



Limestone City Co-Operative Housing Inc

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Food Security Solution: Integrating Co-op Housing and Food Production

Limestone City Co-operative Housing Inc. (LCCH) is a non-profit housing cooperative with a bold vision: to address food security through innovative integration of industrial-scale vertical farming with attainable co-op housing. Each day, this initiative will produce 1,500 nutritious meals, amounting to over half a million fresh, locally sourced meals annually.

Not long ago, food was more affordable, and the need for food banks was minimal. Today, the reality is stark: food insecurity is rising, even in a wealthy city like Kingston, Canada. This trend underscores the urgent need for sustainable solutions.

It seems existing solutions are struggling to meet the need and as City Council heard recently, emergency food providers are going to hit a wall soon. A wall that will limit their ability to expand emergency food provision. It seems that the current system of emergency food provision is unsustainable. This is one reason why Kingston has declared a food insecurity emergency.

To tackle this challenge, new and innovative solutions are essential. LCCH offers a transformative approach: at-cost attainable housing paired with food production, ensuring sustainable access to essential resources.

The LCCH mission is to build and operate cooperative not-for-profit housing that is affordable, attainable and environmentally sustainable. Our unique buildings address food and housing insecurity through community-based models of living that integrate ecofriendly vertical farming and technical innovations to reduce carbon and lower energy costs for residents.

LCCH envisions a Kingston where food and housing is abundantly available for all. Imagine a thriving, non-profit, co-operative housing building where residents donate their time to tend to the indoor vertical farms producing 1,500 vegetable and greens servings every day, fresh for pick-up in the co-op's marketplace, for themselves and the local community.

LCCH's first building will lower energy costs for residents and reduce Kingston carbon emissions through non-intrusive solar panels, battery energy storage to ease the grid during peak electricity demands and utilizing the vertical farm to innovatively assist with heating and cooling the co-op's 248 households and marketplace. Water-smart technologies are utilized throughout including using filtered rainwater to supply the indoor farms. At LCCH sustainability is in our nature.

The great benefit of indoor vertical farming is that growth cycles can be staggered so that we can harvest each day what we need for that day or the next day. In this way we virtually eliminate storage and packaging costs – this is just-in-time inventory and production management.

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The vertical farm's innovative design supports a diverse variety of crops, ensuring food sovereignty. From temperate to tropical plants, anything grown in soil can flourish in this system. By leveraging convection currents, rainwater collection, rooftop fruit forests, and greenhouses, LCCH will offer abundant, nutritious, and ultra-low-cost food for both co-op members and the community.

"As a proud partner of LCCH, we at PermaTech EcoSolutions believe this project represents a pivotal moment in sustainable community building. LCCH's vision aligns with our mission to integrate climate-forward technologies into projects that redefine how we live. By leveraging innovations in vertical farming, renewable energy, and green building design, this initiative will not only address food and housing insecurity but set a global standard for sustainable living." – Brent Atkinson, Managing Partner, PermaTech EcoSolutions Inc.

Gelareh Monajemi, an LCCH member said, "At LCCH, we believe that food security is not just about access; it's about dignity and empowerment. By integrating vertical farming into housing, we're creating a sustainable model that not only feeds our community but fosters self-reliance and resilience. Together, we're reimagining what it means to live well in harmony with nature."

"The most recent declaration of a food insecurity emergency really demonstrates the need for affordable housing initiatives. My goal is to help LCCH achieve their goal but accessing as many affordable housing incentives as possible and the favorable financing terms a project like this can unlock." – Steven Dionne Director of Mortgage Origination at Canada ICI.

"Reducing food insecurity and improving housing affordability were priorities of my election campaign for Kingston City Council. As a vertical farm advocate, I had the idea that if vertical farming could be combined with a housing project it would reduce food insecurity, improve our environment, provide local economic benefit, and offset the housing cost. But ideas are like seeds, they need the right environment in which to grow. LCCH has taken those ideas and provided the community environment in which they won't just grow but will flourish. Thank you to everyone involved for embracing the vision and committing to making it a reality." – Conny Glenn, Councillor Sydenham District, Kingston

LCCH is proposing a new deal with nature where we live in an eco-friendly building with housing and food security, a highly reduced cost of living, with convenience, amenities, and abundance all within the sustainable bounds that nature provides.

If this vision resonates with you, please visit www.lcch.ca to learn more and join our movement to create sustainable, attainable living for all.