

UPCOMING DATES

MARCH

- 20 Barrie General Committee, 7:00 p.m.
- Brampton Committee of Council, 9:30 a.m.
- Durham Region Committee of the Whole, 9:30 a.m.
- Halton Regional Council, 9:30 a.m.
- Hamilton General Issues Committee, 9:30 a.m. - CANCELLED
- Markham Council, 1:00 p.m.
- Mississauga Council, 9:30 a.m.
- Richmond Hill Committee of the Whole, 9:30 a.m.
- Whitchurch-Stouffville Council, 1:00 p.m.
- 21 Peel Regional Council, 9:30 a.m.
- York Regional Council, 9:00 a.m.
- 25 Ajax Council, 1:00 p.m.
- Brock Committee of the Whole, 3:00 p.m.
- Brock Council, 6:00 p.m.
- Clarington Council, 6:30 p.m.
- Halton Hills Council, 3:00 p.m.
- Newmarket Council, 1:00 p.m.
- Oakville Council, 6:30 p.m.
- Oshawa Council, 9:30 a.m.
- Pickering Council, 7:00 p.m.
- Scugog Council, 6:30 p.m.
- Uxbridge Council, 10:00 a.m.
- 26 Aurora Council, 7:00 p.m.



KING TOWNSHIP RECREATION CENTRE BECOMES FIRST IN CANADA TO ACHIEVE ZERO CARBON DESIGNATION

PRIORITIZING SUSTAINABILITY



Lana Hall

A planned King Township recreation centre recently became the first of its kind in Canada to achieve the **Canada Green Building Council's** (CAGBC) Zero Carbon Building Design Certification by incorporating several design elements to reduce the facility's energy consumption, including an innovative system that uses waste heat from the indoor ice rink's refrigeration process to heat other parts of the centre.

The Township-Wide Recreation Centre, which will be located at 1600 15th Sideroad on **Seneca College's** King campus, will replace the Township's aging King City Lions arena, near downtown King City. The new facility is being developed from scratch and will feature two NHL-sized ice rinks, a six-lane, 25-metre lap pool, a leisure pool, a multi-purpose athletic fieldhouse, and space

for community programming. Seneca College agreed to lease the 25-acre site to the Township for 100 years at the cost of a dollar, while funding from both the provincial and federal governments is helping fund the recreation centre's development.

This month, the facility became the first combined aquatics and ice-sports community facility in Canada to achieve the CAGBC Zero Carbon Building Design Certification, a designation intended to recognize building design that prioritizes embodied carbon reduction, energy efficiency and grid-friendly design.

Designed by **MJMA Architecture & Design**, the recreation centre's building systems, including rooftop ventilation, dehumidification, boilers, arena heat rejection, and air source heat pumps,

will be electric, connecting to an integrated thermal energy network. The resulting significant reduction in the need for use of gas-fired equipment in the building will effectively eliminate the building's greenhouse gas emissions. The building will also use an innovative CO2 arena refrigerator system, which will produce high-grade waste heat from the refrigeration process that can then be cycled through the building's thermal network and used to heat it. The facility is also designed to optimize daylight, which will reduce the need for artificial lighting, heating and cooling.

The recreation centre's design speaks to ongoing efforts within the institutional sector to reduce the environmental impact of new facilities, many of which have traditionally relied on large

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amounts of energy to power equipment.

“You’ve got, in this case, both an ice rink and a pool. Those spaces in particular ... have their own set of opportunities and challenges,” says CAGBC vice president of green building programs and innovation **Mark Hutchinson**.

“A good design team will make sure that they’re maximizing the efficiency of the system that pulls the heat out of the equipment that’s generating ice and provides it to other places in the building ... [In the Township-Wide facility], it’s used in something like half a dozen different places, everything from the Zamboni water to the pool heating, to snow melting.”

In February 2024, the **Township of King** implemented a Green Development Standard (GDS), which provides a framework for advancing sustainability in new developments throughout the Township. Township of King Mayor **Steve Pellegrini** says the design and construction of the new recreation facility was an opportunity to demonstrate those standards, and to show both the development community and residents of the Township that King’s local government is serious about sustainable design too.

“This was just an opportunity to actually walk the talk,” Pellegrini told *NRU*. “We [created the standards] in partnership with the development community, and they actually adhere to them, and they work with us to make their developments sustainable. So if they’re doing it, we’d better

be the leaders of it.”

Pellegrini also explains that while the design process may have required more labour up front to achieve the facility’s zero-carbon goals, he believes these efforts will pay off, both in terms of savings on operating costs and savings on public health.

“We did evaluate for each and every component or initiative that we wanted whether there would be some payback over eight to 10 years ... If you can get a payback within eight years, I think

you’re doing ok,” he says. “They say for every dollar you spend on recreation, you can save upwards of \$100 ... They talk about the economic impact, the social benefits, environmental, and the physical. So, these are truly the environmental benefits that we are now showing through this recreation facility.”

The recreation centre is slated to open this summer.

NRU reached out to MJMA for comment but a spokesperson was unavailable before press time. 🌱



Rendering of Township of King’s planned Township-Wide Recreation Centre at 1600 15th Sideroad. The planned facility recently became the first of its kind in Canada to achieve the Canada Green Building Council’s (CAGBC) Zero Carbon Building Design Certification for using several design elements that will reduce its energy consumption.

IMAGE: MJMA ARCHITECTURE & DESIGN
SOURCE: TOWNSHIP OF KING



Rendering of the aquatic facility planned for King’s new Township-Wide Recreation Centre at 1600 15th Sideroad. The recreation centre will feature a six-lane lap pool and a leisure pool, along with two NHL-sized ice rinks, a multi-purpose athletic fieldhouse, and community programming space.

IMAGE: MJMA ARCHITECTURE & DESIGN
SOURCE: TOWNSHIP OF KING



Rendering of one of the ice surfaces planned for King’s new Township-Wide Recreation Centre at 1600 15th Sideroad in King Township. The building will use an innovative CO2 arena refrigerator system, which will produce high-grade waste heat from the ice rink’s refrigeration process that can then be cycled through the building’s thermal network and used to heat it.

IMAGE: MJMA ARCHITECTURE & DESIGN
SOURCE: TOWNSHIP OF KING