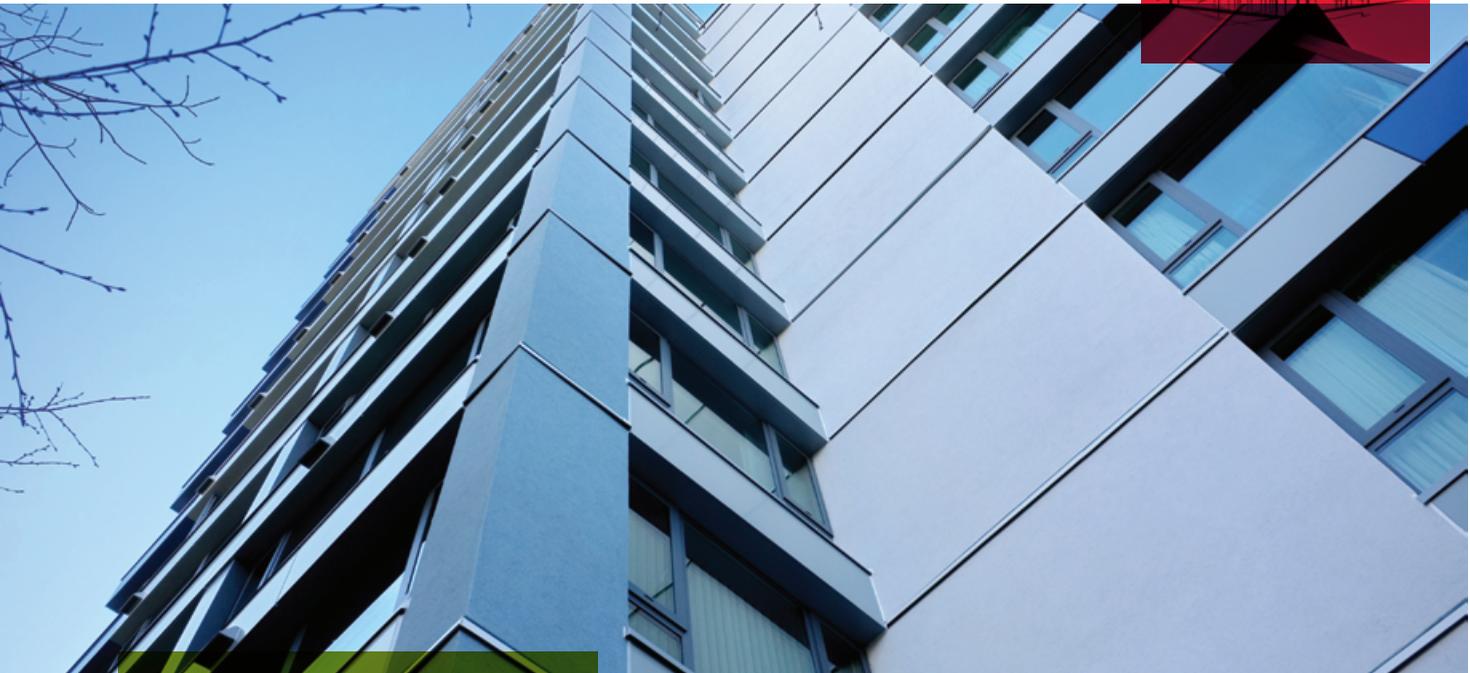


Enclosure Renewal Project

Case Study



Project Description

Winner of a 2013 “Canadian Green Building Technical Achievement Award” and featured in SAB Magazine, The Belmont, originally constructed in 1986, is a 13-storey residential building on the west side of Vancouver. After weighing various options on how best to maintain and reinvest in its property, the Strata Corporation decided to proceed with a building enclosure renewal project in 2012.

Before the renewal, the existing exterior walls were exposed cladding with 2 inches (50 mm) of foam insulation at the inside, with an overall effective R-value of R-4. For the renewal project, the walls were over-clad with 3.5 inches (89 mm) of CAVITYROCK® stone wool insulation behind stucco and metal panel cladding. The cladding and insulation were held in place using fiberglass Cascadia

Clip®, which significantly reduce thermal bridging compared to a more traditional metal girt cladding systems. This assembly increased the overall effective R-value to a R-16 for the exterior walls.

Window replacement and air tightness improvements were also made to the enclosure. Energy savings as a result of the Enclosure Renewal Project were estimated through whole building energy modeling, and are predicted to be a 20% decrease in overall building energy usage, and 90% for in-suite space heating energy. This retrofit is expected to nearly eliminate the need for electric baseboard heating and cut total building suite heating costs from approximately \$18,000 to just \$2,000 per annum.



Exterior Insulated Rainscreen

- New Cladding Stucco and Metal Panels
- Fiberglass Cascadia Clip® with 1" Steel Z Girt
- 3.5" CAVITYROCK® Insulation
- Vapor Permeable Coating
- Existing Concrete

ROCKWOOL™ Products Installed

ROCKWOOL CAVITYROCK® was used in the rainscreen system for its stability under wide temperature variations, its fire protection and its sustainability properties. CAVITYROCK® has a long term stable R-value and is a non-combustible, water repellent, sound absorbent and sustainable product.

Benefits

ROCKWOOL stone wool insulation has a long term stable R-value, is dimensionally stable, fire resistant, water repellent, non-corrosive, sound absorbent, will not promote mold and fungi growth and is environmentally sustainable.

Consultant:

RDH Building Engineering Ltd.
Warren Knowles, P.Eng.
604-873-1181 | www.rdhbe.com

Contractors:

BJ Plastering
Rob Blankert
604-861-1891 | bjplastering.com

Link Design Services Inc.

Tim Scott
604-813-3059

Location:

Vancouver, BC

Project Timeline:

2012

Cavity Wall:

17,000 sq/ft



ROCKWOOL

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"This retrofit should cut total building suite heating costs from \$18,000 to \$2,000 per annum"