



## Multi-Residential Fred Douglas Place



*Left, Fred Douglas Place's SolarWall® solar air heating system designed to compliment the existing brick facade  
Above, Close-up view of three of the SolarWall columns*

### Background

A SolarWall® system is an easily adaptable solution for some common issues facing multi-residential buildings. Most jurisdictions require common areas and hallways in multi residential facilities (condominiums, apartments, senior living centers, etc) to be continuously ventilated for general comfort. Heating this air with conventional means is expensive, which is why many housing authorities are including SolarWall® systems in both new and retrofit buildings. As an added benefit for older high rise buildings, the SolarWall® system can function both as a rain screen, and as a fresh air ventilation solar pre-heater.

Fred Douglas Place is an apartment complex home to a community of active, independent citizens over the age of 55 in the heart of downtown Winnipeg. Designed to provide a quality environment, the volume of ventilation air required during the long cold Winnipeg winters was putting a strain on operating costs. While looking for a solution to lower heating costs (and take advantage of Federal and Provincial incentives) the management at Fred Douglas Place decided to invest in a SolarWall® solar air heating system in 2009.

### Solution

The final SolarWall® design consisted of 6 columns (5 south-facing, 1 west-facing) integrated into the high-rise building between the windows. The system is Metro Brown (closely matching the window surround) and spans 3,555ft<sup>2</sup> over 14 stories. The total system is sized to pre-heat 17,000 cfm of fresh air for the corridor make-up ventilation system. This project was installed by the western Canada SolarWall® dealer, NRG Management, working in conjunction with Conservall Engineering.

### Results

The SolarWall® system at Fred Douglas Place is projected to offset 228 MWh (820 GJ) of natural gas and keep over 40 tonnes of CO<sub>2</sub> (annually) out of the atmosphere. The new system is also estimated to save over \$9,150 a year in heating costs. Fred Douglas Place qualified and received \$26,800 from the Federal ecoENERGY renewable heat program, and \$10,000 from the province of Manitoba, resulting in a payback of 7.7 years.

#### U.S.A.

##### Conservall Systems Inc.

4242 Ridge Lea Rd, Suite 28, Buffalo NY 14226

P: 716-835-4903 F: 716-835-4904

E: [info@solarwall.com](mailto:info@solarwall.com)

[www.solarwall.com](http://www.solarwall.com)

#### Canada

##### Conservall Engineering Inc.

200 Wildcat Road, Toronto, ON M3J 2N5

P: 416-661-7057 F: 416-661-7146

E: [info@solarwall.com](mailto:info@solarwall.com)

[www.solarwall.com](http://www.solarwall.com)

#### Europe

##### SolarWall Europe Sarl.

66 Avenue des Champs Elysees

75008 Paris, France

E: [info@solarwall.eu](mailto:info@solarwall.eu)

[www.solarwall.eu](http://www.solarwall.eu)