

Health Drives Value in Real Estate

New Data Indicates Prioritizing Occupant Health Drives Real Estate Value





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One of the QuadReal team’s sustainability goals is to create healthy environments so our tenants and residents can flourish. From the start, we believed that investing in best-in-class operations and amenities would make healthier spaces. This aligns with our commitment to being a Responsible Company. Thanks to our collaboration with CfAD, we have found a clear correlation of a higher Fitwel score with a greater willingness of occupants to recommend the building to their friends and colleagues. This reinvigorates our conviction to invest in healthy buildings and benchmark wellness more broadly in our portfolio.”

Jamie Gray-Donald

Senior Vice President, Sustainability & EHS
QuadReal Property Group

Welcome



Joanna Frank

President and CEO
Center for Active Design
Active Design Advisors, Inc. (Adai)



Jamie Gray-Donald

Senior Vice President,
Sustainability & EHS
QuadReal Property Group

CONNECTING OCCUPANT SATISFACTION TO HEALTH

Over the past century, public health research has clearly identified the connections between the built environment and the health outcomes of occupants. As the focus on occupant well-being throughout the real estate sector intensifies, these connections are more important than ever. And in the wake of the COVID-19 pandemic, building owners have been met with increasing demand to provide data showing how their built environments impact human health. To instill trust, it is critical that building owners respond to this demand with metrics backed by sound research.

Demand for health certification systems has seen significant growth in recent years. As a result, more data is now available about the effectiveness of healthy building strategies to positively impact occupant satisfaction. Do people respond to the strategies identified in public health research and implemented in their facilities? This report focuses on the role benchmarking plays in providing a gap analysis of design and operational strategies, and correlating them with data on tenant satisfaction and real estate value.

The groundbreaking analysis described in this report is the result of a singular partnership between the Center for Active Design and QuadReal Property Group. Sharing a firm commitment to improve the health of communities everywhere, our organizations have combined our respective skills to look closely at how tenants perceive healthy building strategies, and to identify additional opportunities to improve the places we live and work. By comparing QuadReal tenant satisfaction surveys and financial data with the information gleaned from their benchmarking of 60 properties in the Fitwel Platform we are able to outline the ways in which these strategies are recognized by tenants and residents for the first time, establishing that **health drives value in real estate.**

INTRODUCTION

Quantifying the Value of Promoting Health

THE QUESTION

The positive impact healthy building strategies have on well-being has long been established. The growth of the Fitwel standard speaks directly to this understanding, both responding to and accelerating market demand for buildings and communities that improve health outcomes. But a persistent question often follows in the wake of applying these strategies. **Do people respond to these healthy building strategies even when they have not been identified for them?**

We now have data indicating the answer is yes.

This groundbreaking study begins to establish that healthy building strategies not only improve human health—they drive occupant satisfaction and financial outcomes.

THE TEAM

These findings were revealed in a unique partnership between the Center for Active Design (CfAD) and QuadReal Property Group (QuadReal). Together they set out to:

- Determine the impact of Fitwel strategies on occupant satisfaction.
- Establish the impact of Fitwel strategies on financial outcomes.
- Identify areas of strength and opportunity within the QuadReal portfolio.
- Drive implementation of healthy building strategies across the industry.
- Establish a framework for future research.

As one of the premier real estate investment, operating, and development companies in the world, QuadReal was an ideal partner in the pursuit of these questions. The Fitwel Champion with more properties benchmarked against the standard than any other, they provided financial data and tenant surveys on 60 QuadReal properties across Canada. CfAD paired this data with the healthy building strategies benchmarked within the Fitwel Platform, finding distinct correlations never previously identified in the industry.

THE OUTCOMES

The findings outlined here identify positive correlations, and also reveal significant opportunities for the industry—strategies that have a material impact but are not yet widely utilized. And there is clearly more to be revealed with future research using larger sample sizes.

Improving the health of building occupants is inarguably a good thing, but unless they notice the benefit themselves it can be difficult to argue for investments in those strategies. With this analysis in hand, real estate stakeholders can now make healthy building strategies a strategic and financial priority.

AT-A-GLANCE

Key Findings

Analysis of the QuadReal portfolio has found that prioritizing health directly impacts key outcomes, revealing synergies that will drive decision-making across the industry.

HEALTHY FOOD ACCESS DRIVES NET PROMOTER SCORE.

Projects that implement Fitwel healthy food access strategies are associated with a higher median property recommendation—a **major opportunity as these are the least implemented Fitwel strategies.**

OPERATIONS DRIVE NET PROMOTER SCORE.

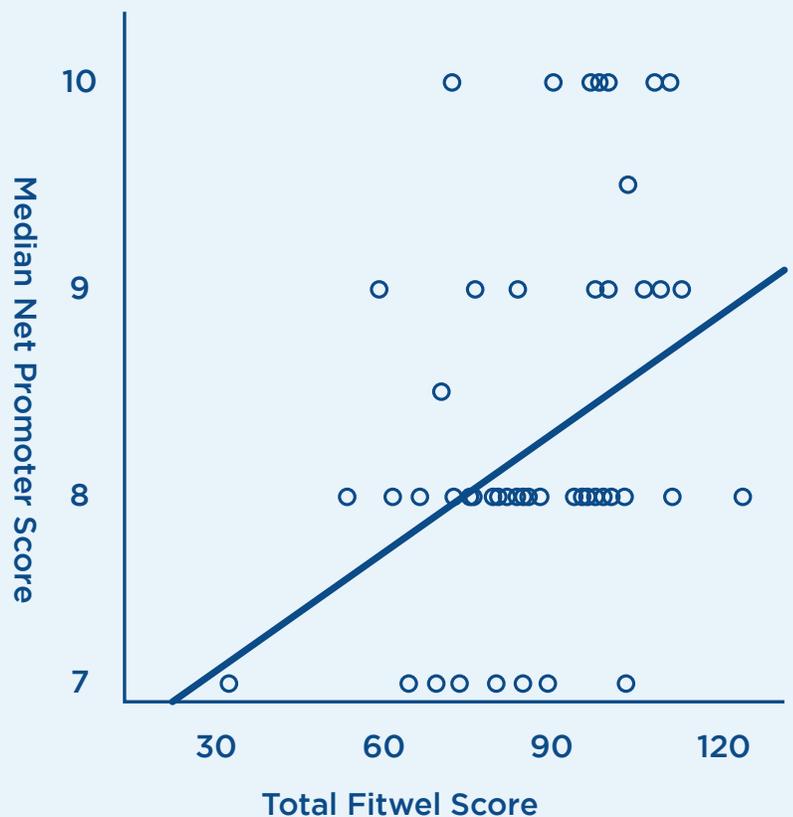
Projects that implement Fitwel operations strategies are associated with a higher median property recommendation score—**evidence that occupant satisfaction goes beyond tenant amenities.**

LOCATION DRIVES RESIDENTIAL RENT.

Residential projects that satisfy Fitwel location strategies are associated with higher rent per square foot—**more evidence of the value of walkable places with plenty of amenities.**

FITWEL SCORE IS POSITIVELY ASSOCIATED WITH NET PROMOTER SCORE

As the Fitwel score for a property increases, the median score for property recommendation also tends to increase—**demonstrating the value of broad investments in health.**

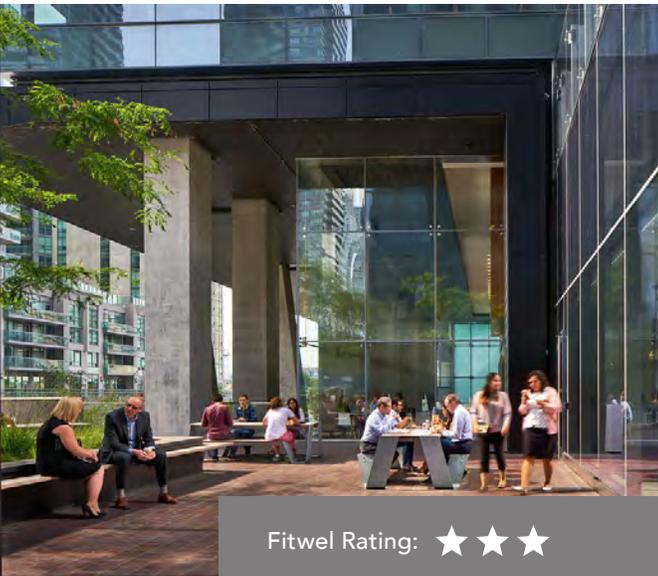


The upward slope of the fit line illustrates the positive correlation between Fitwel score and NPS.

NET PROMOTER SCORE

Net Promoter Score (NPS) is a widely used market research metric that measures customer satisfaction. In this case, NPS measures the likelihood that building occupants will recommend the property to their peers.

EXEMPLARY BUILDINGS



Fitwel Rating: ★★ ★

Exemplary Strategies

- Engaging tenant events
- Natural amenity connectivity

FITWEL SCORE DRIVES NET PROMOTER SCORE.

Broad investments in health deliver tenant satisfaction.

Southcore Financial Centre (SFC)	
2011 and 2014	1.4 million ft ²
Fitwel Score: 130	Median NPS: 9

Commercial office complex with retail
SFC has the highest Fitwel score of any project in the QuadReal portfolio, due to a combination of locational features, access to healthy outdoor amenities, and healthy food options, including an occupant fruit and vegetable garden.

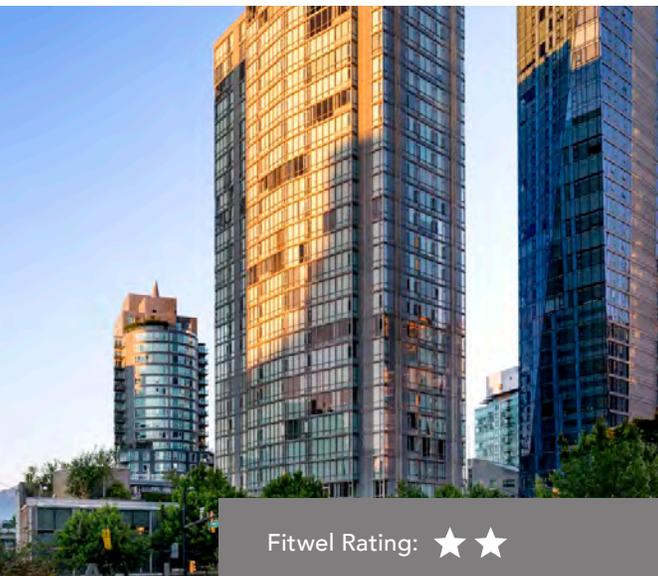
LOCATION DRIVES RESIDENTIAL RENT.

Locations in walkable districts with plenty of amenities command higher rents for residential projects.

Bayview at Coal Harbour	
2002	237,000 ft ²

Multi-unit residential building

Bayview at Coal Harbour is within walking distance to both nature and a myriad of amenities. Residents can access retail shops and restaurants, professional services, parks, and waterfront within walking distance. It's both a walker's and rider's paradise, with a Walk Score of 100 and a Bike Score of 100.



Fitwel Rating: ★ ★

Fitwel Location Strategies

- Walkability (of district)
- Proximity to transit

EXEMPLARY BUILDINGS

HEALTHY FOOD ACCESS DRIVES NET PROMOTER SCORE.

Healthy food access represents a major opportunity as these are among the least implemented strategies.

Commerce Court (Commercial Interior Module)	
1931, 1972	2.1 million ft ²

Commercial office complex with retail

Commerce Court's food court options have evolved over the years to increasingly feature healthy options in its retail mix as part of a leasing strategy. Located within walking distance to St. Lawrence Market, occupants can access fresh food vendors all year around.

OPERATIONS DRIVE NET PROMOTER SCORE.

Regular maintenance and operational strategies have a greater impact on occupant satisfaction than amenities.

Park Place	
1984	700,000 ft ²

Commercial office

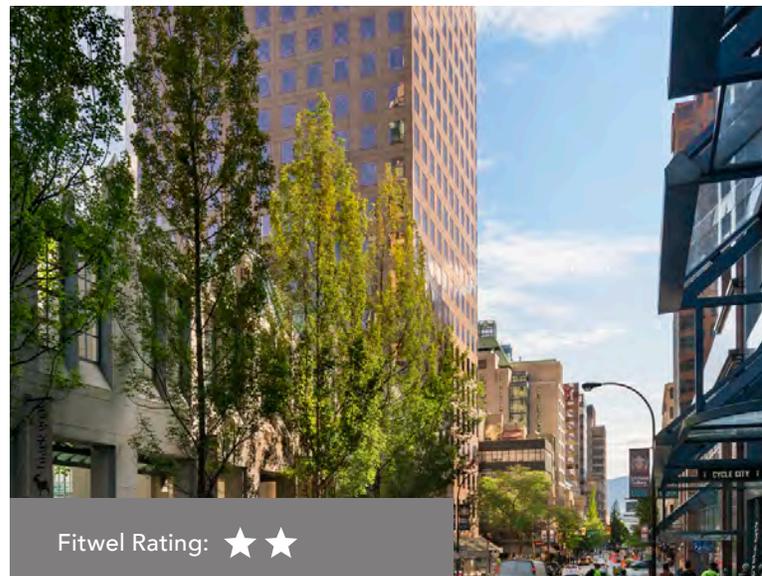
Park Place has MERV 13 filters regularly monitored with 3rd party testing, enhanced cleaning and communication protocols. This property also has a robust tenant engagement program with regular hybrid programming such as yoga classes and bee workshops.



Fitwel Rating: ★★

Fitwel Heathy Food Strategies

- Farmers market
- Choice architecture
- Pricing incentives
- Healthy grocery store proximity



Fitwel Rating: ★★

Fitwel Operations Strategies

- Ongoing systems monitoring
- Extensive emergency preparedness
- Activated outdoor spaces

About QuadReal

QuadReal Property Group is a global real estate investment, operating, and development company headquartered in Vancouver, British Columbia. Its assets under management total \$67.1 billion across Canada, the U.S., Europe, and Asia Pacific. From its foundation in Canada as a full-service real estate operating company, QuadReal has expanded its capabilities to invest in equity and debt in both the public and private markets. QuadReal invests directly, via programmatic partnerships and through operating companies in which it holds an ownership interest.

With a team of more than 1,200 people, QuadReal is currently invested in over 25 global cities, including Vancouver and Toronto. The Canadian portfolio includes nearly 40 million square feet of commercial real estate and over 12,000 residential rental suites.

QuadReal seeks to deliver strong investment returns while creating sustainable environments that bring value to the people and communities it serves. Now and for generations to come.



QuadReal benchmarked 60 projects across Canada in the Fitwel Platform.

About Fitwel

Backed by more than 100 years of public health research, Fitwel is the world’s leading certification system committed to building health for all. Originally created by the US Centers for Disease Control and Prevention and US General Services Administration, the system is now used across more than 50 countries, with a 325% increase in the total number of certifications from 2020 to 2021. The Fitwel Platform is an all-encompassing tool that allows users to assess, benchmark, and certify a single project or an entire real estate portfolio of new or existing buildings, while supporting ESG benchmarking and reporting goals.

Fitwel provides a range of scorecards that allow smooth application of strategies to the most common building typologies.

Sites	Buildings
<ul style="list-style-type: none">• Community• Commercial and Industrial	<ul style="list-style-type: none">• Multi-tenant Base Building• Single Tenant Building• Retail• Multifamily Residential Building
<ul style="list-style-type: none">• Multi-tenant Whole Building• Commercial Interior• Senior Housing	

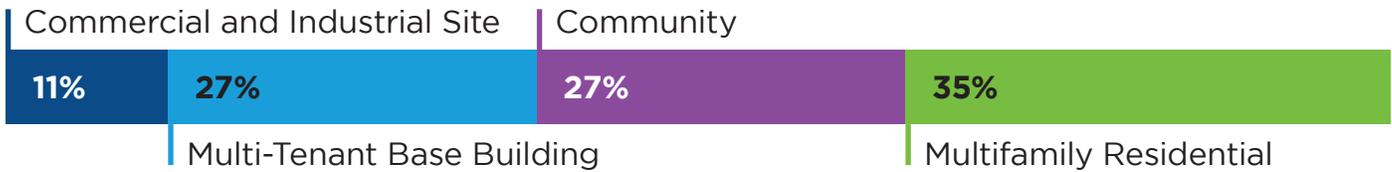
Each strategy within the Fitwel standard is associated with at least one of the seven Health Impact Categories that together outline the primary objectives of the standard:

-  **Promotes Occupant Safety**
Strategies that decrease risk of crime and injury, protect bicyclists and pedestrians from vehicular traffic.
-  **Reduces Morbidity and Absenteeism**
Strategies that promote decreased rates of chronic disease and mental health conditions, and reductions in disease transmission.
-  **Increases Physical Activity**
Strategies that incorporate opportunities for movement into everyday life.
-  **Supports Social Equity**
Strategies that increase health-promoting opportunities for a range of vulnerable populations; including children, elderly, disabled, or socio-economically disadvantaged persons.
-  **Impacts Surrounding Community**
Strategies that broaden impacts beyond the health of on-site occupants to neighboring areas.
-  **Instills Feelings of Wellbeing**
Strategies that promote inclusion, relaxation, and perceptions of safety.
-  **Enhances Access to Healthy Foods**
Strategies that expand the availability of fruits, vegetables, and other nutritious food options.

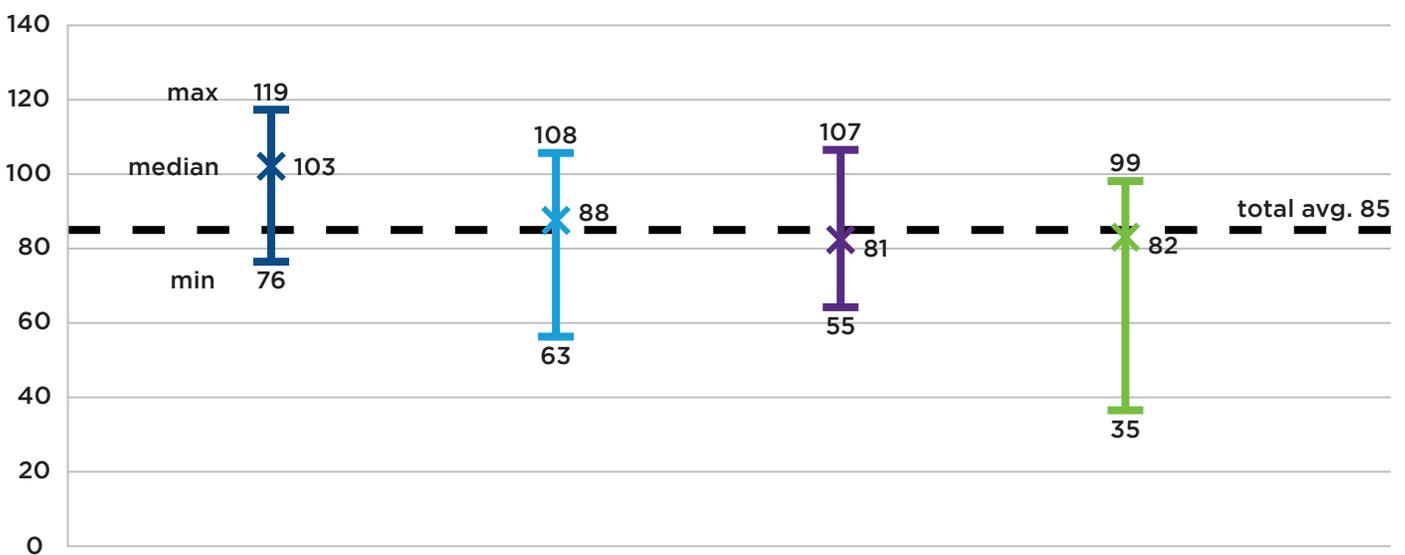
QUADREAL PORTFOLIO ANALYSIS

QuadReal used the Fitwel Platform to benchmark their portfolio against healthy building strategies, identifying areas of both strength and opportunity.

PORTFOLIO BY PROJECT TYPE



PORTFOLIO-WIDE FITWEL PERFORMANCE



A similar gap analysis is available to any organization that benchmarks their portfolio within the Fitwel platform.

FITWEL STRATEGIES ARE LINKED TO HEALTH IMPACT CATEGORIES.

Commercial and Industrial Site	90%	83%	74%	73%	72%	71%	48%
Multi-Tenant Base Building	79%	71%	70%	68%	63%	61%	53%
Community Site	74%	70%	63%	62%	57%	44%	35%
Multifamily Residential	73%	65%	64%	59%	56%	55%	55%

The percentage of points in each category, indicating highest (green) and lowest (red).

STRATEGIC OPPORTUNITIES

Areas of opportunity within the QuadReal portfolio generated through benchmarking, with the least implemented strategies that provide the most points highlighted.

	Strategy Number	Strategy	Strategy Number	Strategy
Multi-Tenant Base Building	2.2	Commuter Survey	7.1	Natural Daylight
	2.5	Incentivizing Transit	7.2	Views of Nature
	3.6	Fruit or Vegetable Garden	8.5	Quiet Room
	5.3	Stair Design	8.6	Lactation Room and Stations
	5.4	Stair Signage	8.10	Crop Share Drop-off
	5.5	Stair Visibility	8.12	Occupant Satisfaction Survey
Community Site	1.7	Infill Development	8.7	Temporary Placemaking Plan
	3.5	Community Gardens	9.1	Universally Accessible Water
	5.4	Open Space Programming	10.2	Healthy Food Retail
	5.5	Public Art	10.4	Food Equity
	6.1	Tobacco + Smoke-Free Outdoor Space	11.1	Mixed Income Housing
	6.5	Water Quality	11.2	Sustainable Community Development
	6.6	Water Management Plan	11.3	Community Engagement
	6.7	Heat Island Mitigation	11.5	Survey Results Implementation
	8.6	Streetscape Events	12.3	Emergency Volunteers
Multifamily Residential	3.9	Fruit or Vegetable Garden	6.8	Lead-Safe Property
	3.11	Tobacco- and Smoke-Free Outdoor Spaces	6.10	Interior Acoustic Comfort
	4.7	Local Amenity Display	8.7	Crop Share Drop-Off
	5.2	Stair Location	8.8	Health Programming
	5.3	Stair Design	8.9	Occupant Satisfaction Survey
	5.4	Stair Signage	8.10	Stakeholder Collaboration Policy
	5.5	Stair Visibility	9.1	Universally Accessible Water
	6.3	IAQ Policy	10.2	Healthy Food and Beverage Policy
	6.4	IAQ Testing	12.2	Automated External Defibrillator
	6.5	IAQ Testing Results		

INSIGHTS

Correlations with Tenant Satisfaction

Fitwel strategies are directly correlated with property demand and occupant satisfaction, even when those strategies are not publicized.

TOTAL FITWEL SCORE

Demonstrating the value of broad investments in health, the analysis found **the median score for property recommendation across all project types increases as the total Fitwel score increases.** This finding was largely driven by multifamily properties, which had a higher survey response rate.

FINANCIAL IMPACT OF LOCATION

This study reinforces existing evidence that **walkable locations** with multiple amenities and public transit in close proximity command higher rent.

HEALTHY FOODS

Looking across the QuadReal portfolio, *Enhances Access to Healthy Foods* strategies were significantly associated with a positive property recommendation. Prioritizing these infrequently implemented strategies represents **a critical opportunity.**

OPERATIONS

Fitwel projects focused on operations strategies tend to have higher property recommendation median scores, emphasizing the impact of strategies like maintenance.

METHODOLOGY

		Significance Threshold
Fitwel Score and NPS	r= 0.377	0.01
Location and Residential Rent	rho= 0.405	0.05
Healthy Food Access and NPS	r= 0.282	0.05
Operations and NPS	rho= 0.423	0.01

The r and rho correlation values are below the values typically considered strong. The strength in these findings stems from the statistical significance in the positive relationships, identified through the p-values, or significance threshold. It is not claimed that health is the sole or the dominant variable driving NPS. However we are confident that there is a correlation and that health is one factor driving NPS and value. More research is needed to test and validate the findings recorded in this report, and to establish the magnitude of these relationships.

The team measured strength of association with Pearson (r) and Spearman (rho) correlation coefficients (2-tailed). A full description of the methodology utilized in this analysis can be found [here](#).

INSIGHTS

Improving Tenant Satisfaction

The strengths and opportunities revealed by this research indicate that prioritizing occupant health improves tenant satisfaction.

MODELS OF ACHIEVEMENT

Community Scale Action: All QuadReal projects using the Community Site scorecard are utilizing healthy building certification standards for individual properties.

Indoor Air Focus: All QuadReal projects using the Multi-Tenant Base Building Scorecard reported having an IAQ policy in place.

An Accessible Entrance: All QuadReal projects using the Multi-Tenant Base Building Scorecard and many using the Multifamily Residential Scorecard achieved strategies focused on entryways and ground floors.

TENANT SATISFACTION OPPORTUNITIES

Air Quality for Residences: Only a limited number of multifamily projects demonstrated a focus on air quality strategies, revealing an opportunity for these projects to establish an IAQ policy, implement a testing regime, and share those results with stakeholders.

Improving Stairs: While most multifamily projects provide access to safe stairs, stair environments could be enhanced through appropriate signage, increasing visibility, and incorporating active design.

Supporting Social Equity: Community Site projects can improve their support of social equity through strategies like community engagement or sustainable community development.

OPPORTUNITIES THROUGH OPERATIONS

Positive perceptions of operations in tenant surveys and the Fitwel strategies that address them:

Survey	Fitwel Strategies
Amenities	Bike Parking, Outdoor Fitness Areas & Trails, Fruit & Vegetable Gardens
Cleanliness	Pest Management, Exterior Maintenance, Enhance Cleaning Policy
Communication	Commuter & Occupant Surveys, Amenities Display
COVID Response	Enhanced IAQ Policy, Protocols for Hygiene, Face Covering
Customer Service	Protocols for Communications and Stakeholder Collaboration
Location	Walkability, Proximity to Transit & Grocery Stores, Avoiding Noxious Sources
Perception of Safety	Pedestrian Network, Visibility, Outdoor Lighting, Safe Entry & Exit Lighting

EXPANDING THE RESEARCH

Analysis to Transform the Market

The correlations described here between healthy building strategies and financial outcomes and tenant satisfaction provide a clear mandate for broad investments in health. It is also clear that similar analysis on a larger data set would likely **establish firmer connections to healthy building outcomes, reveal new correlations and connections, and reach a broader spectrum of the real estate sector.** To engender greater expansion of the market for healthy buildings and communities, the Center for Active Design and QuadReal have committed to performing similar analyses in 2023, setting out the following goals to maximize the effectiveness of such a study:

- **Increase sample size to strengthen and diversify findings.** A larger sample size of projects utilizing Fitwel benchmarking would increase analyses that are statistically significant and open up opportunities for a broader range of approaches, including regressions.
- **Leverage data with variance.** A more expansive portfolio with higher degrees of variance will yield a higher potential for statistically significant correlations.
- **Establish consistency across data sets.** Leveraging the same data collection practices across an expanded portfolio, including across different building types, would enhance consistency and improve the data set.

THE PATH FORWARD

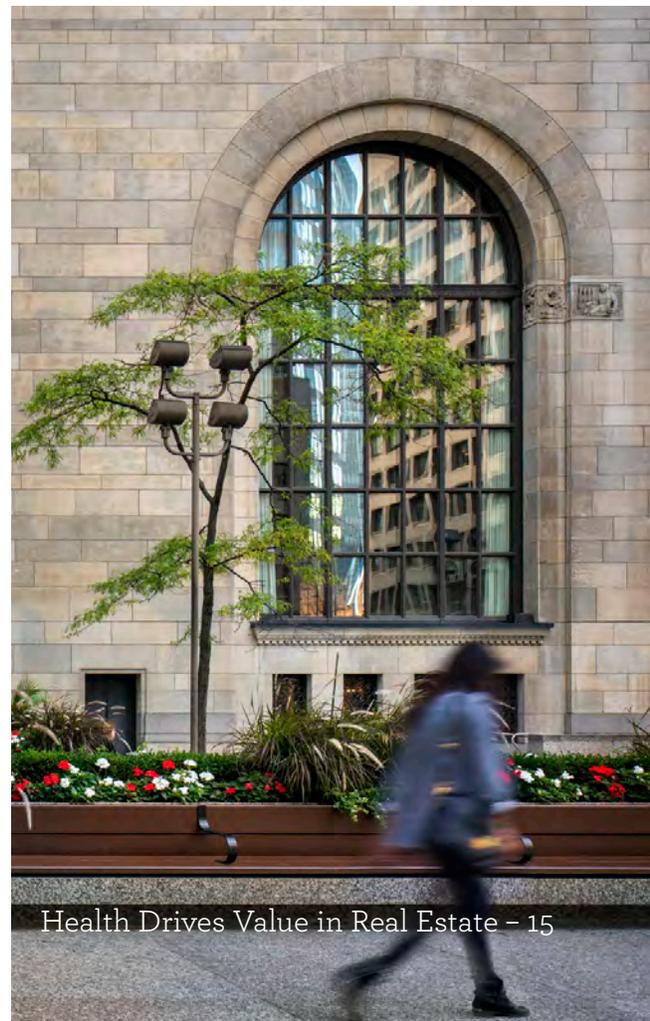
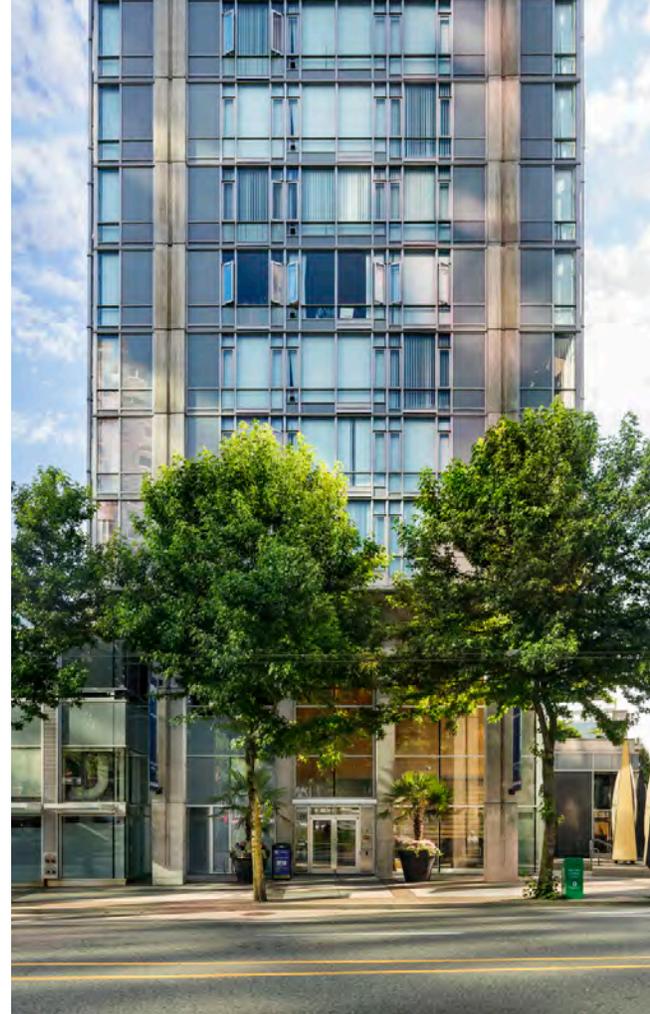
To ensure that more owners can benefit from the gap analysis provided by benchmarking against the Fitwel standard, the Center for Active Design will:

- **Collaborate with other Fitwel users:** Invite additional leading Fitwel users, such as members of the Leadership Advisory Board, to contribute data on their projects, producing a larger and more diverse sample size.
- **Expand benchmarking efforts:** Encourage more Fitwel users to benchmark projects and portfolios through the Fitwel Platform to increase sample size.
- **Expand asset types and locations:** Encourage participation of Fitwel users with other asset classes (such as retail) and other locations (such as Australia, Europe, and Asia).
- **Publish findings:** Publish and promote future findings to drive even more engagement with healthy building strategies.



Conclusion

This first of its kind analysis studies how people perceive the places they live and work and compares this to financial data and Fitwel benchmarking—finding that healthy building strategies improve tenant satisfaction and the value placed on those buildings. Critically, these associations are present even when the strategies deployed haven't been publicized, indicating that health is a pathway to stable tenants and improved value. Demand for healthy buildings has never been higher and now the case for investing in them is even stronger. The process followed by QuadReal and the Center for Active Design also illustrates the power of benchmarking a portfolio against the Fitwel standard, providing a clear gap analysis and a recipe for future investments. By promoting the remarkable findings within this report, we can amplify current demand and dramatically increase the implementation of truly effective healthy building strategies, **improving health outcomes and real estate bottom lines across the global real estate sector.**



PROJECT TEAM

Center for Active Design

Grace Dickinson
Joanna Frank
Jack Franklin
Sara Karerat
Lauren Moss
Blake Roberts

QuadReal Property Group

Nisha Agrawal
Jamie Gray-Donald

Data Analysis

Olimpia Mosteanu

Editor

Yetsuh Frank

IMAGE CREDITS

All images courtesy of QuadReal Property Group

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