

# LEED<sup>®</sup> CANADA BUILDINGS IN REVIEW 2011

THE  
ANNUAL  
SUPPLEMENT OF



**SABMag**  
SUSTAINABLE ARCHITECTURE & BUILDING MAGAZINE



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# RECOGNIZING GREEN BUILDING EXCELLENCE



Thomas Mueller

Welcome to the LEED<sup>®</sup> Canada Buildings in Review Supplement, the third in an annual series produced with SABMag. This supplement serves as a great public record of all buildings and interiors in Canada that have obtained LEED certification in 2011.

2011 was a year of major growth and transition, one that saw a healthy growth in LEED certifications, especially in LEED Gold and Platinum projects. This is a testament to the commitment and continued

improvement that Canada's building professionals are making to reduce environmental impacts from our built environment.

As the CaGBC celebrates its tenth anniversary, we look back over a decade where the industry has grown from a grassroots initiative, to one that now counts thousands of green building professionals and certified buildings in its stead. We feel it is more important than ever to recognize the achievement of leaders in the industry who are accelerating the transformation of high-performing, healthy green buildings, homes and communities throughout Canada.

This LEED Canada Buildings in Review Supplement supports the efforts of the CaGBC to demonstrate how the building industry is applying sustainable design and construction practices, and operations in creative and successful ways. The supplement also links readers to green buildings in the geographic region they live or work in, and provides them with an opportunity to find out more about specific projects they are interested in.

The CaGBC and SABMag are pleased to give the design professionals and building owners the national exposure and recognition they deserve for being at the forefront of green building innovation. Thank you to those who have participated in this supplement.

Thomas Mueller  
President & CEO, CaGBC




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The design of the Squamish Lii'wat Cultural Centre gave careful consideration to the selection of building materials, including the use of Glulam columns instead of solid wood posts, to honour the belief that the Squamish and Lil'wat nations are stewards of the land.

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# 2011 LEED-CERTIFIED PROJECTS

○ see page indicated for project profile

PROJECT NAME	LOCATION	LEED PLATINUM	PROJECT TYPE   SIZE m <sup>2</sup>   OWNER TYPE
Dockside Green 'Prosperity'	Victoria, BC	CaGBC LEED-CS	Office building   1,438   Commercial
Dr. David Suzuki Public School	Windsor, ON	CaGBC LEED-NC and Major Renovations	K-9 School   5,436   School Board
A Grandeur View, Emermodal Engineering Headquarters	Kitchener, ON	CaGBC LEED-EBOM, NC and Major Renovations, CI	Office building   2,154   Commercial
Air Transat Head office	Montreal, QC	USGBC LEED-EBOM	Office building   4,811   Commercial
<b>28</b> The Chapelview Apartments	Brampton, ON	CaGBC LEED-NC and Major Renovations	High-rise multi-unit residential (>10 storeys)   16,600   Commercial
Emermodal Engineering Ltd - Calgary Office Suite 603	Calgary, AB	CaGBC LEED-CI	Office building   60   Commercial
Dockside Green Phase 2 - Balance	Victoria, BC	CaGBC LEED-NC and Major Renovations	High-rise multi-unit residential (>10 storeys)   14,945   Commercial



PROJECT NAME	LOCATION	LEED GOLD	PROJECT TYPE   SIZE m <sup>2</sup>   OWNER TYPE
800 Johnson Street	Victoria, BC	CaGBC LEED-EBOM	Office building   7,294   Commercial
RBC Centre	Toronto, ON	CaGBC LEED-NC and major renovations	Office building   114,141   Commercial
Place Désormeaux - Projet SIQ	Longueuil, QC	CaGBC LEED-CI	Other   2,318   Commercial
200 King Street West	Toronto, ON	CaGBC LEED-EBOM	Office building   46,736   Commercial
Uptown Mini Anchor 3	Victoria, BC	USGBC LEED-CS	Mixed-use   11,520   Commercial
New Building Project - Algoma Public Health	Sault Ste. Marie, ON	CaGBC LEED-NC and major renovations	Hospital, Clinic   7,135   Public Health
Majestic Court Condominiums	Markham, ON	CaGBC LEED-NC and major renovations	High-rise multi-unit residential (>10 storeys)   45,890   Commercial
BC's Visitor Centre	Surrey, BC	CaGBC LEED-NC and major renovations	Other   430   Government, Federal
Sun Life Financial Centre	Ottawa, ON	CaGBC LEED-EBOM	Office building   92,903   Commercial
Seymour Capilano Filtration Plant - OMC	North Vancouver, BC	CaGBC LEED-NC and major renovations	Industrial, Manufacturing   3,272   Government, Local
UBC Renew Friedman Building	Vancouver, BC	CaGBC LEED-NC and major renovations	Lecture Hall, Classroom   6,229   University, College
Leon's at the Roundhouse	Toronto, ON	CaGBC LEED-CI	Retail   3,745   Commercial
AeroCentre V	Mississauga, ON	CaGBC LEED-CS	Office building   19,672   Other
Sûreté du Québec, Mascouche	Mascouche, QC	CaGBC LEED-NC and major renovations	Public Safety (firehall, police station)   6,456   Government - Provincial/Territorial
The Green Grind	Toronto, ON	CaGBC LEED-CI	Retail   80   Commercial
<b>33</b> Lafarge Canada Technical Centre	Toronto, ON	CaGBC LEED-NC and major renovations	Laboratory   774   Commercial
<b>38</b> WestJet Campus Corporate Office Centre Phase I	Calgary, AB	CaGBC LEED-NC and major renovations	Office building   29,311   Commercial
West Vancouver Community Centre	West Vancouver, BC	CaGBC LEED-NC and major renovation	Community Centre   7,639   Government - Local
Surrey Campus Library Expansion	Surrey, BC	CaGBC LEED-NC and major renovation	Library   5363   University/College
<b>34</b> Menkes Union Tower Inc., 25 York St.	Toronto, ON	CaGBC LEED-CS	Office building   79,271   Commercial
Walkerton Clean Water Centre	Walkerton, ON	CaGBC LEED-NC and major renovations	Office building   2,013   Government - Provincial/Territorial
Columbia Power Corporation Tenant Improvements	Castlegar, BC	CaGBC LEED-CI	Office building   908   Other



PROJECT NAME	LOCATION	LEED GOLD	PROJECT TYPE   SIZE m <sup>2</sup>   OWNER TYPE
<b>31</b> 160 Bloor Street East	Toronto, ON	CaGBC LEED-EBOM	Office building   36,096   Commercial
Oliver Woods Community Center	Nanaimo, BC	CaGBC LEED-NC and Major Renovations	Community Centre   3,344   Government - Local
Haven Gardens	Cranbrook, BC	CaGBC LEED-NC and Major Renovations	Low-rise multi-unit residential (≤ 3 storeys)   1,785   Nonprofit
Lakefield College School - Cooper House	Lakefield, ON	CaGBC LEED-NC and Major Renovations	Low-rise multi-unit residential (≤ 3 storeys)   1,111   University/College
Ron Joyce Centre, McMaster University	Burlington, ON	CaGBC LEED-NC and Major Renovations	Lecture Hall   Classroom   9,624   University/College
Stantec Toronto Office	Toronto, ON	CaGBC LEED-CI	Office building   3,720   Commercial
Ashbury College Boys' Residence	Rockliffe, ON	CaGBC LEED-NC and Major Renovations	Low-rise multi-unit residential (≤ 3 storeys)   2,139   University/College
CENTURA	Ville St-Laurent, QC	CaGBC LEED-NC and Major Renovations	Mixed-use   12,773   Other
<b>40</b> Centennial Place	Calgary, AB	CaGBC LEED-CS	Office building   130,585   Commercial
<b>37</b> TD Waterhouse Tower	Toronto, ON	CaGBC LEED-EBOM	Office building   77,363   Commercial
Clinical Academic Campus	Kelowna, BC	CaGBC LEED-NC and Major Renovations	Office building   3,418   Government - Provincial/Territorial
Chatham-Kent Energy Data Centre	Chatham, ON	CaGBC LEED-NC and Major Renovations	Other   502   Commercial
First Peoples House	Victoria, BC	CaGBC LEED-NC and Major Renovations	Lecture Hall   Classroom   1,196   University/College
Quarry Park West	Calgary, AB	CaGBC LEED-CS	Office building   8,320   Commercial
SMART Technologies Headquarters	Calgary, AB	CaGBC LEED-NC and Major Renovations	Office building   19,600   Commercial
Honda Canada Headquarters	Markham, ON	CaGBC LEED-NC and Major Renovations	Office building   12,814   Commercial
Mount St. Joseph Green Building	Peterborough, ON	CaGBC LEED-NC and Major Renovations	Low-rise multi-unit residential (≤ 3 storeys)   5,115   Nonprofit
Allwest Furnishings Showroom and Offices	Edmonton, ON	CaGBC LEED-CI	Retail   1,872   Commercial
Collingwood Library & Municipal Office Bldg	Collingwood, ON	CaGBC LEED-NC and Major Renovations	Library   2,808   Government - Local
Scotia Plaza, 40 King Street West	Toronto, ON	CaGBC LEED-EBOM	Office building   233,711   Commercial
Jean Canfield Building	Charlottetown, PEI	CaGBC LEED-NC and Major Renovations	Office building   16,389   Commercial
Stouffville Toyota	Town of Whitchurch-Stouffville, ON	CaGBC LEED-NC and Major Renovations	Retail   2,778   Commercial
TOTAL REFIT OXFAM HOUSE	Ottawa, ON	CaGBC LEED-CI	Office building   1,391   Nonprofit
<b>30</b> Le Vistal I	Montreal, QC	CaGBC LEED-NC and Major Renovations	High-rise multi-unit residential (>10 storeys)   21,830   Commercial
City of Vancouver Engineering Services	Vancouver, BC	CaGBC LEED-CI	Office building   6,010   Commercial
Kingston INVISTA Centre	Kingston, ON	CaGBC LEED-NC and Major Renovations	Community Centre   15,259   Government - Local
<b>42</b> TELUS House Toronto	Toronto, ON	CaGBC LEED-CI	Office building   39,596   Commercial
Langara College Library Classroom Building	Vancouver, BC	CaGBC LEED-NC and Major Renovations	Library   7,788   University/College
<b>41</b> Sandvik Canada Corporate Office project	Mississauga, ON	CaGBC LEED-CI	Other   2,370   Commercial
Administrative Services Building	Victoria, BC	CaGBC LEED-NC and Major Renovations	Other   3,754   University/College
Department of Natural Resources - Richibucto Office	Richibucto, NB	CaGBC LEED-NC and Major Renovations	Office building   691   Government - Provincial/Territorial
Union Gas Windsor District Office	Windsor, ON	CaGBC LEED-NC and Major Renovations	Mixed-use   3,330   Commercial
<b>35</b> PowerStream South Operations Centre	Markham, ON	CaGBC LEED-NC and Major Renovations	Industrial   Manufacturing   10,343   Other



# 2011 LEED-CERTIFIED PROJECTS



PROJECT NAME	LOCATION	LEED GOLD	PROJECT TYPE   SIZE m <sup>2</sup>   OWNER TYPE
Bayer Commitment to Sustainability in Canada	Calgary, AB	CaGBC LEED-CI	Office building   2,608   Commercial
Raven Building	Victoria, BC	CaGBC LEED-CS	Office building   2,870   Commercial
Calvin Park Branch Library	Kingston, ON	CaGBC LEED-NC and Major Renovations	Library   1,056   Government - Local
<b>30</b> City of St. Albert Fire Station No 3	St. Albert, AB	CaGBC LEED-NC and Major Renovations	Public Safety (firehall, police station)   2,470   Government - Local
<b>39</b> ft3 offices at The Strand on Waterfront Drive	Winnipeg, MB	CaGBC LEED-CI	Mixed-use   690   Commercial
Langley Gateway of Hope	Langley, BC	CaGBC LEED-NC and Major Renovations	Mixed-use   2,921   Nonprofit
Carrefour de la coopération (Caisse Desjardins de Granby-Haute-Yamaska)	Granby, QC	CaGBC LEED-NC and Major Renovations	Bank   Credit union   13,200   Commercial
innoTECH Building	Waterloo, ON	CaGBC LEED-NC and Major Renovations	Office building   9,343   Commercial
LoyaltyOne Calgary Office	Calgary, AB	CaGBC LEED-CI	Office building   702   Commercial
Sunset Community Centre	Vancouver, BC	CaGBC LEED-NC and Major Renovations	Community Centre   2,505   Government - Local
Royal Botanical Gardens - Camilla and Peter Dalglish Atrium	Burlington, ON	CaGBC LEED-NC and Major Renovations	Assembly   1,480   Government - Local
École secondaire Roméo Dallaire	Barrie, ON	CaGBC LEED-NC and Major Renovations	High School   6,747   School Board
Food Production Facility Project - Parliamentary Precinct Branch - PWGSC	Ottawa, ON	CaGBC LEED-NC and Major Renovations	Other   2,335   Government - Federal



PROJECT NAME	LOCATION	LEED SILVER	PROJECT TYPE   SIZE m <sup>2</sup>   OWNER TYPE
BC Showcase	Vancouver, BC	CaGBC LEED-CI	Mixed-use   578   Government - Provincial/Territorial
Heavy Equipment Training Centre (HETC)	Winnipeg, MB	CaGBC LEED-NC and Major Renovations	Industrial   Manufacturing   5,500   University/College
Restaurant McDonald Saint-David	Beauport, QC	CaGBC LEED-NC and Major Renovations	Other   581   Commercial
275 Slater Street	Ottawa, ON	CaGBC LEED-EBOM	Office building   24,254   Commercial
Mental Health Building	Vancouver, BC	CaGBC LEED-NC and Major Renovations	Hospital   Clinic   6,280   Government - Provincial/Territorial
12 Millenium Boulevard Office Building	Moncton, NB	USGBC LEED-CS	Office building   6,534   Commercial
<b>45</b> Our Lady of the Snows & Notre-Dame des Monts	Canmore, AB	CaGBC LEED-NC and Major Renovations	K-9 School   5,198   School Board
Ædifica; Espace de Travail et de Vie.	Montreal, QC	CaGBC LEED-CI	Office building   2,191   Other
Alberta Water & Environmental Science Bldg.	Lethbridge, AB	CaGBC LEED-NC and Major Renovations	Laboratory   5,262   University/College
Rainbow Day Nursery	Winnipeg, MB	CaGBC LEED-NC and Major Renovations	Daycare   663   Other
Spruce Grove Delivery Depot	Spruce Grove, AB	CaGBC LEED-NC and Major Renovations	Industrial   Manufacturing   1,324   Government - Federal
Fidelity Toronto	Toronto, ON	CaGBC LEED-CI	Office building   1,781   Commercial
Social Services Integration Project	Parry Sound, ON	CaGBC LEED-NC and Major Renovations	Office building   1,421   Government - Local
BMW Group Canada Head Office	Richmond Hill, ON	CaGBC LEED-NC and Major Renovations	Office building   6,449   Commercial
Medtronic of Canada- Project Maple Leaf	Brampton, ON	CaGBC LEED-CI	Office building   4,272   Commercial
Fire Station No.7	Burnaby, BC	CaGBC LEED-NC and Major Renovations	Public Safety (firehall, police station)   1,500   Government - Local



PROJECT NAME	LOCATION	LEED SILVER	PROJECT TYPE   SIZE m <sup>2</sup>   OWNER TYPE
10 Peel Centre Drive, Suite B	Brampton, ON	CaGBC LEED-NC and Major Renovations	Public Safety (firehall, police station)   17,849   Government - Local
Nanaimo Fire Station #4	Nanaimo, BC	CaGBC LEED-NC and Major Renovations	Public Safety (firehall, police station)   768   Government - Local
Haworth, LTD New Toronto Showroom	Toronto, ON	CaGBC LEED-CI	Office building   1,128   Commercial
ORLANDO INDUSTRIAL BLDG.	Brampton, ON	CaGBC LEED-NC and Major Renovations	Industrial   Manufacturing   30,500   Commercial
Fidelity Montreal	Montreal, QC	CaGBC LEED-CI	Office building   1,051   Commercial
Langley Shopping Centre	Langley, BC	USGBC LEED-CS	Retail   3004   Commercial
Stouffville Pumping Station	Whitchurch-Stouffville, ON	CaGBC LEED-NC and Major Renovations	Other   327   Government - Local
Prologis Park Bolton- Building #1	Caledon, ON	CaGBC LEED-CS	Industrial   Manufacturing   38,694   Commercial
Centre des congrès de Quebec	Quebec, QC	USGBC LEED-EB	Assembly   46173   Commercial
Banque Nationale	Montréal, QC	CaGBC LEED-CI	Bank   Credit unionC   405   Commercial
Groupe Montoni Bâtiment B & C	Ville St-Laurent, QC	CaGBC LEED-NC and Major Renovations	Mixed-use   18,523   Commercial
West Vancouver Memorial Library	Vancouver, BC	CaGBC LEED-EBOM	Library   5,203   Government - Local
Construction du poste de la Sûreté du Québec de Laurier-Station	Laurier-Station, QC	CaGBC LEED-NC and Major Renovations	Public Safety (firehall, police station)   815   Government - Provincial/Territorial
ARC Resources Ltd.	Calgary, AB	CaGBC LEED-CI	Office building   16,565   Commercial
Gardiner Public School	Georgetown, ON	CaGBC LEED-NC and Major Renovations	K-9 School   5,602   School Board
Valley Creek Plaza	Brampton, ON	CaGBC LEED-CS	Retail   4,290   Commercial
PARK PLACE V	Dartmouth, NS	CaGBC LEED-NC and Major Renovations	Office building   11,795   Commercial
Square Benny	Montreal, QC	CaGBC LEED-NC and Major Renovations	Mid-rise multi-unit residential (>3<10 storeys)   10,799   Other
<b>43</b> Citypoint	Surrey, BC	CaGBC LEED-NC and Major Renovations	High-rise multi-unit residential (>10 storeys)   29,188   Other
Halsall Vancouver Office	North Vancouver, BC	CaGBC LEED-CI	Office building   521   Commercial
Le Phoenix - Condos Écolos	Montreal, QC	CaGBC LEED-NC and Major Renovations	Mixed-use   26,973   Other
Whistler High Performance Centre	Whistler, BC	CaGBC LEED-NC and Major Renovations	Sports Facility   1,682   Government - Local
East Dartmouth Community Centre	Dartmouth, NS	CaGBC LEED-NC and Major Renovations	Community Centre   1,855   Nonprofit
Waterloo Landfill South Workshop	Kitchener, ON	CaGBC LEED-NC and Major Renovations	Mixed-use   1,980   Government - Local
Mannheim Water Treatment Plant Expansion	Kitchener, ON	CaGBC LEED-NC and Major Renovations	Mixed-use   2,505   Government - Local
Frito Lay Canada, Vancouver Distribution Centre	Surrey, BC	CaGBC LEED-NC and Major Renovations	Industrial   Manufacturing   5,428   Commercial
Delmanor Northtown	Toronto, ON	CaGBC LEED-NC and Major Renovations	Mid-rise multi-unit residential (>3<10 storeys)   11,839   Commercial
Canada Post Hamilton - Letter Carrier Depot West	Ancaster, ON	CaGBC LEED-NC and Major Renovations	Industrial   Manufacturing   1,731   Commercial
Canada Post Woodstock - Letter Carrier Depot	Woodstock, ON	CaGBC LEED-NC and Major Renovations	Industrial   Manufacturing   1,147   Commercial
<b>44</b> McFeetors Hall: Great-West Life Student Residence	Winnipeg, MB	CaGBC LEED-NC and Major Renovations	Mid-rise multi-unit residential (>3<10 storeys)   6,882   University/College
Vista Place	North Vancouver, BC	CaGBC LEED-NC and Major Renovations	High-rise multi-unit residential (>10 storeys)   26,877   Commercial



# 2011 LEED-CERTIFIED PROJECTS



PROJECT NAME	LOCATION	LEED CERTIFIED	PROJECT TYPE   SIZE m <sup>2</sup>   OWNER TYPE
360 St. Jacques	Montreal, QC	USGBC LEED-EBOM	Office building   38,633   Other
Dickson Trail Crossing	Airdrie, AB	USGBC LEED-CS	Retail   4,937   Commercial
<b>47</b> The Taku Building	Whitehorse, YT	CaGBC LEED-CS	Mixed-use   2,440   Commercial
Vars Fire Station 73	Ottawa, ON	CaGBC LEED-NC and major renovations	Public Safety   736   Government - Local
KRAFT Oakville	Oakville, ON	USGBC LEED-EBOM	Industrial, Manufacturing   4,039   Commercial
Trico Centre Arena Expansion Project	Calgary, AB	CaGBC LEED-NC and major renovations	Sports Facility   3,303   Commercial
6750 Century Avenue	Mississauga, ON	CaGBC LEED-CS	Office building   9,122   Commercial
Hôtel M - Holiday Inn Express & Suites	Saint-Hyacinthe, QC	CaGBC LEED-NC and major renovations	Hotel, motel   5,573   Commercial
Chilliwack Hospital Redevelopment	Chilliwack, BC	CaGBC LEED-NC and major renovations	Hospital, Clinic   3,278   Public Health
3M Canada	Milton, ON	CaGBC LEED-NC and major renovations	Industrial, Manufacturing   28,688   Commercial
Barrymore Building	Toronto, ON	CaGBC LEED-CS	Mixed-use   7,244   Commercial
IGA Rivière-des-Prairies	Montréal, QC	CaGBC LEED-NC and major renovations	Retail   4,295   Commercial
Guelph Hydro Inc. - Southgate Drive Offices	Guelph, ON	CaGBC LEED-NC and major renovations	Office building   3,385   Government - Provincial/Territorial
FT Services - Corporate Office	Calgary, AB	CaGBC LEED-CI	Office building   1,543   Commercial
<b>46</b> Financière Sun Life/Daltile of Canada	Ville Saint-Laurent, QC	CaGBC LEED-NC and major renovations	Other   6,532   Other

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Morrison Hershfield is a North American leader in sustainability for the built environment and is committed to innovative ideas and solutions that will help our clients achieve their sustainability goals. We understand the complexity of the new generation of sustainable buildings.

- High performance green buildings are achieved as we strive for more efficient designs and simplified building systems. We are mindful of a broader range of possibilities and impacts while assessing synergistic trade-offs.
- Our specialists are all in-house thereby removing the geographical and social barriers that exist when design teams work with multiple firms. We are inherently integrated.
- We are committed to enabling our clients to achieve their sustainability goals with a wide palette of services, knowledge and tools.

Morrison Hershfield is pleased to have been involved with consultancy in major and recognizable green building projects across Canada



### Our Solutions

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## Chapelview Apartments | Brampton, ON

Chapelview is one of the largest affordable housing projects built in Ontario in the last 10 years. The 16-storey, 200-unit building for seniors and singles in downtown Brampton is the first multi-residential affordable housing project in Canada to receive a LEED Platinum Certification.

The project is funded by an unprecedented partnership between the Government of Canada, the Government of Ontario, the City of Brampton and the Region of Peel. On top of this, the project builder John D'Angelo of Martinway Development was able to achieve LEED Platinum without adding additional cost to the \$40 million project.

Through the creation and implementation of an internal Corporate Sponsorship Program Martinway was able to mitigate some \$3.4m of additional costs associated with achieving this certification. Designed by HCA Architecture Inc., Chapelview consists of six levels of underground municipal and residential parking and 15-storeys containing 200 apartment units. With the need to maximize occupant comfort, indoor air quality and building durability, while minimizing utility costs, affordable housing is particularly suited to green building design. With a passion and dedication to Affordable Housing and Special Needs Housing, Martinway is the only General Contractor in the Country who focuses exclusively in this very specialized form of housing. After receiving the Platinum Certification through the Canadian Green Building Council, Martinway's next goal is to utilize its Corporate Friends to raise subsidy funds for those people currently on the waiting list in the Region of Peel. Chapelview has received a number of awards to date but most recently, the prestigious International Sustainability "Energy Globe Award". Based in Austria, the international environmental prize is presented to projects which conserve and protect resources or which employ renewable energy.

Chapelview won the 2012 ENERGY GLOBE National Award for Canada for incorporating a range of "green" features into the building. According to John D'Angelo, principal of Martinway, winning the Energy Globe Award will draw more attention from all Canadians of the continual need for more affordable housing and special needs housing of high environmental standards in our communities.

## LEED PLATINUM



Enermodal Engineering, the LEED, Energy Efficiency and Building Commissioning consultant, advised on the following features:

- An independent ventilation system in every suite along with a well-insulated airtight building envelope, proper levels of insulation, and weather stripped suite doors gives superior air quality. Stale air is exhausted from the kitchen and bathroom.
- Each suite has operable windows for natural ventilation. The windows are double-glazed, low-e, and argon-filled with insulated spacers, and sized to admit sufficient daylight while minimizing energy loss.
- All paints, coatings and glues used inside the building contain very low levels of VOCs, and green cleaning products are phosphorous-free. Moreover, other interior materials were selected for their quality and recycled content - for example FSC-certified wood, doors are made from a wheat-based product, spray-foam insulation made from soya and recycled plastic bottles, and 100% recycled drywall and recycled carpet.
- Low-flow fixtures for faucets, toilets and showerheads save water.
- Occupancy sensors on hallway lighting save energy.
- A tri-sorter waste disposal can handle unwanted materials destined as waste, recycling, or organics to cut the amount of material sent to the landfill.
- The green roof on the twelfth floor absorbs some rainwater thus diverting it from the stormwater system. The green roof also increases green space and this helps to reduce the urban heat island effect.

**DEVELOPER/BUILDER** Martinway Developments Limited  
**LEED CONSULTANT** Enermodal Engineering **ARCHITECT** HCA Architects  
**STRUCTURAL CONSULTANT** Stephenson Engineering **MECHANICAL CONSULTANT** GPY and Associates  
**ELECTRICAL CONSULTANT** E-LUMEN ENGINEERING  
**LANDSCAPE CONSULTANT** Budrevics and Associates



### LEED SCORE CARD - PLATINUM

Sustainable Sites	12/14
Water Efficiency	5/5
Energy & Atmosphere	10/17
Materials & Resources	8/14
Indoor Environmental Quality	14/15
Innovation & Design	5/5
<b>TOTAL</b>	<b>54/70</b>





- Designed to reduce water, natural gas consumption and greenhouse gas emissions. Water consumption on average has been reduced by 75% compared to other fire halls through the use of low-flow faucets, showerheads and water-efficient landscaping.
- Constructed to provide educational opportunities on viability of sustainable construction and building operations to other municipalities, staff and residents.
- Selected materials based on VOC emissions, recycled content, as well as durability and maintenance.
- Minimized city's environmental footprint during construction by diverting approximately 85 metric tonnes of construction waste from local landfills through recycling.

## City of St. Albert Fire Station No.3



First fire hall in Alberta and second in Canada to receive LEED-Gold certification



Solar panels produce electricity and reduce greenhouse gas emissions.



## Le Vistal, Montreal

First high-rise residential condominium project in Quebec to receive LEED Gold certification

Le Vistal reflects Proment's values in developing buildings that are more energy efficient, healthier to live in and more environmentally sustainable. Balancing a commitment to the environment, quality construction and high design, Le Vistal offers an unparalleled lifestyle in the unique riverside setting of Nuns' Island.



Proment continues in its commitment to green building practices with its newest neighbourhood development, Pointe-Nord, which has received the LEED ND Gold certification.



## 160 Bloor Street East | Toronto

160 Bloor Street East in Toronto, is a 15-storey, multi-tenant commercial office building with a gross floor area of approximately 36,096 m<sup>2</sup>. It was constructed in 1983 and occupies the majority of the site and city block in a highly urbanized area of high-rises. The design and operation of the facility is intended to provide high quality lease space for tenants.

Since obtaining LEED-EB GOLD certification, the owner 'A Part of Credit Suisse Real Estate Fund International' [Canada] Leaseholds has made further improvement to infrastructure such as cooling tower replacement, and VFDs in compartmental units which have brought about increased efficiencies. Recycling efforts have been ramped up to yield 87% diversion rates with the goal of achieving even better results.

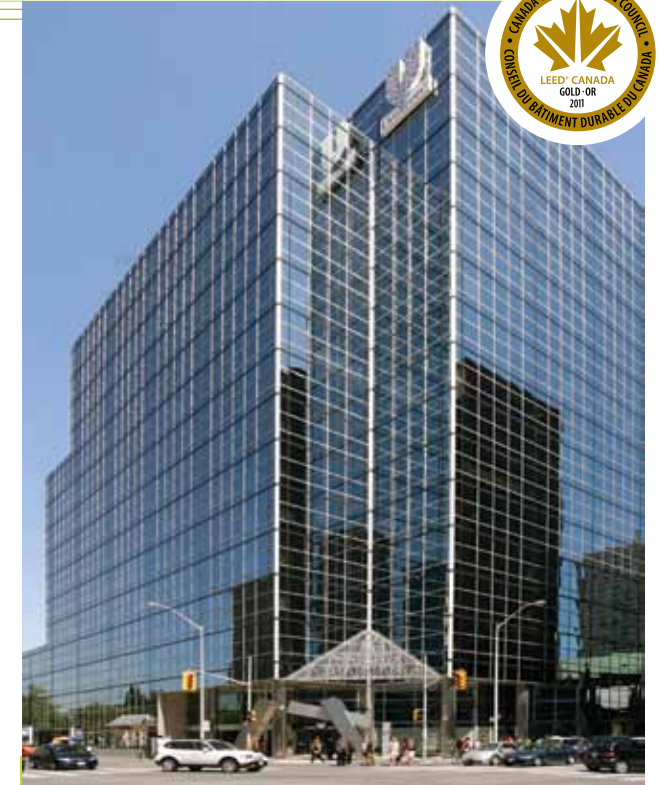
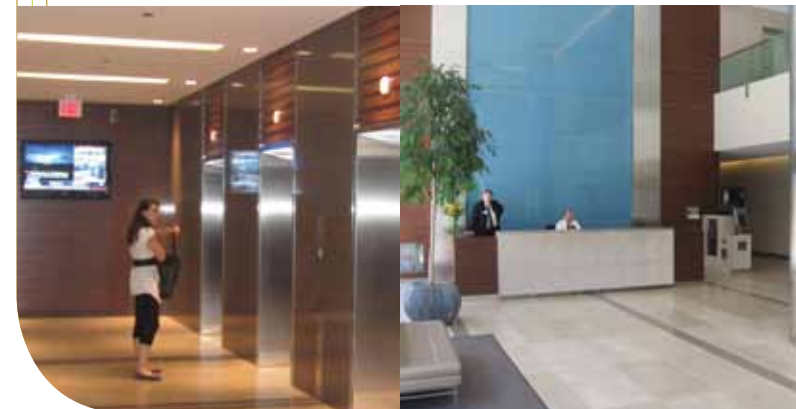
The building manager, Colliers International, has also committed to maintaining their LEED commitment over time. With the success that the base building has achieved, there are now tenants seeking LEED CI to align with the base building's LEED achievements. In further support of LEED, Colliers has achieved 100% occupancy and maintained one of the lowest operating costs in this market.

Colliers International, a leading global real estate services organization, is one of the founding global partners of the World Green Building Council and supports emerging GBC members. Colliers works with building owners to help them reduce the environmental footprints of their buildings, and to help them achieve LEED certification.



### LEED FOR EXISTING BUILDINGS SCORE CARD - GOLD [Certification awarded August 2011]

Sustainable Sites	19/26
Water Efficiency	5/14
Energy & Atmosphere	20/35
Materials & Resources	4/10
Indoor Environmental Quality	5/15
Innovation in Operations	6/6
Regional Priority	4/4
<b>TOTAL</b>	<b>69/110</b>



#### Achievements include:

- Upgraded HVAC system – high efficiency boilers and chillers
- Upgraded fixtures – low flow toilets installed
- Utilized infrared scan technology to identify and repair air leaks and drafts in the building envelope
- 25% lower green house gas emissions compared to similar buildings
- 83% of occupants do not use a car to commute, reducing GHG emissions
- Uses 2 million litres less water annually than similar sized buildings
- Green cleaning program and recycled content purchasing plan
- 70% of building waste diverted from landfills
- Low mercury content for lamps throughout base building
- 9,330 tonnes CO<sub>2</sub> of GHG emissions saved equivalent to taking 900 SUVs off the road for a year
- 4 Million ekWh/year saved equivalent to the energy use of 1100 single family dwellings
- \$20,000 lowered annual operation costs results in more capital available for building upgrades

**OWNER** A Part of Credit Suisse Real Estate Fund International  
**MANAGER** Colliers International **GREEN BUILDING CONSULTANTS** Halsall Associates **MECHANICAL CONSULTANT** Smith and Andersen  
**COMMISSIONING AGENT** CFMS **CARBON ACCOUNTING MANAGER** Loop Initiatives **AIR QUALITY CONSULTANT** AQE **GREEN CLEANING SERVICES** Hallmark Housekeeping **GREEN PEST PREVENTION** Canon Pest Control **WASTE & RECYCLE** Wasteco



SIEMENS



THE CAGBC LEED BUILDINGS IN REVIEW

# LAFARGE TECHNICAL CENTRE



64% restored open space

99% construction waste diverted from landfill

100% existing building shell reused



## PROJECT FACTS

LOCATION: 54 Polson Street, Toronto, On  
 TYPE: Industrial - Concrete testing laboratory  
 CONSTRUCTION TIME: Jan 2010 - Sept 2010  
 GENERAL DIMENSIONS: 7200 sq ft  
 CONCRETE SUPPLIED: Agilia™, Agilia™ Screed A, Artevia™, Chronolia™, Extensia™, Hydromedia™  
 VOLUME OF CONCRETE: 220 m3  
 CONSTRUCTION TEAM: Lafarge (Project Manager), Enermodal Inc. (LEED Consultants), Ireland Associates (Structural Design), Lehman & Associates (Mechanical & Electrical Design), Innocon Inc. (Concrete Supply), UCC Group (Forming & decorative Concrete), Lakeside Contracting (Site Servicing), Castle Plumbing and Heating (HVAC), Country Downs (Landscaping)

## First LEED® Certified Concrete Laboratory Toronto, Ontario

The new Lafarge Technical Centre, a facility dedicated to the design and development of innovative concrete materials, is a LEED® Gold designed and certified building. Located in the Toronto Port Lands, the facility encompasses the conversion of a storage warehouse into a functional, world class concrete research facility.

Lafarge incorporated innovative and sustainable ready mix concrete product solutions throughout the Technical Centre. Agilia™ self-consolidating concrete was used to build the core structure and the exposed interior partition walls. Agilia™ Vertical incorporated colour in addition to textured form liners for architectural detail. Agilia™ Horizontal utilized was designed to provide maximum light reflectivity in exposed ceilings to minimize lighting needs. Agilia™ Screed A, which incorporates a synthetic anhydrite binder instead of cementing materials, was used as a floor topping in the boardroom and offices.

Extensia™ was used in the remaining office (where it was polished) and the floor slab in the main working area. This prod-

uct is an integral element to the building's function, as a heavy duty floor slab was deemed necessary for long-term performance. Artevia™ Print Decorative concrete was used inside the building in the entrance foyer and kitchen areas. Artevia™ Polish was used in the exterior entrance slab.

The exterior parking area was constructed with a Hydromedia™ pervious pavement surface, providing both a reduction in the heat island effect, and an effective storm-water management system.



## Your budget does more when your facility consumes less.

Siemens can help your facility become smarter, more efficient and green.

[siemens.ca/buildingtechnologies](http://siemens.ca/buildingtechnologies)

Operations can account for 60% of the life cycle cost of a building, so managing energy and operational efficiency is critical to maintaining your facility's overall value. And it gets harder with age. Siemens experts can help your facility do more for less. We take the time to understand your operations and long-term business requirements. We then provide answers

tailored to meet your specific needs and budget constraints. With strategies, systems, services and financing options designed to maximize building performance, we can help your building reach peak efficiency at any stage in its life cycle. Greater efficiency means less waste, an improved environmental impact and more for your bottom line.

Answers for Canada.



## LEED® SCORE CARD

Certification Awarded Sept 26th 2011

Sustainable Sites	10/14
Water Efficiency	5/5
Energy & Atmosphere	7/17
Materials & Resources	9/14
Indoor Environmental Quality	7/15
Innovation & Design	5/5
<b>Gold</b>	<b>41*</b>





## 25 York Street, Toronto

Toronto's most prominent new office tower, the complex consists of 786,231 sq.ft. of 30 floors [30th through 2nd] of office space with the Ground Floor offering excellent Retail space. With a direct connection to Union Station, bus routes, subway routes, and in-building bicycle storage and showers, the occupants of 25 York Street have many alternatives to single occupancy vehicles.

Located on once-abandoned railway lands on the North/East corner of York Street and Bremner Boulevard, the project revitalized this site on Toronto's waterfront. This high-end tenant office building features a gourmet kitchen, rooftop garden patios, a fitness centre, prayer rooms, and massage rooms.

### Some of the measures taken include:

- Magnificent 11' ceilings with windows extending from floor to ceiling, maximizing the intake of natural light on each floor
- Pressurized raised floors provide individual temperature control for all employees and greater access to fresh air, reducing workplace illness and absenteeism
- Constant air-quality monitoring to ensure a healthier environment
- Occupancy sensors for automatic lighting whenever needed
- Constructed from environmentally-friendly materials
- Under floor HVAC distribution with voice, data and power results in lower leasehold improvement and construction costs
- Three levels of private and public parking are located beneath the tower
- Chilled water and steam provided by Enwave to provide cooling and heating for office tower.
- Cistern system collects rainwater and provides a filtered water supply for points of use in the lavatories and irrigation.



### LEED SCORE CARD GOLD

Sustainable Sites	7/14
Water Efficiency	3/5
Energy & Atmosphere	8/17
Materials & Resources	8/14
Indoor Environmental Quality	11/15
Innovation & Design	5/5
TOTAL	42/70

OWNER/DEVELOPER Menkes Developments Ltd. and HOOPP  
 ARCHITECT Adamson Associates and Sweeney Sterling Finlayson & Co.  
 LEED CONSULTANT Emermodal Engineering  
 STRUCTURAL ENGINEER Stephenson Engineering Ltd.  
 MECHANICAL ENGINEER The Mitchell Partnership Inc.  
 ELECTRICAL ENGINEER Mulvey and Bunani International Inc.



## PowerStream South Operations Centre | Markham, ON

The 107,000 sq.ft. building comprises a 60,000 sq.ft. indoor parking garage, a 20,000 sq.ft. warehouse and 27,000 sq.ft. of office space. The indoor parking garage has room for 45 large trucks. Outdoor parking can accommodate another 270 vehicles. It is home to almost one third of the utility's 500 employees.

In 2011, PowerStream, one of the largest municipally-owned electric utilities in Canada, had its South Operations Centre in Markham, Ontario become the company's second facility to achieve LEED® Gold certification. This new centre serves as another example of the utility's dedication to both environmental stewardship and providing its customers with safe, efficient, reliable power and related services.

The building's design is consistent with PowerStream's vision of being a socially responsible company, committed to the environment and sustainable growth. PowerStream's South Operations Centre, as well as the utility's LEED® Gold certified head office in Vaughan, Ontario, serve as testaments to PowerStream's commitment to the company's customers, the communities within its service territory and the environment in which we all live.



OWNER Bloorguard Investment Co. Ltd. REAL ESTATE AND PROJECT MANAGEMENT CresaPartners LEED CONSULTANT, ENERGY ENGINEER, COMMISSIONING AGENT, MEASUREMENT & VERIFICATION Emermodal Engineering STRUCTURAL ENGINEER TSE Consultants Inc. ARCHITECT Wes Surdyka Architect Inc. MECHANICAL/ELECTRICAL ENGINEERS JD Hubbert and Associates CIVIL ENGINEER EMC Group Limited CONTRACTOR Atlas Corporation INTERIOR DESIGNER Wes Surdyka Architect Inc. together with CresaPartners LANDSCAPE ARCHITECT Strybos Barron King Landscape Architecture

### LEED SCORE CARD - GOLD

Sustainable Sites	5/14
Water Efficiency	5/5
Energy & Atmosphere	12/17
Materials & Resources	7/14
Indoor Environmental Quality	7/15
Innovation & Design	5/5
TOTAL	41/70

### Some of the LEED® features include :

- A white roof to help keep the building cooler during the summer and warmer during the winter months
- HVAC systems free of harmful gases
- Drought-resistant plants and shrubbery
- An array of solar panels on the south-facing wall of the building that can generate up to 21.3 kW of electricity.
- The facility also has a water reservoir that collects and stores run-off rain water, funneling it into the wash bay, toilets and urinals.





## South Tower Residence | University of Victoria

The new 3,351m<sup>2</sup> student residence with common rooms, barrier-free rooms for disabled students, indoor bicycle storage, an exterior recycling area, and exterior charging stations for electric vehicles occupies a former parking lot. In addition to single dormitory-style rooms on lower floors, the residence has larger suites on the upper floors for graduate and mature students.

Designed as the first student residence to target LEED Gold certification, the project is committed to have a pilot program for 100% green cleaning products and methods for staff and residents.

### Some of the measures taken include:

#### Sustainable Sites

- Close to public transit
- Some on-site parking replaced by cycling amenities and a car-sharing program
- Site restored with native planting, concrete paving and open-grid planters
- Rain garden reduces storm water loading

#### Water Efficiency

- Low-flow fixtures
- Landscaping requires no irrigation

#### Energy & Atmosphere

- 55% reduction in energy cost compared to MNECB
- Energy savings achieved by high-efficiency heat pump, high-performance operable windows and building envelope, and energy-efficient lighting
- 100% of regulated electricity will come from renewable sources for at least two years

#### Materials & Resources

- 97% of waste diverted from landfill
- Building materials contain recycled content where possible
- Material sourced locally when possible

#### Indoor Environmental Quality

- Mechanical systems and building materials protected from dust and moisture during construction
- New filters installed post construction
- Low-VOC interior finishes
- All units have operable windows

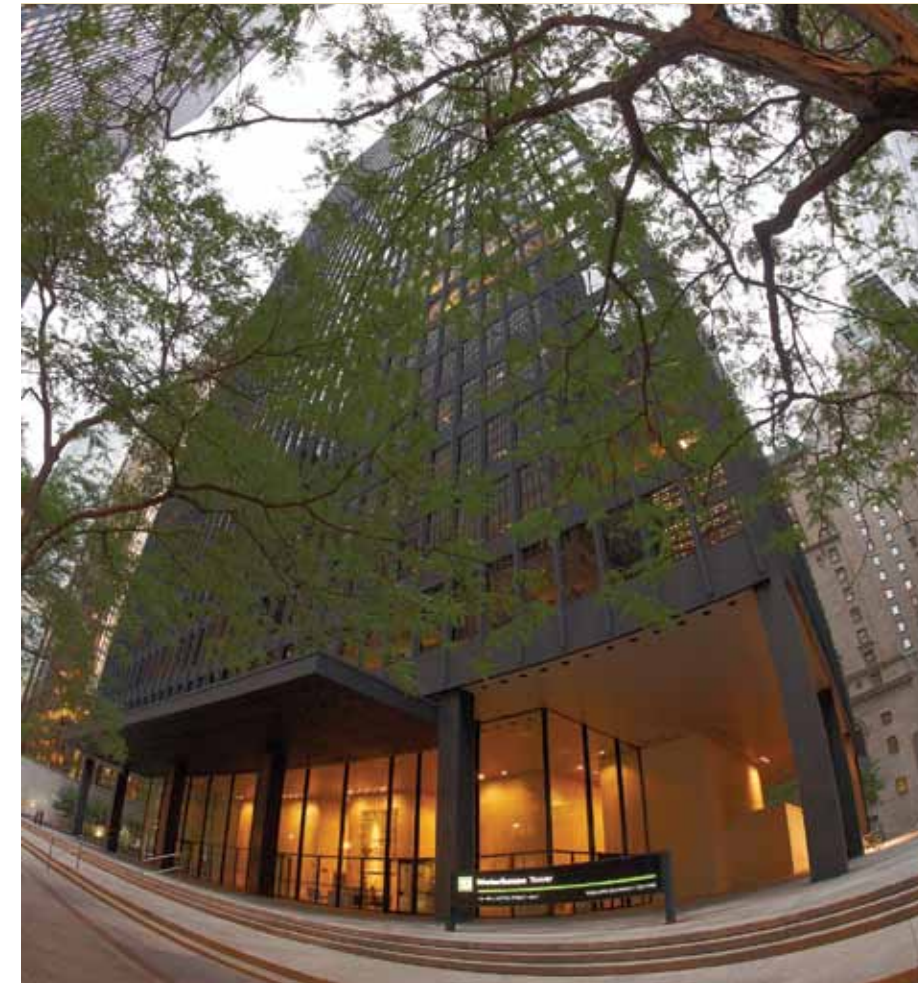
#### Innovation & Design

- Transportation Demand Management [TDM] program includes indoor bike storage, free bicycle bursary program, outdoor plugs for electric vehicles, and online Victoria Car Share Co-op program.

### LEED SCORE CARD - GOLD

Sustainable Sites	11/14
Water Efficiency	4/5
Energy & Atmosphere	11/17
Materials & Resources	7/14
Indoor Environmental Quality	14/15
Innovation & Design	5/5

**OWNER** University of Victoria **ARCHITECT AND LEED CONSULTANT** Stantec Architecture Ltd. **MECHANICAL ENGINEER** Genivar **ELECTRICAL ENGINEER** Applied Engineering Solutions Ltd. **CIVIL ENGINEER** Westbrook Consulting Ltd. **LANDSCAPE ARCHITECT** Vaughan Landscape Planning & Design Ltd. **GENERAL CONTRACTOR** Knight Contracting Ltd. **COMMISSIONING AGENT** Avalon Mechanical Consultants Ltd. **STRUCTURAL ENGINEER & BUILDING ENVELOPE** Read Jones Christoffersen Consulting Engineers



## TD Waterhouse Tower [Toronto-Dominion Centre] | Toronto

When TD Waterhouse Tower received its LEED® GOLD EB: O&M Certification in 2011, it was the second office tower within the 4.3 million sq. ft. Toronto-Dominion Centre to be honoured with the prestigious designation. This landmark, 39-storey, 650,000 sq. ft. tower, with its iconic Mies van der Rohe black exterior and timeless interior design, is yet another example of TD Centre's sustainable leadership within the Toronto real estate community and Cadillac Fairview's company-wide commitment to responsible environmental policies and practices.

Toronto-Dominion Centre changed the face of Canadian architecture when the TD Bank Tower opened for business in 1967. Located at the very centre of Toronto's vibrant financial district, TD Centre is home to international business and many of Canada's most influential companies. Today, with a total of six office towers and a tenant population of 20,000, it continues to set new standards for quality and comfort, operational performance and tenant service.

The LEED® certification of TD Waterhouse Tower was the result of a detailed process of property enhancements guided by the rigorous benchmarks established by Cadillac Fairview's national and award winning GREEN AT WORK™ program. GREEN AT WORK™ is a comprehensive program designed to establish industry leading standards and benchmarks for all Cadillac Fairview office properties in core sustainable disciplines.

The following initiatives helped TD Centre to meet the standards of the five LEED® Categories:

- Occupant Engagement Program®
- Enwave Deep Lake Water Cooling
- Location/Transportation
- Energy sub-meters
- Green Cleaning Program
- Web-based weather monitoring irrigation controller

For additional information about Toronto-Dominion Centre and its TDC Green initiatives, visit [tdcentre.com](http://tdcentre.com)

### Big Wins from LEED EB Certification

- 4.9 GWh of energy saved
- 12,000m<sup>3</sup> of water saved per year
- 1,000 tonnes of waste diverted a year
- 12 New sustainable operations policies
- 828 tonnes CO<sub>2</sub> of GHG emissions saved

### LEED SCORE CARD - GOLD

Sustainable Sites	18/26
Water Efficiency	11/14
Energy & Atmosphere	16/34
Materials & Resources	6/10
Indoor Environmental Quality	10/15
Innovation in Operations	5/6
Regional Priority	4/4
TOTAL	70/110

**PROPERTY MANAGER** Cadillac Fairview **GREEN BUILDING CONSULTANT** Halsall Associates **MECHANICAL CONSULTANT** H.H. Angus **COMMISSIONING AGENT** HFM **AIR QUALITY CONSULTANT** AQE **GREEN CLEANING SERVICES** Omni **GREEN PEST PREVENTION** Steritech **WASTE & RECYCLE** Cascades





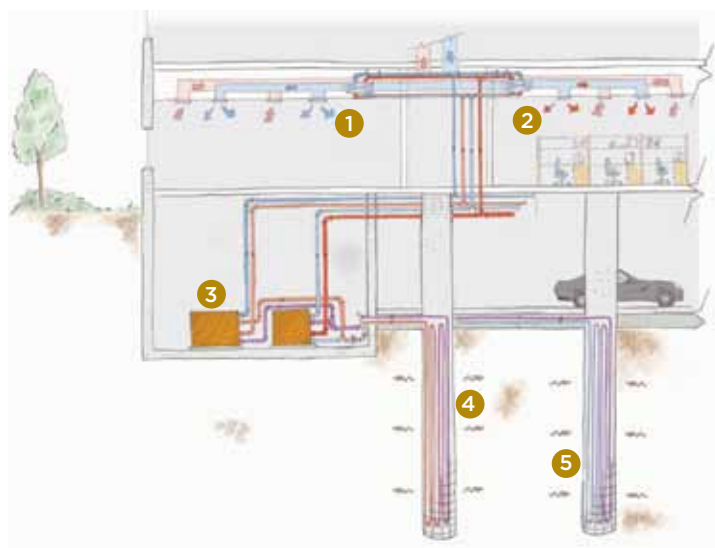


## WestJet Campus | Calgary

The six-storey 315,501sf WestJet Campus facility was developed to bring all Calgary team members under one roof and to encourage collaboration and team building.

The guiding philosophy for the WestJet headquarters design was the "right to light." There are no offices on the perimeter of the floor plan. Instead, the workstations have views to the outside. Closed offices at the centre of the floor plan back onto the atrium with large windows for natural light and attractive interior views. The colour pallet is crisp and clean and uses corporate colours, and the design solutions echo elements of the airline industry.

Dennis Dowling, WestJet's Director of Corporate Real Estate says that achieving LEED® Gold status fits with the company's commitment to environmental sustainability. For WestJet employees a green design simply means the overall impact of the building on the environment is reduced as energy and water consumption is reduced, natural resources are conserved and materials are re-used.



Hybrid geothermal exchange system

- 1 Cooled air for rooms with exterior walls
- 2 Warm supply air for interior rooms
- 3 Multiple heat pumps to provide hot and cold water for heat exchange at the same time
- 4 Disperses heat when water is a greater temperature than the surrounding earth
- 5 Absorbs heat when water temperature is less than the surrounding earth

### Some of the measures taken include:

- Rainwater captured from the reflective roof is stored in a 265,000 litre water tank for irrigating surrounding native landscaping.
- HVAC system includes a hybrid geothermal exchange system expected to be 50% more efficient than conventional systems, resulting in an annual savings of 1,300 tons of greenhouse gases.
- With high-efficiency fixtures the building uses 42% less water.
- Over 17% of materials used in the building, including concrete, carpets and furnishings, are made from reclaimed and recycled materials.
- Over 75% of construction waste recycled.
- WestJet promotes alternative transportation options such as carpooling, and provides bike racks and locker rooms for biking transport.
- Many features of the campus were built to support WestJet's youthful, unconventional corporate culture.

OWNER/DEVELOPER WestJet LEED CONSULTANT Stantec ARCHITECT Stantec STRUCTURAL, MECHANICAL AND ELECTRICAL ENGINEER Stantec CIVIL ENGINEER IDEA Group ENERGY ENGINEER Stantec LANDSCAPE ARCHITECT Stantec INTERIOR DESIGNER Stantec CONTRACTOR CANA COMMISSIONING AGENT Stantec

### LEED SCORE CARD - GOLD

Sustainable Sites	8/14
Water Efficiency	4/5
Energy & Atmosphere	11/17
Materials & Resources	5/14
Indoor Environmental Quality	11/15
Innovation & Design	4/4
<b>TOTAL</b>	<b>43/69</b>



## ft3 offices at The Strand on Waterfront Drive | Winnipeg



It's one thing to recommend green building and design solutions to your clients, but when it comes to putting principles into practice, ft3's experience is virtually unmatched.

When firm expansion dictated a move to more spacious quarters, ft3 took the unprecedented step of acting as both architect and developer on its new office space, to be housed in a mixed-used development on Winnipeg's historic Waterfront Drive.

The project began with a clear vision for a live/work environment that would not only conserve, but generate energy – physical, emotional and creative. The office needed to function optimally and employ cost-effective materials that prove durability and sustainability are indeed compatible.

The office concept blurs into the community and our connection to the world outside through organizational support for public transit, cycling to work, fitness and shower facilities. A high performance mechanical system delivers the office improved air quality through increased fresh air circulation, enhanced by operable windows offering panoramic views of a seasonally evolving riverfront. Abundant natural light flows into the space, where workstations are positioned to take best advantage.

Literally a working design laboratory, ft3's open office concept serves as a testing ground for finishes and materials as well as work practices that support collaboration and mentorship. Modular workstations permit easy flexibility, enabling multi-disciplinary project teams to work collectively. A variety of fixtures such as waterless urinals, low-VOC paint, millwork and flooring and exposed mechanical system elements permit clients an unmatched opportunity to assess the functional capabilities of environmentally-friendly design and building options.

### HIGHLIGHTS

- Project size: 7,500 sq.ft
- Project cost: \$700,000
- 98% of construction waste recycled
- 40% reduction in water use
- 98% outside views
- 94% daylight office space

ARCHITECT ft3 MECHANICAL ENGINEER TPR ELECTRICAL ENGINEER MCW/AGE COMMISSIONING Demand Side Energy

### LEED FOR COMMERCIAL INTERIORS SCORE CARD - GOLD

[Certification awarded March 16, 2011]

Sustainable Sites	4/7
Water Efficiency	2/2
Energy & Atmosphere	5/12
Materials & Resources	8/14
Indoor Environmental Quality	8/17
Innovation & Design	5/5
<b>TOTAL</b>	<b>32/57</b>







## Centennial Place | Calgary

### World class office amenities meet green design

The 133,206 sq.m Centennial Place, is Oxford Properties largest new build LEED CS [Core & Shell] Gold certified project in Canada. The complex is located in the desirable Eau Claire district and is comprised of a 40-storey East Tower and 23-storey West Tower, which rest on a common 2-storey podium and five level underground parking facility. Oxford's Centennial Place customers enjoy unobstructed views of the majestic Rocky Mountains and Bow River Valley.

#### Sustainable site

The project provides excellent access to public transportation and cycling paths, with indoor storage for 243 bicycles, shower and locker facilities for cyclists and an allocation of 70 carpool spaces in the parkade. The underground parking facility, white reflective roofing and a 675 sq.m vegetated roof planted with hardy Sedum plants reduce the urban heat island effect.

A high quality glass and metal curtain wall of light reflective glass with low-E coating improves occupant comfort and energy efficiency while making this project a striking landmark.

#### Mechanical and Lighting efficiency

Heating is supplied by hydronic radiant perimeter panels, supplied by high-efficiency variable speed pumps and condensing boilers. For comfort and energy efficiency, each floor is divided into approximately 35 HVAC zones controlled by Direct Digital Control ensuring optimum interior space comfort from solar and non-solar loads. Each zone has independent thermostat control and ventilation supply boxes. Light fixtures are equipped with an integrated occupancy sensor ensuring that lighting is only provided when required.

#### Green operations

A best in class waste management program means that only materials that cannot be recycled, reused, or composted are sent to the landfill.

A green housekeeping program ensures the use of concentrated cleaners to reduce shipping energy and packaging waste, GreenSeal, GREENGUARD, CRI, and EcoLogo certified products, and reusable microfibre cloths. Daytime office cleaning ensures that the towers remain dark at night.

#### Water efficiency

Low-flow fixtures use 34% less indoor water than a conventional building. There is no irrigation used on the site or on the 675 sq.m vegetated roof on the central podium.

### LEED SCORE CARD - GOLD

Sustainable Sites	7/14
Water Efficiency	4/5
Energy & Atmosphere	8/17
Materials & Resources	7/14
Indoor Environmental Quality	11/15
Innovation & Design	5/5
<b>TOTAL</b>	<b>42/70 points</b>

**OWNER** OMERS Realty Corporation **DEVELOPMENT MANAGER** Oxford Properties Group **DESIGN ARCHITECT** WZMH Architects **DESIGN ARCHITECT** WZMH Architects **PROJECT ARCHITECT** Gibbs Gage Architects **LEED CONSULTANT, ENERGY ENGINEER, BEST PRACTICE COMMISSIONING AGENT** Enermodal Engineering **STRUCTURAL ENGINEER** Read Jones Christoffersen Ltd. **MECHANICAL ENGINEER** Smith and Andersen Consulting **ELECTRICAL ENGINEER** Mulvey + Banani International **LANDSCAPE ARCHITECT** Carson McCulloch Associates Ltd. **FUNDAMENTAL COMMISSIONING AGENT** CFMS Consulting **CONTRACTOR** PCL Construction Management Inc.

OXFORD



## Sandvik Canada Corporate Office | Mississauga, ON

In achieving Gold level LEED® CI certification, the design team strove to make additional contributions to the overall sustainability beyond the LEED rating level. The resulting building is a healthy, beautiful, functional workspace with a minimal impact on the environment, and a positive impact on Sandvik employees and guests.

#### Site and Building Selection

The team chose a LEED Core & Shell structure based on its high energy efficiency and environmental stewardship. It has a reflective roof to cut down on heat island effect and reduce summer cooling loads.

#### Energy & Atmosphere

Separately zoned HVAC systems allow Sandvik to control the environment based on heat input in different parts of the building. Daylight harvesting and motion sensors reduce electricity use, and gas and electricity are metered separately and billed directly to make users more aware. Sandvik supports a cleaner grid by buying wind power.

#### Water Efficiency

The site uses native and adaptive vegetation that thrives on very little water, eliminating the need for an irrigation system. Low water consumption urinals, dual flush toilets, showerheads, and low-flow aerators significantly reduce water use.

#### Reduced consumption of materials

Using recycled and locally-sourced materials during construction diverted significant waste and lowered the need for virgin materials. A full-scope recycling system for consumables and

organic compost is an important part of Sandvik's day-to-day operations.

#### Indoor Air Quality

Materials were chosen for zero emissions, and the space was "flushed" after construction with fresh air, eliminating odours and particulates. Carbon dioxide sensors modulate fresh air based on changing occupant loads. Cleaners use only non-toxic, third-party certified Green Seal® and Environmental Choice® cleaning products to safeguard occupant health and prevent toxic chemicals from entering the waste water system.

#### Daylighting

The layout maximizes daylight and outdoor views by placing all regularly occupied rooms along the perimeter. Solar tubes feed light into the centre of the building, reducing the need for artificial light in those areas.

#### Carpooling

Sandvik enables carpooling with designated, conveniently placed parking spots and a ride share program, and provides bike racks and showers. A flexible telecommuting policy is in effect where possible.

### LEED SCORE CARD - GOLD

Sustainable Sites	5/7
Water Efficiency	2/2
Energy & Atmosphere	7/12
Materials & Resources	6/14
Indoor Environmental Quality	9/17
Innovation & Design	5/5
<b>TOTAL</b>	<b>34/57</b>

**OWNER/DEVELOPER** Daniels Capital Group **LEED CONSULTANT** Stantec **STRUCTURAL, MECHANICAL AND ELECTRICAL ENGINEER** Stantec **INTERIOR DESIGNER** Design Stream **CONTRACTOR** Maple Reinders **COMMISSIONING AGENT** CFMS Consulting **PROJECT MANAGER** Facility Management Group







### LEED SCORE CARD - GOLD

Sustainable Sites	3/7	OWNER/DEVELOPER	Menkes Developments	LEED CONSULTANT	Enermodel Engineering Ltd.
Water Efficiency	2/2	ARCHITECT	Adamson Architects and Sweeney Sterling Finlayson & Co. Architects Inc.	STRUCTURAL	Stephenson Engineering Ltd.
Energy & Atmosphere	6/12	MECHANICAL ENGINEER	The Mitchell Partnership Inc.	ELECTRICAL ENGINEER	Mulvey & Banani International Inc.
Materials & Resources	7/14	LANDSCAPE ARCHITECT	The MBTW Group	INTERIOR DESIGNER	Kasian Architecture
Indoor Environmental Quality	9/17	CONTRACTOR	Menkes and Govan Brown	COMMISSIONING AGENT	Menkes
Innovation & Design	5/5				
<b>TOTAL</b>	<b>32/57</b>				

## TELUS House | Toronto

Welcome to TELUS House Toronto, a stunning signature office tower that has set a precedent for innovation and environmental sustainability in Canada's largest city. Offering breathtaking views of the city's waterfront and skyline, this magnificent building is one of the first properties in the Greater Toronto Area to be awarded LEED Gold certification by the Canada Green Business Council.

Praised as one of the most technologically advanced and environmentally sustainable buildings in North America, this \$250 million, 30-storey tower in the heart of Canada's business epicentre is also a commuter's dream, providing street-level access to Toronto's PATH underground walkway which links to Union Station - the busiest transit hub in the country.

TELUS House Toronto features floor-to-ceiling windows fitted with programmable blinds and auto-dimming lighting, which work together to maximize natural light, reducing electricity consumption by 25%. The building's advanced heating and cooling system further reduces energy costs by up to 60%, and the storm water management system recycles rain water for washroom toilets and outdoor irrigation, reducing water use by 10 million litres per year.

More than 1,600 employees who were previously located at 15 different offices across the GTA now work together under one green roof. Connected through wireless technology that facilitates mobility, TELUS team members can work on any floor in open work spaces, glass-walled meeting rooms or even on the rooftop terrace.

TELUS is committed to creating healthier and greener communities, truly embracing its brand promise: The Future is Friendly®.



## CITYPOINT

Citypoint is the largest LEED certified building - in size and as a residential development - in the City of Surrey

Developed by Century Group, Citypoint includes two residential high rise towers with 452 units with integrated amenities and park areas, and five commercial spaces on the ground level. It is located adjacent to Gateway SkyTrain, walking distance to Surrey City Centre and features two shared vehicles - the first in partnership with a development in Surrey - through Modo The Car Co-op.

Century Group focused on rethinking the conventional residential development, and at every opportunity sought out efficiencies in energy and building materials - such as hot water radiant heating - and reducing waste generated and resources used. The exterior building envelope creates an optimal ratio between window and wall to improve energy efficiency and maintain spectacular views and daylighting.

Improved indoor environment, and energy and water savings were partly achieved through in-suite hardwood flooring and quartz counter tops, natural wool carpets in the bedrooms, low-E windows on all exteriors, Energy Star appliances, and low-flow fixtures.

Citypoint is a 'walkable' community, built blocks away from a mix of shopping, office towers and commercial buildings, it also has its own small retail centre with food and services on the street level.

Citypoint is part of the transformation of Surrey City Centre and supports Surrey's sustainability commitment to energy efficiency, low carbon impact and environmental standards. Citypoint also supports the City's Built Surrey strategy, which commits to expansion of Surrey City Centre, as well as five other town centres.

### HIGHLIGHTS

Energy savings per year	37%
Savings in water consumption per year	45%
Building materials manufactured within 800km	39%
Recycled content of materials used	24%
Construction waste diverted from the landfill	82%

### LEED SCORE CARD - SILVER

Sustainable Sites	8/14
Water Efficiency	3/5
Energy & Atmosphere	5/17
Materials & Resources	6/14
Indoor Environmental Quality	11/15
Innovation & Design	5/5
<b>TOTAL</b>	<b>38/70</b>

OWNER Century Group ARCHITECT Raymond Letkeman Architects MECHANICAL ENGINEER Sterling Cooper & Associates ELECTRICAL ENGINEER Nemetz [S/A] + Associates STRUCTURAL ENGINEER Glotman Simpson Consulting LANDSCAPE ARCHITECT Pawel Gradowski, Durante Kreuk GENERAL CONTRACTOR ITC Construction Group LEED CONSULTANT Recollective BUILDING ENVELOPE Morrison Hershfield INTERIOR DESIGN Portico Design Group







## McFeetors Hall: Great-West Life Student Residence and University of Winnipeg Students' Association Day Care | Winnipeg

McFeetors Hall, the only university student residence in Manitoba to receive LEED Silver certification, features 25 townhouses throughout the 82,000 sq. ft. complex offering one, two and three bedroom apartments with kitchens, living and dining areas to accommodate students with families, a unique concept among universities in Canada and 176 dorm-style beds accommodating students in single and double bedroom suites. Two lounge areas offer 29-foot windows with spectacular urban views and wireless internet.

Adjoining McFeetors Hall is the 10,300 sq. ft. UWSA Daycare, the only daycare in Manitoba to receive LEED Silver certification. It accommodates 112 children of students, faculty, staff and the surrounding community, making it one of Winnipeg's largest inner-city daycares. It includes a natural, fenced outdoor play area for children.



- LEED accomplishments include:**
- water efficiency: aerator faucets and dual-flush toilets cut water use by 46% to 55%
  - energy efficiency: well insulated, energy recovery ventilators, occupancy sensors, and energy efficient-light fixtures combine to lower energy costs by 38% to 44% compared to the Model National Energy Code. The fire suppression system contains no halons, and all systems are free of chlorofluorocarbon [CFC] and hydrochlorofluorocarbon [HCFC]. Geothermal heats and cools common areas.
  - materials selection: 80% of construction wastes were recycled or salvaged and 25% to 32% of building materials used were extracted or manufactured within an 800 km radius
  - sustainable site development: constructed on a previously developed site, close to bus routes, incorporating green space for daycare
  - indoor environmental quality: optimal ventilation, carbon dioxide sensors, and more than 90% of occupied spaces have line of site to outdoors; 75% of regularly occupied areas receive daylight

### LEED SCORE CARDS - SILVER

Student Residence	
Sustainable Sites	6/14
Water Efficiency	2/5
Energy & Atmosphere	6/17
Materials & Resources	6/14
Indoor Environmental Quality	9/15
Innovation & Design	4/5
<b>TOTAL</b>	<b>33/70</b>

UWSA daycare	
Sustainable Sites	6/14
Water Efficiency	2/5
Energy & Atmosphere	7/17
Materials & Resources	5/14
Indoor Environmental Quality	11/15
Innovation & Design	4/5
<b>TOTAL</b>	<b>35/70</b>

**OWNER** University of Winnipeg **ARCHITECT** Prairie Architects Inc. **MECHANICAL ENGINEER** Faraci Engineering Ltd. **ELECTRICAL ENGINEER** MCW/AGE **STRUCTURAL ENGINEER** Wolf from Engineering Ltd. **LANDSCAPE ARCHITECT** Scatliff + Miller + Murray **GENERAL CONTRACTOR** Man-Shield Construction Inc. **LEED CONSULTANT** Integrated Design Inc. **UNIVERSITY PROJECT MANAGER** University of Winnipeg Community Renewal Corporation **DEVELOPER** LTD Ventures Inc. **PROJECT MANAGER** Chartier Property Management Inc.



## 2011 OUR LADY OF THE SNOWS CATHOLIC ACADEMY & ÉCOLE NOTRE-DAME DES MONTS

Christ the Redeemer Catholic Schools & Conseil scolaire catholique et francophone du Sud de l'Alberta

Canmore is home to a new and unique educational facility; the partnership of two independent schools: Our Lady of the Snows Catholic Academy (OLS) and École Notre-Dame des Monts (NDM). The facility is nestled at the base of the Three Sisters Mountain. The school's design responds to the beautiful mountain location, as well as to a commitment to sustainability, maximizing daylight, providing views and the use of appropriate building materials.

The construction of the new facility achieved a LEED 'Silver' rating under the CaGBC guidelines. The school site was designed to encourage the replenishment of ground water through a storm water management and treatment system which provides natural filtration, as well as through the minimization of paved parking space. Alternate transportation is encouraged by offering a generous amount of bicycle storage and car-pooling stalls. The design includes clerestory windows, low VOC materials, plentiful natural light and good indoor air quality.

Quinn Young Architects Ltd.  
BEI Engineering Inc.  
Wiebe Forest Engineering  
Stebnicki + Partners  
Stuart Olson Construction  
Project Size: 55,951 ft<sup>2</sup>  
Project Cost: \$16,000,000



- 19% of construction materials have recycled content
- 53% reduction in energy consumption
- 75% of construction waste diverted from landfill
- 90% of regularly occupied spaces have views to the outdoors

During construction, 57 per cent of material was regionally sourced and 75 per cent of waste material was salvaged, reused and recycled. Recycling containers are located throughout the schools and are managed by the schools' recycling club.

Energy savings was another focus of this project. Energy efficient mechanical and electrical systems are expected to reduce natural gas and electricity use by 53 per cent. Low flow water closets and faucets achieved a 52 per cent reduction in water use. A 5-year green power contract was implemented, providing 50 per cent of the building's electricity from renewable energy sources.



### LEED SCORE CARD

LEED for New Construction Certification awarded January 2012

SILVER 36*	
Sustainable Site	3/14
Water Efficiency	4/5
Energy & Atmosphere	9/17
Materials & Resources	6/14
Indoor Environmental Quality	9/15
Innovation & Design	5/5





### Some sustainable development features for this project are:

- Construction waste triage and management
- Mulch and bury cut trees on site
- Site de-watering [percolate on site]
- Re-use approved site material for backfill
- Geotextile protection of all catch basins and manholes
- Use locally-sourced materials
- Maximize use of recycled materials
- Use crushed-stone "mud" pad to reduce dirt off site
- Use silt and erosion control fencing
- Provision of a bike rack and car-pooling parking spaces
- Install stormceptor to control and filter outgoing water to the city sewers
- Add fly-ash in concrete mix
- TPO membrane roof with R-20 insulation [so called white roof] instead of the more traditional EPDM membrane
- Indigenous and drought-resistant landscaping
- Water-use reduction of between 20% and 30% from conventional with flow control
- Increased Energy Performance with more insulation for the roof and walls
- Use of infra-red heating
- Insulated overhead garage doors
- Fresh air make-up unit with heat wheel
- T-5 lighting with motion sensors
- CO detectors in office areas
- Upgrade to high-performance rooftop HVAC unit with ERV and R-410 refrigerant
- Use of low VOC paints and plastic laminates
- Use of FSC wood
- Eco-certified insulation
- Low-E window sections with Argon gas
- Low-consumption and electronic flush plumbing fixtures
- Humidification within the HVAC system
- Motion detectors in office area lights
- Reduction of light levels in offices

### LEED NC SCORE CARD - CERTIFIED [Certification January 12, 2011]

Sustainable Sites	5/14
Water Efficiency	4/5
Energy & Atmosphere	5/17
Materials & Resources	7/14
Indoor Environmental Quality	4/15
Innovation & Design	2/5
<b>TOTAL</b>	<b>27/70</b>



## Daltile of Canada at Sun Life's Premier Industrial Site | Montreal

The Daltile building is a state-of-the-art multi-tenant development project with a total leasable area of 70,700 sq.ft. The warehouse portion of the building features a clear height of 28 ft. underside of steel joists, a column grid of 36 ft. by 38 ft. and a shipping area comprised of one truck-level door per bay and three drive-in doors. The building has been demised into two premises, one premise of 40,000 square feet, and one premise of 30,700 square feet.

The size of the individual premises within the building, the office component proportion, the clear height in the warehouse and the design of the shipping areas all combine to produce a building which is well-suited for the showroom multi-tenant industrial market with visibility on a heavily travelled highway and which has considerable appeal to space users generally. The LEED component credits achieved for LEED NC certification are 27 in total.

**OWNER** Financière Sun Life **DESIGN-BUILDER** Loracon Construction  
**ARCHITECT & LEED AP** Gross Kaplin Coviensky **TENANT** Daltile of Canada



### LEED SCORE CARD - CERTIFIED

Sustainable Sites	4/14
Water Efficiency	2/5
Energy & Atmosphere	7/17
Materials & Resources	6/14
Indoor Environmental Quality	6/15
Innovation & Design	2/5
<b>TOTAL</b>	<b>27/70</b>



#### Sustainable design strategies include:

- The first installation of a refrigerant VRF system in the Yukon.
- An energy model indicated a 44% energy cost savings relative to the NRC Model National Energy Code for Buildings.
- Maintained and upgraded building shell.
- An IAQ plan was implemented during construction.
- Water reduction is established through the use of low flow faucets, toilets and showerheads.
- Recycling was also a priority during the renovation.
- Five water-to-air heat pumps were incorporated into the display cabinets and storage rooms.

**OWNER** Taku Investments Inc. **ARCHITECTURE AND ENGINEERING** Stantec Architecture Ltd., formerly FSC Architects and Engineers provided Architectural Design, Mechanical Engineering, Electrical Engineering and the LEED application **STRUCTURAL ENGINEERING** Wood and Associates



## Taku Inn Renovations | Whitehorse, YT

The renovation of this important heritage building began in 2008 and was granted Yukon's first LEED® commercial building 'Certified' accreditation in December 2011. Situated on Main Street at 4<sup>th</sup> Avenue in downtown Whitehorse the historical Inn had deep roots in the public memory and by renovating the building its place in history is secured for years to come. Located on a busy thoroughfare two public transit stops are only a block apart, on either side of the street. Bicycle use is encouraged by the installation of a new interior secure bicycle storage and shower. No on-site vehicle parking is available as the existing Inn was built to the zero lot line zoning.

Originally the building was a decrepit three storey hotel with a bar and restaurant on the main floor which was completely retrofitted into a mixed-use retail and office building. The owner's project requirements [OPR] were:

- Maintain building's historic character;
- Upgrade building structure to current Building Code requirements;
- Fast track construction of main floor retail space;
- Install an energy efficient mechanical heating and cooling system and
- Apply for LEED™ 'Certified' rating for high efficient buildings.

Designers worked to maintain as much of the existing historical building as possible, while retrofitting it for modern use. The building interiors were completely gutted and demolished. Exterior walls were substantially increased in width to allow more mineral insulation and increased thermal and physiological comfort. All windows were replaced with operable, triple glazed, low-E and provide individual natural ventilation.





# VALUE THROUGH INNOVATION



As a Canadian manufacturer of High-Efficiency Windows and Doors for building envelopes, INLINE is a proud supplier of fiberglass windows for the Brickworks project. INLINE triple-glazed windows installed in the Brickworks provide an R-8 centre-of-glass insulating value. That gives the highest possible impact to the envelope's weakest point.

## Evergreen Foundation Brickworks

Construction Design: Targetting LEED Platinum Contractor: Eastern Construction  
Architect: Diamond + Schmitt Architects/Du Toit Architects Limited



**40 Oaks in Regent Park - Toronto Christian Resource Centre**  
Contractor: Buttcon Limited  
Architect: Hilditch Architect



**Toronto Community Housing - Regeneration of Rental Housing**  
Contractor: Lisgar Construction Company  
Architect: Van Elslander Carter Architect Incorporated

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