

# CONCRETE

# Build for life™

## CENTRE FOR SUSTAINABLE DEVELOPMENT

50 Saint-Catherine St. W., Montreal

**Completed:** 2011  
**Height:** 5 storeys  
**Size:** 6,360 m<sup>2</sup>  
**Owner:** Équiterre  
**Architect:** Menkes Shooner Dagenais Letourneaux Architects  
**LEED Rating:** LEED® Canada New Construction Platinum certification, 2013

### BUILT FOR A LOW CARBON, CLIMATE RESILIENT FUTURE

When Québec's prominent environmental organization Equiterre set out to design and build 'the most energy-efficient and least energy intensive building in Canada' in collaboration with seven other socially and environmentally minded organizations in Montreal, they embarked on an unprecedented journey to understand the 'big-picture' implications of various design and material choices.

The project's multidisciplinary design team found that using concrete as the structural material provided tremendous advantages across a range of criteria.



### Energy Savings

The building's design takes full advantage of the energy efficiency benefits of the concrete's thermal mass.

The floors in the building's office spaces are raised, leaving a 305-mm space between the exterior surface of the floor and the concrete slab below. The space houses a ventilation system that delivers conditioned air directly to occupants, using less energy than conventional ventilation.

The building has achieved energy savings of over 40% compared to an equivalent conventional building, year after year.

### Fire mitigation Savings

With concrete being non-combustible, the building also achieved savings on fire mitigation estimated at \$2 million. This is valuable capital that could be reallocated to energy efficiency investments.

### Smaller building envelope

Concrete also allowed for a smaller building envelope, minimizing material needs, reducing operational heat loss, and maximizing interior floor space and potential rental income.

### A local product

Équiterre was also attracted to the local nature of concrete, which could be sourced within 50 kilometers of the project compared to almost 1,000 kilometers for alternative materials.

### Durability and Resilience Benefits

Concrete's durability and resilience in the face of wind-driven rain and other forms of environmental degradation, which leads to lower maintenance and longer service-life structures, were also key considerations in selecting concrete.



## AWARDS

- Jury's Choice Award - Energia Contest 2014
- Award of Excellence - Canadian Consulting Engineering Awards, 2013
- 2013 People's Choice Award - Quebec Order of Architects
- Visionary Award - Quebec Consulting Engineering Awards
- 2012 Real Estate Excellence Award - Quebec Institute for Urban Development