

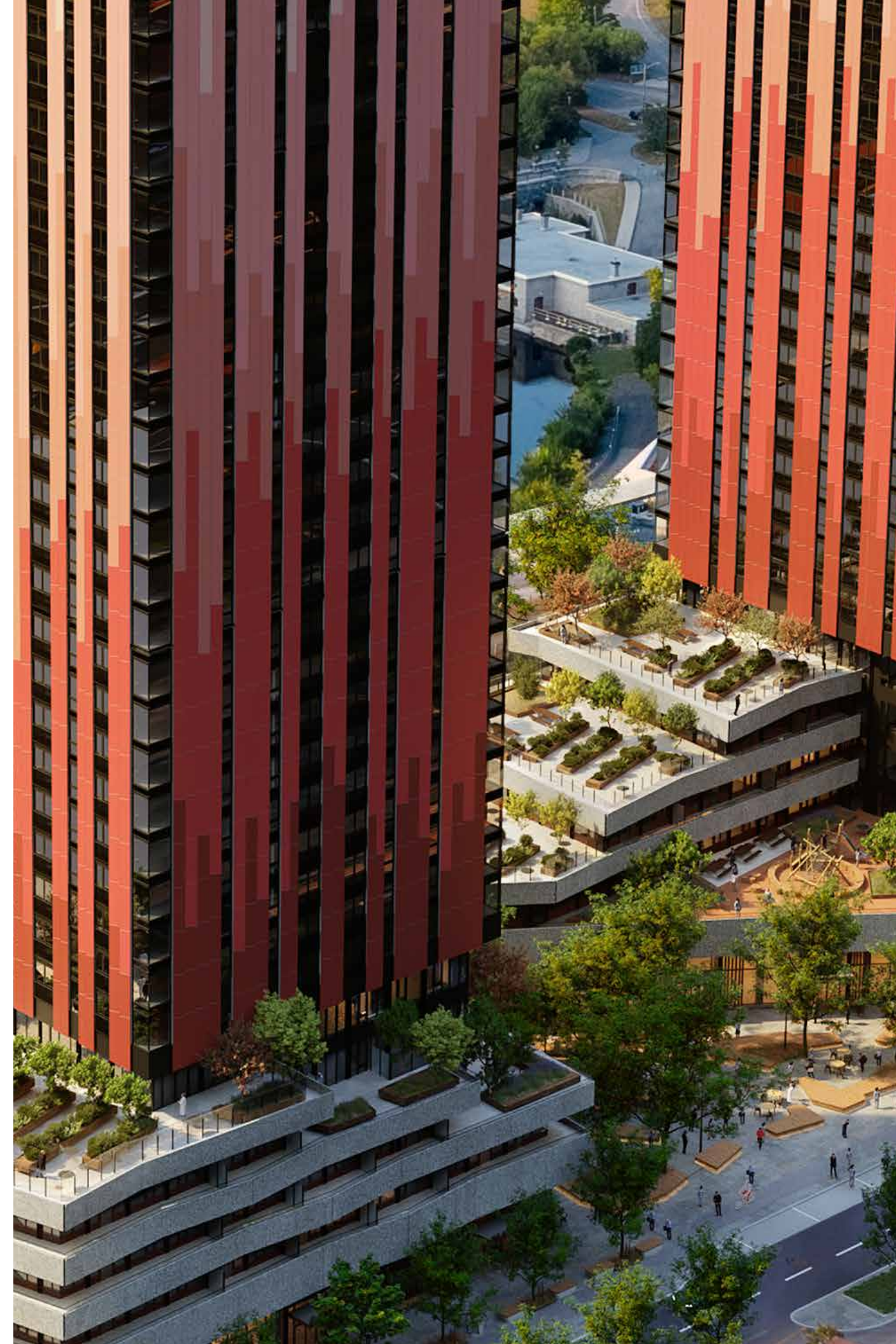
LEBRETON FLATS LIBRARY PARCEL

2022 ONE PLANET ACTION PLAN



THE LIBRARY PARCEL PROJECT

Located on the western edge of Downtown Ottawa, immediately adjacent to an existing light-rail transit station, the LeBreton Flats Library Parcel is set to become one of the largest net-zero carbon residential developments in Canada. In Collaboration with Multifaith Housing Initiative, the program will feature a total of 608 rental units, of which 41% will be affordable, and 31% will be accessible



ONE PLANET LIVING

A FRAMEWORK BY BIOREGIONAL

We only have one Planet Earth, but as a global society we're living as if we have several planets and consuming in ways which cannot be sustained. One Planet Living is our vision of the world where everyone, everywhere can live happy, healthy lives within the limits of the planet, leaving space for wildlife and wilderness. Backed by science and hands-on experience from decades of sustainability projects, it's a flexible sustainability framework that's helping provide a clear and practical path to creating a sustainability action plan that can engage hearts as well as minds.

One Planet Living sets out to make this transition. It is an initiative which grew out of the experience of developing the pioneering BedZED eco-village in south London, UK in the early 2000s. Today there are One Planet Communities and Destinations in Europe, North America, Africa and Australia.

It is a simple framework which enables everyone – from the general public to professionals – to collaborate on a sustainability strategy drawing on everyone's insights, skills and experience. It is based on ten guiding principles of sustainability which we can use to create holistic solutions.



HEALTH & HAPPINESS

Encouraging active, social, meaningful lives to promote good health and wellbeing.



EQUITY & LOCAL ECONOMY

Creating safe, equitable places to live and work which support local prosperity and international fair trade.



CULTURE & COMMUNITY

Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living.



LAND & NATURE

Protecting and restoring land for the benefit of people and wildlife.



SUSTAINABLE WATER

Using water efficiently, protecting local water resources and reducing flooding and drought.



LOCAL & SUSTAINABLE FOOD

Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein.



TRAVEL & TRANSPORT

Reducing the need to travel, encouraging walking, cycling and low carbon transport.



MATERIALS & PRODUCTS

Using materials from sustainable sources and promoting products which help people reduce consumption.



ZERO WASTE

Reducing consumption, re-using and recycling to achieve zero waste and zero pollution.



ZERO CARBON ENERGY

Making buildings and manufacturing energy efficient and supplying all energy with renewables.

UNDERSTANDING THIS DOCUMENT

Rooted in nature and heritage, the vision for the LeBreton Flats Library Parcel is centered on building toward a people-first sustainable future that leaves a lasting positive impact on the lives of residents, customers and stakeholders. To accomplish this, the project follows an ambitious One Planet Action Plan, which is a model based on ten Principles to make sustainable living easy and affordable for all. This document outlines LeBreton's One Planet Action Plan that draws on regional characteristics and site specific history.

Within each of the ten Principles in the plan you will find specific Goals, Outcomes, Indicators and Target Rates, these terms are as defined below:

GOAL

The Goals listed in the Action Plan outline the desired outcomes that LeBreton is striving toward in order to become a One Planet Company.

OUTCOMES

The project Outcomes listed in the Action Plan are the projected results produced by successfully attaining LeBreton's sustainability goals.

INDICATORS

Are measures of performance which LeBreton will track. Indicators can be monitored quantitatively (eg. energy consumption) or qualitatively (eg. images).

TARGETS

Are measures of progress to be achieved in specific time and linked to an Indicator.



HEALTH & HAPPINESS

The LeBreton Flats Library Parcel will support Health and Happiness through amenities that create healthy environments and programming that empowers residents to build community.

The creation and use of community gardens, fitness areas, active transportation, indoor air quality measures and healthy materials will contribute to generating better health outcomes. The built environment and site programming will encourage social and physical activity. The LeBreton Flats Library Parcel will host healthy living events and workshops for the community to increase socialization opportunities and engage them in improving personal health.



INDICATOR

TARGET

Percentage of residents who indicate an increase in happiness since moving to LeBreton Library Parcel	>75%
Percentage of residents that indicate an overall satisfaction with their health	>80%
Percentage of workers that indicate increased satisfaction working at LeBreton Library parcel as compared to other sites	>80%
Percentage of residents that "know their neighbour"	>70%
Percentage of residential units that are equipped with thermostats and CO monitors	100%
Amenity space that will contain a childcare facility and associated outdoor recreational area	1

PROJECT OUTCOMES

- ✓ Increase happiness for residents
- ✓ Support better health outcomes for residents
- ✓ Support better health outcomes for construction workers
- ✓ Foster a sense of community
- ✓ Residents will breathe clean and healthy air
- ✓ Create an urban community that is welcoming to families

EQUITY & LOCAL ECONOMY

The LeBreton Flats Library Parcel will promote Equity and the Local Economy by creating an accessible, supportive community for all that celebrates the Algonquin Anishinaabe Nation.

A range of rental housing opportunities at varying depths of affordability will be provided to allow for a diverse tenant mix. Retail spaces will be preferentially allocated to local and socially responsible businesses to connect residents with retailers whose values align with One Planet Living. A comprehensive benefits plan will be developed to offer meaningful training, employment and housing opportunities for the Algonquin Anishinaabe and other Indigenous peoples.

INDICATOR	TARGET
Number of units (41%) with rents no more than 80% of median market rate, as per Canada Mortgage Housing Corporation Federal Lands Initiative and required by the NCC requirements for this site	250
Percentage of retail space storefronts that contain small, local, and/or ethical businesses, compared to the total number of storefronts at LeBreton Library Parcel	50%
Indigenous owned business to occupy retail space	1
Percentage of residents that consider this in their purchase decisions	50%
Offer a preferential leasing program to the Algonquin Anishinaabe community that addresses common barriers to leasing for Indigenous People	
Hire Algonquin Anishinaabe contractors and service providers preferentially for the construction of the project	
Offer apprenticeship opportunities to the Algonquin Anishinaabe during the construction phase	5 per year
On-site staff employed by the project team will be from Algonquin Nations and/or Indigenous workers	5%
Overall value of contracts will be awarded to Algonquin and Indigenous Businesses	5%
Team members and sub-trades are to receive Algonquin and Indigenous awareness training within one month of commencement of employment on the project	100%



PROJECT OUTCOMES

- ✓ Offer affordable housing units
- ✓ Promote and give precedence to smaller, local and/or ethically run enterprises
- ✓ Connect residents with local businesses whose values align with this One Planet Action Plan
- ✓ Develop LeBreton Library Parcel beneficially with and for the Algonquin Anishinaabe Nation and people

CULTURE & COMMUNITY

The LeBreton Flats Library Parcel will create a Vibrant Culture and Community with sustainability and history engrained throughout.

The project will foster a sustainability culture through environmental protection leadership and workshops. The site's heritage will be honoured through architecture, signage, art and community programming that acknowledges and celebrates local culture, including the Algonquin Anishinaabe.



INDICATOR

TARGET

Percentage of residents and workers who report an increase awareness of sustainability issues year-to-year	80%
Full-time One Planet Ambassador to develop programs and establish cultural norms regarding sustainability	1
Percentage of signage, wayfinding, art and place names in Algonquin Anishinaabe language	15%

PROJECT OUTCOMES

- ✓ Create a culture of sustainability
- ✓ Create a culturally vibrant community
- ✓ Algonquin Anishinaabe culture is visibly present throughout the development

LAND & NATURE

The LeBreton Flats Library Parcel will respect Land and Nature to build biologically diverse, accessible ecosystems that are stewarded by the community.

The site will be remediated and restore the area as a biologically diverse ecosystem. The landscaping will include native and adapted plant species, as well as drought tolerant plants and species considered culturally significant to the Algonquin Anishinaabe.



PROJECT OUTCOMES

- ✓ Contribute to an increase in biodiversity by reintroducing native vegetation in landscaping
- ✓ Remediate contaminated land and maximize benefit to natural assets
- ✓ Design lighting strategy to minimize the effect of light pollution
- ✓ Minimize urban heat island effect

INDICATOR	TARGET
Percentage increase in biodiversity of plants and animals	200%
Percentage of site area that meets provincial regulations after remediation	100%
Percentage of exterior lights that meet the LEED ND Light Pollution Reduction requirements for Uplight and Light Trespass.	100%
Minimum surface area for green roof	650 m ²

SUSTAINABLE WATER

The LeBreton Flats Library Parcel will embed a Sustainable Approach to Water that reduces potable water use and wisely manages surface water flows.

Potable water consumption will be reduced by 15% compared to the regional average using best-in-class water-saving fixtures and fittings. Collected rainwater will be stored in a cistern and be reused on-site for irrigation and sewage conveyance.



INDICATOR

TARGET

Percentage of total suspended solids reduced prior to discharge

80%

Potable water consumed per resident, per day (15% reduction relative to municipal average)

138 litres

PROJECT OUTCOMES

- ✓ Achieve near-zero export of pollutants via outflow
- ✓ Reduce residential potable water use

LOCAL & SUSTAINABLE FOOD

The LeBreton Flats Library Parcel will nurture Local and Sustainable Food sources by integrating agriculture into the healthy food options urban landscape.

Easy access to seasonal, local, and sustainably produced food will help residents enjoy healthier, fresher diets and support local farms and vendors while reducing the carbon footprint of residents' diets.



INDICATOR	TARGET
Area of food-growing garden space to be made available to the community	630 m ²
Percentage of residents reporting a reduction in the consumption of high-carbon foods year-to-year	50%
Percentage of residents that participate in LeBreton Library Parcel's various farm-to-table programs	5% in year 1, growing to 25% by year 5

PROJECT OUTCOMES

- ✓ Provide access to moderate garden space
- ✓ Encourage sustainable and healthy purchasing habits
- ✓ Create a community scale food distribution network to improve connections between food and farmers, and increase access to local, fairly traded and organic food

TRAVEL & TRANSPORT

The LeBreton Flats Library Parcel will make Active and Low-impact Travel and Transport convenient and preferred.

A new multi-use pathway will be created from Pimisi station to the site and toward Adisoke. Priority parking for ride-share and electric cars will be provided.



INDICATOR	TARGET
Percentage of parking spaces with electric car charging stations	20%
Percentage of parking stalls to be equipped with conduit to support future EV charger install	100%
Maximum car parking ratio per residential unit	0.7
Achieve modal split targets to decrease personal vehicle trips	Transit – 65% Non-motorized – 15% Vehicle Passenger – 5% Vehicle Driver – 15%
Ratio of secure and covered bike storage to be provided per residential unit	1:01
Minimum number of short term bicycle storage spaces for every 5,000 sq ft of retail space. Provide a minimum of 2 long-term bicycle storage spaces for retail occupants and provide access at minimum to one shower and changing facility.	2

PROJECT OUTCOMES

- ✓ Reduce carbon dioxide emissions associated with local transportation of residents
- ✓ Reduced private car ownership

MATERIALS & PRODUCTS

The LeBreton Flats Library Parcel will build a community from Products and Materials that benefit the environment and the residents.

The project will implement a life-cycle analysis approach when selecting the materials and productions for the development. This involves taking into consideration the environmental impacts of all materials over their respective lifetimes and reducing reliance on unsustainable materials.



PROJECT OUTCOMES

- ✓ Reduce the embodied carbon of buildings
- ✓ Reduce the reliance on unsustainable sources of raw materials
- ✓ Encourage the use of healthy materials by selecting products with ingredient disclosures and minimize indoor air pollution through using paints / coatings, flooring, ceiling products and insulation that have low-VOC content and are tested for VOC emissions
- ✓ Embed a culture of reducing and reusing within the development by providing opportunities to share resources

INDICATOR	TARGET
Reduction of life cycle carbon compared to baseline (and a maximum absolute embodied carbon limit)	10% (max absolute embodied carbon of <math><350 \text{ kg CO}_2\text{e/m}^2</math>)
Number of products with an Environmental Product Declaration	20
Proportion of timber or wood products reclaimed, reused or certified by FSC (by value)	70%
Number (out of 8) of low-emitting material categories from LEED BD+C New Construction v4.1 for which the project will meet VOC requirements	4
Number of products with chemical inventory disclosures	20
Minimum number of online communities that allows for sharing or repurposing	1

ZERO WASTE

The LeBreton Flats Library Parcel will create a community that is on the path to Zero Waste.

Waste management alternatives, including recycling and compost programs, will be offered to increase the rate of waste diversion. LeBreton Flats Library Parcel will also provide continuing education on waste diversion practices.



PROJECT OUTCOMES

- ✓ Minimize construction waste sent to landfill through:
 - Training on waste reduction and recycling for construction trades
 - Separate recycling bins for different construction materials
 - Off-site sorting of construction waste into recyclable materials
- ✓ Achieve a diversion rate of 70% in residential and commercial waste
- ✓ Reduce residential waste by 10% compared to regional average

INDICATOR	TARGET
Percentage of construction waste diverted from landfill (by weight)	90%
Percentage of residential and commercial waste diverted from landfill	>70%
Percentage by weight of residential waste reduced compared to regional average	10%

ZERO CARBON ENERGY

The LeBreton Flats Library Parcel will create a Zero Carbon Community from design through to operations.

This will be achieved by creating a groundbreaking heat recovery and cooling through heat exchange with the City's sewage system.



INDICATOR

TARGET

Percentage better than NECB2017	25%
Percentage of residents that use project specific smart application to monitor and remotely adjust suite energy consumption	75%
Zero Carbon Building Certified for Design and Performance	Net Zero Carbon
Percent minimum of total energy demand that will be met by onsite renewable energy systems	2%

PROJECT OUTCOMES

- ✓ Decrease building energy use intensity
- ✓ Ensure buildings are constructed and operate as zero carbon buildings
- ✓ Renewable energy source

