



Solar panels are installed on the rooftop of Loretto College, Toronto, Ontario

Building Renewal Program

Phase I

Phase I of Loretto College's Building Renewal program began in the summer of 2007 and focused on \$5.27 million in comprehensive energy efficiency and facility renewal projects. Phase I measures, which included new air conditioning systems, window and front steps, and an updated telephone and security system, were completed ahead of schedule and came in under budget by approximately \$500,000.

The capital saved from the original budget allowed additional scope to be completed. The rejuvenation of the College allows for additional revenues to be generated.

Phase II

Phase II, valued at \$375,000, and which was substantially completed by May 30, 2009, focused on Loretto College's vision to "enhance the environment". Measures included solar panels to help heat the facilities hot water and a new roof complete with provisions for a future roof top garden and sitting area.

Government incentives provided 50% of the funding for the solar technology. The anticipated savings for the annual water

heating costs is 25%.

Phase III

Phase III had a project value of \$3.3 million and was focused on the redesign and supplementation of the fifth floor, new external elevator for barrier free and rooftop access, and the renewal and redesign of the main lobby.

Phase III began in June 2009 and was substantially completed by September 2010. Minor additional work will be completed in 2011.

Project Highlights

- Contract Value: \$8.9 million
- Total Square Footage: 89,000
- Government Incentives worth 50% of the funding for solar technologies
- Additional incentive coordination including:
 - *City of Toronto* - \$8,300
 - *Better Building Partnership* - \$2,500
 - *Enbridge Gas* - \$12,000

Project Measures

- New boilers and HVAC systems
- Conversion from purchased steam to high efficiency natural gas
- New heat pumps complete with



Loretto College, Toronto, Ontario

- heating and air conditioning
- New Building Automation System
- Upgraded ventilation systems
- New windows and doors
- High efficiency fluorescent lighting
- Energy efficient low flush toilets and showers
- Enhanced communication system/ security
- Lobby renewal, front porch and entrance
- Upgraded kitchen area, equipment and exhaust system
- New external elevator to each floor and the roof
- New solar thermal technology
- Provisions for a roof garden
- Asbestos study and abatement
- Upgrade of fire alarm system
- New Power Service and distribution wiring
- Increased revenue stream — facility now competitive with other student residences
- Carbon footprint reduction of 715 tonnes of carbon dioxide, which is equivalent to planting 785,000 trees

Project Benefits

- First facility within sight to implement solar panels on rooftop
- Enhanced building comfort and control with the installation of new boilers, ventilation systems, heat pumps and state of the art building automation systems
- Enhanced student comfort with the addition of air conditioning

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