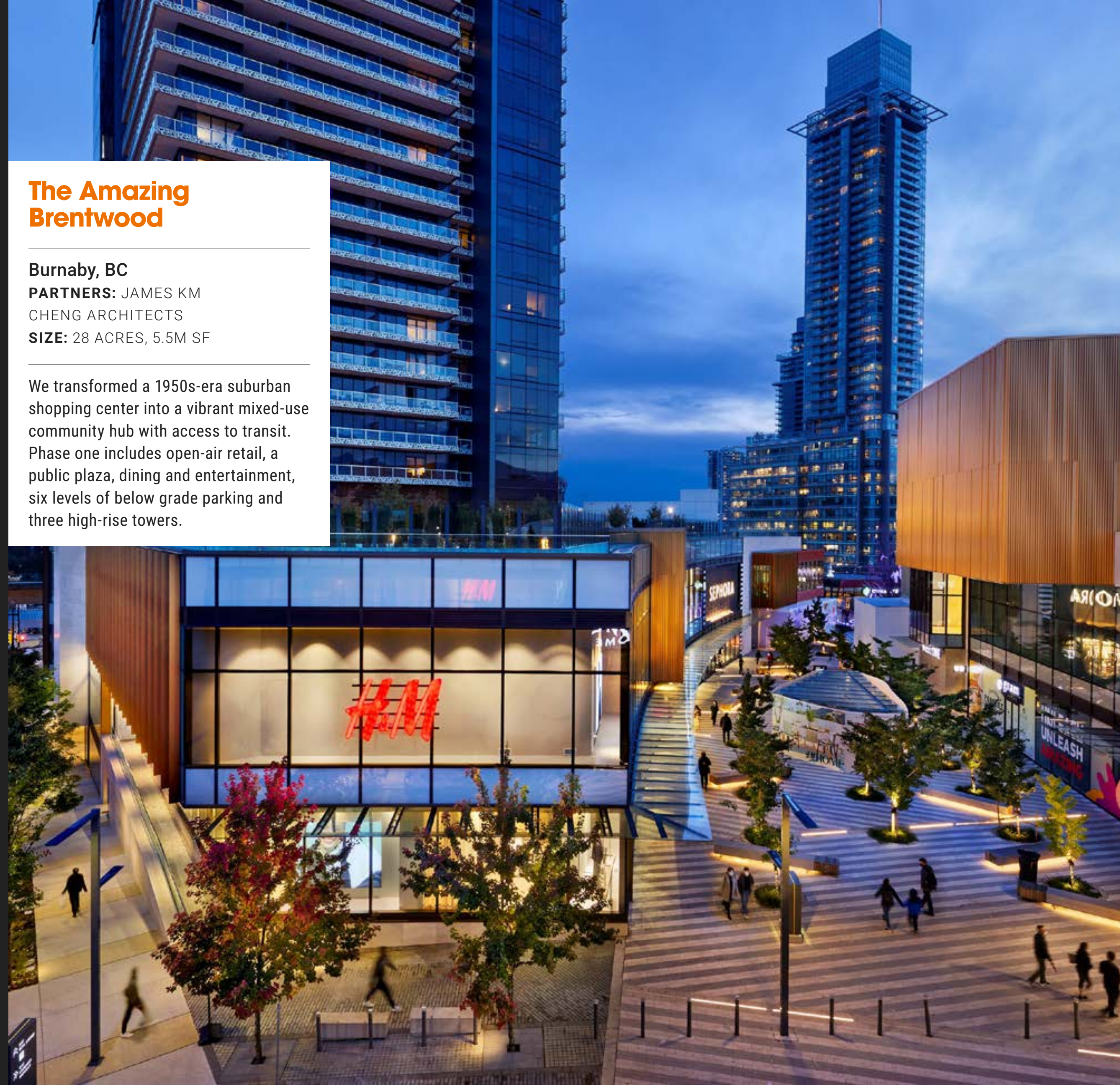
The Amazing Brentwood

Burnaby, BC

PARTNERS: JAMES KM
CHENG ARCHITECTS

SIZE: 28 ACRES, 5.5M SF

We transformed a 1950s-era suburban shopping center into a vibrant mixed-use community hub with access to transit. Phase one includes open-air retail, a public plaza, dining and entertainment, six levels of below grade parking and three high-rise towers.



In recent years, many malls have taken a hit from the rise of omnichannel retail and the decline of anchor stores. But today even malls that rank in the top ten for North America—highly successful revenue generating retail complexes with bustling Apple Stores—are getting a second look from the development industry.

Increasingly valuable land

Why? Location. Malls tend to be well located. And in some parts of North America, particularly in the metro areas of gateway cities such as Boston, Toronto, San Francisco or Vancouver, the value of the land they occupy has escalated dramatically. For instance, the price of land in Vancouver's Lower Mainland has skyrocketed to a point where the land a mall sits on is worth more than the aging asset that sits on top. Developers are choosing to reposition or augment the value of their mall real estate based on land value. These properties are increasingly being acquired by developers with aspirations beyond pure retail execution who want to expand their development focus to include office and multi-family residential. All over North America, investors are balancing the value of the retail asset with the site's development potential, they're reevaluating their mix. >



Maximize density

Developers want to maximize density and increase returns on this expensive real estate. They see that existing malls have a vast number of opportunities and variables they can play with to achieve a project that meets today's needs. They can leverage additional development on the retail side, around the workplace, or with rental or privately-owned multifamily residential units—in a mixed-use model that suits the local market and microeconomic conditions.

This is happening at dozens of malls across North America. Two great examples are found in the greater Vancouver area—The Amazing Brentwood in Burnaby and Oakridge Centre in Vancouver. Both malls have high land values, possess large areas of land (roughly 28 acres with surface parking), present themselves similarly to their urban surroundings and somewhat surprisingly, find themselves directly adjacent to mass public transit, the SkyTrain



Oakridge Centre Redevelopment

Vancouver, BC

PARTNERS: PARTNERS: HPA (RESIDENTIAL), GENSLER

SIZE: 28 ACRES, 4.36M SF

Vancouver's first mall was built in the late 1950s. Over the next decade Oakridge Centre will double its retail size and welcome new retail, millions of square feet of residential, children's play areas and a rooftop park.

system. Each site offered their client numerous opportunities for building density, especially through transit-oriented development. Both Brentwood and Oakridge were purchased by developers with great depth of experience in both retail and residential.

Likewise, Metrotown, the largest mall in Burnaby at 70 plus acres (where Stantec is currently creating a comprehensive 80-year master plan) is a site that current ownership is keen to densify and maximize the opportunities that the land value and city's community plan presents. >

Altogether, this represents a compelling set of business drivers fueling the trend toward transformation of successful malls into complex mixed-use developments.

Deconstructing the experience

Previously characterized by an enclosed perhaps skylit mall surrounded by shops and surface parking, a new paradigm is emerging for these properties. By taking a new approach and turning the mall experience inside-out, we can create a public realm experience that greets and animates the exterior urban realm interweaving elements of the outdoors: the street, the sidewalk, trees and the sun into the retail experience.

It also prioritizes activity within the lower floors of new buildings. The podium base is where the action is—supporting commercial space, office and entertainment uses alongside retail. Brentwood is characterized by two or three stories of podium mall, below

grade parking for residential and retail elements, and tall towers—a mix of residential and condo residences. Within its podium, Brentwood has movie theaters and an associated gaming venue. The complex offers more food and beverage than a typical high-end fashion mall. On top of the podium, the semi-private roofscape offers outdoor amenities for residents.

Existing mall as challenge

This new vibrancy of this mixed-use development necessitates that owners update the existing mall so that it can stay relevant. Should it be torn down and replaced, renovated? That depends on several factors. If the mall is generating significant revenue and/or its existing lease agreements are complex, it may need to stay operational during construction.

But mixed use is not the only solution. Most North American communities are heavily over-retailed and as omnichannel shopping expands, the list on deadmalls.com will continue to grow. >

Metrotown

Burnaby, BC

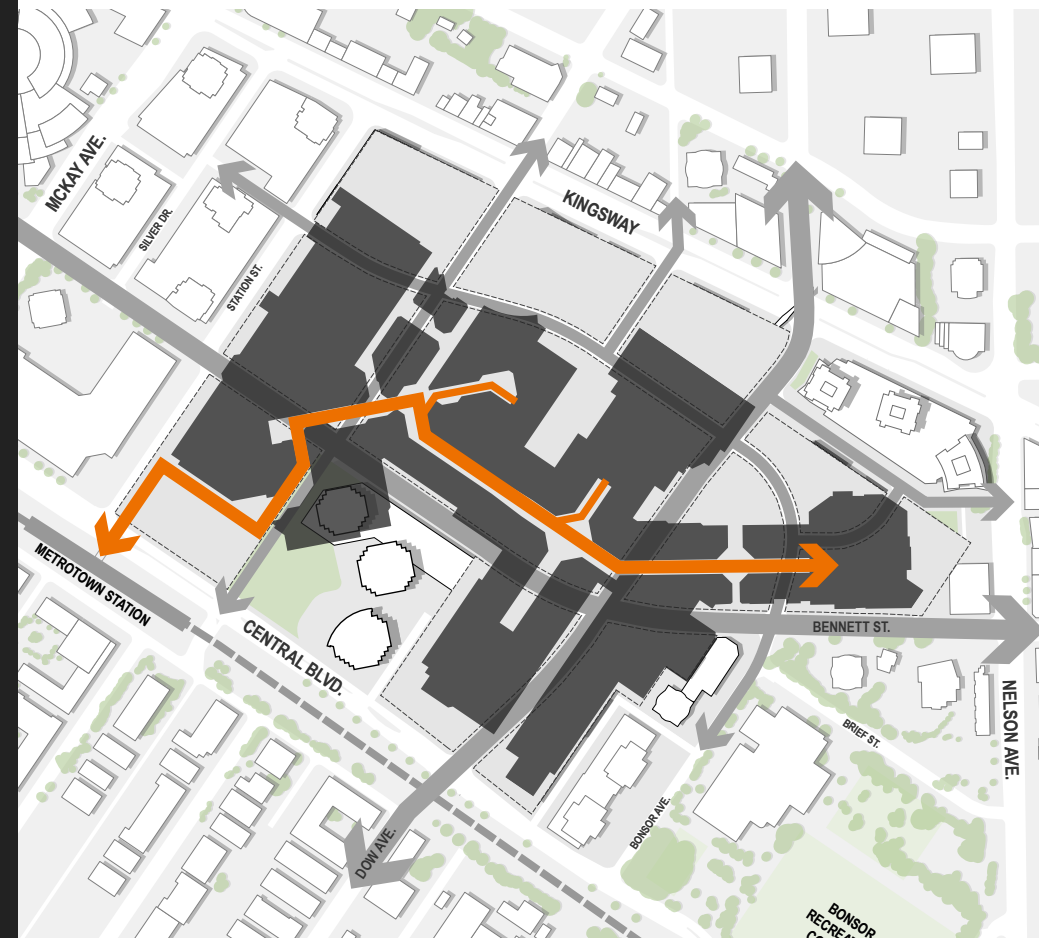
SIZE: 47 ACRES, 1.6 SF

At Metrotown, we're working on a transformation and reimagining of a traditional fortress mall into a vital retail hub. The new livable density of Metrotown will support market, retail and affordable housing alongside civic, retail, cultural, education, and office spaces with strong connections to transit nodes, strong connection to nature and embedded resilience, environmental and social sustainability.

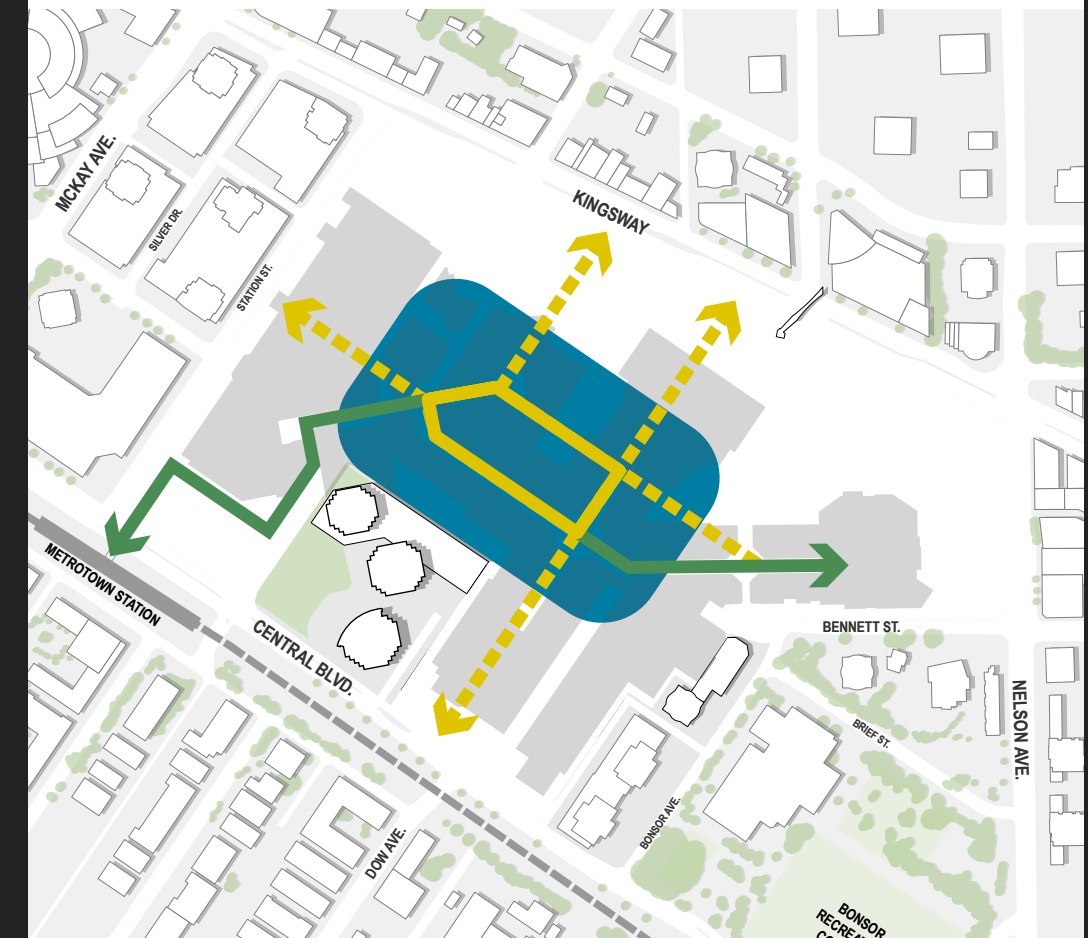
Legend

- █ New Retail
- █ Existing Retail
- █ Metropolis Masterplan New Retail Core
- ▬ Internal Circulation
- ▬ Metropolis Existing Internal Circulation
- ▬ Metropolis Proposed Core Circulation
- - - Metropolis Proposed Core Circulation
- █ Retail Core
- █ Metropolis Existing Footprint
- ▬ Metropolis Masterplan Road Network
- ▬ Perimeter Truck Entrance
- - - Below Grade Truck Network
- Mobility Hub

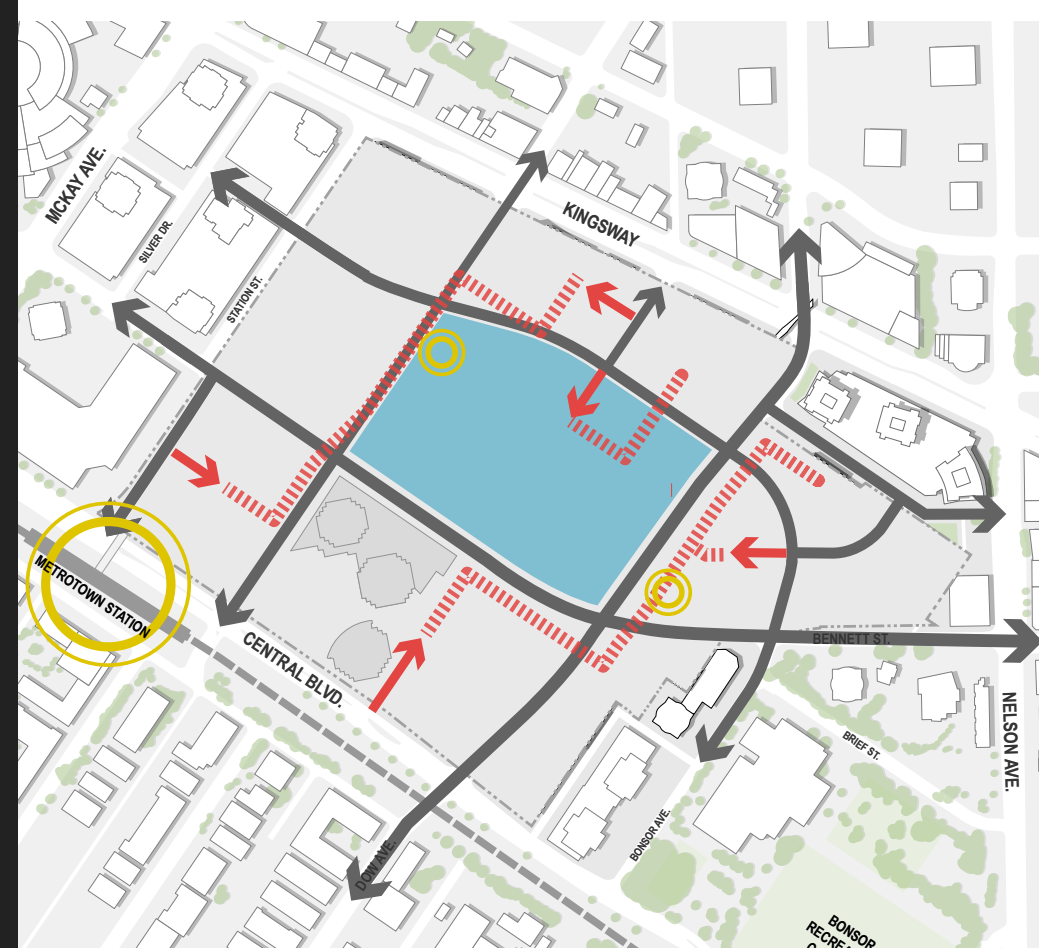
Existing Centre



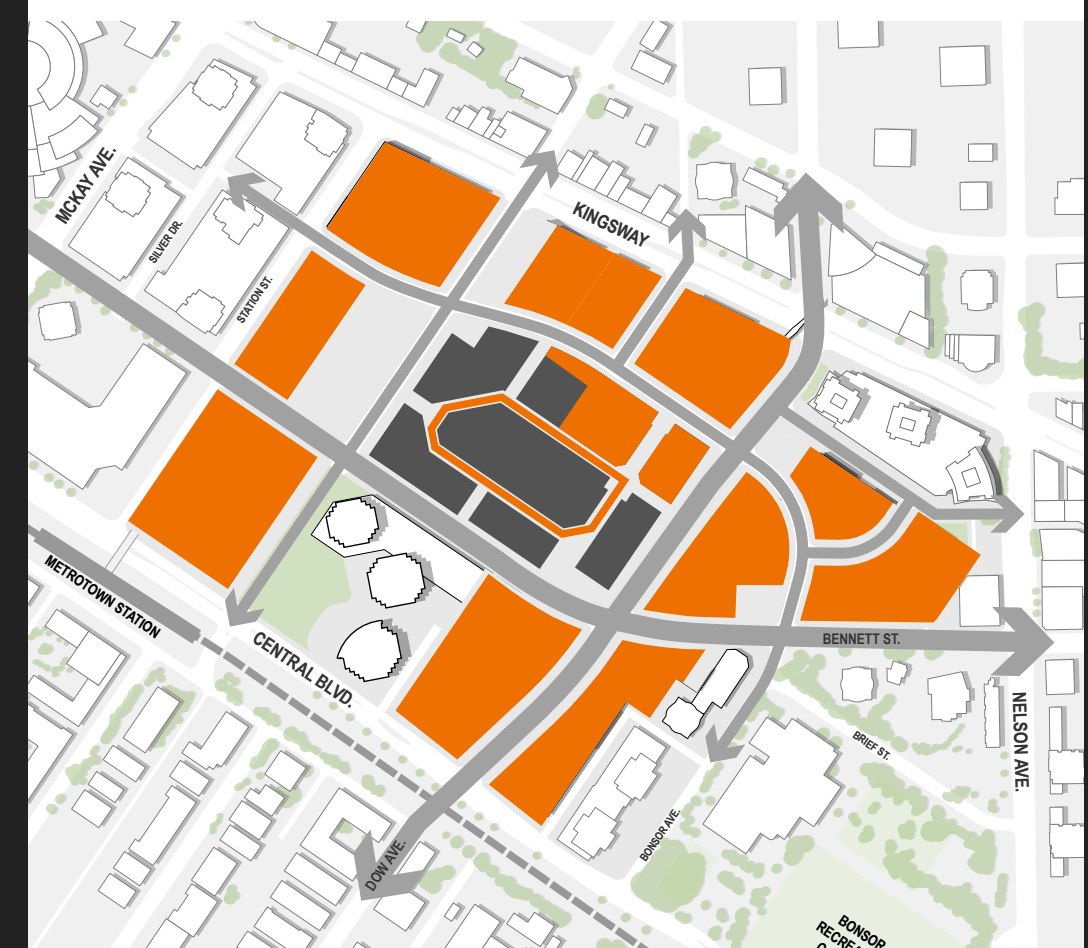
Retail Core Goal



Connection Goals



Final Phase





The Amazing Brentwood Burnaby, BC

Transformation and adaptive reuse are taking advantage of an ever-changing landscape. An anchor tenant space for Sears today may be an Amazon last mile distribution center tomorrow or a new community-based health center.

Better places

There's clearly a compelling business case to invest in these multifaceted mixed-use communities for owners and developers. But this approach also gives us an opportunity to create better places with long-term relevance that are more financially resilient than heavily retail-dependent malls of the past. We design these new mixed-use environments with a focus on public amenities and activity, the outdoors, and unique and shared experiences rather than the retail transaction, an event which can happen almost anywhere today. If we take the long view, these places are about gathering, experiences, dining out, enjoying leisure time in the public realm. Retail, too, is evolving. To

stay relevant, retailers must tap into real-time experience.

As a bonus, these mixed-use communities feature a robust resident population for the development—potentially 6000 residents in the towers at Brentwood, for example, bring new patrons to the mall and its surrounding neighborhood with commerce and activity. When we can modernize and activate our malls to offer experiences that aren't available online, our projects are more likely to stand the test of time. **D**

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MORE URBAN PLACES

Based in Vancouver, BC **Darren Burns** is an architect, designer, and leader specializing in the commercial sector, including retail, mixed-use, and complex project delivery.



 **The Tennyson** Plano, TX

ASK THE EXPERTS:

When does building conversion make sense?

BY GINGER DESMOND (BOSTON, MA) AND JULIE ZITTER (AUSTIN, TX)

When we see imbalance in the availability of building types, conversion of buildings to new uses attracts greater interest. A decade ago, we might have seen more warehouse and factory space repurposed for offices. Today, the excess supply of office buildings makes the idea of conversion to residential or mixed-use more attractive.

We're using the term building conversion to refer to a complete or partial repurposing of an existing building to a use it didn't have

previously: turning a big box retailer into a training center or clinic, adapting an office building into mixed-use residential/coworking/retail, turning office buildings into lab spaces, etc.

We asked two experts to tell us about building conversion in their markets and share what they see as the significant challenges and opportunities in adapting buildings from one use to another.



Q Where are the opportunities for building conversion in your market?

JULIE ZITTER: Here in Austin, land and properties of any kind are relished. Austin has been the fastest-growing major metro in the country for nine straight years, from 2010 to 2019. Roughly 170 people move to Austin each day. A lot of this growth is being driven by the relocation of major companies to Austin, overall great business opportunities in the state of Texas, rich technology talent, temperate weather, and a vibrant music and culinary culture. All these attractions create a multiplier effect for local businesses.

GINGER DESMOND: In the Boston market, pressure for laboratory space is intense. New ground-up building sites are becoming scarcer, so conversion of existing buildings is becoming more appealing. Opportunities can be from a variety of different places—anything from warehouse

buildings to converted office towers in areas with a high concentration of existing labs.

Q How is this affecting your work?

JZ: As a result of the boom in Austin, we are increasingly asked to look into existing lots and determine the best use. This requires our urban planning team which specializes in interpreting local entitlements and land usage to help guide clients toward a course of action. Our urban planning, architecture and engineering teams work cohesively so that the building represented matches the usage determined.

In some cases, the usage is dictated, in others, there is more flexibility so a developer can determine a development plan for their preferred proforma. It's not just land that we study; we also study existing buildings >





TAKE A VR WALK
THROUGH THE
LABORATORY

and how they can be re-positioned to meet the client's expectations. We need to fully vet the building for usage, life safety, and parking requirements.

Q What uses are in demand? Where is there an oversupply of building types?

JZ: In Austin, it's industrial. And lab space for all types of labs—biotech and life sciences, semiconductor, you name it!

GD: In Boston, the most plentiful opportunities are in labs and residential. Currently we have an oversupply of office space.

Q What makes a building a good candidate for conversion?

GD: Good bones! For lab conversion, the criteria are high floor-to-floor spaces with a

structural grid conducive to lab layouts, low building vibration and adequate space to accommodate the required MEP systems and equipment, including both rooftop and shaft space.

JZ: Great location, large floor plates, and tall floor-to-ceiling heights especially on the ground floor make buildings attractive for reuse. Other pluses include an existing loading dock, ample parking, and robust existing infrastructure.

Q What makes a building especially desirable from an embodied carbon/reuse perspective?

JZ: With reused buildings fewer materials need to be manufactured and shipped to the site so these projects have a smaller carbon footprint. The green story about reusing materials, giving new life to a building with a reduced carbon footprint versus new construction >

is a great story to tell. And we and our clients should be telling it loudly.

GD: Saving an existing building is always good for embodied carbon.

Q What are the biggest issues for an owner client who wants to convert existing portfolio to a new use?

JZ: I find that setting expectations upfront immediately is good practice. There will be some benefits for repurposing of materials/bones, but like any renovation, there are unknowns. I advise clients to keep a contingency fund to mitigate those unknowns.

GD: I tell clients to be aware of the building infrastructure (for labs) but also the capacity of the location to support the use, ie availability of incoming services to the building.

Q What makes building conversion attractive for the owner and tenant? Is it about neighborhood context and amenities? Or more about the flexibility of the structure and systems?

JZ: Speed to market, offsetting new constructions costs, less is more, and the sustainable aspects are all attractive to the owner. With building reuse, it doesn't have to be full LEED project for the client to highlight those proof points. Currently, the cost of construction is extremely volatile, along with lead times for certain building materials, so more clients see the benefits of repurposing some or all building components to offset the lead time and building material costs.

You're also saving money by not buying new foundation, structural steel, roof, etc. The list of what you can reuse depends on the asset to be re-purposed. The timetable is lessened since you are not depending on long lead time >



items such as steel, high deck studs, etc. with building conversion.

I think neighborhood and amenities are added perks beyond the building and its site. But for most clients it's more about flexibility of the structure and availability of systems.

GD: Speed to market—conversion is typically faster than ground up construction for owners. Structural and systems flexibility is essential for lab tenants.

For a lab tenant, an existing building can provide an interesting space and established neighborhood context. The neighborhood context is important to some clients, especially access to transit. With lab conversions, we're often charged with designing an internal neighborhood with collision zones, collaboration spaces and cafes where colleagues can connect outside the lab.

Q What are the most expensive aspects of building conversion? What kind of surprises are possible?

JZ: Infrastructure; any utility upgrades, if applicable, any flat work site improvements. Potentially some level of remediation dependent on age of asset. With re-purposing and renovation, the surprises come in the existing conditions. Sometimes you can't see where the issues are until they are uncovered. Brokers/owners typically don't keep great files/CADD drawings.

Q Can you share any examples of success in converting a building to a new use?

JZ: Our client bought a former bike shop on the edge of UT Austin campus, and we fully designed it to be their new lighting showroom, offices and a rooftop deck with views to Austin for entertaining. Unfortunately, the project halted due

to COVID, and they have since sold the property. Buildings, especially those with great locations, move quickly in Austin.

We are designing the conversion of a former classroom/warehouse building on two acres for a school district's (new) administration building to meet the districts' goals for collaboration, retention and growth. Repurposing the buildings most meaningful materials will save the school district money and time versus new construction.

GD: With a client in California, we took a hundred-year-old former warehouse and medical office and converted it to laboratory space for a start-up in the cultured meat industry.

Keep an eye on the [Stantec IDEAS blog](#) for more thoughts on building repurposing. **D**



Biologics Discovery Center Expansion Phase III Redwood City, California

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MORE WORKPLACE

Ginger Desmond is a project manager and lab planner who works with our team in Boston, creating beautiful, and functional spaces for the sciences.

Based in Austin, TX **Julie Zitter** is Stantec's Workplace Market Leader. She specializes in interior design for workplace and higher education clients.



FINAL THOUGHT

Revitalizing the urban realm

Seven big ideas about people-centered design for open space

BY JORDAN BLOCK



Working from home has inspired us to think about open space and our cities in different ways. But cities are complex creatures. What are some approaches we can take forward in making cities that thrive?



Brighton Boulevard
Denver, CO

This complete streets project features 1.7 miles of protected cycle track, new pedestrian amenities, 300 new street trees, and over 28,000 square feet of LID stormwater drainage infrastructure.



1. Reclaim space for people.

Connection is important to people. And public open spaces are valuable as democratic places where we can connect with each other. Recent events have shown us there is a demand for more and better quality urban space and that we critically lack a diversity of public space in cities. However, urban cores are where we can least afford to buy land, so we must get creative. City streets are our largest untapped resource of publicly owned space. They present an opportunity for us to reclaim space for recreation, wellness, and social connection—not just getting around. In urban cores around the world communities undertook reclamation experiments which created momentum in this direction and showed people the hidden potential in streets. Though many of these installations are temporary, they have a lot to teach us and should influence the way we design streetscapes going forward.

2. Multi-dimensional design

Our ever-diminishing municipal budgets have proven that every design intervention must do more than one thing. We simply cannot afford single-use infrastructure anymore or single-use places. For our recent revitalization of Brighton Boulevard in Denver, for example, the design team was challenged to create a place that could stand on its own as a neighborhood amenity providing comfortable space for biking, walking, resting, and observing while also fulfilling its role as a major freight corridor. Adding to the complexity, we had to redevelop this industrial artery to perform significant stormwater management. It's not just a street: it's a linear park, a critical piece of infrastructure, and a catalyst for future development. >

3. Bigger isn't always better. Think about equity, sense of ownership.

The idea of big open or green space can be attractive. But we shouldn't judge parks or plazas on size alone, we should look at equitable access. How do we create the right spaces for the community? Where do people live and what's available there? How will the open spaces reflect their community and culture? We need to create spaces that the diversity and density of population will support. All successful open spaces instill a sense of ownership and passion in the people that live or work nearby. This sense of ownership over the public realm ensures that people will occupy it, use it, keep an eye on it, and make sure it is maintained. Limited but packed open space is a better indicator of community strength than larger tracts of underused space.

4. Make it intuitive, comfortable to use. Connect it.

Thoughtful design can make or break public spaces in the urban cores. It often comes down to a few key principles: Are they intuitive and comfortable to use? Are they inviting and accessible to all people? Are they embedded in the city's fabric and surrounded by uses that will give them life all day long? The connections between the public space, people, and context are often more important than the design of the space itself. However, great design and thoughtful attention to detail will elevate a good open space to one that is iconic and beloved. >

Ⓢ Brighton Boulevard Denver, CO



5. Design to let life happen.

Of course there are highly designed spaces that are attractive, interesting, and successful. But we shouldn't forget that often the most successful open spaces in the public realm are flexible, open-ended places where the users define their experience. Chicago's Millennium Park has Anish Kapoor's ITAL Cloud Gate ("the bean") and Jaume Plensa's Crown Fountain and it draws tens of thousands. These attractions work because they're inviting and engage the public, but also because they offer a big platform for human activity. The rest of the park is a mix of programmed space and recreation, but still leaves lots of room for the user to fill in. We need to design places that act as great backdrops and platforms, open-ended spaces where life can happen. Success of these places, however, depends on the intensity and density of people and uses to support them.



McGregor Square

Denver, CO

McGregor Square connects the Rockies ballpark to the LoDo neighborhood.



6. Create places for people, not just tourists

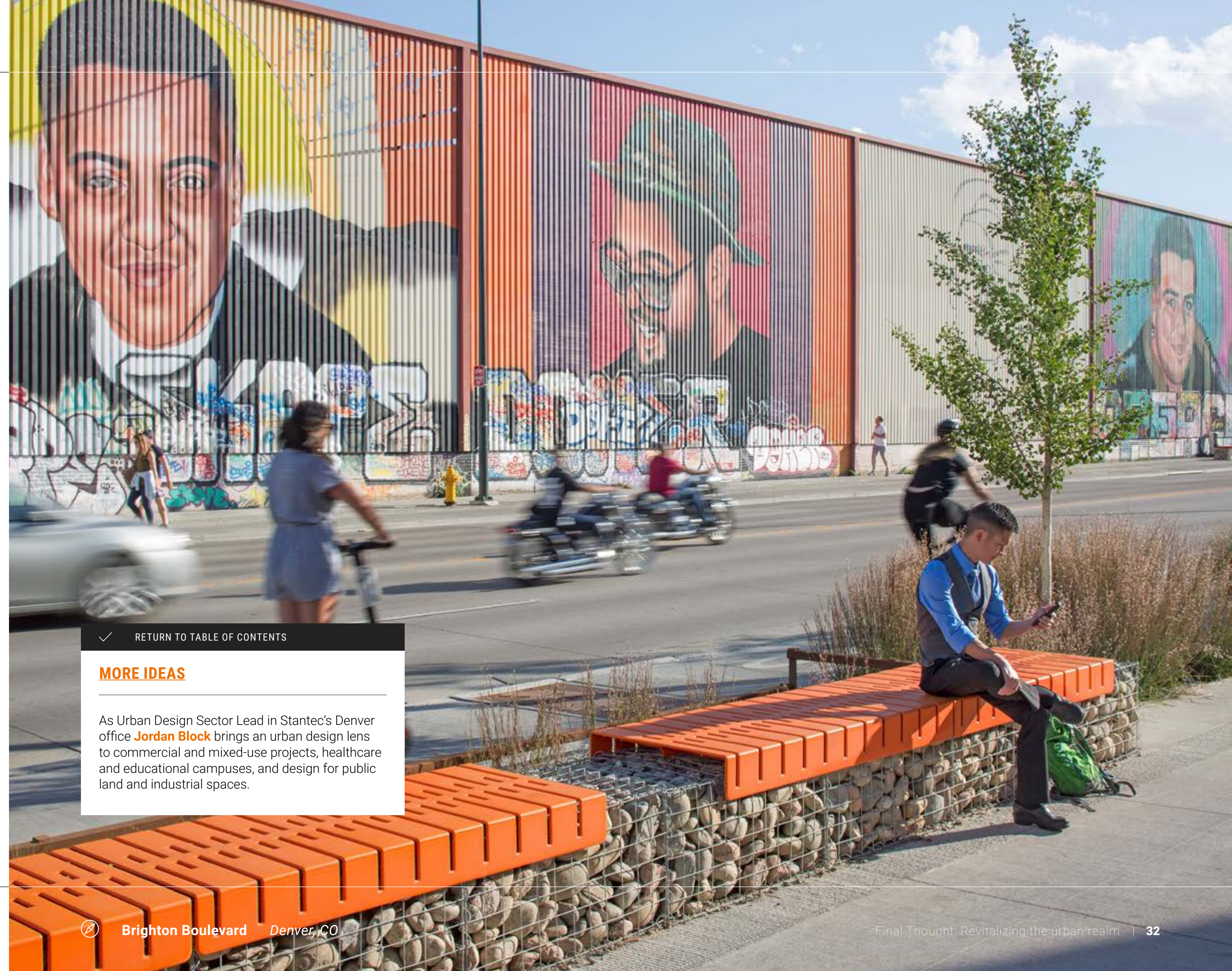
Over the past decade the installation of large entertainment uses, such as minor league baseball stadiums, in downtown cores has emerged as a major trend in urban revitalization. People visit entertainment districts, have fun, then go away and do something else. Successful urban space must be more dynamic and multi-dimensional. The recently completed McGregor Square in Denver finds that critical balance between being a component of this large entertainment need—in this case a gateway and gathering space for the Major League Baseball stadium next door—and, equally importantly, as an extension of the great fabric of the Lower Downtown neighborhood. McGregor Square's hotel, its homes, its office, and its dynamic uses make it a component of the city. And it features a public realm piece that's flexible and open for general use and available for both programmed and private uses.

If you create a place that's purely for entertainment and tourists, then that's all it will ever be. However, when you design a place for the people within that community—the people who live and work around those spaces—the tourists will come, too. If it's well loved by the people who live there, it's going to be well loved by visitors, too. >

7. Design for health and wellness

Recently Stantec's Global Health Sector Leader Brenda Bush-Moline wrote about the need for design to reorient toward a [holistic vision of an equitable healthy community](#). Likewise, we need to talk about making health and wellness a part of every design decision when working towards a cohesive urban environment. Today, there is a lot of great research and design for health and wellness in buildings, interiors, and landscape design, but it is critical that we integrate this same thinking into the design of large urban places. This is especially true when we are designing new districts or large developments from the ground up; when we control all aspects of design, there is no excuse to get it wrong. We know that textures, colors, materials, and the way we experience space can have a direct impact on our perception and health. We can apply a data and evidence-based approach to health and wellness at every level in urban development. It's going to require us to connect brilliant healthcare thinkers, landscape architects, architects, engineers, urban designers, and many other great thinkers to truly understand the impact of our design decisions on the health of the people use our spaces.

As designers, we bear the burden of creating places that have legacy, that endure and become cornerstones for the community. We have the responsibility and the duty to get it right. **D**



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MORE IDEAS

As Urban Design Sector Lead in Stantec's Denver office **Jordan Block** brings an urban design lens to commercial and mixed-use projects, healthcare and educational campuses, and design for public land and industrial spaces.



DESIGN QUAR- TERLY

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