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ENERGY EFFICIENCY UPGRADES AND ASSET MANAGEMENT

Fountain Park Recreation Centre in St. Albert, Alberta

Municipalities own and maintain [60 percent of Alberta's public infrastructure](#). Each building or facility has a service life: the length of time it is able to provide an acceptable level of quality, reliability, cost and responsiveness. Part of the role of municipal governments is to maximize an asset's service life by keeping up with equipment maintenance, rehabilitation and/or replacement.

The City of St. Albert, Alberta, is a vibrant and thriving community of more than 72,000 people with extensive parks, a rich heritage of arts and culture and a strong commitment to offering opportunities for all.

During recent renovations of Fountain Park, one of the City's recreation centres, the municipality took the opportunity to complete necessary life-cycle repairs and replacements to address building components and operating systems that had reached the end of their lifespan.

Thanks to grant funding provided by the [Green Municipal Fund's Community Buildings Retrofit initiative](#), the City was also able to implement energy-efficiency measures that had been recommended in a facility-wide energy audit.

Land acknowledgement

The City of St. Albert is located on Treaty 6 territory, traditional lands of First Nations and Métis peoples.

The authors acknowledge the many First Nations, Métis and Inuit whose footsteps have marked these lands for centuries and whose presence continues to enrich our vibrant communities. We make this acknowledgment as an act of reconciliation, gratitude and commitment to pursuing an inclusive, collaborative and respectful path towards building strong communities.

ENHANCING ENERGY PERFORMANCE

The upgrades at Fountain Park Recreation Centre have significantly reduced the consumption of electricity and gas through the use of high-efficiency boilers, LED lighting, building envelope improvements and a cogeneration unit. These improvements have elevated building quality and comfort while also cutting emissions and operating costs. Estimates show that the upgrades have lowered natural gas consumption by 7,513 GJ and greenhouse gas emissions by 299 tCO₂eq. The project also created jobs during the renovation phase, boosting the local economy. Overall, the upgrades have modernized outdated systems and improved energy efficiency, making the facility more sustainable, cost-effective and inviting to the community.

IMMEDIATE BENEFITS

Not only did these upgrades focus on energy efficiency, but they also significantly enhanced accessibility at the Centre. Key updates included installing guardrails and handrails, renovating changerooms, upgrading the wheelchair ramp, adding visual and tactile indicators and introducing a portable aquatic chair lift. These changes have made Fountain Park more accessible for community members and improved building quality and occupant comfort, enhancing health and safety for everyone who uses the space.



Fountain Park Recreation Centre

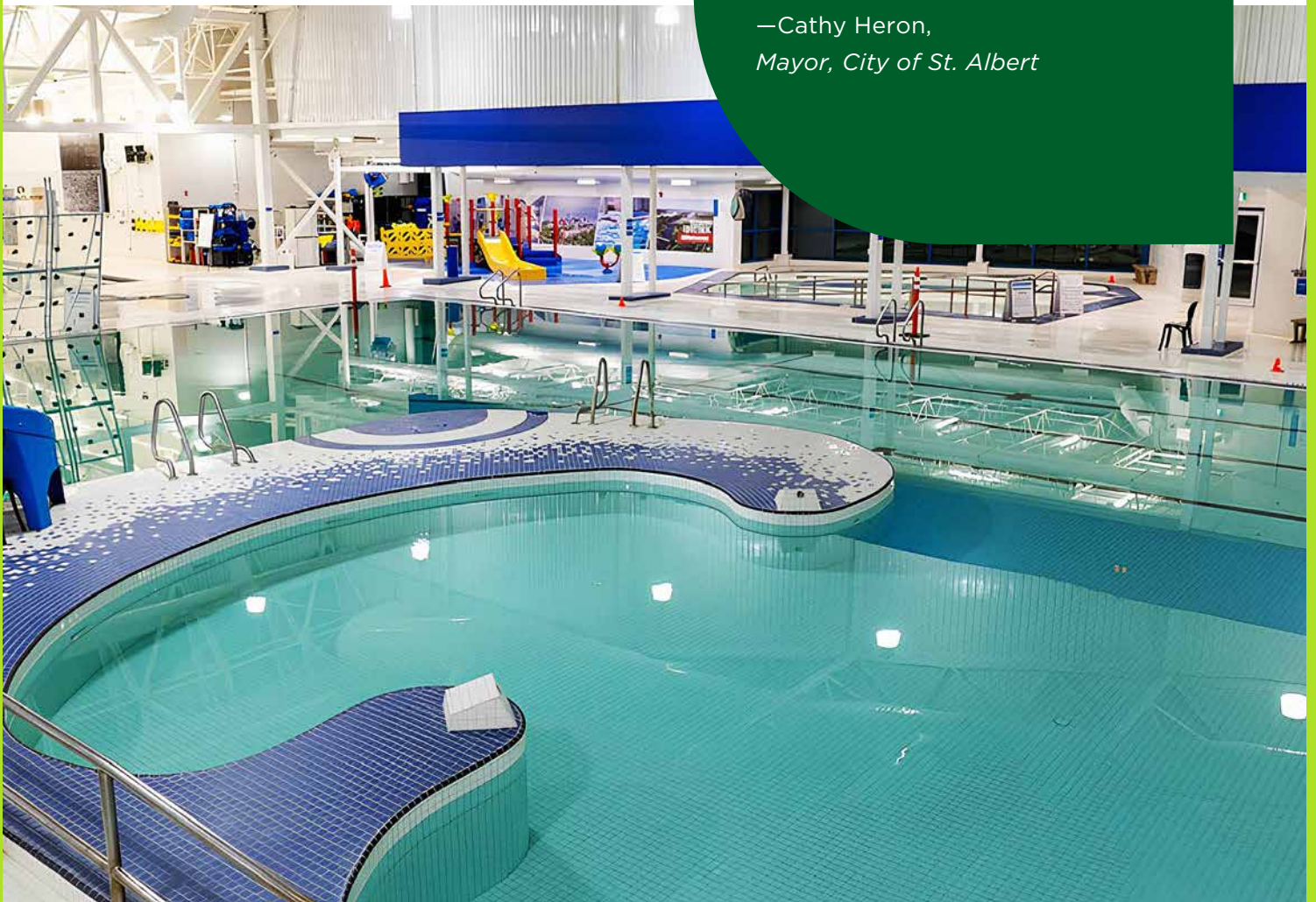
Located in central St. Albert, Fountain Park Recreation Centre is one of the community's main aquatic and recreation facilities. It contains a full-size swimming pool, a toddler pool, a leisure pool, a whirlpool, a sauna, a steam room, a multipurpose court, multipurpose rooms, a preschool playground area and a café. Up to 200 people use this facility every day.

LONGEVITY

The City has been working on other large retrofit and upgrade projects that involve energy-efficiency and accessibility upgrades. These projects are all supported by principles within St. Albert's Municipal Development Plan, *Flourish*, and the City's Sustainable Buildings Policy, which set a long-term goal to mitigate climate change impacts and improve air quality by reducing energy consumption and greenhouse gas emissions from all sources.

"Being champions of environmental action and upgrading our facilities to be more energy efficient as we adapt to a changing natural environment are major priorities for the City. The work that has been completed in Fountain Park Recreation Centre directly showcases our commitment to finding innovative ways to protect our environment for future generations."

—Cathy Heron,
Mayor, City of St. Albert



RECOMMENDATIONS FROM ST. ALBERT

As this was a large-scale project with a large stakeholder group, it was important for everyone involved to collaborate to ensure a timely and successful completion. There are upfront costs associated with implementing significant energy reduction projects and this collaborative approach ensured that all stakeholders were aware of the long-term benefits of these investments.

Servus Credit Union Place, St. Albert

The City of St. Albert has completed several energy-efficiency upgrades at Servus Credit Union Place, another municipal recreation centre, which houses 29,729m² (320,000 square feet) of leisure and fitness space. Energy management opportunities that have been completed include a lighting retrofit, adding variable frequency drives (VFDs) to pool pumps and two new REALice systems. During the summer of 2021, the City of St. Albert also installed a 1,110 kW solar PV system at Servus Credit Union Place. These projects combined represent an annual cost savings of approximately \$200,000 and an annual emissions reduction of 1164.63 tonnes CO₂e/year. These upgrades were funded in part by the Government of Alberta through the Municipal Climate Change Action Centre's Alberta Municipal Solar Program and Recreation Energy Conservation Program.

Connecting the project to other completed retrofit projects and aligning it with the strategic direction of existing community plans was critical to the project's success.

While real-time energy monitoring was not available to the City of St. Albert on this project, they do recommend incorporating it into projects like this.

Projects like the Fountain Park Recreation Centre upgrades highlight the value of combining necessary life-cycle upgrades with energy-efficiency improvements. By incorporating sustainability and accessibility measures into projects addressing aging building components and operating systems, municipalities can enhance reliability, improve accessibility, reduce costs and align with environmental goals.

This work also demonstrates leadership in climate action and sets an example for the community by demonstrating the connections between climate action and co-benefits such as asset management, emissions reductions, cost savings and building comfort and, ultimately, by building support among residents for future initiatives.

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