

Making the ideal ice

Home to the men's and women's and mixed wheelchair curling events, the Vancouver Olympic Centre/Vancouver Paralympic Centre replaced an aging, existing community complex located at Hillcrest/Nat Bailey Stadium Park.

A highly efficient HVAC system utilizes a state-of-the-art air management system to control humidity and temperature levels while the ice is being installed and during competitions to create ideal curling ice. Two specialized ice technicians oversee installation and maintenance of the four ice sheets.

The \$39-million curling venue uses an ice-quality monitoring system called Eye on the Ice, which has sensors around the venue and near the ice surface to regularly take temperature and humidity readings and send the results to the ice technicians' centralized computer. Ice technicians monitor these readings and make changes as needed to ensure the best playing conditions.

The City of Vancouver is targeting LEED Gold certification for this facility once the conversion to legacy mode has been completed. As such, it has a number of sustainable features.

Waste heat from the refrigeration plant and ice slab is captured and reused to heat other building spaces, the adjacent aquatics centre, and to provide domestic hot water for the facility. Waste heat from the swimming pool area is also recovered through the aquatic centre's ventilation system.

Rainwater is collected and reused for flushing water-efficient toilets and urinals, reducing the amount of potable water used.

Net-zero green space loss has been targeted in the development of this venue. During the construction phase, trees within the venue construction area were salvaged and relocated to other sites within the park. In the post-games period, when the venue is being converted to its legacy mode, demolished sites will be revegetated. As well, the existing community centre and pool will be demolished, salvageable materials recycled and the site remediated back to park space.

An additional \$49 million is being spent for conversions to a multi-purpose recreation complex and for the adjacent Norman Aquatic Centre.



Above: The City of Vancouver is targeting LEED Gold certification for this facility once the conversion to legacy mode has been completed.
Photo City of Vancouver



Background: Consolidation of the Olympic Centre footprint reduced land impact.
Photo courtesy Viessmann