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## Chiropractic College Encourages Healthy Living Through Green Design

Recognizing that sustainability must equate with affordability to be a viable building strategy, Toronto-based Young + Wright Architects Inc. provided a strong business case for sustainability's merits for client Canadian Memorial Chiropractic College (CMCC).

"This isn't only good stewardship. It's good business," says Neil Munro, FRAIC, partner. "By framing a business case, we try to educate our clients."



According to the architect, the client was interested in creating a facility that promoted wellness, healthful living, and sustainability and was cost-effective. They evaluated the building's life-cycle costs for HVAC and used energy-modeling software to determine the feasibility of green features. Says Munro, "At CMCC, we did an entire audit of the design at the concept stage, showing the cost benefits of green options. We proposed a menu of environmental recommendations. The client bought into most of them. As a result, the building has all the attributes of an award-winning design. Yet, our simulations showed an expected 31 percent reduction in current energy use for the existing building portion, or \$54,996 in annual cost savings. For the new addition, they showed a reduction of 51 percent compared to MNECB [Model National Energy Code of Canada for Buildings] standards, or \$63,461 in annual cost savings."



### Green strategies

Green strategies incorporated in the design and construction of the CMCC include renewable and recycled materials wherever feasible: low-VOC paints, adhesives, and floor coverings; engineered wood; fly-ash cement; local materials; the use of native plants and eco-lawn products; e-coated, double-glazed windows; energy-efficient



Architect: Young + Architects Inc., Toronto

### Consultants

Acoustic Consultant: Acoustic Consultants Associates Ltd.

AV Consultant: TS, Building Code Consultant

Reichard Tomlin Inc. Cost Consultant: Pe Inc.

Electrical Engineer: Anderson Electrical

General Contractor: Contracting Ltd.

Green Consultant: E Engineering Ltd.

Landscape Architect: Associates Inc.

Management Consultant: Planning, Project Management

Henry Graupner Mechanical Engineer

Anderson Consulting Inc.

Planner: Walker No

lighting; occupancy sensors; heat-recovery ventilation; demand-control ventilation; and operable windows in offices, classrooms, and patient rooms. Thanks to the building's high level of energy-efficiency, CMCC was awarded a \$60,000 grant from Natural Resources Canada's Commercial Building Incentive Program.



The architect reports that CMCC campus sustainability was enhanced by renovating and creating an addition to the former Associated Hebrew School. The building envelope of the 35,000-square-foot addition increases insulation values, while the atrium allows a wealth of natural light to flood the space, minimizing use of artificial lighting. The free-floating,

zigzag staircase adds visual interest to the space and enhances the sense of connectedness between the two structures and four floors. Says Munro, "The building is about air and light and how you manage them. The way we work is not to a style, but to a deep understanding of how you manage air and light in every building we do."

The 150,000-square-foot, \$30 million campus includes teaching and study facilities for 700 students, a supply center, bookstore, library, and rehabilitation clinic. Classrooms are equipped for programs of study including anatomy, physiology, neurology, biochemistry, and clinical and chiropractic sciences. In addition, the facility includes a secure room that can accommodate the dissection and storage of cadavers. "We chose Young + Wright because of their innovative design approach, their special interest in green development, and their ability to listen to our many needs," says CMCC President Jean Moss. "We liked working with them. The result is a building that works well for everyone at the college."



Associates Ltd.  
Storm Water Manag  
Consulting Ltd.  
Structural Engineer:  
Wallace Limited  
Surveyor: R. Avis S

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