

WELLNESS REAL ESTATE & COMMUNITIES SYMPOSIUM



SYMPOSIUM PORTFOLIO

PROPERTIES

RESOURCES

SPEAKERS

BUILD WELL
TO LIVE WELL
REPORT

WELLNESS
REAL ESTATE
REPORT

VIDEOS
& POWER
POINTS

WELLNESS REAL ESTATE & COMMUNITIES SYMPOSIUM



SYMPOSIUM PORTFOLIO

PROPERTY SHOWCASE



2021 WELLNESS REAL ESTATE & COMMUNITIES SYMPOSIUM

PROPERTY SHOWCASE

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An aerial photograph of a desert coastline. The top half of the image shows a vast, arid landscape with sandy dunes and rocky terrain in shades of beige and tan. The bottom half shows a vibrant turquoise sea with visible coral reefs and a dark blue area in the upper left corner. The text 'SAUDI ARABIA' and 'AMAALA' is overlaid on the left side.

SAUDI ARABIA

AMAALA

**LOCATION:**

Northwestern Red Sea coastline of Saudi Arabia

WEB:

amaala.com

PRIMARY CONTACT:

REEMA AL MOKHTAR,
DIRECTOR OF COMMUNICATIONS

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KEY FACTS:

Project Size:

- 4,155 square kilometers
- Hotels: 3,000 luxury hotel keys
- Residentials: 900+ luxury residences

Target Customer Groups:

- Couples
- Families
- Groups
- Business Executives

Opening Date:

- Opening date is 2027

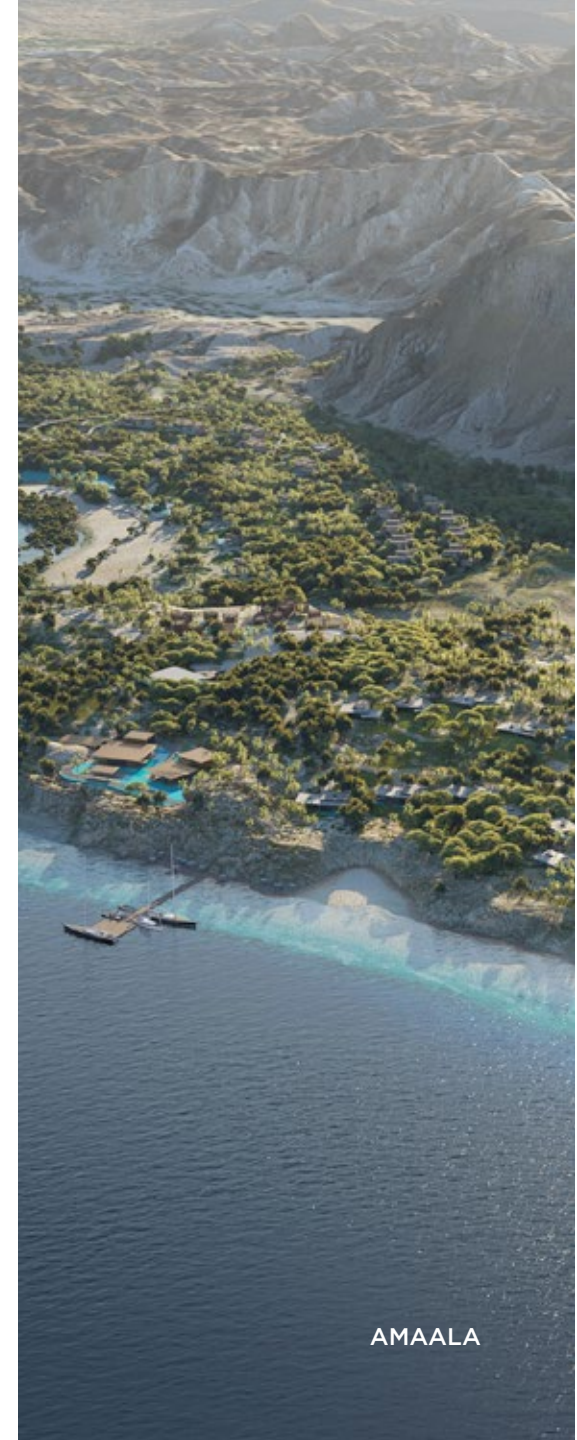
The Numbers:

- NA

Product Type/Uses/Facilities:

Fully integrated wellness tourism destination offering:

- Hotels
- Residential establishments
- State-of-the-art recreational facilities
- A year-long events calendar



SAUDI ARABIA

AMAALA

AMAALA is an ultra-luxury tourism destination being built along the northwestern Red Sea coastline of Saudi Arabia. It is a fully integrated luxury wellness destination that focuses on transformative personal journeys inspired by wellness & sports, arts & culture, and the purity of the Red Sea. The development broke ground in 2020, and all phases will be completed in line with the realization of Saudi Arabia's Vision 2030.

How is wellness intentionally brought to life in the physical place?

The AMAALA wellness concept lives at the intersection of fitness, mindfulness and wellness.

Much like the meaning of the brand name that represents purity, radiance and hope, we are determined to cultivate innovative experiences that rejuvenate the body, illuminate the soul, and promise a radiance that is captivating and everlasting. The destination's wellness philosophy aims to nurture the body from the inside out, while prioritizing long-term wellbeing.







All facilities and amenities are designed in line with the highest international service standards, while rooted in traditional Saudi hospitality to give guests a refined, sensory and exquisite experience far removed from the everyday.

How is wellness dynamically activated for the people who live/visit?

AMAALA's wellness journey aims to help guests detox their mind and body, address stress, boost the immune system, and help them lead a happier lifestyle. Diverse wellness experiences – ranging from fitness activities and treatments to hyper-personalized nutritional approaches – aim to revitalize our guests, while inspiring their personal path to leading a sustainably healthy lifestyle.



SINGER ISLAND, FL

AMRIT OCEAN RESORT & RESIDENCES

**LOCATION:**

Singer Island, FL, US

WEB:

amritoceanresort.com

PRIMARY CONTACT:

NICK GOLD,
DIRECTOR OF MARKETING &
COMMUNICATIONS

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WATCH VIDEO

KEY FACTS:

Project Size:

- 7.5 acres site area
- 182 ultra-luxury residences
- 155 resort rooms
- 100,000 sq ft wellness center

Target Customer Groups:

- Seasonal residents from the North East corridor (NY, NJ, MA, PA, MD, VA, Toronto, Canada)

Opening Date:

- Spring 2022

The Numbers:

- 75% of available condo units are sold
- Condos range from \$1.2 to +\$4 million

Product Type/Uses/Facilities:

- 100,000 sq ft spa and wellness facility on four floors and featuring indoor and outdoor spaces
- 155 guestrooms, including 34 suites
- Lobby Lounge serving innovative craft cocktails, healing elixirs, and an array of curated small plates

- 24-hour valet, concierge and front desk attendants
- Hair health and beauty salon
- Private beach with attended cabanas, towels and umbrellas
- Beach butlers offering bistro food and beverage service directly to your lounge chair
- Beachfront water sports and activities
- Four Dining outlets including an indoor/outdoor oceanfront restaurant featuring a creative balance of Asian and Mediterranean cuisine focused on health and wellness
- Tropically landscaped, third-level rooftop pool complete with cabanas, day beds and stunning views of the Atlantic Ocean
- Extensive indoor/outdoor fitness and mind-body offerings, including a state-of-the-art oceanfront gym with Technogym fitness equipment, personal training, Pilates, yoga and meditation
- Over 12,000 sq ft indoor and outdoor meeting and event space, which includes a 4,300 sq ft ballroom seating up to 350 guests, in addition to 3.5 acres of outdoor space



AMRIT OCEAN RESORT
& RESIDENCES

SINGER ISLAND, FL

AMRIT OCEAN RESORT & RESIDENCES

Amrit is a next-generation destination wellness spa resort and residences, combining real estate and technology platforms to improve wellness of mind, body and spirit. Spanning over seven oceanfront acres on picturesque Singer Island, Amrit is the new paradigm of mindful living for those who are pursuing a wellness lifestyle and expert guidance on how to reach your wellness goals.

How is wellness intentionally brought to life in the physical place?

Aspire, **M**indfulness, **R**eflect, **I**nnovate, **T**ransformation

Wellness is intentionally brought to life in the physical place by incorporating the elements of the Amrit acronym to develop a culture around the property that promotes overall wellbeing.

The first step in this journey is to **Aspire** to be a better version of one's self. Our guests will all be coming to Amrit for different reasons, but at the core, they are aspiring to accomplish a goal, whether it is mental, physical or spiritual.







Mindfulness comes into play as they truly take a moment and connect with themselves. We have designed several indoor and outdoor movement studios to assist in the guest's journey to enlightenment through various yoga practices.

Reflection is the next stage in the guest's journey. With the assistance of our Personalized Wellness Support System (PWSS) team, the guest will have the tools needed to truly reflect on the positive changes that have been discussed and recommended for change.

Innovation is the new and exciting part of the guest's journey. Through nutrition, fitness, spa wellness treatments, and personal relationships with our PWSS team, a fresh new set of tools will be at the guest's disposal to begin the road to a new chapter of their wellbeing journey.

Transformation will be the ultimate goal for our guests. This can be a very small change or a monumental life-changing experience. Amrit is the vessel and will provide the support pre, during and post stay.

How is wellness dynamically activated for the people who live/visit?

Amrit has developed the tech-enabled Personal Wellness Support System (PWSS) branded program, which offers a personalized roadmap to help individuals achieve their personal wellness goals.



AUSTRALIA

CLEAR ISLAND

**LOCATION:**

Clear Island Waters,
Queensland, Australia

WEB:

clearisland.com.au

PRIMARY CONTACT:

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KEY FACTS:

Project Size:

- Total Value: \$3 billion
- Land Size: 25 ha (60 acres)
- Mix of Units: 600 multigenerational Sky Homes

Target Customer Groups:

- Ultra high net worth families

Opening Date:

- 2025/26

The Numbers:

- Total Value of Project is \$3 billion
- Starting price will range from \$4 million - \$5 million

Product Type/Uses/Facilities:

- Residential Community
- Wellness Tourism
- Wellness Fusion East & West
- Advanced Sports Centre
- Zen Garden & Meditation Centre
- 3 Golf Courses Adjoining
- 5 km to Beaches, Casino and Shopping Malls



CLEAR ISLAND

AUSTRALIA

CLEAR ISLAND

The Clear Island smart wellness residential community will be created on one of the largest urban waterfront sites on the east coast of Australia, showcasing 7-star luxury living, smart technology and health and wellness facilities as well as an Advanced Wellness Centre, surrounded by designer nature and amenity parks, reintroducing biodiversity to gardens and waterways.

How is wellness intentionally brought to life in the physical place?

- 360° Happiness & Wellness
- Encompassing the 6 dimensions of Wellness: Physical, Mental, Spiritual, Emotional, Social and Environmental





AUSTRALIA FAIR SHOPPING CENTRE 10KM

SURFERS PARADISE 6.1KM

THE STAR CASINO 4KM

BROADBEACH 4KM

COAST TURF CLUB 8KM

PACIFIC FAIR SHOPPING CENTRE 3.8KM

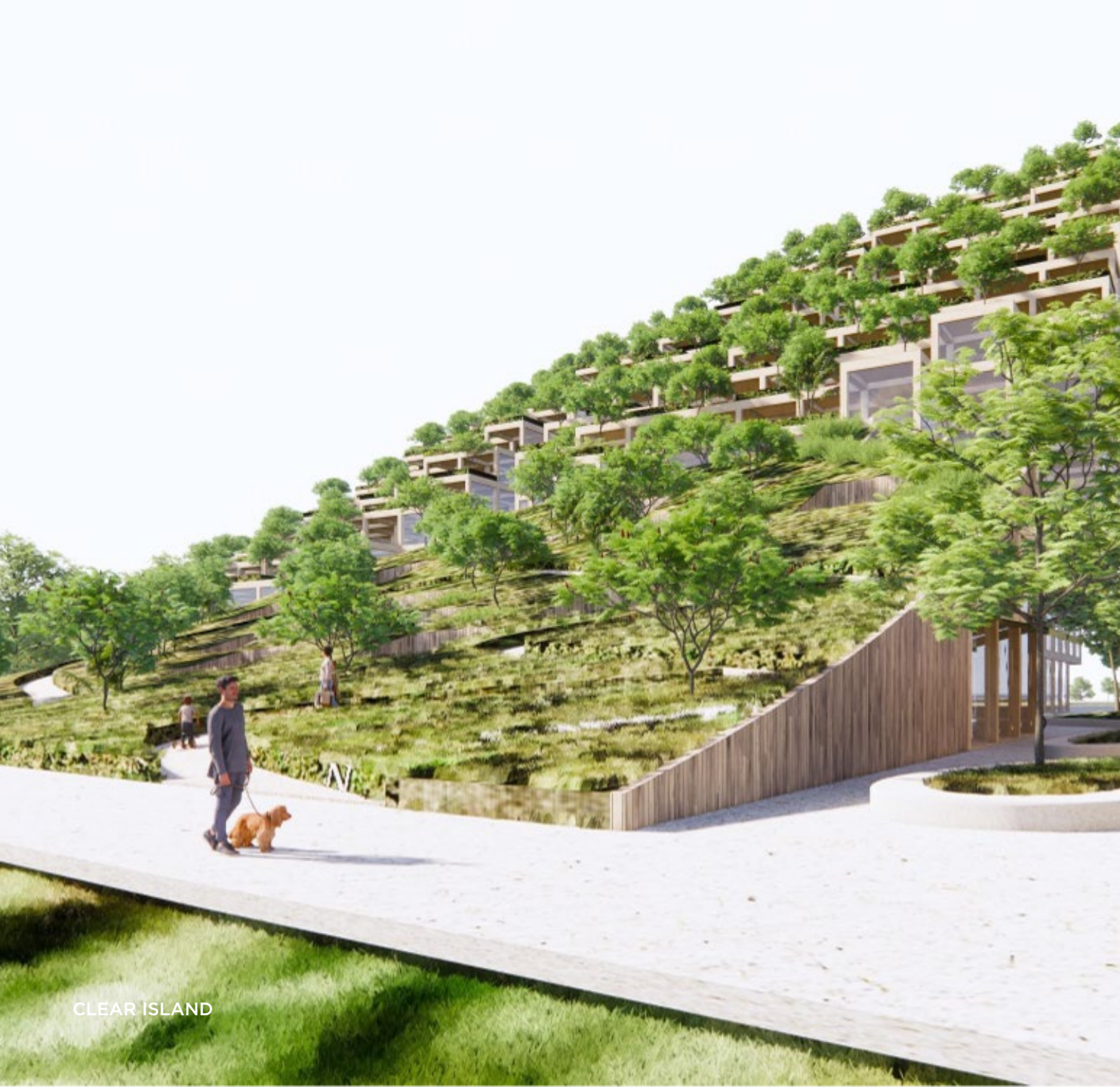
SURFERS PARADISE
GOLF CLUB 500M

LARGEST NIGHT MARKET IN AUSTRALIA

CLEAR ISLAND

How is wellness dynamically activated for the people who live/visit?

This project will have everything needed for Optimum Wellness Living.



An architectural rendering of a modern building complex nestled in a lush, tropical forest. The central building has a long, low profile with a curved, green roof. Its walls are primarily glass, revealing an interior with a wooden lattice ceiling and people relaxing. In front of the building is a large, rectangular swimming pool. A wooden deck with lounge chairs runs along the pool's edge. To the right, a small waterfall cascades into a pond filled with lily pads. The entire scene is surrounded by dense, vibrant green trees and foliage under a bright, slightly cloudy sky.

BAGNA, BANGKOK

THE FORESTIAS

**LOCATION:**

Bagna, Bangkok

WEB:

<https://mqdc.com/th/our-business/theme-project/theforestias>

PRIMARY CONTACT:

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WELLNESS PIONEER,
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WATCH VIDEO

KEY FACTS:

Project Size:

- 168 acres

Target Customer Groups:

- Upper middle class to ultra high net worth individuals
- Multigenerational
- Families
- Couples
- Singles

Opening Date:

- 2023

The Numbers:

- So far, sales have doubled the past months and are now at 20 million Thai bahts
- Prices ranging from USD 150,000 to USD 7.5 million

Product Type/Uses/Facilities:

- Six Senses hotel and 45 residencies with a Six Senses Place
- Six Senses bath house
- Additional 2,900 residential units of varying price range
- Commercial space for offices
- Sports complex
- Lifestyle activities
- Retail and food & beverage outlets
- Family entertainment facilities in a Family Centre
- Town Centre for community activities and cultural pursuits, including a theatre, an event hall, and multiple markets.
- A highlight of the project is a rain forest at the center of the development and a 1.6 kilometer canopy walkway that links many of the development's components and provides a "nature-walk" that weaves above the forest.



THE FORESTIAS

BAGNA, BANGKOK

THE FORESTIAS

Thailand's largest property development, The Forestias is more than just an inspired and ambitious dream; it's about imagination, vision, and seeing the big picture from the smallest details. It's about creating a sense of wonder and joy through an ingenious blend of nature, architecture and leading-edge technology to build an innovative, multigeneration community that brings endless happiness.

How is wellness intentionally brought to life in the physical place?

Sustainability and wellness has been integrated in every aspect across the development, and in particular, in the Six Senses Place, the vast forest with outdoor gym, walkways, bicycle and walking trails, mindfulness places, the bath house, and in particular, the assisted living has a big wellness focus.





THE FORESTIAS




How is wellness dynamically activated for the people who live/visit?

One of the most important aspects is how people will be connected, how inter-generational interaction is promoted across the project, community projects and sustainable and wellness initiatives, but also the connection with nature through the forest, and of course, all wellness activities.

At Six Senses Place, in-house experts will measure and analyze key physiological biomarkers to provide members with lifestyle and nutritional advice. Resulting personalized programs will include treatments and wellness activities based on the preventative principles of the Eastern medicine approach and result-oriented Western influences.

Amenities and offerings include, but are not limited, to a vibroacoustic meditation dome; the latest in biohacking; screening room for inspiring talks and lectures given by leaders in the worlds of health, wellness and ancient therapies; integrative wellness clinic; a holistic anti-aging center; a fitness center; a yoga studio; and social spaces with cafés, a restaurant, juice bars, and co-working and lounging areas.

In addition, all the above facilities mentioned will be activated with wellness and sustainability throughout.

A photograph of a modern architectural retreat. The building features large glass walls and a prominent stone chimney. It is situated in a lush forest with tall trees and ferns. The interior is warmly lit, and a person is visible inside. The text 'SUNSHINE COAST, CANADA' is overlaid on the right side of the image.

SUNSHINE COAST, CANADA

GOCO RETREAT BREW BAY

**LOCATION:**

Sunshine Coast, Canada

WEB:

gocohospitality.com/media-centre/goco-hospitality-to-co-develop-new-wellness-retreat-in-brew-bay-canada/

PRIMARY CONTACT:

INGO SCHWEDER, CEO

Ingo.Schweder@gocohospitality.com

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KEY FACTS:

Project Size:

- 49.42 acres of site area
- 62 rooms and suites
- 204 residences

Target Customer Groups:

- Local travelers - 2 to 4 nights
- Regional travelers - 4 to 7 nights
- International travelers - 7 to 10 nights
- Residents – Daily visits

Opening Date:

- Opening 2025

The Numbers:

- Stabilized Occupancy: 66.0%
- Stabilized Average Daily Package Rate per Person: USD 870
- Total Development Cost: USD 88M
- Residences expected to sell between USD .05M to USD 2M

Product Type/Uses/Facilities:

- Wellness community, including residences and retreat
- Innovative restaurants and dining experiences
- Heat and water experiences
- Wellness center specializing in Oriental Healing modalities
- Fitness center
- Kids club
- Meeting spaces
- Cultural centre and Eco hub



GOCO RETREAT BREW BAY

SUNSHINE COAST, CANADA

GOCO RETREAT BREW BAY

Combining the best of local traditions and world-renowned modalities, the treatments and experiences within the retreat will provide dramatic results that resonate with guests on many levels. Outside, a world of adventure awaits, each moment connected back to the retreat's core philosophy: Enhancing wellbeing and redefining the locale through a shimmering lens of wellness consumed alongside unspoilt nature.

How is wellness intentionally brought to life in the physical place?

GOCO Retreat Brew Bay Village offers a world of new and familiar experiences, each with a unique focus that positions the retreat as a place dedicated to the enhancement of wellbeing.

Wellness will be at the core of the offering, and guests will find calming, healing and relaxing opportunities at every turn. This will include a natural immersion in nature, experiences that reflect seasonal changes, and a selection of activities and journeys that take advantage of the thoughtfully crafted physical





GOCO RETREAT BREW BAY



spaces. All of this is set against a stunning natural backdrop and an endless seascape that cannot help but improve mood, vitality and overall physical and mental wellbeing.

How is wellness dynamically activated for the people who live/visit?

At GOCO Retreat Brew Bay, TCM, Ayurveda and Naturopathy principles are harmoniously blended into a completely holistic approach to offer a fully comprehensive and integrative service offering.

The healing principles of these three complementary alternative medicine pathways set a clear benchmark and point of difference not only for the region but for the global spa and wellness landscape over all.

Brew Bay's signature treatments have been curated to offer an ode to these ancient healing practices by bringing a fresh perspective for experiences that are unique to GOCO Retreat Brew Bay. These treatments will harmonize the rituals of ancient healing arts and local artisanal products using the purest ingredients straight from the land such as local peats, clays, herbs, barks, seaweed, as well as natural sea salt from the Salish Sea.

In addition, guests and residents will find the opportunity to engage in wellness and a wellness lifestyle throughout the property and wider estate.

BODØ, NORWAY

GOCO RETREAT MOONSTONE



**LOCATION:**

Bodø, Norway

WEB:

gocohospitality.com/project/moonstone-wellness-retreat

PRIMARY CONTACT:

INGO SCHWEDER, CEO

Ingo.Schweder@gocohospitality.com

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WATCH VIDEO

KEY FACTS:

Project Size:

- 98.84 acres of site area
- 62 rooms, cabins and suites
- 45 residences

Target Customer Groups:

- Primary wellness travelers: 35%
- Secondary wellness travelers: 50%
- Experiential travelers: 15%

Opening Date:

- Opening 2023/24

The Numbers:

- Stabilized Occupancy: 62.0%
- Stabilized Average Daily Package Rate per Person: EUR 510
- Total Development Cost: EUR 47M
- Residences expected to sell between EUR 1M to EUR 3M

Product Type/Uses/Facilities:

- Wellness community, including residences and retreat
- The Lounge, accommodation, wellness restaurants, including meeting spaces
- The Well, heat and water experiences
- Vitality pools
- Floatation pool
- Traditional Sami healing
- The Temple, mind and body center
- Fitness center
- Kids wellness center
- Observatory
- Geitvagen, a community lifestyle space
- Sea access deck / Watersports



GOCO RETREAT MOONSTONE

BODØ, NORWAY

GOCO RETREAT MOONSTONE

Immerse into wellness at nature's edge.

The retreat will be a leading European destination, beautifully positioned and promoting “nature as therapy” and “simplicity as the ultimate sophistication.” By offering design-led accommodation that is in tune with the natural surroundings, an extensive range of heat and water experiences, a blend of Eastern, Western and local healing modalities, and a wide selection of outdoor activities, the retreat will cater to a diverse community of experienced and first-time wellness travelers and nature seekers.

How is wellness intentionally brought to life in the physical place?

The Wellness Retreat, due to its secluded location on the unspoiled Norwegian coast, will enable guests to seamlessly reconnect with the simplicity and purity of nature. The unique surroundings, combined with a wellness service platform that





GOCO RETREAT MOONSTONE



is anchored in the rhythm of nature, will provide guests with a truly experiential stay.

Guests will be able to experience wellness throughout the property and through a series of immersive journeys that make use of the landscape. A good example of this is the natural bathing offering, which will consist of a selection of thermal bathing options for guests to discover and ending at the water's edge with a bracing dip in the ocean.

How is wellness dynamically activated for the people who live/visit?

The Wellness Retreat will be sustainably designed and developed, ensuring minimal environmental impact and accommodation that blends into the landscape. At the same time, it will offer a selection of wellness-centric in-room features, such as vitamin-infused showers and circadian lighting, creating an overall therapeutic environment for guests, even outside of the wellness center.

Food and beverage options will be perfectly aligned with the needs of guests, and creative, healthful and seasonal options will become a key feature of the retreat offering. In combination with the setting, the clean air, and invitation to explore wellness as a way of life, guests will naturally engage with the concept.



SAMUI, THAILAND

GOCO RETREAT SAMUJANA

**LOCATION:**

Samui, Thailand

WEB:

samujana.com

PRIMARY CONTACT:

INGO SCHWEDER, CEO

Ingo.Schweder@gocohospitality.com

+66 2 252 6288



KEY FACTS:

Project Size:

- 12.26 acres of site area
- 2.97 acres of built-up area
- 55 rooms and suites
- 35 residences

Target Customer Groups:

- Europe
- Middle East
- Thailand and Regional Asia
- Russia

Opening Date:

- A large part of the residential project is currently in operation, with the wellness retreat scheduled for 2024

The Numbers:

- Stabilized Occupancy: 64.0%
- Stabilized Average Daily Package Rate per Person: USD 730
- Total Development Cost: USD 58 million
- Residences expected to sell between USD 1 million to USD 6 million (24 sold to date)

Product Type/Uses/Facilities:

- Luxury wellness destination, including residences and retreat
- Luxury villas
- Private clubhouse
- Wellness restaurants
- Spa
- Fitness, mind and body studio
- Meeting and events
- Retail space
- Art gallery
- Bathing zone



GOCO RETREAT SAMUJANA

SAMUI, THAILAND

GOCO RETREAT SAMUJANA

The antidote to urban living – offering modern wellness in a tropical paradise, set against a stunning background of ocean vistas and breath-taking views. GOCO Retreat Samujana offers luxury modern wellness to its discerning and worldly clientele. The retreat inherently understands that “wellness” can take on a variety of forms, and thus presents a diverse selection of offerings that encourage guests to explore different modes of wellness, all designed to allow them to look and feel their best. Treatments and therapies combine traditional healing with advanced technology to provide dramatic results.

How is wellness intentionally brought to life in the physical place?

GOCO Retreat Samujana is born out of the inherent understanding that there is no one-size-fits-all formula to achieve wellness. With a strong focus on credible solutions and providing noticeable results, guests are invited to explore different avenues of wellness and find the perfect balance - bringing them to a state of overall wellbeing and health.







The retreat is the perfect combination of traditional healing modalities and tech offerings, within a physical environment that encourages activity, exploration and full immersion. The guest journey will move guests through intimately landscaped spaces while always providing a connection to the stunning and ever-changing scenery that surrounds the retreat.

How is wellness dynamically activated for the people who live/visit?

A combined strategy of Corporate Social Responsibility (CSR) will shift the estate into a respected environmental positioning on Koh Samui and the region at-large. This works hand in hand with the wellness message and will be a key feature of the retreat's "story." The Samujana wellness retreat will have the opportunity to combine marketing efforts with the existing villas and, in the long term, both concepts will incrementally benefit from the cooperation.

Widening the choice of accommodation options for guests to choose from, by offering 6-8 bedroom villas, one-bedroom villas, suites, and standard rooms, will allow for an increased target audience who will be able to access wellness and lifestyle solutions in a variety of ways throughout their stay.

A modern estate house with a stone and wood facade, featuring a large swimming pool, a covered patio area, and a lush garden with trees and plants. The house has a gabled roof and a circular window on the left side. The pool is surrounded by lounge chairs and potted plants. The garden is filled with greenery and flowers.

LOIRE VALLEY, FRANCE

LES BORDES ESTATE, SIX SENSES

**LOCATION:**

Loire Valley, France

WEB:

lesbordes.com/en/welcome

PRIMARY CONTACT:

ANNA BJURSTAM,
WELLNESS PIONEER,
SIX SENSES

anna@sixsenses.com

+46 73 053 7796



WATCH VIDEO

KEY FACTS:

Project Size:

- 1,400 acres
- 500 residential units
(70 Six Senses branded)

Target Customer Groups:

- Upper middle class to ultra high net worth individuals

Opening Date:

- 2024

The Numbers:

- Prices not disclosed at this stage

Product Type/Uses/Facilities:

- Six Senses hotel
- Residencies with a Six Senses Place
- Fly fishing lake
- Nature trails
- Equestrian center
- Beach and boating lake to enjoy water sports
- Biking trails and go karting
- 2 championship golf courses
- Village square with farmers market
- Tennis & paddle courts
- Organic farm
- Art gallery



LES BORDES ESTATE, SIX SENSES

LOIRE VALLEY, FRANCE

LES BORDES ESTATE, SIX SENSES

The vision for the estate is to combine understated living, connection with nature and the local environment, personal growth, health and wellness in an activity and fun-filled environment. Ninety minutes south of Paris, Les Bordes is spread across 1,400 acres of the Sologne Forest in the Loire Valley. A homely playground, with endless activities and adventures at their fingertips, while enjoying fully serviced, hassle-free home ownership the year round.

How is wellness intentionally brought to life in the physical place?

A huge outdoor space with a number of wellness activities as well as a Six Senses Place & Spa.





LES BORDES ESTATE, SIX SENSES

How is wellness dynamically activated for the people who live/visit?

At Six Senses Place, in-house experts will measure and analyze key physiological biomarkers to provide members with lifestyle and nutritional advice. Resulting personalized programs will include treatments and wellness activities based on the preventative principles of the Eastern medicine approach and result-oriented Western influences.

Amenities and offerings include, but are not limited to, a vibroacoustic meditation dome; the latest in biohacking; screening room for inspiring talks and lectures given by leaders in the worlds of health, wellness and ancient therapies; integrative wellness clinic; a holistic anti-aging center; a fitness center; a yoga studio; and social spaces with cafés, a restaurant, juice bars, and co-working and lounging areas.

In addition, all the above facilities mentioned will be activated with wellness and sustainability throughout.



NEW MEXICO

MEA SANTA FE RANCH (REGENERATIVE COMMUNITY)



LOCATION:

Galisteo, New Mexico
(Greater Santa Fe), US

WEB:

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PRIMARY CONTACT:

SKYLAR SKIKOS,
CHIEF DEVELOPMENT OFFICER
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KEY FACTS:

Project Size:

- 2,566 acres
- 40-room MEA Midlife Wisdom School
- 30 residences with ancillary space & amenities
- Regenerative agriculture, trail system, and conservation space

Target Customer Groups:

- Modern elders. Average age of 54 with 75% of our customers between 45-65.

Opening Dates:

- Mid-2023 for the Academy
- 2024 for residences

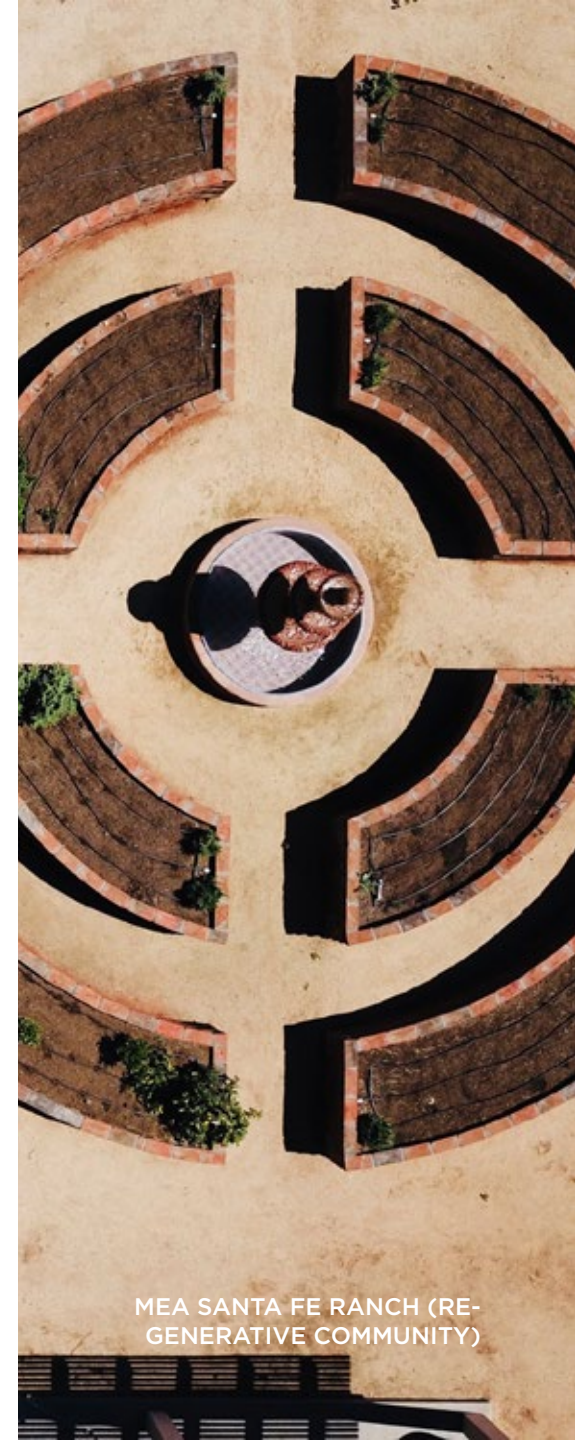
The Numbers:

- 1,500 alums
- 95%+ “net promoter score” across all our business segments
- Our regenerative community in Baja sold out all 26 homes prior to commencing construction (with a significant waiting list).

- Over 80% of alums surveyed report exploring their purpose more deeply because of MEA.
- A whopping 98% of alums surveyed stay connected to members of their cohorts—40% weekly.
- Over half of MEA’s alumni remain engaged through our alumni programs, including a large contingent that are part of the alum subscription program, Corazon.
- MEA has 26 regional alumni chapters across the globe.
- Weeklong Workshop: \$5,500 single occupancy, \$4,000 double occupancy, 20%+ scholarship target
- Sabbaticals: Range from \$3,000 to \$5,000 per week, with discounts for multiple weeks stays
- Homes likely to range from \$700,000 to \$2 million (\$1.2 million average)

Product Type/Uses/Facilities:

- Midlife Wisdom School with weeklong workshops and sabbaticals
- Residences
- Regenerative Agriculture



MEA SANTA FE RANCH (RE-GENERATIVE COMMUNITY)

NEW MEXICO

MEA SANTA FE RANCH (REGENERATIVE COMMUNITY)

An MEA Regenerative Community shifts the primary aspiration in aging from leisure to cultivating purpose and connection by building vibrant intergenerational communities centered around a campus for midlife wisdom retreats and sabbaticals. We incorporate housing for an interconnected community rooted in practical wisdom with opportunities to learn, grow, serve and work together—all surrounded by a regenerative farm.



MEA SANTA FE RANCH (REGENERATIVE COMMUNITY)



MEA SANTA FE RANCH (REGENERATIVE COMMUNITY)



MEA SANTA FE RANCH (REGENERATIVE COMMUNITY)

MEA SANTA FE RANCH (REGENERATIVE COMMUNITY)

How is wellness intentionally brought to life in the physical place? How is wellness dynamically activated for the people who live/visit?

As a community dedicated to regeneration, we focus on regeneration across four pillars: soil, soul, community and locale. This informs our approach with both the physical design of our communities as well as their programming. We see these as interconnected in our overarching objective to promote regeneration across these four pillars. Our physical communities focus on regenerating the land through farming and grazing, as well as through regenerative development practices, and to design our spaces to facilitate connection across our community. Our programming aspires to regenerate souls (people) to help them become inspired and empowered in midlife. We ascribe to Stanford DCI's focus on cultivating purpose, wellness and community, and our programming within our workshops, sabbaticals and residences emphasizes these three tenets.

A modern two-story house with light-colored siding and large windows. The house is illuminated from within, and the entrance is lit. In the foreground, a fire pit with a fire is surrounded by several dark-colored Adirondack chairs. A man and a woman are sitting in the chairs, looking at each other. The scene is set in a landscaped yard with various plants and trees. The sky is a soft blue, indicating dusk.

CALIFORNIA

RANCHO MISSION
VIEJO

RANCHO MISSION VIEJO



LOCATION:

Rancho Mission Viejo, California

WEB:

ranchomissionviejo.com

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WATCH VIDEO

KEY FACTS:

Project Size:

- 23,000 acres
 - 17,000 acres - The Nature Reserve at Rancho Mission Viejo
 - 6,000 acres - Residential and non-residential mixed-use villages
- 6 Planning Areas
- 14,000 homes (including up to 6,000 age 55-plus homes)
 - Includes single family homes, single-level living, attached homes, apartments

Target Customer Groups:

- All ages including 55

Opening Dates:

Multiple mixed-use inter-generational villages:

- Village of Sendero (470 ac, 941 homes) – Opened 2013/sold out
- Village of Esencia (850 ac, 2,800 homes) – Opened 2015/sold out
- Village of Rienda (2,200 ac, 7,000 homes) – Opening Spring 2022

Product Type/Uses/Facilities:

- The Ranch Plan includes up to five million square feet of non-residential uses such as retail, office, churches and day care centers.
- Additional sites for schools, parks and recreational facilities, essential services, and a network of trails and roadways linking the multiple villages are planned for The Ranch.



RANCHO MISSION VIEJO

CALIFORNIA

RANCHO MISSION VIEJO

Rancho Mission Viejo is envisioned to ultimately provide approximately 14,000 homes (including up to 6,000 homes in Gavilan neighborhoods exclusive to residents age 55-plus). Rancho Mission Viejo will occupy approximately 6,000 acres or 25% of the historic 23,000-acre Rancho Mission Viejo, Orange County's last working ranch held in the O'Neill/Avery/Moiso family since 1882. About 17,000 acres, or 75% of The Ranch, will be preserved for ranching, farming and the phased formation of a large habitat conservation area known as The Nature Reserve at Rancho Mission Viejo.





RANCHO MISSION VIEJO




How is wellness intentionally brought to life in the physical place?

Rancho Mission Viejo has an unsurpassed array of beautiful recreational places, wide-open spaces and unique amenities for every generation to enjoy. Offering innovative parks, sports fields, clubhouses, fitness and movement studios, retreats, outdoor gathering spaces, community farms, trails and the adjacency of The Nature Reserve's open space conservation trails and topography.

How is wellness dynamically activated for the people who live/visit?

Wellbeing at The Ranch is multidimensional – part health, fitness, mental and emotional as well as work-life balance, financial and social vitality. Ranch residents connect with nature, participate in daily physical activities, engage with others in special interest clubs, and grow and harvest food at the farms. Resident-led clubs and the multitude of RanchLife programs, events and experiences give every individual a chance to belong and celebrate life.



PHUKET, THAILAND

TRI VANANDA

**LOCATION:**

Phuket, Thailand

WEB:

trivananda.com

PRIMARY CONTACT:

KITTISAK PATTAMASAEVI, CEO,
MONTARA HOSPITALITY GROUP
Kittisak.p@montarahospitality.com
+66 76 310 100



WATCH VIDEO

KEY FACTS:

Project Size:

- 232 acres
- Wellness Resort: 70 units
- Residential Villas: 87 units

Target Customer Groups:

- International and domestic wellness lifestyle investors (villa buyers) and travelers

Opening Date:

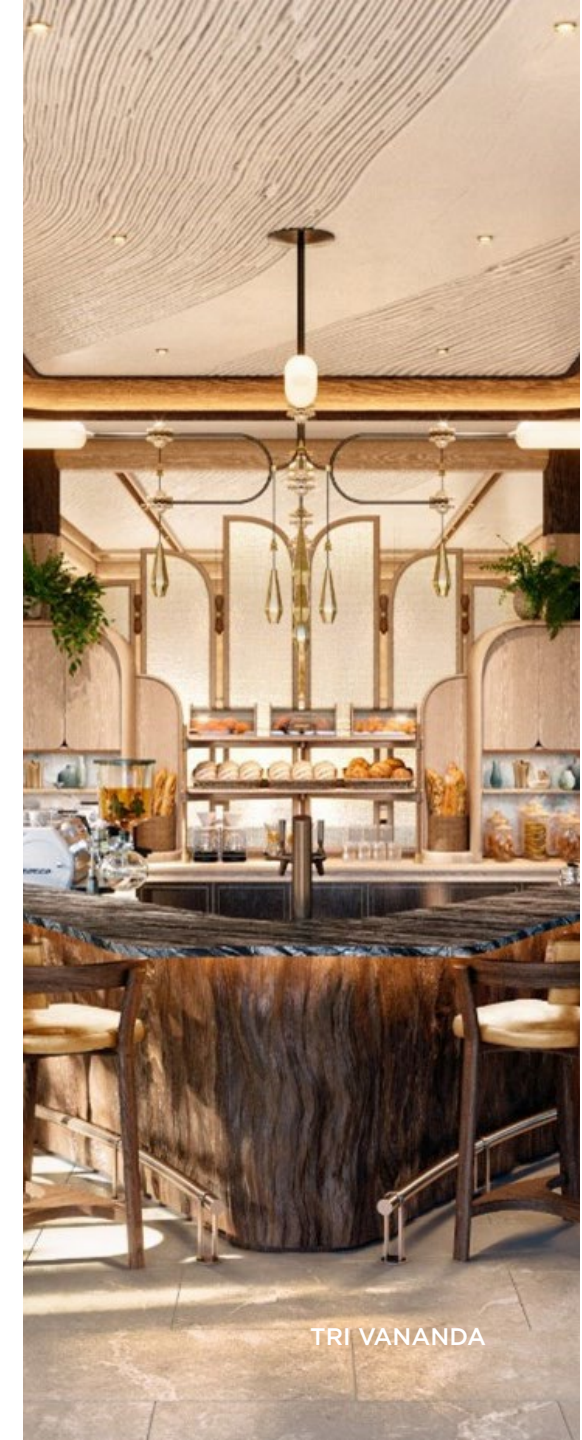
- Phase One: Residential Villas & Community House October 2021
- Phase Two: Wellness Resort & Nature Reserve opening end of 2023

The Numbers:

- Occupancy on pace with pandemic projections. Consumer feedback is stellar.
- One-time membership fee with monthly rental fee starting at \$8,000.
- Premiums related to level of care, size, views, and proximity to amenities.

Product Type/Uses/Facilities:

- Phase One: Wellness Community Founding
 - o Community House
 - o Residential Villas for Sale
 - o Farm and Plant Nursery
- Phase Two: Wellness Lifestyle Travelling Inspiration
 - o Wellness Resort
 - o Pool Villas
 - o Lifestyle Ring Reception
 - o Spa
 - o Wellness Restaurant
 - o Active Movement Center
 - o Wellbeing Center
 - o Mindfulness Center
 - o Wetland Nature Reserve



TRI VANANDA

PHUKET, THAILAND

TRI VANANDA

Tri Vananda is a multigeneration well-living community. We empower our community members to each find life's purpose through measurable transformations in physical and mental well-being. At Tri Vananda, lifestyle, social engagements, technologies, and natural as well as built environments are orchestrated for complete well-living. Our team includes world-class experts in wellness, hospitality and design. The community flourishes on 232 acres of net zero-emission garden and lakes, a 15-minute drive from Phuket International Airport and the Andaman Sea.

How is wellness intentionally brought to life in the physical place?

Backed by an investment of over THB 6.6 billion (USD 220 million), Tri Vananda is envisioned as the new benchmark of wellness in Asia. It will be comprised of three main zones spread across 235 acres of land: the wellness residential community, the wellness resort, and a wetland nature reserve. Only 15 percent of the land will see construction, preserving the natural





lay of nine lakes onsite and allowing guests and residents access to an immense expanse of nature. “Tri Vananda will be a multigenerational community rooted in a way of life based on the principles of wellness, sustainability and hospitality,” says Montara Hospitality CEO Kittisak Pattamasaeви.

How is wellness dynamically activated for the people who live/visit?

Beckoning multiple generations of the wellness-inclined, amenities at Tri Vananda are designed to be best-in-class. Traditionally limited to the spa experience in the past, the definition of wellness is assiduously advanced and expanded at Tri Vananda, extending to the myriad ways one can invigorate the mind, body and spirit.

Functional and integrative health take centerstage at Tri Vananda’s thoroughly equipped medical center, which will feature consultation rooms, physiotherapy and TCM treatment rooms, a cognitive health center, and facilities for health diagnostics aimed at treating residents and guests with tailored programs.

A mindfulness center on the lake will have an indoor hall and outdoor areas for meditation. Also situated on the lake is an extensive spa with separate-sex thermal rooms, relaxation areas, a hammam, and private spa suites. A fitness center will house a 50-meter swimming pool, gym, sauna, juice bar, and lake pier for recreational water sports.





CALIFORNIA

TROON PACIFIC, INC.



LOCATION:

Residence 2582
2582 Filbert Street, San Francisco,
CA 94123

WEB:

residence-2582.com

PRIMARY CONTACT:

Gregory Malin,
CEO of Troon Pacific, Inc.
grm@troonpacific.com
+1 415 425 7780



KEY FACTS:

Project Size:

- ±12,200 sq ft high performance home, situated on a unique triple-width lot equivalent to 4.62 standard lots, ~.27 acres. Seeking LEED Platinum certification

Target Customer Groups:

- Discerning, conscientious, thoughtful community leaders

Opening Date:

- Launched mid-June 2021

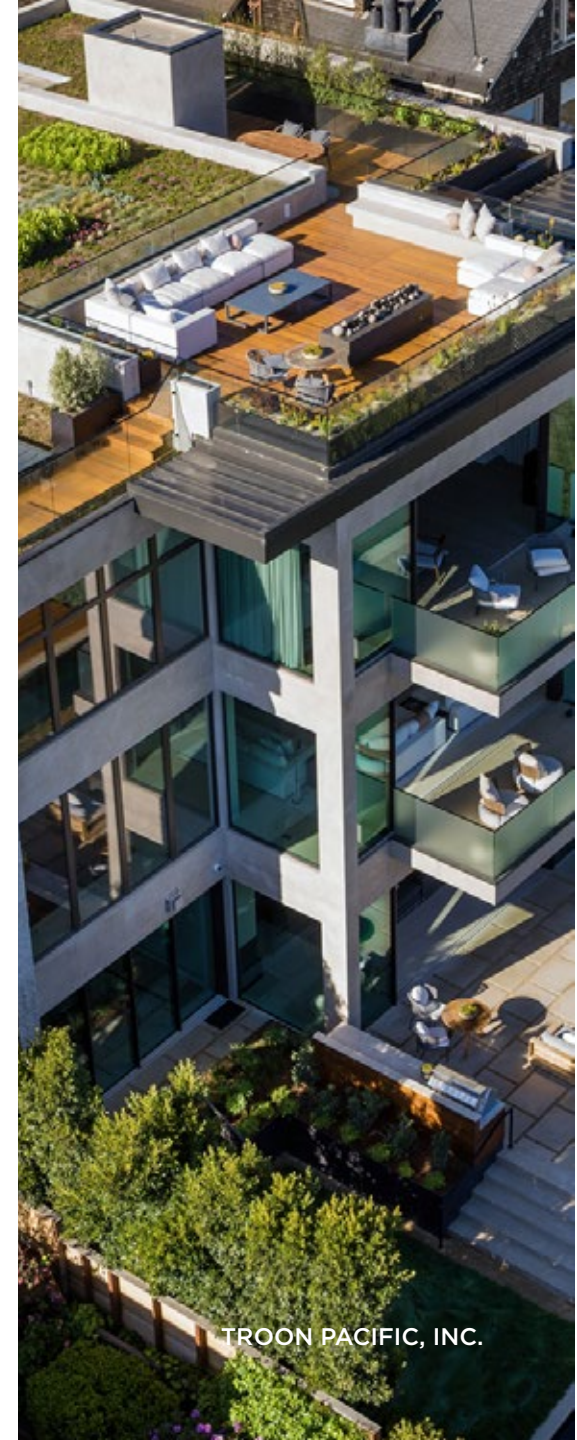
The Numbers:

- Offered at \$46M | ~\$3,770 psf
- **Human Health & Wellness Metrics**
 - o ~9 whole house air changes/day with MERV-13 filtration
 - o Tensui whole house water filtration system uses 15 layers of stone and ceramic, and a pharmaceutical filter to purify water down to .02 microns leaving water chlorine and chloramine free, and enhanced with minerals and electrolytes

- **Planetary Health & Wellness Metrics**
 - o Energy performance exceeds California Title 24 requirements by 56%
 - o 990 kW (DC) solar array, provides ~30% of energy demand
 - o 100% of site water managed
 - o 2,000 gallon rainwater harvesting system, and graywater harvesting system, save an estimated 57,000 gallons of water/year (75% savings)

Product Type/Uses/Facilities:

- Single Family Home
 - o 3 levels, 6 bedroom, 7 full bath, plus 2 powder rooms, 3+ car garage
- Programmed for indoor and outdoor social gatherings
- Fitness center with spa-like amenities
- Generous front and rear gardens with lush landscaping and mature privacy planting
- Wellness strategies include biophilic design, water purification, air filtration, bi-polar ionization for addressing smoke particles and viruses, and EMF mitigation
- Solar array, electric car chargers, Tesla Gateway and Powerwall



CALIFORNIA

TROON PACIFIC, INC.

Troon Pacific's Residence 2582 is incredibly rare, ground-up construction in the Cow Hollow / Pacific Heights neighborhood of San Francisco. The property is a fully realized vision for elevated living. Responsibly built and technologically advanced, this three-story, 6-bedroom home combines timeless modern design and panoramic Golden Gate views with leading edge sustainability, health and wellness initiatives.

How is wellness intentionally brought to life in the physical place?

At Troon Pacific, we are committed to a better built environment for people and the planet. Sustainability, health, and wellness are core to our design and building philosophy. Residence 2582 was holistically designed to support physical and mental wellbeing. This home celebrates the human affinity for nature and blurs the boundary between indoors and outdoors through biophilic design and visual and auditory links to nature. The home's architecture is defined by expansive floorplates, tall ceiling heights, and abundant daylight. Filtered water, purified air, calm surroundings come together to enhance wellness at Residence 2582.







How is wellness dynamically activated for the people who live/visit?

Upon arrival, the dramatic entry sequence is both awe-inspiring and inspired by nature. Primary wellness features include a gym, yoga deck, sauna, steam room, hot tub, and a UV-filtered, 72-foot lap pool. The indoor/outdoor connection is omnipresent throughout the home. Air quality is improved by utilizing HRV units with MERV-13 filters which provide advanced air filtration and ventilation.

Thermal comfort is achieved through radiant heating, low-E triple pane windows, high R-value insulation, humidity control, air conditioning with MERV-16 filters, fire features for warmth and an operable skylight above the stairs for passive cooling.

Dampening measures such as engineered ceilings, acoustical treatments, Quiet Rock dry wall, Gyp-Crete sub-flooring, pipe isolation and acoustic clay-wrapped drainpipes prevent unwanted sound transfer, contributing to the quiet, calm throughout the home. EMF mitigation strategies such as shielded electrical cables and a WiFi off switch also support restful sleep.



SOUTH AFRICA

VAL DE VIE ESTATE

**LOCATION:**

Paarl-Franschhoek Valley,
Western Cape, South Africa

WEB:

valdevie.co.za

PRIMARY CONTACT:

RYK NEETHLING,
MARKETING DIRECTOR
ryk.neethling@valdevie.co.za
+27 66 392 3005



KEY FACTS:

Project Size:

- 1,000 hectares or 2,500 acres
- Currently, we have 1,500 completed homes and 250 sectional title units such as apartments and hotel rooms

Target Customer Groups:

- High net worth and ultra-high net worth individuals with a strong focus on families

Opening Date:

- The estate was started in 2006 and rebranded as a Wellness Estate in 2019

The Numbers:

- USD \$1.5 billion development
- Over the last 15 years, 2,000 properties sold, currently averaging 35 per month
- We are a primary residence estate with over 90% permanent occupancy
- On average, a house costs USD 500,000 - USD 1,000,000
- A monthly premium/levy USD 250 per month

Product Type/Uses/Facilities:

- The Pearl Valley Jack Nicklaus Signature golf course (second best golf course in the country)
- 21 km of running, walking and cycling tracks
- Abundant birdlife
- Vineyards
- Polo fields
- Restaurants
- Wine cellar
- Lifestyle centers
- Padel tennis courts



SOUTH AFRICA

VAL DE VIE ESTATE

Val de Vie Estate is a 1,000 hectare low density, luxury wellness development with an average of 2.3 homes per hectare. More than a third of the estate consists of protected wildlife reserves, lakes, parks and farms, enhancing the country living feel of the renowned Cape Winelands, a UNESCO World Heritage Site. Val de Vie Estate consists of 12 neighborhoods, each with its own unique features, layout and size of properties.

How is wellness intentionally brought to life in the physical place?

Our six pillars of wellness offer tangible and intangible facilities for residents to improve their wellness. This includes mental, economic, social, environmental, physical and community wellness. We have been consistently ranked, over the past five years, as the top estate in South Africa.





VAL DE VIE ESTATE



How is wellness dynamically activated for the people who live/visit?

We host events that are wellness-orientated such as environmental walks and specialist speakers on various wellness topics. We have a Wellness Farm that supplies fresh produce to our restaurants and deli and where residents can harvest their own produce. We have many healthcare facilities on the estate, including two General Practitioners, an Optometrist, a Pharmacy, a Physiotherapist, Biokineticists, etc.

The majority of our residents make use of at least two of the wellness facilities on the estate (swimming pools, bike trails, equestrian, gyms etc.) A partnership with the leading health insurance organization Discovery Vitality tracks the health benefits of living on the estate.



DUBAI

VINCITORE BENESSERE

**LOCATION:**

Opposite Dubai Miracle Garden,
Arjan, Dubai, UAE

WEB:

<https://bit.ly/3nFwS3I>

PRIMARY CONTACT:

VIR DOSHI, DIRECTOR
veer@vincitorerealty.com
+971 52 993 5209



KEY FACTS:

Project Size:

- 218,186 sq ft
- Residential: 380 units
- Retail: 16 units

Target Customer Groups:

- Investors looking for fixed returns
End users looking for high end luxury,
International, local UAE and people
interested in wellness

Opening Date:

- First quarter 2023

The Numbers:

- Value created/sales pace achieved:
AED 375 Million (\$102.7 M) - Benessere
Project Value
- 1 Bed starts from AED 725,000 - AED 1.1
Million (\$1 M - \$3 M)
- 2 Bed Starts from AED 1,072,500 - AED
1.4 Million (\$3 M - \$3.8 M)
- 3 Bed starts from AED 1.6 Million (\$4 M)

Product Type/Uses/Facilities:

- 45x20-meter free form shape
swimmable lagoon lap pool with
Jacuzzi, rock waterfalls, grottos, kids
pool and water exercise equipment
- Steam and sauna with hot and cold mist
shower
- 3,000 sq ft gym with dedicated
meditation area
- 100,000 sq ft of leisure deck with multi-
purpose court (tennis, basketball, volley
ball, hand ball), kids play area and Zen
garden
- Wellness Centre for yoga/meditation
and treatment rooms including
aromatherapy
- Security Systems - CCTV, access-
controlled gate barrier, robust security
system for safety of occupants with
video intercom system for each
apartment
- Retail outlets at doors steps for
occupant's easiness
- Eco-friendly initiatives: Condensate
water drain reusing for irrigation
purpose and low discharge and water
consumption sanitary ware and fixtures



VINCITORE BENESSERE

DUBAI

VINCITORE BENESSERE

Vincitore Benessere is a game-changer in the Wellness Real Estate sector worldwide. This project will be the UAE's first-ever Wellness Residential Landmark and is going to showcase a plethora of premium wellness amenities, including an over 100,000 sq ft seamless leisure deck to ensure that its residents truly “live life retreat style.”

How is wellness intentionally brought to life in the physical place?

Vincitore Benessere was created as an ode to healthy living in a post-COVID world. A wellness-oriented project created to provide the residents of Dubai a better quality of life. This unique project promotes and aids a healthy and holistic lifestyle, with the developer Vincitore Realty and its management working tirelessly to provide the lifelong assurance of Health, Wellness, and Peace.

Vincitore Benessere, like Vincitore's previous projects, is an evergreen landmark that will stand the testament of time. High-





VINCITORE BENESSERE




quality branded real estate is an asset that will last forever and never lose its value.

How is wellness dynamically activated for the people who live/visit?

“Benessere” is an Italian word that means wellbeing in terms of health, comfort and happiness. Humans perceive all worldly elements through the senses when they see, smell, touch, hear and taste. These senses play vital roles in the wellness of humans; hence these senses are the focal point of development of each and every element of “Vincitore - Benessere.”

Human always feel serene - calm - soothing and relaxed when they see picturesque elements; they get good aroma, the elements/artifacts they touch give them the feel of comfort, and the sounds they hear tranquilize them. Effort is being made to create one-of-a-kind wellness projects in Dubai by covering all essential wellness elements, without which “Vincitore - Benessere” would be incomplete.



BROOKLYN, NEW YORK

THE WATERMARK AT BROOKLYN HEIGHTS

**LOCATION:**

Brooklyn Heights, Brooklyn, NY, US

WEB:

brooklynheights.watermarkcommunities.com

PRIMARY CONTACT:

BRYAN SCHACHTER,
CHIEF INVESTMENT OFFICER
WATERMARK RETIREMENT
COMMUNITIES

bschachter@watermarkcommunities.com

+1 520 392 7615



KEY FACTS:

Project Size:

- 0.46 acre footprint building
- Featuring 275 apartment units in 15 residential stories

Target Customer Groups:

- Affluent NYC and surrounding area residents in search of Independent Living, Assisted Living, and Memory Care services

Opening Date:

- December 2020

The Numbers:

- Occupancy on pace with pandemic projections. Consumer feedback is stellar.
- One-time membership fee with monthly rental fee starting at \$8,000.
- Premiums related to level of care, size, views, and proximity to amenities.

Product Type/Uses/Facilities:

- Large scale \$330MM re-development of historic hotel building in Brooklyn Heights neighborhood of NYC.
- Independent Living, Assisted Living, and Memory Care services
- Renovation and Excellence in Safety award in 2021 by Engineering News-Record magazine
- Art Gallery with rotating exhibits; immediate renown for “Not Another Second,” telling the untold stories of 12 LGBT+ seniors and exploring the years they lost due to societal constraints



THE WATERMARK AT
BROOKLYN HEIGHTS

BROOKLYN, NEW YORK

THE WATERMARK AT BROOKLYN HEIGHTS

Senior living community offering Independent Living, Assisted Living, and Memory Care services featuring 15,000 sq ft of dedicated wellbeing spaces that include gym, yoga studio, heated indoor lap pool, spa and salon, library, art studio, auditorium, performing arts theater, and multiple restaurants.

How is wellness intentionally brought to life in the physical place?

Our walking friendly location at the heart of Brooklyn with access to the promenade and beautiful views of the river make it as easy as possible to connect with nature in the middle of a busy city environment. Inside the building, 15,000 sq ft of dedicated wellbeing spaces feature a gym, yoga studio, heated indoor lap pool, spa and salon, library, art studio, auditorium, performing arts theater, and multiple restaurants. More importantly, our associates focus on the lifestyle that our residents would like



THE WATERMARK AT BROOKLYN HEIGHTS



THE WATERMARK AT BROOKLYN HEIGHTS



THE WATERMARK AT BROOKLYN HEIGHTS

THE WATERMARK AT BROOKLYN HEIGHTS

to create and curate for them a seamless experience from early reach out to move-in to residency, and connect our community with the wellbeing resources they need both within and around the building.

How is wellness dynamically activated for the people who live/visit?

Our associates in the department of people, arts and culture check in with all residents on a weekly basis and make sure that we are offering things that interest them and make them feel healthy. For example we started with a traditional chair yoga approach last year, and over the course of months as our residents got stronger and grew more confident, we have evolved into a vinyasa-flow format for our classes. In each area of wellbeing, we are offering adaptive activities that can be performed at different levels of ability and accommodate all resident needs. For wellness program management we utilize the Connected Living platform. All participation is kept track of longitudinally, and if a regular resident doesn't show up in a particular activity or lecture series a few times in a row, both the associates and their fellow residents check in to see if everything is okay. On the associate front, it is part of Watermark's leadership culture, and taught as part of the Leadership by Design program curriculum for managers and directors to regularly touch base with their team members to ensure everyone feels safe, supported and encouraged to bring their full selves to work.



ITALY

WELLNESS COMMUNITIES ITALIA

**LOCATION:**

Italy

WEB:

lwlp.com

PRIMARY CONTACTS:

CHICCO TATRIELE

chicco@alchemy-concepts.com
(Italy & Asia)

MAX REIM

max@lwlp.com
(North America & International)**WATCH VIDEO**

KEY FACTS:

Project Profile:

- Regenerating and revitalizing Italian villages, districts and regions

Vision:

- Placemaking for the wellness of Italy and humanity

Mission:

- Create iconic, sustainable and economically vibrant communities and places that thrive for generations – where people live healthier, live happier and live longer

Wellness Strategy:

- Conceive, deliver and activate places with immersive “Wellness,” “Placemaking” and “Lifestyle,” all foundational pillars of our complete communities that will help catalyze Italy’s economic vitality and national wellbeing

Two National Initiatives:**1. Italy’s Recovery & Resilience Plan**

allocating USD 315 billion from the EU to Italy for:

- Digitization, innovation, competitiveness and culture
- Green revolution and ecological transition
- Infrastructure for sustainable mobility
- Education and research
- Inclusion and cohesion
- Health

2. Italy’s Relaunch Initiative for Tourism, Culture, Environment and Agriculture

Valore Paese Italia, State-Owned Property Office (Agenzia del Demanio) National Tourism Agency of Italy (ENIT) to:

- Enhance Italian public heritage economically and socially
- Extend and develop new territories for tourism
- Promote a public-private partnership system and network, and cultural tourism eco-districts



ITALY

WELLNESS COMMUNITIES ITALIA

Italy is well-poised to be the global leader in abundance of regions filled with wellness communities and real estate.

The Italian peninsula extends from the Alps in the north to the central Mediterranean Sea in the south and has 21 defined regions and 82 provinces. This vast geographic diversity makes Italy a strategic territory economically, politically and socially. Characteristic of each region are the Italian Borghi, the thousands of lovely villages perched on majestic mountains and overlooking beautiful bays. The harmonious architecture reflects a strong example of well-planning in line with the surrounding environments. Withstanding centuries, these villages still offer a richness of history, art and cuisine. With fewer than 5,000 inhabitants in many of them, the Italian Borghi are “the embodiment of Italy’s identity.”

Over centuries, the Italian Borghi have survived intense periods of battles (regional and international) pestilence and more from pre-Middle Ages through the Renaissance to today’s modern times. Following WWII, like many nations, citizens of







rural villages fled to the main cities for industry and work. As a result, we have seen these historical villages deplete and decay over nearly a century, leaving many of them near abandonment. This has also resulted in an over-crowding of tourist and living hotspot destinations in the country.

The grave impact of the pandemic led to a new call to action by the Italian government and catalyzed an opportunity to rethink economic growth and development for the country's future.

Wellness Communities Italia will innovate, improve and modernize local infrastructure and servicing, whilst reinforcing and celebrating the authenticity, culture, heritage and history that makes each Italian village, town, city and region unique and special - whether in an urban, seaside or rural setting.

Through our multi-disciplinary expertise and our commitment to excellence, we are Master Developers, Placemakers and Revitalisers following the macro phases of regeneration and placemaking:

- Envisioning, Positioning and Programming
- Master Planning, Business Planning and Financial Modeling
- Implementation and Development
- Activation and Economic Development

In addition, health, wellbeing, innovation, placemaking, lifestyle, socialization, sustainability and learning are foundational at our thriving communities and destinations, catalyzing 360-degree holistic "Wellness Economies."



MEXICO

WEN LIVING SAN JOSE DEL CABO



LOCATION:

Within the private gated community of Club Campestre San Jose in San Jose del Cabo, Los Cabos, Baja California Sur, Mexico

WEB:

wenliving.com

PRIMARY CONTACT:

EDGAR MATUTE,
FOUNDER / CEO

ematute@awendevolvers.com

+52 55 6810 2735



KEY FACTS:

Project Size:

- 3.17 acres
- 42 two-bedroom homes/
504 1/12th fractions

Target Customer Groups:

- 50+ Adults
- Second home or vacation home buyers
- Wellness and golf-oriented

Opening Date:

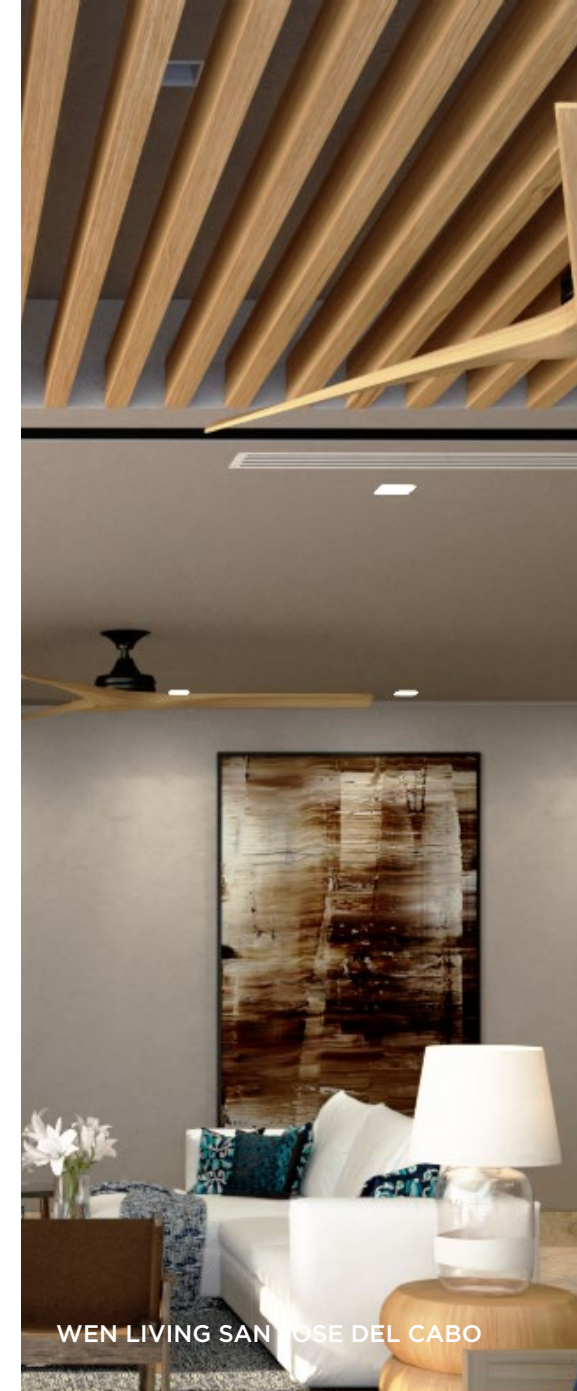
- Summer 2023

The Numbers:

- Fractions starting at \$79,000 USD*

Product Type/Uses/Facilities:

- World Class Fitness Facility
- Multipurpose Fitness Room
- Pool and Swimming Lane
- Spa Massage Cabins
- Juice & Coffee Bar
- Grill Area
- Sports Bar
- Library
- Co-Working Space
- Organic Garden
- Infirmary
- Fitness Trails
- Underground Parking
- EV Charging Stations
- Pet-Friendly Zones
- Club Campestre Beach Club
- Club Campestre's 18-hole Championship Nicklaus Design Golf Course
- Club Campestre Club House
- Club Campestre Tennis Courts



MEXICO

WEN LIVING SAN JOSE DEL CABO

Wen Living is a new adult-oriented wellness sanctuary; a vibrant, environmentally friendly community for like-minded people in the high-end tropical desert destination of San Jose del Cabo in Mexico. Our promise: to enhance people's health and well-being while supporting the community and taking care of the planet. We create private homes in amenity-rich wellness-focused communities for people to live extraordinarily.

How is wellness intentionally brought to life in the physical place?

Wen Living is designed for every person to thrive through mindful consideration of the eight dimensions of wellness, including:

- Biophilic design principles: Bringing people closer to nature.
- Architectural structure and design: Deeply inspired by the region and following “the golden ratio,” Wen Living is designed to foster a sense of community, wellness and respect for the environment.





WEN LIVING SAN JOSE DEL CABO



- Interior design: Elegance and comfort fuse to create modern open plan designs with natural tones inspired by the earth, the desert, the surrounding vegetation and the sea.
- Amenities: People will enjoy luxury amenities within their home and throughout the community.
- Landscape design: Wen Living's landscape is inspired by the region's water patterns, creating an organic environment with lush vegetation and fruit trees where people are in constant contact with nature.

How is wellness dynamically activated for the people who live/visit?

Imagine living in a beautiful, luxurious location surrounded by nature while being pampered by the relaxed luxury resort-style hospitality delivered at Wen Living, where you can make every day the best version of your "self."

At Wen Living, our goal is to promote a wellness-centered lifestyle for every homeowner, guest, visitor and staff member while being socially responsible and congruent in everything we do. The Science of Wellness is the foundation and basis for why and how we do what we do, making it part of our DNA. We provide the tools, through a total personalization and customization of wellness programming, activities and services based on the eight dimensions of wellness, for every person to create their own wellness journey.



NEW YORK

THE XI NEW YORK, SIX SENSES

NEW YORK

THE XI NEW YORK, SIX SENSES

Meeting of the world's most visionary minds in architecture, design, art and hospitality gives rise to the tallest buildings in West Chelsea, featuring 236 condominium residences unmatched in Manhattan and unparalleled in the world. With impeccable design, groundbreaking amenities curated by Six Senses, and mesmerizing views of the Hudson river and New York City skyline on all sides, the XI represents an achievement in vision, a commitment to the notion that the new luxury is a balanced life.

How is wellness intentionally brought to life in the physical place?

45,000 sq ft private wellness club and full-service spa with modern bathhouse that includes a magnesium pool, warm pool, hot pool and cold dip.

The XI Club is 18,000 sq ft of amenities exclusive to residents curated and managed by Six Senses.



**LOCATION:**

West Chelsea, New York, NY, US

WEB:

<https://www.sixsenses.com/en/residences/the-xi-new-york-managed-by-six-senses>

PRIMARY CONTACT:

ANNA BJURSTAM,
WELLNESS PIONEER,
SIX SENSES

anna@sixsenses.com

+46 73 053 7796



KEY FACTS:

Project Size:

- HFZ Capital Group acquired the full-block site between 17th and 18th Street, and 10th and 11th Avenue for \$870 million. The complex will include 247 condominiums, a 137-room Six Senses hotel, 90,000 square feet (8,400 m2) of retail space, art space, a spa and a 50,000 square feet Six Senses Place (membership club).

Target Customer Groups:

- Upper middle class to ultra high net worth individuals

Opening Date:

- 2023

The Numbers:

- Prices ranging from \$2.8 million for a one-bedroom to \$25 million for a half-floor penthouse

Product Type/Uses/Facilities:

- The XI Club is 18,000 sq ft of amenities exclusive to residents curated and managed by Six Senses

- An on-site GEM (general experience manager) will welcome you and take care of all your needs
- A state-of-the-art fitness experience wraps around a luminous 75-foot glass-enclosed, sunlit swimming pool with poolside cabanas and a hot tub
- A dedicated studio provides additional space for strength training, group classes, or private training
- An expansive spa features men's and women's steam rooms and saunas
- A fully equipped treatment room for massages and specialty therapies
- Personalized wellness and nutritional programming by Six Senses
- A double-height entertaining space includes an all-day bar offering coffee and fresh juices in the morning and Six Senses mixologist services in the evening
- The owner's lounge with unique culinary experiences in the formal dining room / wine tasting room with adjacent catering kitchen
- Dedicated teen's lounge and children's playroom offer grow with Six Senses programming, which incorporates multiple dimensions of wellness into all activities



THE XI NEW YORK, SIX SENSES



THE XI NEW YORK, SIX SENSES



THE XI NEW YORK, SIX SENSES

THE XI NEW YORK

How is wellness dynamically activated for the people who live/visit?

At Six Senses Place, in-house experts will measure and analyze key physiological biomarkers to provide members with lifestyle and nutritional advice. Resulting personalized programs will include treatments and wellness activities based on the preventative principles of the Eastern medicine approach and result-oriented Western influences.

Amenities and offerings include, but are not limited to, a vibroacoustic meditation dome; the latest in biohacking; screening room for inspiring talks and lectures given by leaders in the worlds of health, wellness and ancient therapies; integrative wellness clinic; a holistic anti-aging center; a fitness center; a yoga studio; and social spaces with cafés, a restaurant, juice bars, and co-working and lounging areas.

WELLNESS REAL ESTATE & COMMUNITIES SYMPOSIUM



SYMPOSIUM PORTFOLIO

RESOURCES LIST

2021 WELLNESS REAL ESTATE & COMMUNITIES SYMPOSIUM

RESOURCES LIST

REPORTS:

Global Wellness Institute

2018 Build Well to Live Well: Wellness Lifestyle Real Estate & Communities

[https:// globalwellnessinstitute.org/industry-research/wellness-real-estate-communities-research](https://globalwellnessinstitute.org/industry-research/wellness-real-estate-communities-research)

Global Wellness Institute

Wellness Communities & Real Estate Initiative Trends 2021

<https://globalwellnessinstitute.org/wellness-communities-real-estate-initiative-trends>

Urban Land Institute

Building Healthy Places Initiative Toolkit

<https://uli.org/wp-content/uploads/ULI-Documents/Building-Healthy-Places-Toolkit.pdf>

World Economic Forum

A Framework for the Future of Real Estate 2021

https://3.weforum.org/docs/WEF_A_Framework_for_the_Future_of_Real_Estate_2021.pdf

Urban Land Institute

21st Century New Communities: Raising the Ambition

<https://knowledge.uli.org/en/reports/research-reports/2021/21st-century-new-communities-raising-the-ambition>

Thriving Places Index

Identifies local conditions for wellbeing & measures whether those conditions are being delivered fairly & sustainably

<https://www.thrivingplacesindex.org>

What Works Center for Wellbeing Places & Community

<https://whatworkswellbeing.org/category/places-and-community>

Urban Land Institute

Health and Social Equity in Real Estate: State of the Market (ULI)

<https://americas.uli.org/healthandsocialequity/>

Urban Land Institute

Sustainability Outlook 2021

<https://bit.ly/3o7zV4S>

Urban Land Institute

Health and Social Equity in Real Estate: Examples from the Field (ULI) 2020

<https://www.knowledge.uli.org/en/reports/research-reports/2020/health-and-social-equity-examples-from-the-field>

The Pandemic and the Public Realm

Global Innovations for Health, Social Equity and Sustainability (ULI)

<https://americas.uli.org/pandemic-public-realm/>

Center for Active Design

A New Investor Consensus: A Rising Demand for Healthy Buildings

<https://bit.ly/3zPUJjs>

Urban Land Institute

Sustainability Outlook 2021

<https://bit.ly/3o7zV4S>

America at Home Study
Consumer Research into Changing Perceptions on Home and Community During a Global Health Pandemic

<https://americaathomestudy.com/>

(MIT) Real Estate Innovation Lab
Distributing Density: Middle-scale Housing for Sustainable Communities

https://realestateinnovationlab.mit.edu/wp-content/uploads/2020/10/REILab-HousingInnovationWorkshop2020-document_201013.pdf

(MIT) Real Estate Innovation Lab
The Financial Impact of Healthy Buildings

https://realestateinnovationlab.mit.edu/wp-content/uploads/2020/09/Natasha_Healthy-Buildings_seminar_V2.pdf

Sharecare Community
Community Well-being Index 2020

https://wellbeingindex.sharecare.com/wp-content/uploads/2021/08/MCCS-8040-2020-MSA-County-Rankings-Report_v2.pdf

Conference Board of Canada
Community Wellbeing: A Framework for the Design Professions

<https://www.conferenceboard.ca/e-Library/abstract.aspx?-did=9787>

Conference Board of Canada
Community Wellbeing: A Framework for the Design Professions

<https://www.conferenceboard.ca/e-Library/abstract.aspx?-did=9787>

Government of Canada
Community Well-being Index (CWB)

<https://www.sac-isc.gc.ca/eng/1421245446858/155732141599>

Fitwel
Research to Action: Building Health for All® in the Face of COVID-19

<https://www.fitwel.org/covid-19/>

SENIOR HOUSING:

International Council on Active Aging
Creating Your Blueprint for a Wellness-based Community (ICAA)

https://www.icaa.cc/conferenceandevents/forums/reports/2019_05.pdf

International Council on Active Aging
Environments for Wellness (ICAA)

https://www.icaa.cc/listing.php?type=industry_research

International Council on Active Aging
Wellness in CCRC and Life Plan Communities (ICAA)

https://www.icaa.cc/store_detail.php?id=6091

International Council on Active Aging
ProMatura Wellness Benchmarks: The National Benchmarks Report (ICAA) 2017

https://www.icaa.cc/store_detail.php?id=5896

International Council on Active Aging
Visions of the Future: Active-Aging Industry Trends Survey (ICAA) 2018

https://www.icaa.cc/store_detail.php?id=6802

ARTICLES:

America at Home

Consumers Place More Importance on Well-being

https://www.builderonline.com/data-analysis/america-at-home-consumers-place-more-importance-on-well-being_o

Liberate Health

Housing is Key to Health (2021)

<https://liberatehealth.medecision.com/housing-is-key-to-health/>

IDEO

Every Business Has a Part to Play in Building Better Health

<https://www.ideo.com/journal/every-business-has-a-part-to-play-in-building-better-health>

Overabove

Living the New Wellness

<https://overabove.com/the-view-from-overabove/living-the-new-wellness/>

Bio Med Central

Social Capital and Public Health: Responding to the COVID-19 Pandemic

<https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-020-00615-x>

BOOKS:

Jim Heid

Building Small: A Toolkit for Real Estate Entrepreneurs, Civic Leaders and Great Communities

Urban Land Institute, 2021

Diana Lind

Brave New Home: Our Future is Smarter, Simpler, Happier Housing

Bold Type Books, 2020

WELLNESS REAL ESTATE & COMMUNITIES SYMPOSIUM



SYMPOSIUM PORTFOLIO

SPEAKERS

2021 WELLNESS REAL ESTATE & COMMUNITIES SYMPOSIUM

SYMPOSIUM SPEAKERS



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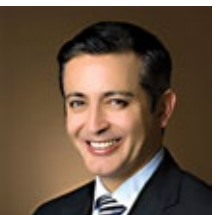
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After 18 years on Wall Street, including 10 at Goldman Sachs as a Partner, Paul Scialla's interest in sustainability and altruistic capitalism led him to found Delos, which is merging the world's largest asset class – real estate – with the world's fastest-growing industry – wellness. Paul has become a leading voice in the wellness and sustainability movements, serving as a keynote speaker at prominent green building, real estate and technology forums and conferences worldwide.



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WELLNESS REAL ESTATE & COMMUNITIES SYMPOSIUM



SYMPOSIUM PORTFOLIO

RESEARCH



**GLOBAL WELLNESS
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2018 RESEARCH REPORT

Build Well to Live Well

**WELLNESS LIFESTYLE REAL ESTATE
AND COMMUNITIES**



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Build Well to Live Well

Wellness Lifestyle Real Estate
and Communities

JANUARY 2018



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ABOUT

ABOUT THE GLOBAL WELLNESS INSTITUTE

The Global Wellness Institute (GWI), a non-profit 501(c)(3), is considered the leading global research and educational resource for the global wellness economy and is known for introducing major industry initiatives and regional events that bring together leaders and visionaries to chart the future. GWI positively impacts global health and wellness by advocating for both public institutions and private businesses that are working to help prevent disease, reduce stress, and enhance overall quality of life. Its mission is to empower wellness worldwide.

www.globalwellnessinstitute.org

ABOUT THE AUTHORS

Build Well to Live Well: Wellness Lifestyle Real Estate and Communities was prepared by Ophelia Yeung and Katherine Johnston, Senior Research Fellows at the Global Wellness Institute. Together, they have more than four decades of experience leading research and strategy development for businesses, universities, research institutions, and multilateral and government organizations under the auspices of SRI International, a Silicon Valley-based technology and innovation company. Since 2008, Yeung and Johnston have worked with the team at what has become the Global Wellness Institute to pioneer groundbreaking research on the global wellness economy and its subsectors.

Build Well to Live Well:
Wellness Lifestyle Real Estate and Communities

Executive Summary

JANUARY 2018



GLOBAL WELLNESS
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EXECUTIVE SUMMARY

It is time to treat our homes as an investment in our wellness.

Wellness is a \$3.7 trillion industry and growing faster than the global economy. The Global Wellness Institute believes that residential real estate is the next frontier that will be radically transformed by the wellness movement. Our homes, communities, and surrounding environment directly affect our daily behaviors and lifestyles, and together these

determine up to 80-90% of our health outcomes. Since our homes are typically our most important personal investment and expenditure, it is only logical that they should also be an investment in our health and wellbeing.

The way our homes have been built in the last century is reinforcing lifestyles that make us sick, stressed, alienated, and unhappy.

The last hundred years have brought great advances in engineering, sanitation, building safety, and city planning. Science and technologies have enabled us to control infectious diseases and bring ever greater levels of comfort, conveniences, entertainment, and telecommunications into our homes. Yet our modern living environment has also created new health risks – sedentary lifestyles, lack of physical activity, poor diet, stress,

social isolation, and environmental degradation. The global rise of many respiratory and chronic diseases has been traced directly to pollution. Our built environment favors driving over biking, sitting over walking, riding in elevators over using the stairs, texting over face-to-face conversations, and screen time over outdoor recreation. Even as people live longer, more are living lonely, unhealthy, and unhappy lives.

Movements that have tried to address these ills have laid the foundation for wellness lifestyle real estate and wellness communities.

Wellness lifestyle real estate is a nascent industry that recognizes, and has the potential to meet, today's immense health challenges. It represents a shift that explicitly puts people's wellness at the center of the conception, design, creation, and redevelopment of our homes and neighborhoods. Importantly, this movement does not have to start from scratch; it can borrow and learn from many historical/current movements and integrate their best features through a multidimensional wellness lens. Many elements of the green/sustainable building movement, design-driven movements, the food movement, New Urbanism, intentional communities, and others, are already being adapted, mixed, and incorporated in innovative ways into new and upcoming wellness-focused residential projects and communities. As we look to

the future of wellness real estate and communities, we can expect smarter use of technologies and innovations, new metrics to capture the Return on Wellness (ROW), and a deeper exploration of the relationships between physical and virtual communities and between our individual/personal wellness and community/planetary wellness.

The purpose of this study is to establish a better understanding of what constitutes wellness lifestyle real estate and wellness communities, their potential impacts on our health and wellbeing, and the compelling business case for investing in them. It provides a guide, along with useful tools and resources, for conceptualizing, planning, designing, and building wellness lifestyle real estate in a holistic and intentional manner.

Many Movements Have Future of Building



WELLNESS GETAWAYS

Started: Pre-1900s

Tapping into natural, local, and authentic traditions to build places that are rejuvenating and healing.

VACATION & SECOND HOMES

SPA TOWNS

DESTINATION SPAS

HEALTH RESORTS



POLICY & PLANNING MOVEMENTS

Started: Early-1900s

Using public policy to address major social, economic, and health issues that affect how and where we live.

PUBLIC HEALTH

HEALTHY CITIES

RESILIENT CITIES

SMART/DIGITAL CITIES

AFFORDABLE/SOCIAL HOUSING



FOOD MOVEMENT

Started: 1970s

Addressing land use, agricultural practices, and how/what we eat through community design.

COMMUNITY GARDENS

URBAN FARMS

COMMUNITY-SPONSORED AGRICULTURE

FARMERS' MARKETS

LOCAL FOOD/SLOW FOOD

FARM-TO-TABLE

AGRIHOODS



INTENTIONAL COMMUNITIES

Started: Pre-1900s

Building community around shared resources, interests, and values to create a holistic way of life.

UTOPIAN

SOCIAL/POLITICAL

RELIGIOUS/SPIRITUAL COMMUNES

CO-HOUSING/CO-LIVING



PLANNED COMMUNITIES

Started: Early-1900s

Consciously and intentionally planning communities that offer a better lifestyle and appeal to specific interests.

CITY BEAUTIFUL

GARDEN CITIES

NEW TOWNS

URBAN PLANNING

MASTER-PLANNED COMMUNITIES

GOLF COMMUNITIES

RETIREMENT COMMUNITIES



Paved the Way for the Better Places to Live



DESIGN MOVEMENTS

Started: 1980s

Designing buildings and projects to address targeted needs and populations.

VASTU/FENG SHUI
UNIVERSAL/INCLUSIVE DESIGN
TRANS/MULTI-GENERATIONAL DESIGN
BIOPHILIC DESIGN
ACTIVE DESIGN



NEW-URBANISM

Started: 1980s

Reinventing compact, traditional, walkable community design and placemaking for the modern era.

PLACEMAKING
MIXED-USE
TRANSIT-ORIENTED
SMART GROWTH
TRADITIONAL NEIGHBORHOOD DESIGN
FORM-BASED CODES



TECHNOLOGY & INNOVATION

Started: 1990s

Using new technologies to enhance our living environments and create virtual communities.

MOBILE DEVICES
SOCIAL MEDIA
SENSORS
SMART HOMES
ARTIFICIAL INTELLIGENCE
AUGMENTED REALITY
MATERIALS SCIENCE



GREEN/SUSTAINABLE BUILDING

Started: 1990s

Building in a responsible, sustainable, resource-efficient way to minimize harm to the planet.

ENVIRONMENTAL JUSTICE
ENERGY STAR
LEED/BREEAM/ETC.
REGENERATIVE/LIVING BUILDINGS
ECOVILLAGES/ECO-CITIES



WELLNESS LIFESTYLE REAL ESTATE & COMMUNITIES

Started: 2000s

Putting human health and wellbeing at the center of housing and neighborhood design.

HOLISTIC
PHYSICAL & VIRTUAL CONNECTION & COMMUNITY
EVIDENCE-BASED
RETURN-ON-WELLNESS
WELL™/FITWEL™/ETC.

1970

1980

1990

2000

2050

Key Findings on the Future of Wellness Lifestyle Real Estate and Communities

- Our existing built environment has a massive and increasingly negative impact on our wellness. With the trillions of dollars we spend every year on sick care, pharmaceuticals, medical technologies, and biomedical research, we are merely trying to fix the health and wellness problems that are enabled by our living environments. We cannot address the global crisis of rising chronic disease and unsustainable health costs without committing to a dramatic transformation in where and how we live. We must shift our resources and our investments into the places that give us the best returns on our health – that is, our homes and communities.
- We need to reframe our concept of the professions and industries that are part of our wellness and public health landscape. Many players – real estate investors, urban planners and designers, architects, transportation planners, and the construction industry – shape the built environment that determines our health outcomes. Collectively, we must shift our thinking: buildings and infrastructure are as important as immunizations; pocket parks, paths, and plants are as beneficial as prescriptions; friends and neighbors are more important than Fitbits. The industries involved in shaping our built environment and our health behaviors should all be key partners for building a well world.
- Demand for wellness lifestyle real estate and communities is rapidly accelerating. Consumers are seeking out healthy places to live and are ready to pay for them. Industry leaders and visionaries are pioneering innovative ways to meet different consumer lifestyle needs and desires. Governments are beginning to support these efforts, although sometimes in a piecemeal and incoherent fashion. Standards, guidelines, and design principles are emerging to facilitate them. The confluence of these developments means that wellness lifestyle real estate is poised to go from niche to mainstream. Eventually, building for wellness will become the norm.
- It is important to define what wellness lifestyle real estate and communities are, in order to prevent “well-washing” and consumer confusion. Simply rebranding real estate developments as “wellness communities” by highlighting a few features or amenities does not make them so. This study provides a guide for the planning and creation of wellness lifestyle real estate and communities as an intentional and holistic concept (not as a checklist or certification process), aimed at bringing positive health benefits and a total wellbeing experience and lifestyle to their residents.

Defining and Understanding Wellness Lifestyle Real Estate and Wellness Communities

Without a commonly recognized definition, the wellness terminologies used in real estate can be confusing to consumers, developers, and investors. For clarity in project planning, development, and marketing, the Global Wellness Institute proposes the following definitions:

- **Wellness lifestyle real estate** is defined as homes that are proactively designed and built to support the holistic health of their residents.
- **Wellness community** is a group of people living in close proximity who share common goals, interests, and experiences in proactively pursuing wellness across its many dimensions. It can be rooted in a purpose-built physical space, or can be cultivated around shared culture or social networks without purpose-built structures.

The power of wellness lifestyle real estate lies in its potential to foster wellness communities. Yet, the connection between the two is not automatic.

Creating this connection requires a clear intention, along with supporting design and operational principles:

- **From “do no harm” to optimizing wellness:** Not only preventing “sick buildings” but building homes that help us enhance our health and wellbeing.
- **From passive to active wellness:** Encourage proactive behaviors and habits that drive wellness.
- **From hardware to software:** Complement “bricks and mortar” with policies, management, and programming that build social connections and nurture healthy behaviors.
- **From “me” to “we:”** Create awareness that our individual health and wellbeing is intrinsically linked to our broader environment and the people around us.

Wellness lifestyle real estate and wellness communities can be planned, designed, and built to optimize our holistic wellness.

Wellness is multi-dimensional and holistic. **Wellness lifestyle real estate** can be very effective in addressing the individual aspects of wellness – the **physical, social, and mental/emotional/spiritual** dimensions. However, whether we like it or not, our wellness is connected to things beyond ourselves – including the environment and the socioeconomic and civic aspects of our neighborhood or city. Therefore, creating **wellness communities** requires

a broader perspective that extends to the **environmental, community, and economic/financial health** and wellbeing of the community.

The table below provides examples of the design features, spaces, amenities, and services that can support six key wellness dimensions to create true wellness communities.

Wellness Lifestyle Real Estate and Communities Address Multiple Dimensions of Wellness

From “Me”

WELLNESS LIFESTYLE REAL ESTATE AIMS TO ADDRESS:

Physical Wellness

Both passive and active design features enhance residents’ physical health and encourage physical activity. Materials, fixtures, and furnishings are non-toxic and health-enhancing, ensure clean air and water, and support good sleep. Design, amenities, and services encourage exercise, active recreation, active transportation (walking, biking, etc.), and other healthy behaviors. Residents have easy access to healthy foods as well as preventive health/wellness services.

For example: fitness/wellness facilities, walking trails, parks & playgrounds, car share, circadian lighting, thermal comfort, air circulation.

Social Wellness

Design of living spaces, public/common spaces, and amenities/services facilitates social connections with family, friends, and neighbors. Residents are encouraged to get to know their neighbors. Location, transportation, and convenience features in the project design may provide residents with more time to spend on social activities.

For example: layout & circulation of floor plans, multigenerational units, common/public spaces, community events.

Mental/Emotional/Spiritual Wellness

Project design, amenities, and services facilitate residents’ mental, emotional, and spiritual wellness by encouraging connection with nature and animals (biophilia), connection with culture and traditions, connection with beauty, and connection with a greater purpose. The design may also provide space and support for rest and solace; encourage residents to pursue personal hobbies, interests, and spiritual practices; and support residents in managing technology and work/life balance.

For example: natural, biophilic, or aesthetic design and materials; green space & water features; public art; meditation space.



To “We”

WELLNESS COMMUNITY ALSO AIMS TO ADDRESS:

Environmental Wellness

Materials, design, and construction are non-toxic, renewable, waste-reducing, energy efficient, natural/organic, and/or locally-sourced. The community encourages residents to adopt a lifestyle that is sustainable and even regenerative, supporting behaviors such as use of public and alternative transit (less driving), reduce/reuse/recycle, community gardening and local food production, conservation of natural resources, and preservation of green space and animal habitats.

For example: preserved open space/wetlands, recycling & composting program, native/edible landscaping, community garden or CSA.

Community Wellness

The community supports and embraces diversity (e.g., mixed use, mixed-incomes, races, or ages) by design. Residents are encouraged to engage with and care about the wider community and people outside their immediate social spheres. Design of living spaces, public/common spaces, and amenities/services facilitates strong social capital, trust, and civic engagement.

For example: scale/situation of homes relative to others; connectivity/flow of streets; diverse housing types/prices; public spaces/parks; community center/events; intranet.

Economic/Financial Wellness

The community enables residents to conduct their daily activities, such as work, school, shopping, recreation, etc., within a short distance and with different transportation options. Housing in the community is affordable at a variety of income levels, and residents have an opportunity for upward mobility over time.

For example: mixed-use planning/zoning, walkable “town center” & schools, live-work units, co-working facilities, affordable housing policy, public transit planning.

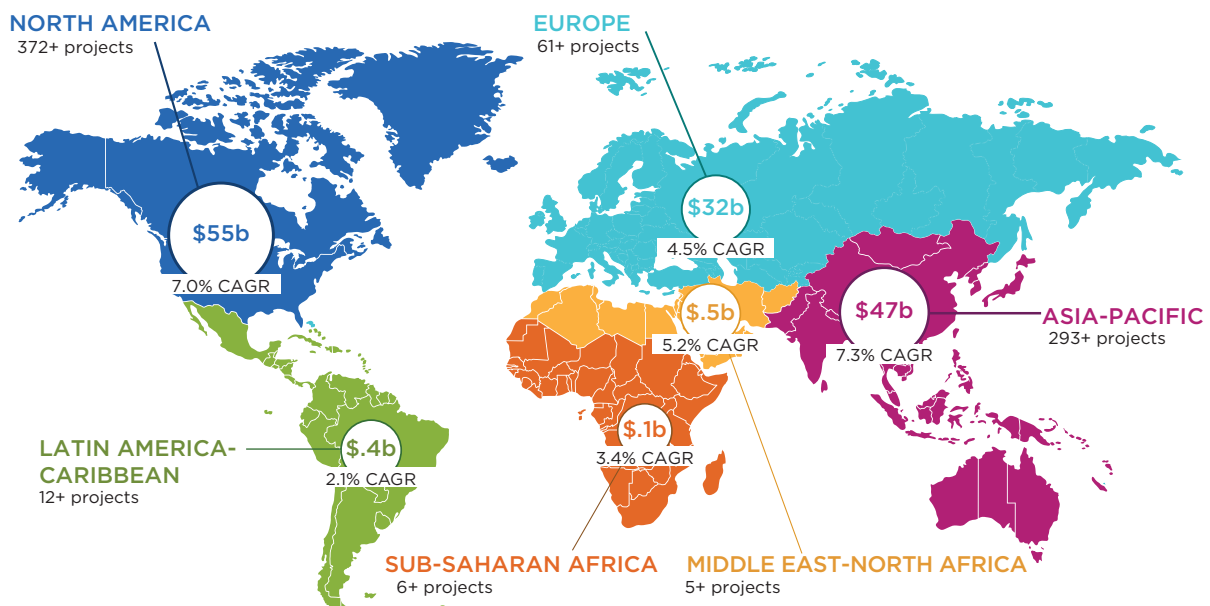
The Business Case

Wellness real estate is a sizable industry poised for rapid growth.

Wellness real estate is a **\$134 billion industry in 2017, growing by 6.4% annually since 2015**. For comparison, this is about 1.5% of the total annual global construction market. It is also about half the size of the global green building industry. GWI projects that the wellness real estate sector will

expand by 6% annually in the next several years, growing to \$180 billion by 2022. The United States, along with a few key countries in Asia (China, Australia, India) and Europe (UK, Germany), account for three-quarters of the global wellness real estate market.

Wellness Real Estate is a **\$134 billion global industry in 2017** Over **740** residential projects in the pipeline, across **34** countries



Top 10 for Market Size

United States	\$52.5b	India	\$6.1b
China	\$19.9b	France	\$5.8b
Australia	\$9.5b	South Korea	\$4.2b
United Kingdom	\$9.0b	Canada	\$2.4b
Germany	\$6.4b	Japan	\$2.2b

Top 10 for Pipeline

United States	355	Canada	17
Australia	189	Malaysia	12
United Kingdom	42	Singapore	9
China	39	Vietnam	6
India	17	Indonesia	6

Source: Global Wellness Institute

Notes: Market size figures include the construction of residential and commercial/institutional properties that incorporate intentional wellness elements. Growth rates reflect the compound annual growth rate from 2015-2017. Numbers do not sum to total due to rounding. Pipeline figures include only residential projects with intentional wellness elements (built, partially built, or in development), estimated as of November 2017.

Buyers have demonstrated that they are willing to pay more for healthier built environments.

Wellness lifestyle real estate developments positioned at the middle/upper ends of the market are achieving **home sales price premiums averaging 10-25%** (but these can range widely from 5% to 55%). One reason for this premium is

that there is not enough supply to meet demand. According to one survey, there are an estimated **1.3 million potential buyers each year in the United States** alone for wellness-infused homes and communities.

The global pipeline of wellness lifestyle real estate projects is constantly growing.

There are over **740 wellness lifestyle real estate and community developments** built, partially built, or in development around the world, across **34 countries** – and this number is growing every day. These include master-planned communities, multi-family housing, urban districts and mixed-use projects, resort/spa-based real estate, and other types of projects.

Looking to the future, the Global Wellness Institute has identified several emerging wellness living concepts that we predict will drive the future development of wellness lifestyle real estate and will push the design of healthy living environments to the next level:

- **Blurring the lines between home, work, and leisure:** Strategic colocation and integration of homes, coworking facilities, and ample wellness amenities and programming (in both urban and suburban contexts), in response to the rapid rise of remote work, the sharing economy, and the travails of loneliness and work-life balance.
- **Making healthy homes affordable:** Developers collaborating with governments to target lower-income and vulnerable populations who are at the highest risk for many health conditions.
- **Bringing back multigenerational and diverse neighborhoods:** Catering to people seeking communities with greater diversity of ages, life stages, backgrounds, and social classes, recognizing the growing evidence that social connections in the physical realm are essential for our health and wellbeing, our society, and our economy.
- **Catalyzing medical industry clusters and health services to build wellness communities:** Building world-class wellness communities by combining a geographic concentration of cutting-edge medical industry companies and research organizations (the economic concept of “industry clusters”); a concentration of high-quality hospitals, clinics, and health services for consumers; and holistically-designed wellness-infused homes and neighborhoods.
- **Moving from green to regenerative living:** Moving beyond green building certifications to create innovative, regenerative residential communities on the cutting edge of green, biophilic, sustainable, and healthy design – these will produce their own healthy food and renewable energy, clean the air, recycle their own water, and be net positive for people and planet.
- **Leveraging technologies to create smart-healthy homes and cities:** Harnessing future technologies – advanced telemedicine, smart homes, sensors, artificial intelligence, etc. – to bring state-of-the-art on-demand wellness into the design of homes, neighborhoods, and cities.
- **Rediscovering hot springs as a wellness living anchor:** A rise of new residences located near natural thermal and mineral springs (both primary and vacation homes) – as people rediscover their therapeutic properties and the benefits of communal bathing – and the redevelopment of historic spa towns as holistic wellness living communities.

The Wellness Case

Fixing our built environment can help combat the global health epidemic and rising costs.

Recent research shows that genetics may account for just 10-15% of our health outcomes, while the rest is determined by external and environmental factors. Yet, the built environment continues to receive scant attention from the medical community

– and only 4% of annual global health expenditures are spent on public health, risk reduction, and prevention. This lop-sided focus needs to change if we want to address our growing global health epidemic and escalating medical costs.

Wellness-focused built environments have tangible, wide-ranging benefits for our health and wellbeing.

Numerous academic and scientific studies have documented the wellness impacts of specific types of infrastructure and design features – for example, proximity to a park/trail increases exercise, sidewalks/bike paths encourage active transportation, and nice public spaces and public art increase community engagement and trust. Holistically and intentionally designed and operated wellness lifestyle real estate can have many positive impacts:

- **Minimizing environmental impacts on human health:** reduce toxic substance exposure; improve sleep, reduce stress; and promote earth-friendly practices.
- **Supporting behavior change and healthier lifestyles:** encourage movement, active life-

style, mind-body health, and healthy eating; use nature to improve mental/psychological wellbeing.

- **Fostering a sense of place, community, and belonging:** smart design can encourage social encounters, increase community interactions, and build trust and civic engagement.

The full report summarizes several studies that have documented the human impacts of wellness lifestyle real estate. These include an increase in physical activity (walking, stair use, etc.); reduction in smoking rates; health improvements for asthmatic children; increased social interactions with neighbors; and self-reported feelings of increased safety, good health, and personal wellbeing.

Better metrics can prove and communicate the benefits of wellness lifestyle real estate and communities to residents, planners, builders, and investors.

An important challenge in making the case for wellness lifestyle real estate and communities is the lack of metrics to measure and communicate their benefits. The full report proposes a simple, survey-based framework and a dashboard of potential metrics that can capture key areas of impact across three categories: 1) health and

wellbeing outcomes, 2) wellness behaviors, and 3) sense of community. As more communities and developers experiment with different approaches for capturing the positive impacts of intentional, wellness-infused living environments, the hard evidence for the wellness case will become clearer over time.

Build Well to Live Well:
Wellness Lifestyle Real Estate and Communities

Full Report

JANUARY 2018



GLOBAL WELLNESS
INSTITUTE™
EMPOWERING WELLNESS WORLDWIDE

I. WELLNESS LIFESTYLE REAL ESTATE AND COMMUNITIES: WHY NOW?

Our homes are the latest frontier for wellness.

Imagine living in a place where you belong and where you feel safe. Your home is a sanctuary that calms your senses, where you enjoy restful sleep and rejuvenation. Yet, within it, you also feel connected to what exists outside – to nature, people, and the universe. It even beckons you to engage with the world: to take a walk, work in the garden, spend time in nature, chat with neighbors, or participate in your community.

Imagine a life where you don't have to drive everywhere or suffer traffic to run every small errand, and where walking or biking are your preferred transport, regular exercise, and daily engagement with your surroundings and neighbors. Your work is close to your home, and you have ample time for your hobbies and social life. You

live in a neighborhood with abundant options for affordable, fresh foods and activities that enhance your health and wellbeing, where wellness seems effortless because it is the community norm and your daily lifestyle. In times of challenges, big or small, you know you can depend on your network of neighbors, friends, and family for support – and they can depend upon you.

For many, this idyllic scenario may seem out of reach, like a utopian fantasy. Or, it may be associated with a special vacation destination or resort, but not part of daily life. Yet, slowly and steadily, a movement is taking shape and gaining momentum to bring this vision of wellness into our everyday lives, homes, and communities.

The time has come to treat our homes as an investment in our wellness.

Residential real estate is the next frontier that will be radically transformed by the wellness movement. Consumers around the world already spend \$3.7 trillion (or 5% of global GDP in 2015) on their wellnessⁱ – from yoga and spin classes to meditation and sleep apps, and from juicing, vitamins, and organic food, to running shoes, athletic wear, and much more. Wellness spending has been rising faster than income, as we expand our “wellness lens” to filter and make choices in our daily lives, from how we eat, exercise, and relax, to how we work and travel. Since our home typically represents our most important personal investment, and one of our largest expenditures (about 20% of all consumer spending, or more than \$8 trillion each yearⁱⁱ), it is only logical that our home should also be an investment in our health and wellbeing.

As public and environmental health expert, Richard Jackson, reminds us, “the built environment is the embodiment of what we love, our imagination, and

our will. It is what we value and reflects what and whom we care about.”ⁱⁱⁱ Our homes, communities, and surrounding environment directly affect our daily motivations, behaviors, and lifestyle, and these factors determine 80-90% of our health outcomes.^{iv} Consumers are beginning to recognize this connection and demand housing that puts human health and wellbeing as our top priority.

Wellness lifestyle real estate is a nascent industry that recognizes, and has the potential to meet, this emerging need. Yet, even as interest grows, very few people – among investors, real estate developers, consumers, or policymakers – understand what wellness lifestyle real estate and wellness communities are or should be.

The purpose of this study is to establish a better understanding of what constitutes wellness lifestyle real estate and communities, their potential impacts on our health and wellbeing,

and the compelling business case for investing in them. In this report, you will not find checklists or criteria to “qualify” what is or is not wellness lifestyle real estate or a wellness community, because we believe there are many pathways to address the diverse wellness needs, priorities, and sensibilities of different people in different countries and contexts. What we aim to provide is a guide for the conceptualization, planning, design, and construction of wellness lifestyle real estate in a holistic and thoughtful manner, along with accompanying tools and resources that can help in the execution of these projects.

Below are our key findings:

- Our existing built environment has a massive and increasingly negative impact on our wellness. With the trillions of dollars we spend every year on sick care, pharmaceuticals, medical technologies, and biomedical research, we are merely trying to fix the health and wellness problems that are enabled by our living environments. We cannot address the global crisis of rising chronic disease and unsustainable health costs without committing to a dramatic transformation in where and how we live. We must shift our resources and our investments into the places that give us the best returns on our health – that is, our homes and communities.
- We need to reframe our concept of the professions and industries that are part of our wellness and public health landscape. Many players – real estate investors, urban planners and designers, architects, transportation planners, and the construction industry – shape the built environment that determines our health outcomes. Collectively, we must shift our thinking: buildings and infrastructure are as important as immunizations; pocket parks, paths, and plants are as beneficial as prescriptions; friends and neighbors are more important than Fitbits. The industries involved in shaping our built environment and our health behaviors should all be key partners for building a well world.
- Demand for wellness lifestyle real estate and communities is rapidly accelerating. Consumers

are seeking out healthy places to live and are ready to pay for them. Industry leaders and visionaries are pioneering innovative ways to meet the different lifestyle needs and desires of consumers. Governments are beginning to support these efforts, although sometimes in a piecemeal and incoherent fashion. Standards, guidelines, and design principles are emerging to facilitate them. The confluence of these developments means that wellness lifestyle real estate is poised to go from niche to mainstream. Eventually, building for wellness will become the norm.

- It is important to define what wellness lifestyle real estate and communities are, in order to prevent “well-washing” and consumer confusion. Simply rebranding real estate developments as “wellness communities” by highlighting a few features or amenities does not make them so. This study provides a guide for the planning and creation of wellness lifestyle real estate and communities as an intentional and holistic concept (not as a checklist or certification process), aimed at bringing positive health benefits and a total wellbeing experience and lifestyle to their residents.

ⁱ Global Wellness Institute (2017). *Global Wellness Economy Monitor*. Miami, FL: Global Wellness Institute.

ⁱⁱ Global Wellness Institute analysis of global consumer expenditures data from Euromonitor International (www.euromonitor.com).

ⁱⁱⁱ Jackson, R.J. (2012). *Designing Healthy Communities*. San Francisco, CA: John Wiley & Sons, Inc.

^{iv} See Chapter V for more background on the determinants of health.

II. WHAT IS UNWELL IN THE PLACES WE CALL HOME?

The way our homes and communities have been planned, designed, and built in the last century is reinforcing lifestyles that make us sick, stressed, alienated, and unhappy.

The last hundred years have brought great advances in technology, construction, city planning, and infrastructure. New approaches to sanitation, clean water, waste disposal, fire safety, etc. have addressed many of the infectious diseases and hazards that killed most people a century ago. Advances in engineering and materials science allow us to build ever taller, safer, cheaper, and more modern structures and ever denser cities. Sophisticated automobiles and vast highway systems now take us anywhere we want to go. Our homes are replete with comforts and conveniences, from air conditioning and automatic dishwashers to televisions and on-demand video.

These advances have brought great benefits, but have also inflicted significant costs. Today, our greatest health risks are our sedentary lifestyle, lack of physical activity, poor diet, stress, loneliness and alienation, polluted environment, and uneven medical care. Chronic disease now accounts for 70% of all deaths around the world.^v The medical, economic, social, and human costs associated with chronic disease have escalated to a level that is unsustainable. According to the World Economic Forum, the cumulative global economic impact of chronic disease could reach \$47 trillion by 2030.^{vi} Research has shown that the determinants of chronic disease are less than 15% genetic and more than 85% environmental and behavioral factors. Our health outcomes are intimately tied to where we live and how we live. Yet, when we look around, we must ask: How can we stay healthy when our built environment is working against us?

Our environment is a major cause of bad health and premature death

- The global rise of asthma, lung cancer, cardiopulmonary conditions, and other chronic diseases has been traced directly to pollution.

- Indoor air pollution can be as bad or worse than outdoor pollution – from “sick-building syndrome” in modern structures to the three billion people in poor countries who inhale harmful fumes from coal or biomass fuel cooking.^{vii}
- Sound pollution, light pollution, and constant digital stimulation can raise stress levels, affect the quality of our sleep, and even have physical health impacts.
- Cheap land for new housing developments is farther and farther away from our jobs and commercial centers, so our commutes are causing more and more vehicular pollution.
- Most scientists agree that our carbon-dependent built environments and lifestyles are leading to global climate change and increased risk of natural disaster, with potentially catastrophic threats to our communities, homes, and health.

Our built environment steers us toward unhealthy lifestyles and disconnection

- Our obesogenic built environments reinforce a sedentary and even anti-social lifestyle – favoring driving over biking, sitting over walking, riding in elevators over using the stairs, texting over face-to-face conversation with a neighbor, and watching videos over outdoor recreation.
- Vernacular architecture and green space have been replaced by “cookie cutter” housing, modernist buildings, and retail and entertainment complexes that look alike from Shanghai to New York to Rio de Janeiro, encouraging competitive consumption and disconnecting us from our heritage, culture, spiritual life, and nature.

HOW CAN WE STAY HEALTHY WHEN OUR BUILT ENVIRONMENT IS WORKING AGAINST US?



ENVIRONMENT

Toxic air, water, soil, & materials
Light & noise pollution
Climate change &
resource depletion



SOCIAL/COMMUNITY

Loneliness & social isolation
Economic insecurity & inequality
Polarization & lack of trust



PERSONAL/BEHAVIORAL

Sedentary & unhealthy lifestyle
Digital overload & stress
Disconnection from
nature & heritage

URBAN UNWELLNESS

Intensive air, water, noise, & light pollution
Overcrowding & lack of tranquil space
Luxury versus slums
Limited amenities for the non-rich

SUBURBAN UNWELLNESS

Separation of home from daily activities
Car dependency & sprawl
Limited walkability
Social isolation & segregation



CHILDREN & TEENAGERS

Childhood obesity
Teen anxiety & depression
Lack of independence



WORKING ADULTS

Long commutes
Always on, 24/7 work culture
Rising stress & unhappiness



SENIORS

Decreased mobility
Increased medical needs
Isolation from friends & family

The design of our homes and communities enables social isolation and reduces trust

- Zoning laws and fine-grained market segmentation of new housing (by type, size, price, etc.) have increasingly segregated people by income, class, stage of life (e.g., urban professionals, families with young children, elderly), and even race.
- More people are living alone, with later marriages, fewer births, and shrinking inter-generational households.^{viii} Ever more sophisticated technologies, amenities, appliances, and conveniences encourage our retreat into private quarters and away from civic life and spontaneous social encounters. Alarming, research points to a worldwide decline in social capital, with decreasing trust in government, fellow citizens/neighbors, and strangers alike.

An unwell built environment affects urban and suburban dwellers differently

- **City dwellers** suffer the most from pollution. Income inequality and the high cost of housing can mean living conditions that are extremely crowded, dangerous, and unhealthy for the poor. Green space, recreational facilities, and wellness amenities are scarce, inaccessible, and/or unaffordable for most city-dwellers. While the wealthy can take a vacation to escape the stress of the concrete jungle, such respite is often not available to the lower and middle classes.
- While **suburban residents** have more space, zoning policies that separate homes from daily activities (work, school, friends, recreation, shopping, etc.) create car-dependency and encourage sedentary lifestyles. The car culture also reinforces certain anti-social housing design conventions, such as wide streets,

lack of sidewalks, and attached garages that encourage people to immediately disappear into their homes without seeing any neighbors.

Different demographic groups face unique challenges

- The separation of homes from workplaces and daily activities means that many **working adults** suffer long and stressful commutes, which rob them of time for family and friends, rest, leisure, and exercise. Car dependency (and ownership) also adds to financial stress and reduces walking, social interactions, and connection to nature.
- **Seniors** living in neighborhoods that are unwalkable and lack public transit suffer reduced mobility and find it difficult to age-in-place when they can no longer drive. Social isolation is particularly detrimental to seniors at a time when they need more medical care, social services, friends, hobbies, and connections than ever.
- Over one generation, our perception of our **children's** safety within our built environment has changed dramatically, with the fears of kidnapping, falling off playground equipment, and unsupervised outdoor free play reaching levels that border on paranoia. The proliferation of digital entertainment, reduced time in nature, disappearance of unstructured play, and lack of walking or cycling as transportation all contribute to rising obesity, anxiety, and depression among children and teens around the world.

Our unwell built environment inflicts significant costs on us in many ways – in both urban and suburban settings, and whether we are young or old, working or not.^{ix}

THE COSTS OF OUR UNHEALTHY BUILT ENVIRONMENT ARE STAGGERING AND UNSUSTAINABLE



PERSONAL/BEHAVIORAL

- Lack of physical activity (25% of adults and 80% of adolescents) costs over **\$67.5 billion** each year in health expenditures and lost productivity.
- **38%** of Americans say they lack outdoor spaces in their community to walk or exercise.



SOCIAL/COMMUNITY

- **25-40%** of households are single in the United States, Western Europe, Japan, and South Korea.
- **25%** of Americans have no close friend to confide in.
- Depression, a leading cause of illness and disability, increased **18%** from 2000-2015 worldwide.



ENVIRONMENT

- A hazardous environment causes **24%** of global disease and **13 million** deaths every year.
- Air pollution kills **2.2 million** in China and India every year.

URBAN UNWELLNESS

- **88%** of urban dwellers are exposed to unhealthy levels of pollution.
- City life increases the risk of mental illness in children and adults.

SUBURBAN UNWELLNESS

- Each hour spent in a car per day increases obesity risk by **6%**.
- Suburban dwellers walk less, drive more, weigh more, and are more likely to be hit by a car.
- Sprawl costs the American economy more than **\$1 trillion** annually.



CHILDREN

- Only **13%** of American children walk or bike to school, as compared to 48% in 1969.
- Australian children spend less than **2** hours a day outside but **4.5** hours in front of a screen.
- **2/3** of Chinese children do not meet recommended guidelines for daily physical activity.



WORKING ADULTS

- Every **10** minutes spent commuting results in **10%** fewer social connections.
- Prolonged sitting raises the risk of cardiovascular disease by **14%**, cancer by **13%**, and diabetes by **91%**.
- **33%** of full-time workers find it difficult to maintain work-life balance (across the United States, United Kingdom, India, Japan, China, Germany, Mexico, and Brazil).



SENIORS

- **63%** of older people find it hard to access healthcare (across **32** countries in Africa, Asia, Europe, and the Caribbean).
- **17%** of seniors in England have contact with another person less than once a week.
- Only **1%** of U.S. housing stock is adequately equipped to meet the needs of seniors.

Many movements – past and present – have tried to address these ills.

The human desire to create better places to live is not new. Since the 19th century (and even earlier), dozens of planning, building, and design movements have attempted to address particular problems in our homes and communities or to create places that address specific lifestyle needs and interests.

Intentional communities bring together like-minded people to create a lifestyle and community around shared beliefs and values, often religious, social, or political.^x These have been in existence for centuries, dating from the oldest religious communities (e.g., monasteries, ashrams, Shaker villages, Hutterite colonies) to the 19th and 20th century attempts to create social, political, and alternative communities and utopian societies (e.g., ecovillages, socialist and egalitarian communes like Germany's *Kommuna*, or agricultural cooperatives like Israel's *kibbutzim*). More recently, there is growing interest – especially among Millennials and seniors – in co-housing and cooperative living arrangements that address rising living costs, environmental/resource concerns, social isolation, and other travails of modern life.^{xi} While intentional communities often involve purpose-built living spaces, they are less about the physical real estate and more focused on sharing resources, responsibilities, and interests and creating a holistic way of life.

For hundreds of years, people have created **wellness getaways and resorts** as places to visit for rest and recuperation. From the ancient Roman bath complexes, to the flourishing 18th-and 19th century European spa towns and sanatoria, to the thriving modern-day *onsen* and hot springs resorts of Japan and China, many of these resorts and communities were built around unique natural and environmental features (e.g., thermal/mineral waters, therapeutic muds/caves, unique climatic conditions) as well as local healing traditions. The growth of modern destination spas and wellness resorts since the mid-20th century is tapping into our intensifying need to get away from everyday stress and unhealthy daily lifestyles.^{xii} Some resorts have added residences for people who want

to access their amenities and programs more frequently than just on vacation (e.g., Canyon Ranch Living, Four Seasons Residences). These offerings tend to be small-scale and focus on the luxury, second-home buyer – but their growth (alongside the growth of wellness tourism/getaways in general) signals the rising demand for integrating wellness and recreational amenities and resources more into our daily lives.

While early examples of city planning can be found around the world, Sir Ebenezer Howard is credited with introducing the modern concept of **planned communities** in England at the turn of the 20th century. Responding to the ills of the industrialized cities of the time (poverty, overcrowded slums and tenements, lack of sanitation, lack of nature, etc.), Howard's Garden City concept, alongside Daniel Burnham's City Beautiful movement, gave way to the modern urban planning discipline; the development of zoning and building codes; 20th century experiments in urban renewal (e.g., Le Corbusier's modernist Radiant City concept, Robert Moses' urban infrastructure projects); the post-WWII New Towns movement; and the proliferation of modern, planned, low-density, car-dependent residential suburbs.^{xiii} Today, we see the development of sophisticated suburban and exurban master-planned communities with extensive amenities, many of which are designed to attract residents looking for specific lifestyle features (e.g., golf communities, gated communities) or cater to specific demographic groups (e.g., age-restricted and retirement communities).

Suburbanization, planned communities, and urban planning in the 20th century have been blamed for much of the unhealthy features of our modern living environments. Yet, these movements have also germinated promising new approaches for building better places. Inspired by influential urban thinkers and activists like Lewis Mumford, Jane Jacobs, William Whyte, Jan Gehl, and others,^{xiv} **New Urbanism** emerged in the 1980s and 1990s from a group of developers and architects who sought to reinvent traditional city design for the modern era

and revive the lost art of placemaking. New Urbanism and its many offshoots (sustainable urbanism, landscape urbanism, tactical/lean urbanism, etc.) espouse a return to more compact, connected, livable communities that are characterized by walkability, transit-oriented development (TOD), mixed-use, diversity (of buildings, functions, price points, etc.), “traditional neighborhood design” (TND), vibrant public spaces, and human-centered and environmental approaches to planning. From the first fully New Urbanist town of Seaside, Florida, in 1981, there are now thousands of New Urbanist communities and projects worldwide (both new builds and redevelopment/infill), which offer important approaches and lessons learned on how to build healthier and happier places to live.^{xv}

Many other **design-driven movements** have emerged among architects, designers, and planners in response to the shortcomings of today’s living environments. Most focus on the building, project, or property scale and address targeted issues or populations – for example, the need to encourage physical activity (active design^{xvi}), the need for people to reconnect with nature (biophilic design^{xvii}), the desire for spiritual connections and harmony (feng shui, vastu shastra, sacred geometry), the need to address the physical/built environment challenges for persons with disabilities (barrier-free/universal/inclusive design^{xviii}), and the need to address the physical challenges of aging (trans/multi-generational design^{xix}). All of these design movements provide an important toolbox of concepts and approaches that can be used together to work toward a more holistic concept of healthier building that simultaneously meets our physical needs and encourages mental wellbeing.

The **green/sustainable building movement** has gone from niche to mainstream over the last 30 years, stimulating a host of new technologies, tools, and approaches that address how buildings are designed and constructed, what materials are used, energy efficiency, independence from fossil fuels, reduction of emissions and waste, and better management of natural resources (land, water, etc.).^{xx} Many tools, standards, and rating/certification systems provide concrete, science-based guidance on how to reduce the environmental impacts of our built environment (e.g., LEED, BREEAM, Energy

Star, Net Zero Energy, and many others).^{xxi} More stringent environmental standards are slowly being adopted into building codes in countries around the world.^{xxii} Meanwhile, newer models are shifting from the “do no harm” mentality toward living, regenerative, and adaptive buildings that seek to restore and improve the natural environment (e.g., Living Building and Lifecycle Building Challenges).^{xxiii} Environmentalism is also bringing new approaches in community and city design, from the development of ecovillages and eco-cities, to community-level standards such as One Planet Living, Living Community Challenge, and LEED-ND.^{xxiv}

Related to environmentalism, the grassroots **food movement** reflects our growing awareness of what and how we eat, where our food is sourced, and how it is produced. It has important consequences for both wellness and the built environment – for example, the deep connections among farming practices, land use, and environmental and health impacts; concerns about “food deserts,” food insecurity, and food equity; as well as the rapidly rising interest in organic and local foods, slow food, farm-to-table, and the social side of food and eating. We now see these trends infused into real estate development, neighborhood/community design, and urban planning in the proliferation of backyard, urban, and community gardens; community-sponsored agriculture programs; farmer’s markets, food halls, and public markets; and even the development of food and agriculture-focused agrihoods and agro-communities.^{xxv}

We must not forget the role of government in shaping where and how we live. A variety of city and regional-level **public policy and planning movements** are applying new tactics, technologies, programs, and policies to respond to the many challenges of today’s living environments. Most regions have policies to promote affordable and/or public housing for those living below the average local income. Many local governments have launched public-private initiatives to address chronic disease and improve health outcomes (e.g., local sugar/soda taxes, many iterations of healthy city initiatives such as WHO’s Healthy City Alliance, Blue Zone communities, Bloomberg’s Partnership for Healthy Cities, or NHS England’s Healthy New

Towns),^{xxvii} while others are focusing on building city resilience in the face of economic, climate, and terrorism threats (e.g., Resilient Cities Network).^{xxviii} Many cities are harnessing technology to improve resource and infrastructure efficiency, mitigate risks, and deliver better services (e.g., smart/digital cities, smart grid, conscious cities).^{xxix} These movements are making great strides in addressing public health risks, rationalizing planning, instilling civic pride, building social capital, and creating better-functioning neighborhoods and cities.

Finally, the ever-accelerating rate of **technological innovation** has brought ever-increasing levels of comfort, convenience, health, and connectivity to our homes and neighborhoods. In the early/mid-20th century, the proliferation of new household machinery, appliances, and technologies not only improved public health and safety (e.g., modern sanitation, central heating, air conditioning, electricity), but also freed us from the drudgery of domestic chores (e.g., electric vacuum, refrigerator, washing machine, etc.). Simultaneously, the rise of automobiles and highways brought a revolution in individual mobility and convenience, enabled suburbanization and sprawl, and has transformed the way we build our homes and cities over the last

hundred years. The Information Age has brought intense, 24/7 connectivity – via the Internet, mobile devices, and social media – which is changing our concept of “community” and blurring the lines between physical and virtual connection. One hundred years ago, advances in industrial materials and engineering brought the modern skyscraper. Today, we are just beginning to understand how the synthetic and natural materials, light, sound, and other features in our built environment affect our personal and planetary health. Modern materials and building sciences are now giving rise to newer health-enhancing and earth-friendly materials, systems, and furnishings for our homes (e.g., paint that cleans the air, lighting that changes our mood and fosters sleep). Looking to the future, the next wave of advances – sensors, smart homes, Internet of things, robotics, self-driving cars, artificial intelligence, augmented reality, virtual reality, and much more – will continue to transform the very nature of our built environment, how we live in physical and virtual space, and how we connect with other people.^{xxx}

Many Historical Movements Provide Tools to Help Us Build Better Places to Live



Building in responsible, sustainable, resource-efficient ways to minimize harm to the planet.

Food Movement

Addressing land use, agricultural practices, and how/what we eat through community design.

Policy & Planning Movements

Using public policy to address major social, economic, and health issues that relate to how and where we live.

Technology & Innovation

Using new technologies to enhance our living environments and create virtual communities.

Wellness Lifestyle Real Estate & Community Movement

Putting human health and wellbeing at the center of housing and neighborhood design.

← Early History

1900

1950

2000

Future→

Wellness lifestyle real estate and communities can draw upon the best of these movements to create the most healthful and nourishing living environments for all of us.

The **wellness lifestyle real estate and wellness communities** movement represents a shift in focus that explicitly puts people's health at the center of the conception, design, creation, and redevelopment of our homes and neighborhoods. Importantly, the movement to treat our homes as a wellness investment does not have to start from scratch. Our future homes and communities can borrow and learn from all of these related historical and current movements, integrating their best features through a multidimensional and holistic wellness lens. In fact, the characteristics of the green/sustainable building movement, the design-driven movements, the food movement, New Urbanism, intentional communities, and others, are already being adapted, mixed, and incorporated in innovative ways into many new and upcoming wellness-focused residential projects and communities. At the same time, new building/design standards focused on human health are spilling over from the commercial and hospitality property spheres into the residential sector, as they are being developed, piloted, and adapted for homes and neighborhoods (e.g., WELL Building Standard™, WELL Community Standard™, Fitwel™, and others). As we look to the future of wellness real estate and communities, we can expect smarter use of technologies and innovations, new metrics to capture the Return on Wellness (ROW), as well as a deeper exploration of the relationships between physical and virtual communities and between our individual/personal wellness and community/planetary wellness.

^v WHO (2017, June). *Fact Sheet: Noncommunicable diseases*. <http://www.who.int/mediacentre/factsheets/fs355/en/>.

^{vi} Bloom, D.E., et al (2011). *The Global Economic Burden of Noncommunicable Diseases*. Geneva, Switzerland: World Economic Forum. http://www3.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf.

^{vii} WHO (2016, February). *Household air pollution and health*, Fact Sheet No. 292. <http://www.who.int/mediacentre/factsheets/fs292/en/>.

^{viii} Chamie, J. (2017, February 22). *The Rise of One-Person Households*. <http://www.globalissues.org/news/2017/02/22/22900>. See also: OECD International Futures Programme (2011). *The Future of Families to 2013: A Synthesis Report*. Paris, France: OECD. <https://www.oecd.org/futures/49093502.pdf>.

^{ix} Sources referenced in the graphic on page 8 ("The costs of our unhealthy built environment are staggering and unsustainable"); see *Bibliography* for full citations: 1) Adamczyk (2016); Ding et al (2016). 2) Urban Land Institute (2015). 3) Chamie (2017). 4) McPherson et al (2006). 5) WHO (2017, March 30). 6) WHO (2006, June 16). 7) Health Effects Institute (2017). 8) WHO (n.d.). 9) Gruebner et al (2017); Newbury et al (2016); Abbot (2011). 10) Frank et al (2004). 11) Fackelmann (2003); Roberts (2003). 12) The New Climate Economy (2015). 13) National Center for Safe Routes to School (2011). 14) Zotti (2014). 15) Xu and Gao (2017). 16) Paumgarten (2007); Putnam (2000). 17) Too much sitting (2015); Biswas et al (2015). 18) EY (2015). 19) HelpAge International (2011). 20) Davidson and Rossall (2014). 21) National Academies of Sciences, Engineering, and Medicine (2017); Joint Center for Housing Studies of Harvard University (2014).

^x For more information, see: 1) Fellowship for Intentional Community, <http://www.ic.org/>; 2) Communal Studies Association, <http://www.communalstudies.org/>; 3) Co-housing Association, <http://www.co-housing.org/>; and 4) Christensen, K. and Levinson, D. (Eds.) (2003). *Encyclopedia of Community: From the Village to the Virtual World*. Thousand Oaks, CA: Sage Publications.

^{xi} See, for example: 1) Kasperkevic, J. (2016, March 20). Co-living – the companies reinventing the idea of roommates. *The Guardian*. <https://www.theguardian.com/business/2016/mar/20/co-living-companies-reinventing-roommates-open-door-common-> 2) Widdicombe, L. (2012, May 16). Happy Together: Why give up dorm life? *New Yorker*. <http://www.newyorker.com/magazine/2016/05/16/the-rise-of-the-co-living-startup>.

3) Bland, B. (2016, April 7). Chinese millennials discover joys of co-living. *Financial Times*. <https://www.ft.com/content/ce80021e-f036-11e5-9f20-c3a047354386?mhq5j=e3>. 4) Abrahms, S. (2011, January 31). Elder co-housing. *AARP Bulletin*. http://www.aarp.org/home-garden/housing/info-01-2011/elder_co-housing.html.

^{xii} For more background, see: Global Spa Summit and SRI International (2010), *Spas and the Global Wellness Market: Synergies and Opportunities*, and Global Wellness Institute and SRI International (2013), *The Global Wellness Tourism Economy*, both available at <https://www.globalwellnessinstitute.org/industry-research/>.

^{xiii} For more information on the terminology used here and the history and evolution of urban planning in the 20th century, see: 1) Badger, E. (2012, November 9). *The Evolution of Urban Planning in 10 Diagrams*. <https://www.citylab.com/design/2012/11/evolution-urban-planning-10-diagrams/3851/>. 2) Fainstein, S. (n.d.). Urban Planning. In *Encyclopedia Britannica online*. <https://www.britannica.com/topic/urban-planning>. 3) Campbell, S. (2017, April 20). *Planning History Timeline*. <http://www-personal.umich.edu/~sdcamp/up540/timeline12.html>. 4) Hall, P. (2014). *Cities of Tomorrow* (4th ed.). Chichester, UK: John Wiley & Sons Ltd. 5) United Nations Human Settlements Programme. (2009). *Planning Sustainable Cities: Global Report on Human Settlement 2009*. Abingdon, UK: Earthscan. <http://www.tandfebooks.com/action/showBook?doi=10.4324%2F9781315541389&>.

^{xiv} See a list of these and other influential urban thinkers at: <https://www.planetizen.com/topthinkers>.

^{xv} For more information on New Urbanism, see: 1) Congress for New Urbanism (n.d.). *What is New Urbanism?* <https://www.cnu.org/resources/what-new-urbanism>. 2) Briney, A. (2017, February 28). *New Urbanism: New Urbanism is Taking Planning to a New Level*. <https://www.thoughtco.com/new-urbanism-urban-planning-design-movement-1435790>. 3) Vanderbeek, M. and Irazábel, C. (2007). New Urbanism as a New Modernist Movement: A Comparative Look at Modernism and New Urbanism. *TDSR*, 19(1), 41-57. <http://iaste.berkeley.edu/pdfs/19.1d-Fall07vanderbeek%20irazabal-sml.pdf>. 4) Duany, A., Plater-Zyberk, E., and Speck, J. (2001). *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*. New York, NY: North Point Press. 5) Many other books on New

Urbanism and its many iterations are available (see list here: <https://www.goodreads.com/shelf/show/new-urbanism>).

^{xvi} See: 1) *What is Active Design?* <https://centerforactivedesign.org/WhatIsActiveDesign/>. 2) Center for Active Design (2010). *Active Design Guidelines: Promoting Physical Activity and Health in Design*. <https://centerforactivedesign.org/guidelines/>.

^{xvii} See: 1) Terrapin Bright Green (2014). 14 *Patterns of Biophilic Design: Improving Health & Well-Being in the Built Environment*. <https://www.terrapinbrightgreen.com/reports/14-patterns/>. 2) Kellert, S.R. (2015, October 15). *What Is and Is Not Biophilic Design?* <http://www.metropolismag.com/architecture/what-is-and-is-not-biophilic-design/>. 3) Kellert, S.R. and Calabrese, E.F. (2015). *The Practice of Biophilic Design*. <http://www.biophilic-design.com/>. 4) Beatley, T. and Newman, P. (2013). Biophilic Cities are Sustainable, Resilient Cities. *Sustainability*, 5, 3328-3345. <http://www.mdpi.com/2071-1050/5/8/3328>. 5) Salingaros, N.A. (2015). *Biophilia & Healing Environments: Healthy Principles for Designing the Built World*. <http://www.terrapinbrightgreen.com/wp-content/uploads/2015/10/Biophilia-Healing-Environments-Salingaros-p.pdf>. 6) *Biophilic Design: The Architecture of Life*. <http://www.biophilicdesign.net/>.

^{xviii} See: 1) *A Brief History of Universal Design*, <http://www.udinstitute.org/history.php>. 2) *Universal Design*, <http://www.accessiblesociety.org/topics/universaldesign/>. 3) *What Is Universal Design?* <http://universaldesign.ie/What-is-Universal-Design/>. 4) *What is inclusive design?* <http://www.inclusivedesign toolkit.com/whatis/whatis.html>.

^{xix} See: 1) *What is “transgenerational design”?* <http://www.transgenerational.org/viewpoint/transgenerational.htm>. 2) *Trans/Multi-Generational Design*, <http://www.legacyproject.org/legacycenter/transmultigendesign.html>. 3) Pirkel, J.J. (1994). *Transgenerational Design: Products for an Aging Population*. New York, NY: Van Nostrand Reinhold.

^{xx} See: 1) *About Green Building*, <http://www.worldgbc.org/what-green-building>. 2) Arzeta, K. (2015). *Green Building Standards*. <http://engineering.sla.org/wp-content/uploads/2015/10/greenbuilding.pdf>. 3) Dodge Data & Analytics. *World Green Building Trends 2016*. <https://www.usgbc.org/articles/usgbc-partners-dodge-data-and-analytics-release-world-green-building-trends-report-2016>.

^{xxi} See: 1) Vierra, S. (2016, December 9). *Green Building Standards and Certification Systems*. <https://www.wbdg.org/resources/green-building-standards-and-certification-systems>. 2) *Green Building Certifications, Rating Systems, & Labels*, <https://www.go-gba.org/resources/building-product-certifications/>.

^{xxii} See: 1) Vaughn, E. and Turner, J. (2013, September 30). *The Value and Impact of Building Codes*. <http://www.eesi.org/papers/view/the-value-and-impact-of-building-codes>. 2) U.S. Green Building Council (2011, May 1). *Greening the Codes*. <https://www.usgbc.org/resources/greening-codes-building-codes-begin-broaden-their-charge-include-human-and-environmental-i>.

^{xxiii} See: 1) Nugent, S., Packard, A., Brabon, E., and Vierra, S. (2016, August 5). *Living, Regenerative and Adaptive Buildings*. <https://www.wbdg.org/resources/living-regenerative-and-adaptive-buildings>. 2) International Living Future Institute, *Living Building Challenge*, <https://living-future.org/lbc/>. 3) *Lifecycle Building Challenge*, <http://www.lifecyclebuilding.org/>.

^{xxiv} See: 1) BioRegional, *One Planet Living*, <http://www.bioregional.com/oneplanetliving/>. 2) International Living Future Institute, *Living Community Challenge*, <https://living-future.org/lcc/>. 3) U.S. Green Building Council, *LEED v4: Neighborhood Development Guide*, <https://www.usgbc.org/guide/nd> and <https://www.usgbc.org/resources/leed-v4-neighborhood-development-current-version>.

^{xxv} See: 1) Pollan, M. (2010, May 20). The Food Movement, Rising. *The New York Review of Books*. <http://michaelpollan.com/articles-archive/the-food-movement-rising/>. 2) Lappé, F.M. (2011, September 14). The Food Movement: Its Power and Possibilities. *The Nation*. <https://www.thenation.com/article/food-movement-its-power-and-possibilities/>. 3) Bittman, M., Pollan, M., Salvador, R., and De Schutter, O. (2014, November 7). How a national food policy could save millions of American lives. *The Washington Post*. https://www.washingtonpost.com/opinions/how-a-national-food-policy-could-save-millions-of-american-lives/2014/11/07/89c55e16-637f-11e4-836c-83bc4f26eb67_story.html?utm_term=.8275ca9cc9f9. 4) Walsh, B. (2011, February 15). Foodies Can Eclipse (and Save) the Green Movement. *Time*. <http://content.time.com/time/health/article/0,8599,2049255,00.html>.

^{xxvi} See: 1) Urban Land Institute (2016). *Cultivating*

Development: Trends and Opportunities at the Intersection of Food and Real Estate. Washington, DC: Urban Land Institute. https://americas.uli.org/report/cultivating-development-trends-opportunities-intersection-food-real-estate/#utm_source=urbanland&utm_campaign=food16&utm_medium=link&utm_content=cdarticle. 2) Trulia (2016, November 8). Why You Should Move Into an “Agrihood.” *Forbes*. <https://www.forbes.com/sites/trulia/2016/11/08/why-you-should-move-into-an-agrihood/>. 3) Erbentraut, J. (2015, August 17). “Agrihoods” Offer Suburban Living Built Around Community Farms, Not Golf Courses. *Huffington Post*. http://www.huffingtonpost.com/entry/agrihood-the-cannery-davis-california_us_55ce205ce4b07addcb42d5b0.

^{xxvii} See: 1) WHO, *Alliance for Healthy Cities*, <http://www.who.int/life-course/partners/alliance-healthy-cities/en/> and <http://www.alliance-healthycities.com/>. 2) Healthways, *Blue Zones Project*, <https://www.bluezonesproject.com/> and <http://www.healthways.com/bluezonesproject>. 3) Bloomberg Philanthropies, *Partnership for Healthy Cities*, <https://partnershipforhealthycities.bloomberg.org/>. 4) NHS England, *Healthy New Towns*, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>.

^{xxviii} See: 1) Watson, B. (2014, January 27). What Makes a City Resilient? *The Guardian*. <https://www.theguardian.com/cities/2014/jan/27/what-makes-a-city-resilient>. 2) Rockefeller Foundation, *100 Resilient Cities*, <http://www.100resilientcities.org/>.

^{xxix} See: 1) Totty, M. (2017, April 16). The Rise of the Smart City. *The Wall Street Journal*. <https://www.wsj.com/articles/the-rise-of-the-smart-city-1492395120>. 2) Smart cities, *The Guardian*, <https://www.theguardian.com/cities/smart-cities>. 3) *Smart Cities Council*, <http://smartcitiescouncil.com/>. 4) *Smart & Resilient Cities*, <https://www.smartresilient.com/>. 5) Palti, I. and Bar, M. (2015, August 28). A Manifesto for Conscious Cities: Should Streets Be Sensitive to Our Mental Needs? *The Guardian*. <https://www.theguardian.com/cities/2015/aug/28/manifesto-conscious-cities-streets-sensitive-mental-needs>. 6) *Conscious Cities*, <http://www.ccities.org/>.

^{xxx} See: 1) Fujimori, Y. (2016, January 22) What will the home of the future look like? *World Economic Forum*. <https://www.weforum.org/agenda/2016/01/how-the-fourth-industrial-revolution-will-hit-home/>. 2) Davis, N.

and David, R. (2015, December 4). Tech house of the future: take a look around. *The Guardian*. <https://www.theguardian.com/technology/2015/dec/04/tech-home-future-robots-living-smart>. 3) Jaquith, T. (2016, March 3). Predicting the Future: Here's What Our Homes May Be Like in 100 Years. *Futurism*. <https://futurism.com/predicting-future-heres-homes-may-like-100-years/>. 4) Penalosa, E. (2015, July). This is What the Cities of the Future Will Look Like. *Huffington Post*. https://www.huffingtonpost.com/enrique-penalosa/cities-future_b_7216732.html. 5) Muoio, D. (2016, June 15). Here's what cities will look like in 30 years. *Business Insider*. <http://www.businessinsider.com/8-ways-technology-could-radically-transform-buildings-by-2045-2016-6/#buildings-will-be-run-by-an-artificial-intelligence-personality--hello-building-version-siri-1>.

III. FROM WELLNESS LIFESTYLE REAL ESTATE TO WELLNESS COMMUNITY

The way our homes and communities have been planned, designed, and built in the last century is reinforcing lifestyles that make us sick, stressed, alienated, and unhappy.

What is **wellness lifestyle real estate**? What is a **wellness community**? Are they the same thing or are they different? These terminologies can be confusing because they have no commonly recognized definition. They are often used inconsistently and interchangeably for a wide range of projects and marketing purposes. To add to the confusion, a similar term, **wellness real estate**, is often used to describe commercial real estate, offices and workplaces, public buildings, hospitality developments, and medical facilities that have a wellness focus. In this study, we focus on **wellness lifestyle real estate** and **wellness communities** – specifically, residences built for people, and the homes and neighborhoods where we live.

For consumer clarity and for the purposes of project planning, development, and marketing, the Global Wellness Institute proposes the following definitions:

Wellness lifestyle real estate is defined as homes that are proactively designed and built to support the holistic health of their residents. It includes the buildings, investments, and transactions associated with projects and properties described above, including master-planned communities; single family and multi-family housing (e.g., condominiums, apartments); residences built alongside hospitality projects, destination spas, and wellness

SOME BACKGROUND DEFINITIONS

Real estate commonly refers to land and buildings, or the business of selling land and buildings.

Community typically describes people living together in the same place, or a fellowship of people with common interests, goals, or characteristics.

Wellness is the active pursuit of activities, choices, and lifestyles that lead to a state of holistic health.

retreats (e.g., second homes, timeshares); as well as the residential component of mixed-use commercial projects.

Wellness community is a group of people living in close proximity who share common goals, interests, and experiences in proactively pursuing wellness across its many dimensions. A wellness community incorporates the type of lifestyle, neighborhood feeling, and shared culture that connects people together. A wellness community can be rooted in a purpose-built physical space, or it can be cultivated around shared culture or social networks without purpose-built structures.

Wellness lifestyle real estate and wellness communities are not the same thing.

People don't live in "real estate." The place where we live is a home, a neighborhood, and a community. A community is formed when people develop connections with one another, through

trust, shared interests, goals, and experiences. A community is intangible, yet we always know whether it exists or not, and whether it is strong or weak. A strong community satisfies a fundamental

human need to connect with other people and to feel a sense of belonging, especially in this age of loneliness and social isolation. This connection is critical to our wellness, because the people around us can influence our daily motivations, behaviors, and lifestyles. If we live in a place where a culture of wellness is the norm, we are much more likely to live a well life.

Real estate can be built in a manner that helps or hinders our wellness, through the choice of particular materials, architecture, design elements, and facilities and amenities. **Building wellness**

lifestyle real estate can be beneficial for our health in many ways, but it does not automatically create a community. In fact, some *wellness lifestyle real estate* projects that are designed to be exclusive and gated, or that encourage residents to hide within the “wellness cocoon” of their homes and not interact with neighbors, may be antithetical to the development of community – thereby missing out on the crucial impact that a community can have on personal wellness. **On the other hand, a wellness community can also exist without purpose-built wellness lifestyle real estate** (see examples below).

WELLNESS COMMUNITIES CAN EXIST INDEPENDENTLY FROM WELLNESS LIFESTYLE REAL ESTATE

Some wellness communities are cultivated around shared culture or social networks. For example, the “Blue Zones” are communities identified around the world that exemplify the critical habits, values, and lifestyles leading to a long and healthy life.^{xxxix} Another example is the U.S. Village to Village Network, which creates neighborhood-based communities of members and volunteers to help seniors age-in-place by reducing social isolation and improving health and self-sufficiency.^{xxxix} Wellness communities can also be fostered through public/private policies and initiatives. In Japan, 63 cities are participating in a Smart Wellness City initiative, where local governments support healthy aging in the community by improving parks, sidewalks, city aesthetics, and public transit to promote active transportation and socialization.^{xxxix} The Wellness Valley in Romagna, Italy, is a self-branded wellness district that links thousands of local businesses, organizations, and individuals together to provide services, programming, and events that encourage exercise, sports, mind-body health, slow food, and connections to nature and culture.^{xxxix} All of these communities provide a collective culture and lifestyle of wellness for their residents without intentional, purpose-built residential real estate development.

Wellness lifestyle real estate can transform our lives by fostering wellness communities.

Because our behavior and lifestyle are intrinsically linked to our built environment, *wellness lifestyle real estate* can provide the important foundation for cultivating a *wellness community*. Some sort of “magic” can happen when our built environment fosters a sense of place and connection, and when real estate is designed and operated in way that encourages a wellness-centered culture and lifestyle. This potential is one of the reasons why consumers and developers are interested

in *wellness lifestyle real estate*. However, as elaborated above, the connection between real estate and community is not automatic. Creating and strengthening this connection requires an intention to do so, coupled with design and operational principles that may not be typical from a conventional real estate perspective. We have identified four pillars through which *wellness lifestyle real estate* can have a transformative impact in fostering *wellness communities*.



PILLAR 1:

From “do no harm” to optimizing wellness

Beyond just reacting to “sick buildings,” we must intentionally build homes that help us optimize our health and wellbeing.

Scientific evidence is increasingly demonstrating that conventional building standards and materials can make our indoor environments extremely unhealthy and even toxic. At a minimum, wellness lifestyle real estate must protect us from harmful elements both indoors and outdoors, such as filtering out contaminants in our air and water, and avoid building materials and substances that emit toxic chemicals. Wellness lifestyle real estate should also incorporate elements that help residents optimize their health in terms of sleep, vitality, mood, mental health, and more – such as sound- and light-proofing, maximizing natural light, increasing exposure to nature, using circadian lighting, incorporating technologies to monitor and optimize indoor air quality, etc. Improving our health must be the basic design principle in a true wellness community.



PILLAR 2:

From passive to active wellness

Our built environment should encourage proactive behaviors and habits that drive wellness.

Wellness requires self-responsibility and active participation to take charge of our own health. A home that is only designed for its residents to passively “take in” wellness by supplying purified air, filtered water, circadian lighting, sound-proofing, and greenery is not encouraging an optimal wellness experience. Wellness lifestyle real estate should also encourage its residents to actively behave in ways that promote holistic health, such as walking and cycling as transport, exercising regularly, gardening and composting, keeping a pet, socializing with neighbors, and participating in community activities. It is from this active engagement and participation that residents will truly feel that they connect with one another in a wellness community.



PILLAR 3:

From hardware to software

Hard infrastructure needs supporting policies, management, and programming in order to foster a wellness community.

By definition, real estate means buildings and structures that are largely static. A wellness community, in contrast, is a dynamic organism. “Hardware” for such building and neighborhood design, materials, and technologies can lay the groundwork, but appropriate soft infrastructure is needed to bring a wellness community to life and to nurture it. Such “software” may include policies (e.g., non-smoking, recycling, etc.); programming (e.g., fitness/wellness classes; arts, culture, and music programs; car/bike sharing; family and children’s events; farmers market; etc.); communications (e.g., community intranet or portal); and active management (e.g., wellness director).



PILLAR 4:

From “me” to “we”

It is by connecting with others and with something larger than ourselves that we become a wellness community.

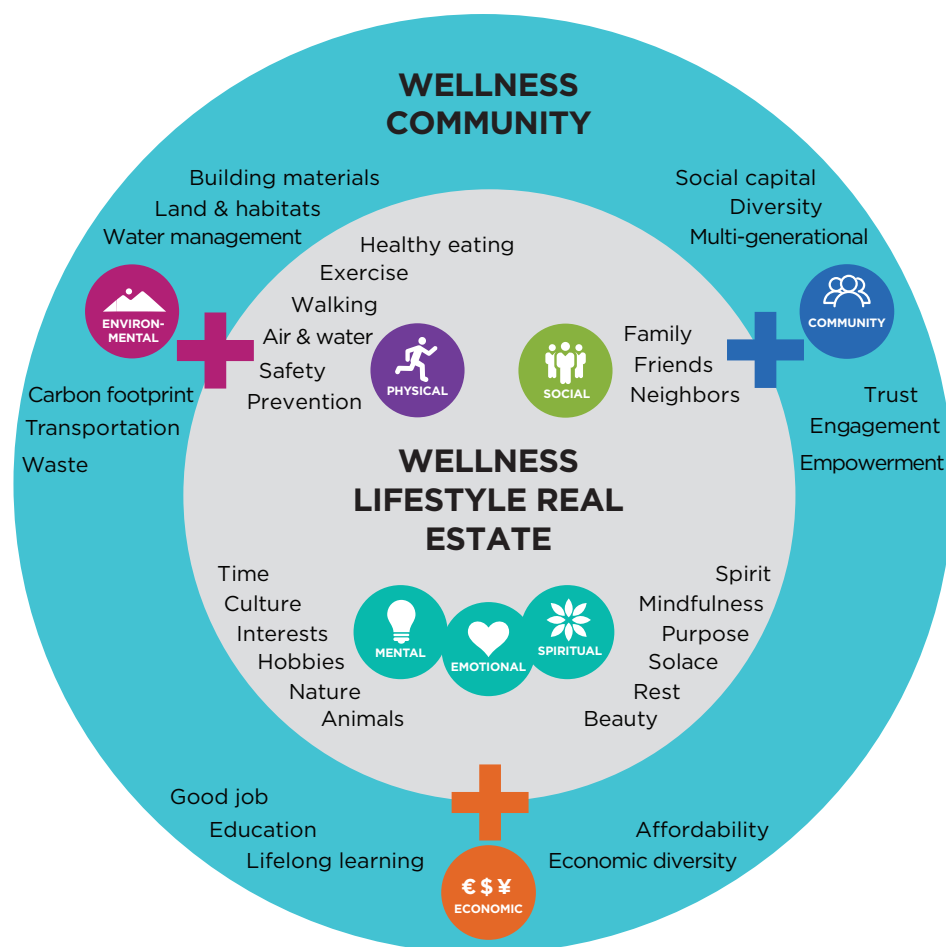
The most important link between wellness lifestyle real estate and wellness community is the ability of residents to project wellness from the “me” perspective to the larger “we.” In a real community, people are aware of their connections to others; that their choices and lifestyles have a broader impact on the environment around them; and that they have a voice in the community and can influence the wellbeing of others. So, in order for wellness lifestyle real estate to become a wellness community, there must be elements in the planning and design that address the broader, non-individualistic aspects of wellness, such as the environmental, social, and economic dimensions of wellness.

The planning, design, and construction of wellness lifestyle real estate and communities should seek to optimize our holistic wellness across many dimensions.

Wellness is not just about physical health. It is multi-dimensional, encompassing the physical, social, mental, emotional, spiritual, and other dimensions of our selves. All aspects of a person – mind, body, and spirit – need to work in harmony to be truly “well.” Likewise, wellness lifestyle real estate and communities must be designed and built in a manner that facilitates and optimizes their residents’ health and wellbeing across these multiple dimensions of wellness.

Since wellness lifestyle real estate and wellness communities are not the same thing, they also address different dimensions of wellness, as illustrated and elaborated below. This framework is intended to provide guidance on how to conceptualize different types of wellness-focused residential projects and how to communicate their aims to potential residents.

Wellness Lifestyle Real Estate can provide the foundation for a **Wellness Community**



Source: Global Wellness Institute

Wellness lifestyle real estate focuses on the wellness of the individual resident, or the “me” perspective – not just our **physical** health, but also our individual **social** and **mental/emotional/spiritual** health and wellbeing. At a minimum, the design, construction, facilities, amenities, and services in a wellness lifestyle real estate project should be intentionally planned to address and enhance individual wellness across these multiple dimensions (illustrated in gray in the diagram above).

Wellness communities expand from the “me” to the “we” perspective, extending their focus to the dimensions that address our wellness in a wider context – our **environmental**, **community**, and **economic/financial** health and wellbeing. When a wellness lifestyle real estate project aims to create a wellness community, the design, construction, facilities, amenities, and services should be intentionally planned to address and enhance our collective wellness across these multiple dimensions (illustrated in blue in the diagram above), *in addition to* addressing/enhancing the individual dimensions of wellness in the center of the diagram (illustrated in gray).

Wellness lifestyle real estate is a major improvement over conventionally-designed real estate, because it aims to remove the harmful aspects of our built environment and intentionally improve our personal wellness across several dimensions. However, the impact of wellness lifestyle real estate can also be limited by its focus on the individual, because our personal wellness is intrinsically linked to things beyond ourselves. That is why an approach that focuses on building a wellness community is so important:

- **Extending from physical to environmental wellness:** Wellness lifestyle real estate can enhance our individual **physical** health in many ways, such as using non-toxic/health-enhancing construction materials, providing filtered air and water inside our homes, offering fitness amenities, or providing easy access to fresh produce. But if we encounter air pollution, noise pollution, climate change, flood risks, and other environmental hazards beyond the four walls of our home, we cannot be truly physically well. Therefore, a wellness community will also intentionally address

the **environmental** dimension in its design, recognizing the critical impact these factors have on both our societal and individual health and wellbeing.

- **Extending from social to community wellness:** Wellness lifestyle real estate can encourage individual social wellness by designing living spaces, public spaces, and events that intentionally facilitate social connectivity with our family, friends, and neighbors. But if we are living in a disconnected or gated neighborhood – or if our social interactions are limited to people who are just like us – then we are living in a “cocoon.” A wellness community will aim to encourage **community** wellness by building social capital, trust, and civic engagement beyond the walls of our home or the confines of our immediate neighborhood. This can be done in many ways, such as thoughtful design that encourages diversity (e.g., mixed use, mix of housing styles/prices, etc.) and connectivity (e.g., home setbacks, porches, connected street networks, etc.).
- **Extending from mental/emotional/spiritual to economic/financial wellness:** Wellness lifestyle real estate can support our individual **mental, emotional, and spiritual** wellness in many ways, such as through natural, biophilic, and beautiful design and materials, or through the provision of green space, meditative space, and public art. However, these restful and rejuvenating features cannot insulate us from the incessant stresses of our jobs, long commutes, or struggles to make ends meet. A wellness community can help enhance our **economic/financial** wellness through mixed-use and active/transit-oriented design (i.e., helping us work near our homes, walk to work, or reduce our commutes), by providing coworking facilities, or by addressing housing affordability across income levels. A truly “well” community should also have a thriving and equitable economy.

It is also important to note that some design and infrastructure elements can be especially powerful in addressing multiple dimensions of wellness simultaneously. For example, a

Wellness Lifestyle Real Estate and Communities Address Multiple Dimensions of Wellness

From “Me”

WELLNESS LIFESTYLE REAL ESTATE AIMS TO ADDRESS:

Physical Wellness

Both passive and active design features enhance residents' physical health and encourage physical activity. Materials, fixtures, and furnishings are non-toxic and health-enhancing, ensure clean air and water, and support good sleep. Design, amenities, and services encourage exercise, active recreation, active transportation (walking, biking, etc.), and other healthy behaviors. Residents have easy access to healthy foods as well as preventive health/wellness services.

For example: fitness/wellness facilities, walking trails, parks & playgrounds, car share, circadian lighting, thermal comfort, air circulation.

Social Wellness

Design of living spaces, public/common spaces, and amenities/services facilitates social connections with family, friends, and neighbors. Residents are encouraged to get to know their neighbors. Location, transportation, and convenience features in the project design may provide residents with more time to spend on social activities.

For example: layout & circulation of floor plans, multigenerational units, common/public spaces, community events.

Mental/Emotional/Spiritual Wellness

Project design, amenities, and services facilitate residents' mental, emotional, and spiritual wellness by encouraging connection with nature and animals (biophilia), connection with culture and traditions, connection with beauty, and connection with a greater purpose. The design may also provide space and support for rest and solace; encourage residents to pursue personal hobbies, interests, and spiritual practices; and support residents in managing technology and work/life balance.

For example: natural, biophilic, or aesthetic design and materials; green space & water features; public art; meditation space.



To “We”

WELLNESS COMMUNITY ALSO AIMS TO ADDRESS:

Environmental Wellness

Materials, design, and construction are non-toxic, renewable, waste-reducing, energy efficient, natural/organic, and/or locally-sourced. The community encourages residents to adopt a lifestyle that is sustainable and even regenerative, supporting behaviors such as use of public and alternative transit (less driving), reduce/reuse/recycle, community gardening and local food production, conservation of natural resources, and preservation of green space and animal habitats.

For example: preserved open space/wetlands, recycling & composting program, native/edible landscaping, community garden or CSA.

Community Wellness

The community supports and embraces diversity (e.g., mixed use, mixed-incomes, races, or ages) by design. Residents are encouraged to engage with and care about the wider community and people outside their immediate social spheres. Design of living spaces, public/common spaces, and amenities/services facilitates strong social capital, trust, and civic engagement.

For example: scale/situation of homes relative to others; connectivity/flow of streets; diverse housing types/prices; public spaces/parks; community center/events; intranet.

Economic/Financial Wellness

The community enables residents to conduct their daily activities, such as work, school, shopping, recreation, etc., within a short distance and with different transportation options. Housing in the community is affordable at a variety of income levels, and residents have an opportunity for upward mobility over time.

For example: mixed-use planning/zoning, walkable “town center” & schools, live-work units, co-working facilities, affordable housing policy, public transit planning.

walkable and well-connected street design can simultaneously encourage walking as exercise (physical wellness); reduce car usage and related pollution (environmental wellness); help us meet and socialize with neighbors (social wellness); facilitate trust and openness (community wellness); encourage us to spend time in nature (mental/emotional wellness); and even maybe allow us to

commute to our jobs by foot or bike (economic/financial wellness). Likewise, ample and well-designed green space, parks, and public areas can have a similar multi-dimensional impact.

The table below provides examples of the design features, spaces, amenities, and services that can support each of the six wellness dimensions (see *Appendix A* for a more comprehensive list).

Planners and developers do not have to start from scratch. They can draw upon many design principles and standards to support building for wellness.

GWl's framework is created as a guide and is not a rating system. Recognizing that each project is unique in its goals, location, context, and target market, we do not prescribe certain design elements or amenities to “qualify” wellness lifestyle real estate and community projects. Instead, we recommend that planners, developers, builders, and policymakers explore the many existing rating/certification systems and design theories/principles/manuals that provide systematic, proven,

and science-based design approaches to address the six wellness dimensions in the GWl framework. Those seeking to build wellness lifestyle real estate or communities can draw upon these tools – as well as develop their own customized approaches – for their projects. See *Appendix B* for a detailed list of these major rating/certification system and standards, their responsible organizations, and web links.

Rating/Certification Systems and Design Principles That Support Building for Wellness

	Physical	Mental, Emotional, Spiritual	Social	Environmental	Community	Economic/ Financial
Building-Scale						
Active Design Guidelines	X					
Biophilic Design Principles	X	X	X	X	X	
CASBEE Housing Health Checklist (Japan)	X			X		
Fitwel™ Standard	X	X	X		X	
Healthy Active by Design/Healthy Spaces & Places (Australia)	X	X	X		X	X
LEED, BREEAM, & Similar				X		
Living Building Standard	X	X	X	X	X	X
Livable Housing Guidelines (Australia)	X					
Universal/Inclusive/Transgenerational Design	X					
ULI Building Healthy Places Toolkit	X	X	X	X	X	X
WELL Building Standard™	X	X	X		X	

Rating/Certification Systems and Design Principles That Support Building for Wellness

	Physical	Mental, Emotional, Spiritual	Social	Environmental	Community	Economic/ Financial
Neighborhood, Precinct, or City-Scale						
Active Design Guidelines	X		X		X	
Biophilic Design Principles	X	X	X	X	X	
Blue Zone Principles	X	X	X	X	X	X
CASBEE Urban and City Tools (Japan)	X			X	X	X
CDC/APA Healthy Community Design Toolkit	X		X	X	X	X
Enterprise Green Communities	X			X	X	X
Green Star Communities (Australia, New Zealand, South Africa)	X			X	X	X
Healthy Active by Design / Healthy Spaces & Places (Australia)	X	X	X		X	X
LEED for Cities/LEED-ND	X		X	X	X	X
Liveable Neighbourhood Guidelines (Australia)	X	X	X	X	X	X
Living Community Standard	X	X	X	X	X	X
New Urbanism, Smart Growth, TOD/TND	X	X	X	X	X	X
One Planet Living Principles	X	X	X	X	X	X
STAR Community Standard	X	X	X	X	X	X
ULI Building Healthy Places Toolkit	X	X	X	X	X	X
Universal/Inclusive/ Transgenerational Design	X					
WELL Community Standard™	X	X	X		X	X

^{xxxix} See: Buettner, D. (2016, November 10). *Power 9®: Reverse Engineering Longevity*. <https://bluezones.com/2016/11/power-9/>.

^{xxxix} See: <http://www.vtvnetwork.org/>

^{xxxix} See: <http://www.swc.jp/>

^{xxxix} See: <http://www.wellnessvalley.it/>

IV. THE BUSINESS CASE

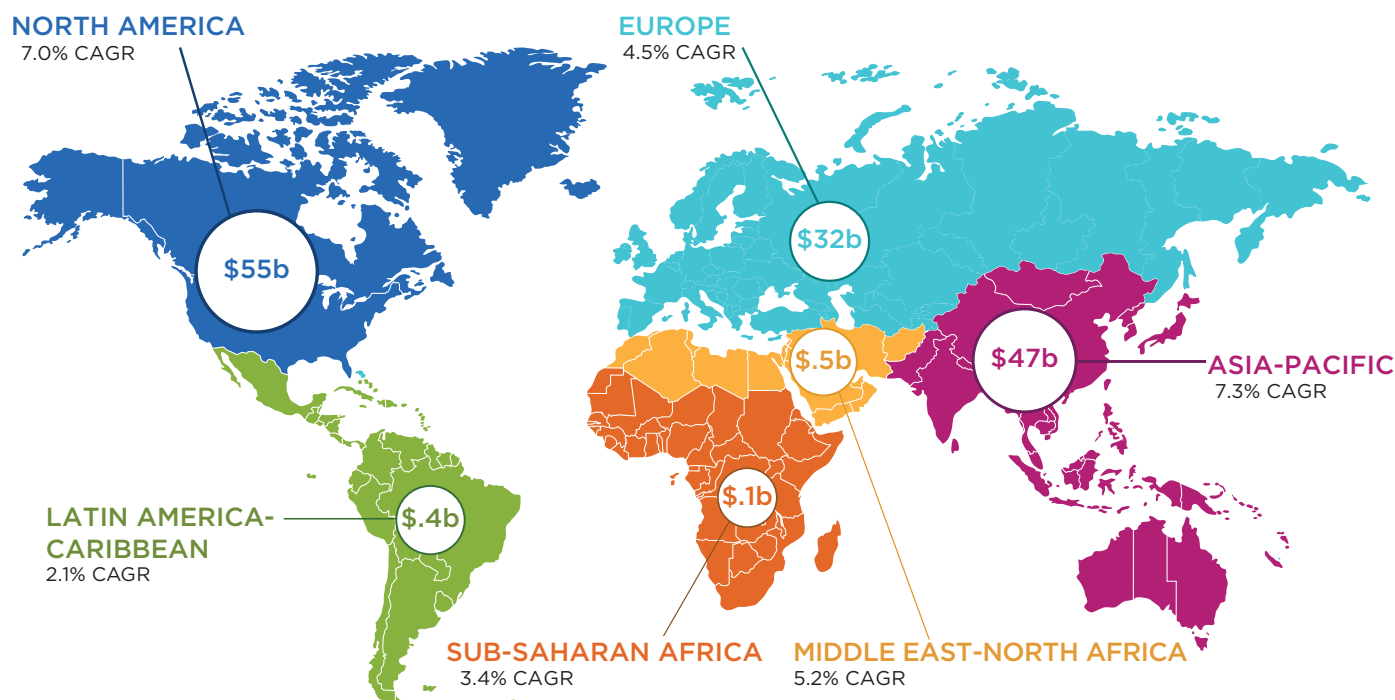
Already a sizable industry, wellness lifestyle real estate is poised to accelerate with rising health consciousness and the growing wellness economy.

Large and growing industry

The Global Wellness Institute (GWI) estimates that **wellness real estate is a \$134 billion global industry in 2017. It has grown by 6.4% annually since 2015.** For comparison, this is about 1.5% of the total annual global construction market. It is also about half the size of the global green building industry, which was estimated at \$260 billion in 2013 (the most recent data available).^{xxxv} GWI projects

that the wellness real estate sector will expand by 6% annually over the next several years, growing to \$180 billion by 2022. Note that GWI's *wellness real estate* figures capture the construction of residential and commercial/institutional (office, hospitality, mixed-use/multi-family, medical, leisure, etc.) properties that incorporate intentional wellness elements in their design, materials, and building, as well as their amenities, services, and/or programming.^{xxxvi}

Wellness Real Estate is a \$134 billion global industry in 2017



Source: Global Wellness Institute.
Note: Growth rates reflect the compound annual growth rate from 2015-2017. Numbers do not sum to total due to rounding.

From the Americas to Asia-Pacific, and from Europe to Africa, there is rising consumer interest in extending our wellness experiences from our vacation destinations to our homes. Many destination spas and wellness resorts are adding a residential component for customers looking for second homes or vacation properties, or even to live a full-time wellness lifestyle. At the same time, upscale residential properties around the world, from luxury apartments to master-planned communities, are adding wellness components to appeal to higher-income consumers, including enhanced indoor air, water, and lighting; fitness centers and spas; health food restaurants; classes and other programming; and even on-site full-time wellness professionals. Importantly, demand

is also coming from the middle and upper-middle income consumers, who are looking for homes and neighborhoods that support a healthy lifestyle, through features such as bike paths and dog parks, community gardens and farmers' markets, and walkability and mass transit access. Even in the affordable and lower-income housing segment, builders are incorporating wellness design features to address the critical public health needs of these populations, and they are increasingly encouraged to do so through public policy initiatives.^{xxxvii} All these segments are expected to grow within the wellness lifestyle real estate sector going forward.

The following countries are the top wellness real estate markets in 2017.

Top 25 Countries for Wellness Real Estate (2017)

Country	Market Size (US\$ millions)
United States	\$52,481
China	\$19,940
Australia	\$9,471
United Kingdom	\$9,016
Germany	\$6,440
India	\$6,088
France	\$5,815
South Korea	\$4,195
Canada	\$2,355
Japan	\$2,246
Netherlands	\$1,851
Switzerland	\$1,607
Norway	\$1,217
Sweden	\$1,140
Austria	\$1,099
Italy	\$1,001
Malaysia	\$917
Singapore	\$819
New Zealand	\$803
Taiwan	\$652
Finland	\$651
Denmark	\$640
Indonesia	\$571
Vietnam	\$482
United Arab Emirates	\$446

Source: Global Wellness Institute

Rising consumer demand

A recent *Health and Wellness Lifestyle Survey* conducted by American Lives confirms that consumer interest in wellness lifestyle real estate and communities is extensive and broad-based.^{xxxviii} This study, covering a representative sample of U.S. households with annual incomes over \$75,000 (the top 50%), matched the psychological wellbeing profile of respondents with their interest in living in wellness communities, as well as the specific wellness services offered in the community. The study found that:

- 25% of respondents were very interested in living a wellness community either full-time or part-time. This group, profiled as “Lifestyle Enthusiasts” in the study, viewed their own and their neighbors’ health and wellness as core elements of a family living environment.
- Interest in wellness communities was not correlated with income, age, education, or gender (above the income threshold of \$75,000), suggesting the broad appeal of this type of housing across many demographic groups.

Assuming approximately 10% of the “Lifestyle Enthusiasts” group is in the market for housing every year, this translates into **1.3 million potential buyers in the United States who are looking for wellness communities each year**, greatly exceeding the supply of such properties.

In addition to this group of committed wellness consumers, another 51% of survey respondents expressed strong interest in wellness offerings and services (a much higher level than in previous years of this survey) and also in owning a second home or vacationing in a wellness-oriented property or setting. Taken together, this study offers evidence of astonishingly strong demand for wellness lifestyle real estate and wellness communities in the United States.

Consumer studies across a number of other countries confirm that interest in wellness living is

also a global movement. From the United States and United Kingdom to India and Australia, home buyers and renters are growing more aware of the unhealthy aspects of their living environments and are seeking out better alternatives. For example:

- A recent study by the UK Green Building Council showed that **90% of surveyed UK buyers and renters would like a home that “does not compromise their health and wellbeing,”** and nearly 30% would be willing to pay more for this type of home.^{xxxix}
- In India, a nationwide survey by Tata Housing found that **88% of Indian consumers are interested in wellness-infused residences**, and 69% rate clean air and water and an overall healthy atmosphere as “very important” when searching for a home.^{xi}
- An unhealthy environment is a growing concern in many rapidly urbanizing developing countries. A study conducted by Ikea found that **39% of people in Mumbai would like to reduce noise in their homes to improve their wellbeing.**^{xii} A survey by Honeywell found that **60% of Chinese people are worried about indoor air quality**, and 47% would pay more to have better air quality indoors.^{xiii}
- Access to parks, green spaces, and other neighborhood amenities that encourage walking and healthy living are in high demand across many countries. **Consumers in Australian cities prefer homes in walking distance to a local park (45%), access to paved walking paths (50%), walking distance to public transport (70%), and walking distance to local services (64%).**^{xliii} Likewise, homebuyers in Auckland, New Zealand would prefer natural light in their home (98%); neighborhood trees (93%); easy access to shops (92%) and public transit (82%); and proximity to a park/reserve (83%), library (67%), community center (44%), or gym (37%).^{xliv}

Growing global pipeline of projects

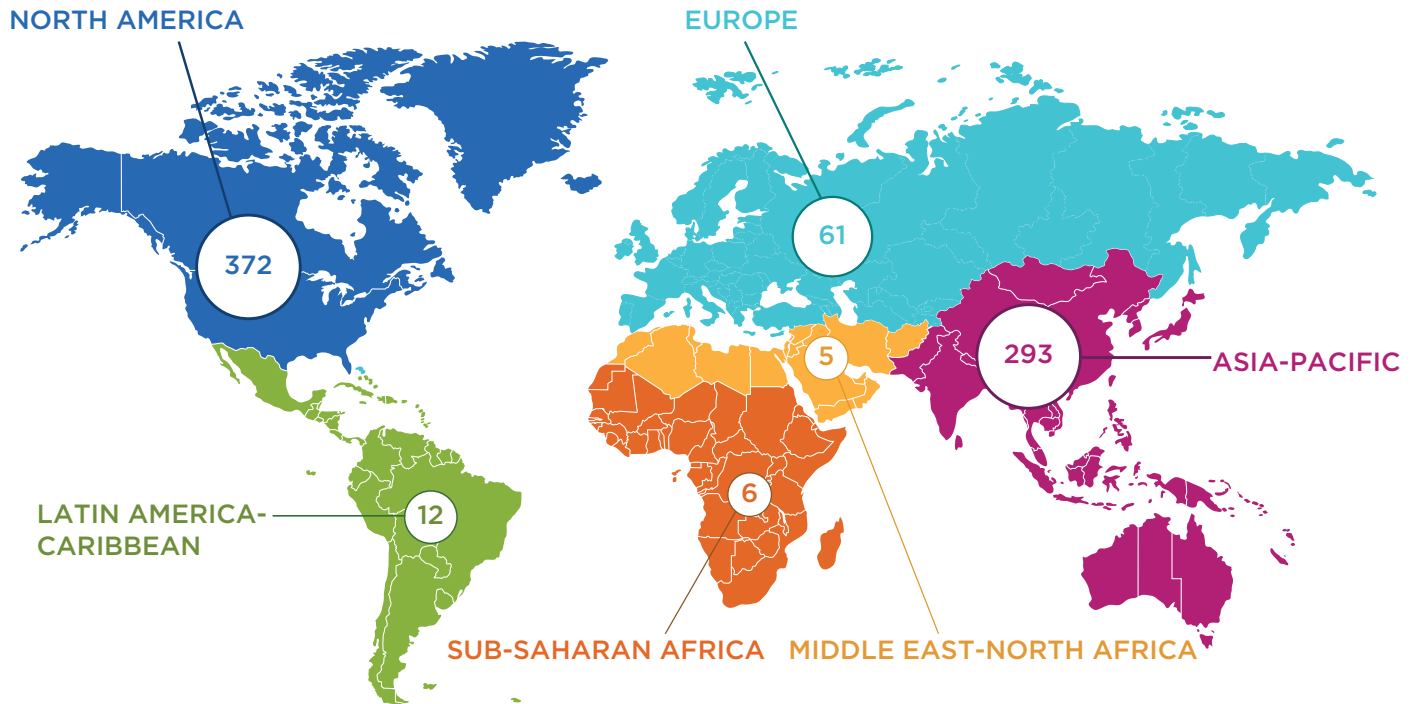
Real estate developers and builders are starting to respond to the rapidly growing consumer demand for wellness-enhancing homes and communities. As recently as the 1990s and early-2000s, there were a relatively small number of wellness lifestyle real estate or community projects under construction or in development (we estimate fewer than 50 projects globally during this time period). These projects, mostly located in the United States, were primarily small-scale “passion projects” launched by individuals or families who were concerned about the human and environmental impacts of the rampant building that occurred in the U.S. real estate boom during this time period. Many of these early, experimental projects saw their growth and sales delayed or stalled with the burst of the U.S. housing bubble (2007-2008), only to pick up and accelerate in the post-recessionary period.

The earliest wellness communities included a variety of approaches addressing different needs and interests, for example: “agrihoods” such as Prairie Crossing, Illinois (1992) and AgriTopia, Arizona (2000); healthy/outdoor living concepts in Ladera Ranch, California (1998), Hidden Springs, Idaho (1998), Blackwood Park, Australia (1998), Harmony, Florida (2002), and Rancho Sahuarita, Arizona (2002); as well as some projects inspired by growing sustainability and New Urbanist movements, such as Bois Franc, Canada (1992), l’On Village, South Carolina (1997), Civano, Arizona (1999), BedZED, United Kingdom (2002), and Harvest Lakes, Australia (2002). Some early international developments were part of the ecovillage movement, such as Crystal Waters Ecovillage, Australia (1987), IDEAL Society Ecovillage, Canada (1993), and EcoVillage Ithaca, New York (1997). This time period also brought the first attempts at connecting a residential component with a destination spa or wellness-focused hospitality brand, such as Canyon Ranch Living in Tucson (early-1980s) and Miami Beach (2008-2015).

The pipeline of wellness lifestyle real estate projects has accelerated dramatically around the world in the last five years, as the global housing market has recovered and accelerated. Today, the Global Wellness Institute estimates that **there are over 740 wellness lifestyle real estate projects built, partially built, or in development around the world, across 34 countries.** While these figures provide a snapshot of the market as of November 2017, many more projects are in the works and/or being announced every month (and there are certainly more projects than what our research was able to identify). Wellness residential projects are no longer just the domain of individuals pursuing one-off “passion projects,” and are now increasingly undertaken by larger, professional development companies with portfolios of multiple properties (such as Hillwood Communities, Freehold Communities, and Republic Property Group in the United States; Stockland, Lendlease, and Peet Limited in Australia; and Gamuda Land and CapitaLand in Southeast Asia^{xlv}). Some of these larger developers have even codified a set of core principles or values focused on human health and wellbeing, which are used to shape their community design and marketing approaches.^{xlvi}

The current wellness lifestyle real estate pipeline includes many different types of residential projects: master-planned communities (350+ projects), multifamily developments such as apartments and condominiums at both the affordable and luxury ends of the spectrum (125+ projects), urban districts and mixed-use projects (90+ projects), resort/spa/hospitality-based wellness real estate (35+ projects), and other wellness concepts based on eco-communities, co-living, senior living, etc. (135+ projects). Among these 740+ wellness residential projects, we estimate that there are over 1.5 million units/homes either already built or planned to be built out over the next several decades. These projects encompass over 560,000 acres of land and will house more than 4.1 million residents. A full list of the projects included in this pipeline is included in *Chapter VI* of this report.

Wellness Lifestyle Real Estate Pipeline: Over **740** projects across **34** countries



Top 10 Countries

United States	355	Canada	17
Australia	189	Malaysia	12
United Kingdom	42	Singapore	9
China	39	Vietnam	6
India	17	Indonesia	6

Source: Global Wellness Institute.

Note: Estimates as of November 2017. For a full list of the projects counted here, see Chapter VI.

Trends to watch

The majority of the 740+ projects in the wellness lifestyle real estate pipeline are comprised of master-planned communities and mixed-use developments with an assortment of intentional design features, facilities, and amenities that enhance wellness, followed by the luxury, amenities-laden, urban high-rise projects. As we look to the future, several emerging wellness living concepts are expected to drive the future development of wellness lifestyle real estate and will push the design of healthy living environments

to the next level. (Note that many of these themes are explained and explored in more detail, and with additional examples, later in this chapter.)

- **Blurring the lines between home, work, and leisure.** There are some initial, small-scale movements in this space, such as coworking pioneer WeWork's movement into co-living in 2016 (WeLive) and wellness in 2017 (Rise by We). In 2017, Life Time announced a project near Dallas, Texas that will integrate a large-scale Life Time Athletic Club, 300-400 Life Time Living apartments, and a Life Time Work

coworking space, as part of a broader mixed-used redevelopment project (target opening is 2019). Given the rapid rise of the freelance economy and remote work, we predict significant developments in this space in the coming years, with the integration of coworking and other “sharing economy” concepts entirely redefining the design of suburban master-planned and mixed-use developments.

- **Making healthy homes affordable.** Contrary to the perception that wellness lifestyle real estate is only for the wealthy, there has been a recent push to bring healthy home and active design features into dozens of affordable housing projects across the United States alone, developed mostly in the last five years. The Center for Active Design has been a leader in this space, along with some partnering developers (e.g., Vitus Group, Blue Sea Development, AvalonBay) and a number of municipal and public housing authorities (in cities such as Seattle, Denver, and New York City). Given that lower income and vulnerable populations are typically at the highest risk for many health conditions, we predict that there will be growing incentives from governments to redesign affordable housing and neighborhoods in a way that will encourage healthier behaviors, reduce risk factors for chronic disease, and control related medical costs (e.g., Fannie Mae Healthy Housing Rewards™ program in the United States).
- **Bringing back multigenerational and diverse neighborhoods.** In recent decades, the interplay of policy, planning, economic, and social conventions has given rise to increased segregation of neighborhoods by income, life stage (e.g., young people in cities, families in suburbs, etc.), and function (e.g., residential versus commercial). Some people find this boring – many baby boomers have expressed that they do not want to live with only old people. Others are questioning whether this segregation is healthy and are yearning for communities where people of different ages, backgrounds, and social classes can interact on a daily basis as neighbors and fellow citizens. We predict that future wellness real

estate projects will respond to this emerging preference, as well as the growing evidence that social connections in the physical realm are essential for our health and wellbeing, our society, and our economy.

- **Catalyzing medical industry clusters and health services to build wellness communities.** A small number of mixed-use projects are experimenting with the synergies that can come from combining a biomedical/health/wellness industry cluster alongside a residential real estate component that features healthy design – for example, Lake Nona in Florida, Destination Medical City in Minnesota, Alliance Town Center in Texas, Oceanside in Australia, and Medini Integrated Wellness Capital in Malaysia (among others). In Georgia, Serenbe’s new Mado hamlet is on the cutting edge of integrating and packaging a wide array of alternative, preventive, and healthy lifestyle services that can easily be provided in a thriving mixed-use residential neighborhood. The Llanelli Wellness Village project, currently in development in Wales, will combine integrated facilities for wellness, preventive, health/medical, and social services (under the National Health Services of Wales), in addition to a biomedical industry cluster and both market-rate and affordable housing. We predict that more future developments will creatively and proactively integrate medical/preventive services and businesses into residential community design to combat chronic disease and rising medical costs – especially in countries with national/single-payer health systems that can more easily accomplish such projects via public policy (e.g., England’s NHS Healthy New Towns initiative).
- **Moving from green to regenerative living.** A number of projects currently proposed or in development in China and Europe are on the cutting edge of green, biophilic, sustainable, and healthy design. For example, the Liuzhou Forest City and Moganshan 1,000 Trees projects in China and the Bosco Verticale towers in Italy are covering entire buildings and cities with plants and trees to promote improved air quality, biodiversity, renewable energy, and

other health and environmental impacts. The ReGen Villages project currently being piloted in the Netherlands is going a step further by integrating sustainable and biophilic design with off-the-grid, self-sufficient energy and organic food production. With the growing recognition of the links between environmental and human health, we predict that these projects are just the precursor to a new wave of innovative, regenerative residential communities that will produce their own healthy food and renewable energy, clean the air, recycle their own water, and be net positive for people and planet alike.

- **Leveraging technologies to create smart-healthy homes and cities.** Many of the technological innovations currently in development have the potential to radically transform our living environments – from self-driving cars and sensors to augmented reality and artificial intelligence. There are a number of model city projects around the world that are showcasing futuristic energy and green technologies (China's Tianjin Eco-city, Energy City Qatar, Abu Dhabi's Masdar City) – but the next wave of these futuristic projects will put health and wellness technology front and center. The Connected City project in Florida is proactively designing its infrastructure to embrace this future by accommodating self-driving cars, ULTRAFi internet, advanced telemedicine, smart home technologies, virtual learning, and other innovations, with the aim of becoming a 21st century showcase for modern health and wellness. As these technologies evolve, we predict that there will be a proliferation of

new residential developments that will harness them to enhance their residents' health and wellbeing.

- **Rediscovering hot springs as a wellness living anchor.** The tradition of building wellness resorts around thermal/mineral springs goes back for centuries, but only a small handful of hot springs resorts have integrated residential real estate (and the few that do exist are primarily luxury-level vacation homes). With the rising interest in natural wellness therapies and historic wellness traditions, we predict future growth for residences built within mixed-use developments that incorporate thermal/mineral springs facilities and related wellness services, and targeting a wide range of buyers. One new project in the works is the Goco Retreat Temascal Valley, being built adjacent to the redeveloped Glen Ivy Hot Springs in California (target opening 2019). In Europe there is immense opportunity for the redevelopment and modernization of historic spa towns to incorporate intentionally-designed residential real estate that is connected to these therapeutic facilities. One project such redevelopment project is the Kemer Park in Latvia, which will renovate and reopen the historic health resort facilities and regenerate the surrounding village following wellness community design principles.

For specific trends and the wellness lifestyle real estate pipeline list across different global regions, please see *Chapter VI*.

Buyers have demonstrated that they are willing to pay more for healthier built environments.

Residential developments that have been partially or fully planned with wellness-enhancing features are achieving sales price premiums in the market. These premiums are solid evidence of the rising consumer demand for – and undersupply of – this kind of real estate. The premiums not only provide up-front benefits and strong incentives

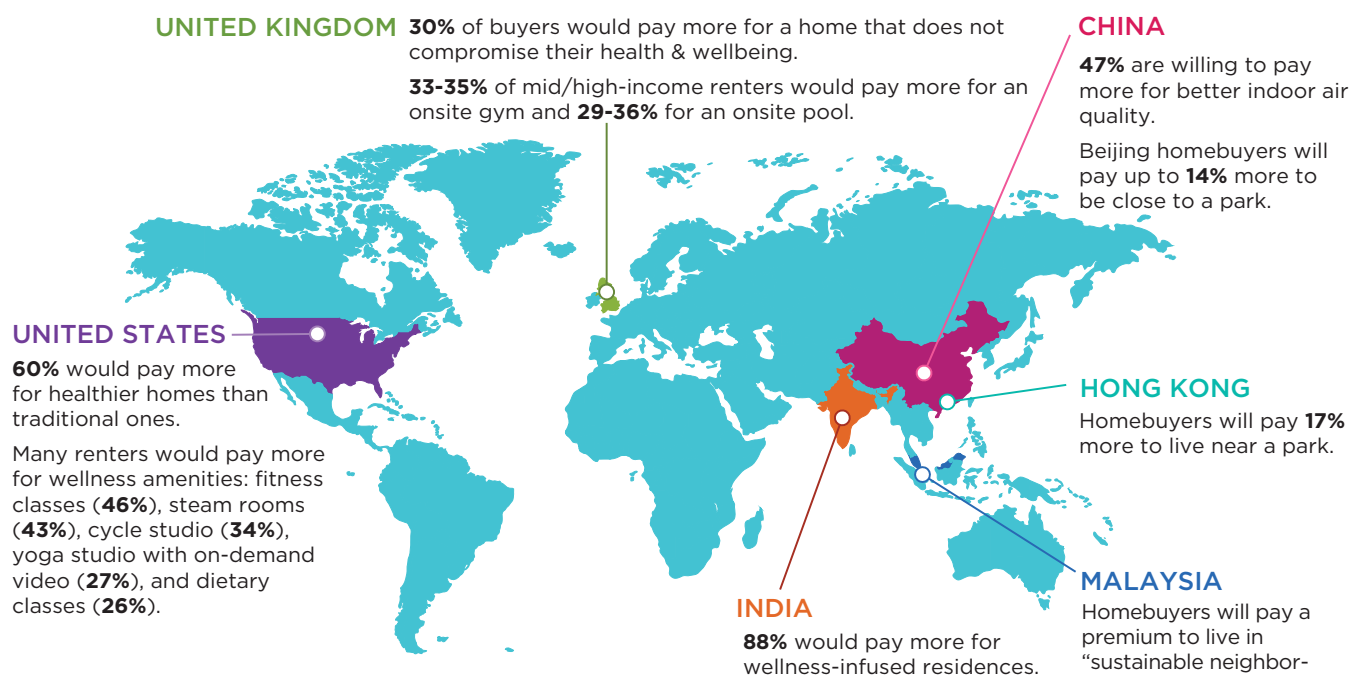
to developers and builders, but also translate into longer-term economic benefits for both homeowners (a secure investment with strong appreciation potential) and governments (higher tax revenues and potentially lower infrastructure costs).^{xlvii}

Market price premiums for wellness-enhancing features

For several decades, developers have been experimenting with design approaches, infrastructure, and amenities that improve residents' health and wellbeing. After conducting an extensive literature review of more than 220 academic, peer-reviewed, and independent studies, GWI found solid, global evidence that homebuyers are willing to pay more for built environment features that improve their wellness, including:^{xlviii}

- **Proximity and easy access to high-quality natural and recreational amenities:** Home price premiums range from 3-12% for nearby open space, greenbelts, and conservation areas; 4-20% for nearby parks and multi-use trails; and 5-15% for recreational programming and amenities within the community (e.g., fitness centers, swimming pools, golf courses, etc.). The size of the premium depends on the quality and characteristics of these amenities, as well as their distance from the home.
- **New Urbanist features such as mixed-use, higher-density, transit-oriented, and traditional neighborhood design:** Communities with these health-enhancing elements have demonstrated home price premiums of 5-20% across the United States.
- **Neighborhood walkability:** U.S. studies indicate a \$4,000-\$34,000 price premium for homes with above-average walkability, or a 1% increase in home price for every one point increase in a neighborhood's walkability score.^{xlix}
- **Sustainability features:** Homes with green certification labels and energy-efficient features have achieved sales premiums of 1-10% in countries around the world over the last 10-15 years.
- **Healthy home features:** While healthy home design is much newer than sustainable design, recent surveys from the United States and United Kingdom, to India and China, indicate strong consumer demand for such features and willingness to pay extra for them.ⁱ

Consumers are demanding healthier built environments and are willing to pay more for them.



Data aggregated by Global Wellness Institute, from the following sources: Dodge Data & Analytics (2015), J. Turner Research (2016), UKGBC (2016), Savills (2014), Honeywell (2015), Zhang et al (2012), Jim & Chen (2010), Tan (2011), DC Correspondent (2014). See Bibliography for full citations.

Market price premiums for wellness lifestyle real estate

When wellness lifestyle real estate combines many of the above elements into a holistic concept, the whole is more than the sum of its parts. The value of a wellness lifestyle real estate project may be reflected in multiple metrics for the investors and developer: faster-than-expected sales and lease-up rates (and even waiting lists); lower-than-projected turnover; and higher sales prices and rental rates. An Urban Land Institute (ULI) study of several developers of wellness-focused projects indicated “a strong consensus that upfront development costs – even for those individual components that were significantly more costly than standard approaches – were well worth the cost and contributed to the projects’ overall success.”ⁱⁱ

GWl estimates that wellness lifestyle real estate and community projects positioned at the middle and upper ends of the market are currently achieving price premiums of 10-25% over comparable properties in their regions, based on analysis of home sales prices in a cross-section of fully and partially built-out wellness-focused residential developments. GWl looked at the sales prices per square foot, and a mix of resales and new construction sales, to come up with a fair, independent assessment of the premiums that buyers are willing to pay to live in wellness-infused homes and communities. Our independent analysis

is combined with data gathered by ULI to arrive at the premium range indicated above.ⁱⁱⁱ

The range in the price premiums reflects the varying positioning of wellness developments within their local real estate markets. Projects with a greater level of differentiation, a more unique community environment, higher-quality residences, and/or more extensive amenities and services typically earn higher sales price premiums. In the case of Serenbe, Georgia, the community is so unique that residences are commanding price premiums of 30-55% (on a per square foot basis) vis-à-vis comparable homes in the Atlanta metro area.

Importantly, **there are also many wellness lifestyle real estate projects that are positioned as affordable to middle-income buyers, and that intentionally do not command a premium.** For example, in its *BedZED* and *Bicester One Planet Living* projects in the UK, BioRegional intentionally positioned the new construction sales prices as comparable to other homes in the region, a strategy that can help improve competitive positioning and increase sales velocity when a wellness residential concept is new and untested. However, in these cases the buyer is often making a tradeoff from a conventional home, such as less square footage or fewer/no parking spaces, so the sales price may still be at a premium when measured on a per square foot basis.

There is enormous potential for differentiation based on market needs, target audiences, and unique site characteristics.

Wellness as a market differentiator

There are many value systems and drivers for wellness communities. Therefore, there is vast opportunity for differentiation in wellness lifestyle real estate to meet the diverse wellness needs and priorities of different consumer segments. In the global megacities, buyers may be most concerned about air and water quality, noise pollution, restful sleep, and access to green space or wellness amenities. In suburban United States, United Kingdom, or Australia, buyers may be seeking better walkability and mass transit options, bike

paths, and more social interaction with neighbors. A project aiming to appeal to consumers interested in healthy eating may incorporate organic farming, a CSA, a farmer’s market, edible landscaping, farm-to-table restaurants, etc. Other real estate projects might prioritize environmental sustainability, wellness and fitness amenities and programming, the importance of the arts, or living in harmony with nature. Some projects aim to appeal to the unique needs of particular demographic groups, such as singles, families with children, multigenerational living, seniors, veterans, affordable housing, etc.

Sales price premiums for wellness lifestyle real estate developments **average 10-25%**, but can range widely from **5% to 55%**.



Serenbe
GEORGIA, US

Homes are recently selling at a **37-55% premium**.^a



Rancho Sahuarita
ARIZONA, US

Homes initially sold at a **10% discount**, but prices rose by **80%** as sales rapidly accelerated, and they now command a **10% premium**.^b



BedZED
UK

Homes have sold at a **12-22% premium** over homes in neighboring areas over the last 5 years.^a



Lake Nona
FLORIDA, US

One of the fastest-selling communities in the U.S., with homes recently selling at a **16-27% premium**.^a



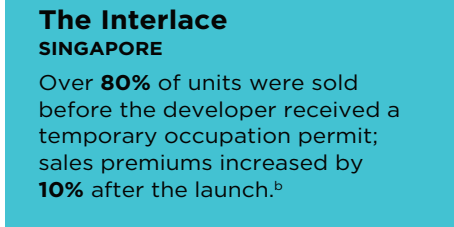
Fuse Cambridge
MASSACHUSETTS, US

Residents pay **\$125-\$225** more per month for apartments with WELL Signature™ features.^d



Willowsford
VIRGINIA, US

New homes have been selling at a **5% premium**.^a



The Interlace
SINGAPORE

Over **80%** of units were sold before the developer received a temporary occupation permit; sales premiums increased by **10%** after the launch.^b



Selendra Rise
AUSTRALIA

One of the fastest-selling communities in Australia, with homes selling for **A\$7,000 - A\$12,000** more than competitor projects.^b



Prairie Crossing
ILLINOIS, US

Homes are recently selling at a **10-15% premium**.^a



ECO Modern Flats
ARKANSAS, US

Rental rates are **42%** higher than average for comparable units, and turnover is **15%** below market average.^b



Hidden Springs
IDAHO, US

Homes initially sold at a 10% premium, which later increased to **20-30%**.^c

Sources: ^a Global Wellness Institute primary research. ^b Kramer, A., et al (2014), *Building for Wellness: The Business Case*, ULI. ^c McMahon, E.T., and Pawlukiewicz, M. (2002), *The Practice of Conservation Development*, ULI. ^d O'Leary, J. (2016), *Boston Globe*. See Bibliography for full citations. See Appendix C for more details on methodology.

Developers and planners also have opportunities to create unique wellness living concepts by leveraging unique locational and geographic characteristics, such as nature preserves, wildlife refuges, mountains, woodlands, bodies of water, thermal and mineral springs, mud/salt caves, farmland and historical ranches, etc. Proximity or adjacency to these natural features can provide an anchor theme for a wellness-focused real estate project. Other locations may benefit from unique heritage and historic references, culinary offerings, music and art scenes, street life, etc.

Below we provide examples of the many different themes that are currently being used to drive wellness lifestyle real estate projects around the world (including projects that are built, partially built, or in development). These examples are

illustrative, but not exhaustive. Projects and communities across the various themes may have similar design features, amenities, and programming, but the anchor theme provides a special conceptual and marketing emphasis that can appeal to particular sets of consumers, and can also differentiate a project in an ever more competitive real estate marketplace. Most wellness lifestyle real estate projects illustrate multiple themes simultaneously – for example, projects that market an “active outdoor lifestyle” also frequently focus on “living close to the land,” “arts and creativity,” and “regenerative/planet conscious-living.” For the projects/communities used as examples below, we are highlighting just one theme that is a key component of their marketing language and design.



Active outdoor lifestyle

These projects emphasize the advantages of living close to nature in order to pursue an active lifestyle – to exercise, relax, and socialize in a community of like-minded people. They are often located adjacent to lakes/ivers, preserved habitats, or parklands, supplemented with ample recreational amenities and social programming. **Shearwater**, a new community near Jacksonville, Florida, appeals to active families by advertising itself as “One part sanctuary. One part playground. One part social hub.” It offers extensive resort-style amenities (aquatic center with waterslide and lazy river, staffed state-of-the-art Fitness Lodge, tennis courts and sports fields, etc.) as well

as expansive natural spaces and beauty (600 acres of preserved habitat, a creek for boating, walking trails, parks, etc.).^{liii} **Arden**, a similar new community in Palm Beach County, Florida, touts its location adjacent to a wildlife refuge, direct trail access to the Northeast Everglades Natural Area, and its central lake and proximity to Lake Okeechobee, and every home backs up to a park, greenway, or trail.^{liv} In Malaysia, **Kundang Estates** markets an active, family-friendly lifestyle by incorporating 14 acres of interconnected parks, herb gardens, a reflexology path, jogging/biking paths, and a children’s garden/adventure park.

Other examples: Harmony (Florida), Sterling Ranch (Colorado), Gold Hill Mesa (Colorado), Walsh (Texas), Selandra Rise (Australia), Aurora (Australia), Gamuda Gardens (Malaysia), Celadon City (Vietnam), La Vida Estate Residences (India)



Living close to the land

Agrihoods appeal to people who are looking for the contemporary version of an idyllic, rural farm life. Many of these projects arrange housing in village style, and they typically offer on-site farms, community-supported agriculture (CSAs), community gardens, farmer’s markets, cooking classes, and related activities. Because many residents also have overlapping interests in green living and clean eating, elements such as composting, edible landscaping, and energy efficiency may also be included. **Prairie**

Crossing (Illinois), the first master-planned agrihood, is built around a 100-acre working organic farm with extensive programming (CSA, farm incubator, educational programs, farm tours, etc.). Village-style homes feature rural Midwestern vernacular design, native/edible landscaping, natural views, and energy efficient features. An innovative stormwater management system creates a usable lake, and the community has established a protected 5,000 acre prairie reserve.^{lv}

Other examples: Serenbe (Georgia), South Village (Vermont), Willowsford (Virginia), Olivette (North Carolina), Drömgården (Sweden), Botanical (Australia), Witchcliffe Ecovillage (Australia)



Connected to history and heritage

Some projects leverage the history of their location to stand out from competitors. **Rancho Mission Viejo** is designed around its historic status as the last working ranch in Orange County, California; it provides residents with preserved open spaces, parklands, and working farms, and the architecture of community/recreational spaces evokes the historic ranch style of the region.^{lvi} **The Cannery** in Davis, California, offers design and amenities similar to many other agrihood and active lifestyle communities, while highlighting its history as the former Hunt-Wesson tomato canning site.^{lvii} **Light Farms** in Celina, Texas uses two historic barns (circa 1830) as the community's focal points (fitness center and information center).^{lviii}

Other examples: Phillips Creek Ranch (Texas), Harvest (Texas), Bucking Horse Ranch (Colorado), Acacia Botanic Ridge (Australia), Coolbellup (Australia), Trent Park (United Kingdom), Kemerli Wellness Village (Latvia)



Grounded in arts and creativity

Building on the premise that the arts are fundamental to a well life, some projects have elevated arts and culture as a community centerpiece, combined with other aspects of wellness, such as a strong sense of community, active lifestyle, sustainability, etc. For example, the very first hamlet constructed at **Serenbe** (Georgia), called Selborne, was themed around the arts. Serenbe made a strong statement about the importance of arts and culture by launching a professional theater company (the Serenbe Playhouse), an on-site artists' colony, and rigorous cultural programming in the early years of the community's development.^{lix} Another project under development in Georgia, **Pinewood Forrest**, is making "live, create, play" its motto, targeting professionals in the arts, media, and entertainment industries who may work in the adjacent Pinewood Studios (the largest purpose-built film studios in the United States outside of L.A.). The creativity theme will be bolstered by a culinary district, a crafts district, wellness center, startup incubator, and ample social and co-creating space, and the community will offer small cottages, live-work shop homes, mews homes, and tree houses aimed at attracting millennials and empty nesters. In Western Australia, a series of consultations/workshops with indigenous groups guided the intentional incorporation of local art/culture into the design and landscaping at **Januburu Six Seasons**. Local cultural references inform the site design, place names, and public art, including a mosaic at the community's entrance that was created by indigenous artists. These efforts create a unique "sense of place" as well as connection to and respect for local culture.^{lx}

Other examples: Bucking Horse Ranch/Jessup Farm Artisan Village (Colorado), Habersham/MAKE District (South Carolina), Summers Corner (South Carolina), Mariposa (Colorado), Winthrop (Florida)



Destination spa immersion

Destination spas provide immersive experiences that can become an ideal way of life for some people. Homes built alongside destination spas provide their residents with 24/7 access to world-class wellness facilities, services, and programming. These projects are usually developed by, or in close partnership with, premium spa brands and tend to be exclusive and limited in number. They focus on high-end, luxury experiences and target wealthy buyers who are also frequent patrons of destination spas (and for whom the home may be a 2nd or 3rd residence). **Canyon Ranch** has leveraged its iconic brand to develop residences adjacent to its two destination spas in Tucson, Arizona and Lenox, Massachusetts.^{lxii} Some spa-based residential projects leverage unique assets such as thermal/mineral springs, which have long been associated with relaxation, rejuvenation, and therapeutic qualities. Examples include luxury villas at **Mission Hills**, China and **Terme de Saturnia**, Italy. GOCO, a spa management and consulting firm, is currently developing wellness residences alongside several GOCO wellness retreats around the world, including one adjacent to **Glen Ivy Hot Springs** in Southern California.^{lxiii}

Other examples: Carillon Condos (formerly Canyon Ranch Miami, Florida), Kukui'ula (Hawaii), TAO Community (Mexico), Q'in Wellness (China), Goco Retreat Ubud (Indonesia), Goco Retreat Kaiserhof Rügen (Germany)



Luxury wellness

A number of urban high-rise condos and apartments are differentiating themselves in the competitive luxury housing market by curating their offerings to appeal to wellness-minded buyers and renters. These residences typically feature wellness-optimizing design inside each home (circadian lighting, purified air and water, sound-proofing, biophilic and natural materials, etc.) combined with extensive wellness amenities and services. They often position themselves as a “wellness oasis,” where residents can escape and find respite from the pollution and hubbub of the crowded city. The new boutique-style **Muse Residences** in Miami, for example, offer wellness residences designed by Delos and Deepak Chopra, featuring advanced air/water purification systems, dynamic circadian lighting, and high-end healthy finishes, combined with smart home technology and exclusive amenities such as a private beach club, spa, and infinity pool.^{lxiii} **Serein**, the first wellness housing in India in a suburb of Mumbai, is a luxury high-rise that features ample outdoor space, green views, and proximity to a national park. Ample wellness amenities include a yoga room, sports courts, swimming pool, children’s areas, pet park, nature trails, and eco features such as rainwater harvesting. Interior wellness features include natural ventilation and sunlight, vitamin C showers, noise cancelling glass, air purifiers, and more.

Other examples: FUSE Cambridge (Massachusetts), Landon House/Lake Nona (Florida), 111 Murray (New York), Ten Thousand Residence (California), Seasons Avenue (Vietnam), Afinity Residences (Malaysia), Sky Habitat (Singapore), La Reserve Residences (UAE)



Affordable wellness

There is a frequent misconception that wellness communities are defined by luxury amenities and only cater to the elite. In fact, many projects have positioned themselves at the affordable and low-income level, sometimes via private-public partnerships to create housing and communities that support healthy lifestyles and behaviors for underserved, vulnerable populations who suffer from higher rates of chronic disease.^{lxiv} **Via Verde**, a mixed-income community in South Bronx, New York, demonstrates how healthy and sustainable features can be incorporated into an affordable urban rehabilitation project. Wellness features include using non-toxic low-

VOC materials to improve indoor air quality, design and aesthetics that encourage walking and stair use, green roofs with community gardens, bike storage areas, a fitness center, an amphitheater, and ample community spaces.^{lxv} Other New York City affordable developments that incorporate active design features – such as **Arbor House** (South Bronx) and **Prospect Plaza** (Brooklyn) – are demonstrating measurable wellness benefits for their residents.^{lxvi}

Other examples: Vermilion Gardens (Illinois), The Rose Apartments (Minnesota), High Point Healthy Homes (Washington), Yesler Terrace (Washington), Vaudeville Court (UK), The Commons and The Nightingale (Australia)



Regenerative, planet-conscious lifestyle

Some consumers are increasingly mindful of their footprint on the planet and the symbiotic relationship between the environment and human health. *One Planet Living* communities – such as **BedZED** (South London, UK) and **Grow** (Bainbridge Island, Washington) – appeal to people whose sense of health and wellbeing is centered around sustainability.^{lxvii} In these communities, planet-friendly principles guide the construction process; the materials used; the design and placement of structures; the energy, ventilation, and waste disposal systems; and the lifestyle, interactions, and engagement of the residents. **ReGen Villages**, with its first pilot community

to open in Almere, Netherlands, wants to move sustainable living toward an off-grid, closed-loop concept. It appeals to people who aspire to live a regenerative existence – generating all energy and water we need locally, growing the food that we eat, and plowing all waste and by-products back into a self-reliant local ecosystem.^{lxviii}

Other examples: Forest City (Malaysia), Liuzhou Forest City (China), Jinshan (China), White Gum Valley (Australia), Dubai Sustainable City (UAE), NW Bicester (UK), Zibi (Canada), Babcock Ranch (Florida)



World-class wellness cluster

These communities are centered around a biomedical/health industry cluster in their region, aiming to amplify a wellness lifestyle for those who live and work there. **Lake Nona** in Orlando, Florida, is anchored on more than a dozen world-class research hospitals, medical centers, human performance and sports training facilities, and technology companies clustered in the community.^{lxix} Capitalizing on the expertise of local partners such as Johnson & Johnson Health and Wellness Solutions, the Lake Nona Institute has initiated a large-scale, longitudinal study of how healthy lifestyles can impact the health outcomes of its residents.^{lxx} In South Wales, the **Llanelli**

Wellness and Life Sciences Village has recently broken ground as a collaboration among regional government, university, and healthcare authorities. Its integrated live-work-play community will house an Institute of Life Sciences; R&D, entrepreneurship activities, and start-ups; a sports and leisure center; a wellness hotel and facilities; and public health and social services for local residents.^{lxxi} **Destination Medical Center** in Rochester, Minnesota, is an example of a major regional employer, the Mayo Clinic, aspiring to create a healthy community in its home city, intersecting healthy lifestyles for employees, local residents, and visitors with a bio/life sciences innovation hub, state-of-the-art medical treatment, and world-class hospitality.^{lxxii}

Other examples: Dubai Healthcare City/WorldCare Wellness Village (UAE), Medini Integrated Wellness Capital (Malaysia), Oceanside (Australia), Atlas (Texas), Alliance Town Center (Texas), Valley Ranch/Vivacity Medical District (Texas), Village at Valley Forge (Pennsylvania)



Smart-healthy homes and communities

Some projects are designed to appeal to consumers who want to embed the latest technologies and “smart living” concepts into every aspect of their daily lives, including their health and wellness. The **Connected City** near Tampa, Florida, touts itself as the first “Smart Gigabit Community,” where technology will be harnessed to offer its residents the best in modern medicine and preventive healthcare (such as advanced research/innovation facilities, and a hospital with a medi-spa and health/performance institute), along with futuristic amenities and design that support healthy lifestyles (such as the first Crystal Lagoon in the United States, telemedicine

for residents, an autonomous vehicle system, and more).^{lxxiii} Major regional hospital systems are key partners to community planning and design that aspire to create an embedded culture of wellness for residents and visitors.

Other examples: Oasis Wellness Village (California), Dubai Sustainable City (UAE)



“Family” of peers

In a society where more and more people are living alone and feeling isolated, some projects aim to improve their residents’ social, mental, and physical health by using design and amenities to build connections or “family” among neighbors. A modern merging of the co-living, healthy living, and sharing economy trends, these projects are especially taking off among millennials living in high-cost urban areas, from New York City to London to Shanghai. They typically feature small/micro-sized apartments with flexible lease terms, combined with robust communal spaces and wellness amenities, such as ample outdoor areas for socializing, community “living

rooms” and game rooms, community kitchens, coworking spaces, fitness facilities, and extensive social programming (from bar crawls and ice cream socials to yoga classes and weekly potluck dinners). Chains of co-living residences (such as **You+**, **Mofang Gongyu**, and **Wowqu**) are booming among young professionals living in Chinese cities, and now have dozens of buildings and thousands of residents across the country.^{lxxiv} **The Collective Old Oak**, the world’s largest co-living building in London (500+ units), features communal kitchens, dining rooms, and lounges; all-inclusive cleaning, linen, concierge, and broadband services; luxury amenities (gym, spa, quiet/chill-out room, library, game room, cinema room & sports bar, rooftop garden, and restaurant); and frequent entertainment, talks, and community events.^{lxxv}

Other examples: Common (United States, multiple locations), Quarters (Global – New York, Berlin, more to come), CoHo (India), lyf (China & Singapore)



Live, work, play 2.0

The phrase “live, work, play” has become almost cliché in regional marketing and economic development, typically used to describe mixed-use developments with a mix of retail, offices, and apartments/condos; walkability and public transit; and other New Urbanist-influenced design. Responding to the growth of freelancing and remote work, a couple of companies are now exploring new approaches to develop integrated co-living, coworking, and wellness facilities, blurring the lines between life and work. In a Dallas, Texas, redevelopment project, **Life Time** has announced a new concept (target opening 2019) that will include 300-400 Life Time Living

apartments (“live”), connected to 50,000 square feet of Life Time Work coworking space (“work”), and a Life Time Athletic Club including a spa, café, and kids club (“play”). **Roam** is developing a global network of co-living and coworking spaces that allow members to “test the boundaries between work, travel, and life adventure” by temporarily living, working, socializing, and exploring different cultures in countries around the world. Roam facilities feature weekly/monthly rental rates; large communal workspaces with high-speed Internet; and ample social spaces for community meetings, events, and classes.

Other examples: Outsite (global, multiple locations), WeLive/WeWork (United States - New York City, Washington DC), Commonsense/Syracuse CoWorks (New York)



Thriving in aging

Age-restricted and retirement communities have been an early contributor to the wellness lifestyle real estate movement in the United States, pioneering the concept of large-scale, resort-style, amenity-rich master-planned residential developments (e.g., Del Webb’s **Sun City**). Developers are targeting the active lifestyle interests of the Baby Boomer generation by amping-up the recreational, social, and fun features in their 55+ communities (such as **The Villages** in Florida, and the planned **Latitude Margaritaville** senior communities in Florida and South Carolina). Some senior living communities are integrating extensive wellness concepts,

such the proposed **AyurHome** community in South Carolina, featuring an integrated Ayurvedic concept. **Kendal Sonoma**, a zen-inspired California senior community being developed in partnership with the San Francisco Zen Center, would nurture meditation, mindfulness, and other wellness practices. Some differentiate themselves by targeting unique interests, hobbies, or “affinity groups” – for example, three arts-focused communities in California (**Burbank, NoHo, and Long Beach Senior Arts Colonies**) offer amenities such as artist studios and classrooms, display galleries, and performance theaters. Senior co-housing fosters healthy social support networks by clustering residences around extensive communal and recreational amenities. Popular in Northern Europe since the 1980s, it has more recently taken root in the United States (e.g., **Oakcreek Community** in Oklahoma, **Wolf Creek Lodge** in California).

Other examples: Fox Hills Club (Maryland), PDX Commons (Oregon) Fountaingrove Lodge (California), ShantiNiketan Village (Florida, Malaysia), Aegis Gardens (California)



Multigenerational living

Age-restricted retirement living may become less appealing or relevant as our population ages, and especially for future generations who are still working and even having children well into their 60s, 70s, and beyond. In response to the strong evidence that social relationships – especially across generations – are essential to the wellbeing of all ages, some developers are starting to reject the idea of age-segregated communities entirely. Master-planned wellness communities, such as **Rancho Sahuarita** (Arizona), **Serenbe** (Georgia), **Norterre** (Missouri), and **The Interlace** (Singapore) are integrating senior-targeted homes (single story, with universal design to support aging-in-place) and assisted living into mixed-age and family-friendly neighborhoods. Seniors benefit from the community's healthy design, walkability, and extensive amenities to keep them active and socially connected, but are also supported by additional clubs, facilities, and programs specifically targeting seniors. Some projects integrate the ages by combining senior housing with college student housing (**Humanitas** in the Netherlands), building senior housing on university campuses (**Lasell Village** in Massachusetts), combining senior housing with preschools (**Kotoen** and other *yoro shisetsu* in Japan), and designing home floorplans where extended families can live under one roof (**NextGen** line of homes by U.S. builder Lennar Homes).

Other examples: Celebration (Florida), Rancho Mission Viejo (California), Anthem Colorado, Future Sølund (Denmark), Willowdale (Australia)

Business models need to be flexible and responsive to the needs and interests that drive a wellness community.

Operational and financial models for wellness facilities/programming

Successful wellness communities are intentional about the “software” that enables and nurtures wellness, with ongoing programming and services that help integrate healthy behaviors into the daily experiences of residents and guests (see *Chapter III*). This “soft” infrastructure can span the domain of wellness, recreation, arts/culture, hospitality, medical, nonprofit, and even government services. It is at the heart of a wellness community, and it is essential to the creation of a wellness culture. Therefore, the “soft” infrastructure needs to be high-quality, extensive, and curated in a manner that is more integrated and holistic than in a conventional residential development. In parallel,

the financing, governance, and operation of the wellness “software” also needs to be intentional and holistic, reflecting the values and wellness priorities of the community, while remaining flexible to accommodate growth and change over time.

Developers of planned communities and resort-style properties have a number of tools at their disposal to fund amenities and programming (see *table on next page*). The challenge in many communities is how to use these various funding mechanisms to provide an optimal mix and level of amenities, services, and offerings that are not only attractive, accessible, and affordable to users, but also financially sustainable to the operator(s).

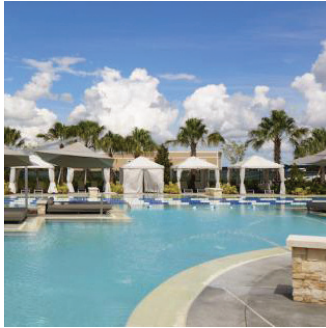
Typical Funding Streams for Community Amenities

Homeowners' Association Dues	Condominiums and master-planned communities typically have homeowners' associations (HOAs) to manage common property and amenities in perpetuity. Owners pay a mandatory monthly/quarterly HOA fee, typically based on unit type or square footage, that provides access to amenities (e.g., swimming pools, fitness centers, etc.) and funds their operation and upkeep.
Special Purpose Taxing Districts	Some communities establish special taxing districts that allow them to collect special property taxes/assessments from homeowners to fund the construction of new infrastructure within the community, including parks and recreational facilities (as well as roads, water/sewer, etc.). ^{lxvii} This approach allows a community to fund its own new/improved infrastructure without requesting city-wide taxpayer subsidies. These fees are typically paid by homeowners in addition to regular local property taxes and HOA dues.
Private Transfer Fees	Also known as private reconveyance/resale/recovery fees. ^{lxviii} Each time a property is sold or re-sold, a set percentage of the sale price (e.g., 0.5% or 1%) is paid at closing to a developer, homeowners' association, or community institute/nonprofit.
Membership Fees & Dues	Higher-end resort-based, country club, and golf communities often assess membership fees, including an up-front initiation fee upon home purchase, and/or monthly membership dues, in order to access amenities.
Fee-For-Service	Many community-based facilities run on a market-based, fee-for-service model, simply charging residents and non-residents à la carte for the services they use (e.g., class fees, service fees, event ticket sales, etc.).
Fundraising & Grantseeking	Communities may seek donations and grants from individuals, governments, or philanthropic organizations to fund activities and services that are typically in the domain of nonprofits.

Because wellness communities are still new, and each one is as different from another as the people who live in them, there is not a right or wrong way to fund or operate them. Developers have experimented with different approaches and even mixed business models to tailor their offerings to their particular community contexts. Below we

provide examples of several existing approaches, driven by the wellness needs, interests, and preferences of the types of residents that they aim to serve.

For more details about these approaches, their pros and cons, as well as examples of communities that are using or developing them, see *Appendix D*.



Basic wellness foundation for all residents

Most people who choose to live in a wellness community are interested in the basic amenities that support a healthy lifestyle – parks, trails, green space, exercise facilities, community spaces and activities, etc. Most communities make these accessible to all residents (and sometimes to guests for a fee) and fund them through a modest level of HOA dues. Additional fees may be charged for classes and services, and there may also be a full-time “lifestyle director” to run programming. This is a typical model for amenities in most master-planned communities and condominiums (including non-wellness-focused ones).

Examples: Laureate Park/Lake Nona (Florida), Rancho Sahuarita (Arizona), Harvest Green (Texas), Cross Creek Ranch (Texas)



All-inclusive, immersive wellness living

At the other end of the spectrum, some people desire to live within a destination spa or resort and to have access to world-class wellness amenities, services, and programming as part of their daily lifestyle. The luxury residences that are developed within or adjacent to destination spas and wellness resorts often come with spa/resort membership; residents may pay an up-front initiation fee (upon home purchase) as well as monthly membership dues. Under this model, the resort/spa owner or management company operates the amenities. This model is also common among golf, country club, and resort-based real estate developments (including non-wellness focused ones).

Examples: Canyon Ranch Living (Arizona & Massachusetts)



Flexible packaging for wellness enthusiasts

A new model under development in some wellness communities caters to residents who are enthusiastic about the wellness amenities (looking for high quality and a wide range of offerings), but also allows for different preferences and varying levels of usage. The developer curates the amenities, services, and programming that fit with the wellness concept of the community, engages a third party to operate them, and offers them in a tiered and/or à la carte system. Wellness facility membership may be optional, or may be set at a default/basic membership level for all residents (funded via HOA dues), with the choice of paying more for higher tiers of membership and additional services. Non-residents can also buy memberships and à la carte services.

Examples: NorthLake Park/Lake Nona (Florida), Serenbe (Georgia), Sterling Ranch (Colorado)



Wellness for community benefit

Residents in some wellness communities view the “community” part as their highest priority, and they may regard programming in the areas of environmental preservation, education, arts, and community services as the heart and soul of their communities. Since these activities are typically in the domain of the nonprofit world, a relatively new approach is to set up a nonprofit community institute or foundation to operate these kinds of initiatives and programs. A substantial part of the funding typically comes from private transfer fees generated by home sales, along with outside fundraising, grants, and income-generating fee-for-service activities.

Examples: Serenbe (Georgia), Prairie Crossing (Illinois), Lake Nona (Florida), Harmony (Florida), South Village (Vermont)



Consumer choice in a free market

In a completely free market model, residents choose and pay directly for the wellness amenities and services they want from a variety of businesses and competitors, which can be entirely operated by third-party firms. There is little or no involvement by the developer or HOA other than designating and leasing space for certain types of businesses, or possibly providing a concierge service to coordinate offerings for residents. This approach is common in urban condominium and apartment properties, as well as the “town center” portion of master-planned mixed-use developments.

Examples: The District Jax (Florida), Winthrop (Florida), Serenbe (Georgia), Frisco Station (Texas), Alliance Town Center (Texas), Birtinya at Oceanside (Australia)

^{xxxv} U.S. Green Building Council (2015, February 10). *The Business Case for Green Building*. <https://www.usgbc.org/articles/business-case-green-building>. Their global green building market figure is cited from: Lux Research (2014). *Driven by Higher Rents and Values, Green Buildings Market Grows to \$260 Billion*. <http://www.luxresearchinc.com/news-and-events/press-releases/read/driven-higher-rents-and-values-green-buildings-market-grows-260>.

^{xxxvi} The Global Wellness Institute (GWI) defines and measures *wellness real estate* as the portion of the construction of residential and commercial/institutional (office, hospitality, mixed-use/multi-family, medical, leisure, etc.) real estate that incorporates intentional wellness elements into its design, materials, and building as well as its amenities, services, and/or programming. Note that the *wellness real estate* sector is broader than our definition of *wellness lifestyle real estate*, which includes only the residential component. Because it is

impossible to separate out the residential portion from the non-residential portion in commercial/institutional projects (e.g., mixed-use, hospitality, etc.), we have estimated *wellness real estate* in aggregate. The annual market size data are based upon global construction industry data from the United Nations Statistics Division National Accounts data (<http://data.un.org/Explorer.aspx?d=SNA>).

^{xxxvii} For example, in the United States, Fannie Mae (the government sponsored mortgage securitization corporation) recently introduced a “Healthy Housing Rewards” initiative that provides financial incentives for borrowers who incorporate healthy design features into newly constructed or rehabilitated affordable multifamily rental properties (see: <http://www.fanniemae.com/portal/media/corporate-news/2017/healthy-housing-rewards-6560.html>). The Fitwel™ certification system (sponsored by the Center for Active Design and U.S. Centers for Disease Control) was expanded to address multifamily residential projects and will be used

to qualify project to participate in the Healthy Housing Rewards program (see: <https://fitwel.org/wp-content/uploads/2017/11/Fitwel%C2%AE-Expands-to-Support-Healthier-Residential-Environments-.pdf>).

^{xxxviii} Warrick, B. (2017). Research: Wellness Communities – A “major market opportunity.” *Spa Business*, 3, 70-72. <http://www.spabusiness.com/digital/index1.cfm?mag=Spa%20Business&codeid=32083&linktype=story&ref=n&issue=2017%20issue%203>.

^{xxxix} Online survey of over 3,000 UK homeowners and renters on health and wellbeing in the home. See: UK Green Building Council (2016, July). *Health and Wellbeing in Homes*. <http://www.ukgbc.org/resources/publication/uk-gbc-task-group-report-healthy-homes>.

^{xl} Online survey of 800 people across India, in the 25-40 age group, about the factors comprising healthy living and their priority for consumers when choosing a home. See: 1) Buyers ready to pay more for “wellness homes:” All-India Wellness Consumer. *Deccan Chronicle*, November 23, 2014, <http://www.deccanchronicle.com/141123/nation-current-affairs/article/buyers-ready-pay-more-%E2%80%98wellness-homes%E2%80%99-all-india-wellness>. 2) Home buyers prefer wellness features in projects. *The Economic Times*, November 21, 2014, <http://economictimes.indiatimes.com/wealth/personal-finance-news/home-buyers-prefer-wellness-features-in-projects/articleshow/45232981.cms>.

^{xli} Online panel survey conducted in 12 global cities, with more than 1,000 respondents per city. See: Ikea (2016). *Life At Home: What Makes A Home*. Report #3. <http://lifeathome.ikea.com/explore/>.

^{xlii} Survey of over 2,000 respondents in 10 cities across China, focusing on the Chinese public’s awareness, concerns, and expectations regarding indoor air quality. See: Honeywell (2015, October 29). *60% of Chinese People Worried About Indoor Air Quality, Reveals Survey*, <https://www.honeywell.com/newsroom/news/2015/10/60-of-chinese-people-worried-about-indoor-air-quality-reveals-survey>.

^{xliii} Percent of survey respondents rating these features as “extremely important” or “very important.” Telephone survey of 1,400 people in Sydney, Melbourne, Brisbane, Adelaide, and Perth about whether healthy neighborhood features may influence their decision about where to live. See: National Heart Foundation of Australia (2011). *Creating Healthy Neighborhoods: Consumer preferences for healthy development*.

[https://www.heartfoundation.org.au/images/uploads/publications/creating-healthy-neighbourhoods_\(NSW\).pdf](https://www.heartfoundation.org.au/images/uploads/publications/creating-healthy-neighbourhoods_(NSW).pdf).

^{xliiv} Percent of survey respondents rating these features as “very important” or “of some importance” when choosing a place to live, in a two-phase survey of 1,500 Auckland residents. See: Yeoman, R. and Akehurst, G. (2015). *The housing we’d choose: A study of housing preferences, choices and trade-offs in Auckland. Auckland Council Technical Report, TR2015/016*. Prepared by Market Economic Limited for Auckland Council. <http://temp.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/planspoliciespublications/technicalpublications/tr2015016housingwedchoosewithappendices.pdf>.

^{xliv} See: Hillwood Communities (<http://www.hillwoodcommunities.com/>), Freehold Communities (<http://www.freeholdcommunities.com/>), Republic Property Group (<http://www.republicpropertygroup.com/>), Stockland Australia (<https://www.stockland.com.au/>), Lendlease (<https://www.lendlease.com/au/>), Peet Limited (<https://www.peet.com.au/>), Gamuda Land (<http://gamudaland.com.my/>), and CapitaLand (<https://www.capitaland.com/>).

^{xlvi} See, for example, the Freehold Vital Communities™ principles (<http://www.freeholdcommunities.com/about-us/>), Hillwood Live Smart principles (<http://www.hillwoodcommunities.com/Our-Communities/Live-Smart>), and Stockland Sustainability priorities and reporting (<https://www.stockland.com.au/about-stockland/sustainability>).

^{xlvii} See: Shoup, L. and Ewing, R. (2010, May). *The Economic Benefits of Open Space, Recreation Facilities and Walkable Community Design: Research Synthesis*. San Diego, CA: Active Living Research. http://activelivingresearch.org/files/Synthesis_Shoup-Ewing_March2010_0.pdf.

^{xlviii} The sales price premium estimates provided here are a synthesis by GWI, based upon an extensive literature review of more than 220 scholarly articles, peer-reviewed studies, and independent reports, spanning more than 20 countries. For more information about GWI’s methodology and the sources consulted, see *Appendix C*.

^{xlix} See: 1) Cortright, J. (2009, August). *Walking the Walk: How Walkability Raises Home Values in U.S. Cities*. Cleveland, OH: CEOs for Cities. <http://community-wealth>.

org/sites/clone.community-wealth.org/files/downloads/report-cortright.pdf. 2) Bokhari, S. (2016, August 3). How Much is a Point of Walk Score Worth? *RedFin Real Estate News & Analysis*. <https://www.redfin.com/blog/2016/08/how-much-is-a-point-of-walk-score-worth.html>. See also: Leinberger, C.B. and Alfonzo, M. (2012, May). *Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, DC*. Washington, DC: Brookings Institution. <https://www.brookings.edu/wp-content/uploads/2016/06/25-walkable-places-leinberger.pdf>.

ⁱ See: 1) Dodge Data & Analytics (2015). *Green and Healthier Homes: Engaging Consumers of all Ages in Sustainable Living*. Bedford, MA: Dodge Data & Analytics. <https://www.nahb.org/-/media/Sites/NAHB/Research/Priorities/green-building-remodeling-development/Green-and-Healthier-Homes%202015.ashx>. 2) UK Green Building Council (2016, July). *Health and Wellbeing in Homes*. London: UK Green Building Council. <http://www.ukgbc.org/resources/publication/uk-gbc-task-group-report-healthy-homes>. 3) Buyers ready to pay more for “wellness homes”: All-India Wellness Consumer. *Deccan Chronicle*, Nov. 23, 2014. <http://www.deccanchronicle.com/141123/nation-current-affairs/article/buyers-ready-pay-more-%E2%80%98wellness-homes%E2%80%99-all-india-wellness>. 4) Honeywell (2015, October 29). *60% of Chinese People Worried About Indoor Air Quality, Reveals Survey*. <https://www.honeywell.com/newsroom/news/2015/10/60-of-chinese-people-worried-about-indoor-air-quality-reveals-survey>.

ⁱⁱ Kramer, A., Lassar, T., Federman, M., and Hammerschmidt, S. (2014). *Building for Wellness: The Business Case*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/Building-for-Wellness-The-Business-Case.pdf>.

ⁱⁱⁱ The sales price premium for wellness lifestyle real estate and community developments is an estimate by GWI based upon independent sales price analysis in a sample of 5 residential projects in the United States and United Kingdom, supplemented by data gathered from developers by the Urban Land Institute (see: <http://uli.org/wp-content/uploads/ULI-Documents/Building-for-Wellness-The-Business-Case.pdf>). For more information about GWI’s methodology and the sources consulted, see *Appendix C*.

ⁱⁱⁱⁱ See: <https://shearwaterliving.com/>

^{liv} See: <https://ardenfl.com/>

^{lv} See: <http://prairiecrossover.com/> and <https://www.terrain.org/unsprawl/9/>

^{lvi} See: <http://ranchomissionviejo.com/>

^{lvii} See: <http://livecannerydavis.com/>

^{lviii} See: <http://lightfarmstx.com/>

^{lix} See: <http://serenbe.com/> and <https://casestudies.uli.org/serenbe/>

^{lx} See: <http://www.broome.wa.gov.au/files/c446a363-1b0b-4cd4-b02e-dd020a3048b0/20091029-932LandMasterPlan.pdf?streamFile=true> and <http://urbanplan.com.au/januburuae.html>

^{lxi} See: <https://www.canyonranch.com/tucson/overview/living-community/> and <https://www.canyonranch.com/lenox/overview/the-residences/>

^{lxii} See: <https://gocohospitality.com/goco-retreat-temescal-valley> and <https://gocohospitality.com/goco-retreat>

^{lxiii} See: <http://www.museresidences.com/> and <http://www.museresidencesmiami.com/>

^{lxiv} The Center for Active Design and Partnership for a Healthier America have recently launched the Active Design Verified program to encourage developers to commit to incorporating low-cost wellness design features into affordable residential developments. See: <https://www.ahealthieramerica.org/articles/active-design-verified-3>

^{lxv} See: <https://casestudies.uli.org/via-verde/>

^{lxvi} See: <https://centerforactivedesign.org/evaluating-active-design-housing>

^{lxvii} See: <http://www.bioregional.com/oneplanetliving/>, <http://www.bioregional.com/bedzed/>, and <http://growbainbridge.com/>

^{lxviii} See: <http://www.regenvillages.com/>

^{lxix} See: <http://www.lakenona.com/>

^{lxx} See: <http://www.liveworkparticipate.com/>

^{lxxi} See: <http://www.arch.wales/latest-news.htm?id=47> and <http://www.bbc.com/news/uk-wales-south-west-wales-40354048>

^{lxxii} See: <https://dmc.mn/>

^{lxxiii} See: <http://www.connectedcity.metrodevelopmentgroup.com/> and <http://www.pascocountyfl.net/index.aspx?NID=2319>

^{lxxiv} See: <https://www.ft.com/content/ce80021e-f036-11e5-9f20-c3a047354386>, http://www.huffingtonpost.com/entry/shared-residences-china_us_5761987ee4b0df4d586eee28, and <https://qz.com/706409/chinas-co-living-boom-puts-hundreds-of-millennials-under-one-roof-heres-what-its-like-inside-one/>

^{lxxv} See: <https://www.thecollective.co.uk/co-living/old-oak>

^{lxxvi} Special district financing has become increasingly common in the United States over the last decade, especially for the construction of new master-planned communities. The approaches, rules, and regulations for the use of these financing vehicles vary from state-to-state. These fees are known by a variety of names, such as Community Development Districts (CDDs) in Florida, Community Facilities Districts (CFDs or “Mello-Roos”) in California, Special Improvement Districts (SIDs) in Colorado, and Municipal Utility Districts (MUDs) and Public Improvement Districts (PIDs) in Texas. For more information, see: 1) Froelich, C.T., and Gallo, L. (2014). *An Overview of Special Purpose Taxing Districts*. Washington, DC: National Association of Homebuilders. <https://www.nahb.org/en/research/nahb-priorities/land-development/special-purpose-taxing-districts.aspx>. 2)

Logan, G., et al (2013, April 26). *Infrastructure Financing in Master-Planned Communities*. RCLCO Community & Resort Advisory Group. <http://www.rclco.com/advisory-infrastructure-financing-in-master-planned-communities>.

^{lxxvii} Note that transfer fees have been controversial in the United States over the last decade. After the recession, some developers and homebuilders started implementing transfer fees as a way to generate a revenue stream or recover costs (and there was even an attempt to securitize and monetize these fees) – an approach seen by many consumers as merely an attempt to line homebuilders’ pockets, and by lawmakers and real estate experts as predatory and harmful for future home resales. In the last few years, some U.S. states, as well as the Federal Housing Finance Agency, have placed restrictions on use of such fees. Transfer fees that are paid to HOAs and nonprofit organizations, for the benefit of the property and residents, are generally allowed, while fees that subsidize developers or homebuilders are not allowed in many cases (see <https://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Publishes-Final-Rule-on-Private-Transfer-Fees.aspx> for the rule established by the U.S. Federal Housing Finance Agency in 2012).

V. THE WELLNESS CASE

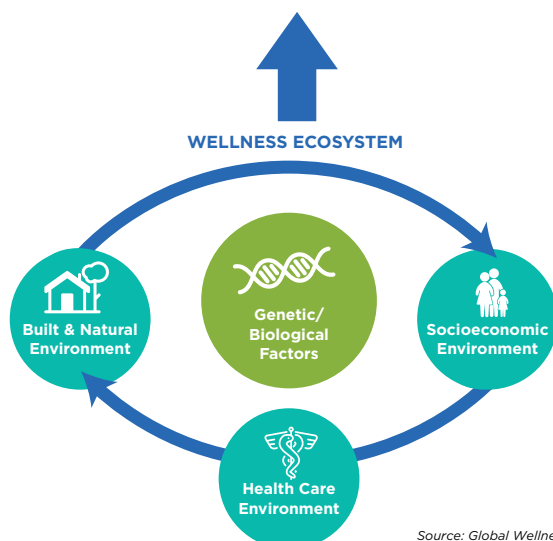
The built environment is a critical yet largely unaddressed determinant of our health.

Recognizing the importance of our “wellness ecosystem”

The Global Wellness Institute defines wellness as **the active pursuit of activities, choices, and lifestyles that lead to a state of holistic health**. Wellness is best viewed as a continuum that extends from poor health to a state of optimal wellbeing.^{lxxviii} While the medical paradigm focuses on treating disease on the “sick” end of the continuum, wellness requires the proactive, voluntary engagement of individuals to adopt activities and lifestyles that move us toward an optimal state of wellbeing in body, mind, and spirit.

Many factors determine where we as individuals will fall on the wellness continuum – some of which we can control and some we cannot. Our genes

Up to **80-90%** of our health outcomes depend upon the external and environmental factors in our wellness ecosystem



Source: Global Wellness Institute

Many factors drive where we fall on the wellness continuum



are important, but few diseases or conditions are purely biological.^{lxxix} In fact, our health is a result of complex interactions among **genetic factors** and numerous interrelated **external determinants**, including:^{lxxx}

- Accessibility, cost, quantity, and quality of health/medical services.
- Income, education, demographics, occupation, and other socio-economic factors.
- Physical environment, including both the natural environment and the built environment.

These external factors form a complex “**wellness ecosystem**”^{lxxxi} that can augment or reduce the impacts of our genes; for example, someone with a genetic predisposition for breast cancer can increase that risk through exposure to endocrine disrupting compounds, unhealthy eating, and a sedentary lifestyle. Those who are young, elderly, disabled, or poor are particularly vulnerable to these external factors.^{lxxxii} What may be surprising from recent research findings is that genetics may account for as little as 10-15% of our health outcomes, while external and environmental factors play a much more important role:

- The *exposome* (the environments in which our genes live) may account for 70-90% of our disease risks.^{lxxxiii}

- External and environmental factors may cause 70-90% of cancers.^{lxxxiv}
- According to the WHO, 23% of global deaths (12.6 million deaths) in 2012 were due to modifiable environmental factors.^{lxxxv}
- Up to half of all premature deaths in the United States are due to behavioral and other external preventable factors, such as diet, lifestyle, accidents, etc.^{lxxxvi}
- U.S. research studies have shown that the neighborhood or county where we live can predict our life expectancy as well as how we will die,^{lxxxvii} and these differences persist even after adjusting for socioeconomic and demographic factors.^{lxxxviii}

There is ample evidence that our health and longevity are greatly affected by the physical environments in which we live, work, and play, and yet the built environment continues to receive scant attention from the medical community. At least \$260 billion is spent globally on biomedical R&D every year.^{lxxxix} In spite of major advances in genetics, drugs, medical technologies, and disease treatments, very few research dollars have been directed toward addressing the built environment factors that affect our health behaviors, risks, and outcomes.^{xc} Likewise, only 4% of annual global health expenditures are spent on public health, risk reduction, and prevention.^{xci} This lopsided investment calculus needs to change. To combat the growing epidemic and escalating costs of chronic disease, we must address the many aspects of our built environment that drive our individual and collective health and wellbeing.

Wellness-focused built environments are beneficial for our health and wellbeing in many ways.

Minimize the environmental impacts on human health

Human activities have generated pollution in our air, soil, water, light, and sound that adversely affects our health. While it is beyond the scope of any wellness lifestyle real estate project to tackle these issues on a macro scale, wellness lifestyle real estate and communities *can* help to mitigate these harmful impacts in several important ways:

- **Reduce our exposure to toxic elements** by filtering out pollutants in our air and water, and by minimizing the use of harmful materials and substances in our homes (e.g., paints, sealants, flooring, flame retardants, etc.).
- **Promote better sleep, rest, and stress reduction** through healthy lighting and sound-proofing.
- **Reap the benefits of earth-friendly practices**, while doing our part to support a sustainable planet. These practices may range from using locally-sourced, recycled, natural, or sustainable building materials to installing geothermal heating/cooling, and from promoting native plant landscaping to refraining from using chemical fertilizers and pesticides.

Support behavior change and healthier lifestyles

No one would dispute that healthy behaviors and lifestyles have a profound impact on our health. Yet, our habits are very difficult to change. Fortunately, psychology shows that changing our living environment can greatly impact our behavior.^{xcii} Our living environment establishes the “default” choices in our daily activities and routines, and can nudge us to behave in one way or another. Here are a few areas in which our built environment can influence our health behaviors in a positive way:

- **Encourage healthy eating habits** by providing easy access to fresh and healthy foods, through community-sponsored agriculture (CSAs), community/backyard gardens, urban farms, and events such as farmer’s markets. In addition, providing drinking fountains and bottle-refilling stations in public places encourages the consumption of water instead of sugary drinks.
- **Make movement the default option** through infrastructure and neighborhood design that makes walking, biking, or taking public transit easier, more convenient, and more pleasant than driving (e.g., sidewalks, street trees, benches, “complete streets,” bike lanes, secure

bike parking/storage, etc.). Inside buildings, attractive and well-located stairways steer people away from elevators.

- **Promote an active lifestyle and mind-body health** by making extensive wellness amenities affordable and accessible to people of all ages and income-levels – from walking trails and bike paths to playgrounds and pocket parks, and from fitness centers and spas to classes and workshops.
- **Take advantage of nature’s power to improve mental and psychological wellbeing**, through biophilic design and ample access to green/open space. These features boost our cognitive abilities and moods; promote healing; and reduce stress, aggression, and negative feelings.

Foster a sense of place, community, and belonging

A home is more than a dwelling. People seeking to rent or buy a new home are not only looking at the building but also at “the neighborhood” – that intangible but important sense of place and belonging. Wellness lifestyle real estate can help foster wellness communities that combat the loneliness epidemic and enhance our positive feelings

of place and belonging, through both design and programmatic aspects.

- **Design that encourages social encounters helps to create a sense of community.** Many planning, zoning, and design elements – such as mixed-use spaces, housing diversity, higher density, limited street setbacks, strategically located parking and public transit, walkable schools, well-designed sidewalks, public plazas and parks, porches and balconies, etc. – have been demonstrated to encourage more pedestrian and street activities, public gathering of people, spontaneous meeting of neighbors, and general social interactions.
- **Design can also increase social trust and civic engagement.** A community is only as strong as the engagement of its members and the trust that people place in each other. Studies have shown that community interaction builds trust among neighbors and encourages civic engagement. Studies have also shown that social trust increases with walkability and access to nature and attractive public, recreational spaces.

A number of wellness lifestyle real estate projects have measured and documented their positive impacts on residents.

Early evidence for the benefits of wellness lifestyle real estate

Hundreds of academic and scientific studies have already demonstrated the health and wellness impacts of specific types of infrastructure and design features – for example, living in proximity to a park or trail can encourage exercise, access to sidewalks/bike paths can encourage active transportation, and access to high-quality public spaces and public art can facilitate community engagement and trust.^{xciii} A wellness community, however, is more than a sum of its parts. With intentional design and planning that integrates hard and soft infrastructure, wellness lifestyle real estate can foster wellness communities and enable lifestyles and behaviors that are healthy for people.

Below are examples from several wellness lifestyle real estate projects and developers around that world that have measured and documented those kinds of positive health and wellbeing impacts on their residents. In addition to these completed and published studies, a number of communities currently have studies in progress, including: Harmony Translational Health Study (Florida), Lake Nona Life Project (Florida), Bucking Horse (Colorado), Prospect Plaza (New York), Yesler Terrace (Washington), and the Australia High Life Study (multiple apartment buildings in three Australian cities). For more details, see *Appendix F*.

Health & Wellbeing Impacts of Wellness Lifestyle Real Estate: Findings from Some Early Studies



High Point Breathe-Easy Homes WASHINGTON, U.S.

Asthmatic children living in "Breathe Easy" healthy homes had:

- **63%** more symptom-free days than in their previous homes.
- Dramatic improvement in lung functioning.
- **66%** reduction in the need for urgent medical care.



Mariposa COLORADO, U.S.

3 years after the project's launch:

- Total crime rate decreased from **248 to 157/1,000** people.
- **38%** of residents said their health had improved.
- Smoking rates dropped by **6%**.



Mueller TEXAS, U.S.

As compared to their previous neighborhoods:

- **65%** of residents increased their physical activity.
- **48%** said their health improved.
- **84** minutes less spent in a car/week.
- Increased social interactions with neighbors.
- Stronger feelings of neighborhood cohesion.



Arbor House NEW YORK, U.S.

- 58% of residents reported increasing stair use.
- Increased feelings of safety that supported residents' pursuit of health and wellness.



Gallup Active Living Study 48 COMMUNITIES IN U.S.

Residents of communities that score highest for "active living environment" (walkability, bike-ability, public transit, parks) have:

- Significantly lower rates of smoking, obesity, diabetes, high blood pressure, high cholesterol, and depression.
- Significantly higher rates of exercise, healthy eating, and fresh produce consumption.





BedZED GREATER LONDON, U.K.

- **84%** of residents feel the community facilities here are better than in their previous neighborhood.
- **65%** know more neighbors than in their previous neighborhood.
- Residents know an average of **20** neighbors by name. The regional average is **8**.



Berkeley Group 6 COMMUNITIES IN U.K.

As compared to benchmark neighborhoods, Berkeley residents reported:

- Greater feelings of safety.
- Greater feeling of belonging to the neighborhood.
- Higher rates of talking regularly to their neighbors.
- Higher likelihood of staying in their neighborhood.



RESIDE Study 73 COMMUNITIES IN AUSTRALIA

For every 10% increase in a new housing development's compliance with "Liveable Neighborhood" design standards, residents were:

- **53%** more likely to walk in their neighborhood.
- **40%** less likely to feel unsafe from crime.
- **14%** more likely to have better mental health.



Selandra Rise VICTORIA, AUSTRALIA

- As compared to previous neighborhoods, residents were more satisfied with:
 - Opportunities to meet people.
 - Walking amenities & parks.
- **41%** attended a social event or activity here in the last year.
- **42%** increased their physical activity after moving in (but **24%** decreased physical activity).



Stockland 40 COMMUNITIES IN AUSTRALIA

- **6/10** residents feel healthier since moving in.
- **63%** are doing more exercise.
- **2/3** of residents have made new friends.
- **75%** feel like they are part of a community.
- Average personal wellbeing score (**79%**) is higher than national average.

Wellness Lifestyle Real Estate Projects & Developers That Have Documented Impacts on Residents

Single Community Studies	
Arbor House NEW YORK, UNITED STATES 124 unit affordable housing building in the South Bronx, New York City. Opened in 2013.	Center for Active Design partnered with Mount Sinai School of Medicine to study health behaviors of residents moving into an affordable housing development with active design features to promote resident health/wellness (as compared to a “control” building without these features). A follow-on study is now underway at Prospect Plaza, another NYC affordable housing complex with similar design features.
BedZED GREATER LONDON, UNITED KINGDOM 100 unit sustainable housing development in the London suburb of Hackbridge. Opened in 2002.	In 2007-2008, BioRegional (the developer of the Beddington Zero Energy Development or BedZED) conducted a study to monitor BedZED’s performance and progress toward its key operational and sustainability aims. The study included a survey of residents, conducted via face-to-face and telephone interviews. Surveys were completed by 71 out of 100 households. The survey used open and closed questions to gather a variety of data on residents’ environmental behaviors (e.g., energy consumption, thermal comfort, water usage, transportation, food, waste), use of various community amenities, and quality of life factors. Selected data points were benchmarked against regional/UK averages.
High Point Breathe-Easy Homes WASHINGTON, UNITED STATES 1,600+ unit affordable and market rate housing redevelopment project in Seattle. Launched in 2003.	The Seattle Housing Authority partnered with University of Washington, county public health officials, and other partners to pioneer the construction of 60 “Breathe-Easy” homes as part of the larger High Point redevelopment project. These homes were built with features to improve air quality and reduce the risk and severity of asthma in children, with an additional investment of only \$5,000-7,000 per housing unit. In 2005-2007, a federal government-funded longitudinal study gathered clinical data from children with asthma in 34 families before and after moving into the Breathe-Easy homes (matched with a second group of 68 local residents who had received previous asthma-control intervention but did not living in Breathe-Easy homes).
Mariposa COLORADO, UNITED STATES 800+ unit affordable and market rate housing redevelopment project near downtown Denver. Phase I opened in 2012.	During the development of Mariposa, the Denver Housing Authority (DHA) conducted a health impact assessment in 2010, which led to the identification of a set of quantifiable indicators to measure health outcomes for project residents. These indicators became part of the Mariposa Healthy Living Index (HLI), used for measuring physical and mental health at both the individual and community levels. DHA conducts annual surveys of Mariposa residents to track changes in these indicators over time; by 2012/2013 (just a few years into the project development), the HLI indicators already showed several positive trends.
Mueller TEXAS, UNITED STATES 2,000+ home community 3mi from downtown Austin. Opened in 2007.	Researchers from Texas A&M university (supported by \$50,000 in grant funding) examined how living in an intentionally-designed walkable and sustainable community influences residents’ physical activity, social interactions, and neighborhood cohesion. Surveys were conducted in 2012-2014 to compare residents’ pre- and post-move behaviors. A new \$2.7 million NIH grant is supporting further study.

Sources: See Appendix E for full documentation and links to the studies and reports from each community or developer.

Selandra Rise VICTORIA, AUSTRALIA 1,300 home community 25mi SE of Melbourne CBD. Opened in 2011.	From 2011-2015, researchers from RMIT University used a pre- and post-move resident survey and structured interviews to study the impacts of putting health at the center of community planning and early delivery of wellness services/infrastructure within the community.
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Developer and Multi-Community Studies	
Berkeley Group UNITED KINGDOM A major UK residential developer with a portfolio of 49 apartment/housing communities (and 11 under development) in London and South of England.	The Berkeley Group partnered with Social Life and University of Reading to measure the “social sustainability” of its new housing and mixed-use developments. Social sustainability measures people’s quality of life (now and in the future) and describes the extent to which a neighborhood supports individual and collective wellbeing. The measurement framework captures multiple indicators across three dimensions: infrastructure & social amenities, voice & influence, and social & cultural life. Data collection was done in 2007-2013 across six Berkeley communities, via in-person interviews and a site survey, with results benchmarked against industry standards and national datasets where possible.
Stockland AUSTRALIA One of the largest diversified property groups and a leading residential developer in Australia. 56 residential communities, 65 established retirement villages, plus retail, office, and business parks.	In 2011, Stockland created its own Liveability Index to measure levels of resident satisfaction in their residential communities. Five subcategories capture areas such as community perceptions, satisfaction with community design elements, personal wellbeing (which can be benchmarked against a nationwide Personal Wellbeing Index), satisfaction with one’s own home, and education. For 2017, Stockland surveyed 2,500 residents across 40 communities to arrive at its Liveability Index score.
RESIDE Study AUSTRALIA Study of 73 new housing developments around Perth, Western Australia. A 10+ year study launched in 2003.	The Western Australia Liveable Neighbourhoods (LN) policy was established in 1998 to guide the development of more compact and sustainable suburban neighborhoods to increase walking, cycling, and public transport use, and to promote a sense of community. The RESIDENTial Environment Project (RESIDE) was launched in 2003 to study the impact of the LN policy on the health and wellbeing of Perth residents in 73 new housing developments built according to LN design codes. Based at the University of Western Australia, RESIDE used a longitudinal study design to assess implementation and impacts of LN on health outcomes. Nearly 2,000 new homeowners moving into these 73 housing developments completed questionnaires 4 times over 9 years, and the project resulted in over 60 scientific publications.
Gallup Active Living Communities Study UNITED STATES Study of the “active living environment” in 48 medium- to large-sized metro areas across the United States. Conducted in 2015.	Gallup and Healthways created an Active Living Score for 48 medium to large Metropolitan Statistical Areas (MSAs) across the United States. The scores were constructed by gathering and analyzing data from publicly-available secondary data sources on 4 key characteristics of the built environment – walkability, bike-ability, parks, and public transit (e.g., Walk Score™ and Park Score™ data). The Active Living scores were then compared with key indicators of community health and wellbeing to assess the relationships between them. Wellbeing data were gathered as part of the Gallup-Healthways Well-Being Index research, via 149,938 telephone interviews conducted with U.S. adults in 2014-2015.

Better metrics are crucial to document and communicate the benefits of wellness communities to residents, planners, builders, and investors.

Creating a wellness “dashboard”

One of the continuing challenges in making the case for wellness lifestyle real estate and communities is the lack of an established system or metrics to measure and document their many benefits and impacts for residents.^{xclv} To date, only a small handful of communities and developers have completed and published findings from such research (*as described in the previous section*). In *Appendix F*, we describe four different research methodologies that can be used to measure health impacts within communities, along with examples of communities that have conducted (or are in the process of conducting) such studies: longitudinal studies, community-based health and wellness impact evaluations, multi-community health and wellness benchmark studies, and health impact assessments.

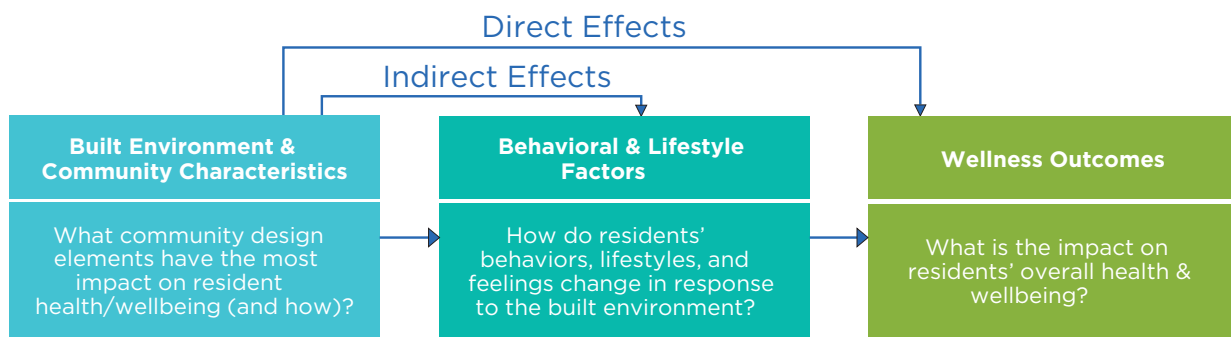
Rigorous scientific studies that aim to link a specific built environment factor to a specific behavior or health outcome require a level of resources, time, and expertise that is not available or practical for most developers and communities. While such studies are highly valuable, demonstrating the many potential impacts of wellness lifestyle real estate and communities does not have to be so

difficult or costly. We already know that our built environment has direct impacts on our health, as well as indirect impacts by influencing our daily choices and activities. So, it would be useful to measure the behaviors and experiences, as well as the wellness outcomes, of people who live in wellness lifestyle real estate and communities.

Below we propose a simple framework for establishing a wellness lifestyle real estate “dashboard” of metrics. This framework captures three key areas of wellness impacts that can be delivered by wellness residential projects: 1) health and wellbeing outcomes, 2) wellness behaviors, and 3) a sense of community. Within each area, we propose a set of sample metrics or indicators, all of which could be collected by surveying or interviewing community residents. The dashboard and indicators could potentially be used for conducting several types of evaluative studies:

- A **pre/post study** to measure residents’ behaviors and health both before and after they move into a wellness community.
- A **time series study** that asks residents the same questions at set intervals to track longer-term, incremental changes – in essence, a “performance monitoring” mechanism, with

Connecting the built environment to wellness behaviors and outcomes



Source: Global Wellness Institute

periodic check-ins to ensure that the wellness community continues to deliver its intended benefits for residents over time.

- A **control study** that compares residents in the wellness community to those in a community without intentional wellness features.
- A **benchmark study** that compares residents' answers on key questions to third-party data at the regional/national level, or across multiple communities – for example, do wellness

community residents perform better than regional/national averages on key wellness indicators? (See Appendix F for a list of some third-party datasets and sources that could be used for this kind of benchmarking.)

Wellness Dashboard: Capturing the Impacts of Wellness Lifestyle Real Estate and Communities

Category 1: Protect and improve our health and wellbeing

Potential Indicators:

- Self-evaluation of general feeling of happiness
- Self-evaluation of overall life satisfaction
- Self-evaluation of personal state of health (excellent, good, fair, poor)
- Frequency of feeling very healthy and full of energy
- Frequency of not getting enough rest or sleep
- Frequency of bad physical health days (including physical illness and injury)
- Frequency of bad mental health days (stress, depression, and problems with emotions)
- Frequency of not being able to engage in normal daily activities, such as self-care, work, or recreation, due to poor physical or mental health
- The types of health problems that limit normal daily activities

Category 2: Support behavioral change and healthier lifestyles

Potential Indicators:

- Healthy eating habits (e.g., meeting recommended nutritional guidelines)
- Daily/weekly consumption of fresh fruits and vegetables
- Time spent walking per day/week
- Time spent on moderate to rigorous physical activities per day/week (e.g., meeting recommended physical activity guidelines)
- Average time spent in the car per day/week
- Use of trails, parks, greenways, waterfronts, etc. for exercise or recreation
- Time spent per day/week in nature or natural settings for relaxation and rejuvenation
- Use of recreational/athletic amenities and services for exercise and recreation (e.g., fitness centers, swimming pools, sports fields, classes, etc.)
- Use of wellness amenities and services (e.g., spa, meditation spaces, etc.)
- Use of preventive health services (e.g., health checkups, recommended screenings, etc.)
- Participation in/frequency of sustainable and green practices (e.g., recycling, composting, using renewable energy, carpooling, use of public transit, CSA participation, gardening, etc.)

Category 3: Foster a sense of place, community, and belonging

Potential Indicators:

- Meaningful friendships and associations with other people in the neighborhood (for both adults and children)
- General friendliness among neighbors, such as regular chatting
- Likelihood/frequency of seeking advice, borrowing something, or socializing among neighbors
- Satisfaction with facilities to socialize with friends, family and neighbors (e.g., community center, parks and playgrounds, other public places)
- Feelings of safety in the neighborhood
- Participation in social events, activities, and meetings within the community
- Willingness to work with others on something to improve the community
- Feeling of empowerment – being “heard” and the ability to influence what is happening in the community
- Feeling of inclusion, that everyone is welcome in the community
- Feeling that individual health/wellness is connected to the sustainability of the environment

How to use the wellness “dashboard”

The dashboard framework proposed above is intended to be modular and flexible. It is designed for conducting an evaluation or benchmark-type study, drawing upon established social science research methodologies (see *Appendix F* for a description of these types of studies). A few simple steps are required to put this dashboard to use:

- Select which categories and indicators are to be studied (not every indicator in the proposed dashboard will be relevant for every wellness lifestyle real estate or community project).
- Determine the study approach: pre/post study, time series study, benchmark study, or control study?
- Determine the data collection methodology: electronic survey, structured interviews, focus groups, or mixed methods?
- Formulate survey/interview questions for each indicator (these will depend upon the study method to be used, and whether questions will be benchmarked against third party data sources).
- Publicize the study/survey and recruit participants.
- Implement study/survey.

This kind of study can easily be conducted by a developer and/or a research partner within a

single neighborhood, building, or community, and would require relatively little financial investment. An even more powerful approach would be for multiple developers/communities to work together and apply the same study/survey approach across multiple projects. As more communities and their developers experiment with different approaches for capturing their wellness impacts, the hard evidence for the wellness case will become clearer over time.

^{lxviii} The continuum concept is adapted from Dr. Jack Travis' Illness-Wellness Continuum. Travis was one of the pioneers of the modern wellness movement in the 1970s.

^{lxix} Institute of Medicine (2006). *Genes, Behavior, and the Social Environment: Moving Beyond the Nature/Nurture Debate*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/11693>.

^{lxxx} For more information on the determinants of health see, for example: 1) WHO, *Health Impact Assessment: The Determinants of Health*, <http://www.who.int/hia/evidence/doh/en/>. 2) U.S. Centers for Disease Control, *NCHHSTP Social Determinants of Health FAQ*, <https://www.cdc.gov/nchhstp/socialdeterminants/faq.html>. 3) ODPHP, *Determinants of Health*, <https://www.healthypeople.gov/2020/about/foundation-health-measures/Determinants-of-Health#biology%20and%20genetics>. 4) Robert Wood Johnson Foundation, *Social*

Determinants of Health, <http://www.rwjf.org/en/our-focus-areas/topics/social-determinants-of-health.html>.
5) Australian Institute of Health & Welfare, *Australia's Health 2016: Determinants of Health*, <http://www.aihw.gov.au/australias-health/2016/determinants/>.

^{lxxxix} Over the last 10-15 years, researchers and public health officials have increasingly emphasized an ecological model of health that captures the complex linkages and relationships among many external factors to determine our health and wellbeing. See Institute of Medicine (2006).

^{lxxxix} Robert Wood Johnson Foundation (2011). *Issue Brief #8: Neighborhoods and Health*. <http://www.rwjf.org/en/library/research/2011/05/neighborhoods-and-health-.html>.

^{lxxxix} Rappaport, S.M. and Smith, M.T. (2010). Environment and Disease Risks. *Science*, 330(6003), 460-461. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4841276/>. See also: U.S. Centers for Disease Control, *Exposome and Exposomics*, <https://www.cdc.gov/niosh/topics/exposome/default.html>.

^{lxxxix} Wu, S., et al (2016). Substantial contribution of extrinsic risk factors to cancer development. *Nature*, 529(7584), 43-47. <https://doi.org/10.1038/nature16166>.

^{lxxxix} These figures likely underestimate the global burden of environmental factors because the analysis excludes some factors such as diet (which is linked with physical environment and access to healthy food options) as well as access to natural environments (e.g., wetlands, lakes). See Prüss-Ustün, A., et al. (2016). *Preventing disease through healthy environments: A global assessment of the burden of disease from environmental risks*. Geneva, Switzerland: WHO Press. http://www.who.int/quantifying_ehimpacts/publications/preventing-disease/en/.

^{lxxxix} Mather, M. and Scommegna, P. (2015). *Up to Half of U.S. Premature Deaths Are Preventable; Behavioral Factors Key*. Population Reference Bureau. <http://www.prb.org/Publications/Articles/2015/us-premature-deaths.aspx>. See also: Institute of Medicine and National Research Council (2015). *Measuring the Risks and Causes of Premature Death: Summary of Workshops*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21656>.

^{lxxxix} Gounder, C. (2016, December 14). How long will you live? That depends on your zip code. *The Guardian*. <https://www.theguardian.com/commentisfree/2016/dec/14/life-expectancy-depends-on-zip-code-inequality>.

Article cites studies by Virginia Commonwealth University (<http://www.societyhealth.vcu.edu/work/the-projects/mapping-life-expectancy.html>) and Institute for Health Metrics and Evaluation, University of Washington, Seattle/Department of Public Health, Erasmus MC, Rotterdam, The Netherlands (<http://jamanetwork.com/journals/jama/fullarticle/2592499>).

^{lxxxix} Institute of Medicine and National Research Council (2013). *U.S. Health in International Perspective: Shorter Lives, Poorer Health*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13497>.

^{lxxxix} Chakma, J., et al (2014). Asia's Ascent — Global Trends in Biomedical R&D Expenditures. *New England Journal of Medicine*, 370(1), 3-6. http://rwjcs.unc.edu/downloads/news/2014/20140102_NEJM.pdf.

^{xc} Institute of Medicine (2000). *Promoting Health: Intervention Strategies from Social and Behavioral Research*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/9939>.

^{xc} GWI analysis of global health expenditures data from: WHO, *Global Health Expenditures Database*, <http://apps.who.int/nha/database/ViewData/Indicators/en>.

^{xcii} See, for example: 1) Kelly, M. and Barker, M. (2016). Why is changing health-related behavior so difficult? *Public Health*, 136, 109-116. <https://doi.org/10.1016/j.puhe.2016.03.030>. 2) Stulburg, B. (2014). The Key to Changing Individual Health Behaviors: Change the Environments That Give Rise to Them. *Harvard Public Health Review*, vol. 2. <http://harvardpublichealthreview.org/wp-content/uploads/2014/10/HPHRv2-Stulberg.pdf>. 3) Kahan, S., et al (2014). *Health Behavior Change in Populations*. Baltimore, MD: Johns Hopkins University Press. <https://jhupbooks.press.jhu.edu/content/health-behavior-change-populations>.

^{xciii} Many literature reviews and studies have documented and measured the relationships between the built environment and people's health behaviors and outcomes. For a list of many of these studies, see the Bibliography.

^{xciv} For more research about the measurement of health and wellness outcomes in real estate projects, see: Trowbridge, M.J., Pickell, S.G., Pyke, C.R., and Jutte, D.P. (2014). Building Healthy Communities: Establishing Health and Wellness Metrics for Use Within the Real Estate Industry. *Health Affairs*, 33(11), 1932-1929. <https://doi.org/10.1377/hlthaff.2014.0654>.

VI. REGIONAL TRENDS AND PIPELINE LIST

The built environment is a critical yet largely unaddressed determinant of our health.

As stated in *Chapter IV*, the Global Wellness Institute has identified 740+ wellness lifestyle real estate projects that are built, partially built, or in development around the world. These projects include master-planned communities; multifamily buildings (apartments and condominiums); urban districts and mixed-use projects; resort/spa/hospitality-based wellness real estate; and other wellness concepts based on eco-communities, co-living, senior living, etc.

In this chapter, we share the key developments and trends in each region of the world, followed by a list of wellness lifestyle real estate projects that we have identified in each region. Regions

are presented in the order of market size, starting with North America. While these figures provide a snapshot of the market as of November 2017, many more projects are in the works and/or being announced every month (and there are certainly more projects than what our research was able to identify).

We hope that this snapshot pipeline can help interested developers, investors, planners, consumers, and researchers understand the scope and variety of wellness real estate projects that exist in the market, and inspire possibilities and innovations yet to come.

KEY TO CODES USED IN WELLNESS REAL ESTATE PIPELINE LISTS

MPC	Master-planned communities
MUUD	Mixed-use projects and urban districts
MUB	Multi-unit residential buildings (apartments, condominiums)
HOSP	Resort/spa/hospitality-based real estate
ECO	Ecovillages and eco-communities combined with wellness elements
OTH	Other wellness-related residential concepts (based on co-living/ co-housing, senior living, spiritually-rooted design practices such as vastu shastra, etc.)

North America

Market Size 2017: \$55 billion

CAGR 2015-2017: 7.0%

Pipeline Projects: 372

North America Key Trends:

- In terms of the sheer volume of projects and residential units, the wellness lifestyle real estate sector is led by the **United States**, which accounts for almost half the projects in the global pipeline. U.S. leadership in this market is driven by its general real estate growth trends (ample buildable land and strong population growth), along with growing awareness of the negative consequences of sprawl and auto-centric growth over the last century. In the 1990s and early-2000s, early experimental and innovative wellness community projects were scattered all over the country; however, in the last decade, a rapid proliferation of projects has occurred in the “Sun Belt” states (Arizona, Texas, Florida, South Carolina, Georgia, etc.), where wellness-focused design, facilities, and amenities have increasingly become a differentiating selling point for large-scale master-planned communities and urban/suburban mixed-use projects in these especially competitive and high-growth real estate markets. These projects continue to be diverse and innovative in their design, amenities, and marketing themes.
- The United States originated the concept of “agrihoods” (planned communities built around farms), a concept that has grown rapidly in the United States but has not yet taken off in other countries. As described elsewhere in this report, the United States has also been a leader in experimenting with new urban design and planning concepts (New Urbanism); launching wellness-related residential/community certification schemes (WELL™, Fitwel™, Living Communities, etc.); innovating new senior living concepts, and bringing healthy/active design into affordable housing (through Center for Active Design, Fannie Mae Healthy Housing Rewards™ program, and a variety of municipal housing authorities).
- Many organizations in the United States have been supporting the development of this sector through thought-leadership, research, and on-the-ground programs, including the Robert Wood Johnson Foundation, Urban Land Institute, Center for Active Design, International WELL Building Institute, Knight Foundation, U.S. Centers for Disease Control and Prevention, American Planning Association, Project for Public Spaces, Harvard Center for Health and the Global Environment’s Healthy Buildings Program, and many others.

Asia-Pacific

Market Size 2017: \$47 billion

CAGR 2015-2017: 7.3%

Pipeline Projects: 293

Asia-Pacific Key Trends:

- Alongside the United States, **Australia** has been a trailblazer for the development of wellness lifestyle real estate. Australia's growth is driven by similar trends as the United States (population growth, ample land for development, concerns about sprawl), but has also been different than that of the United States – in a sense more centralized, organized, and larger-scale, and with greater guidance from public policy and nonprofits. Australia's wellness lifestyle real estate market started in the early-2000s and has ramped up dramatically in the last five years, with a large number of medium- to large-scale suburban mixed-use and master-planned communities being developed by large, national development companies in every major metropolitan market across the country. These developments have a greater focus on sustainability than in the United States and tend to have more commonalities in their design and amenities (with less experimentation and innovation than we see in U.S.-based projects).
- For two decades, Australian governments have been actively involved in the sector at all levels (national/state/local), working closely with nonprofits, to provide guidance, policies, and research/evidence base – such as the 1998 Western Australia Liveable Neighbourhoods policy; the Healthy Active by Design/Healthy Places & Spaces initiative starting in 2007/2008 (a joint initiative of Australia Heart Foundation, Planning Institute of Australia, and Australia Local Government Association, with national government funding); and a variety of research studies conducted by developers, RMIT University, and other institutions (as described elsewhere in this report). As further evidence for the popularity of this topic in Australia, there is even a “Healthy Homes Australia” television program.^{xcv}
- In Asia, **China** has a rapidly growing number of wellness lifestyle real estate projects in its development pipeline and is poised for robust future growth driven by its growing middle/upper class and rising concerns about unhealthy urban pollution and sprawl. **India** is similarly positioned for strong growth but is less far along than China in terms of its development pipeline, but media and developer interest in healthier homes has rapidly emerged in recent years. Developments in these countries are taking several forms: 1) higher-end, mixed-use, master-planned developments in rapidly-growing urban/suburban regions; 2) luxury multi-family high-rise buildings in large urban centers (which are more likely to use formal wellness/sustainability certification schemes); 3) luxury vacation/second homes built as part of wellness resorts and destination spas; 4) co-living style projects that appeal to young singles living in cities.
- Similar growth trends are occurring in Southeast Asia (notably **Malaysia**, **Singapore**, and **Vietnam**), including a growing number of master-planned, mixed use, and urban high-rise developments. These and other Asian countries with a strong wellness tourism sector (e.g., **Indonesia** and **Thailand**) are also growing in the resort-based wellness lifestyle real estate segment.

Europe

Market Size 2017: \$32 billion

CAGR 2015-2017: 4.5%

Pipeline Projects: 61

Europe Key Trends:

- The **United Kingdom** has been another leading country in the growth of wellness lifestyle real estate – less in terms of the number of projects and more in terms of thoughtful and innovative planning and public policy approaches to improving built environments (the country's legacy in this space goes back the early-/mid-20th century Garden Cities and New Towns movements). Recently, the important linkages between living environments and health outcomes have become a topic of national focus, spurring the launch of the NHS England Healthy New Towns initiative in 2016,^{xcvi} and an All-Party Parliamentary Group to study and highlight health and cost impacts of healthy homes and buildings,^{xcvii} as well as a variety of efforts through the Prince's Foundation for Building Community and other organizations. British developers and organizations have also been leading innovators in developing sustainable healthy communities (BioRegional and One Planet Living), integrating health services into community design (Llanelli Wellness Village in Wales), and in measuring the linkages between home/community design and health/wellbeing (Berkeley Group, Happy City, What Works Centre for Wellbeing, BRE Group, UK Office for National Statistics, and others).
- Until recently, the cities and towns in most of **Europe** had avoided the unhealthy sprawl and development patterns seen in the United States during the 20th century, largely maintaining their walkability, public transit, and community-focused amenities and character. This is due to the fact that there is less open buildable land and slower population growth in most densely-populated European countries, and the development that does occur tends to be more closely regulated. There has been a strong focus in Europe on healthy/active built environments, but via public policy initiatives (e.g., WHO European Healthy Cities network, launched in 1987^{xcviii}) and infrastructure initiatives (e.g., efforts in Copenhagen and Amsterdam to build bicycle-friendly infrastructure since the 1970s^{xcix}) in existing communities rather than via greenfield residential building. Recently, new residential projects tend to be positioned around environmentalism or New Urbanism rather than health and wellness.
- Europe has long been a pioneer in innovative intentional living concepts that overlap with wellness lifestyle real estate. Co-housing (with an emphasis on social relationships among neighbors, large communal/shared amenities, and community-building) originated in Northern Europe in the 1960s. Today there are hundreds of co-housing communities in Denmark, Netherlands, and other European countries. Although these traditional European co-housing developments are not counted as part of the wellness lifestyle real estate pipeline, they are closely linked and have influenced modern wellness-related spinoff concepts such as senior co-housing and the newer amenity-laden urban co-living projects targeting Millennials in major cities in the United States, China, India, and elsewhere.
- Outside the UK, the European projects appearing in the wellness lifestyle real estate development pipeline reflect a variety of smaller-scale, experimental approaches focused on sustainable/regenerative living (e.g., ReGen Villages in Netherlands), healthy/sustainable urban development (e.g., Utrecht Healthy Urban Quarter/Wonderwoods in Netherlands, Muižas Nami in Latvia), innovative human-centered architecture (e.g., Bjark Ingels' Mountain Dwellings and 8 House in Denmark, Bosco Verticale in Italy), as well as co-housing/co-living. With American-style auto-centric sprawl on the rise in Europe over the last decade, as well as heightening concerns about chronic disease, loneliness/alienation, and unhealthy lifestyles, we expect to see growth in all of these areas in the coming years. There is also opportunity for Europe's historic spa towns to redevelop and reposition themselves as healthy living communities (although to date the focus for these redevelopment projects has been on tourism).

Latin America-Caribbean

Market Size 2017: \$0.4 billion
CAGR 2015-2017: 2.1%
Pipeline Projects: 12

Latin America-Caribbean Key Trends:

- The wellness lifestyle real estate market is nascent in Latin America. There are a few resort-based wellness living projects in **Mexico** and **Costa Rica** (mostly still in the development phase). In Bogota, **Colombia**, former mayor Enrique Peñalosa has been widely lauded for his efforts to transform the city's infrastructure, built environment, and policies with the aim of making residents happier.^c In response to rapid urbanization and sprawl, there is also growing attention on healthy built environments at the public policy and research level in countries across the continent.^{ci}

Middle East-North Africa

Market Size 2017: \$0.5 billion
CAGR 2015-2017: 5.2%
Pipeline Projects: 5

Middle East-North Africa Key Trends:

- The wellness lifestyle real estate market in the Middle East is only recently emerging, with a handful of projects in **Dubai** that are linked to the large-scale Dubai Healthcare City and Dubai Sustainable City initiatives. There is significant and growing interest in health/wellness as a differentiating feature in the region's competitive real estate market, and we expect to see a number of new projects in the coming years at the luxury end of the market, including multi-family housing, urban mixed-use developments, and resort-based wellness residences. These projects are also more likely to seek out international wellness certifications/ratings. Dubai has recently been focusing on quality of life and happiness of its citizens via the Dubai Happiness Agenda, but these efforts are primarily focused on public policy and smart city infrastructure rather than purpose-built real estate.^{cii}

Sub-Saharan Africa

Market Size 2017: \$0.1 billion
CAGR 2015-2017: 3.4%
Pipeline Projects: 6

Sub-Saharan Africa Key Trends:

- In Africa, wellness lifestyle real estate is just starting to garner interest in South Africa, with a small handful of mixed-use development projects adding healthy and active design features and amenities. In 2016, the Green Building Council of South Africa launched a Green Star Sustainable Precincts Tool for certifying sustainable/healthy communities, with eight pilot projects committed to pursuing certification.^{ciii} There has also been some focus on building healthier communities in selected cities across Africa via the WHO's Healthy Cities network and the Healthy Cities CityLab program, but these have primarily been public policy and research-focused efforts.^{civ}

North America Wellness Lifestyle Real Estate Pipeline List (November 2017)

UNITED STATES

Alabama

- Hampstead, MPC, <http://www.hampsteadliving.com/>
- Mt. Laurel, MPC, <https://www.mtlaurel.com/>
- The Preserve, MPC, <http://www.hooverpreserve.com/>
- Trussville Springs, MPC, <http://www.trussvillesprings.com/>
- The Waters, MPC, <http://thewatersal.com/>
- Woodlawn Neighborhood, MUUD, <http://woodlawnunited.org/>

Arizona

- Agritopia, MPC, <http://agritopia.com/>
- Canyon Ranch Living Tucson, HOSP, <https://www.canyonranch.com/tucson/overview/living-community/>
- DC Ranch, MPC, <http://www.dcranch.com/>
- Eastmark, MPC, <http://www.eastmark.com/>
- Marley Park, MPC, <http://marleypark.com/>
- Power Ranch, MPC, <http://powerranch.com/>
- Rancho Sahuarita, MPC, <https://ranchosahuarita.com/>
- Verrado, MPC, <http://www.verrado.com/>
- Vistancia, MPC, <http://vistancia.com/>

Arkansas

- Eco-Modern Flats, MUB, <http://ecomodernflats.com/>

California

- 4S Ranch, MPC, <http://www.4sconnect.com/>
- Academy Square Residential, MUB, URL N/A
- Aegis Gardens, OTH, <https://www.aegisliving.com/aegis-living-of-aegis-gardens/>
- Armstrong Place, MUB, <https://casestudies.uli.org/armstrong-place/>
- Avenue 34, MUB, URL N/A
- Burbank Senior Artists Colony, OTH, <http://www.seniorartistscolony.com/>
- The Cannery, MPC, <https://livecannerydavis.com/>
- Columbia Square Tower, MUB, <http://www.columbiasquare.com/>
- Crest Apartments, MUB, <http://www.mmaltzan.com/projects/crest-apartments/>
- Fountaingrove Lodge, OTH, <https://fountaingrovelodge.com/>
- Glacier Circle Senior Community, OTH, https://localwiki.org/davis/Glacier_Circle_Senior_Community
- Glen Ivy Hot Springs/Goco Retreat Temascal Valley, HOSP, <http://gocohospitality.com/goco-retreat-temescal-valley>
- Great Park Neighborhoods, MPC, <https://www.greatparkneighborhoods.com/>
- Harvest at The Preserve, MPC, <http://www.harvestcommunities.com/>
- Kendal Sonoma, OTH, <http://www.kendal.org/sonoma/>
- Ladera Ranch, MPC, <https://www.laderalife.com/>
- Long Beach Senior Arts Colony, OTH, <http://lbseniorartscolony.com/>
- Los Valles, MPC, <http://losvalleslife.com/>

- Meadowbrook, MUB, <http://www.vitusgroup.com/meadow-brook>
- Miralon, MPC, <http://discovermiralon.com/>
- New Carver Apartments, MUB, <http://www.mmaltzan.com/projects/new-carver-apartments/>
- New Genesis Apartments, MUB, <https://americas.uli.org/wp-content/uploads/sites/125/ULI-Documents/New-Genesis-Apartments.pdf>
- Newland Sierra, MPC, <http://www.newlandsierra.com/>
- NoHo Senior Arts Colony, OTH, <http://www.nohoseniorartscolony.com/>
- Oasis Wellness Village, MUUD, <http://www.oasiswellnessvillage.com/>
- Ollie Co-living - Los Angeles, OTH, <http://www.ollie.co/los-angeles>
- Open Door Co-living-Euclid Manor, OTH, <http://opendoor.io/>
- Open Door Co-living-The Canopy, OTH, <http://opendoor.io/>
- Open Door Co-living-The Farmhouse, OTH, <http://opendoor.io/>
- Outsite Lake Tahoe, OTH, <https://outsite.co/>
- Outsite San Diego, OTH, <https://outsite.co/>
- Outsite Santa Cruz/GH, OTH, <https://outsite.co/>
- Outsite Santa Cruz/OX, OTH, <https://outsite.co/>
- Outsite Venice Beach, OTH, <https://outsite.co/>
- Peninsula Wellness Community/Peninsula Health Care District, MUUD, <http://www.peninsulahealthcaredistrict.org/peninsula-wellness-community/>
- Phoenix Commons, OTH, <http://www.phoenixcommons.com/>
- Potters Lane, MUB, <http://www.afhusa.org/potterslane.php>
- Rainbow Apartments, MUB, <http://www.mmaltzan.com/projects/rainbow-apartments/>
- Rancho Mission Viejo, MPC, <http://ranchomissionviejo.com/>
- Roam San Francisco, OTH, <https://www.roam.co/>
- Sage, MPC, <http://www.sagelivermore.com/>
- Shady Trails, MPC, <http://www.shadytrails.com/>
- SOMO (Sonoma Mountain Village), MUUD, <https://somovillage.com/>
- Spring Mountain Ranch, MPC, <https://springmountainranch.com/>
- Star Apartments, MUB, <http://www.mmaltzan.com/projects/star-apartments/>
- Tassafaronga Village, MUB, http://www.dbarchitect.com/project_detail/2/Tassafaronga%20Village.html
- Ten Thousand Residence, MUB, <http://robbreport.com/lifestyle/health-wellness/beverly-hills-ten-thousand-residence-elite-wellness-program-2713372/>
- Village Homes, ECO, <http://www.villagehomesdavis.org/>
- Weston, MPC, <http://www.westoncommunity.com/>
- Wolf Creek Lodge, OTH, <http://www.wolfcreeklodge.org/>

Colorado

- Adams Crossing, MPC, <http://www.adamscrossingcolorado.com/>
- Anthem Colorado, MPC, <http://www.anthemcolorado.com/>
- Aria Denver (Apartments/Townhomes/Co-housing), MUB, <http://www.ariadenver.com/>
- Bucking Horse (and Jessup Farm Artisan Village), MPC, <http://www.buckinghorseneighborhood.com/>
- The Canyons, MPC, <http://www.thecanyonsliving.com/>
- Frasier Meadows, OTH, <http://www.frasiermeadows.org/>
- Gold Hill Mesa, MPC, <http://www.goldhillmesa.com/>
- Inspiration Colorado, MPC, <http://www.inspirationcolorado.com/>
- Lakehouse on 17th, MUB, <http://lakehouse17.com/>
- Mariposa, MUUD, <http://www.mariposadenver.com/>
- NAVA Uptown Condos, MUB, URL N/A

- Pateros Creek, MPC, <http://www.bellisimoinc.com/projects/pateros-creek>
- Silver Leaf Co-housing, OTH, <http://silverleafco-housing.com/>
- Silver Sage Village, OTH, <http://silversagevillage.com/>
- Sterling Ranch, MPC, <http://sterlingranchcolorado.com/>

Connecticut

- Metro Green Terrace, MUB, <http://www.rosecompanies.com/projects/metro-green-terrace/>
- Squire Village, MUB, <http://www.rosecompanies.com/projects/squire-village/>

Florida

- 1 Homes South Beach, MUB, <http://www.1homessb.com/southbeach/>
- Amrit Ocean Resort & Residences, HOSP, <http://www.amritocan.com/>
- Arden, MPC, <https://ardenfl.com/>
- Ascend Miami, MUB, URL N/A
- Avalon Park Village, MPC, <http://avalonparkvillage.com/>
- Aventura Park Square, MUB, <http://www.aventuraparksquare.com/>
- Babcock Ranch, ECO, <https://www.babcockranch.com/>
- Bexley, MPC, <http://www.bexleyflorida.com/>
- Carillon Condos (formerly Canyon Ranch Miami Beach), MUB, <http://www.carilloncondos.com/>
- Chiefland Astronomy Village, OTH, <https://chiefland.com/chiefland-astronomy-village>
- Connected City Florida, MUUD, <http://www.connectedcity.metrodevelopmentgroup.com/>
- The District JAX, MUUD, <http://www.thedistrictjax.com/>
- Eighty-Seven Park, MUB, <http://www.eightysevenpark.com/>
- Elysee, MUB, <https://elyseemiami.com/>
- Epic Residences, MUB, <http://www.epicresidences200biscayne.com/>
- FishHawk Ranch, MPC, <http://www.fishhawkranch.com/>
- The Grow, MPC, <http://lifeatthegrow.com/>
- Harmony, MPC, <http://harmonyfl.com/>
- Harmony at Lake Eloise, MPC, <http://www.winterhavenchamber.com/blog/update-on-harmony-on-lake-eloise>
- Lake Nona, MPC, <http://www.lakenona.com/>
- Lake Weir Preserve, OTH, <http://www.lakeweirliving.com/community/lake-weir-preserve/>
- Latitude Margaritaville Florida, OTH, <https://www.latitudemargaritaville.com/>
- Mandala Village & Resort, OTH, <https://www.mandalavillage.com/>
- Muse Residences, MUB, <http://www.museresidences.com/>
- New River Township, MPC, <http://www.avalonparkgroup.com/portfolio/master-planned-communities/new-river-township/>
- Oakland Park, MPC, <https://www.liveatoaklandpark.com/>
- One River Point, MUB, <http://www.oneriverpointcondomiami.com/>
- Pine Dove Farm, MPC, <http://pinedovefarm.com/>
- Roam Miami, OTH, <https://www.roam.co/>
- ShantiNiketan Village Florida, OTH, <https://www.shantiniketan-us.com/>
- Shearwater, MPC, <https://shearwaterliving.com/>
- Starkey Ranch, MPC, <http://starkeyranch.com/>
- Tampa Well-Certified City District, MUUD, <http://plus.usgbc.org/living-well/>
- The Villages, OTH, <https://www.thevillages.com/>
- Waterset, MPC, <http://www.watersetfl.com/>
- West Palm Beach Open Shore, MUUD, http://www.cladglobal.com/architecture_design_news?codeid=331836
- Winthrop, MPC, <http://www.winthropusa.com/>

Georgia

- Abernathy Towers, MUB, <http://www.vitusgroup.com/vitus-group-maintains-affordability-of-99-housing-units-in-atlanta/>
- East Lake Commons, OTH, <http://www.eastlakecommons.org/>
- No.2 Opus Place, MUB, <http://opusplaceatlanta.com/>
- Paradise East Apartments, MUB, <http://www.vitusgroup.com/vitus-maintains-affordability-of-176-housing-units-for-low-income-residents-in-atlanta/>
- Pinewood Forrest, MPC, <http://www.pinewoodforrest.com/>
- Serenbe, MPC, <http://www.serenbe.com>
- Sterling on the Lake, MPC, <http://www.sterlingonthelake.com/>
- Vickery Village, MPC, <http://hedgewoodhomes.com/vickery-village-case-study>

Hawaii

- Banyan Street Manor, MUB, <http://www.vitusgroup.com/featured/>
- Kukui'ula, HOSP, <https://kukuiula.com/>
- Lokahi Apartments, MUB, <http://www.vitusgroup.com/featured/>
- Outsite Hawaii, OTH, <https://outside.co/>

Idaho

- Avimor, MPC, <http://www.avimor.com/>
- Cartwright Ranch at Hidden Springs, MPC, <http://www.cartwrightranchidaho.com/>
- Hidden Springs, MPC, <http://www.hiddensprings.com/>
- Northwood Place, MUB, <http://www.vitusgroup.com/idaho-affordable-housing-joject/>

Illinois

- Essex on the Park, MUB, <http://rentessex.com/>
- H.O.M.E Chicago, OTH, <https://www.homeseniors.org/>
- The Imagine Project Bronzeville, MUUD, <https://www.imaginedevchicago.com/>
- Prairie Crossing, MPC, <http://prairiecrossing.com/>
- Prairie Trail, MPC, <http://www.prairietrailankeny.com/>
- Uptown Normal Living Community Challenge, MUUD, <http://www.normal.org/DocumentCenter/View/6839>
- Vermilion Gardens, MUB, <http://www.vitusgroup.com/vitus-group-maintains-affordability-of-223-housing-units-in-danville-ill/>

Indiana

- Avondale Meadows, MUUD, <https://purposebuiltcommunities.org/our-network/indianapolis-avondale-meadows/>

Iowa

- Maharishi Vedic City, OTH, <https://www.maharishivediccity-iowa.gov/>
- The Views Senior Living of Marion, OTH, <http://www.viewsseniorliving.com/?page/300914/marion>

Kansas

- Prairie Commons, MPC, <http://www.commondevelopment.net/>

Kentucky

- Guardian Court, MUB, <http://www.vitusgroup.com/vitus-acquires-guardian-court-apartments-initiates-full-rehabilitation-project/>

Louisiana

- Bayou District, MUUD, <http://bayoudistrictfoundation.com/>
- Holy Cross School Redevelopment Living Community Challenge, MUUD, http://www.theadvocate.com/new_orleans/news/politics/article_5c547684-52a0-11e7-b428-9f9f57613f07.html
- Teche Ridge, MPC, <http://techeridge.com/>
- Terra Bella Village, MPC, <http://terrabellavillage.com/>

Maine

- The Cedars Portland, OTH, <http://www.thecedarsportland.org/>

Maryland

- The Blairs District, MUUD, <http://www.blairapartments.com/>
- The Pearl, MUB, <https://liveatthepearl.com/>
- Fox Hills Club, OTH, <http://foxhillresidences.com/>

Massachusetts

- Canyon Ranch Living Berkshires, HOSP, <https://www.canyonranch.com/lenox/overview/the-residences/>
- Fuse Cambridge, MUB, <http://www.fusecambridge.com/>
- Lasell Village, OTH, <http://www.lasellvillage.org/>
- Mosaic Commons, OTH, <http://mosaic-commons.org/>
- The Pinehills, MPC, <http://www.pinehills.com/>

Minnesota

- Century North Apartments, MUB, <http://www.vitusgroup.com/vitus-group-ensures-177-units-of-st-paul-area-apartments-remain-affordable/>
- Destination Medical City Rochester, MUUD, <https://dmc.mn/>
- Rose Apartment Building, MUB, <http://www.therosempls.com/>

Mississippi

- Tradition, MPC, <http://traditionms.com/>

Missouri

- Norterre Healthy Living Community, MUUD, <http://norterre.org/>

Nebraska

- Seventy Five North, MUUD, <http://www.seventyfivenorth.org/>

Nevada

- Elysian at the District, MUB, <https://www.elysianatthedistrict.com/>
- Harvest at Damonte Ranch, MUB, <https://lewisgroupofcompanies.com/news/welcome-to-harvest-at-damonte-ranch/>
- Inspirada, MPC, <http://inspirada.com/>
- Skye Canyon, MPC, <http://www.skyecanyon.com/>

New Jersey

- 100 Colden Street, MUB, URL N/A
- The Clarus, MUB, <https://clarusmaplewood.com/>
- Jersey City Urby, OTH, <https://jerseycityurby.com/>
- Ollie Co-living - Jersey City, OTH, <http://www.ollie.co/journal-square>
- Third and Valley Apartments, MUB, <https://www.thirdandvalleyapts.com/>

New Mexico

- Acequia Jardin, OTH, <https://acequiajardin.com/>
- Casitas de Colores, MUB, <http://www.casitasdecolores.net/>
- Rainbow Vision, OTH, <http://www.rainbowvisionsantafe.com/>
- Sand River Co-housing, OTH, <http://www.sandriver.org/>
- Sterling Downtown, MUB, <https://wellonline.wellcertified.com/project-profiles/sterling-downtown>
- Valverde Commons, OTH, <http://valverdecommons.com/>

New York

- 1 Seaport, MUB, <https://1seaport.com/>
- 111 Murray, MUB, <http://111murray.com/>
- 15 Central Park West, MUB, <http://15centralparkw.com/>
- 21 West 20th Street, MUB, <http://www.21w20.com/>
- 520 West 28th Street, MUB, <http://www.520w28.com/>
- 525 West 52nd Street, MUB, <http://www.525w52nd.com/>
- 66 E 11th St., MUB, <https://www.thecut.com/2016/09/when-the-wellness-trend-collides-with-luxury-real-estate.html>
- Arbor House, MUB, <http://greenhomenyc.org/building/arbor-house/>
- ARC, MUB, <http://arclivinglic.com/>
- Caesura, MUB, <http://www.caesurabk.com/>
- Citizen 360 Condo, MUB, <http://citizen360.com/>
- Commonsplace, OTH, <http://www.commonspace.io/>
- Duchess Farm, MPC, <http://www.duchessfarm.com/>
- EcoVillage Ithaca, ECO, <http://ecovillageithaca.org/>
- The Eugene, MUB, <http://theeugenenyc.com/>
- Gotham West, MUB, <https://www.gothamorg.com/gotham-west/>
- Gowanus Green, MUB, <http://www.rosecompanies.com/projects/gowanus-green/>
- The Grande at Skyview Parc, MUB, <http://thegrandsvp.com/en/index.php>
- Manhattan House/Exhale Spa, MUB, <http://www.manhattanhouse.com/index.php>
- The Melody, MUB, <https://centerforactivedesign.org/melody/>
- Ollie Co-living - Kips Bay, OTH, <http://www.ollie.co/new-york/carmel-place>
- Ollie Co-living - Long Island City, OTH, <http://www.ollie.co/new-york/long-island-city>
- Outsite NYC Brooklyn, OTH, <https://outsite.co/>
- The Pierrepont, MUB, <http://thepierrepontbk.com/>
- The Prelude at Brookfield Commons, MUB, <http://www.rosecompanies.com/projects/prelude-brookfield-commons/>
- Prospect Plaza, MUB, <http://www.dattner.com/portfolio/prospect-plaza/>
- Pure House, OTH, <http://purehouse.org/>
- Quarters New York, OTH, <https://goquarters.com/o/new-york>
- Sendero Verde, MUB, <http://www.rosecompanies.com/projects/sendero-verde/>
- Sky at 605 West 42nd St, MUB, <http://liveatsky.com/>
- Staten Island Urby, OTH, <http://www.urbystatenisland.com/>
- Steiner East Village, MUB, <https://www.steinereastvillage.com/retreat>
- Via Verde, MUB, <http://www.rosecompanies.com/all-projects/via-verde-the-green-way>
- We Live NYC, OTH, <https://www.welive.com/nyc>

North Carolina

- Briar Chapel, MPC, <http://www.briarchapelnc.com/>

- Chapel Cove, MPC, <https://www.chapelcove.com/>
- Elderberry Co-housing, OTH, <http://www.elderberryco-housing.com/>
- Farmstead at Granite Quarry, MPC, <http://farmsteadnc.com/>
- Forest Ridge, MPC, <https://www.liveatforestridge.com/>
- French Broad Crossing, MPC, <http://www.frenchbroadcrossing.com/>
- Heavenly Mountain, OTH, <http://www.heavenlymountain.net/>
- Legacy at Jordan Lake, MPC, <https://legacyjordanlake.com/>
- Olivette, MPC, <http://olivettenc.com/>
- Renaissance West, MUUD, <http://www.rwci.org/>
- RiverLights, MPC, <http://www.riverlightsliving.com/>
- Village Hearth Co-housing, OTH, <http://www.villagehearthco-housing.com/>
- Village of Cheshire, MPC, <http://www.villageofcheshire.com/>
- Villages at Crest Mountain, ECO, <https://www.villagesatcrest.com/>
- Wendell Falls, MPC, <http://www.wendellfalls.com/>
- Wetrock Farm, MPC, <http://www.wetrockfarm.com/>

Ohio

- Aberlin Springs, MPC, <https://aberlinsprings.com/>
- Healthy Homes Columbus, MUB, <http://www.healthyhomesco.org/healthy-homes/>
- Judson Manor, OTH, <https://www.judsonsmartliving.org/judson-manor/>
- Near East Side/PACT, MUUD, <http://eastpact.org/>

Oklahoma

- Carlton Landing, MPC, <http://www.carltonlanding.com/>
- Oakcreek Community, OTH, <https://www.oakcreekstillwater.com/>

Oregon

- 3rd Street Corridor Living Community Challenge, MUUD, <https://living-future.org/wp-content/uploads/2016/11/Bend-Oregon-LC-Pilot-Project.pdf>
- Cathedral Gardens, MUB, <http://www.vitusgroup.com/featured/>
- Emerson Street Community Living Community Challenge, MUUD, <https://living-future.org/lcc/case-studies/emerson-street-community/>
- New Columbia, MUB, <http://www.homeforward.org/development/property-developments/new-columbia>
- Northwest Crossing, MPC, <https://www.northwestcrossing.com/>
- PDX Commons, OTH, <https://pdxcommons.com/>
- Pringle Creek, MPC, <http://pringlecreek.com/>
- Reeds Crossing, MPC, <http://www.newlandco.com/newland-communities/our-communities/reeds-crossing/>
- Villebois, MPC, <http://villebois.com/>
- Wilder Newport, MPC, <http://www.wildernewport.com/>

Pennsylvania

- The Century Building, MUB, <http://www.centuryon7th.com/>
- Four Freedoms and Phillip Murray Houses, MUB, <http://www.vitusgroup.com/vitus-group-preserves-590-affordable-housing-units-in-philadelphia/>
- Ollie Co-living - Pittsburgh, OTH, <http://www.ollie.co/pittsburgh>
- Paseo Verde, MUB, <http://www.paseoverdeapts.com/>
- Sadsbury Park, MPC, <http://sadsburyparkpa.com/>
- Village at Valley Forge, MUUD, <http://www.villageatvalleyforge.com/>

Puerto Rico

- Outsite Puerto Rico, OTH, <https://outside.co/>

South Carolina

- AyurHome, OTH, URL N/A
- Cane Bay Plantation, MPC, <http://cane-bay.com/>
- The Cliffs, MPC, <https://cliffsliving.com/>
- Habersham, MPC, <http://habershamsc.com/>
- Hartness, MPC, <http://hartnessliving.com/>
- l'On Village, MUUD, <http://www.ionvillage.com/>
- Latitude Margaritaville Hilton Head, OTH, <https://www.latitude margaritaville.com/>
- Masons Bend, MPC, <https://www.masons bend.com/>
- Paddlers Cove, MPC, <https://www.liveatpaddlerscove.com/>
- Palmetto Bluff, MPC, <https://www.palmettobluff.com/>
- Summers Corner, MPC, <http://www.summerscorner.com/>

Tennessee

- Durham Farms, MPC, <https://durhamfarmsliving.com/>
- Jackson Walk, MUUD, <http://jacksonwalk.com/>
- Lockwood Glen, MPC, <https://www.lockwoodglen.com/>
- Nichols Vale, MPC, <https://www.nicholsvale.com/>
- Rocinante, OTH, <http://www.nytimes.com/2007/04/06/travel/escapes/06retire.html>
- Westhaven, MPC, <https://westhaventn.com/>

Texas

- 1221 Broadway, MUB, <http://www.1221broadway.com/>
- Alliance Town Center, MUUD, <http://www.alliancetowncenter.com/>
- Atlas, MUUD, <http://www.atlastx.com/>
- Belterra, MPC, <http://www.belerratexas.com/>
- Bridgeland, MPC, <http://bridgeland.com/>
- Bryson, MPC, <https://www.liveatbryson.com/>
- Canyon Falls, MPC, <http://www.canyonfallstx.com/>
- The Canyon in Oak Cliff, MPC, <http://thecanyonoakcliff.com/>
- Castle Hills, MPC, <http://castlehills.com/>
- Cross Creek Ranch, MPC, <https://www.crosscreektexas.com/>
- Dellrose, MPC, <http://www.dellrosliving.com/>
- Easton Park, MPC, <http://www.eastonparkatx.com/>
- Edgewater, MPC, <https://www.edgewaterwebster.com/index>
- Elyson, MPC, <http://www.elyson.com/>
- Escapees CARE, OTH, <http://www.escapeescare.org/>
- Fairway Farms, MPC, <https://empirecommunities.com/community-page/fairway-farms/>
- Frisco Station, MUUD, <http://friscostation.com/>
- Grand Central Park, MPC, <https://www.grandcentralparktx.com/>
- The Groves, MPC, <http://www.thegrovestx.com/>
- Hall Arts Residences, MUB, <http://www.hallartsresidences.com/>
- Harmony Houston, MPC, <https://www.harmony-houston.com/>
- Harvest, MPC, <http://www.harvestbyhillwood.com/>
- Harvest Green, MPC, <https://www.harvestgreentexas.com/>
- Headwaters, MPC, <https://liveheadwaters.com/>

- Hollyhock, MPC, <http://www.hollyhocktx.com/>
- Homestead, MPC, <https://livehomesteadtx.com/>
- Jordan Ranch, MPC, <https://www.jordanranchtexas.com/>
- Life Time Living, OTH, <https://www.dallasnews.com/business/retail/2017/06/30/first-look-huge-life-time-athletic-coming-midtown-development-valley-view-site>
- Light Farms, MPC, <http://lightfarmstx.com/>
- Lilyana, MPC, <https://www.lilyanabyhillwood.com/>
- Mueller, MPC, <http://www.muelleraustin.com/>
- NorthGrove at Spring Creek, MPC, <http://northgrovetx.com/>
- Oaks at San Gabriel, MPC, <http://www.oaksatsangabriel.com/>
- Orchard Ridge, MPC, <https://liveorchardridge.com/>
- Pecan Square, MPC, <http://www.pecansquarebyhillwood.com/>
- Phillips Creek Ranch, MPC, <http://www.phillipscreek ranchtx.com/>
- Pomona, MPC, <http://www.pomonabyhillwood.com/>
- Rancho Sienna, MPC, <http://www.ranchosienna.com/>
- Renaissance Heights, MUUD, <https://purposebuiltcommunities.org/our-network/fort-worth-renaissance-heights/>
- Riverstone, MPC, <https://www.riverstone.com/>
- Rough Hollow Lakeway, MPC, <http://roughhollowlakeway.com/>
- ShantiNiketan Village Dallas, OTH, <https://shantiniketan.us/dallas/>
- ShantiNiketan Village Houston, OTH, <https://shantiniketan.us/houston/>
- Sienna Plantation, MPC, <https://www.siennaplantation.com/>
- Sweetwater, MPC, <http://www.sweetwaterliving.com/>
- Teravista, MPC, <http://www.teravista.com/>
- Trinity Falls, MPC, <https://www.trinityfalls.com/>
- Tucker Hill, MPC, <https://tuckerhilltx.com/>
- Union Park, MPC, <http://www.unionparkbyhillwood.com/>
- Urban Commons, MPC, <http://urbancommons.live/>
- Valley Ranch/Vivacity Medical District, MPC, <https://www.valley-ranch.com/>
- Veranda, MPC, <https://www.verandatexas.com/>
- Viridian, MPC, <https://www.viridiandfw.com/>
- Walsh, MPC, <http://walshtx.com/>
- Wildridge, MPC, <http://www.liveatwildridge.com/>
- Wolf Ranch, MPC, <http://www.wolfranchbyhillwood.com/>
- Woodforest, MPC, <https://www.woodforesttx.com/>
- The Woodlands Hills, MPC, <https://thewoodlandshills.com/>

Utah

- Daybreak, MPC, <http://www.daybreakutah.com/>
- Legacy Fields, MUB, URL N/A
- Summit Powder Mountain, HOSP, <http://summitpowdermountain.com/>
- Victory Ranch, HOSP, <https://victoryranchutah.com/real-estate/>

Vermont

- South Village, MPC, <http://www.southvillage.com/>

Virginia

- Willowsford, MPC, <http://willowsford.com/>
- Chickahominy Falls, MPC, <http://www.cornerstonehomes.net/chickahominy-falls>

- ElderSpirit at Trailview, OTH, <http://www.elderspirit.net/>
- Embrey Mill, MPC, <http://www.embreymill.com/>
- We Live DC, OTH, <https://www.welive.com/dc>

Washington

- Bridges at 11th, MUB, <https://www.bridgesat11th.com/>
- First Hill & Central District Living Community Challenge, MUUD, https://living-future.org/wp-content/uploads/2016/12/Toward_A_Living_Community.pdf
- Greenbridge, MUB, <https://centerforactivedesign.org/greenbridgemastrplan>
- Grow Community, MPC, <http://growbainbridge.com/>
- High Point Healthy Homes & Community, MUB, <https://www.seattlehousing.org/about-us/redevelopment/high-point-redevelopment>
- North Rainier Hub Urban Village Living Community Challenge, MUUD, http://www.seattle.gov/dpd/cs/groups/pan/@pan/documents/web_informational/dpds021382.pdf
- Providence Mount St. Vincent, OTH, <http://washington.providence.org/senior-care/mount-st-vincent/>
- Quimper Village, OTH, <http://www.quimpervillage.com/>
- Seola Gardens, MUB, <https://www.kcha.org/development/greenbridge/>
- Tehalah, MPC, <http://www.tehaleh.com/>
- Via6, MUB, <http://www.via6seattle.com/>
- Yesler Terrace, MUB, <https://www.seattlehousing.org/about-us/redevelopment/redevelopment-of-yesler-terrace>
- Z-Home, ECO, <http://your.kingcounty.gov/solidwaste/greenbuilding/zhome.asp>

West Virginia

- Goco Retreat Dawson Lake, HOSP, <http://www.spaopportunities.com/detail.cfm?pagetype=news&codeID=333200>
- Shepherd Village, OTH, <http://shepherdvillage.net/>

CANADA

- Avalon, MPC, <http://avalon.empirecommunities.com/>
- Bois Franc, MUUD, <https://www.boisfranc.com/>
- Carlington Community Health Hub, OTH, <http://www.carlington.ochc.org/healthy-hub/>
- Cathedral Hill, MUB, <http://cathedralhill.ca/>
- The Eddy, MUB, <http://www.theeddy.ca/>
- Humaniti, MUB, <http://www.humanitimontreal.com/>
- Ideal Society Ecovillage, ECO, <https://ideal-society.squarespace.com/>
- Imagine, MPC, <https://empirecommunities.com/community-page/imagine/>
- Legacy, MPC, <https://empirecommunities.com/community-page/legacy/>
- Lush, MPC, <https://empirecommunities.com/community/lush/>
- Maharishi Vedic Village of Canada, OTH, <http://maharishivedicvillage.net/>
- The Plant, MUB, <http://theplantqueenwest.com/>
- Quayside/Sidewalk Toronto, MUUD, <https://sidewalktoronto.ca/>
- Riverland, MPC, <https://empirecommunities.com/community/riverland/>
- UniverCity, MUUD, <http://univercity.ca/>
- Wyndfield, MPC, <https://empirecommunities.com/community-page/wyndfield/>
- Zibi, MUUD, <http://www.zibi.ca/>

Asia-Pacific Wellness Lifestyle Real Estate Pipeline List (November 2017)

AUSTRALIA

Australian Capital Territory

- Coombs Molonglo Valley, MPC, <http://suburbanland.act.gov.au/molonglo/coombs>
- Denman Prospect Molonglo Valley, MPC, <https://denmanprospect.com.au/>
- Ginninderry, MPC, <https://ginninderry.com/>
- Throsby, MPC, <http://suburbanland.act.gov.au/throsby/>
- Wright Molonglo Valley, MPC, <http://suburbanland.act.gov.au/molonglo/wright>

New South Wales

- Altrove, MUUD, <https://www.stockland.com.au/residential/nsw/altrove>
- The Avenue, MPC, <http://theavenue.mirvac.com/>
- Bingara Gorge, MPC, <http://communities.lendlease.com/bingara-gorge/>
- Brighton Lakes, MPC, <http://brightonlakes.mirvac.com/>
- Bruns Ecovillage, ECO, <http://brunsecovillage.com.au/>
- Burrabella, MPC, <http://burrabella.com.au/>
- Calderwood Valley, MPC, <http://communities.lendlease.com/calderwood-valley/>
- Crest, MPC, <http://crest.mirvac.com/>
- Crimson Hill, MPC, <http://www.crimsonhill.com.au/>
- Discovery Point, MUUD, <http://www.frasersproperty.com.au/NSW/Discovery-Point>
- Elara, MPC, <https://www.stockland.com.au/residential/nsw/elara>
- Fairwater, MPC, <https://www.frasersproperty.com.au/NSW/Fairwater>
- Glenmore Ridge, MPC, http://www.developersites.com.au/stockland/nsw/glenmoreridge/downloads/GlenmoreRidge_SalesBrochure.pdf
- Googong, MPC, <http://googong.net/>
- Harvest at Chisholm, MPC, <http://www.harvest-chisholm.com.au/>
- Jordan Springs, MPC, <http://communities.lendlease.com/jordan-springs/>
- McKeachie's Run, MPC, <https://www.stockland.com.au/residential/nsw/mckeachie-s-run>
- Narara Ecovillage, ECO, <http://nararaecovillage.com/>
- New Rouse Hill, MPC, <http://communities.lendlease.com/the-new-rouse-hill/>
- Oasis by Crown Group, MUB, <http://oasisbycrown.com.au/>
- Skye by Crown Group, MUB, <http://skyebycrown.com.au/>
- Tea Gardens, MPC, <http://sheargoldgroup.com/our-spaces#tea-gardens>
- The V Club, MUB, <http://vbycrown.com.au/>
- VistaPark Wongawilli, MPC, <http://vistapark.com.au/>
- Waterfall by Crown Group, MUB, <http://waterfallbycrown.com.au/>
- Willowdale, MPC, <https://www.stockland.com.au/residential/nsw/willowdale>
- Wirraway Thornton, MPC, <http://wirrawaythornton.com.au/>

Northern Territory

- Breezes Muirhead, MPC, <http://www.breezesmuirhead.com.au/>

Queensland

- Augustine Heights, MPC, <https://www.stockland.com.au/residential/qld/augustine-heights>

- Aura, MUUD, <https://www.stockland.com.au/residential/qld/aura>
- Bluewattle, MPC, <http://bluewattle.com.au/>
- Brightwater, MPC, <https://www.stockland.com.au/residential/qld/brightwater>
- Clearview Rise, MPC, <https://www.clearviewrise.com.au/>
- Crystal Waters Ecovillage, ECO, <https://crystalwaters.org.au/>
- Ecovillage Currumbin, ECO, <https://theecovillage.com.au/>
- Eden's Crossing, MPC, <https://www.peet.com.au/communities/brisbane-and-qld/edens-crossing>
- Elliott Springs, MPC, <http://communities.lendlease.com/elliott-springs/>
- Fernbrook Ridge, MPC, <http://communities.lendlease.com/fernbrooke-ridge/>
- Flagstone, MPC, <http://flagstone.com.au/>
- Foreshore Coomera, MPC, <https://www.stockland.com.au/residential/qld/foreshore-coomera>
- Gainsborough Greens, MPC, <http://gainsboroughgreens.mirvac.com/>
- Hamilton Reach, MUUD, <http://www.frasersproperty.com.au/QLD/Hamilton-Reach>
- Harmony, MPC, <http://www.harmonyliving.com.au/>
- Harvest Rise, MPC, <http://www.harvestrise.com.au/>
- Highland Reserve, MPC, <https://www.stockland.com.au/residential/qld/highland-reserve>
- Hundred Hills, MPC, <https://www.stockland.com.au/residential/qld/hundred-hills>
- Newport, MPC, <https://www.stockland.com.au/residential/qld/newport>
- North Lakes, MPC, <https://www.stockland.com.au/residential/qld/north-lakes>
- North Shore, MPC, <https://www.stockland.com.au/residential/qld/north-shore/>
- Northshore Hamilton, MUUD, <https://www.northshorebrisbane.com.au/>
- The Observatory, MPC, <https://www.stockland.com.au/residential/qld/the-observatory>
- Oceanside (Birtinya, Bokarina Beach), MPC, <https://www.stockland.com.au/residential/qld/oceanside>
- Ormeau Ridge, MPC, <https://www.stockland.com.au/residential/qld/ormeau-ridge>
- Pallara, MPC, <https://www.stockland.com.au/residential/qld/pallara>
- Parklands, MUUD, <http://parklandsproject.com.au/>
- Ripley Valley, MPC, <https://satterley.com.au/ripley-valley>
- Riverbank, MPC, <https://www.peet.com.au/communities/brisbane-and-qld/riverbank>
- Riverstone Crossing, MPC, <https://www.stockland.com.au/residential/qld/riverstone-crossing>
- Smithfield Village Estate, MPC, <https://satterley.com.au/smithfield-village>
- Sovereign Pocket, MPC, <https://www.stockland.com.au/residential/qld/sovereign-pocket>
- Springfield Lakes, MPC, <http://communities.lendlease.com/springfield-lakes/>
- Springfield Rise, MPC, <http://communities.lendlease.com/springfield-rise/>
- Stone Ridge, MPC, <https://www.stockland.com.au/residential/qld/stone-ridge>
- Stoneleigh Reserve, MPC, URL n/a
- Tannum Blue, MPC, <https://www.tannumblue.com.au/>
- Vale, MPC, <https://www.stockland.com.au/residential/qld/vale>
- Warner Lakes the Reserve, MPC, <http://warnerlakesthereserve.com.au/>
- Woodlands Andergrove, MPC, <https://www.woodlandsandergrove.com.au/>
- Yarrabilba, MPC, <http://communities.lendlease.com/yarrabilba/>

South Australia

- Aldinga Arts Ecovillage, ECO, <http://aldingaartsecovillage.com/>
- Aspire at Evanston South, MPC, <http://aspirebylanser.com.au/>
- Beyond Today, MPC, <http://www.beyondtoday.com.au/>
- Blackwood Park, MPC, <http://blackwoodpark.com.au/>
- Blakes Crossing, MPC, <http://communities.lendlease.com/blakes-crossing/>
- Lightsview, MPC, <http://www.lightsview.com.au/>

- Lochiel Park Green Village, ECO, <https://renewalsa.sa.gov.au/projects/lochiel-park/>
- Murraylands Life Sustainable Housing, MPC, http://www.envirodevelopment.com/01_cms/details.asp?ID=59#6

Victoria

- Acacia Botanic Ridge, MPC, <http://acaciabotanic.com.au/>
- Acacia Place (Eden, Haven, & Sanctuary), MUUD, <http://www.hamton.com.au/projects/commercial-retail/current-comm/eden-1/>
- Allura, MPC, <https://www.stockland.com.au/residential/vic/allura>
- Arcadia at Officer, MPC, <https://satterley.com.au/arcadia>
- Aston, MPC, <https://www.peet.com.au/communities/melbourne-and-victoria/aston>
- Atherstone, MPC, <http://communities.lendlease.com/atherstone/>
- Aurora, MPC, <http://communities.lendlease.com/aurora/>
- Base Commons Co-living, OTH, <http://www.basecommons.com/>
- Berwick/Minta Farm, MPC, <https://www.stockland.com.au/residential/vic/berwick>
- Botanical, MPC, <https://satterley.com.au/botanical>
- Brompton, MPC, <http://www.wolfdene.com.au/bromptonlife>
- Caledonia, MPC, <http://caledonialife.com.au/>
- Carroll Lane, MPC, <http://www.carrolllane.com.au/>
- Cloverton, MPC, <https://www.stockland.com.au/residential/vic/cloverton>
- The Commons, MUB, <http://www.breathe.com.au/the-commons-1/>
- Cornerstone Werribee, MPC, <http://cornerstonewerribee.com.au/>
- Edgebrook, MPC, <https://www.stockland.com.au/residential/vic/edgebrook>
- Ellendale, MPC, <http://www.ellendale.com.au/>
- Eucalypt, MPC, <https://www.stockland.com.au/residential/vic/eucalypt>
- Featherbrook, MPC, <https://featherbrook.com.au/>
- Grand Lakes Estate, MPC, <http://www.bisinella.com.au/news/grand-lakes--winner-of-residential-development-and-environmental-excellence-awards-for-excellence-at/>
- The Grove, MPC, <https://www.stockland.com.au/residential/vic/the-grove>
- Habitat on Davis Creek, MPC, <https://satterley.com.au/tarneit>
- Harpley, MPC, <http://communities.lendlease.com/harpley/>
- Haven Tarneit, MPC, <http://haventarneit.com.au/>
- Highlands, MPC, <https://www.stockland.com.au/residential/vic/highlands>
- Hillgrove Rock Bank, MPC, <http://hillgroverockbank.com/>
- Laurimar, MPC, <http://communities.lendlease.com/laurimar/>
- Little Green Tarneit, MPC, <http://littlegreen.com.au/>
- Livingston Cranbourne East, MPC, <http://livingstoncranbourne.com.au/>
- Lochaven, MPC, <http://lochaven.com.au/>
- Lyndarum North, MPC, <https://www.avjennings.com.au/vic/lyndarum-north-wollert>
- Manor Lakes, MPC, <http://www.manorlakes.com.au/>
- Manzeene Village, MPC, <http://www.manzeenevillage.com.au/>
- Mayfield, MPC, <http://communities.lendlease.com/mayfield/>
- Mernda Villages, MPC, <https://www.stockland.com.au/residential/vic/mernda-villages>
- Merrifield, MUUD, <https://www.merrifieldmelbourne.com.au/>
- Mt. Atkinson, MPC, <https://www.stockland.com.au/residential/vic/mt-atkinson>
- Mystique, MPC, <http://www.mystiquewollert.com.au/>
- Newhaven Tarneit, MPC, <http://www.newhaventarneit.com.au/>
- The Nightingale, MUB, <http://www.thefifthestate.com.au/articles/radical-apartments-after-the->

commons-the-nightingale-keeps-ruffling-feathers

- Olivine, MPC, <http://olivine.mirvac.com/>
- Orion Braybrook, MPC, <https://www.stockland.com.au/residential/vic/braybrook>
- Quarters Cranbourne, MPC, <http://quarterscranbourne.com.au/>
- Riverstone at Plenty River, MPC, <https://satterley.com.au/riverstone>
- Rothwell Villages, MPC, <http://rothwellvillages.com.au/>
- Selandra Rise, MPC, <https://www.planning.org.au/viccontent/selandra-rise>
- Somerfield, MPC, <http://somerfield.com.au/>
- St. Genevieve, MPC, <http://www.stgenevieve.com.au/>
- St. Helena Woods, MPC, <https://satterley.com.au/st-helena-woods>
- Trillium, MPC, <http://trillium.villawoodproperties.com.au/>
- True North, MPC, <https://satterley.com.au/true-north>
- Upper Point Cook, MPC, <https://satterley.com.au/upper-point-cook>
- Verdant Hill, MPC, <http://verdanthill.com.au/>
- Warralilly, MPC, <http://warralilly.com.au/>
- Waterlea, MPC, <https://www.stockland.com.au/residential/vic/waterlea>
- Westwood, MPC, <http://www.westwoodland.com.au/>
- WestWyck Ecovillage, ECO, <http://www.westwyck.com/>
- Woodlea, MPC, <http://www.woodlea.com.au/>

Western Australia

- Alkimos Beach, MPC, <http://communities.lendlease.com/alkimos-beach/>
- Allara, MPC, <https://satterley.com.au/allara>
- Amberton, MPC, <https://www.stockland.com.au/residential/wa/amberton>
- Annie's Landing/Ellenbrook, MPC, <https://www.lwppropertygroup.com.au/about-lwp/blog/our-blog/2013/10/16/annie%27s-landing-history-in-the-making>
- Ariella Private Estate, MPC, <http://www.ariellaprivateestate.com.au/>
- Austin Lakes, MPC, <https://satterley.com.au/austin-lakes>
- The Avenue Estate, MPC, <https://www.peet.com.au/communities/perth-and-wa/the-avenue-estate>
- Avon Ridge, MPC, <https://www.peet.com.au/communities/perth-and-wa/avon-ridge>
- Bushmead, MPC, <http://www.bushmead.com.au/>
- Calleya, MPC, <https://www.stockland.com.au/residential/wa/calleya>
- Chianti Private Estate, MPC, <https://chiantiestate.com.au/>
- Coolbellup (The Primary, The Playground, The Assembly), MUUD, <http://communities.lendlease.com/the-assembly/>
- Corimbia, MPC, <http://creativdp.com.au/projects/Corimbia/19>
- Elements, MPC, <http://www.elements-hedland.com.au/>
- Eliza Ponds, MPC, <http://elizaponds.com.au/>
- The Glades at Byford, MPC, <https://www.lwppropertygroup.com.au/our-communities/byford-the-glades>
- Golden Bay, MPC, <https://www.peet.com.au/communities/perth-and-wa/golden-bay>
- Greenlea Baldivis, MPC, <https://www.peet.com.au/communities/perth-and-wa/greenlea-baldivis>
- The Hales, MPC, <https://satterley.com.au/the-hales>
- Harvest Lakes, MPC, <http://www.harvestlakes.com.au/>
- Heron Park, MPC, <https://satterley.com.au/heron-park>
- Highland Reserve at Jane Brook, MPC, <http://highlandreserve.mirvac.com/>
- Honeywood, MPC, <https://satterley.com.au/honeywood>
- Januburu Six Seasons, MPC, <https://www.landcorp.com.au/Residential/Januburu-Six-Seasons/>

- Karmara Piara Waters, MPC, <http://www.karmaraestate.com.au/>
- Lakelands Private Estate, MPC, <https://www.peet.com.au/communities/perth-and-wa/lakelands-private-estate>
- Madox Piara Waters, MPC, <http://madox.mirvac.com/>
- Meadow Springs, MPC, <http://meadowsprings.mirvac.com/>
- Montario Quarter Shenton Park, MUUD, <https://www.landcorp.com.au/Residential/Shenton-Park/>
- Movida Estate, MPC, <https://www.peet.com.au/communities/perth-and-wa/movida-estate>
- Newhaven, MPC, <https://www.stockland.com.au/residential/wa/newhaven>
- Osprey Waters, MPC, <http://ospreywaters.mirvac.com/>
- Parkland Heights, MPC, <https://www.parklandheights.com.au/>
- Parkside Private Estate, MPC, <https://parksideprivateestate.com.au/>
- Provence Estate, MPC, <https://satterley.com.au/provence>
- Providence Estate, MPC, <http://providenceestate.net.au/>
- Redgum Brook, MPC, <https://satterley.com.au/redgum-brook>
- Rosehill Waters, MPC, <http://www.rosehillwaters.com.au/>
- Sienna Wood, MPC, <https://www.stockland.com.au/residential/wa/sienna-wood>
- St. Leonard's Private Estate, MPC, <https://stleonardsestate.com.au/>
- Suffolk Park, MPC, <https://suffolkparkestate.com.au/>
- Trinity Akimos, MPC, <https://www.lwppropertygroup.com.au/our-communities/alkimos-trinity>
- Tuart Ridge Baldivis, MPC, <https://satterley.com.au/tuart-ridge>
- Vale Aveley, MPC, <https://www.stockland.com.au/residential/wa/vale-aveley>
- Village at Wellard, MPC, <https://www.peet.com.au/communities/perth-and-wa/the-village-at-wellard>
- White Gum Valley, MPC, <http://www.landcorp.com.au/innovation/wgv/>
- Whiteman Edge, MPC, <https://www.stockland.com.au/residential/wa/whiteman-edge>
- Witchcliffe Ecovillage, ECO, <https://www.ecovillage.net.au/>

CHINA

- Anhui Vitality Health Care Industry Park, MUUD, URL N/A
- Belief Regression, MUUD, URL N/A
- Changsha Oceanland S10 Project A/B/C, MUB, URL N/A
- Diaoyutai MGM Residences, MUB, URL N/A
- Elion International Eco-Island , MUB, URL N/A
- Emei Mid International Antiaging Health Community, MUUD, URL N/A
- Gemdale Shanghai Zhuqiao , MUB, URL N/A
- Gold Valley Green Community, MUUD, URL N/A
- Gulf of Greenland, MUUD, URL N/A
- Harbour Apartments Co-living (40 locations), OTH, <http://www.scmp.com/property/hong-kong-china/article/2114575/shanghais-co-living-operator-harbour-apartments-eyes>
- Health Nursing Project, MUUD, URL N/A
- Jinshan, MUUD, URL N/A
- Jun Yue Ge, MUB, URL N/A
- Liuzhou Forest City, ECO, <https://www.stefanoboeriarchitetti.net/en/portfolios/liuzhou-forest-city/>
- Longfor Properties Guanyu Co-living, OTH, <http://www.scmp.com/property/hong-kong-china/article/2120887/young-and-fashionable-willing-pay-premium-co-living-space>
- lyf DDA Dalian, OTH, <https://www.the-ascott.com/en/about-us/news/ascotts-latest-lyf-brand-trailblazes-with-three-properties-in-china-and-singapore.html>
- lyf Wu Tong, OTH, <https://www.the-ascott.com/en/about-us/news/ascotts-latest-lyf-brand-trailblazes-with-three-properties-in-china-and-singapore.html>

- Mahota Town, HOSP, <http://www.themahota.com/>
- Mind the Sea II A/B, MUB, URL N/A
- Mini Living, OTH, <https://www.designweek.co.uk/issues/20-26-november-2017/mini-to-build-co-living-and-working-complex-in-china/>
- Mofang Gongyu (27 locations), OTH, <http://www.52mf.com.cn/Search/Orgs>
- Moganshan Shanghai 1,000 Trees Complex, ECO, <https://collection.cooperhewitt.org/objects/85006469/>
- Mogu Gongyu, OTH, URL N/A
- Nansha Ao Yuan, MUUD, URL N/A
- New Sun Island International Wellness Community, HOSP, URL N/A
- Ocean Epoch, MUB, URL N/A
- Ocean Seasons, MUB, URL N/A
- Q'in Wellness Resort, HOSP, URL N/A
- Qianhai one Excellence tower, MUB, URL N/A
- Raffles Residences, MUB, URL N/A
- Sangha, HOSP, <http://www.livingoctave.com/en-us/sangha/>
- Seasons Park & Gardens/Tianjin Eco-City, MUB, http://www.theseasonspark.com.cn/en_KSSTEC_MP.asp
- Shenyang Great River Poetry, MUB, URL N/A
- Shijiazhuang Forest City, ECO, <https://www.stefanoboeriarchitetti.net/en/portfolios/forest-city/>
- Tianjiao Garden, MUB, <https://www.slideshare.net/StephenBrown48/deloswellprojectprofiletianjiao110416englishfinal>
- Wowqu Light Community (9 locations), OTH, <http://www.wowqu.cc/>
- You+ (25 branches), OTH, <https://www.youplus.cc/>
- Youke Yijia, OTH, URL N/A
- Yuanyang Tianjin Dongyiqu 18, MUB, URL N/A

INDIA

- Antara Senior Living, HOSP, <http://antaraseniorliving.com/>
- Ariana, MPC, <http://www.tatahousing.in/ariana/>
- Auroville, OTH, <https://ecovillage.org/project/auroville/>
- CoHo Delhi, OTH, <http://www.coho.in/>
- CoHo Gurgaon, OTH, <http://www.coho.in/>
- CoHo Noida, OTH, <http://www.coho.in/>
- CoLive India (8 locations), OTH, <https://www.colive.in/>
- Essence of Nature/Wellness Estate, HOSP, <http://tybrosinfra.com/essence-nature.php>
- Fairfield Resort, HOSP, <http://www.fairfieldindia.com/>
- Gurgaon Gateway, MUB, <https://tatahousing.in/gurgaongateway/>
- La Vida Estate Residences, MPC, <http://www.tatalavida.com/>
- Myst Cliffside, MPC, <https://tatahousing.in/mystcliffside/>
- Naturesort/Wellness Estate, HOSP, <http://tybrosinfra.com/nature-resort.php>
- Primanti, MUB, <https://tatahousing.in/primanti/>
- Rio-De-Goa, MPC, <http://tatahousing.in/goa/>
- Serein, MUB, <https://tatahousing.in/serein/>
- Square Plums, OTH, <http://www.squareplums.com/>

MALAYSIA

- Afiniti Medini (part of broader Medini Integrated Wellness Capital), MUB, <http://afiniti.com.my/>
- Avira Living in Wellness (part of broader Medini Integrated Wellness Capital), HOSP, <http://avira-medini.com/>
- Bandar Botanic, MUUD, <http://gamudaland.com.my/our-developments/completed-developments/bandar-botanic/>
- Boga Valley, HOSP, <http://www.bogavalley.com/residences.html>
- Bukit Bantayan, MUB, <http://gamudaland.com.my/our-developments/featured-developments/bukit-bantayan/>
- Forest City/Country Garden, MUUD, <http://www.forestcitycgpv.com/>
- Gamuda Gardens Malaysia, MUUD, <http://gamudaland.com.my/gamudagardens/>
- HighPark Suites, MUB, <http://gamudaland.com.my/our-developments/featured-developments/highpark-suites/>
- Kundang Estates, MPC, <http://gamudaland.com.my/kundangestates/>
- Medini Integrated Wellness Capital (includes Afiniti and Avira projects), MUUD, <https://www.iskandarinvestment.com/value-creation/cluster-development-strategy/healthcare/>
- Puro Place, MUB, https://www.easternandoriental.com/uploads/publications-corp-brochure/The-EO-Book_Corporate-Brochure_4th-Edition.pdf
- ShantiNiketan Village Malaysia, OTH, <http://shantiniketan.my/>

SINGAPORE

- Bedok Integrated Complex/Bedok Town Centre, MUUD, <https://www.heartbeatbedok.sg/about/>
- Bedok Residences, MUB, <http://www.bedokresidences.com.sg/>
- D'Leedon, MUB, <http://www.dleedon.com.sg/>
- The Glades Taneh Merah, MUB, <https://www.keppellandlive.com/residential/singapore/the-glades.html>
- Grandeur Park Residences, MUB, <http://grandeur-park-residences.com.sg/>
- The Interlace, MUB, <http://www.theinterlace.com/>
- lyf Farrer Park, OTH, <https://www.the-ascott.com/en/about-us/news/ascotts-latest-lyf-brand-trailblazes-with-three-properties-in-china-and-singapore.html>
- Sky Habitat, MUB, <http://www.skyhabitat.com.sg/>
- Westwood Residences, MUB, <http://www.westwoodsresidences.com.sg/>

VIETNAM

- Celadon City, MUUD, <http://www.celadoncity.com.vn/>
- Gamuda Gardens Vietnam, MUUD, <http://www.gamudacity.com.vn/>
- Mulberry Lane, MUB, <https://www.mulberrylane.com.vn/>
- Seasons Avenue, MUB, <https://www.seasonsavenue.com.vn/>
- Unnamed Project, HOSP, <http://www.spabusiness.com/digital/index1.cfm?mag=Spa%20Business&co deid=31682&linktype=story&ref=n>
- Vista Verde, MUB, <http://vistaverde.com.vn/en/>

INDONESIA

- Chiva Som Bintan, HOSP, <https://www.treasurebaybintan.com/residences/chiva-som-bintan>
- Goco Retreat Ubud, HOSP, <http://gocohospitality.com/goco-retreat-ubud>

- Margarana Dream City, HOSP, <http://www.margarana.com/index.php/en/>
- Outsite Bali, OTH, <https://outsite.co/>
- Roam Bali, OTH, <https://www.roam.co/>
- West Vista, MUB, <http://www.westvista.id/>

NEW ZEALAND

- Faringdon, MPC, <https://www.faringdon.co.nz/>
- Hobsonville Point, MPC, <http://hobsonvillepoint.co.nz/>
- Jack's Point, MPC, <https://www.jackspoint.com/residential/>
- Three Kings, MPC, <https://three-kings.co.nz/>
- Whenuapai, MPC, <http://www.fletcherliving.co.nz/assets/auckland/west-auckland/whenuapai/brochure/Whenuapai-brochure-screen-res.pdf>

JAPAN

- Fujisawa Smart Town, ECO, <http://fujisawasst.com/EN/>
- Kotoen, OTH, <https://en.rocketnews24.com/2015/02/01/yoro-shisetsu-japans-progressive-joint-care-centers-where-kids-and-seniors-interact/>
- Roam Tokyo, OTH, <https://www.roam.co/>

THAILAND

- Goco Retreat Khao Yai, HOSP, <http://gocohospitality.com/goco-retreat-khao-yai>
- Jin Wellbeing County, OTH, <http://jinwellbeing.com/home/>

TAIWAN

- Hualien Residences, HOSP, <http://www.archdaily.com/493754/hualien-residences-big-s-most-mountainous-housing-project-yet>
- Taipei Digiquarters, OTH, <http://www.digiquarters.com/>

SOUTH KOREA

- Gap House, OTH, <https://www.archdaily.com/771429/gap-house-archihood-wxy>
- Jeju Healthcare Town, MUUD, <http://www.uachina.com.cn/en/index.php/default/content/494.html>

HONG KONG

- Campus Hong Kong, OTH, <https://www.campushk.com/>

Europe Wellness Lifestyle Real Estate Pipeline List (November 2017)

UNITED KINGDOM

- 250 City Road, MUUD, <https://www.berkeleygroup.co.uk/new-homes/london/islington/250-city-road>
- Barking Riverside – NHS Healthy New Town, MUUD, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>
- Barton – NHS Healthy New Town, MUUD, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>
- BedZED (Beddington Zero Energy Development), ECO, <http://www.bioregional.com/bedzed/>
- Bersted Park, MPC, <https://www.berkeleygroup.co.uk/new-homes/west-sussex/north-bersted/bersted-park>
- Broadacres, MPC, <https://www.berkeleygroup.co.uk/new-homes/west-sussex/southwater/broadacres>
- Chiswick Gate, MPC, <https://www.berkeleygroup.co.uk/new-homes/london/chiswick/chiswick-gate>
- The Collective Old Oak, OTH, <https://www.thecollective.co.uk/co-living/old-oak>
- Cranbrook – NHS Healthy New Town, MUUD, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>
- Darlington – NHS Healthy New Town, MUUD, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>
- Ebbsfleet Garden City – NHS Healthy New Town, MUUD, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>
- Edenbrook Village, MPC, <https://www.berkeleygroup.co.uk/new-homes/hampshire/fleet/edenbrook-village>
- Eldridge Park, MPC, <https://www.berkeleygroup.co.uk/new-homes/berkshire/wokingham/eldridge-park>
- Fish Island Village, MUUD, <https://www.fishislandvillage.co.uk/>
- Goodman's Fields, MUUD, <https://www.berkeleygroup.co.uk/new-homes/london/aldgate/goodmans-fields>
- Halton Lea – NHS Healthy New Town, MUUD, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>
- Highwood, MPC, <https://www.berkeleygroup.co.uk/new-homes/west-sussex/horsham/highwood>
- Holborough Lakes, MPC, <https://www.berkeleygroup.co.uk/new-homes/kent/holborough/holborough-lakes>
- Kennet Island, MPC, <https://www.berkeleygroup.co.uk/new-homes/berkshire/reading/kennet-island>
- Kidbrooke Village, MPC, <https://www.berkeleygroup.co.uk/new-homes/london/greenwich/kidbrooke-village>
- Llanelli Wellness Village, MUUD, <http://www.walesonline.co.uk/news/local-news/work-starts-once-lifetime-200m-13215513>
- Lyvly Luxury Co-living, OTH, <https://www.lyvly.uk/>
- Maharishi Garden Village, OTH, <http://msvhomes.co.uk/>
- New Ground Co-housing, OTH, <http://www.owch.org.uk/>
- Northstowe – NHS Healthy New Town, MUUD, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>
- NW Bicester – NHS Healthy New Town, MUUD, <http://www.bioregional.com/nw-bicester/>; <https://www.fabrica.co.uk/Elmsbrook>
- One Tower Bridge, MUUD, <https://www.berkeleygroup.co.uk/new-homes/london/tower-bridge/one-tower-bridge>
- Patchesham, MPC, <https://www.berkeleygroup.co.uk/new-homes/london/tower-bridge/one-tower-bridge>

- Roam London, OTH, <https://www.roam.co/>
- Ryewood, MPC, <https://www.berkeleygroup.co.uk/new-homes/kent/sevenoaks/ryewood>
- South Quay Plaza, MUUD, <https://www.berkeleygroup.co.uk/new-homes/london/canary-wharf/south-quay-plaza>
- Southall Waterside, MUUD, <https://www.berkeleygroup.co.uk/new-homes/london/southall/southall-waterside>
- Taplow Riverside, MPC, <https://www.berkeleygroup.co.uk/new-homes/buckinghamshire/taplow/taplow-riverside>
- Tornagrain, MPC, <http://www.tornagrain.com/>
- Trent Park, MPC, <https://www.berkeleygroup.co.uk/new-homes/london/enfield/trent-park>
- Vaudeville Court, MUB, <http://www.levittbernstein.co.uk/project-stories/vaudeville-court-islington/>
- WeLive London, OTH, <https://www.propertyweek.com/news/welive-closes-in-on-first-london-scheme/5089829.article>
- West End Gate, MUUD, <https://www.berkeleygroup.co.uk/new-homes/london/marylebone/west-end-gate>
- Whitehall & Bordon – NHS Healthy New Town, MUUD, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>
- Whyndyke Garden Village – NHS Healthy New Town, MUUD, <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>
- Woodberry Down, MUUD, <https://www.berkeleygroup.co.uk/new-homes/london/finsbury-park/woodberry-down>
- Woodhurst Park, MPC, <https://www.berkeleygroup.co.uk/new-homes/berkshire/warfield/woodhurst-park>

NETHERLANDS

- Humanitas Co-housing, OTH, <https://www.citylab.com/equity/2015/10/the-nursing-home-thats-also-a-dorm/408424/>
- ReGen Villages, MPC, <http://www.regenvillages.com/>
- Utrecht Healthy Urban Quarter/Wonderwoods, MUUD, <http://huqutrecht.nl/en/>

GERMANY

- Goco Retreat Kaiserhof Rugen, HOSP, <http://gocohospitality.com/goco-retreat-kaiserhof-r%C3%BCgen>
- Quarters Berlin, OTH, <https://goquarters.com/o/berlin>
- Sieben Linden Ecovillage, ECO, <https://siebenlinden.org/en/start-2/>

DENMARK

- Future Sølund, OTH, <http://tredjenatur.dk/en/portfolio/the-future-soelund/>
- Mountain Dwelling, MUB, <https://www.dwell.com/article/mountain-dwellings-urban-development-in-copenhagen-74593006>

ITALY

- Saturnia hot springs residential, HOSP, URL N/A
- Welldom Villas Treviso, MUB, URL N/A

LATVIA

- Kemerī Wellness Village, HOSP, <http://www.cladglobal.com/CLADnews/architecture-design/Inbalans-Latvia-wellness-village-Kemerī-National-Park-spa-balneotherapy/323862?source=news>
- Muižas nami, MUB, https://www.city24.lv/en/zina/NEWS_7337/The-first-wellness-residence-is-presented-in-Latvia-%E2%80%93-%22Muizas-nami%22?year=2016&categoryCode=RealEstate&lang=en

PORTUGAL

- Mata de Sesimbra, HOSP, http://wwf.panda.org/wwf_news/?204439
- Outsite Lisbon, OTH, <https://outside.co/>

SPAIN

- Pontevedra, MUUD, <https://awards.centerforactivedesign.org/winners/city-of-pontevedra>
- Sun & Co, OTH, <https://sun-and-co.com/>

LUXEMBOURG

- Hollerich Village, MUUD, <http://www.bioregional.com/hollerich-village/>

SWEDEN

- Dromgarden, MPC, <http://www.dromgarden.com/>

FRANCE

- Eco Château de Cautine, ECO, <http://www.eco-chateau.com/eco-house.htm>

Latin America-Caribbean Wellness Lifestyle Real Estate Pipeline List (November 2017)

MEXICO

- L'Espiral Residential Wholeness Community, HOSP, URL N/A
- Outsite Baja California, OTH, <https://outside.co/>
- Reserva Santa Fe Living Community, MPC, <http://www.reservasantafe.com/>
- TAO Community, HOSP, <http://taomexico.com/>
- Tres Santos, HOSP, <https://www.tressantosbaja.com/>

COSTA RICA

- Las Catalanis, HOSP, <http://www.lascatalinasr.com/>
- Outsite Costa Rica, OTH, <https://outside.co/>
- Rise Costa Rica, HOSP, <http://risecostarica.com/>
- St. Michael's Sustainable Community, ECO, <http://stmichaelsr.com/>

BELIZE

- Blackadore Caye, HOSP, <http://www.restorativeislands.com/blackadore-caye/>

PANAMA

- Panama Pacifico, MUUD, <http://www.panamapacifico.com/>

DOMINICA

- Beyond Vitality Community, ECO, <http://beyondvitality.com/community/>

Middle East-North Africa Wellness Lifestyle Real Estate Pipeline List (November 2017)

UNITED ARAB EMIRATES

- Dubai Sustainable City, ECO, <http://www.thesustainablecity.ae/>
- La Reserve Residences (Dubai Healthcare City), MUB, http://www.swissproperty.ae/project/la_reserve_residences/
- MAG Creek Wellbeing Resort (Dubai Healthcare City), HOSP, <http://delos.com/project/mag-residential>
- Worldcare Wellness Village/Dubai Healthcare City, MUUD, <https://www.dhcc.ae/>

EGYPT

- The Gate, MUUD, <http://www.thegateheliopolis.net/>

Sub-Saharan Africa Wellness Lifestyle Real Estate Pipeline List (November 2017)

SOUTH AFRICA

- Blue Rock Village, MUUD, <https://www.bluerockvillage.co.za/>
- Johannesburg Pilot Healthy Homes Healthy Cities Building Project, MUB, http://www.cct-freiburg.de/who/cross_sectoral/documents/draft2.pdf
- Menlyn Maine, MUUD, <http://www.menlynmaine.co.za/>
- Nature's Path Lifestyle Village, MUUD, https://www.gbcsa.org.za/news_post/gbcsa-launches-green-star-communities-pilot-programme-in-south-africa/
- Sibaya Coastal Precinct, MUUD, <http://www.discoversibaya.co.za/>

MAURITIUS

- Mauritius Ecovillage & Wellness Resort, ECO, <http://www.ecovillage.mu/>

^{xcv} See: <http://healthyhomesaustralia.com.au/>

^{xcvi} See: <https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/>

^{xcvii} See: <http://healthyhomesbuildings.org.uk/>

^{xcviii} For a history of this initiative, see: <http://www.euro.who.int/en/health-topics/environment-and-health/urban-health/activities/healthy-cities/who-european-healthy-cities-network/phases-ivi-of-the-who-european-healthy-cities-network>

^{xcvix} See: <https://www.citylab.com/transportation/2012/04/why-streets-copenhagen-and-amsterdam-look-so-different-ours/1849/> and <http://denmark.dk/en/green-living/bicycle-culture/how-denmark-become-a-cycling-nation>

^c See: <https://www.theguardian.com/society/2013/nov/01/secrets-worlds-happiest-cities-commute-property-prices> and <https://www.citylab.com/design/2013/12/how-design-happier-city/7810/>

^{ci} See, for example: <http://drexel.edu/uhc/global/overview/>; <https://www.theguardian.com/global-development-professionals-network/2014/apr/03/latin-america-sustainable-urban-transport-development>; and <https://www.thenatureofcities.com/2015/10/19/urban-latin-america-hows-it-going/>

^{cii} See: <http://en.happinessagenda.ae/> and <https://government.ae/en/about-the-uae/the-uae-government/government-of-future/happiness>

^{ciii} See: https://www.gbcsa.org.za/news_post/gbcsa-launches-green-star-communities-pilot-programme-in-south-africa/

^{civ} See: <http://www.mrc.ac.za/environmenthealth/who.htm>; <https://www.africancentreforcities.net/programme/mistra-urban-futures/citylab/healthy-cities-2/>; and <https://lsecities.net/media/objects/articles/the-african-centre-for-cities%E2%80%9999-healthy-cities-citylab/en-gb/>

APPENDIX A: DETAILED EXAMPLES OF INFRASTRUCTURE, DESIGN ELEMENTS, AND AMENITIES IN WELLNESS LIFESTYLE REAL ESTATE AND COMMUNITIES

The following tables provide examples of the many different design features, infrastructure elements, facilities, amenities, and services that may be used in wellness lifestyle real estate and community projects to promote the six dimensions of wellness in GWI's framework (see *Chapter III*). Note that these lists are illustrative but not exhaustive, and one would not expect to find all of these elements in any specific project. The purpose of these tables is to provide additional clarity and spark creative thinking among planners, designers, developers, and policymakers about what elements in our built environment influence our wellness and how these elements can be combined in different ways to enhance residents' health and wellbeing. Additional ideas and guidance may be found in the more structured and codified rating/certification systems and design theories/principles listed in Appendix B. One can also find concrete examples

and ideas by reviewing project plans and case studies of the many wellness lifestyle real estate and community projects that are already in operation or under development around the world (see *Chapter VI*).

We provide two tables of examples – one focusing on individual residence/unit or building-scale projects, and one focusing more broadly on the neighborhood/precinct/city-scale.

We also illustrate key principles in the GWI framework – for example, how different design elements can promote wellness in passive versus active ways (see the individual residence/building table) or how both “hardware” (design/infrastructure and amenities) and “software” (policies/programming) can work together to enhance wellness (see the neighborhood/community table).

Individual Residence or Building-Scale

PASSIVE ELEMENTS

From “Me” →		
Physical Wellness	Mental/Emotional/ Spiritual Wellness	Social Wellness
<ul style="list-style-type: none"> • Health sensors/technology/monitoring • Healthy/nontoxic building materials • Air quality • Fresh air/circulation/ventilation • Healthy lighting (natural daylight, circadian) • Sound-proofing/noise control • Thermal comfort/control • Water quality • Safety/security features • Ergonomic design • Design to meet specific population group needs (disabled, elderly) • Food growing/ gardening space (indoors or out) • Open/accessible & attractive stairways • Exercise/workout space and/or equipment 	<ul style="list-style-type: none"> • Natural materials • Mood-enhancing colors • Beauty/aesthetic design elements • Biomorphic design in forms, materials, finishes • Healthy lighting (natural daylight, circadian) • Sound-proofing/noise control • Nonvisual natural elements (sound, smells, etc.) • Natural/outdoor views • Water elements • Indoor plants & greenery • Outdoor gardening space • Pet-friendly design & amenities • Meditation/quiet/relaxation/retreat spaces • Technology-mgmt. tools & spaces 	<ul style="list-style-type: none"> • Scale & situation of home relative to others (e.g., height, setback, garage & doorway positioning, etc.) • Street-facing porches, balconies, bay windows, & outdoor living spaces • Attractive/open common areas, hallways, & public/social spaces • Open floor plans/ circulation & flow of home layout • Multigenerational units (inlaw suites, granny flats) • High-speed Internet connectivity

ACTIVE ELEMENTS

To “We”

Community Wellness	Environmental Wellness	Economic/ Financial Wellness
<ul style="list-style-type: none"> • Scale & situation of home relative to others (e.g., height, setback, garage & doorway positioning, etc.) • Beauty/aesthetic design elements • Authentic/culturally-rooted design elements • Street-facing porches, balconies, bay windows, & outdoor living spaces • Attractive/open common areas, hallways, & public/ social spaces • Multigenerational units (inlaw suites, granny flats) • Home designs to meet unique needs of various demographics (elderly, families, young, etc.) 	<ul style="list-style-type: none"> • Environmental sensors/ technology/monitoring • Eco-friendly/sustainable/ energy-reducing materials & design • Locally-sourced materials & design • Living roofs • Dark sky outdoor lighting • Design for passive heating & cooling • Renewable energy sources (solar, geothermal, etc.) • Indoor plants & greenery • Rain gardens • Rainwater collection tank/barrels • Backyard wildlife habitats • Native/edible plant landscaping • Backyard gardening space • Composting facilities • Alternative transport amenities (EV charging, bike storage) 	<ul style="list-style-type: none"> • High-quality/long-lasting materials & design • Energy-reducing/saving technology & design • Flexible & adaptable home layouts & design • Affordability of rental rates/sales prices • Smart home technology • High-speed Internet connectivity • Work-at-home space • Live-work units

Neighborhood, Precinct, or City-Scale

DESIGN/INFRASTRUCTURE

AMENITIES

From “Me”



Physical Wellness	Mental/Emotional/ Spiritual Wellness	Social Wellness	Community Wellness
<ul style="list-style-type: none"> • Dark sky lighting • Complete streets • Walkability/pedestrian-friendly design • Bike-friendly design • Disabled-friendly design • Security/safety features (e.g., crosswalks, traffic calming elements, streetlights, etc.) • Parking designed to encourage active/non-driving modes of transport • Services/amenities/ jobs/schools in walking distance (<10 minutes) • Accessible bodies of water and nature (lake, river, forest) • Community gardens • Walking/running/ hiking/biking trails & pathways (off-street) • Parks & playgrounds • Healthy food within community (or walkable): grocery, farmer's market, community-supported agriculture (CSA) • Fitness facilities (e.g., gym, swimming pool) • Outdoor recreation facilities (e.g., sports fields/courts, boating, fishing, etc.) • Wellness facilities (e.g., spa, meditation area, etc.) • Medical/health facilities (e.g., doctor's offices, urgent care, clinics, etc.) • <i>Community non-smoking policy</i> • <i>Recreation equipment sharing & rentals (e.g., bike share, etc.)</i> • <i>Fitness/wellness/health classes & programming (e.g., exercise & mind-body classes, sports leagues, etc.)</i> 	<ul style="list-style-type: none"> • Ample/accessible green space and open space • Tree-lined streets • Beauty/aesthetic design & architectural elements • Unique character/sense of place • Water views/features in design • Community gardens • Pocket parks/gardens/ parklets • Spiritual & civic institutions within the community (or walkable) • Pet parks & amenities • Public art • Libraries • <i>Cultural & arts events & programs</i> 	<ul style="list-style-type: none"> • Complete streets • Connectivity/flow/ walkability of street design (e.g., grids over cul-de-sacs) • Scale & situation of homes relative to others & the street (e.g., density, heights, setbacks, garage/doorway positioning, etc.) • Authentic/culturally-rooted design elements • Beauty/aesthetic design & architectural elements • Unique character/sense of place • Variety of home styles/sizes/ prices to encourage social diversity (e.g., mixed ages, incomes, races) • Schools within community (or walkable) • Connectivity with nearby communities • Public plazas • Benches along sidewalks/ pathways • Community/social center & gathering/meeting spaces • Community cooking/eating areas (e.g., shared outdoor BBQs, picnic areas, etc.) • Farmer's market • Pet parks & amenities • Public art • Libraries • <i>Participatory governance & public forums</i> • <i>Community intranet/online platforms</i> • <i>Community/social events & activities (e.g., festivals, book clubs, etc.)</i> • <i>Community-supported agriculture (CSA)</i> 	

POLICIES/PROGRAMMING

Environmental Wellness

- Open space, conservation areas, & greenways
- Tree canopy
- Eco-friendly/ sustainable/energy-reducing materials & design
- Green infrastructure (e.g., water reclamation, constructed wetlands, living roofs, etc.)
- Local/authentic materials & design
- Dark sky lighting
- Wildlife habitats/ biodiversity protection
- Native/edible plant landscaping
- Limited parking to discourage driving
- Convenient, easy-to-use public transit
- Connectivity with nearby communities
- **Alternative transport amenities (EV charging, bike parking/ lanes)**
- **Community garden space**
- **Organic farm within community (or walkable)**
- *Recycling/composting programs*
- *Car share/bike share programs*
- *Carpool/rideshare programs*
- *Community-supported agriculture (CSA)*
- *Environmental education/ awareness programs*

Economic/Financial Wellness

- Mixed use planning & design (residential/ retail/ commercial)
- High-quality/long-lasting materials & design
- Energy-reducing/saving technology & design
- Mix of price points and units to encourage social diversity (e.g., mixed ages, incomes, races)
- Live-work units in community
- Job opportunities available within community (or walkable)
- “Town center” with retail, services, etc. in walking distance (<10 minutes)
- Connectivity with nearby communities
- **High-speed Internet connectivity**
- **Coworking facilities**
- *Affordable housing policy*

APPENDIX B: WELLNESS-RELATED RATING/ CERTIFICATION SYSTEMS AND DESIGN PRINCIPLES

Below is a list of major rating/certification systems and design theories/principles/manuals (in alphabetical order) that are already in the marketplace and can provide planners, developers, builders,

and policymakers with practical, proven, science-based approaches to design projects that address the six wellness dimensions in the GWI framework (see *Chapter III*).

Building-Scale

Active Design Guidelines

Center for Active Design, <https://centerforactivedesign.org/guidelines/>

Biophilic Design Principles

Terrapin Bright Green, <https://www.terrapinbrightgreen.com/publications/>

CASBEE Housing Health Checklist (Japan)

Japan Sustainable Building Consortium (JSBC) and Institute for Building Environment and Energy Conservation (IBEC), http://www.ibec.or.jp/CASBEE/english/toolsE_housing.htm

Fitwel™ Standard

Center for Active Design, <https://fitwel.org/>

Healthy Active by Design / Healthy Spaces & Places (Australia)

Australia Heart Foundation, <http://www.healthyactivebydesign.com.au/>
<https://www.heartfoundation.org.au/for-professionals/built-environment>
Planning Institute Australia and Australia Local Government Association, <https://www.planning.org.au/policy/healthy-spaces-and-places-2>
<http://www.healthyplaces.org.au/site/index.php>

LEED, BREEAM, & similar

LEED: U.S. Green Building Council, <https://www.usgbc.org/leed>
BREEAM: BRE Global, <http://www.breeam.com/>
List of other standards: <https://www.wbdg.org/resources/green-building-standards-and-certification-systems>

Livable Housing Guidelines (Australia)

Livable Housing Australia, <http://www.livablehousingaustralia.org.au/>

Living Building Standard

Living Future Institute, <https://living-future.org/lbc/>

ULI Building Healthy Places Toolkit

Urban Land Institute, <http://bhptoolkit.uli.org/>

Universal/Inclusive/ Transgenerational Design

Institute for Human-Centered Design, <https://www.humancentereddesign.org/>
Center for an Accessible Society, <http://www.accessiblesociety.org/topics/universaldesign/>
Transgenerational Design Matters, <http://transgenerational.org/>

**WELL Building
Standard™**

International WELL Building Institute, <http://standard.wellcertified.com/>

Neighborhood, Precinct, or City-Scale

**Active Design
Guidelines**

Center for Active Design, <https://centerforactivedesign.org/guidelines/>

**Biophilic Design
Principles**

*Terrapin Bright Green, <https://www.terrapinbrightgreen.com/publications/>
Biophilic Cities, <http://biophiliccities.org/>*

Blue Zone Principles

*Blue Zones, <https://bluezones.com/live-longer-better/>
<https://communities.bluezonesproject.com/>*

**CASBEE Urban and
City Tools (Japan)**

*Japan Sustainable Building Consortium (JSBC) and Institute for Building
Environment and Energy Conservation (IBEC),
Urban Tools: http://www.ibec.or.jp/CASBEE/english/toolsE_urban.htm
City Tools: http://www.ibec.or.jp/CASBEE/english/toolsE_city.htm*

**CDC/APA Healthy
Community Design
Toolkit**

*American Planning Association and the Centers for Disease Control &
Prevention,
[https://www.planning.org/nationalcenters/health/communitydesigntoolkit.
htm](https://www.planning.org/nationalcenters/health/communitydesigntoolkit.htm)
<https://www.cdc.gov/healthyplaces/toolkit/>*

**Enterprise Green
Communities**

*Enterprise, [https://www.enterprisecommunity.org/solutions-and-
innovation/green-communities](https://www.enterprisecommunity.org/solutions-and-innovation/green-communities)*

**Green Star
Communities
(Australia, New
Zealand, South
Africa)**

*Green Building Council Australia,
<http://new.gbca.org.au/green-star/rating-system/communities/>
New Zealand Green Building Council,
https://www.nzgbc.org.nz/Category?Action=View&Category_id=348
Green Building Council South Africa,
<https://www.gbcsa.org.za/green-star-rating-tools/sustainable-precincts/>*

**Healthy Active by
Design / Healthy
Spaces & Places
(Australia)**

*Australia Heart Foundation,
<http://www.healthyactivebydesign.com.au/>
<https://www.heartfoundation.org.au/for-professionals/built-environment>
Planning Institute Australia and Australia Local Government Association,
<https://www.planning.org.au/policy/healthy-spaces-and-places-2>
<http://www.healthyplaces.org.au/site/index.php>*

**LEED-ND,
LEED for Cities**

*U.S. Green Building Council,
LEED-ND: <https://www.usgbc.org/leed>
LEED for Cities (Pilot): <https://www.usgbc.org/cityperformance>*

Liveable Neighbourhood Guidelines (Australia)	<i>Western Australia Planning Commission,</i> Current: https://www.planning.wa.gov.au/Liveable-neighbourhoods.aspx Historic Background: https://www.planning.wa.gov.au/dop_pub_pdf/LN_Text_update_02.pdf
Living Community Standard	<i>Living Future Institute,</i> https://living-future.org/lcc/
New Urbanism, Smart Growth, TOD/TND	<i>Congress for New Urbanism,</i> https://www.cnu.org/resources <i>Transit-Oriented Development Institute,</i> http://www.tod.org/ <i>Smart Growth America,</i> https://smartgrowthamerica.org/ <i>National League of Cities,</i> http://www.sustainablecitiesinstitute.org/topics/land-use-and-planning
One Planet Living Principles	<i>BioRegional,</i> http://www.bioregional.com/oneplanetliving/
STAR Community Standard	<i>STAR Communities,</i> http://www.starcommunities.org/
ULI Building Healthy Places Toolkit	<i>Urban Land Institute,</i> http://bhptoolkit.uli.org/
Universal/Inclusive/Transgenerational Design	<i>Institute for Human-Centered Design,</i> https://www.humancentereddesign.org/ <i>Center for an Accessible Society,</i> http://www.accessiblesociety.org/topics/universaldesign/ <i>Transgenerational Design Matters,</i> http://transgenerational.org/
WELL Community Standard™	<i>International WELL Building Institute,</i> https://www.wellcertified.com/en/articles/vision-%E2%80%93-and-standard-%E2%80%93-healthy-global-communities

APPENDIX C: METHODOLOGY FOR HOME SALES PRICE PREMIUM ESTIMATES

Price Premium Analysis for Components of Healthy Built Environments

The GWI research team conducted an extensive literature review of scholarly articles, peer-reviewed studies, and independent reports that have studied the sales price and home value premiums related to various types of design, infrastructure, and amenities that contribute to a healthier built environment. We reviewed more than 220 studies, which mostly span a twenty-year period (mid-1990s-present, although a small number have analyzed data over a longer timeframe going back to the 1970s or 1980s). These studies have primarily focused their analysis at the neighborhood- and metro-levels, and they include studies across more than 20 countries. The majority of studies employ a *hedonic pricing model*, a methodology that allows the researcher to use regression analysis to unbundle and measure the relationships between various factors (e.g., location, property characteristics, neighborhood characteristics) and a home or property price. Hedonic pricing is a well-established method for estimating the values that buyers place on different home characteristics.

To synthesize the data and findings from these studies, we systematically organized them into six categories that reflect different components of healthy built environments, as described below. For each category, we then aggregated the data into a reasonable price premium range that reflects the findings from the majority of the studies in that category (eliminating extreme outliers on the high and low ends).

- **Open space, greenbelts, and conservation areas:** We reviewed over 50 research studies across 12 countries that look at the price premiums for homes with proximity or adjacency to open/green space, conservation areas, greenbelts, and forest preserves/woodlands, as well as natural views (e.g., of water, forests/trees, attractive landscaping, etc.). These studies found a 3-12% price premium for homes with nearby open/green space and conservation areas, with the premium levels depending on a number of factors such as distance from the home, the quality of the natural area/view, whether the open space was permanently preserved or developable, and whether the home was in an urban or rural area. Price premiums for homes with water frontage or views were significantly higher (in the range of 25-100%+).
- **Parks and trails:** We reviewed over 50 studies across 7 countries looking at natural amenities that provide outdoor recreation opportunities, including parks and various types of trails (walking, hiking, biking, multi-use). These studies found home price premiums typically ranging from 4-20%, with the level depending on the home's distance from the park/trail, the nature/quality/amenities of the park, and whether the home was urban or rural.
- **Recreational programming and amenities:** While recreational amenities have been less studied than other community features, we found over 25 studies in 6 countries that assess premiums for various types of recreational facilities (e.g., fitness centers, swimming pools, social areas, playgrounds) and recreational programming (e.g., fitness classes) in master-planned communities and neighborhoods. We reviewed an additional 17 studies that focus on golf courses as a community amenity. Although the evidence was slightly less conclusive because of the diverse set of amenities included here, the price premium was typically in the range of 5-15% in these studies.
- **New Urbanist:** We reviewed 40 studies (primarily in the United States, along with 3 other countries) that have assessed price differentials in New Urbanist neighborhoods, as well as communities with New Urbanist-

style features (e.g., mixed-use, higher-density, transit-oriented, and traditional neighborhood design). Home price premiums generally ranged from 5-20% for these features. Some especially well-designed New Urbanist developments have commanded even higher price premiums, as well as faster absorption rates and higher-than-average home value appreciation over time. Homes in desirable urban locations with close proximity to transit stops, central business districts, and workplaces can also command premiums well over 20%.

- **Walkability:** We reviewed 10 relatively recent studies in the United States that have looked at the relationship between home values and neighborhood walkability – an analysis that has become easier in the last decade with the development of the *Walk Score* in the United States (<https://www.walkscore.com/>). All of the studies we reviewed found higher home values and sales prices associated with higher levels of neighborhood walkability, as well as higher office rental rates. The most frequently cited study (Cortright, J., *Walking the Walk*) found a price premium of \$4,000-\$34,000 for homes in neighborhoods with above-average walkability across typical metro areas in the United States.
- **Sustainability:** We reviewed about 30 studies across 14 countries that have studied the relationship between various sustainability features and home prices. These studies generally found price premiums ranging from 1-10%, with premiums on the lower end for homes with energy efficient features and on the higher end for homes with some type of green certification/label.

For a list of many of the key studies included in the above analysis, see the *Bibliography*.

Price Premium Analysis for Existing Wellness Lifestyle Real Estate and Community Developments

To estimate the home price premium in holistic, intentionally-designed wellness lifestyle real estate and community developments, the GWI research

team gathered data via two sources:

1. Primary research on sales price premiums in wellness community developments: GWI conducted original, independent research on the recent sales price premiums in 5 wellness communities in the United States and United Kingdom: BedZED (Greater London, UK), Lake Nona (Florida), Prairie Crossing (Illinois), Serenbe (Georgia), Willowsford (Virginia). Since some of these communities are still constructing new homes, while others are long-established, our price analysis included a mixture of new construction sales and market-based resales. We included only single family, detached homes in this research.

To conduct the analysis, we utilized the historical real estate sales data reported on zillow.com (for the United States) and rightmove.co.uk (for the United Kingdom), combined with data from U.S. county-level property tax assessment databases (which record home sales, prices, and other data in individual counties across the United States). For each community under study, we used the following methodology:

- Created a list of all home sales in the wellness community in the last 3, 6, 12, or 18 months (between January 2016 and June 2017) or 5 years (in the case of the UK, 2013-2017). The time period under analysis varied by community and depended upon the level of sales activity in the community; we extended the time period long enough to create a list of at least 30+ sales (i.e., sufficient critical mass for conducting price comparison analysis).
- Identified a set of 4-8 comparable neighborhoods, regions, or master-planned developments to use for conducting sales price comparison analysis, based upon our independent research on what neighborhoods might also be considered by typical buyers looking at homes in the wellness community under study. Key factors for defining neighborhood comparability included the type, size, and age of homes; neighborhood characteristics; location; distance to the metro area downtown or central business districts; quality of schools; and other factors typically considered by homebuyers.

- Created a “matched set” of home sales in the 4-8 comparison neighborhoods for each wellness community under study. To avoid bias, we first created a list of all home sales in the comparison neighborhoods (within the same time period as the home sales in the wellness community). We eliminated extreme outliers that were uncharacteristically high or low for the neighborhood (e.g., foreclosures, short sales, and other non-market-rate sales; homes that were not characteristic of the neighborhood in size, age, or other qualities). To the extent possible, we then balanced the list of comparable neighborhood sales to match the list of wellness community sales on key characteristics (e.g., percent of home sales that were 2 bedroom, 3 bedroom, etc.; date range in which the homes were constructed; and minimum/maximum/median square footage).
- For the wellness community home sales and the comparison neighborhood home sales, we calculated several key metrics for comparison purposes: overall mean and median sales price; mean and median sales price per square foot, and mean and median sales prices broken down by number of bedrooms. These metrics allowed us to calculate the sales price differentials and premiums between the wellness community under study and the matched set of home sales in comparable neighborhoods.

2. Secondary data on premiums reported by developers in various wellness communities/projects:

To supplement the above analysis, GWI also reviewed case studies of wellness-focused residential projects prepared by the Urban Land Institute (mostly as part of its “Building Healthy Places” initiative, <http://americas.uli.org/wp-content/uploads/sites/125/ULI-Documents/Building-for-Wellness-The-Business-Case.pdf>). These case studies provided additional information on sales/rental price premiums and other market success metrics (such as sales/lease-up rates or velocity, and turnover) as reported by project developers.

APPENDIX D: DETAILED EXAMPLES OF OPERATIONAL AND FINANCIAL MODELS FOR COMMUNITY WELLNESS FACILITIES AND SERVICES

Different communities have utilized a variety of operational and financial models for their wellness “software.” Some have found a mix of successful approaches, while others are experimenting or struggling with finding the right business model. To complement the summary information provided in *Chapter IV*, this Appendix provides details about the operational models currently in use or under development, their pros and cons, as well as examples of communities that are using or developing them.

Basic wellness foundation for all residents (HOA-based amenities)

Many communities run wellness facilities and services through their homeowners’ association (HOA). HOA dues give residents a basic level of access to facilities, and additional fees may be charged for classes or services. Some HOAs fund full-time “lifestyle director” positions to curate and run programming and events. This model is typical in all master-planned communities and condominiums.

- **Benefits:** All community residents have equal, open, low-cost (or free) access to wellness amenities, which encourages use.
- **Other considerations:** Revenue streams are limited to what is reasonable to collect regularly from residents (via HOA dues or additional fees), thereby limiting the extent of services and programming. Residents-only amenities may create exclusivity and reduce social connectivity beyond the development.

EXAMPLES OF HOA-BASED AMENITIES



Laureate Park, Lake Nona ORLANDO, FLORIDA

Laureate Park is a 2,700+ lot neighborhood that opened in 2011. It is one among more than 12 neighborhoods in the 11,000 acre Lake Nona master-planned community, a suburb of Orlando, Florida.

- Low HOA dues (currently \$87/quarter per household) provide access to a private neighborhood fitness center and swimming pool. Yoga, spin, and other classes cost a modest \$5-10/class for residents only.
- The HOA also operates a community garden (free for residents) and an active calendar of events.



Rancho Sahuarita SAHUARITA, ARIZONA

Rancho Sahuarita is a 11,000+ home, 3,000 acre master-planned community that opened in 2002, located outside Tucson, Arizona.

- For HOA dues of about \$100/month, residents can access a waterpark, a large multipurpose recreational center with extensive wellness/fitness facilities and programming, and dozens of free fitness classes each week. Residents can purchase a visitor pass for guests (\$10/day).
- 55 and older residents can buy membership (\$18.75 annual fee) to a club offering events and activities. Neighborhoods targeting “active adults” (55+) also operate their own clubhouses, fitness, and swimming facilities (additional sub-HOA dues).
- Some community events are exclusive to residents, while other events are open to the public (often via local partnerships and sponsorships).
- The developer also charges a \$2,500/home “parks and rec” fee for builders and a 1% “community enhancement” transfer fee on resale homes.



Harvest Green RICHMOND, TEXAS

Harvest Green is a master-planned community with 2,000+ homes and 1,300 acres, located on the outskirts of Houston, Texas. It opened in 2015.

- Residents pay annual HOA dues of about \$985/home for access to a state-of-the-art fitness/recreation center and aquatic facilities.
- HOA also owns a 12-acre farm (operated/managed by an outside vendor) and funds a full-time lifestyle director who manages an active calendar of community festivals, events, and classes.

All-inclusive, immersive wellness living (destination spa & resort-based amenities)

Similar to golf or country club communities, this is a common model in the hospitality sector to combine a destination spa or resort with residential real estate. Typically, the resort owner or management company operates the amenities, charging an up-front initiation fee (upon home purchase) as well as monthly membership dues.

- **Benefits:** Financial stability through multiple revenue streams (resident initiation fees and membership dues, plus hospitality guest spending). Residents can enjoy extensive, resort/spa-caliber amenities and programming because guest volume helps achieve economies of scale. In addition, tourist visits introduce potential buyers to the community and generate sales leads.
- **Other considerations:** Typically at the higher end of the market, these properties charge extensive fees that put them out of the reach of the average, middle class homebuyer. As luxury-focused, second-home/vacation properties, they often cultivate an atmosphere of exclusivity and do not generate social connectivity or a community feel (either within or outside the property).

EXAMPLES OF DESTINATION SPA & RESORT-BASED AMENITIES



Canyon Ranch Living LENOX, MASSACHUSETTS

The Canyon Ranch Living Residences at Bellefontaine, launched in 2016, consist of 19 luxury condominiums directly connected to the Canyon Ranch resort's spa facilities.

- Membership in Canyon Ranch is mandatory for all condo residents. The membership fee for 2017 is scaled based upon the unit and the number of members within the unit, ranging from \$9,000 to \$21,600 per year.
- All resident members have full access to the extensive Canyon Ranch Lenox resort offerings, including facilities, classes, lectures, and dining outlets. The majority of the fitness classes and lectures are complimentary.
- Members also receive discounts on à la carte treatments, classes, and services.
- In addition, residents pay a monthly HOA fee of approximately \$1/sq.ft., which covers the operation, maintenance, cleaning, and care of the common areas within the residences.

Flexible packaging for wellness enthusiasts (tiered & à la carte amenities)

Some developers curate a package of amenities to fit with the wellness concept of the community and engage a third party to operate them. Wellness facility membership may be optional for residents, or may offer a default/basic membership level (funded via HOA dues), with the choice of paying more for higher tiers of membership and additional services. Non-residents can also buy memberships and à la carte services.

- **Benefits:** Flexibility and choice for community residents, and the ability to generate revenue streams from non-residents. This funding mode often provides more extensive services and programming, while taking advantage of third-party operational and wellness expertise. The open access model also invites more connectivity with people outside the development.
- **Other considerations:** These new approaches are being explored and experimented in some wellness community projects and have not been “proven” or extensively “tested” in the marketplace.

EXAMPLES OF TIERED & À LA CARTE AMENITIES



NorthLake Park, Lake Nona ORLANDO, FLORIDA

NorthLake Park was one of the first neighborhoods built in Lake Nona, starting in 1998. It is one among more than 12 neighborhoods in the 11,000 acre Lake Nona master-planned community, a suburb of Orlando, Florida.

- HOA dues (approx. \$300/quarter per home) cover membership to the YMCA located at the center of the community, offering a state-of-the-art fitness facility, swimming pool, sports courts, group fitness classes, workout clubs, complimentary childcare, and other programming. YMCA membership is also open to non-residents.

- YMCA shares a building with the NorthLake Park Elementary School; the co-location allowed the school to be constructed before homes were built, which helped to accelerate home sales.
- Recognized by the Urban Land Institute as a pioneering, private-public partnership that created co-located school and wellness hub.



Sterling Ranch (under development) **DOUGLAS COUNTY, COLORADO**

Sterling Ranch is a 12,000 home, 3,400 acre master-planned community in development outside of Denver, Colorado, targeted to open in 2018.

- A series of 3-4 Wellness Pavilions will be built throughout the community. The 20,000+ sq.ft. Pavilions will be home to a curated set of holistic wellness amenities, services, education, and community programs.
- All residents will have access to basic facilities, such as the fitness center, swimming pool, mineral baths, and locker rooms in the Pavilion. The cost for this basic access is embedded in a special “metropolitan district” tax levy assessed on homes in the Sterling Ranch development (a type of property tax), overseen by a Community Authority Board (CAB).
- Residents will have options to pay additional monthly fees to upgrade to higher tiers of membership that will provide increased/preferential access to additional activities and services. The Wellness Pavilions will also be open to the public outside Sterling Ranch; however, non-residents will pay a higher membership fee at all levels. À la carte usage and pricing of services, classes, and programs will also be available.

Wellness for community benefit (nonprofit institute or foundation model)

A relatively new approach is to set up a nonprofit community institute or foundation to operate key initiatives and programs that are central to the community’s wellness concept. A substantial part of the funding typically comes from private transfer fees generated by home sales, along with outside fundraising, grants, and income-generating fee-for-service activities.

- **Benefits:** Nonprofits can focus on environmental/agricultural programming, arts and culture, education, and other activities that are not typically run as for-profit businesses, yet are crucial to the identity and spirit of the wellness community. Sometimes, the nonprofit can “incubate” new activities or ventures before spinning them out once they become self-sustaining.
- **Other considerations:** May require significant start-up/seed funding from the developer to get started. Often staff needs to spend time on fundraising and grants-writing to cover their budgets. Income-generating fee-for-service activities need to be extended far beyond just the residents of the community itself in order to be sustainable.

EXAMPLES OF NONPROFIT INSTITUTE OR FOUNDATION MODEL



Serenbe Institute, Playhouse, & Farm, Serenbe CHATTAHOOCHEE HILLS, GEORGIA

Serenbe is 1,000 acre master-planned community on the outskirts of Atlanta, Georgia. It opened in 2004 and currently has about 200 homes.

- Established in 2005, the Institute funds, seeds, and operates initiatives and programming, e.g., artists-in-residence, Serenbe Film, a fellows program, a dance company, trail education, a small community center, etc.^{cv}
- Funded through a transfer fee on home sales and re-sales (1% on homes and 3% on lots); 25% of these revenues are transferred to the endowment. A \$844,000 annual budget in 2015: \$212,000 from transfer fees, and the Playhouse, film series, and other events generate more than \$600,000 in revenues every year.
- Serenbe Playhouse, seeded in 2009, is now a self-sustaining professional arts organization that employs 5 people full-time.
- Serenbe Farm (an organic farm at the center of the community) is a nonprofit organization that is funded by CSA subscriptions (by residents and non-residents), farmers' market sales, and contracts with local restaurants. It became self-sustaining after three years of operation.



Liberty Prairie Foundation PRAIRIE CROSSING, GRAYSLAKE, ILLINOIS

Prairie Crossing is 677 acre, 400 home master-planned community outside Chicago, Illinois. It was started in 1992.

- Established in 1993; provides environmental management and farm services for the Prairie Crossing community (per contract with the HOA). A Staff of 15 and a \$1.2 million annual budget.^{cvi}
- Funded by a private transfer fee of 0.5% on home sales, plus a donation from a nearby landfill at \$0.30 per cubic yard (~40% of the annual budget).
- Owns and manages the 100-acre Prairie Crossing Farm (housing a group of small, independent farm businesses that sell through CSAs and farmers' markets in the Chicago area). Early in its development, farm operation was supported by the developer as a marketing expense. After build-out, the developer donated the land to the Foundation.
- Operates a farm business development "incubator" program (which has launched 16 organic farm businesses); a youth development program; food-related educational programs, tours, and seasonal events; community garden plots; and a grant program to support other regional initiatives.
- Also manages the Liberty Prairie Reserve (5,000 acres of adjacent, preserved open space), and an on-site renovated historic barn that is used or rented out for community and private events.

Other wellness communities that operate nonprofit foundations for community benefit initiatives include: Lake Nona, Florida; Harmony, Florida; South Village, Vermont; I'On Village, South Carolina; Harvest Green, Texas; Cross Creek Ranch, Texas; and Willowsford, Virginia.

Consumer choice in a free market (market-based model)

In some communities, amenities and services may be entirely operated by third-party businesses, with little to no involvement on the part of the developer or HOA. This model is especially typical in urban multifamily properties (condominiums and rental apartments), in which ground-floor storefronts may be leased to outside businesses (gyms, fitness studios, cafes, retail), which equally serve residents and others in the neighborhood. Mixed-use, New Urbanist-style master-planned communities also use this model to operate the “town center” portions of their developments. One new approach in wellness communities is for the property owner/manager to offer a concierge or booking service for residents that would coordinate and provide a centralized point of contact for the wellness services/businesses operating in the development.

- **Benefits:** Fully market-based businesses are forced to operate competitively to stay sustainable over the long-term. In mixed-use communities, the retail/commercial components are more likely to operate and “feel” like an organically-developed town. Less responsibility and risk on the part of the developer, property owner/manager, and HOA.
- **Other considerations:** The developer has less ability to curate the types of wellness facilities/services offered in the community and shape how they run, other than possibly designating certain spaces to be leased to a fitness center, wellness clinic/provider, childcare center/school, etc.

EXAMPLES OF MARKET-BASED MODEL



The District Jax (under development) JACKSONVILLE, FLORIDA

District Jax is mixed-used urban community along a redeveloped waterfront in Jacksonville, Florida, with 1,200 residential units planned for people of all ages. Target opening 2019-2020.

- A significant portion of the retail space (~20% of 150,000 sq.ft.) will be dedicated to attract wellness businesses such as fitness centers, yoga studios, healthy foods, etc. All wellness amenities and services will be operated by third parties.
- Wellness offerings will be anchored by “Base Camp” – a concierge service complemented by an App that will link members to participating wellness providers and businesses in The District. Members of Base Camp will receive preferential access and discount rates to wellness offerings.
- Membership to Base Camp is open to anyone living inside and outside The District, but District residents will pay lower membership fees.

^{cv} See: <http://www.serenbeinstitute.com/> and <https://serenbefarms.com/>

^{cvi} See: <http://libertyprairie.org/> and Watson, J.S. (2016). *Prairie Crossing: Creating an American Conservation Community*. Champaign, IL: University of Illinois Press. For more background on how Prairie Crossing, Serenbe, and other communities manage their farm operations, see: <http://libertyprairie.org/wp-content/uploads/2013/12/Building-Communities-with-Farms.pdf>.

^{cvi} See: Lake Nona Institute (<http://lakenonainstitute.org/>); Harmony Institute (<http://www.harmonyinstitute.org/>); South Village Stewardship Fund (<http://www.southvillage.com/about-south-village/land-stewardship/>); The I'On Trust (<http://iontrust.org/>); Harvest Green Your Community Foundation Committee (<https://www.harvestgreentexas.com/foundation/>); Cross Creek Ranch Your Community Foundation Committee (<https://www.crosscreektexas.com/education-foundation/>); and Willowsford Conservancy (<http://willowsford.com/wp-content/uploads/2017/02/Cons-Website-Insert.pdf>).

APPENDIX E: IMPACT STUDIES AND REPORTS BY WELLNESS REAL ESTATE DEVELOPERS AND OPERATORS

As summarized in *Chapter V*, several wellness real estate developers and operators (along with partnering organizations) have conducted research

studies to document the health and wellbeing impacts on their residents. The full reports on these studies and their findings are listed below.

Arbor House
NEW YORK,
UNITED STATES

Center for Active Design (2017). *Advancing Research on Active Design*. <https://centerforactivedesign.org/evaluating-active-design-housing>.

Claflin, A., Asri, N., Agarwal, R., and Nienaber, S. (2017, January 26). *Policy Brief: Understanding the Impact of Active Design in Affordable Housing: Insights for Policymakers and Developers*. New York City: Center for Active Design.

Garland, E., Baban, K.A., Garland, V., Bey, G., and Sanchez, S.H. (2014). One Step at a Time Towards Better Health: Active Design in Affordable Housing. *Environmental Justice*, 7(6), 166-171. <https://doi.org/10.1089/env.2014.0031>.

BedZED
GREATER LONDON,
UNITED KINGDOM

BioRegional and Peabody (2009). *BedZED Seven Years On: The impact of the UK's best-known eco-village and its residents*. Wallington, UK: BioRegional Development Group. http://www.bioregional.com/wp-content/uploads/2014/10/BedZED_seven_years_on.pdf.

High Point
Breathe-Easy Homes
WASHINGTON,
UNITED STATES

Seattle Housing Authority (n.d.). *High Point Redevelopment: Breathe-Easy Homes*. <https://www.seattlehousing.org/about-us/redevelopment/high-point-redevelopment/breathe-easy-homes>.

Takaro, T., et al (2011, January). The Breathe-Easy Home: The Impact of Asthma-Friendly Home Construction on Clinical Outcomes and Trigger Exposure. *American Journal of Public Health*, (101)1, 55-62. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3000722/pdf/55.pdf>.

Phillips, T. (n.d.). *Breathe-Easy Homes ease asthma symptoms in High Point's low-income children*. <https://www.enterprisecommunity.org/download?fid=1895&nid=13950>.

U.S. Department of Housing and Urban Development, Office of Policy Development and Research (2012). *Seattle's High Point Redevelopment Project*. https://www.huduser.gov/portal/casestudies/study_04092012_1.html.

Mariposa
COLORADO, UNITED
STATES

- Denver Housing Authority (n.d.). *Mariposa Redevelopment*. <http://www.denverhousing.org/development/Mariposa/Pages/default.aspx>.
- Denver Housing Authority and Mithun, Inc. (2012). *Mariposa Healthy Living Toolkit*. <http://www.denverhousing.org/development/Mariposa/Documents/Mariposa%20HLI%20Toolkit%202012.pdf>.
- Center for Active Design (n.d.). *Mariposa Redevelopment Master Plan and Healthy Living Initiative*. <https://centerforactivedesign.org/mariposa/>.
- Christensen, E. (2013, March 21). *Achieving Green Affordable Living with Healthy Urbanism*. San Francisco, CA: Mithun. http://archive.uli.org/housingopportunity/march21/130/greeninghousing/Christensen_Presentation.pdf.
- Fletcher, A., et al (2017). *Community Engagement for Healthy Housing: The Story*. Change Lab Solutions – The Block Project. <https://medium.com/the-block-project/community-engagement-for-healthy-housing-50a187287f3>.
- Kramer, A., Lassar, T., Federman, M., and Hammer-Schmidt, S. (2014). *Building for Wellness: The Business Case*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/Building-for-Wellness-The-Business-Case.pdf>.

Mueller
TEXAS, UNITED STATES

- Zhu, X., et al (2014). A Retrospective Study on Changes in Residents' Physical Activities, Social Interactions, and Neighborhood Cohesion after Moving to a Walkable Community. *Preventive Medicine*, 69(Suppl.), S93-S97. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4268044/>.
- College of Architecture Center for Health Systems & Design, Texas A&M University (2013). *Walkable Communities: Evaluating Impacts of a Walkable Community on Residents' Physical and Social Health*. https://www.acsa-arch.org/docs/default-source/resources/aia_sus_tamu_rpt_digital_f.pdf?sfvrsn=2.
- Zhu, X., et al (2014, March). *Health Impacts of a Walkable Community*. 2014 Active Living Research Conference. <http://activelivingresearch.org/health-impacts-walkable-community>.
- "Walkable Communities" Really Do Work. January 7, 2015. *Texas A&M Today Press Release*. <http://today.tamu.edu/2015/01/07/walkable-communities-really-do-work-study-finds/>.
- Walkable community's influence on physical activity investigated. October 23, 2012. *ARCHOne*. <https://one.arch.tamu.edu/news/2012/10/23/zhu-decade-of-design/>.

Selandra Rise
VICTORIA, AUSTRALIA

VicHealth (2016). *Planning and designing healthy new communities: Selandra Rise*. <https://www.vichealth.vic.gov.au/media-and-resources/publications/selandra-rise>.

Maller, C. and Nicholls, L. (2016). *Selandra Rise Research Highlights*. <https://www.planning.org.au/documents/item/7721>.

VicHealth (2016). *Reducing commute times integral to the health of our outer suburban residential communities*. <https://www.vichealth.vic.gov.au/media-and-resources/media-releases/reducing-commute-times-integral-to-the-health-of-our-outer-suburban-residential-communities>.

Maller, C. and Nicholls, L. (2016). *Build in good services from day one for healthier communities: lessons from Selandra Rise*. <https://theconversation.com/build-in-good-services-from-day-one-for-healthier-communities-lessons-from-selandra-rise-58790>.

Maller, C. (2012). *Master Planned Communities and the Re-formation of Cities for Health and Wellbeing: The Case of Selandra Rise*. International Making Cities Livable Paper. http://global-cities.info/wp-content/uploads/2012/04/IMCL_2012_Maller_paper_14022012.pdf.

Stockland
(developer of 40
communities in
AUSTRALIA)

Stockland (2017). *The Stockland Liveability Index: Community Insights for the Future of Australian Cities*. <https://www.stockland.com.au/residential/discover-our-communities/sustainability-and-well-being/liveability>.

Stockland (2017, August 8). *“Liveability” survey, urban experts unveil ingredients for successful cities*. Joint Media Release. <https://www.stockland.com.au/media-centre/media-releases/liveability-survey-findings-urban-experts-unveil-key-ingredients-for-successful-cities>.

Stockland (2017). *Stockland Sustainability DMA Series: Community (FY16)*. <https://www.stockland.com.au/about-stockland/sustainability/shape-thriving-communities>.

Stockland (n.d.). *Liveability – Residential Communities*. <https://www.planning.org.au/documents/item/5553>.

Property group designs liveability index. August 31, 2011. <http://www.thefifthestate.com.au/articles/property-group-designs-liveability-index/27251>.

Shared Value Project (2016). *Stockland: Creating liveable communities through shared value*. http://sharedvalue.org.au/wp-content/uploads/2016/01/Stockland-SVI-Case-Snapshot_Final.pdf.

**Berkeley Group
(developer of 6
communities in UNITED
KINGDOM)**

Berkeley Group. *Creating Successful Places*. <https://www.berkeleygroup.co.uk/sustainability/social-sustainability/creating-successful-places>.

Berkeley Group (2012). *Creating Strong Communities: How to measure the social sustainability of new housing developments*. <https://www.berkeleygroup.co.uk/media/pdf/e/9/berkeley-group-social-sustainability-parts-1-3.pdf>.

Berkeley Group (2014). *Creating Successful Places: A Toolkit*. <https://www.berkeleygroup.co.uk/media/pdf/l/h/berkeley-social-sustainability-toolkit.pdf>.

Berkeley Group and UK Green Building Council (2015). *Practical how-to guide: How to use a social sustainability framework*. <http://www.ukgbc.org/sites/default/files/How%20to%20use%20a%20social%20sustainability%20framework.pdf>.

Dixon, T. and Woodcraft, S. (2013, November). *Creating Strong Communities: Measuring Social Sustainability in New Housing Development*. *Town and Country Planning*. <https://www.reading.ac.uk/web/files/cme/Tim-Dixon-Design-Wellbeing-paper.pdf>.

**RESIDE Study
WESTERN AUSTRALIA,
AUSTRALIA**

University of Western Australia (n.d.). *RESIDential Environment Study (RESIDE) II*. <http://www.see.uwa.edu.au/research/cbeh/projects/reside2>.

University of Western Australia (2015). *Living Liveable. The impact of the Liveable Neighbourhoods Policy on the health and wellbeing of Perth residents*. http://www.see.uwa.edu.au/__data/assets/pdf_file/0009/2805543/CBEH_Reside_Brochure_.pdf.

University of Western Australia (2015). *The RESIDential Environments (RESIDE) Project: List of Publications*. http://www.see.uwa.edu.au/__data/assets/pdf_file/0003/2805546/RESIDential-Environments-Project_List-of-Publications_October-2015.pdf.

Giles-Corti, B., et al (2007, November). *Can the impact on health of a government policy designed to create more liveable neighbourhoods be evaluated? An overview of the RESIDential Environment Project*. *NSW Public Health Bulletin*, 18(11-12), 238-242. <https://doi.org/10.1071/NB07027>.

**Gallup Active Living
Communities Study
UNITED STATES**

Gallup-Healthways (2015). *State of American Well-Being: Active Living Environment in U.S. Communities*. http://info.healthways.com/hubfs/Gallup-Healthways_State_of_American_Well-Being_2015_Community_Impact_vFINAL.pdf?t=1476288475331.

Witters, D. and Nekvasil, N. (2016, October 11). *Communities Built for Active Living Have Healthier Residents*. <http://news.gallup.com/businessjournal/196061/communities-built-active-living-healthier-residents.aspx/>.

APPENDIX F: RESOURCES FOR MEASURING WELLNESS IMPACTS

Four Types of Community-Level Research Studies

There are several different types of research studies that can be conducted at the community level to measure and document wellness benefits and impacts. These studies vary widely in terms of the amount of time, resources, and expertise required to conduct them. For each type of study, we provide below a short description, pros and cons, and some examples of communities that have conducted (or are in the process of conducting) them. The study descriptions are followed by a sample list of existing third party datasets and resources that could be used for benchmarking community data against regional/national averages.

1. Longitudinal Studies

A longitudinal study is observational (non-experimental) research, in which data is gathered from subjects repeatedly over a long time period (many years or even decades). In medicine, it is often used to identify predictors for diseases. The Framingham Heart Study is one of the best-known and longest-running community-based studies of this nature; starting in 1948 and now on its third generation of participants, Framingham is recognized for identifying the key risk factors for heart disease.

- **Benefits:** Can be more powerful than other types of community-based studies noted below because it can capture cause and effect relationships.
- **Other Considerations:** Requires a large sample size of subjects, a large research infrastructure, and strong scientific research expertise, as well as extensive costs and time to conduct research consistently over a long timeframe. It takes a very long time to identify and document results.
- **Examples:** Two wellness communities in Florida have launched community-based longitudinal studies (both modeled on Framingham, and both partnering with the University of Central

Florida College of Medicine) to study connections between wellness lifestyles/behaviors and living in an intentionally-designed community: the **Harmony Translational Health Study** (http://www.harmonyinstitute.org/health_study.html) and the **Lake Nona Life Project** (<http://www.liveworkparticipate.com/>). **Bucking Horse**, Colorado, has also launched a time series study of residents in partnership with Colorado State University and local hospitals. All of these studies are in the early stages, and no results or data are available yet. In Western Australia, the **RESIDENTIAL Environment Project (RESIDE) Study** is a 10+year longitudinal study (launched in 2003) to research the impacts of a regional “liveable neighborhoods” policy across 73 new housing developments, and has resulted in over 60 scientific publications (<http://www.see.uwa.edu.au/research/cbeh/projects/reside2>; see *Chapter V* for more information).

2. Community-Based Health & Wellness Impact Evaluations

These studies use a social science-based systematic approach to measure the shorter-term health and wellness impacts for residents living in wellness communities (or participating in community-based wellness programs/initiatives). For example, did residents change their behaviors or lifestyle as a result of living in the wellness community? Data collection is generally done via surveys, interviews, and focus groups, with study subjects self-reporting on their results. Findings can be tracked to show change over time, compared to residents’ behaviors before moving into the wellness community, and/or compared against a “control” community or regional/national benchmark data.

- **Benefits:** Requires significantly less resources and manpower than a longitudinal study. Can be done over a short timeframe and immediately upon a community’s launch to demonstrate

short-term outcomes. While findings may not be “scientific,” they can show measurable and valuable outcomes that can be used to speak to potential buyers and inform community design.

- **Other Considerations:** Since the surveys used in these kinds of community evaluations are typically non-scientific (not a random/representative sample), the findings cannot be generalized to the larger population. Can establish relationships or correlations between factors but not causation.
- **Examples:** Six wellness communities have already conducted studies and demonstrated impacts on residents, as described in *Chapter V*: **BedZED** (United Kingdom), **Selendra Rise** (Australia), **Mueller** (Texas), **Mariposa** (Colorado), **Seattle High Point Breathe-Easy Homes** (Washington), and **Arbor House** (New York City). A few studies currently underway include: **Prospect Plaza** (New York City; <https://centerforactivedesign.org/evaluating-active-design-housing>), the **Australia High Life study** (multiple buildings in Perth, Melbourne, and Sydney; <http://cur.org.au/project/high-life-study/>), and **Yesler Terrace** in Seattle (<https://www.huduser.gov/portal/casestudies/study-09052017.html>).

3. Multi-Community Health & Wellness Benchmark Studies

A similar social science-based research approach can be done across a larger set of communities – for example, a developer studying resident wellness across its portfolio of residential developments. Study methods would be similar to those outlined above, with data gathered via resident surveys, interviews, or focus groups. This kind of data collection is good for benchmarking against regional/national averages.

- **Benefits:** Larger sample size of study subjects, which facilitates validity and benchmarking of data. Can be especially useful for developers seeking to identify marketing angles for communicating the benefits of their wellness-focused building/design approaches. Can also be used to inform and adjust a developer’s

design approaches over time to respond to resident needs and interests.

- **Other Considerations:** Requires community-mindedness and a longer time commitment by the developer to operate and manage their residential communities (rather than rapid divestment by the developer to homeowners as soon as the project is complete).
- **Examples:** Two wellness-oriented developers have conducted these kinds of studies across their large portfolios of residential developments: *Stockland* (Australia) and *Berkeley Group* (UK), as described in *Chapter V*.

4. Health Impact Assessments

This is a relatively new tool (jumping off of the concept of environmental impact assessments) that helps public policymakers and planners to objectively evaluate the potential and often overlooked human health risks and impacts of a new project or policy *before* it is implemented. Health impact assessments are intended to encourage a planning and decision-making process that will keep health issues at the forefront and shape projects/policies *ex ante* to reduce risks and negative externalities.

- **Benefits:** Helps ensure that health/wellness factors are considered before a project is built or implemented, and can help shape planning and decision-making to improve health/wellness outcomes. Typically a multidisciplinary process that draws upon the expertise of stakeholders in research, business, and other fields.
- **Other Considerations:** Can require extensive resources/expertise and a longer planning timeframe before a project is underway. HIAs are typically led by public policymakers or third-party organizations, but these kinds of tools could also be employed by wellness-minded developers seeking to design projects with good health/wellness outcomes. Often-times, HIAs are conducted by outside organizations that do not have decision-making authority over the project or policy and may not ultimately shape the project’s design or trajectory. Public policymakers/planners that must approve new residential developments could employ HIA tools to encourage healthier build-

ing practices within their jurisdictions, even for developers who may not be thinking in these terms.

- **Examples:** Hundreds of HIAs have been conducted in the United States and globally, although not necessarily specifically directed at wellness real estate/community projects. Many case studies and detailed toolkits are available from the Robert Wood Johnson Foundation (<http://activelivingresearch.org/health-impact-assessment-resources>) and Pew Charitable Trusts (<http://www.pewtrusts.org/en/projects/health-impact-project>), U.S. CDC (<https://www.cdc.gov/healthyplaces/hia.htm>), WHO (<http://www.who.int/hia/en/>), and others.^{cvi}

Third-Party Regional Wellness, Wellbeing, Health, Social, and Related Metrics

A growing number of third-party organizations and nonprofits are establishing their own, proprietary methodologies for rating and ranking communities on their levels of wellness, wellbeing, happiness, and similar types of metrics. These metrics are typically assessed at the regional, city/metro, or country level, and in some cases are updated and published on a periodic basis. Some of these organizations provide consulting services and will use their established methodologies to conduct

customized assessments (although such studies can require significant financial resources – often \$100,000+).

Health-specific metrics are widely available via public sector and nonprofit databases at the national and international levels. A number of countries also gather nationwide social, community, and environmental metrics on a regular basis.

These kinds of third-party metrics can serve as useful benchmarks for making comparisons between residents of a wellness community and regional/national averages. For example, Stockland, an Australian development company, benchmarks personal wellbeing scores for residents of its communities against a national Australian Personal Wellbeing Index score (as described in *Chapter V* and *Appendix E*). To conduct such benchmarking, a wellness community's study methodology would have to be carefully calibrated to ensure data comparability. Below we list some examples of the various data sources available for conducting benchmarking. This list is by no means exhaustive; it provides a sample of some of the datasets available either globally or across several different countries. Many other countries are likely to have similar datasets available (often in their local language).

EXAMPLES OF THIRD PARTY DATASETS FOR BENCHMARKING

Wellbeing & Happiness Indices	UN World Happiness Report (global, http://worldhappiness.report/)
	NEF Happy Planet Index (global, http://happyplanetindex.org/)
	OECD Better Life Index (global, http://www.oecdbetterlifeindex.org/)
	World Database of Happiness (global, http://worlddatabaseofhappiness.eur.nl/)
	Gallup-Sharecare Wellbeing Index™ (U.S. and global, http://www.well-beingindex.com/)
	Happy City Index (UK, http://www.happycity.org.uk/)
	Sainsbury's Living Well Index (UK, https://www.about.sainsburys.co.uk/about-us/live-well-for-less/living-well-index)
	Wellbeing and Resilience Measure (UK, http://www.social-life.co/publication/wellbeing-resilience-measure/)
	ONS Measuring National Well-Being (UK, http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/interactive-content/index.html)
	Canadian Wellbeing Index (Canada, https://uwaterloo.ca/canadian-index-wellbeing/)
	Australian Unity Wellbeing Index (Australia, http://www.acqol.com.au/reports/index.php)
	UWI Happiness and Wellbeing Index (Middle East, http://www.uwi.com/en/article/uwi/united-world-infrastructure-launches-model-to-measure-and-improve-happiness-within-mideast-cities.html)
Wellness & Built Environment Indices	American Fitness Index (U.S., http://www.americanfitnessindex.org/)
	Sustainable Communities Indicators (U.S., https://www.sustainablecommunities.gov/indicators)
	Trulia Live Well Maps (U.S., https://www.trulia.com/blog/trends/best-neighborhoods/)
	U.S. Walk Score (https://www.walkscore.com/)
	U.S. Walkability Index (https://developer.epa.gov/walkability-index-2/)
	U.S. County Health Rankings (http://www.countyhealthrankings.org/)
	U.S. National Environmental Database (http://ned.ud4htools.com/index/)
	500 Cities Project (U.S., https://www.cdc.gov/500cities/)
	English Housing Survey: Housing and well-being (England, https://www.gov.uk/government/statistics/english-housing-survey-2014-housing-and-well-being-report)
	RMIT Urban Observatory, under development (Australia, http://cur.org.au/project/urban-observatory/)
	The Robert Wood Johnson Foundation and other researchers have also published many resource guides on identifying useful indicators. ^{cix}

Health, Social, & Community Indicators

WHO, World Bank, OECD, and most country governments publish a variety of publicly-available metrics on a regular basis (including health, social, community, and environmental data). Many countries conduct a periodic “General Social Survey” of residents that gathers data on attitudes and behaviors across a wide variety of topics.

CDC Health-Related Quality of Life (U.S., <https://www.cdc.gov/hrqol/>)

Leading Health Indicators: Healthy People 2020 (U.S., <https://www.healthypeople.gov/2020/Leading-Health-Indicators>)

U.S. General Social Survey (U.S., <http://gss.norc.umd.edu/>)

Understanding Society: UK Household Longitudinal Survey (UK, <https://www.understandingsociety.ac.uk/>)

British Social Attitudes Survey (UK, <https://discover.ukdataservice.ac.uk/datacatalog/studies/study?id=200006>)

UK Community Life Survey (UK, <https://discover.ukdataservice.ac.uk/datacatalog/studies/study?id=2000100>)

NHS Compendium of Population Health Indicators (UK, <http://content.digital.nhs.uk/article/1885/Compendium-of-Population-Health-Indicators>)

Australia General Social Survey (Australia, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4159.0>)

Australian Institute of Health & Welfare Reports & Statistics (Australia, <https://www.aihw.gov.au/reports-statistics>)

Germany General Social Survey (Germany, <https://www.gesis.org/en/allbus/allbus-home/>)

Social Progress Index (global, <https://www.socialprogressindex.com/>)

^{cviii} For a more detailed description of HIAs and how they are used, see: National Research Council (2011). *Improving Health in the United States: The Role of Health Impact Assessment*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13229>.

^{cix} See for example: 1) *Active Living Research: Tools & Measures*, <http://activelivingresearch.org/toolsandresources/toolsandmeasures>. 2) Jakubowski, B., and Frumkin, J. (2010). Environmental Metrics for Community Health Improvement. *Preventing Chronic Disease*, 7(4). http://www.cdc.gov/pcd/issues/2010/jul/09_0242.htm. 3) Brownson, R.C., et al (2009). Measuring the Built Environment for Physical Activity: State of the Science. *American Journal of Preventive Medicine*, 36(4 Suppl), S99-123. <https://doi.org/10.1016/j.amepre.2009.01.005>. 4) Ewing, R., and Clemente, O. (2013) *Measuring Urban Design: Metrics for Livable Places*. Washington, DC: Island Press. <http://activelivingresearch.org/measuring-urban-design-metrics-livable-places>. 5) Schuchter, J., and Jutte, D.P. (2014). A Framework to Extend Community Development Measurement to Health and Well-Being. *Health Affairs*, 33(11), 1930-1938. <https://doi.org/10.1377/hlthaff.2014.0961>. 6) *Measurement Tools*. Build Healthy Places Network. <http://www.buildhealthyplaces.org/measureup/measurement-tools/>. 7) *Evidence+Resources* (Multiple Publications). What Works Wellbeing. <https://www.whatworkswellbeing.org/evidenceresources/>.

BIBLIOGRAPHY AND RESOURCE GUIDE

Key Resources on Wellness in the Built Environment

- Allen, J., et al (2017). *The 9 Foundations of a Healthy Building*. Cambridge, MA: Harvard T.H. Chan School of Public Health. <http://9foundations.forhealth.org/>.
- Ball, M.S. (2012). *Livable Communities for Aging Populations: Urban Design for Longevity*. Hoboken, NJ: John Wiley & Sons.
- Baron, H., and Tsourou, C. (2000). *Healthy Urban Planning: A WHO Guide to Planning for People*. London, UK: Spoon Press and World Health Organization.
- Beatley, T. (2011). *Biophilic Cities: Integrating Nature into Urban Design and Planning*. Washington, DC: Island Press.
- Beatley, T. (2016). *Handbook of Biophilic City Planning & Design*. Washington, DC: Island Press.
- Buettner, D. (2008). *The Blue Zones: Lessons for Living Longer From the People Who've Lived the Longest*. Washington, DC: National Geographic.
- Buettner, D. (2016, November 10). *Power 9®: Reverse Engineering Longevity*. <https://bluezones.com/2016/11/power-9/>.
- Center for Active Design (2010). *Active Design Guidelines: Promoting Physical Activity and Health in Design*. <https://centerforactivedesign.org/guidelines/>.
- Corburn, J. (2009). *Toward the Healthy City: People, Places, and the Politics of Urban Planning*. Cambridge, MA: MIT Press.
- Dannenberg, A.L., Frumkin, H., and Jackson, R.J. (Eds.) (2011). *Making Healthy Places: Designing and Building for Health, Well-being, and Sustainability*. Washington, DC: Island Press.
- De Leeuw, E., and Simos, J. (Eds.) (2017). *Healthy Cities: The Theory, Policy, and Practice of Value-Based Urban Planning*. New York City, NY: Springer.
- Duany, A. (2011). *Garden Cities: Theory & Practice of Agrarian Urbanism*. London, UK: Prince's Foundation for the Built Environment.
- Duany, A., Speck, J., and Lydon, M. (2010). *The Smart Growth Manual*. New York City, NY: McGraw Hill.
- Duncan, S., et al (2013). *Active Design: Shaping the Sidewalk Experience*. Department of City Planning, City of New York, NY. <https://centerforactivedesign.org/sidewalks>.
- Dunham-Jones, E., and Williamson, J. (2011). *Retrofitting Suburbia: Urban Design Solutions for Redesigning Suburbs*. Hoboken, NJ: John Wiley & Sons.
- Eitler, T.W., McMahon, E.T., and Thoerig, T.C. (2013). *Ten Principles for Building Healthy Places*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/10-Principles-for-Building-Healthy-Places.pdf>.
- Forsyth, A., Salomon, E., and Smead, L. (2017). *Creating Healthy Neighborhoods: Evidence-Based Planning and Design Strategies*. New York City, NY: Routledge.
- Frumkin, H., Frank, L., and Jackson, R. (2004). *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Washington, DC: Island Press.
- Gehl, J. (2010). *Cities for People*. Washington, DC: Island Press.

- Goldhagen, S. (2017). *Welcome to Your World: How the Built Environment Shapes Our Lives*. New York City, NY: Harper Collins.
- Jackson, R.J. (Ed.) (2003). *American Journal of Public Health*, 93(9). <http://ajph.aphapublications.org/toc/ajph/93/9>.
- Jackson, R., and Sinclair, S. (2012). *Designing Healthy Communities*. San Francisco, CA: John Wiley & Sons.
- Johns Hopkins Center for Injury Research and Policy, NYC Department of Health and Mental Hygiene, and Society for Public Health Education (2013). *Active Design Supplement: Promoting Safety*, Version 2. <https://centerforactivedesign.org/promotingsafety>.
- Kellert, S.R., and Calabrese, E.F. (2015). *The Practice of Biophilic Design*. <http://www.biophilic-design.com/>.
- Kellert, S.R., Heerwagen, J.H., and Mador, M.L. (2008). *Biophilic Design: The Theory, Science and Practice of Bringing Buildings to Life*. Hoboken, NJ: John Wiley & Sons.
- Kramer, A., Lassar, T., Federman, M., and Hammerschmidt, S. (2014). *Building for Wellness: The Business Case*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/Building-for-Wellness-The-Business-Case.pdf>.
- Montgomery, C. (2013). *Happy City: Transforming Our Lives Through Urban Design*. New York City, NY: Farrar, Straus, and Giroux.
- O'Donnell, M.P. (Ed.) (2003). *American Journal of Health Promotion*, 18(1). <http://journals.sagepub.com/toc/ahpa/18/1>.
- Salingaros, N.A. (2015). *Biophilia & Healing Environments: Healthy Principles for Designing the Built World*. <http://www.terrabinbrightgreen.com/wp-content/uploads/2015/10/Biophilia-Healing-Environments-Salingaros-p.pdf>.
- Sarkar, C., Webster, C., and Gallacher, J. (2014). *Healthy Cities: Public Health through Urban Planning*. Cheltenham, UK: Edward Elgar.
- Scherr, Barry B. (2016). *Enlightened Real Estate: Transforming Ourselves and the World Around Us*. Sundar Publishing.
- Terrapin Bright Green (2014). *14 Patterns of Biophilic Design: Improving Health & Well-Being in the Built Environment*. <https://www.terrabinbrightgreen.com/reports/14-patterns/>.
- Urban Land Institute (2016). *Active Transportation and Real Estate: The Next Frontier*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/Active-Transportation-and-Real-Estate-The-Next-Frontier.pdf>.
- Urban Land Institute (2016). *Building Healthy Corridors: Transforming Urban and Suburban Arterials into Thriving Places*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/Building-Healthy-Corridors-ULI.pdf>.
- Urban Land Institute (2015). *Building Healthy Places Toolkit: Strategies for Enhancing Health in the Built Environment*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/Building-Healthy-Places-Toolkit.pdf>.
- Urban Land Institute (2016). *Cultivating Development: Trends and Opportunities at the Intersection of Food and Real Estate*. Washington, DC: Urban Land Institute. <https://uli.org/wp-content/uploads/ULI-Documents/Cultivating-Development-Trends-and-Opportunities-at-the-Intersection-of-Food-and-Real-Estate.pdf>.

Urban Land Institute (2013). *Intersections: Health and the Built Environment*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/Intersections-Health-and-the-Built-Environment.pdf>.

Background on Urban Planning, Architecture/Design, and Historical Movements Related to Wellness Lifestyle Real Estate

- Alexander, C., Ishikawa, S., Silverstein, M., et al (1977). *A Pattern Language: Towns, Buildings, Construction*. New York City, NY: Oxford University Press.
- Beatley, T., and Newman, P. (2013). Biophilic Cities are Sustainable, Resilient Cities. *Sustainability*, 5, 3328-3345. <http://www.mdpi.com/2071-1050/5/8/3328>.
- Briney, A. (2017, February 28). *New Urbanism: New Urbanism is Taking Planning to a New Level*. <https://www.thoughtco.com/new-urbanism-urban-planningdesign-movement-1435790>.
- Christensen, K. and Levinson, D. (Eds.) (2003). *Encyclopedia of Community: From the Village to the Virtual World*. Thousand Oaks, CA: Sage Publications.
- Congress for New Urbanism (n.d.). *What is New Urbanism?* <https://www.cnu.org/resources/what-new-urbanism>.
- Duany, A., Plater-Zyberk, E., and Speck, J. (2001). *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*. New York, NY: North Point Press.
- Ellard, C. (2015). *Places of the Heart: The Psychogeography of Everyday Life*. New York City, NY: Bellevue Literary Press.
- Glaeser, E. (2011). *Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier*. New York City, NY: Penguin Group.
- Graham, W. (2016). *Dream Cities: Seven Urban Ideas That Shape the World*. New York City, NY: HarperCollins.
- Gravel, R. (2016). *Where We Want to Live: Reclaiming Infrastructure for a New Generation of Cities*. New York City, NY: St. Martin's Press.
- Hall, K., and Porterfield, G.A. (2001). *Community by Design: New Urbanism for Suburbs and Small Communities*. New York City, NY: McGraw Hill.
- Hall, P. (2014). *Cities of Tomorrow* (4th ed.). Chichester, UK: John Wiley & Sons Ltd.
- Howard, E. (1965). *Garden Cities of To-Morrow*. Cambridge, MA: MIT Press.
- Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York City, NY: Random House.
- Kotkin, J. (2005). *The City: A Global History*. New York, NY: Modern Library.
- Kotkin, J. (2016). *The Human City: Urbanism for the Rest of Us*. Chicago, IL: Agate Publishing.
- Kunstler, J.H. (1993). *The Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape*. New York City, NY: Touchstone.
- Kunstler, J.H. (1996). *Home from Nowhere: Remaking Our Everyday World for the 21st Century*. New York City, NY: Touchstone.
- Mumford, L. (1961). *The City in History: Its Origins, Its Transformations, and Its Prospects*. New York City, NY: Houghton Mifflin Harcourt.

- Palti, I. and Bar, M. (2015, August 28). A Manifesto for Conscious Cities: Should Streets Be Sensitive to Our Mental Needs? *The Guardian*. <https://www.theguardian.com/cities/2015/aug/28/manifesto-conscious-cities-streets-sensitive-mental-needs>.
- Smart cities. *The Guardian*. <https://www.theguardian.com/cities/smart-cities>.
- Sussman, A., and Hollander, J.B. (2015). *Cognitive Architecture: Designing for How We Respond to the Built Environment*. New York City, NY: Routledge.
- Totty, M. (2017, April 16). The Rise of the Smart City. *The Wall Street Journal*. <https://www.wsj.com/articles/the-rise-of-the-smart-city-1492395120>.
- United Nations Human Settlements Programme (2009). *Planning Sustainable Cities: Global Report on Human Settlement 2009*. Abingdon, UK: Earthscan. <http://www.tandfebooks.com/action/showBook?doi=10.4324%2F9781315541389&>.
- Vanderbeek, M. and Irazábel, C. (2007). New Urbanism as a New Modernist Movement: A Comparative Look at Modernism and New Urbanism. *TDSR*, 19(1), 41-57. <http://iaste.berkeley.edu/pdfs/19.1d-Fall07vanderbeek%20irazabal-sml.pdf>.
- Watson, B. (2014, January 27). What Makes a City Resilient? *The Guardian*. <https://www.theguardian.com/cities/2014/jan/27/what-makes-a-city-resilient>.

Background Statistics on Poor Health Related to the Built Environment (“The costs of our unhealthy built environment” graphic in *Chapter II*)

- Abbot, A. (2011, June 22). City living marks the brain. *Nature*, 474, 429. <https://doi.org/10.1038/474429a>.
- Adamczyk, E. (2016, July 29). *The cost of physical inactivity: \$67.5 billion per year globally*. https://www.upi.com/Health_News/2016/07/29/The-cost-of-physical-inactivity-675-billion-per-year-globally/5091469793349/.
- Biswas, A., et al (2015). Sedentary Time and Its Association with Risk for Disease Incidence, Mortality, and Hospitalization in Adults: A Systematic Review and Meta-analysis. *Annals of Internal Medicine*, 162(2), 123-132. <https://doi.org/10.7326/M14-1651>.
- Chamie, J. (2017, February 22). *The Rise of One-Person Households*. <http://www.globalissues.org/news/2017/02/22/22900>.
- Davidson, S. and Rossall, P. (2014, July). *Evidence Review: Loneliness in Later Life*. London, UK: AgeUK. <https://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Research/Age%20UK%20Evidence%20Review%20on%20Loneliness%20July%202014.pdf?dtrk=true>.
- Ding, D., et al (2016). The economic burden of physical inactivity: a global analysis of major non-communicable diseases. *The Lancet*, 388(10051), 1311-1324. [http://dx.doi.org/10.1016/S0140-6736\(16\)30383-X](http://dx.doi.org/10.1016/S0140-6736(16)30383-X).
- EY (2015). *Global Generations: A global study on work-life challenges across generations*. [http://www.ey.com/Publication/vwLUAssets/EY-global-generations-a-global-study-on-work-life-challenges-across-generations/\\$FILE/EY-global-generations-a-global-study-on-work-life-challenges-across-generations.pdf](http://www.ey.com/Publication/vwLUAssets/EY-global-generations-a-global-study-on-work-life-challenges-across-generations/$FILE/EY-global-generations-a-global-study-on-work-life-challenges-across-generations.pdf).
- Fackelmann, K. (2003, August 28). Studies tie urban sprawl to health risks, road danger. *USA Today*. http://usatoday30.usatoday.com/news/nation/2003-08-28-sprawl-usat_x.htm.

- Frank, L.D., Andresen, M.A., and Schmid, T.L. (2004). Obesity relationships with community design, physical activity, and time spent in cars. *American Journal of Preventive Medicine*, 27(2), 87-96. <http://doi.org/10.1016/j.amepre.2004.04.011>.
- Gruebner, O., et al (2017). Cities and Mental Health. *Deutsches Ärzteblatt International*, 114(8), 121-127. <https://doi.org/10.3238/arztebl.2017.0121>.
- Health Effects Institute (2017). *State of Global Air 2017*. Boston, MA: Health Effects Institute. https://www.stateofglobalair.org/sites/default/files/SOGA2017_report.pdf.
- HelpAge International (2011). *Insights on Aging: A Survey Report*. London, UK: HelpAge International. <http://www.helpage.org/download/4d514460b3cef>.
- Joint Center for Housing Studies of Harvard University (2014). *Housing America's Older Adults: Meeting the Needs of an Aging Population*. Cambridge, MA: Harvard University. http://www.jchs.harvard.edu/research/housing_americas_older_adults.
- McPherson, M., Smith-Lovin, L., and Brashears, M.E. (2006). Social Isolation in America: Changes in Core Discussion Networks Over Two Decades. *American Sociological Review*, 71(3), 353-375. <https://doi.org/10.1177/000312240607100301>.
- National Academies of Sciences, Engineering, and Medicine (2017). *Developing Affordable and Accessible Community-Based Housing for Vulnerable Adults: Proceedings of a Workshop*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24787>.
- National Center for Safe Routes to School (2011, November). *How Children Get To School: School Travel Patterns from 1969 to 2009*. http://archive.saferoutesinfo.org/sites/default/files/resources/NHTS_school_travel_report_2011_0.pdf.
- Newbury, J., et al (2016). Why Are Children in Urban Neighborhoods at Increased Risk for Psychotic Symptoms? Findings From a UK Longitudinal Cohort Study. *Schizophrenia Bulletin*, 42(6), 1372-1383. <https://doi.org/10.1093/schbul/sbw052>.
- The New Climate Economy (2015, March 19). *Release: urban sprawl costs US economy more than \$1 trillion per year*. <http://newclimateeconomy.net/content/release-urban-sprawl-costs-us-economy-more-1-trillion-year>.
- Paumgarten, N. (2007, April 16). There and Back Again. *The New Yorker*. <http://www.newyorker.com/magazine/2007/04/16/there-and-back-again>.
- Putnam, R.D. (2000). *Bowling Alone*. New York: Simon & Schuster. <http://bowlingalone.com/>.
- Roberts, J. (2003, August 28). Do Suburbs Make You Fat? *CBS News*. <http://www.cbsnews.com/news/do-suburbs-make-you-fat/>.
- Too much sitting raises risk of death, even if you exercise (2015, January 20). *CBS News*. <http://www.cbsnews.com/news/too-much-sitting-raises-risk-of-death-even-if-you-exercise/>.
- Urban Land Institute (2015). *America in 2015: A ULI Survey of Views on Housing, Transportation, and Community*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/America-in-2015.pdf>.
- WHO (2006, June 16). *Almost a quarter of all disease caused by environmental exposure*. <http://www.who.int/mediacentre/news/releases/2006/pr32/en/>.
- WHO (n.d.). *Facts: Urban settings as a social determinant of health*. http://www.who.int/social_determinants/publications/urbanization/factfile/en/.

- WHO (2017, March 30). *News release: "Depression: let's talk" says WHO, as depression tops list of causes of ill health*. <http://www.who.int/mediacentre/news/releases/2017/world-health-day/en/>.
- Xu, J. and Gao, C. (2017, July 4). Physical activity guidelines for Chinese children and adolescents: The next essential step. *Journal of Sport and Health Science*. <https://doi.org/10.1016/j.jshs.2017.07.001>.
- Zotti, M. (2014, February 21). Have We Become A Nation of the Great Indoors? *Nature Play SA*. <https://natureplaysa.org.au/have-we-become-a-nation-of-the-great-indoors/>.

Business Case: Consumer Demand for Healthier Built Environments

- American Planning Association (2014). *Investing in Place: Two Generation's View on the Future of Communities*. <https://www.planning.org/policy/polls/investing/>.
- Bontje, M. (2016). At home in Shenzhen? Housing opportunities and housing preferences of creative workers in a wannabe creative city. *Creativity Studies*, 9(2). <https://doi.org/10.3846/23450479.2016.1203832>.
- DC Correspondent (2014, Nov. 23). Buyers ready to pay more for "wellness homes": All-India Wellness Consumer. *Deccan Chronicle*. <http://www.deccanchronicle.com/141123/nation-current-affairs/article/buyers-ready-pay-more-%E2%80%98wellness-homes%E2%80%99-all-india-wellness>.
- Dodge Data & Analytics (2015). *Green and Healthier Homes: Engaging Consumers of all Ages in Sustainable Living*. Bedford, MA: Dodge Data & Analytics. <https://www.nahb.org/-/media/Sites/NAHB/Research/Priorities/green-building-remodeling-development/Green-and-Healthier-Homes%202015.ashx>.
- Dodge Data & Analytics (2016). *World Green Building Trends 2016*. <https://www.usgbc.org/articles/usgbc-partners-dodgedata-and-analytics-release-world-green-building-trends-report-2016>.
- Harrell, R., Lynott, J., Guzman, S., and Lampkin, C. (2014). *What Is Livable? Community Preferences of Older Adults*. Washington, DC: AARP Public Policy Institute. <https://www.aarp.org/ppi/issues/livable-communities/info-2015/what-is-livable-AARP-ppi-liv-com.html>.
- Home buyers prefer wellness features in projects. *The Economic Times*. November 21, 2014. <http://economictimes.indiatimes.com/wealth/personalfinance-news/home-buyers-prefer-wellness-features-in-projects/articleshow/45232981.cms>.
- Honeywell (2015, October 29). *60% of Chinese People Worried About Indoor Air Quality, Reveals Survey*. <https://www.honeywell.com/newsroom/news/2015/10/60-of-chinese-people-worried-about-indoor-air-quality-reveals-survey>.
- Houzz (2014). *Houzz Healthy Homes Trends Study*. <https://info.houzz.com/rs/houzz/images/HouzzHealthyHomeStudy.pdf>.
- Ikea (2016). *Life At Home: What Makes A Home*. Report #3. <http://lifeathome.ikea.com/explore/>.
- J. Turner Research (2016). *The Next Gen Apartment: Evolving Technology and Lifestyle Preferences of Different Generations of Renters*. <https://www.jturnerresearch.com/the-next-gen-apartment>.
- J. Turner Research (2014). *Resident Lifestyle Preferences: An Insight*. <https://www.jturnerresearch.com/an-insight-into-resident-lifestyle-preferences>.
- Kelly, J.F., et al (2010, June). *The cities we need*. Melbourne, Australia: Grattan Institute. <https://grattan.edu.au/report/the-cities-we-need/>.

- Kelly, J.F., Weidmann, B., and Walsh, M. (2011, June). *The housing we'd choose*. Melbourne, Australia: Grattan Institute. <https://grattan.edu.au/report/the-housing-wed-choose/>.
- Lachman, M.L., and Brett, D.L. (2015). *Gen Y and Housing: What They Want and Where They Want It*. Washington, DC: Urban Land Institute. <https://uli.org/wp-content/uploads/ULI-Documents/Gen-Y-and-Housing.pdf>.
- McGraw Hill Construction (2014). *The Drive Toward Healthier Buildings: The Market Drivers and Impact of Building Design and Construction on Occupant Health, Well-Being and Productivity*. <http://www.worldgbc.org/news-media/drive-toward-healthier-buildings>.
- National Heart Foundation of Australia (2011). *Creating Healthy Neighborhoods: Consumer preferences for healthy development*. [https://www.heartfoundation.org.au/images/uploads/publications/creating-healthy-neighbourhoods_\(NSW\).pdf](https://www.heartfoundation.org.au/images/uploads/publications/creating-healthy-neighbourhoods_(NSW).pdf).
- National Apartment Association (2017). *Adding Value in the Age of Amenities Wars: Enhancing Value Through Amenities & Rehabs*. <https://www.naahq.org/news-publications/value-add-amenities>.
- National Association of Realtors and Portland State University (2015). *Community & Transportation Preferences Survey: U.S. Metro Areas, 2015*. <https://www.nar.realtor/reports/nar-2015-community-preference-survey>.
- RCLCO (2008, January). *Measuring the Market for Green Residential Development*. http://www.rclco.com/pub/doc/special-report-Measuring_the_Market_for_Green_Residential_Development.pdf.
- Robles, S., Ross, L.M., Sharpe, R.M. (2012). *Residential Futures: Thought-Provoking Ideas on What's Next for Master-Planned Communities*. Washington, DC: Urban Land Institute. <https://americas.uli.org/report/residential-futures-thought-provoking-ideas-on-whats-next-for-master-planned-communities/>.
- Savills (2014, Spring). *Spotlight: What Do Tenants Really Want?* http://www.savills.co.uk/research_articles/186866/172142-0.
- UK Green Building Council (2016, July). *Health and Wellbeing in Homes*. <http://www.ukgbc.org/resources/publication/uk-gbc-task-group-report-healthy-homes>.
- Urban Land Institute (2015). *America in 2015: A ULI Survey of Views on Housing, Transportation, and Community*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/America-in-2015.pdf>.
- Velux Group (2016). *Healthy Homes Barometer 2016*. <http://www.velux.com/article/2016/europeans-on-healthy-living-the-healthy-homes-barometer-2016>.
- Velux Group (2017). *Healthy Homes Barometer 2017*. <http://www.velux.com/health/healthy-homes-barometer-2017>.
- Warrick, B. (2017). Research: Wellness Communities – A “major market opportunity.” *Spa Business*, 3, 70-72. <http://www.spabusiness.com/digital/index1.cfm?mag=Spa%20Business&codeid=32083&linktype=story&ref=n&issue=2017%20issue%203>.
- Wolfson, M., and La Jeunesse, E. (2016, March). *Challenges and Opportunities in Creating Healthy Homes: Helping Consumers Make Informed Decisions*. Working Paper, Harvard Joint Center for Housing Studies. <http://www.jchs.harvard.edu/research/publications/creating-healthy-homes>.
- Yeoman, R. and Akehurst, G. (2015). *The housing we'd choose: A study of housing preferences, choices and trade-offs in Auckland*. Auckland Council Technical Report, TR2015/016. Prepared by Market Economic Limited for Auckland Council. <http://temp.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/planspoliciespublications/technicalpublications/tr2015016housingwedchoosewithappendices.pdf>.

Business Case: Price Premiums for Healthier Built Environments

- Albouy, D., and Lue, B. (2015). Driving to opportunity: Local rents, wages, commuting, and sub-metropolitan quality of life. *Journal of Urban Economics*, 89, 74-92. <https://doi.org/10.1016/j.jue.2015.03.003>.
- Asabere, P.K., and Huffman, F.E. (2009). The Relative Impacts of Trails and Greenbelts on Home Price. *Journal of Real Estate Economics and Finance*, 38(4), 408-419. <https://doi.org/10.1007/s11146-007-9089-8>.
- Atkinson-Palombo, C. (2010). Comparing the capitalisation benefits of light-rail transit and overlay zoning for single-family houses and condos by neighbourhood type in metropolitan Phoenix, Arizona. *Urban Studies*, 47(11), 2409-2426. <https://doi.org/10.1177/0042098009357963>.
- Australian Government, Department of the Environment, Water, Heritage and the Arts (2008). *Energy Efficiency Rating and House Price in the ACT*. <https://www.buildingrating.org/document/energy-efficiency-rating-and-house-price-act>.
- Benson, E.D., et al (1998). Pricing Residential Amenities: The Value of a View. *Journal of Real Estate Finance and Economics*, 16(1), 55-73. <https://doi.org/10.1023/A:1007785315925>.
- Bina, M. and Kockelman, K.K. (2009). *Location Choice vis-à-vis Transportation: The Case of Recent Homebuyers*. http://www.ce.utexas.edu/prof/kockelman/public_html/TRB06HomeChoice.pdf.
- Bokhari, S. (2016, August 3). How Much is a Point of Walk Score Worth? *RedFin Real Estate News & Analysis*. <https://www.redfin.com/blog/2016/08/how-much-is-a-point-of-walk-score-worth.html>.
- CABE Space (2005). *Does Money Grow on Trees?* London, UK: Commission for Architecture and the Built Environment. <http://webarchive.nationalarchives.gov.uk/20110118110609/http://www.cabe.org.uk/files/does-money-grow-on-trees.pdf>.
- Cortright, J. (2009, August). *Walking the Walk: How Walkability Raises Home Values in U.S. Cities*. Cleveland, OH: CEOs for Cities. <http://community-wealth.org/sites/clone.community-wealth.org/files/downloads/report-cortright.pdf>.
- Crompton, J.L. (2005). The impact of parks on property values: empirical evidence from the past two decades in the United States. *Managing Leisure*, 10, 203-218. <https://doi.org/10.1080/13606710500348060>.
- Deng, Y., Li, Z., and Quigley, J.M. (2011). Economic Returns to Energy-Efficient Investments in the Housing Market: Evidence from Singapore. *Regional Science and Urban Economics*, 42. <https://doi.org/10.2139/ssrn.1672364>.
- Do, A.Q., and Grudnitski, G. (1995). Golf courses and residential house prices: An empirical examination. *Journal of Real Estate Finance and Economics*, 10(3), 261-270. <https://doi.org/10.1007/BF01096941>.
- Duggal, M. (2012, July 18). *Post Recession: Homebuyers Willing to Pay More for Green Features with Cost Savings or Health Benefits*. <http://www.rclco.com/advisory-post-recession-homebuyers-willing-to-pay-more-for-green-features>.
- Economy League of Greater Philadelphia, Econsult Corp., and Keystone Conservation Trust (2011, January). *Return On Environment: The Economic Value of Protected Open Space in Southeastern Pennsylvania*. GreenSpace Alliance/DVRPC Publication No. 11033A. <https://www.dvrpc.org/reports/11033A.pdf>.

- El-Geneidy, A., Van Lierop, D., and Wasfi, R. (2015, April). *Do people value bicycle sharing? A multilevel longitudinal analysis capturing the impact of bicycle sharing on residential sales in Montreal, Canada*. Paper accepted for publication in *Transport Policy*. http://tram.mcgill.ca/Research/Publications/Bicycle_sharing_hedonics.pdf.
- Eppli, M.J., and Tu, C.C. (1999). *Valuing the New Urbanism: The Impact of the New Urbanism on Prices of Single-Family Homes*. Washington, DC: Urban Land Institute.
- Fuerst, F., et al (2014). *Measuring "Green Value": An International Perspective*. London, UK: RICS Research Trust. <https://www.landecon.cam.ac.uk/pdf-files/news/RICSreport.pdf>.
- GreenSpace Alliance and Delaware Valley Regional Planning Commission (2011, January). *Return on Environment: The Economic Value of Protected Open Space in Southeastern Pennsylvania*. <http://www.dvrpc.org/reports/11033A.pdf>.
- Griffin, A., et al (2009). *Certified Home Preference: Assessing the Market Impacts of Third Party Certification on Residential Properties*. <https://www.earthadvantage.org/assets/documents/AssessingMarketImpactsofThirdPartyCertification-090529.pdf>.
- Hanschmeyer, M. (2013, June 24). *Real Estate is Local; So Are Price, Amenities: Renters' Willingness To Pay Varies Dramatically by Region*. CoStar Group. <http://www.costar.com/News/Article/Real-Estate-Is-Local;-So-Are-Price-Amenities/149659>.
- Hannum, C., et al (2012). Comparative Analysis of Housing in Conservation Developments: Colorado Case Studies. *Journal of Sustainable Real Estate*, 4(1), 149-176. http://www.josre.org/wp-content/uploads/2013/01/Comparative_Analysis_of_Housing_in_Conservation_Developments_Colorado-JOSRE_v4-61.pdf.
- Hoffman, E.A. (2012). *Value of Bundled Recreation Amenities in Southern Arizona Communities: A Hedonic Pricing Approach*. Retrieved from BYU ScholarsArchive (3360). <https://scholarsarchive.byu.edu/etd/3360/>.
- Jayantha, W.M., and Sze Man, W. (2013). Effect of green labelling on residential price: A case study in Hong Kong. *Journal of Facilities Management*, 11(1), 31-51. <https://doi.org/10.1108/14725961311301457>.
- Jim, C.Y., and Chen, W. (2010). External effect of neighbourhood parks and landscape elements on high-rise residential values. *Land Use Policy*, 27(2), 662-670. <https://doi.org/10.1016/j.landusepol.2009.08.027>.
- Kok, N., and Kahn, M.E. (2012, July). *The Value of Green Labels in the California Housing Market: An Economic Analysis of the Impact of Green Labeling on the Sales Price of a Home*. http://www.pacenation.us/wp-content/uploads/2012/08/KK_Green_Homes_0719121.pdf.
- Kong, F., Yin, H., and Nakagoshi, N. (2007). Using GIS and Landscape Metrics in the Hedonic Price Modelling of the Amenity Value of Urban Green Space. *Landscape and Urban Planning*, 79(3-4), 240-252. <https://doi.org/10.1016/j.landurbplan.2006.02.013>.
- Kozloff, H. (2012, August 29). The Payoff from Parks. *Urban Land Magazine*. <https://urbanland.uli.org/economy-markets-trends/the-payoff-from-parks/>.
- Kramer, A., Lassar, T., Federman, M., and Hammerschmidt, S. (2014). *Building for Wellness: The Business Case*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/Building-for-Wellness-The-Business-Case.pdf>.
- Krizek, K.J. (2006). Two Approaches to Valuing Some of Bicycle Facilities' Presumed Benefits. *Journal of the American Planning Association*, 72(3), 309-319. <https://doi.org/10.1080/01944360608976753>.

- Leinberger, C.B. and Alfonzo, M. (2012, May). *Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, DC*. Washington, DC: Brookings Institution. <https://www.brookings.edu/wp-content/uploads/2016/06/25-walkable-places-leinberger.pdf>.
- Li, W., Joh, K., et al (2015, July). Assessing Benefits of Neighborhood Walkability to Single-Family Property Values: A Spatial Hedonic Study in Austin, Texas. Assessing Benefits of Neighborhood Walkability to Single-Family Property Values: A Spatial Hedonic Study in Austin, Texas. *Journal of Planning Education and Research*, 35, 471-478. <https://doi.org/10.1177/0739456X15591055>.
- Lindsey, G., et al (2004). Property Values, Recreation Values, and Urban Greenways. *Journal of Park and Recreation Administration*, 22(3), 69-90. http://staff.washington.edu/kwolf/Archive/Classes/ESRM304_SocSci/304%20Soc%20Sci%20Lab%20Articles/Lindsey_2004.pdf.
- Lutzenhiser, M., and Netusil, N.R. (2001). The Effect of Open Spaces on a Home's Sale Price. *Contemporary Economic Policy*, 19(3), 291-298. <https://doi.org/10.1093/cep/19.3.291>.
- Hyland, M., Lyons, R.C., and Lyons, S. (2012). *The Value of Domestic Building Energy Efficiency: Evidence from Ireland*. University of Oxford, Department of Economics Discussion Paper Series No. 614. <https://www.economics.ox.ac.uk/materials/papers/12042/paper614.pdf>.
- Johnson Gardner (2007). *An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing*. <http://www.reconnectingamerica.org/assets/Uploads/JohnsonGardner-Urban-Living-Infra-Research-Report.pdf>.
- Majors, J., and Burow, S. (2015, March). *Assessment of the Impact of the Indianapolis Cultural Trail: A Legacy of Gene and Marilyn Glick*. Indianapolis, IN: IU Public Policy Institute. <http://indyculturaltrail.org.s3.amazonaws.com/wp-content/uploads/2015/07/15-C02-CulturalTrail-Assessment.pdf>.
- McConnell, V., and Walls, M. (2005) *The Value of Open Space: Evidence from Studies of Nonmarket Benefits*. Washington, DC: Resources for the Future. <http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-REPORT-Open%20Spaces.pdf>.
- McMahon, E.T., and Pawlukiewicz, M. (2002). *The Practice of Conservation Development: Lessons in Success*. ULI Land Use Policy Forum Report, in partnership with The Conservation Fund. Washington, DC: Urban Land Institute. http://americas.uli.org/wp-content/uploads/sites/125/2012/07/ConservationDevelopment.ashx_.pdf.
- Mohamed, R. (2006). The Economics of Conservation Subdivisions: Price Premiums, Improvement Costs, and Absorption Rates. *Urban Affairs Review*, 41(3), 376-399. <https://doi.org/10.1177/1078087405282183>.
- Nicholls, S., and Crompton, J.L. (2007). The Impact of a Golf Course on Residential Property Values. *Journal of Sport Management*, 21(4), 555-570. <https://doi.org/10.1123/jsm.21.4.555>.
- Nicholls, S., and Crompton, J.L. (2005). The Impact of Greenways on Property Values: Evidence from Austin, Texas. *Journal of Leisure Research*, 37(3), 321-341. http://agrifecdn.tamu.edu/cromptonrpts/files/2011/06/4_2_7.pdf.
- O'Leary, J. (2016, July 9). Are health amenities becoming apartment perks? *Boston Globe*. <https://www.bostonglobe.com/lifestyle/real-estate/2016/07/08/cambridge-development-kicks-healthy-living-notch/tLrWUXTJVtzALAGre6kMhI/story.html>.
- Owusu-Edusei, K., and Espey, M. (2003). *Does Proximity to a Golf Course Matter?* Clemson University, Department of Agricultural and Applied Economics Working Paper No. 012203. <http://ageconsearch.tind.io/bitstream/18812/1/wp012203.pdf>.

- Pingle, M., and Belt, C. (2015, March 8). *A Literature Review of How Home Values are Impacted by Various Factors*. University of Nevada, Reno. <http://screanews.us/MBGAYHOA/PDFs/Golf/GolfLandValuesStudy01.pdf>.
- Pivo, G., and Fisher, J.D. (2009). *Effects of Walkability on Property Values and Investment Returns*. Responsible Property Investing Center Working Paper. <http://www.reconnectingamerica.org/assets/Uploads/2009WalkabilityPaper.pdf>.
- Racca, D.P., and Dhanju, A. (2006). Property Value/Desirability Effects of Bike Paths Adjacent to Residential Areas. Newark, Delaware: Delaware Center for Transportation. http://headwaterseconomics.org/wp-content/uploads/Trail_Study_51-property-value-bike-paths-residential-areas.pdf.
- Rauterkus, S.Y., and Miller, N.G. (2011). Residential Land Values and Walkability. *Journal of Sustainable Real Estate*, 3(1), 23-43. http://www.josre.org/wp-content/uploads/2012/09/Residential_Land_Values_and_Walkability-JOSRE_v3-21.pdf.
- Saraev, V. (2012). *Economic Benefits of Greenspace: A critical assessment of evidence of net economic benefits*. Edinburgh, Scotland: Forestry Commission. [https://www.forestry.gov.uk/pdf/FCRPO21.pdf/\\$FILE/FCRPO21.pdf](https://www.forestry.gov.uk/pdf/FCRPO21.pdf/$FILE/FCRPO21.pdf).
- Shoup, L. and Ewing, R. (2010, May). *The Economic Benefits of Open Space, Recreation Facilities and Walkable Community Design: Research Synthesis*. San Diego, CA: Active Living Research. http://activelivingresearch.org/files/Synthesis_Shoup-Ewing_March2010_0.pdf.
- Song, Y., and Knaap, G.-J. (2003). New Urbanism and Housing Values: A Disaggregate Assessment. *Journal of Urban Economics*, 54(2), 218-238. [https://doi.org/10.1016/S0094-1190\(03\)00059-7](https://doi.org/10.1016/S0094-1190(03)00059-7).
- Spetic, W., Kozak, R., and Cohen, D. (2005, October). Willingness to pay and preferences for healthy home attributes in Canada. *Forest Products Journal*, 55(10). https://www.researchgate.net/publication/228358386_Willingness_to_pay_and_preferences_for_healthy_home_attributes_in_Canada/.
- Teck-Hong, T. (2010). The Impact of Neighborhood Types on the Prices of Residential Properties. *Sunway Academic Journal*, 7, 77-88. <http://eprints.sunway.edu.my/87/>.
- Teck-Hong, T. (2011). Measuring the willingness to pay for houses in a sustainable neighborhood. *The International Journal of Environmental, Cultural, Economic and Social Sustainability*, 7, 1-12. <https://mpa.ub.uni-muenchen.de/46815/>.
- The Trust for Public Land (2013, October). *The Economic Benefits of Cleveland Metroparks*. Report prepared for Cleveland Metroparks. <https://www.clevelandmetroparks.com/getmedia/f524ed3b-b638-45c9-942d-e1a654e9b508/Trust-for-Public-Land-Economic-Impace-Report-Cleveland-Metroparks.pdf.ashx>.
- Tu, C.C., and Eppli, M. (2001). An Empirical Examination of Traditional Neighborhood Development. *Real Estate Economics*, 29(3), 485-501. <https://doi.org/10.1111/1080-8620.00019>.
- Wyman, D., and Sperry, S. (2010, March 22). The million dollar view: A study of golf course, mountain, and lake lots. *Appraisal Journal*. <http://www.freepatentsonline.com/article/Appraisal-Journal/226632588.html>.
- Zalejska-Jonsson, A. (2014). Stated WTP and rational WTP: Willingness to pay for green apartments in Sweden. *Sustainable Cities and Society*, 13, 46-56. <https://doi.org/10.1016/j.scs.2014.04.007>.

Zhang, B., et al (2012). The Effects of Public Green Spaces on Residential Property Value in Beijing. *Journal of Resources and Ecology*, 3(3), 243-252. <https://doi.org/10.5814/j.issn.1674-764x.2012.03.007>.

Wellness Case: Relationships Between the Built Environment and Health Behaviors/Outcomes

Bassett, E.M. (2014). *Designing the Healthy Neighborhood: Deriving Principles from the Evidence Base*. University of Virginia and Hart Howerton. <http://www.harthowerton.com/pdf/DesigningtheHealthyNeighborhood.pdf>.

Bell, S., Hamilton, V., Montarzino, A., Rothnie, H., Travlou, P., and Alves, S. (2008, August). *Greenspace and Quality of Life: A Critical Literature Review*. Greenspace Scotland Research Report. <http://www.openspace.eca.ed.ac.uk/wp-content/uploads/2015/10/Greenspace-and-quality-of-life-a-critical-literature-review.pdf>.

Brown, S. and Lombard, J. (2015, March). *Health & the Built Environment: Research & Resources*. Built Environment, Behavior, & Health Team, Department of Public Health Sciences, Miller School of Medicine, University of Miami. https://www.nrpa.org/uploadedFiles/nrpaorg/Professional_Development/Innovation_Labs/Health-Built-Environment-Brown-Lombard.pdf.

Build Healthy Places Network (n.d.). *Evidence Base*. <http://www.buildhealthyplaces.org/measureup/evidence-base/>.

Coupland, K., Rikhy, S., Hill, K., and McNeil, D. (2011, November). *State of Evidence: The Built Environment and Health, 2011-2015*. Public Health Innovation and Decision Support, Population & Public Health, Alberta Health Services. <http://www.albertahealthservices.ca/poph/hi-poph-surv-phids-soe-2011.pdf>.

Center for Active Design (2016). *Assembly: Research Brief I*. New York: Center for Active Design. <https://centerforactivedesign.org/assemblyresearchbriefone>.

Dannenberg, A.L., Frumkin, H., and Jackson, R.J. (Eds.) (2011). *Making Healthy Places: Designing and Building for Health, Well-being, and Sustainability*. Washington, DC: Island Press.

Ewing, R. and Kreutzer, R. (2006, May). *Understanding the Relationship Between Public Health and the Built Environment: A Report Prepared for the LEED-ND Core Committee*. Washington, DC: U.S. Green Building Council. <https://www.usgbc.org/sites/default/files/public-health-built-environment.pdf>.

Frank, L.D., Engelke, P.O., and Schmid, T.L. (2003). *Health and Community Design: The Impact of the Built Environment on Physical Activity*. Washington, DC: Island Press.

Frank, L., Kavage, S., and Devlin, A. (2012, June). *Health and the Built Environment: A Review*. Canadian Medical Association and Urban Design 4 Health, Ltd. http://urbandesign4health.com/wp-content/uploads/2012/10/Built_Env-Final_Report-August2012.pdf.

Frumkin, H., Frank, L., and Jackson, R. (2004). *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Washington, DC: Island Press.

Gallagher, W. (1993). *The Power of Place: How Our Surroundings Shape Our Thoughts, Emotions, and Actions*. New York City, NY: Poseidon Press.

Gesler, W.M. (2003). *Healing Places*. Lanham, MD: Rowman & Littlefield.

Glasgow Centre for Population Health (2013, November). *Concepts Series 11 – The Built Environment and Health: An Evidence Review*. http://www.gcph.co.uk/assets/0000/4174/BP_11_-_Built_environment_and_health_-_updated.pdf.

- Howard, B.C. (2017, February 14). 5 Surprising Ways Buildings Can Improve Our Health. *National Geographic*. <https://www.nationalgeographic.com/environment/urban-expeditions/green-buildings/surprising-ways-green-buildings-improve-health-sustainability/>.
- Jackson, R. (2003). The Impact of the Built Environment on Health: An Emerging Field. *American Journal of Public Health*, 93(9), 1382-1384.
- Joh, K., Nguyen, M.T., Boarnet, M.G. (2012, June). Can Built and Social Environmental Factors Encourage Walking among Individuals with Negative Walking Attitudes? *Journal of Planning Education and Research*, 32, 219. https://www.researchgate.net/publication/258154888_Can_Built_and_Social_Environmental_Factors_Encourage_Walking_among_Individuals_with_Negative_Walking_Attitudes.
- Kelly, J-F., Breadon, P., Davis, C., Hunter, A., Mares, P., Mullerworth, D., Weidmann, B. (2012, March). *Social Cities*. Melbourne, Australia: Grattan Institute. <https://grattan.edu.au/report/social-cities/>.
- Kent, J., Thompson, S.M., and Jalaludin, B. (2011). *Healthy Built Environments: A Review of the Literature*. Sydney, Australia: Healthy Built Environments Program, City Futures Research Centre, UNSW. <https://cityfutures.be.unsw.edu.au/research/city-wellbeing/city-wellbeing-resources/literature-review/>.
- Lavin, T., Higgins, C., Metcalfe, O., Jordan, A. (2006, July). *Health Impacts of the Built Environment: A Review*. Dublin, Ireland: The Institute of Public Health in Ireland. http://www.publichealth.ie/files/file/Health_Impacts_of_the_Built_Environment_A_Review.pdf.
- Lopez, R.L. (2012). *The Built Environment and Public Health*. San Francisco, CA: John Wiley & Sons.
- National Collaboration on Childhood Obesity Research (2017, March). *Health, Behavioral Design, and the Built Environment White Paper*. <http://www.nccor.org/wp-content/uploads/2016/09/nccor-behavioral-design-whitepaper-final.pdf>.
- Natural England (2016, July 14). *Links between natural environments and mental health: evidence briefing*. Natural England Access to Evidence Information Note EIN018. <http://publications.naturalengland.org.uk/publication/5748047200387072>.
- Project for Public Spaces (2016). *The Case for Healthy Places: Improving Health Outcomes Through Placemaking*. <https://www.pps.org/wp-content/uploads/2016/12/Healthy-Places-PPS.pdf>.
- Rao, M., Prasad, S., Adshead, F., Tissera, H. (2007, September 29). The built environment and health. *The Lancet*, 370, 1111-1113. [http://dx.doi.org/10.1016/S0140-6736\(07\)61260-4](http://dx.doi.org/10.1016/S0140-6736(07)61260-4).
- Robert Wood Johnson Foundation (2011). *Issue Brief #8: Neighborhoods and Health*. <http://www.rwjf.org/en/library/research/2011/05/neighborhoods-and-health-.html>.
- Sarkar, C., Webster, C., and Gallacher, J. (2014). *Healthy Cities: Public Health through Urban Planning*. Cheltenham, UK: Edward Elgar.
- Tucs, E., and Dempster, B. (2007). *Linking Health and the Built Environment: An annotated bibliography of Canadian and other related research*. Toronto: Ontario Healthy Communities Coalition. <http://www.ohcc-ccso.ca/en/linking-health-and-the-built-environment-a-literature-review>.
- Urban Land Institute (2013). *Intersections: Health and the Built Environment*. Washington, DC: Urban Land Institute. <http://uli.org/wp-content/uploads/ULI-Documents/Intersections-Health-and-the-Built-Environment.pdf>.
- WHO Regional Office for Europe (2017). *Urban Green Space Interventions and Health: A review of impacts and effectiveness*. Copenhagen, Denmark: WHO. <https://www.cbd.int/health/who-euro-green-spaces-urbanhealth.pdf>.

Wellness Case: Background on Determinants of Health, Physical/Socioeconomic Factors, and Behavior Change

- Australian Institute of Health & Welfare (2016, September 13). *Australia's Health 2016: Determinants of Health*. <https://www.aihw.gov.au/reports/australias-health/australias-health-2016/contents/determinants>.
- Dwyer-Lindgren, L., Bertozzi-Villa, A., Stubbs, R.W., et al (2016, December 13). U.S. County-Level Trends in Mortality Rates for Major Causes of Death, 1980-2014. *Journal of the American Medical Association*, 316(22), 2385-2401. <https://doi.org/10.1001/jama.2016.13645>.
- Flournoy, R. and Yen, I. (2004). *The Influence of Community Factors on Health: An Annotated Bibliography*. http://www.policylink.org/sites/default/files/ANNOTATEDBIBLIOGRAPHY_FINAL.PDF.
- Gounder, C. (2016, December 14). How long will you live? That depends on your zip code. *The Guardian*. <https://www.theguardian.com/commentisfree/2016/dec/14/life-expectancy-depends-on-zip-code-inequality>.
- Institute of Medicine. (2006). *Genes, Behavior, and the Social Environment: Moving Beyond the Nature/Nurture Debate*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/11693>.
- Institute of Medicine (2000). *Promoting Health: Intervention Strategies from Social and Behavioral Research*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/9939>.
- Institute of Medicine (2003). *Who Will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/10542>.
- Institute of Medicine and National Research Council (2015). *Measuring the Risks and Causes of Premature Death: Summary of Workshops*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21656>.
- Institute of Medicine and National Research Council (2013). *U.S. Health in International Perspective: Shorter Lives, Poorer Health*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13497>.
- Kahan, S., Gielen, A., Fagan, P., Green, L. (2014). *Health Behavior Change in Populations*. Baltimore, MD: Johns Hopkins University Press. <https://jhupbooks.press.jhu.edu/content/health-behavior-change-populations>.
- Kelly, M. and Barker, M. (2016). Why is changing health-related behavior so difficult? *Public Health*, 136, 109-116. <https://doi.org/10.1016/j.puhe.2016.03.030>.
- Mather, M. and Scommegna, P. (2015, September). *Up to Half of U.S. Premature Deaths Are Preventable; Behavioral Factors Key*. Population Reference Bureau. <http://www.prb.org/Publications/Articles/2015/us-premature-deaths.aspx>.
- McGovern, L., Miller, G., Hughes-Cromwick, P. (2014, August 14). Health Policy Brief: The Relative Contributions of Multiple Determinants to Health Outcomes. *Health Affairs*. http://healthaffairs.org/healthpolicybriefs/brief_pdfs/healthpolicybrief_123.pdf.
- Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services (n.d.). *Determinants of Health*. <https://www.healthypeople.gov/2020/about/foundation-health-measures/Determinants-of-Health>.
- Prüss-Ustün, A., Wolf, J., Corvalán, C., Bos, R., and Neira, M. (2016). *Preventing disease through healthy environments: A global assessment of the burden of disease from environmental risks*. Geneva, Switzerland: WHO Press. http://www.who.int/quantifying_ehimpacts/publications/preventing-disease/en/.

- Rappaport, S.M., and Smith, M.T. (2010). Environment and Disease Risks. *Science*, 330(6003), 460–461. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4841276/>.
- Robert Wood Johnson Foundation (n.d.). *Social Determinants of Health*. <http://www.rwjf.org/en/our-focus-areas/topics/social-determinants-of-health.html>.
- Stulburg, B. (2014) The Key to Changing Individual Health Behaviors: Change the Environments That Give Rise to Them. *Harvard Public Health Review*, vol. 2. <http://harvardpublichealthreview.org/wp-content/uploads/2014/10/HPHRv2-Stulberg.pdf>.
- U.S. Centers for Disease Control (2014, April 21). *Exposome and Exposomics*. <https://www.cdc.gov/niosh/topics/exposome/default.html>.
- U.S. Centers for Disease Control (2014, March 21). *NCHHSTP Social Determinants of Health FAQ*, <https://www.cdc.gov/nchhstp/socialdeterminants/faq.html>.
- Virginia Commonwealth University Center on Society and Health (2016, September 26). *Mapping Life Expectancy*. <http://www.societyhealth.vcu.edu/work/the-projects/mapping-life-expectancy.html>.
- World Health Organization (n.d.). *Health Impact Assessment: The Determinants of Health*. <http://www.who.int/hia/evidence/doh/en/>.
- Wu, S., Powers, S., Zhu, W., and Hannun, Y.A. (2016). Substantial contribution of extrinsic risk factors to cancer development. *Nature*, 529(7584), 43–47. <https://doi.org/10.1038/nature16166>.

Wellness Case: Compilations and Analysis of Metrics for Measuring Wellness and Built Environment Linkages

- Active Living Research: Tools & Measures*. <http://activelivingresearch.org/toolsandresources/toolsandmeasures>.
- Brownson, R.C., et al (2009). Measuring the Built Environment for Physical Activity: State of the Science. *American Journal of Preventive Medicine*, 36(4 Suppl), S99–123. <https://doi.org/10.1016/j.amepre.2009.01.005>.
- Build Healthy Places Network: Measurement Tools*. <http://www.buildhealthyplaces.org/measureup/measurement-tools/>.
- Ewing, R., and Clemente, O. (2013) *Measuring Urban Design: Metrics for Livable Places*. Washington, DC: Island Press. <http://activelivingresearch.org/measuring-urban-design-metrics-livable-places>.
- Jakubowski, B., and Frumkin, J. (2010). Environmental Metrics for Community Health Improvement. *Preventing Chronic Disease*, 7(4). http://www.cdc.gov/pcd/issues/2010/jul/09_0242.htm.
- National Research Council (2011). *Improving Health in the United States: The Role of Health Impact Assessment*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13229>.
- Schuchter, J., and Jutte, D.P. (2014). A Framework to Extend Community Development Measurement to Health and Well-Being. *Health Affairs*, 33(11), 1930–1938. <https://doi.org/10.1377/hlthaff.2014.0961>.
- Trowbridge, M.J., Pickell, S.G., Pyke, C.R., and Jutte, D.P. (2014). Building Healthy Communities: Establishing Health and Wellness Metrics for Use Within the Real Estate Industry. *Health Affairs*, 33(11), 1932–1929. <https://doi.org/10.1377/hlthaff.2014.0654>.
- What Works Wellbeing: Evidence+Resources (Multiple Publications)*. <https://www.whatworkswellbeing.org/evidenceresources/>.

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PHOTO CREDITS

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Serenbe, <http://s.serenberealestate.com/static/properties/property-hero.jpg>

Lake Nona, <https://www.taylormorrison.com/-/media/taylormorrison/new%20homes/florida/orlando/orlando/laureate%20park%20at%20lake%20nona%20community/images/slideshow/fountain.jpg?w=1150&as=0>

Willowsford, http://willowsford.com/wp-content/uploads/2017/01/greens_village_photo_4.jpg

Prairie Crossing, <http://prairiecrossing.com/wp-content/uploads/2015/05/Slider31.jpg>

Rancho Sahuarita, http://sahuaritaaz.gov/ImageRepository/Path?filePath=%2F00000000-0000-0000-0000-000000000000%5C65%5C115%2FSahuarita+Lake+Park_201310021027526222.jpg&thumbnailSize=Thumb400X400&preserveAspect=true

The Interlace, <https://www.archdaily.com/627887/the-interlace-oma-2/55498765e58ece423b00001d-the-interlace-oma-2-photo>

ECO Modern Flats, <http://ecomodernflats.com/images/gallery/img7.jpg>

BedZed, https://static.wixstatic.com/media/330c42_e4fb86e3853242c39e00ea5d388d2810.jpg/v1/fill/w_979,h_551,al_c,q_85,usm_4.00_1.00_0.00/330c42_e4fb86e3853242c39e00ea5d388d2810.jpg

Fuse Cambridge, <https://www.fusecambridge.com/wp-content/uploads/fuse-apartments-cambridge-gallery-49.jpg>

Selendra Rise, <http://www.l37projects.com.au/assets/Uploads/30.jpg>

Hidden Springs, http://www.hiddensprings.com/Program%20Files/Neoreef/Gallery/Gallery_Photo.aspx?p=%2fDocuments+and+Settings%2f5%2fSite+Documents%2fSite+Pictures%2fGallery%2fWINTER+HIDDEN+SPRINGS.jpg&r=4&s=0&r=2

Page 39:

Arden, <https://ardenfl.com/wp-content/uploads/2015/06/arden-palm-beach-county-fl-new-homes-amenities-3.jpg>

Prairie Crossing, http://libertyprairie.org/wp-content/uploads/2013/12/IMPACT_edited.jpg

Page 40:

Light Farms, <http://lightfarmstx.com/wp-content/uploads/am24.jpg>

Serenbe, https://static1.squarespace.com/static/5592e70ee4b0be53ba285a90/56b3e5e622482e95305e364b/56b3e5e6e32140670a517df2/1455730378436/jashleyphoto.com_3328.jpg?format=1500w

Page 41:

Canyon Ranch, <https://www.canyonranch.com/wp-content/uploads/2017/01/paddleboard-yoga-on-lake-canyon-ranch-wellness-resort-lenox-gallery.jpg>

Muse Residences, http://www.museresidences.com/wp-content/themes/muse/assets/gallery_v3/PMG-SI-02-PH-BathRoom-01.jpg

Page 42:

Via Verde, <https://www.archdaily.com/468660/via-verde-dattner-architects-grimshaw-architects/52dc0cfe8e44e45120001a0-via-verde-dattner-architects-grimshaw-architects-photo>

BedZed, https://static.wixstatic.com/media/330c42_e4fb86e3853242c39e00ea5d388d2810.jpg/v1/fill/w_979,h_551,al_c,q_85,usm_4.00_1.00_0.00/330c42_e4fb86e3853242c39e00ea5d388d2810.jpg

Fuse Cambridge, <https://www.fusecambridge.com/wp-content/uploads/fuse-apartments-cambridge-gallery-49.jpg>

Lake Nona, <http://www.lakenona.com/app/uploads/2016/04/beacon-2.jpg>

Page 43:

Connected City, <http://techhomebuilder.com/wp-content/uploads/2016/07/page-6-e1469107707858.jpg>

Collective Old Oak, <https://the-collective-static.imgix.net/mastheads/unlocking-the-world.JPG?auto=format&w=1024&dpr=2&v=1>

Page 44:

WeWork, <https://cdn.wework.com/6vy33zo2mgy3/1QCWhNZbneyi0yK6sKSsc/a083d-Oa0734235084b6642355d672857/a5d8e2451d4173fb8af4af8e375fe27ad9d77971.png?auto=format%2Ccompress&dpr=2&ch=DPR%2CWidth&crop=false&fit=crop&w=400&h=400>

Kotoen, https://www.gov-online.go.jp/eng/publicity/book/hlj/html/201512/img/img_04_01.jpg

Page 45:

Humanitas, <https://d3i6fh83elv35t.cloudfront.net/newshour/app/uploads/2015/03/Onno-Selbach.jpg>

Page 47:

Laureate Park, Lake Nona, https://www.ashtonwoods.com/sites/default/files/styles/amenities_in_community/public/amenities/Aquatic%20Center%203_0.jpg?itok=n2apM_Dr

Canyon Ranch Spa, <https://www.canyonranch.com/wp-content/uploads/2017/01/double-u-pool-canyon-ranch-wellness-resort-tucson-gallery.jpg>

North Lake Park, <http://ymcacentralflorida.com/web/wp-content/uploads/2013/08/015.jpg>

Page 48:

Serenbe, http://s.serenbe.com/images/made/images/remote/http_s3.serenbe.com/uploads/experiences/ba6b0b1c15eb5695ddf2848e9bb45b26/ahp_serenbe-winedinner_IMG_7859-1_700_700_s_c1.jpg

The District Jax, <http://www.thedistrictjax.com/images/bg-image4.jpg>

Page 56-57:

High Point Breathe-Easy Homes, <https://www.seattlehousing.org/sites/default/files/u4/BreatheEasy3%20%281%29.jpg>

Mariposa, <http://www.mariposadenver.com/wp-content/uploads/2015/11/DSC7655-copy-620-x-290.jpg>

Mueller, http://www.muelleraustin.com/uploads/thinking-green/_MG_2346.jpg

Arbor House, https://centerforactivedesign.org/_centerforactivedesign.org/dynamic/user_gallery_images-image-215.jpg?1508665401

Selendra Rise, <http://www.l37projects.com.au/assets/Uploads/30.jpg>

Stockland, <https://www.stockland.com.au/-/media/residential/nsw/avena/home-page/masonry/avena-masonry-image-gallery-1-900x500.ashx?imageresizing=true&mode=crop&anchor=middlecenter&width=600&height=340&as=1&h=340&hash=FABB3D891D41AADD3D9A919C3667BAD020D2BDCC>

Berkeley Group, <https://www.berkeleygroup.co.uk/showmedia.cfm?iMediaID=23978>

BedZED, <http://www.bioregional.com/wp-content/gallery/bedzed/Bioregional-bedzed-3.jpg>

Page 107:

Laureate Park, Lake Nona, https://www.ashtonwoods.com/sites/default/files/styles/amenities_in_community/public/amenities/Aquatic%20Center%203_O.jpg?itok=n2apM_Dr

Page 108:

Rancho Sahuarita, <https://ranchosahuarita.com/backyard/club-rancho-sahuarita/>

Harvest Green, https://www.harvestgreentexas.com/phpThumb/phpThumb.php?w=600&src=/uploads/images/Scrollable_Content/Farmhouse_pool3.png

Page 109:

Canyon Ranch, <https://www.canyonranch.com/wp-content/uploads/2017/01/double-u-pool-canyon-ranch-wellness-resort-tucson-gallery.jpg>

North Lake Park, <http://ymcacentralflorida.com/web/wp-content/uploads/2013/08/015.jpg>

Page 110:

Sterling Ranch, https://media.bizj.us/view/img/6155791/10asterlingranchprovidencelakeplaza*1200xx3643-2049-47-0.jpg

Page 111:

Serenbe, http://s.serenbe.com/images/made/images/remote/http_s3.serenbe.com/uploads/experiences/ba6b0b1c15eb5695ddf2848e9bb45b26/ahp_serenbe-winedinner_IMG_7859-1_700_700_s_c1.jpg

Liberty Prairie Foundation, http://libertyprairie.org/wp-content/uploads/2013/12/FBDC-BASICS_field-crew_edited.jpg

Page 112:

The District Jax, <http://www.thedistrictjax.com/images/bg-image4.jpg>

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As the pioneer of Wellness Real Estate™, Delos is transforming our homes, offices, schools, and other indoor environments by placing health and wellness at the center of design and construction decisions. Delos helps create spaces that actively contribute to human health, performance and well-being by marrying the best innovations in technology, health, science, and real estate. The Delos platform includes programming, consulting, research, and an array of innovative products and technologies that research suggests may improve occupant well-being.

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Visit Lapinha Spa at www.lapinha.com.br.



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"As a technology-based company whose mission it is to create optimal health and wellness by supporting the body's inherent resources, we were profoundly encouraged to be surrounded by like-minded interest at our first Global Wellness Summit. The collective knowledge, creativity, and commitment of this organization and its supporters represents a powerful momentum towards a paradigm shift that will forever change the way we think about health and our relationship to it." – Joniann Marchese, President, LightStim

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Each week guests at Rancho La Puerta Fitness Resort and Spa in Tecate, Baja California, Mexico, renew their minds, bodies, and spirits on a journey to true wellness. Founded in 1940, The Ranch pioneered the concept of a true destination spa, for both its guests and employees. Over 440 employees and their families are part of the Employee Wellness Program, which provides daily fitness classes, complimentary medical services, and healthy living workshops on topics such as chronic disease prevention and nutrition. The Ranch is dedicated to ensuring that both guests and employees live long, healthy, active, and inspired lives.

Visit Rancho La Puerta at www.rancholapuerta.com.



Rezilir Health

“In an industry built around big Pharma and insurance companies, you’re considered disrupters when you go against the grain. To find ourselves surrounded by like-minded people as sponsors at our first Global Wellness Summit was validating to say the least. In a space where cutting-edge technologies and lifestyle medicine is changing the way in which healthcare is delivered, our best shot to create change in a world of chronic illness and disease is to all come together for a much bigger and brighter ‘moonshot.’”

– Tammy Motola, Co-Founder & President, Rezilir Health

Visit Rezilir Health at www.rezilirhealth.com.



Seabourn

“To collaborate with an organization that is focused on promoting a healthier world is a privilege, and aligns with our brand’s commitment to provide world class health and wellness for our guests. Luxury travelers today are seeking enriching experiences over material things, with wellness being top of mind in terms of upcoming trends, and the Global Wellness Institute is helping to shape that future for the industry.”

– Chris Austin, SVP of Global Marketing & Sales, Seabourn

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Serenbe

Serenbe is a leading wellness community focused on all aspects of a well-lived life. Featuring an organic farm, arts and cultural programming, multiple restaurants, boutiques and over 15 miles of nature trails, Serenbe is set within acres of preserved land. You can walk out your back door into nature, and out your front door for a world-class meal. It’s the place you didn’t know you needed. The newest neighborhood will include a wellness center, destination spa and resort and housing for aging in place. Serenbe is a model for building community with nature in mind and wellbeing at its core.

Visit Serenbe at www.serenbe.com.



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Visit Six Senses at www.sixsenses.com.



Two Bunch Palms

Marking 75 years last year, Two Bunch Palms has had much to celebrate. Since 2014, the iconic resort rebranded, emphasizing its award-winning healing waters, recently voted the best in America. The multi-million dollar renovation included implementing sustainable design and practices throughout the resort, and promoting a culture of well-being. This recent incarnation, along with its 3.5-acre solar farm, put Two Bunch Palms on the destination spa map as the first "Sustainable Wellness Resort" in North America.

Visit Two Bunch Palms at www.twobunchpalms.com.

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SEPTEMBER 2021

Wellness Real Estate: Looking Beyond COVID-19



Wellness Real Estate: Looking Beyond COVID-19

September 2021



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About the Global Wellness Institute

The Global Wellness Institute (GWI), a 501(c)(3) non-profit organization, is considered the leading global research and educational resource for the global wellness industry and is known for introducing major industry initiatives and regional events that bring together leaders and visionaries to chart the future. GWI positively impacts global health and wellness by advocating for both public institutions and businesses that are working to help prevent disease, reduce stress, and enhance overall quality of life. Its mission is to empower wellness worldwide.

www.globalwellnessinstitute.org

About the Authors

Wellness Real Estate: Looking Beyond COVID-19 was co-authored by Ophelia Yeung and Katherine Johnston, Senior Research Fellows at the Global Wellness Institute. Together, they have four decades of experience leading research and strategy development for businesses, universities, research institutions, and multilateral and government organizations under the auspices of SRI International, a Silicon Valley-based technology and innovation company. Since 2008, Ms. Yeung and Ms. Johnston have worked with the team at what has become the Global Wellness Institute to pioneer groundbreaking research on the global wellness economy and its subsectors. Rie Takemoto, Research Intern, provided assistance in data research.

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Wellness Real Estate

Definition, Market Size, and Growth.

The Global Wellness Institute (GWI) defined and measured wellness real estate for the first time in the 2018 research report *Build Well to Live Well*¹, defining the sector as ***the construction of residential and commercial/institutional properties (including office, hospital, mixed-use/multi-family, medical, and leisure) that incorporate intentional wellness elements in their design, materials, and building, as well as their amenities, services, and/or programming.*** Just a few years ago, wellness real estate was a nascent industry that was not well understood by stakeholders – from consumers and builders to developers and investors. At that time, GWI predicted that homes and buildings that are built intentionally to protect and enhance occupants’ health and well-being would become the next real estate frontier, and that forecast is now bearing out.

Wellness Real Estate Market by Region, 2017, 2019, 2020

	Wellness Real Estate Market				Average Annual Growth Rate	
	(US\$ billions)			Per Capita 2020	2017-2019	2019-2020
	2017*	2019	2020			
North America	\$59.8	\$100.2	\$118.5	\$322.33	29.5%	18.2%
Asia-Pacific	\$55.3	\$77.5	\$98.7	\$23.68	18.4%	27.4%
Europe	\$32.3	\$46.0	\$56.2	\$60.88	19.3%	22.2%
Middle East-North Africa	\$0.6	\$0.7	\$0.8	\$1.55	9.1%	9.6%
Latin America-Caribbean	\$0.3	\$0.5	\$0.6	\$0.94	26.4%	12.6%
Sub-Saharan Africa	\$0.1	\$0.2	\$0.3	\$0.22	36.0%	5.3%
WORLD	\$148.5	\$225.2	\$275.1	\$35.47	23.2%	22.1%

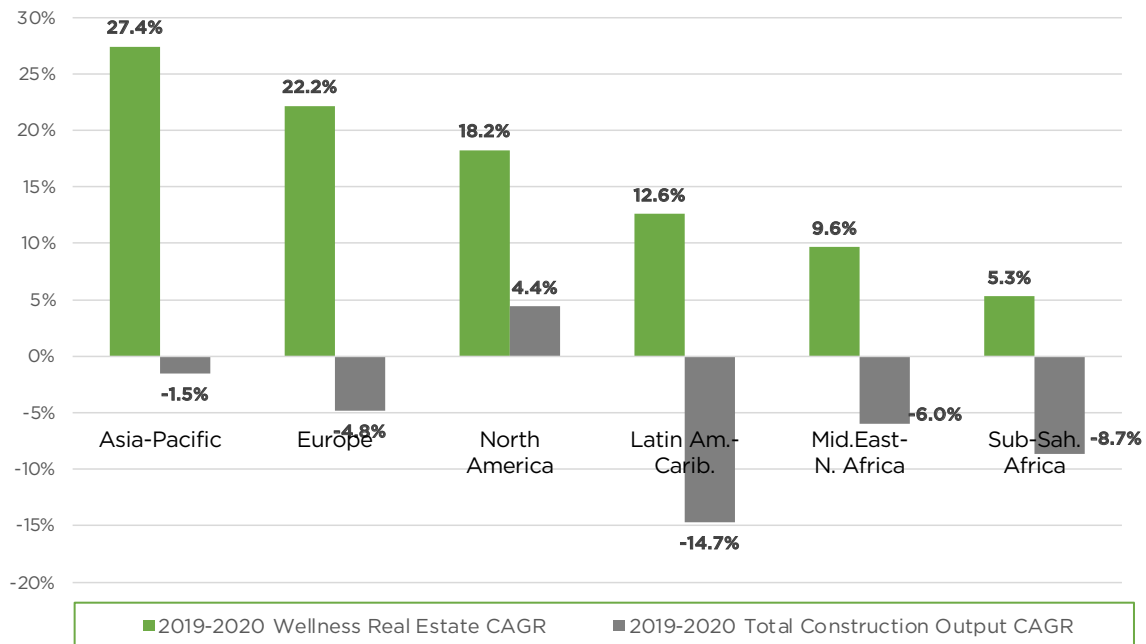
*2017 figures for this sector have been revised since GWI released the previous version of the Wellness Economy Monitor, due to data revisions and updates made by key underlying data sources such as the United Nations.

Note: Figures may not sum to total due to rounding.

Source: Global Wellness Institute, based on construction output data from the United Nations.

The COVID-19 pandemic has created a major shift in the construction and real estate industry toward wellness. GWI values the global wellness real estate sector at \$275 billion in 2020, growing from \$148 billion in 2017. Wellness real estate now represents about 2.4% of global annual construction output. The rapid rise of wellness real estate has been a bright spot in the wellness economy during the pandemic, with the sector's growth significantly outpacing predictions as well as general economic growth trends. From 2017-2019, wellness real estate grew by 23% annually, as compared to 5.4% annual growth for construction overall. During the pandemic year (2019-2020), wellness real estate continued to grow by over 22%, even as overall construction output shrank by -2.5%. Numerous trends during the pandemic have bolstered this growth – from the renewed recognition of the role that buildings and indoor air play in spreading communicable disease, to the heightened dependence on outdoor recreation amenities and public spaces while indoor leisure facilities were shut down (see further discussion below). We predict this growth trajectory will continue, as healthy building features increasingly shift from being a luxury, or “nice to have,” toward becoming an expectation or even a minimum standard, especially in the commercial/office real estate space.

Wellness real estate growth outpaces overall construction growth in every region, even during the pandemic



Source: Global Wellness Institute, based on construction output data from the United Nations.

The wellness real estate market is heavily concentrated in North America, Asia-Pacific, and Europe. Growth rates have picked up significantly in both Asia-Pacific and Europe over the last couple of years, as understanding and awareness of the sector has spread. Nevertheless, the wellness real estate market remains highly concentrated, with the United States and a few key countries in Asia (China, Australia, Japan) and Europe (United Kingdom, France, Germany) accounting for 82% of the market.

Wellness Real Estate: Top Twenty Markets in 2020

	Wellness Real Estate Market				Average Annual Growth Rate	
	(US\$ billions)			Rank in 2020	2017-2019	2019-2020
	2017*	2019	2020			
United States	\$57.5	\$94.3	\$110.6	1	28.1%	17.3%
China	\$27.2	\$37.0	\$51.5	2	16.6%	39.3%
Australia	\$12.1	\$15.6	\$16.5	3	13.6%	6.1%
United Kingdom	\$8.3	\$10.8	\$14.8	4	14.2%	37.0%
Japan	\$2.5	\$7.6	\$11.5	5	73.2%	51.1%
France	\$6.1	\$9.6	\$11.2	6	25.2%	17.6%
Germany	\$6.5	\$8.7	\$9.8	7	15.3%	12.8%
Canada	\$2.3	\$5.9	\$7.8	8	60.6%	33.3%
South Korea	\$4.6	\$5.7	\$6.2	9	11.2%	9.7%
India	\$4.0	\$5.0	\$5.3	10	12.2%	5.9%
Netherlands	\$2.1	\$2.9	\$4.2	11	18.3%	44.4%
Switzerland	\$1.5	\$2.3	\$2.5	12	24.4%	10.4%
Norway	\$1.3	\$2.0	\$2.3	13	26.5%	12.5%
Sweden	\$1.4	\$1.6	\$1.8	14	7.8%	10.5%
Austria	\$1.2	\$1.5	\$1.8	15	13.1%	18.8%
New Zealand	\$1.1	\$1.5	\$1.6	16	13.6%	6.0%
Denmark	\$0.8	\$1.3	\$1.5	17	27.1%	15.0%
Italy	\$0.9	\$1.3	\$1.5	18	22.6%	17.8%
Singapore	\$0.8	\$1.1	\$1.3	19	16.0%	12.4%
Finland	\$0.7	\$1.0	\$1.2	20	16.8%	15.4%

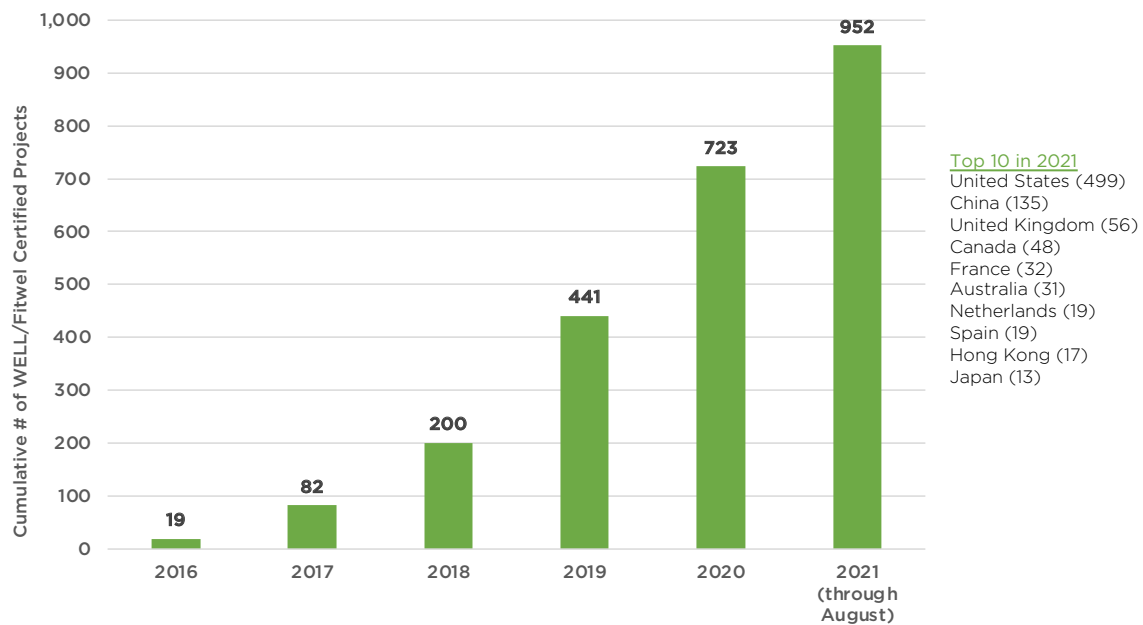
**2017 figures for this sector have been revised since GWI released the previous version of the Wellness Economy Monitor, due to data revisions and updates made by key underlying data sources such as the United Nations.*

Source: Global Wellness Institute, based on construction output data from the United Nations.

One good way to understand the rapid growth trajectory of wellness real estate is to look at the number of projects earning wellness building certifications in recent years. The WELL Building Standard (WELL) and Fitwel are the two major third-party rating systems that focus specifically on health and wellness of building occupants. WELL awarded its first certifications in 2014, while Fitwel certified its first projects in 2016. As evident in the chart below, interest in wellness certifications has risen rapidly since that time, with the total number of wellness-certified

building projects increasing by nearly nine times from 2017 to 2020. As of August 2021, there are over 950 WELL and Fitwel certified projects globally, with just over half of these located in the United States. The majority of these certifications are for office/commercial, hospitality, and retail properties, with about one-third in residential projects. As of August 2021, an additional 1,431 projects are in progress for certification (Fitwel) or pre-certified (WELL), with the majority of these located in the United States, China, Canada, Hong Kong, United Kingdom, and Australia. During the pandemic, both organizations launched new rating standards to address disease transmission risks (the WELL Health-Safety Rating for Facility Operations and Management, and the Fitwel Viral Response Module); an additional 7,684 properties have earned those ratings to date (primarily in the United States and Mexico).

Wellness building certifications (WELL and Fitwel) are growing rapidly



Data compiled by GWI using publicly-available online project databases from WELL and Fitwel, as of mid-August 2021. These figures measure fully certified projects, and they are cumulative (showing the increase in the total number of certified projects over time). Source: Global Wellness Institute

It is important to keep in mind that WELL and Fitwel certifications represent only a fraction of the wellness real estate market as defined by GWI. For one, the impact of these rating systems extends far beyond the simple number of certifications awarded. For example, large, multi-location companies are increasingly consulting with these rating systems to enhance healthy features across their entire portfolio of buildings, even though they may only officially certify their headquarters. Although WELL and Fitwel are the most well-known and most global programs, a wide range of other wellness-related certifications and toolkits are available in the market, many of which focus more broadly on sustainability or regenerative living rather than just wellness (e.g., Living Building Challenge, One Planet Living).² In recent years, well-established green building certifications like LEED and BREEAM have been shifting toward a more holistic emphasis on human health and have added criteria related to indoor environments and occupant health and well-being.³ Early in the pandemic, the U.S. Green Building Council announced a new vision and strategy – “Healthy people in healthy places equals a healthy economy” – aiming to position LEED as a platform for post-COVID recovery and healthier communities.⁴ In Japan, the government has worked with the Institute for Building Environment and Energy Conservation (IBEC) to develop a health and wellness certification for offices as part of the country’s CASBEE certification system. The first project evaluations took place in 2019, and 43 properties have been certified to date.⁵

Looking beyond the certifications and rating systems, there is a vast and ever-growing array of wellness-focused buildings and real estate projects around the world, in both new developments and redesign of existing properties. This is especially true in the residential space, where for over two decades, developers and builders have been experimenting with different ways to protect and enhance residents’ health and well-being through the built environment. Many different types of wellness living concepts are being developed across all types of residential projects, including master-planned communities; multifamily projects (apartments and condominiums); urban districts and mixed-use projects; resort/spa/hospitality-based wellness real estate; affordable/subsidized housing; and other wellness concepts based on eco-communities, coliving, senior living, and more.

In 2018, GWI counted over 740 wellness residential projects in the pipeline across 34 countries. This sector has grown so rapidly that these projects are now too numerous to list and count. **Today, GWI conservatively estimates that there are over 2,300 wellness residential projects around the world (either built, partially built, or in development).** Several trends, elaborated below, have been underpinning this growth and will continue to drive expansion of the wellness real estate market in the coming years for residential, office/commercial, hospitality, and other types of properties.

Ten Key Drivers of Future Growth for Wellness Real Estate

1. Rapidly rising interest in wellness certifications for residential properties (in addition to office/commercial properties).
2. In multi-family developments, wellness features and healthy design will become nearly ubiquitous in luxury properties, and will increasingly be found in mid-market and affordable properties. In particular, countries with publicly funded healthcare will help push health-protecting/-enhancing features into affordable/subsidized housing, as a front-end investment to lower public health spending.
3. Continued growth of master-planned communities, mixed-use developments, and urban districts with expansive wellness amenities and/or with health and well-being as a key selling point. This trend will be especially strong in countries with rapid urbanization and a rising middle class, where more people are moving to suburbs and are looking to bring urban-style wellness amenities to the suburbs with them (e.g., walkability, mixed use, etc.)
4. Wellness residential concepts will grow rapidly in developments targeting seniors and young adults, including senior living, multigenerational living, and coliving – especially in Europe and Asia.
5. “Retreat-style” wellness living concepts (second homes, vacation homes) will expand to most major destination spa and destination resort brands.
6. A heightened appreciation for and emphasis on natural areas, parks, outdoor recreation amenities, and public spaces will continue in the post-COVID era – and especially a heightened focus on more equitable distribution of and access to these spaces.
7. Post-COVID, there will be ongoing emphasis on indoor air quality and general sanitation, especially in workplaces, schools, retail, and other public buildings.
8. As people return to their workplaces in the post-COVID era, employers will be forced to reconfigure workplace design to address employee concerns about disease risks, and increasingly other wellness needs (e.g., mental and emotional wellness).
9. Growing interest in healthy buildings and health-enhancing built environments among real estate investors (especially in Asia, North America, and Europe), driven by tenant demand as well as a growing emphasis on human health as part of ESG (environmental, social, and corporate governance) initiatives.
10. Increasing overlap between planetary health (sustainability) and human health (wellness) across all types of building projects.

Looking beyond COVID-19: Pandemic-induced shifts in wellness real estate.

Before the pandemic, most consumers associated wellness real estate with vacation and resort properties; active retirement communities; and/or amenities like gyms, swimming pools, spas, walking trails, and recreational centers. COVID-19 has forced us to see our homes and our built environments in a new light – as the protectors and enablers of good health. With our homes becoming a first line of defense against COVID-19, wellness real estate is now quickly moving from elective to essential.

The pandemic has driven healthy homes into mainstream consumer consciousness.

While many people are now waking up an understanding that our built environment can impact our health, long before the pandemic research showed us that external and environmental factors (not genetics) can affect up to 80-90% of our disease risks and health outcomes. Wellness real estate has the potential to protect and enhance the health and well-being of its occupants across multiple wellness dimensions: physical, mental, emotional, social, spiritual, environmental, and financial. In our 2018 report, we described four key principles for understanding, conceptualizing, planning, building, and operating wellness real estate:

- **From “do no harm” to optimizing wellness.**
- **From passive to active wellness.**
- **From hardware to software.**
- **From ME to WE.**

The COVID-19 pandemic has created important shifts in how we apply these four principles.

Expanding the scope of “do no harm” and optimizing wellness.

The science of “sick buildings” was well established before the pandemic. Many activities and substances can create harmful and/or lethal indoor air, including burning coal, kerosene, and biomass fuels for cooking and heating; mold and fungus; and various building materials and substances (e.g., PVC, phthalates, flame retardants, VOCs, etc.). COVID-19 amplified these problems by confining people at home and indoors for long periods of time, and by returning them to work in buildings where ventilation systems had been shut-off for months. The pandemic has brought renewed attention to the role that buildings play in spreading communicable disease, especially in high-density and shared spaces. There is now heightened interest in natural ventilation, airflow, and air filtration systems; temperature and humidity control; antimicrobial surfaces; voice-activated and touchless doors, keys, and elevators; UV light sanitation; and other products and solutions to prevent virus transmission. Developers and employers are also seeking out design innovations and spatial reconfigurations to tackle these problems. Having enough space to spread out people in high-traffic areas like elevators, corridors, bathrooms, and cafeterias may no longer be a luxury in a post COVID-19 world.

If “do no harm” is the minimum standard, then wellness real estate can and should aim much higher by improving and optimizing our wellness. Critical elements include access to nature and green space, which have many documented physical and mental wellness impacts: buffering/reducing noise and air pollution; increasing physical activity; improving cognitive abilities, productivity, attention, mood, and healing; and reducing aggression, violence, and negative feelings. Even when we are indoors, views of the outdoors and images of nature can have positive impacts on healing, stress, mood, and cognitive functioning. During the pandemic lockdown, consumer interest in many nature-based activities spiked, including parks, beaches, camping, hiking, gardening, indoor plants, and growing food at home. In a post COVID-19 world, we anticipate greater incorporation of biophilic design into buildings, as well as greater investment in natural assets in our neighborhoods and urban areas, e.g., greenways and multi-use trails, pocket parks, community gardens, and street trees.

Another critical area is improving sleep, rest, and stress reduction. Sleep is a cornerstone of good health, and yet it is constantly compromised by issues in our built environment, such as a lack of natural light indoors, artificial lighting that disrupts circadian rhythms, poor temperature control, and noise pollution. Design features that support rest and sleep will gain ground in the future, including soundproofing and noise reduction, circadian lighting, restrictions on gas-powered mowers and blowers, urban traffic control, etc. Already, some of the most frequently installed wellness technologies in 2020 include indoor air quality sensors/filters, human-centric lighting, motorized shade controls tied to astronomic timers, aroma infusers, and smart sleep technology.⁶

Active wellness: Supporting and enabling healthy habits and behaviors.

Wellness real estate can include many “passive” wellness features that protect and improve our health and well-being without us doing anything (e.g., safer building materials, soundproofing, biophilic design, etc.). But it must also include “active” wellness features – things that nudge us to choose a healthier lifestyle. One of the most obvious areas for wellness real estate to promote active wellness is by providing exercise amenities and recreational spaces that support physical activity. Sedentary behavior, already a worldwide problem prior to the pandemic, has become more severe. When people were not able to use indoor gyms and attend fitness classes during COVID shutdowns, outdoor spaces like public parks, jogging/biking paths, hiking trails, and public squares and plazas became more important than ever. Numerous studies have shown that proximity to parks is associated with higher levels of physical activity, especially for seniors, children, and disadvantaged populations, while also helping to mitigate loneliness and strengthen social connections.

Building design and infrastructure can also nudge us toward healthy behaviors such as taking the stairs rather than the elevator, or walking/biking rather than driving. Since the beginning of the pandemic, people have taken over the streets in cities around the world with walking, biking, social gatherings, and outdoor dining. Many cities are now making these changes permanent – reconfiguring their streets to favor pedestrians, cyclists, and public transit – with public health in mind (i.e., reducing transmission of infectious disease, encouraging physical activity, and reducing pollution).

During the pandemic, our homes have become the epicenter of many functions: office, school, gym, restaurant, playground, socializing, and self-care. There are many opportunities to redesign our homes to support behaviors that enhance our physical and mental wellness. For example, kitchen design can encourage healthy cooking, healthy eating, and minimizing food waste.⁷ Features like balconies, porches, and patios can encourage occupants to socialize with their neighbors. A quiet, meditative corner can beckon us to take a few minutes away from daily stress for mindful breathing. Rooftop and community gardens invite city residents to feel connected to nature and where their food comes from, while providing educational and recreational opportunities for children and families.

In addition to physical activity, public spaces can encourage prosocial behavior, build a sense of community, and even inspire spiritual and transcendent experiences. Studies show that good urban design can help increase civic trust and engagement, which have been vital to our survival during the height of the pandemic. Features such as parks, public plazas, sidewalks, mixed-use spaces, high density, housing diversity, and vernacular architecture can encourage pedestrian traffic, street activities, public gatherings, and spontaneous meeting of neighbors, all of which help to create a sense of place and community. COVID-19 also created a moment for public art and architecture to connect people with mindfulness, a sense of awe and wonder, and even transcendence. Brooklyn's Breathing Pavilion, for example, invites visitors to breathe and participate in a moment of meditation along its pulsating lights.⁸

Redefining wellness hardware and software.

In the 2018 *Build Well to Live Well*⁹ report, GWI advocated for wellness amenities (“hardware”) and intentional policies, management, and programming (“software”) to be incorporated into wellness real estate projects to encourage healthy behaviors among residents. During the pandemic, digital hardware and software have become even more vital to our health and well-being. Reliable, high-speed Internet underpins the digital platforms that allow us to work or attend school from home, connect with friends and family, stream exercise programs, buy food and necessities via apps, and even visit a doctor or therapist virtually. Research has shown that households with high-speed Internet have been better able to comply with COVID-19 stay-at-home directives. Broadband Internet infrastructure is most lacking in the rural, lower-income, and marginalized communities that are already facing higher risks of economic and social distress during the pandemic. In short, COVID-19 shows that the digital divide also translates into inequitable access to wellness.

At the other end of the spectrum – where wealthy households already enjoy strong digital infrastructure and access to wellness amenities – new smart home technologies and solutions are enhancing the wellness of our home environments. These include sensors that monitor indoor air and water quality, as well as emerging technologies that can monitor the health status of occupants (e.g., toilets that analyze “outputs;” floorboard sensors that can detect falls; and bathroom mirrors that can monitor vision, skin cancer, and other issues). While these technologies are nowhere near mainstream adoption, the desire to age-in-place and to have better in-home healthcare will increase consumer demand in this space.

“ME” is not safe if WE are not healthy.

Wellness real estate starts with our individual micro-environments – the specific rooms where we sleep and work, our homes, and our workplaces or school buildings. But it also radiates more widely to our subdivisions, neighborhoods, communities, and cities. When we seek out health and well-being exclusively within our own micro-environments, we are living in a “wellness bubble.” But the experience of COVID-19 shows us that our individual wellness bubbles cannot keep us safe and healthy. During the pandemic, some of us may have been sequestered in our homes; perhaps we ordered everything to be delivered, or perhaps we had domestic helpers to do our shopping and errands. But if delivery personnel, essential workers, and the people living in vulnerable communities are sick, then the risks increase for everyone. The pandemic has brought a new level of understanding that our individual health and well-being are intrinsically linked with our community and the broader environment. For example, a recent Harvard University study found that higher rates of air pollution are correlated with higher COVID-19 deaths in the United States.¹⁰ How we plan, build, and operate our homes and neighborhoods can have profound impacts on the social, economic, and environmental dimensions of community wellness, which in turn impact our individual wellness.

ENDNOTES

1 See: Global Wellness Institute (2018). *Build Well to Live Well: Wellness Lifestyle Real Estate and Communities*. <https://globalwellnessinstitute.org/industry-research/wellness-real-estate-communities-research/>.

2 For a more comprehensive list of wellness-related certifications, toolkits, and design principles, see: GWI (2018), *Build Well to Live Well*, <https://globalwellnessinstitute.org/industry-research/wellness-real-estate-communities-research/>.

3 For more information, see: <https://tools.breeam.com/filelibrary/Briefing%20Papers/99427-BREEAM-Health---Wellbeing-Briefing.pdf> and <https://www.usgbc.org/articles/human-health-and-wellbeing-through-leed>.

4 See: Stanley, S. (2020, May 13). USGBC outlines path for how healthy places and LEED will support recovery efforts as businesses, governments and communities prepare for a post-pandemic world. *U.S. Green Building Council*. <https://www.usgbc.org/articles/usgbc-launches-global-economic-recovery-strategy>.

5 See: 1) Japan readies certification for healthier office buildings. *Nikkei Asian Review*. 16 Aug. 2017. <https://asia.nikkei.com/Politics/Japan-readies-certification-for-healthier-office-buildings2>. 2) CASBEE Wellness Office Evaluation Certification. *IBEC*. http://www.ibec.or.jp/CASBEE/certification/WO_certification.html.

6 Knott, J. (2021, July 16). CE Pro Deep Dive: Does Wellness Market Need a Checkup? *CEPro*. <https://www.cepro.com/markets/ce-pro-deep-dive-does-wellness-market-need-a-checkup/>.

7 See: Global Wellness Summit (2018). Trend #4: The Wellness Kitchen. *2018 Global Wellness Trends Report*. <https://www.globalwellnesssummit.com/2018-global-wellness-trends/wellness-kitchen/>.

8 See: Global Wellness Summit (2021, June 23). Trend: New Public Spaces Where Art and Design Meet Nature and Wellness. *GWS Trendium*. <https://us14.campaign-archive.com/?u=3c3105a9b5dd3794bc35e2d8f&id=a472022160>.

9 See: GWI (2018). *Build Well to Live Well*. <https://globalwellnessinstitute.org/industry-research/wellness-real-estate-communities-research/>.

10 Wu, X., Nethery, R., et al (2020, April 5). *Exposure to air pollution and COVID-19 mortality in the United States*. Harvard T.H. Chan School of Public Health. https://projects.iq.harvard.edu/files/covid-pm/files/pm_and_covid_mortality.pdf.



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