Windmill

GREENING OUR
URBAN ENVIRONMENTS

# ACQUA + VENTO

## DESCRIPTION

These two mixed-use buildings within Calgary's new Bridges neighbourhood were Windmill's first projects undertaken, and achieved North America's first LEED Platinum certification for a multi-family residential project, reflecting its innovative design, energy use reduction and water conservation strategies.

## COMMUNITY

When the City of Calgary master planned The Bridges, an infill neighbourhood on a central former hospital site, Windmill Developments secured one of the development blocks for its first foray into mixed-use infill and green buildings. The neighbourhood was to be guided by sustainability principles; pedestrian-friendly design, main street retail, transit accessibility and energy-efficiency were among the guidelines laid out by the City.

## FEATURES

The three-storey mixed-use buildings are comprised of retail located along the existing commercial corridor while introducing affordable housing and 20 two-storey townhouses on each site. Cedar siding coupled with red brick, reminiscent of the old hospital, reinforce the existing commercial zone while providing an appropriate scale to encourage a pedestrian friendly experience.

## AT A GLANCE

- Acqua + Vento, Calgary, AB
- 77,600 SF residential townhomes, 28,600 SF main street commercial
- Mixed-use infill on former brownfield
- LEED-Platinum certification
- Completed 2008
- Windmill role: Prime developer

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Designed to maximize views, daylight penetration and solar access, the residential condominiums were designed around an open and exterior common courtyard on the rear southern facing second floor. This common courtyard, while serving as a shared green roof complete with native shrubs and trees, also supports the residents' individual and common planters, a sidewalk to their units and roof to the retail.

The Acqua + Vento also implemented numerous green strategies including: water efficient fixtures, high fly-ash content concrete, storm water management, rapidly renewable and non-offgassing interior finishes (including some of the first VOC-free kitchens on the market), radiant in-floor heating, continuous suite ventilation and a central enthalpy wheel for heat recovery ensure energy efficiency and a healthy indoor environment.

## INNOVATIONS

In arid Alberta, water conservation was foremost as a design goal. Existing building codes did not foresee or allow greywater recycling systems, which created challenges to designing truly innovative water systems. Through careful engineering, labeling and sizing of pipes and consultation with building officials, we incorporated storage and recycling of rainwater and water from sinks, showers and bathtubs for irrigation and toilet flushing. This combination of water storage and rainwater recycling set a new precedent in Alberta.

## RECOGNITION & AWARDS

**SAB Magazine**
Sustainable Architecture Award Winner, 2008

**Canadian Construction Association**
Environmental Achievement Award, 2007

**Environmental Design+Construction**
Excellence in Design Award Winner Multi-Family Residential Category, 2007

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