



# IMPACT REPORT

2023





We acknowledge that the Kindred Works offices are located on the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples, now home to many diverse First Nations, Inuit and Métis peoples. It has been a site of human activity for at least 15,000 years.

This is Dish With One Spoon Territory. Dish With One Spoon is a treaty between the Anishinaabe, Mississaugas and Haudenosaunee to peaceably share and care for the resources around the Great Lakes.



Kindred Works has been named to Fast Company's **World's Most Innovative Companies of 2024** list.

Fast Company is a world leader in news with a unique editorial focus on innovation in technology, leadership and design. Kindred Works has earned the #2 standing in the Urban Development and Sustainability category.



**Tim Blair**  
Managing Partner



**David Constable**  
Managing Partner

# An Unparalleled Opportunity for Impact

## How our approach to development builds value for people, planet and investors

As housing developers, we are uniquely positioned to significantly impact the two most important social issues of our time: the housing and climate crises.

Housing shortages threaten the health and prosperity of our communities. The Canada Mortgage and Housing Corporation acknowledges that Canada needs 5.8 million new homes built by 2030 to bring back affordability. This requires a 10-fold increase in building rental housing and a six-fold increase in building for sale homes compared to construction rates from 2018 to 2022.

This housing crisis is also personal: people cannot afford a place to live. Ten percent of Canadians live in Core Housing Need (CHN), without appropriate housing to meet their basic needs. In Toronto, 30% of those in CHN are in multiple-person households earning between \$42,501 and \$102,000 per year. To create healthy neighbourhoods, we need to build housing that provides safe, stable homes, allowing people to meet financial obligations, save, and invest in their future. Stable housing improves physical and mental health outcomes and maintains diverse and vibrant communities.

Our climate is in crisis, and it affects everyone's future. January 2024 concluded the first contiguous year where global temperatures exceeded the ideal target of the Paris Agreement by surpassing 1.5 degrees of warming for the entire year.

The Intergovernmental Panel on Climate Change (IPCC) has established a carbon budget to stay below 1.5 degrees of warming; at our current pace of emission, we will exceed that budget in the next five years. Staying under 2 degrees of warming is critical to maintaining a livable climate. Already 2023 saw a record year for wildfires across Canada, impacting every major city's air quality and health. The changing climate affects weather patterns, threatening water supplies, and reducing food security. As developers, we have a responsibility: buildings globally contribute about 40% of total greenhouse gas emissions. We must develop new housing that recognizes the need to live within the means of our planet and respects future generations.

By the end of this decade, if we work together, we can set ourselves up for a climate-safe future where people can afford to live and work in healthy, balanced vibrant cities and towns.

We believe business can (and should) be a force for good. It is simply good business to maintain a stable climate and healthy cities where a broad cross-section of people can afford to live and work. At Kindred Works, we are developing as many rental units as we can in a manner that strives to eliminate carbon and helps bring balance to housing markets to improve the communities and cities we serve. This philosophy guides our strategic approach to revolutionizing rental housing for people and planet while achieving the financial

returns needed to ensure we have the resources to continue to deliver impact.

This impact report is part of how we live into our convictions. We do this by setting near-term targets, sharing our goals, reporting transparently on how we achieve them, and hopefully inspiring and leading others to aim for triple-bottom-line profitability.

We are a data-driven company, which extends to measuring and reporting our impact. We demand evidence to guide and test every decision. We constantly seek more data to monitor our performance, ensuring we're accomplishing what we set out to, and continuously improving.

We have chosen to focus on specific metrics upon which our business can have a meaningful impact. These are measurable, verifiable, and based on sound science and social science. We strive to make this report useful to novices and experts alike, both as an education tool to raise awareness of important issues, and a data source to compare with and guide industry and policymakers.

  
Tim Blair

  
David Constable



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**Geoffrey Turnbull**  
Director, Innovation and  
Sustainability

# Impact is Our Purpose

## Why we're launching an impact report before we've opened any buildings

### Beyond ESG, Impact

ESG reporting focuses on avoiding harm and mitigating risks through environmental, social and governance policies. 'Impact' goes further. As a company, we proactively take actions to generate positive impacts on specific issues.

Kindred Works employs a four-step process for defining and measuring impact.

We identify the issues we seek to have a positive impact on. For each issue, we identify the strategies we will use to create an impact and state the intended outcome of those strategies. We then declare the combination of metrics we will use to measure the impact we are having, and report performance compared to stated targets.

### Working from First Principles

This inaugural Impact Report reflects our commitment. We are data-driven and rely on empirical evidence to inform our strategies. This allows us to commit to strategies that we know will deliver the outcomes we're seeking, for example:

- Eliminating fossil fuel combustion on our building sites to eliminate greenhouse gas emissions from our buildings;
- Using high-performance walls and windows to reduce energy demand and ensure comfortable living spaces;

- Using high-quality mechanical systems that deliver clean, fresh air to each living space;
- Designing with low-carbon building materials like mass timber structures to reduce the emissions resulting from the construction of our buildings;
- Ensuring a high percentage of our homes are accessible, to afford choice and dignity to people living with disabilities;
- Partnering with the leading design and construction talent in the country so we can deliver on these ambitions.

With these strategies in place, we set stretch goals to maximize our impact. These include aiming 30% of our homes to address Core Housing Need in their respective communities, designing at least 20% of our homes to be fully accessible, and committing to eliminate 80% of the carbon emissions from our construction activities by 2030.

### Measure and Report What Matters

We measure our performance to ensure that we achieve our goals. The metrics in this report are those that most clearly measure the impacts we are seeking to create. All of our targets are declared as absolute performance measures as this is the most explicit and transparent way to report. Beyond validating the impact that we are currently achieving, these measurements serve as data for decision making

going forward, allowing us to innovate and improve our impact in the future.

That said, we are learning that many of our impacts cannot be captured in a single metric. We are working with experts from industry and academia to help us understand how to account for the value of these impacts like health and wellness outcomes for individuals and communities, resilient communities, reducing commute times, and preserving community spaces to foster social connections.

By starting with next-level planning and intention, we've created a road map and a scorecard for ourselves. To evaluate how we're doing on the issues we set out to affect, and to provoke systems change and innovation across the industry.

That's why our impact report is ready before our first buildings.

Geoffrey Turnbull



PART 1

# MEASURED PERFORMANCE

# How we're assessing and reporting progress across the building portfolio

We have implemented a framework to ensure we are specific about our intended impact, that the outcomes are measurable, transparent and repeatable. This framework is comprised of four parts.

## 1. PROBLEM

Define the problem that we want to address.

## 2. IMPACT STRATEGY

Identify how we'll create positive impact.

## 3. INTENDED OUTCOME

State the intended outcome of the strategies.

## 4. METRICS + PERFORMANCE

Declare our metrics, measured and validated by third parties; report our performance and compare with stated targets.

### Measuring What Matters

Environmental performance is typically reported on a relative basis: usually as a percentage improvement over an ambiguous baseline. For example, a report might state a 30% reduction in greenhouse gas (GHG) emissions over a baseline. That sounds like progress but it's not possible to compare that 30% to any other reported value as the baseline is unique in each case. A better methodology is to describe how many tons of greenhouse gases are still being put into the atmosphere each year, this results in data that is comparable to others, is measurable and tells us clearly how much work is left to do.

At Kindred Works we are measuring and reporting actual quantities of greenhouse gas emissions and other metrics. Relative improvements won't fix climate change. Kindred Works is designing buildings that use zero emissions to operate, and is committed to reporting actual values, based on verifiable measurement.



# How we'll create positive impact

To focus our impact we have identified three key strategies to measure, track and report on.

STRATEGY

A

Build desirable and beautiful mixed-income rental housing at scale

STRATEGY

B

Mitigate climate change by eliminating greenhouse gas emissions

STRATEGY

C

Build resilient communities that support adaptation to our future climate

## Defining High-quality

We are creating desirable, beautiful and high-quality housing. We mean that on multiple levels: design, materials, construction and the finished result. We design and build using high-performance components and following building science best practices.

The result is a building that's functional and beautiful, delivering thermal comfort, clean indoor air, daylight, durability and easy maintenance, as well as lower energy use, operating costs and zero carbon emissions.



# Build desirable and beautiful mixed-income rental housing at scale

## 1.

### PROBLEM

Canada is facing a multi-dimensional housing crisis. There's a housing shortage, not enough rental units and an acute lack of affordable rental housing.

CMHC estimates we need to build 5.8 million new homes by 2023, including 2.1 million rental homes to restore affordability.

## 2.

### IMPACT STRATEGY

Build desirable and beautiful mixed-income rental homes at scale to increase housing supply in urban areas.

## 3.

### INTENDED OUTCOME

All Canadians have access to secure, stable and appropriate homes where every individual can thrive, families flourish and communities gather.



### Improving Rentals

"I am very impressed with Kindred Works' approach to the creation of new urban standards and architectural design in rental housing. They are not driven just by the bottom line, but also by quality, service, resident need and design to tackle climate change.

They see the interconnectedness between construction, design and community benefits, and we urgently need to incorporate those elements in development culture to be successful in housing, economic empowerment and community building."

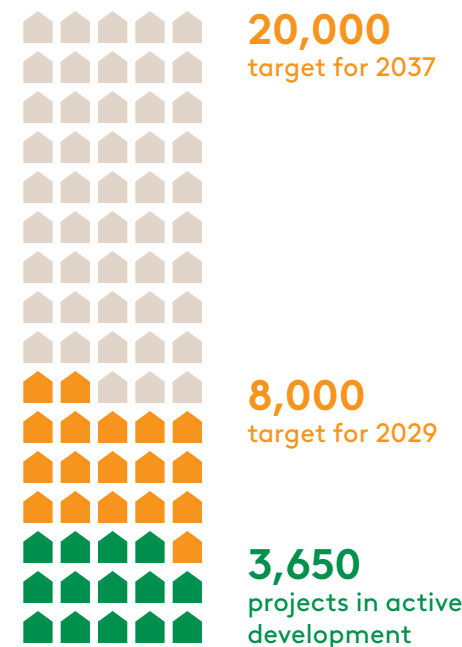
– **Mwarigha**  
Vice President, WoodGreen



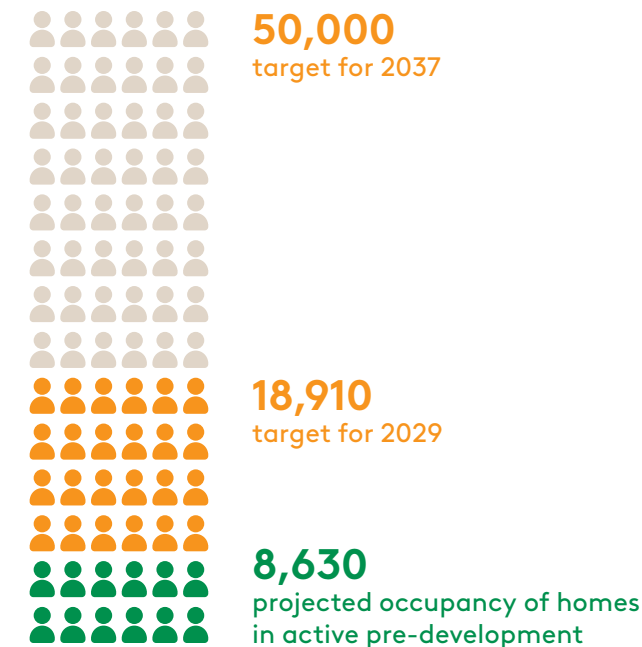
# Build desirable and beautiful mixed-income rental housing at scale

## 4. METRICS + PERFORMANCE

### Number of Kindred Works homes built

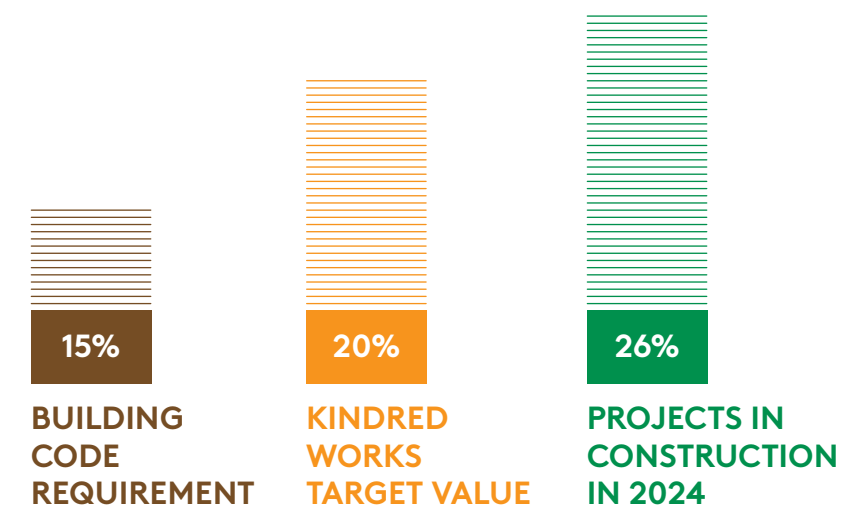


### Number of people that could be housed in Kindred Works homes



Kindred Works communities will include a mix of studios, 1-, 2- and 3-bedroom homes to accommodate households of various sizes.

### Percentage of accessible homes in Kindred Works communities



"Housing is all about people, so our goal is to create safe, stable housing that fosters thriving neighbourhoods for all. Building in equity through our mixed-income housing rentals, our buildings become homes for the individuals and families who can live near where they work in a lively and engaged community. How we manage our properties will determine our success in achieving our vision of building houses that people can make into homes."

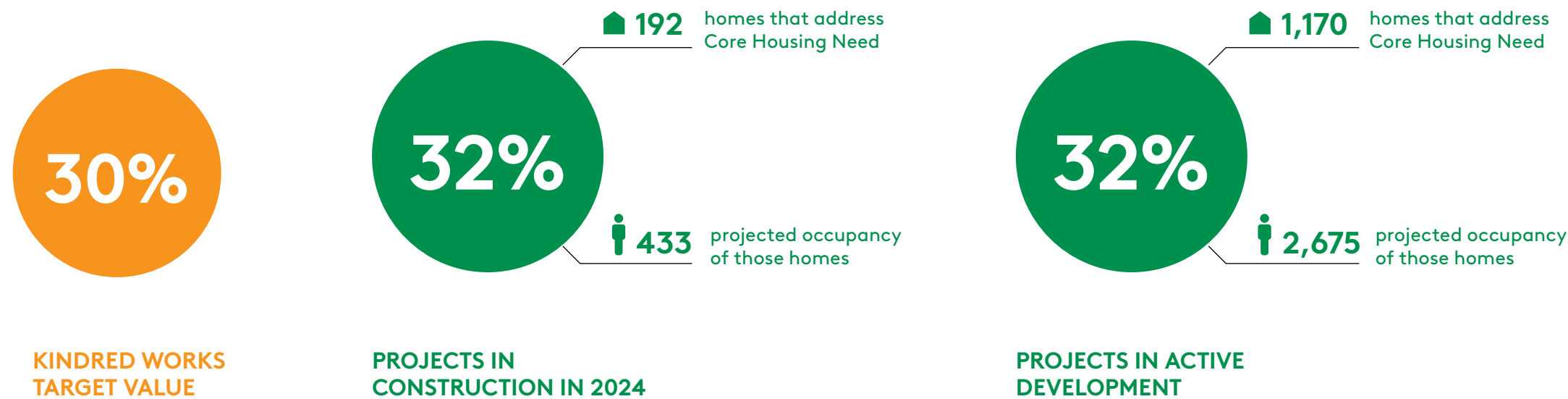
- Audrey Dover  
 Director, Property Management Operations, Kindred Works



# Build desirable and beautiful mixed-income rental housing at scale

## 4. METRICS + PERFORMANCE

### Homes in Kindred Works portfolio that address Core Housing Need



### Using Household Data to Deliver Affordability

Kindred Works uses Core Housing Need (CHN) data to tailor the affordability in each project to match the distribution of need in each neighbourhood we build. (See Core Housing Need Case Study for definition of CHN on page 12)

Many of the common measures of affordability in our industry, for example, median market rent (MMR), are supply-side measures that are used as proxies for affordability. By incorporating measures of household income, CHN provides a true measure of affordability in a given community.

At Kindred Works, we leverage an optimization function to maximize the number of potential residents currently experiencing CHN that could be housed in our projects. This often leads to a more balanced mix of suites being made available at below-market rents.

We do this while maintaining a mix of incomes across suite types within the project (e.g. not all 2-bedroom suites are market rate or below-market, always a mix.)

In this way, we create truly mixed income communities that maximize our social impact.



# Meeting the need for affordability at Greencedar Commons

Tailoring below-market units to Core Housing Need in the Toronto Census District



**Greencedar Commons**  
 155 homes | Scarborough, Ontario  
 Construction beginning Q3 2024

Kindred Works analyzes CHN data to understand the distribution of housing need for each neighbourhood in which we build. We can then tailor our affordability to address the specific needs in that community. The table below highlights where our baseline affordability matches the need at moderate and median income levels. With additional public subsidies or partnerships, we can deepen affordability to include housing units for households in the Low and Very Low Income brackets. We are currently working with the City of Toronto to achieve this at Greencedar Commons.

Income Quintiles for Households in Toronto Census District	Maximum Affordable Shelter Cost	1 Person Household	2 Person Household	3 Person Household	4 Person Household	5+ Person Household	TOTALS
Very Low Income (20% AMHI* and under) \$17,000 and under	\$425	5.3%	0.7%	0.1%	0%	0%	6.1%
Low Income (21% to 50% AMHI) \$17,001 to \$42,500	\$1,062	38.9%	14.1%	4.0%	1.6%	0.6%	59.2%
Moderate Income (51% to 80% AMHI) \$42,501 to \$68,000	\$1,700	4.5%	11.9%	7.6%	5.2%	3.1%	32.3%
Median Income (81% to 120% AMHI) \$68,001 to \$102,000	\$2,550	0%	0%	0.4%	0.8%	1.1%	2.4%
High Income (121% AMHI or more) \$102,001 and above	>\$2,550	0%	0%	0%	0%	0%	0%

\* Area Median Household Income

**32%** of homes addressing Core Housing Need

**47** homes addressing Core Housing Need

**119** people in Core Housing Need housed

## Core Housing Need (CHN) Definition

Statistics Canada defines households experiencing Core Housing Need as those households that:

1. Spend more than 30% of their income on housing,
2. Are housed in units of unsuitable type (i.e. insufficient bedrooms to accommodate the members of the household,)
3. Or, are housed in units in disrepair, and for whom no suitable unit is available locally at less than 30% of their household income that meets their needs.

The data is collected and reported on a census district basis.

Kindred Works leverages income-bracketed data sets for each census district, available via the HART project at UBC.  
[\(https://hart.ubc.ca/\)](https://hart.ubc.ca/)



# Mitigate climate change by eliminating greenhouse gas emissions

# 1.

## PROBLEM

Climate change is accelerating, and we are experiencing more extreme weather events.

Buildings are associated with about 40% of all emissions. In order to avoid 2°C of warming – widely understood as the tipping point into ecological catastrophe – we must dramatically reduce greenhouse gas emissions in the next five years.

# 2.

## IMPACT STRATEGY

Mitigate climate change by eliminating GHGs from the new buildings we're constructing.

# 3.

## INTENDED OUTCOME

House people in buildings designed not to exacerbate climate change.



### Smart Sustainability Strategies

Joshua Monk Vanwyck, president of JMV Consulting, reflects on strengths of the Kindred Works approach:

#### Land reuse and densification

"This helps reduce sprawl, puts people near transit and lowers the residents' carbon footprint."

#### Optimizing quality

"The scale of Kindred Works' work allowed a full design team to deeply investigate, test in advance and get the details right (using building science, embodied carbon, etc.). They can push manufacturers to provide systems that will work for them, and then repeat."

#### Data-driven decisions

"Kindred Works is sending a powerful message that there's a way to navigate complex issues and find a solution that's viable, affordable, beautiful, sustainable and healthy."



# Mitigate climate change by eliminating greenhouse gas emissions

## 4. METRICS + PERFORMANCE: OPERATION EMISSIONS

### Direct GHG emissions (SCOPE 1)

Result from the combustion of fossil fuels on-site. There is no combustion of fossil fuels in any of our buildings, resulting in zero direct emissions.



### Indirect GHG emissions associated with purchased energy (SCOPE 2)

Are emissions that arise from the production of the electricity consumed in our buildings.



### What the heck is a kgCO<sub>2</sub>e/m<sup>2</sup>yr?

The unit kgCO<sub>2</sub>e/m<sup>2</sup>yr expresses a mass – kilogram – of greenhouse gases in carbon dioxide equivalent – CO<sub>2</sub>e – terms. There are seven greenhouse gases but carbon dioxide is the most prevalent. For simplicity, the warming effect of all seven gases are typically converted to an equivalent value of carbon dioxide.

We then divide this mass by the area of the building that produces it to give us an annual intensity value: kgCO<sub>2</sub>e/m<sup>2</sup>. We can use this value to compare the performance of one building to another, much the same way that we compare the fuel economy of cars on the basis of litre per 100 kilometer (L/100km).

This measure – kgCO<sub>2</sub>e/m<sup>2</sup>yr – is the single most important metric of a building's impact on climate change.

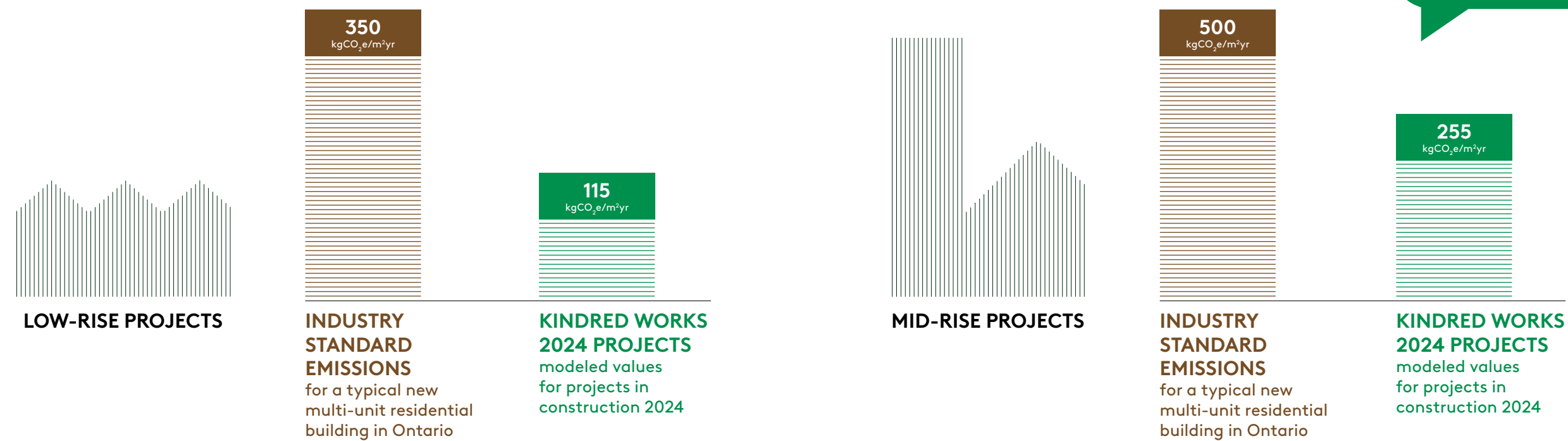


# Mitigate climate change by eliminating greenhouse gas emissions

## 4. METRICS + PERFORMANCE: EMBEDDED EMISSIONS

### Embodied carbon of portfolio (SCOPE 3)

'Embodied carbon' refers to the GHG emissions associated with the materials and processes used to construct our buildings.



We aim to reduce embodied carbon by 80% by 2030. This takes systems change so we are helping push the industry to achieve it.



“Sustainable design and placemaking are at the heart of great architecture; and these are the fundamental principles guiding every Kindred Works project. Beautiful and durable material choices that contain low levels of embodied carbon, paired with environmentally responsible building systems and adaptable designs, are inherent to the design excellence we strive for on the Kindred Work portfolio. Today’s sustainability choices will create tomorrow’s resilient healthy homes for generations to come.”

– Myriam Tawadros  
Principal, KPMB Architects

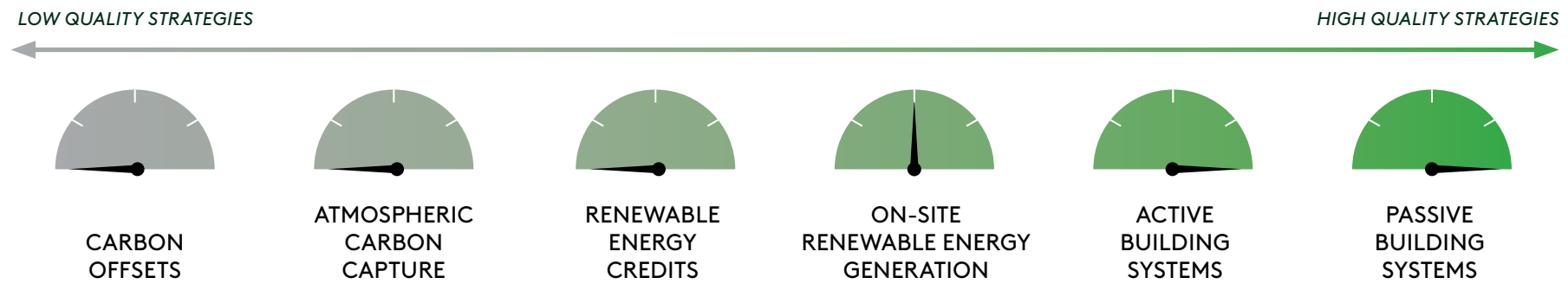


# Ranking Carbon Reduction Measures

Not all methods are equally credible for achieving net zero. Some strategies, such as providing a high level of insulation on a building, translate into predictable reductions in carbon emissions. Others, like buying carbon offsets, offer much less certainty about resultant carbon emissions reductions. The Kindred Works portfolio uses high-quality strategies to meet our carbon neutral targets.

These strategies offer dependable emissions reductions as well as additional benefits. The table below indicates the credibility of various GHG removal strategies and their associated additional benefits. When used in connection with a project, the dials on the Carbon Reduction Strategies graph indicate the degree to which that category of strategies is used on the project to reduce carbon.

## Carbon Reduction Strategies



Benefits of Strategies	CARBON OFFSETS	ATMOSPHERIC CARBON CAPTURE	RENEWABLE ENERGY CREDITS	ON-SITE RENEWABLE ENERGY GENERATION	ACTIVE BUILDING SYSTEMS	PASSIVE BUILDING SYSTEMS
Degree of Confidence in GHG Avoidance / Removal	Low	Medium	Medium	High	High	High
Duration of Effectiveness	1 year	Varies	1 year	25 years	15-25 years	Lifespan of Building
Increases Indoor Environmental Quality (IEQ)					✓	✓
Reduces Operating Expenses				✓	✓	✓
Increases Building Resilience				✓		✓
Increases Building Durability						✓

 Kindred Works prioritizes high quality strategies

### Carbon Offsets

The purchasing of carbon credits, typically in a carbon offset marketplace. Carbon offsets usually refer to avoided emissions and not actual removal of carbon dioxide from the atmosphere. A lack of standardization and enforceable regulation has led to a low degree of confidence in carbon offsets as a credible source of GHG reductions.

### Atmospheric Carbon Capture

Involves the capture and storage of carbon dioxide from the atmosphere. Technology-based solutions are not broadly available in the marketplace yet. Bio-based solutions that include forestry and agriculture programs suffer the same credibility issues as the carbon offset markets.

### Renewable Energy Credits

A method of 'purchasing' renewable energy that is generated at a remote location. This strategy can be useful where it is not practical or feasible to meet the building's energy demand with on-site renewable energy.

### On-Site Renewable Energy Generation

Involves the production of energy from GHG-free sources on the building site, such as solar photovoltaic (PV) panels, wind turbines and solar thermal collectors. On-site renewable energy

generation reduces the amount of energy a building will demand from the power grid.

### Active Building Systems

These are typically part of a building's mechanical system and require energy to operate. The primary benefit of active building systems is to reduce the total energy demand of the building. Active measures include air-source and/or ground-source heat pumps for heating and cooling, heat recovery ventilators (HRV) or energy recovery ventilators (ERV), drain water heat recovery systems, motorized shading systems, smart thermostats and other intelligent control systems.

### Passive Building Systems

Typically a part of a building's structure or envelope, these systems do not require energy to operate. They include measures such as increased thermal insulation, elimination of thermal bridges, high-performance windows and doors, shading strategies, high albedo roof and wall cladding to increase energy efficiency. The primary benefit of a passive building system is to reduce the total energy demand of the building. These systems offer additional benefits including improved interior environmental quality, increased building resilience, increased building durability and lower operating costs.



# Build resilient communities that support adaptation to our future climate

## 1.

### PROBLEM

Existing climate change is causing extreme weather events including heat domes, flash flooding and forest fires which are causing costly damages to property and impacting people's health. This will only worsen in the future.

## 2.

### IMPACT STRATEGY

Construct resilient buildings that support adaptation to a changing climate.

Resilient buildings and communities are less susceptible to impacts caused by climate change, require less resources to function during climate events, and return to service faster and more easily after disruptive impacts such as heat waves or power outages.

## 3.

### INTENDED OUTCOME

Communities that can adapt and function successfully to support people in the future climate.



#### Resilient Buildings Help People

"Resilient buildings are intentionally designed to keep people comfortable in everyday conditions and safe in extremes like cold snaps, heat waves and power failures," says **Marianne Touchie**, a building performance assessment expert and associate professor in two engineering departments at University of Toronto. She likes three resilient strategies used by Kindred Works:

- Passive building systems, such as a tight building envelope with mechanical ventilation, offer thermal comfort and healthy indoor air.
- Active building systems, such as a backup generator, provide basic service to protect life safety.
- Community spaces help people socially connect during extreme events. In the 2021 B.C. fires, more than 600 people died due to heat in their homes or hotels. "They died at home, alone, where they should have been safe," says Touchie. "A big part of resiliency is designing buildings that facilitate community connections, where people can hang out, get to know each other and check in during times of need."



# Build resilient communities that support adaptation to our future climate

## 4. METRICS + PERFORMANCE

### Resilient Buildings: Thermal Energy Demand Intensity (TEDI)



**INDUSTRY STANDARD TEDI**  
for existing multi-unit residential buildings in Ontario

**KINDRED WORKS 2024 PROJECTS**  
modeled values for projects in construction 2024

High-performance buildings with lower thermal energy demand require less energy to heat and cool, helping to reduce energy consumption, provide more comfortable interior conditions, and more easily maintain livable conditions during energy scarcity or absence. The lower a building's TEDI (measured in kilowatt hours per square meter per year), the better.

### Energy Efficiency: Total Energy Use Intensity (TEUI)

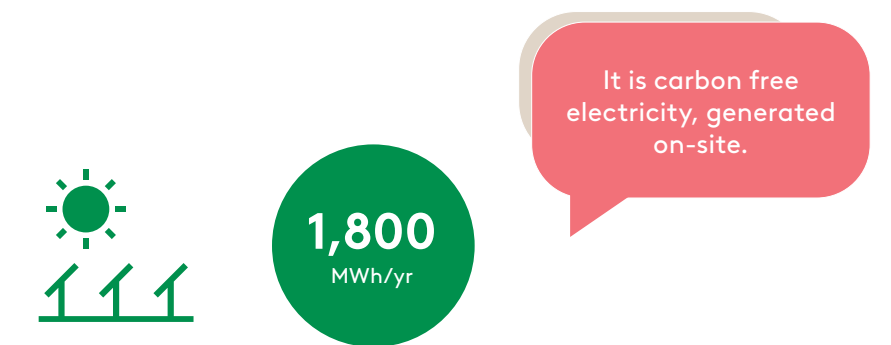


**INDUSTRY STANDARD TEUI**  
for existing multi-unit residential buildings in Ontario

**KINDRED WORKS 2024 PROJECTS**  
modeled values for projects in construction 2024

Buildings with lower total energy demand are less expensive to operate, for owners and tenants alike, while imposing less stress on regional power grids. The lower a building's TEUI (measured in kilowatt hours per square meter per year), the better.

### Distributed energy generation: Megawatt hours of renewable energy generated annually

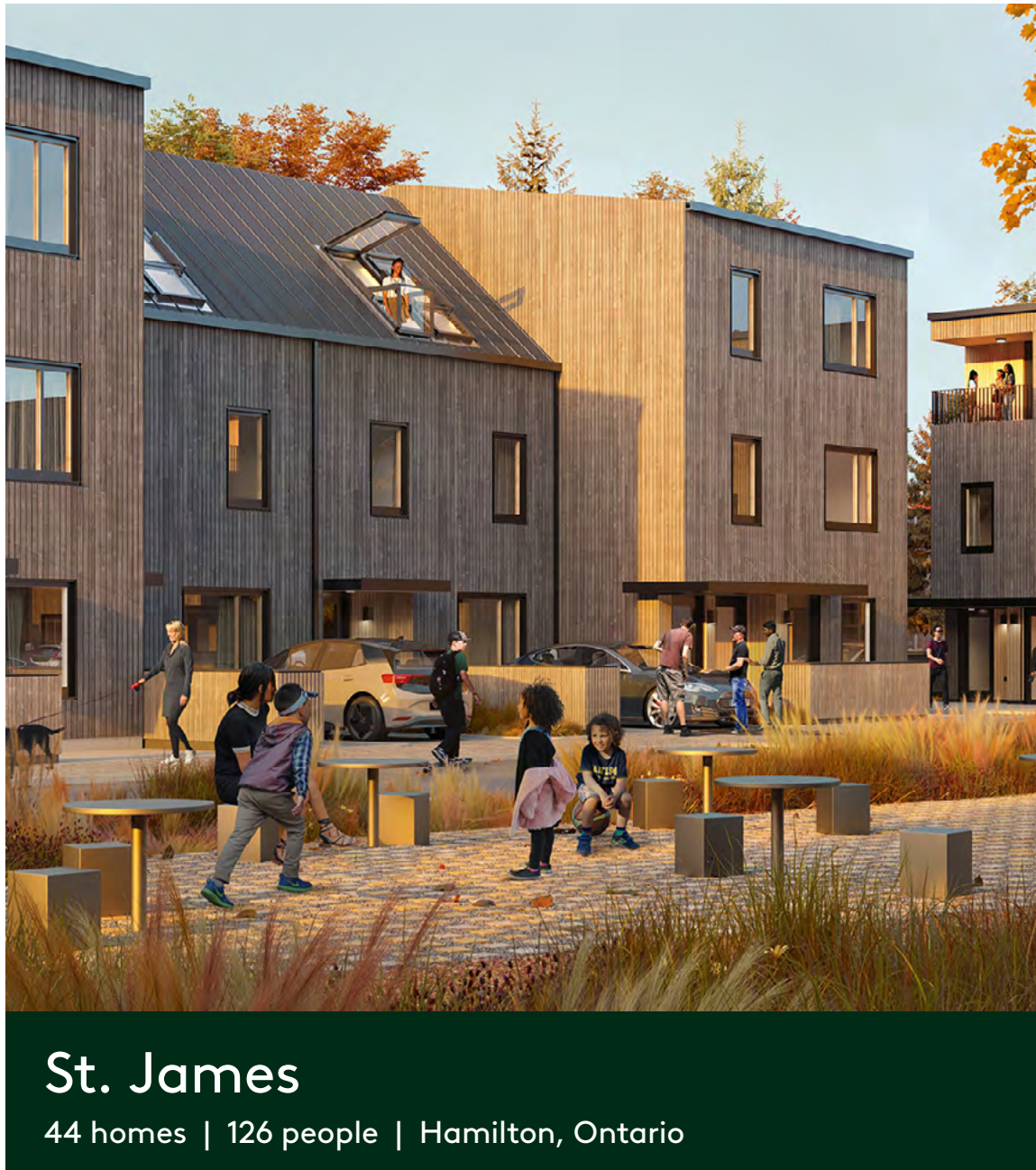


**SOLAR ENERGY PRODUCTION**  
planned for current Kindred Works projects

Renewable energy generation provides resiliency by adding another source of electricity in addition to the local power grid. This can provide redundancy in times when electricity from the grid is not available, while reducing the stresses on the grid that can contribute to those outages.

# How we're achieving Net Zero at St. James

Leveraging high-quality strategies to minimize greenhouse gas emissions



## St. James

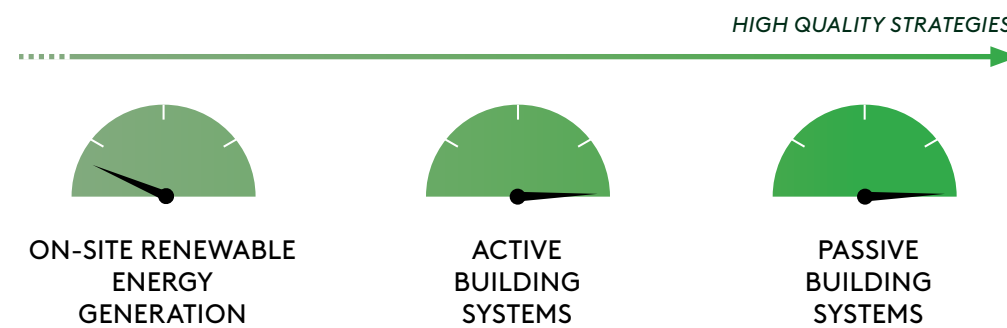
44 homes | 126 people | Hamilton, Ontario

Like all Kindred Works projects, St. James exemplifies our commitment to delivering desirable and beautiful living spaces by leveraging high-quality strategies to minimize greenhouse gas (GHG) emissions.

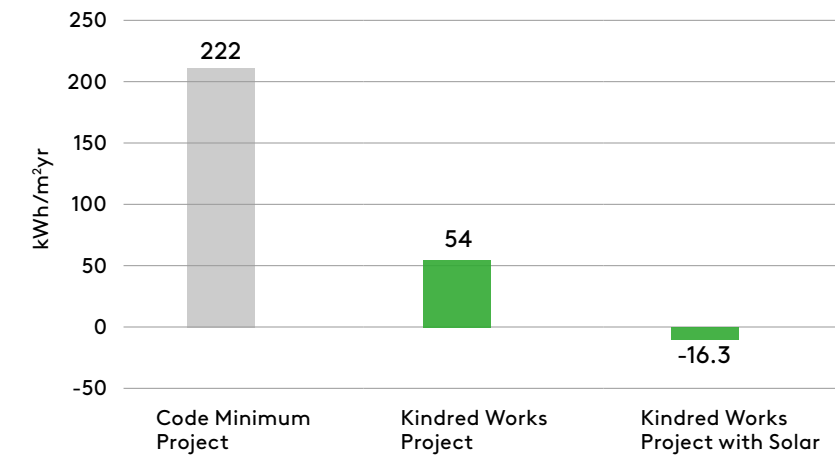
We dramatically lower emissions by minimizing the energy required to operate the buildings. We do this by combining passive building systems (highly insulated walls with few thermal bridges, high-quality windows and doors, etc.) with highly efficient, all-electric active building systems that don't burn fossil fuels on site.

By incorporating renewable energy at St. James, we're able to reduce energy demand further and achieve net zero energy demand and GHG emissions on site. In the process, we make the buildings easier to keep warm in winter and cool in the summer and lower the cost of doing so for everyone that lives there.

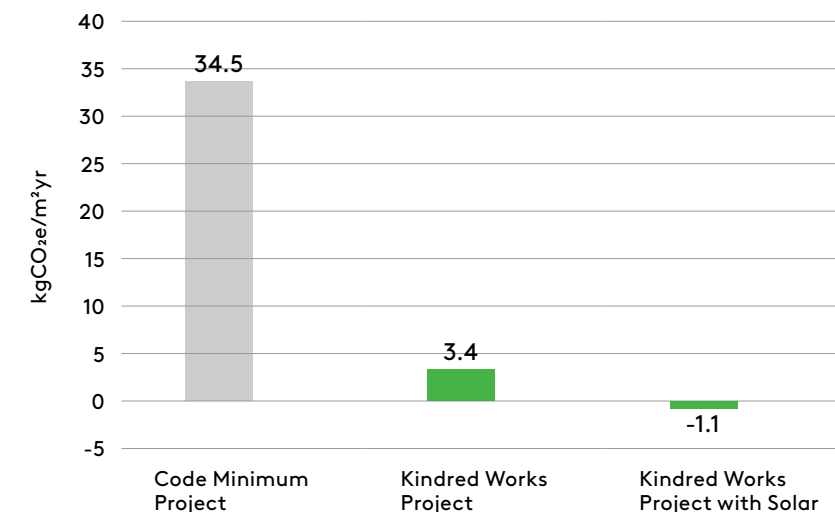
### Carbon Reduction Strategies



### Conventional Buildings vs. Kindred Works Buildings: Comparing Total Energy Use Intensity (TEUI)



### Annual Operational Greenhouse Gas Intensity (GHGI)





## PART 2

# ADDITIONAL SOCIAL, ENVIRONMENTAL AND ECONOMIC BENEFITS

# Our process

Quantifying building performance only tells part of the Kindred Works impact story.

In this section, we expand on the multiple social and environmental benefits associated with our portfolio. Although social impacts are not yet as straightforward to measure as carbon emissions or energy use, they are essential to our corporate strategy.

## **Aim Social Impact Locally**

While we report on emissions and energy use across the portfolio, social impacts are inherently local and will vary by project. We seek input from external stakeholders to determine appropriate initiatives that solve a community need in alignment with our corporate strategy.

## **Measure Long-Term Value of Social Investments**

Using empirical analysis to measure non-market benefits is an evolving practice. We're partnering with economists to explore Triple Bottom Line Cost Benefit Analysis, which quantifies the health, social and environmental impacts of our designs compared with conventional rentals. As the science advances and credible metrics emerge in the building science and economics communities, we will seek to include these in our impact metrics. Meanwhile, we are committed to a process of continuous improvement based on empirical measurement to know if we're being successful or not in meeting our targets to serve people, communities and the bottom line.

## **Collaborate with Experts**

Our team consults with external organizations to optimize our social impact. This includes consulting with stakeholders to understand community needs and programs, and building scientists and economists in academia and private practice to advance the state of the art in measuring and reporting to ensure our social initiatives are also delivering high economic impact.



# Additional social, environmental and economic benefits

Many of the Impact Strategies identified in Part 1 of this report generate additional social, environmental and economic benefits.

These range from tenant health and wellbeing to local environmental restoration to labour productivity. While these intended outcomes aren't yet easy to measure or quantify, they extend from our building design choices. As established metrics become available, we'll track and report to continue building the case for good design.



ENVIRONMENTAL  
BENEFITS



SOCIAL  
BENEFITS



ECONOMIC  
BENEFITS



## Preserving and Creating Community Spaces

Research shows that social connectedness can lead to longer life, better health and improved wellbeing. Kindred Works buildings will include social gathering spaces to serve the needs of tenants and the local community.



## Ensuring Insurability with Leak Detection

Submetering combined with leak detection systems allow us to monitor water flow rates and quickly identify and stop leaks to mitigate water damage. Leak detection offers:

- Building durability and resilience: Minimizing the possibility of leaks and water damage extends the lifespan of the building.
- Insurance-friendliness: Most rental insurance claims arise from water damage. Leak detection systems across the portfolio ensure Kindred Works buildings are insurable for the long-term.



## Expanding the Urban Biosphere

Urban green space offers numerous advantages from reduced health and mental health risks for people to climate mitigation (by reducing higher temperatures common in urban areas). Kindred Works buildings may include initiatives such as:

- Farming in gardens or on rooftops or terraces
- Green roofs
- Beekeeping to make local honey.



## Advancing Progress through Advocacy and Partnerships

The Kindred Works team is active in advocating to government and institutional policy makers, sharing information on the opportunities and challenges associated with high-quality rental housing at scale. We improve our knowledge and practice through our partnerships with University of Toronto and other academic institutions, as well as WoodGreen and other community organizations.

## Additional Benefits



### Supporting Tenant Health and Wellbeing

We believe many health benefits arise from living in a well-designed home, such as the advantage to tenants of breathing high-quality indoor air provided by filtered mechanical ventilation systems. We are partnering with academia to measure tenant health and wellness outcomes to better understand the impact of our strategies on our community members. Our strategies include:

- Natural ventilation
- High-performance building facades
- High-quality glazing on windows and doors
- Filtered mechanical ventilation
- Access to amenities such as public transit.

This primary research can inform our own understanding of impact and influence a process of continuous improvement in our project design.



### Providing Tenant Satisfaction

It's an important indicator of the success of Kindred Works' impact strategy and, indeed, our broader mission.

With academic partners, we are designing a system to understand and monitor tenant needs and satisfaction over time, and to evaluate our performance as building operators.



### Conserving Resources with In-suite Metering

We support the trend toward individual suite metering of electricity and water usage. Flowing tenants the costs for their actual use of these resources incentivizes conservation: the more they conserve, the lower their costs.

Submetering also provides us with a dashboard to monitor and continuously improve how our buildings perform to manage energy use, emissions, maintenance and operating costs.



### Building Better and Faster

Delivering high-quality, low-carbon neighbourhoods would not be possible without our commitment to innovative construction practices and building relationships with construction trades and companies across Canada. The cornerstone of our strategy for efficiently and profitably constructing better housing at scale is using prefabricated components and assemblies whenever it is advantageous. Here's why:

#### Higher Quality

Prefabricating building assemblies (wall, floor and roof panels, timber columns and beams, etc.) in a climate-controlled environment eliminates weather-related issues like warping, mildew, and improper curing that are challenges for site-built buildings. Further, factory environments allow for consistent quality control that minimizes variations and errors, leading to higher quality building assemblies.

#### Continuous Improvement

Using repeatable processes to produce assemblies in a factory setting allows for continuous improvement. As with other manufacturing industries, procedures can be refined to reduce inefficiencies and technology can be introduced to automate aspects of production and increase productivity.

#### Faster (and Quieter) Construction

Using prefabricated building assemblies can significantly reduce construction schedules. Shifting the cutting and shaping and assembly of raw materials to an off-site facility takes that work off the critical path of the construction project. In addition to saving time, this reduces costs associated with contractor overheads, project financing costs, insurance, etc.

Hoisting completed building components into place also tends to be much quieter than traditional site building processes. This can be a very meaningful difference for neighbours living close to construction sites.

#### Scalability

The factors that lead to continuous improvement also inherently allow for scalability. As the process of producing assemblies becomes more efficient, output grows. Processes defined and lessons learned in one facility can be duplicated in another, further enhancing growth.

#### Driving Productivity in Construction

Stagnant labour productivity in construction combined with an impending labour shortage in skilled trades is limiting the volume of construction that is possible while increasing the cost of that construction. Embracing off-site construction techniques is a key strategy for attracting new talent to the skilled trades and driving increases in labour productivity.

Off-site construction in a factory environment provides a more desirable work environment than a traditional outdoor construction site. Integrating technology into the pre-fabrication process requires the kind of highly skilled, technology-enabled roles that are attractive to talent entering the job market today. The on-site component of construction labour shifts to more highly skilled and technology enabled precision assembly techniques.

#### Improving Sustainability

Off-site prefabrication can significantly reduce the amount of waste produced in the construction process, both by allowing for more precise material planning before construction, and by reducing the amount of material wasted through re-work on site.



# KINDRED WORKS



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