

# AIA Honor Awards and the Design Record

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# AIA Honor Awards



Recognize architectural achievements to:

- elevate the general quality of architecture practice
- establish a standard of excellence against which all architects can measure performance
- inform the public of the breadth and value of their contributions.

# How are these records used?

Members use the information in award submissions:

- As successful examples for future applications
- For evidence-based practice
- For post-occupancy evaluations of award-winning buildings
- To inform discussion on design trends in specialty areas
  - ex: Detention facilities over 5,000 square feet that are located in the Western US

# Changing formats

- From slides and paper to PDFs and TIFFs



# Practitioners driving change



- Committee on the Environment
- Design For Aging Review
- Justice Facilities Review

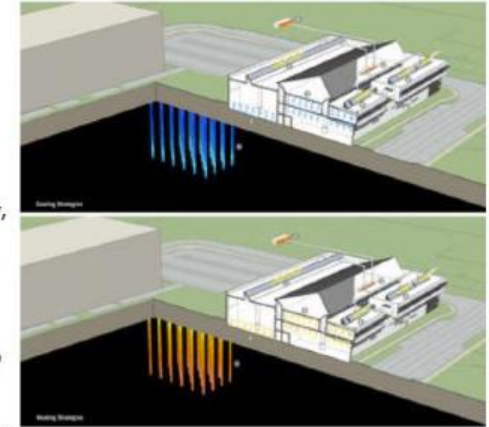
# Extensive information gathering

- ▶ Project Overview
- ▶ Design & Innovation
- ▶ Regional/Community Design
- ▶ Land Use & Site Ecology
- ▶ Bioclimatic Design
- ▶ Light & Air
- ▶ Water Cycle
- ▶ Energy Flows & Energy Future
- ▶ Materials & Construction
- ▶ Long Life, Loose Fit
- ▶ Collective Wisdom & Feedback Loops
- ▶ Other Information
- ▶ Additional Images
- ▶ Project Team and Contact Information
- ▶ Jury Comments

- COTE Top 10 awards are still only capturing text/image to describe complex buildings and interactions

## Energy Flows & Energy Future

Passive strategies described in Step 5 provide the groundwork for system selections. Renewable energy opportunities were tested and identified. The vast roof allowed for extensive renewable source installations which include the solar wall described in Step 6 and a large solar thermal panel installation. 209 solar thermal collectors harvest heat energy year round. Thermal energy collected in solar tanks is used for building radiant heating and domestic water heating. Collectively, the tanks have 40,000 gallons of hot water storage capacity, which equates to three days of heating for the building. Any excess thermal or process energy is discharged to the 152 m deep, 80 well, geo-exchange field. The field provides low-grade heat in winter and cooling in summer for CANMET and is being extended to serve the emerging campus buildings.



Both the radiant heating and cooling piping are set in the thermal mass of the ceiling slabs thereby enhancing performance. To reduce condensation issues, the radiant system is run at moderate temperatures in winter and summer, respectively. In combination with the high-performance thermal envelope, this provides CANMET with very stable interior temperatures.

Added energy efficiencies are realized by using displacement ventilation throughout, a significant benefit in the 16m high-bay and 12m mid-bay labs where the air volume and rate are geared to the breathing zone. Ventilation air energy recovery and process water heat reclamation further improve energy efficiency.

As the project is a Laboratory, LABS21 was used to establish a reference EUI of 1,165 kWh/m<sup>2</sup>/yr or 375 kbtu/sf/yr. CANMET was tendered in 2009 and therefore required to achieve a 50% reduction in accordance with the 2030 program requirements. Achievement of 77% reduction put the project well beyond its 2030 target and further supported CANMET's position as an industry leading development.

### Metrics

#### Total pEUI:

95 kBtu/sf/yr

#### Net pEUI:

87 kBtu/sf/yr



# Digital complications

- Search is limited and obscures many details about the buildings
- Online access to design plans and photos is not supported
- And what about preservation?

**1. Enter your search criteria**

By Firm	By Project	By Category	By Project Location	By Year
<input checked="" type="radio"/> <input type="text"/>	<input type="radio"/> <input type="text"/>	<input type="radio"/> <input type="text" value="▼"/>	<input type="radio"/> <input type="text" value="▼"/>	<input type="radio"/> <input type="text" value="▼"/>

**2. Choose the sort order for your results (optional)**

Sort Order By ↓

**3. Search**