

EDMONTON'S DOWNTOWN SUSTAINABILITY STROLL

Sustainability and environment are not often the first words that spring to mind when people think of cities and downtown areas. It is hoped that this tour will change that by highlighting the sustainable initiatives that are happening within the heart of Edmonton.



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LEADING THE WAY CITY HALL, CITY HALL ROOM

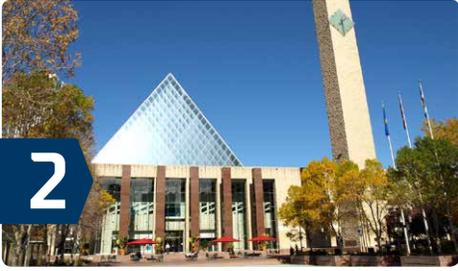
Starting this tour at City Hall is symbolic of how the city government is leading the way to a sustainable city. One way is through the adoption of Edmonton's Community Energy Transition Strategy, a risk management strategy designed to make Edmonton an energy and climate sustainable city. City Hall itself operates sustainably as a certified BOMA BEST® building. BEST stands for "Building Environmental Standards". Buildings are awarded this certification by the Building Owners and Managers Association (BOMA) based on the building's energy savings and best environmental practices.

HIGHLIGHTS:

- This building opened in 1992 on the site of the former City Hall. Parts of the old building were reused, such as the beige stone stripes of travertine on the floor.
- The two glass pyramids maximize natural light while minimizing the need for electrical lighting.
- Low flow toilets and faucets minimize water use.
- Direct access to the LRT station allows public and staff to use transit.
- Exit the south doors of City Hall and walk to the stone cenotaph (monument) at the end of the wading pool.

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SHIFTING GEARS CENOTAPH OUTSIDE CITY HALL

Look around. What do you see? On most days you will see lots of people. If everyone arrived here by car, not only would there not be enough parking spaces but those cars would be releasing tonnes of greenhouse gases into the atmosphere. In Edmonton, transportation already accounts for about 30% of our emissions. The Edmonton Transit System (ETS), made up of trains and buses, is just one of the alternative sustainable modes of transportation available. Lots of Edmontonians are choosing sustainable transportation modes – last year 65,696 people commuted to work by public transit, bicycle, walking or another sustainable method.

HIGHLIGHTS:

- From this location you can see at least three different ways you could travel to all corners of Edmonton:
 - Bus System—Edmonton has 6,803 bus stops and 944 buses.
 - LRT (Light Rail Transit)—The Capital Line, which started full operations in 1978 with 6.9 km of track, was the first LRT system in Western Canada. The LRT system continues to expand, with work currently underway on the new Valley Line to southeast Edmonton.
 - Downtown Bike Network—Over 7 km of protected bike lanes and shared-use paths will be installed during summer 2017. The network will provide a safe and accessible route to downtown destinations and connect to other bike routes throughout Edmonton.
- **Look south to the red and grey bench located in Sir Winston Churchill Square.**
 - Soofa benches are smart, social and solar-powered pieces of urban furniture, where you can hang out and charge your smartphone. The Soofa also works as an environmental monitoring system, housing sensors to monitor the environment and report the findings.

Walk to the east corner of this block, opposite the Art Gallery of Alberta. There is no need to cross the street unless you wish to explore the Art Gallery.





THE ART OF BUILDING GREEN

ART GALLERY OF ALBERTA

The Art Gallery of Alberta, with its unique angles and curves, was inspired by the North Saskatchewan River and the Aurora Borealis. Leadership in Energy and Environmental Design (LEED) is a green building standard like BOMA BEST® that uses a point system to rate the environmental aspects of new buildings. Through LEED, construction companies are made aware of best environmental practices and results in the construction of buildings that use less energy, water and natural resources than conventional buildings. The Art Gallery of Alberta is currently working towards earning its certification.

HIGHLIGHTS:

- 90% of the steel used in its construction was recycled material.
- Internal access to the LRT results in more visits using sustainable transportation than by car.
- The southern overhangs prevent overheating of the building in the summer but allows winter sunlight to enter.

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SHARING FOR SUSTAINABILITY

EDMONTON PUBLIC LIBRARY

With over 160,000 Edmontonians using the EPL library system regularly, it is a perfect example of a “sharing economy”. A sharing economy is the sharing of resources among many people. Years ago, farmers would work together at harvest time to share labour and equipment so that each farmer didn’t have to buy a plow. Now you can find many examples of book, bike and even car sharing.

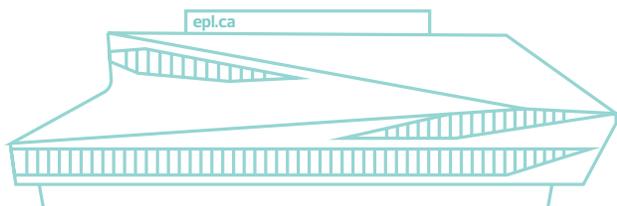
HIGHLIGHTS:

- The Stanley A. Milner Library renewal project aims to obtain a LEED-NC (New Construction) Silver certification and will include lighting and mechanical control system upgrades as well as an increased use of natural light.
- Stanley A. Milner Library's Makerspace has computers, 3D printers, gaming consoles and even a sound booth, allowing people to create without having to purchase equipment of their own.
- By switching to an energy efficient fleet of vehicles to transport books, fuel consumption was reduced by 60%.
- The Lois Hole and Jasper Place Libraries are LEED certified, and Millwoods Library is currently working towards certification. Initiatives include energy efficiency, proximity to bus routes, water efficient landscaping and recyclable materials used during their construction.

Other sharing opportunities:

- Edmonton Tool Library—a library for hand and power tools! This library offers affordable access to tools and provides a space to share skills and knowledge.
- Pogo CarShare—a carsharing service that gives members 24/7 access to a pool of vehicles located within a defined, central zone in Edmonton.

Cross 102 Avenue. Continue south along 99 Street and cross Jasper Avenue. Turn east (left) and continue to the plaza and overlook between the Edmonton Information Centre and the Shaw Conference Centre.





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THE RIBBON OF GREEN THE RIVER VALLEY PARKS SYSTEM

The North Saskatchewan River Valley, known as the “Ribbon of Green”, covers 7,400 hectares and forms the largest municipally-owned urban park in North America. This area is a major ecological corridor across Edmonton and is critical to protecting biodiversity in Alberta. The City of Edmonton recognizes the importance of our park system and is continually acquiring more land while working to restore or improve areas it already owns.

HIGHLIGHTS:

- According to the Edmonton Biodiversity Survey, the river valley in Edmonton supports a wide variety of species:
 - » 47 mammals
 - » 178 birds
 - » 27 fish
 - » 180+ invertebrates (insects, spiders, etc.)
 - » 2 reptiles
 - » 5 amphibians
 - » 487 plants
 - » 221 fungi
- Edmonton's river valley supports natural processes like decomposition and seed dispersal, protects us from flooding and allows us to connect with the natural world.
- Urban forests provide benefits such as filtering our air, removing carbon from the atmosphere and reducing energy costs when providing shade and windbreak. Edmonton aims to double its urban forest canopy.
- In 2014, planting began for the City's first food forest in the river valley. You can eat locally and pick saskatoons, highbush cranberries, gooseberries, pin cherries and more.
- Look to the east (left) at the Shaw Conference Centre.

Look to the east (left) at the Edmonton Convention Centre.



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BETTER THROUGH BEHAVIOUR

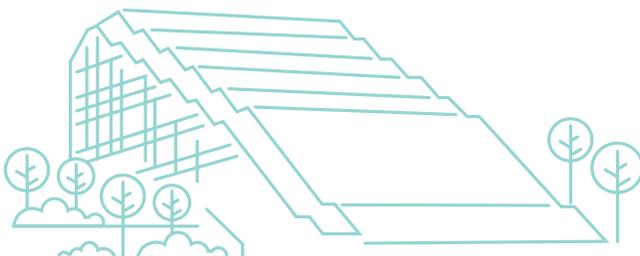
EDMONTON CONVENTION CENTRE

The Edmonton Convention Centre (ECC) is committed to leading the way for their industry in sustainable best practices. ECC continuously seeks new ways to reduce its environmental footprint while promoting green meetings and conferences. ECC's sustainable initiatives have earned a number of awards and certifications including the honour of being the first Canadian conference venue to receive the top rating of Green Key Level 5. The Green Key Eco-Rating Program is a graduated rating system designed to recognize hotels, motels, resorts and conference centres that are committed to improving their environmental performance.

HIGHLIGHTS:

- The plants in the atrium are responsible for the absorption of over 1,800 kg (4,000 lbs) of CO₂ a year.
- Three gardens on the property contribute to urban biodiversity: a medicine wheel garden featuring regional indigenous plants to honour Edmonton's Aboriginal community, a herb and vegetable garden that is kept by the kitchen staff and a monarch butterfly preservation garden. The gardens are pollinated by an urban beehive that produces over 27 kg (60 lbs) of honey per year.
- Throughout the year, the ECC donates all leftover meals to the Edmonton Food Bank's Second Helping Program. In 2015, it donated almost 2,901 kg (6,400 lbs) of food.
- The ECC has a large glass atrium and is built into the side of Grierson Hill. This allows it to be a "natural heat sink";
 - » the heat from the sun gets trapped, reducing the need for energy consumption for heating.
- The reflective roof of Hall D, as well as the many terraced areas that act as green roofs, help reduce heating and cooling needs of the building.

Turn back to Jasper Avenue but don't cross it. Look across the road a little to the east (right) to see the Hotel Alberta/CKUA building with the white cupola, or dome, on the corner.





REBUILDING HISTORY

HOTEL ALBERTA / CKUA

Another important environmental action is the reuse of objects and materials. This building is a perfect example of reuse. In 1984, the building was removed to make room for Canada Place but thankfully, much of it was saved and it was rebuilt in 2011.

HIGHLIGHTS:

- The stone exterior of the original building was taken apart piece by piece, numbered and put into storage.
- Many of the interior decorations such as bar mirrors and plumbing fixtures were saved as well.
- It now houses CKUA, Canada's oldest public educational broadcasting station.
- The basement holds a collection of 275,000 vinyl records going back to the 1920s and Edison discs dating back to 1912. For the first time, this educational resource is kept in a climate-controlled space.

Turn west (left) and walk down Jasper Avenue from the direction you came, until you are in front of the Fairmont Hotel Macdonald. [2.5 blocks]





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GREEN HOSPITALITY THE FAIRMONT HOTEL MACDONALD

The Fairmont Hotel Macdonald has been operating on the bank of Edmonton's river valley since 1915 and is doing its part to lead the way in sustainability within the tourism industry. Water conservation in hotels can make a big impact in both the environment and dollar savings. Water accounts for about 10% of utility bills in many hotels. Of the water used, on average, 34% is used in the guest rooms and 17% in just doing laundry. Depending on their water efficiency, hotels can reduce the amount of water consumed per guest per night by up to 50% compared with establishments with poor performance in water consumption.

HIGHLIGHTS:

- Fairmont Hotel Macdonald has a Green Key Eco-Rating of Level 4, with Level 5 being the highest rank—not bad for a building built in 1915.
- The building has been refitted with low-flow toilets, faucets and showers, and not only does it offer the option to not wash your towels and linens every night, it offers eco-friendly cleaning.
- Sustainable transportation is encouraged through free parking with access to a charging station for Electric Vehicles as well as offering bike rentals. Other EV charging stations within Edmonton can be found on websites such as PlugShare.com.

Continue west on Jasper Avenue and turn north (right) on 101 Street. Walk north until you cross 102 Avenue. Stop on the corner and look at the building kitty-corner (diagonally) across the street.





FROM GREY TO GREEN MANULIFE PLACE

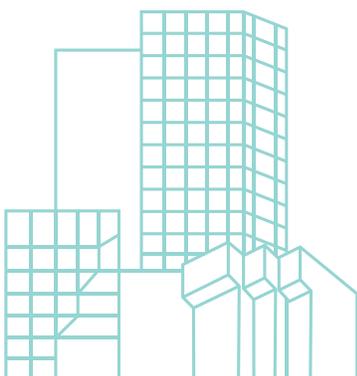
This building is Manulife Place and, like numerous other buildings downtown, is a BOMA BEST® certified building. What makes this building unique is its green roof. Note: This green roof is accessible only to those who work in the building, and urban birds. On a green roof, you will find 8 to 30 cm (3 to 12 inches) of soil with vegetation, usually grass, growing on the surface. Green roofs provide a green natural area for people to gather, serve as nesting habitat, control runoff during heavy rains, contribute to climate resiliency and have many other benefits:

- Green roofs last almost twice as long as a traditional roof, reducing costs and waste from re-roofing.
- Green roofs improve energy efficiency by protecting the building from heating in the summer and minimizing heat loss by providing insulation in the winter.
- By trapping dust particles, heavy metals and compounds, and absorbing them into the green roof system, the plants and soil help reduce smog and improve air quality.
- The use of reflective roofing materials and green roofs can increase our climate resiliency by reducing temperature increases from the Urban Heat Island Effect.

HIGHLIGHTS:

- Manulife Place has energy efficient lighting, water saving faucets and fixtures as well as bicycle parking.
- High performance glazing on the windows let in the maximum amount of daylight while minimizing heat entering the building. This reduces the need to turn on extra lights or air conditioning.

Continue east on 102 Avenue, back towards City Hall. Cross 100 Street and stop on the corner of Sir Winston Churchill Square.





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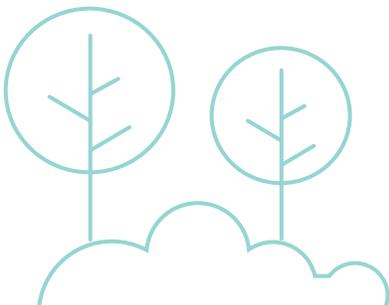
TYING IT TOGETHER SIR WINSTON CHURCHILL SQUARE

We are now back in the centre of the city, the centre of the hustle and bustle. All of this activity impacts the environment.

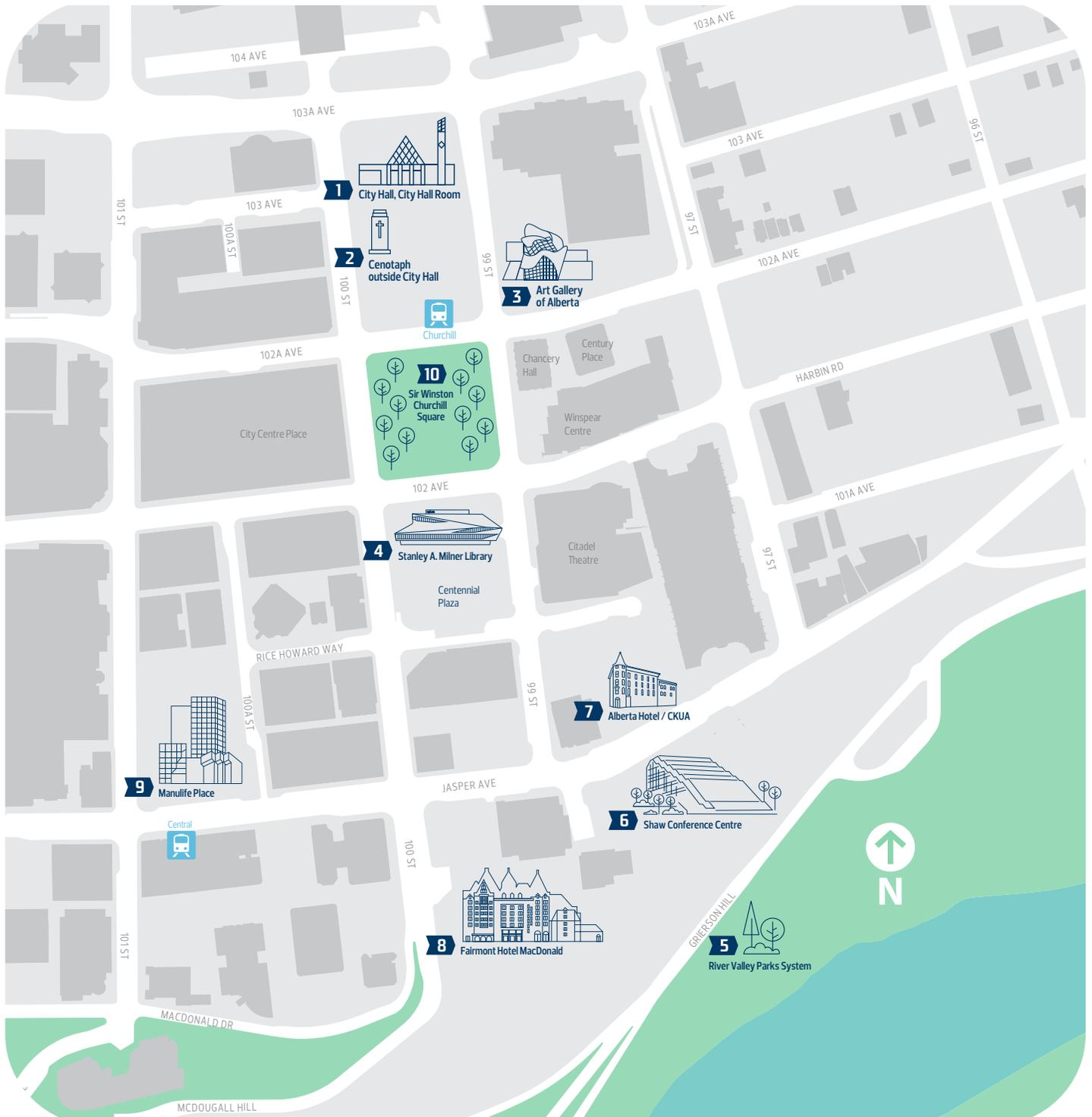
By measuring many of the items we discussed today, the City of Edmonton is able to evaluate and manage environmental impacts.

City Council has set a goal for Edmonton to be a leader in environmental preservation and in achieving high standards in sustainability. A variety of City programs have been developed to reduce dependence on non-renewable energy sources and to protect the air, land, water, and biodiversity in the Edmonton area.

Currently, coal-generated power makes up approximately 95% of the electricity used in Edmonton. Edmonton's Community Energy Transition Strategy has been adopted to help move Edmonton towards a sustainable energy future. This Strategy's goals include reducing community-based greenhouse gas emissions by 35%, reducing energy consumption by 25% and generating 10% of Edmonton's electricity locally, all by 2035. Many of the initiatives highlighted on this tour contribute to these goals.



DOWNTOWN SUSTAINABILITY STROLL MAP



This tour starts and finishes at City Hall and is approximately 2 km.

Remember that there are areas in some of these buildings that are for tenants only and are not public spaces. Please refrain from trespassing and stay in the public areas.

A GREENER EDMONTON

As you can see, many businesses, organizations and groups in the downtown area are passionate about working towards a sustainable future. We hope some of the things you learned on this tour will inspire you to take part in some way in this goal and help to create the healthy urban environment that contributes to the quality of life for everyone in Edmonton and beyond.

Thank you for participating in the Edmonton Downtown Sustainability Stroll. We hope you enjoyed the information, the exercise and the adventure.

Related Websites

Art Gallery of Alberta

youraga.ca

City Hall

edmonton.ca/cityhall

Edmonton Public Library

epl.ca

Fairmont Hotel Macdonald

fairmont.com/macdonald

Hotel Alberta & CKUA

dubarchitects.ca/historic---alberta-hotel.html

Manulife Place

manulifeplace.com

River Valley Parks System

edmonton.ca/parksrivervalley

Shaw Conference Centre

shawconferencecentre.com

Get Involved

Edmonton's Change Habits for Climate Guide

changeforclimate.ca/guides

Green Leagues

<https://efcl.org/events--projects/green-leagues/>

Eco-City Edmonton Grant Program

edmonton.ca/ecocityedmonton

Join the Movement

Get tips, information and the latest on incentives and programs at changeforclimate.ca

City of Edmonton – Environment

Phone: 311 (in Edmonton), 780.442.5311 (outside of Edmonton)

Website: changeforclimate.ca