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"LEEDING" THE WAY

New police station encourages a "green" footprint

by Paul Sapounzi

The new OPP detachment in Caledon, Ontario is the first Ontario police facility to be awarded the Gold Standard under the LEED NC 2009 rating system by the Canadian Green Building Council (CaGBC).

Leadership in Energy and Environmental Design (LEED) is a rating system recognized as the international mark of excellence for green building in over 132 countries. Gold certification is a significant

achievement considering the new Caledon facility is Ontario's largest OPP detachment.

The new 23,650 square foot building is a state of the art, energy and cost-effective structure that embodies the town's commitment to sustainable development.

The building was designed with a focus on the environment and energy consumption, water usage, storm water controls and a compact building footprint, scoring six out of six for innovation in design and 10 out of 10 for water efficiency.

Water efficiency

To reduce the overall water demand a rainwater harvesting system supplies toilets and urinals, reducing potable water usage by 50 per cent. An additional 24 per cent water savings is attributed to low flow lavatories, faucets and showerheads. The total savings equates to 364,000 litres of water saved annually when compared to a standard building.

Energy efficiency

Mechanical systems include a geothermal heat pump system using the ground for heating



and cooling. Additional features include a low voltage lighting control system, LED exterior lighting and the careful selection of high efficiency equipment (boilers, heat recovery units and heat pumps).

Energy simulation software was used to validate the buildings' overall energy cost savings of 51 per cent compared to an equivalent building meeting code.

Innovative design

Caledon and the OPP have implemented a "green cleaning policy" which includes buying environmentally responsible cleaning products.

To support the growth of renewables, 70 per cent of the building's annual electrical consumption has been purchased from EcoLogo certified renewable energy providers.

Greenguard certified furniture is used throughout the building. The Greenguard certification program helps manufacturers create and buyers identify and trust interior products and materials that have low chemical emissions, improving indoor air quality. All certified products must meet stringent emis-

sions standards based on established chemical exposure criteria. The certification is broadly recognized and accepted by sustainable building programs and building codes around the world.

Caledon OPP had very specific requirements with respect to the flow and functionality of spaces within the building, giving +VG Architects a clear guide to the systems and program components needed. It worked closely with the OPP and additional stakeholders to ensure key elements were

incorporated mindfully into the design; the public spaces include education, resource and multi-purpose community rooms, allowing local volunteer groups access within the non-secure area of the building and providing the OPP an opportunity to interact with the community.

Police administration spaces interface with secure areas such as retention court, sally ports and holding cells.

The facility connects state-of-the-art technology with community policing through a customized local design and represents the neighbouring community by using natural materials, including stone, to reflect the region's geography.

"The modern, safe and comfortable facility will allow Caledon OPP to provide a level of police service that the town can be proud of," said Caledon Mayor Marolyn Morrison.

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