



water



social



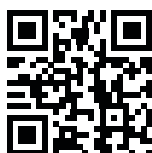
innovation

« Design focused on mitigating the potential negative environmental impacts.

1

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THE DAVID BRALEY
ATHLETIC & RECREATION
CENTRE



Sustainable Site Development

Sustainable Site Development strategies reduce the environmental impact brought on by new buildings or built spaces. The David Braley Athletic & Recreation Centre is built on a repurposed site which was a former parking lot. Reclaiming an existing site, creating sustainable landscaping, developing surface water management systems, enhancing community accessibility – all while building to suit the surrounding

natural and built environments – contribute to the Gold LEED® standing. The design and building process focused on mitigating the potential negative environmental impacts brought on by this new development.

Learn more about Leadership in Energy and Environmental Design (LEED®) at mohawcollege.ca/leedtour.

 **MOHAWK**



energy



financial



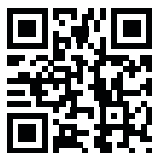
innovation

« The roof is designed to accommodate the installation of solar panels to generate renewable energy.

2

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Rooftop Features

The roof of the David Braley Athletic & Recreation Centre features a white roofing material which reflects the infrared and ultraviolet rays of the sun, reducing heat transfer to the surface of the building. This feature minimizes solar heat gain and combats the 'heat island effect' caused by the built environment.

The reflective roofing also helps to extend the life span of the building, reduces demand for cooling in hot

summer months, therefore decreasing demand on the electricity grid during peak periods. The facility was also constructed as a photovoltaic (PV) ready structure, meaning it is ready to accommodate the installation of solar panels to generate renewable energy.

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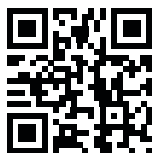
The David Braley
Athletic & Recreation
Centre

LEED®
Gold - Or
2012

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DBARC LEED® Tour Quiz

Take the David Braley Athletic & Recreation Centre LEED® Tour quiz to learn about the features that make some of Mohawk's buildings the most environmentally-friendly in the City of Hamilton. Simply scan the QR code to start the quiz and follow the tour.

All Mohawk students who complete the quiz through their eLearn account will be entered in a monthly draw for a Sustainability Office prize pack!

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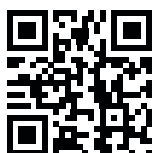
« Water-efficient features and innovative technologies help reduce water consumption by more than 40%.

Photo courtesy of Banko Media

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Water Efficiency

The smarter use of water at the David Braley Athletic & Recreation Centre helps to reduce potable water consumption and contributes to cost savings and efficiency.

Water Use Reduction

Hands-free faucets and low-flow toilets are activated by motion sensors. Water-efficient features and innovative technologies help reduce water consumption by more than 40%.

Waste Water Technologies

The David Braley Athletic & Recreation Centre has three rainwater collecting cisterns that use rainwater to flush toilets in the facility.

Permeable Surfaces

The MSA Plaza's permeable paved surfaces reduce runoff by allowing water to pass through and return to the water table.

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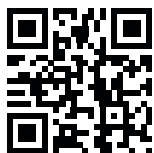
BIKE PAD

« Redirecting a former interior roadway and enclosing the MSA Plaza to allow safer mobility for pedestrians.

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Active and Alternative Transportation

The David Braley Athletic & Recreation Centre supports Mohawk College's pedestrian-first policy by redirecting a former interior roadway and enclosing the MSA Plaza to allow safer mobility for pedestrians. Nearby bike parking facilities, carpool lots, and transit stops provide added convenience. In addition, the multi-use trail creates community connectivity and security for all forms of active and alternative mobility.

This building was also built to accommodate up to eight vehicle charging stations. This feature encourages the future of alternative transportation options and supports new, greener technologies.

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« Memberships to the Centre have been extended to the community, encouraging nearby residents to become more active.

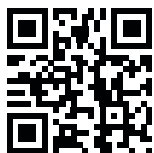


Photo courtesy of Tom Arban

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Community Connectivity

The David Braley Athletic & Recreation Centre is connected to surrounding neighborhoods by the new multi-use trail, which provides safe access to the Fennell Campus for pedestrians and cyclists. Providing space to walk, ride, and roll creates a safe physical connection to the College, and further integrates Mohawk into the community in which it serves.

Memberships to the Centre have been extended to the community, encouraging near-by residents to become more active in a facility that is easily accessed and affordable.

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« Views of the outside enhance the human experience, as well as the health and wellness benefits of occupancy.

Photo courtesy of Banko Media

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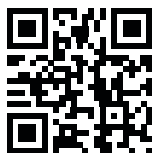
THE DAVID BRALEY
ATHLETIC & RECREATION
CENTRE

Access to Views

Excluding the gym, 97% of the David Braley Athletic & Recreation Centre facility has views to the outside, overlooking the MSA Plaza, the multi-use trail and surrounding green space. This access to views of the outdoors provides building occupants with natural

light, enhancing the human experience, as well as the health and wellness benefits of occupancy.

Learn more about Leadership in Energy and Environmental Design (LEED®) at mohawkcollege.ca/leedtour.



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« Each finishing item that was excluded from the building represents one less item that must be manufactured, transported and maintained.

Photo courtesy of Renée Shea, Mohawk College

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Minimal Finishes

The David Braley Athletic & Recreation Centre was designed to incorporate minimal finishing throughout the building. This allows the architectural features, such as the polished concrete floors, glass dividers, exposed ductwork and support columns, to become the building's décor. Each finishing item that was

excluded from the building represents one less item that must be manufactured, transported and maintained.

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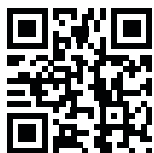
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« More than 20% of the materials used in the construction of the David Braley Athletics & Recreation Centre were made of recycled content.

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Construction Process

Important in the LEED® building process, more than 20% of the materials used in the construction of the David Braley Athletics & Recreation Centre were made of recycled content.

Local, Sustainable Materials

More than 30% of the construction materials used are sourced within 800 kilometres of Fennell Campus.

Indoor Air Quality

Duct work was sealed to prevent dust and debris from entering the HVAC system, and scrubbers were fixed to exhaust pipes of indoor construction vehicles.

Low Volatile Organic Compound (VOC) Compliance

All materials used in the David Braley Athletic & Recreation Centre were low VOC, or low-emissive.

Waste Management

95% of all construction waste was diverted from landfill.

Sustainable Wood

50% of wood used in construction was Forest Stewardship Council (FSC) certified.

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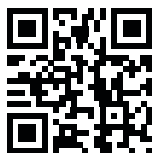
innovation

« The Centre uses 34% less energy, translating to a 41% reduction in greenhouse gas emissions, or 249 tonnes of Carbon Dioxide Equivalents (CO₂e).

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Energy Performance

The Centre uses 34% less energy than an equivalent building based on the Model National Energy Code for Buildings. This translates to a 41% reduction in greenhouse gas emissions, or 249 tonnes of Carbon Dioxide Equivalents (CO₂e). An efficient building envelope, well-insulated glass, efficient lighting, occupancy and daylight sensors and solar-powered hot water panels help achieve this energy conservation.

Building Automation System

Heating, cooling, ventilation and lighting are programmed to operate based on occupancy and usage schedules.

Use of Lighting

A variety of lighting systems help to minimize energy consumption for artificial light.

On-Site Renewable Energy

The Centre rooftop houses 14 flat-plate solar collectors that use collected energy to preheat domestic hot water for showers and sinks throughout the building, reducing the amount of non-renewable energy required.

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