

"It has been extremely challenging to introduce a 100,000-square-foot building to this unique historic site."

> Peter McAlister, project manager

Centering Students

+ A new academic building provides spaces for students to study independently, work in group study rooms, attend classes and work in high-end media studios. *By Russ Gager*

> **Vanbots Construction is raising a** 100,000-square-foot academic building on a tight site for client Humber College, whose Lakeshore campus originally housed the Lakeshore Psychiatric Hospital. "Vanbots Construction has been great - they've been very helpful, and they've been a good contractor so far," notes Peter McAlister, project

manager contracted by the college to assist with this project.

Most of the original hospital buildings - called "cottages" - still stand and are arranged in a C-shape on a scenic historic site adjacent to Lake Ontario. Located in the center of the cottages' C-shape, a two-storey building from 1973 was demolished to make room for the new academic building. The new building - currently designated as "L" building until it is named after a donor - is scheduled for completion in late spring 2011.

A tight construction schedule has

been eased by close cooperation among members of the design/build team including Vanbots Construction and HOK architects. "HOK did an awesome job in respecting the site and still providing 100,000 square feet of student space," McAlister says. "The design of >>

Vanbots Construction – Humber College

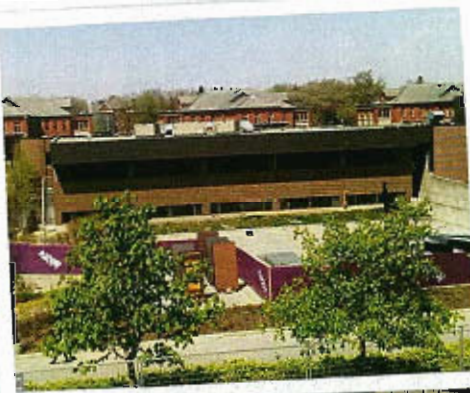
www.humber.ca

Project cost: \$36 million

Location: Toronto

Vanbots employees on site at peak: 70 to 90

Scope of work: Construction of a 100,000-square-foot, four-storey campus building



A new 100,000-square-foot academic building at Humber College is replacing the previous structure on this site (Inset).

New Building Integrates Site

A historic quadrangle around a new student center on the Lakeshore campus of Humber College was restored to green grass for people instead of asphalt for vehicles.

The architectural firm of HOK had a number of challenges when designing a new student center for a central location on the Lakeshore campus of Humber College. The historic quadrangle is formed by Queen Anne cottages on three sides and a bluff overlooking a park and Lake Ontario on the fourth.

"One of the most important moves that we made and that was supported and encouraged by Humber was to relegate the cars to be visitors to the site, rather than being the prime reason why that quadrangle existed," explains Evan Webber, assistant design director for HOK in Canada.

The city of Toronto also expected the new building to preserve the historical importance of the site on which the Mimico Asylum Lakeshore Psychiatric Hospital was built in 1888, and the view from the bluff on which it would be located. Massing and proportions of a new building were written into a plan for rezoning the site, Webber notes.

Views to the historic cottages beyond were preserved by lowering the elevation of the build-



HOK – Building L
www.hok.com
Location: Toronto
Scope of work:
 Design of four-storey campus building
Evan Webber,
 assistant design director for HOK in Canada: "The way students learn today is different than you or I learned."

ing entry and making it transparent as well as terracing of the building mass. This resulted in the design of a four-storey building whose levels shrink in size as they ascend to preserve the view for the cottages behind it.

HOK also went to the building's other major constituency – the students – to discover their needs for the building through consultation and student involvement in user groups. The result – which is scheduled for completion in spring 2011

– is the "L" building, so designated until named after a donor. Its design follows the new learning patterns of students that HOK discovered.

"What's really important for the building in general is that the way students learn today is different than you or I learned – they use the building in a different way than we might have," Webber maintains. "They understand that anywhere and everywhere can be a place for learning, and that all the spaces that are traditionally seen as circulation space also become entirely habitable and spaces of pause and serendipitous interaction. You bump into people,

you linger in the corridors – you insinuate yourself into unique spaces in general."

The building's materials acknowledge the Queen Anne cottages – the simplicity of the terra cotta brick echoes that of the cottages, and the zinc color of the roof mimics the color of the cottages' roof slate.

"I think that HOK has done an amazing job in integrating what I think is a very sensitive site," emphasizes Peter McAlister, Humber College project director. "I've done about 25 projects across North America, and I've never been involved in a project where I had more butterflies in my stomach about the first design presentation on the building. I had no idea how they were going to introduce a building into that site and still respect the historical nature of it."

Webber expects the building to maintain its usefulness. "The student commons can be configured and reconfigured in multiple ways but still maintains its integrity as a useful and enriching space," he says.

"It's part of the way we design in general – it should be clean and clear and modern, and that's almost the mantra of the studio at large," Webber concludes. "We're designing for our current time and place with the full knowledge of the past and an optimistic view of the future."



HOK creates a sophisticated centrepiece for Humber College's Lakeshore Campus.



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The new building will feature a cafeteria, computer labs and a green roof.



>> the building is intended to complement the existing historic context and at the same time provide a long-needed central front door to the site.”

The “L” building under construction will be four storeys and layered like a wedding cake. Built of structural steel, it will feature classrooms, a 400-seat cafeteria, computer labs, a study lounge, a green roof and a digital communications centre with editing suites. The exterior will be glazing, zinc panels and brick. It uses natural light harvesting extensively.

“The college did not elect to have LEED registration of the building, but was completely committed to the sustainable design recommendations HOK made,” reveals Evan Webber, assistant design director for HOK in Canada. “HOK uses systems that let nature do the heavy lifting with natural light harvesting – just one of the sustainable attributes of the building. Specifically, access to daylight is significant to the sense of well-being of the inhabitants of the building.

“We’re still in an era when operating

Vanbots Builds

Vanbots was founded in 1955 by two Dutch carpenters building homes – Bill Vandergluchf and Bill Bots – who registered the name Vanbots Builders Ltd. in 1959.

With annual revenues that exceed \$600 million, Vanbots today is one of Canada’s largest general contracting companies. It joined Carillion Canada in October 2008 as its Canadian industrial, commercial and institutional construction arm.

Vanbots says it is currently in the top 2 percent of the construction industry for safety, according to the Workplace Safety and Insurance Board. The company has instituted its safety program based on reinforcing safe behaviours and identifying and correcting risky ones.

cost and capital costs are not entirely understood as being connected by some organizations – Humber College does not suffer from that,” Webber continues. “They were very clear on capital costs – that was part of the reason for not registering for LEED. ‘LEED shadow’ is the term we use – we follow the LEED guidelines to ensure we’re in line to be LEED-registered, if not achieve LEED Silver status. Our global policy is to design so that this is true for every project.”

Underground Cooling

The previous, demolished building housed two cooling towers for an 800-ton fluid

cooler that served the entire hospital site. “We had to replace those, and we couldn’t put the cooling towers on top of this building because of the architecture associated with the site,” McAlister explains. “We actually built a bunker, and the closed-loop mechanical system is underground. It’s being built on the south side of the building in a pit.

“We dug a hole, and installed shoring and piles at the shale level,” he continues. “The fluid coolers were put in below shale level. An 800-ton fluid cooler is a substantial piece of equipment, and the lakeside shale at 10 feet below grade level provides a stable foundation for the building.”

The team has had to overcome numerous hurdles in this project to ensure it had the support of the city and community. One of the least popular was the need to eliminate the parking that previously filled the space in the centre of the cottages. Although not popular, the college is providing “some incredible recreational space for the students,” McAlister declares. “It’s a gorgeous lakefront campus connected to a manmade sanctuary area for wildlife, bike paths, parks, a beach, hiking trails and is very close to the marina. Considering this is an urban campus, Humber provides the ideal setting for students to maintain balance and stay connected to nature.”

Unique RFP

McAlister explains that borrowing from other colleges and some design/build experts, a two-part design/build procure-

ment process was used to secure a firm that would complete a preliminary design that the college could potentially own and walk away with. Then the college could negotiate a guaranteed maximum price (GMP) on the preliminary drawings armed with the preliminary design and assisted by a third-party cost consultant named Cm2r Inc. The college was able to negotiate a GMP successfully and feel comfortable that it was going to receive the building it wanted.

“We’re still in an era when operating cost and capital costs are not entirely understood as being connected by some organizations – Humber College does not suffer from that.”

Performing Arts Relocated

What happened to the students who were studying in the 1973 building “L” that had to be removed to make room on the campus for this larger, newer and more flexible academic building?

In an agreement with the Toronto District School Board, the college entered into a long-term lease of the old Lions Arena (the home of the Toronto Maple Leafs hockey team’s practice rink).

The Lions Arena became available when the new MasterCard Centre opened in September 2009.

In a five-month construction schedule, the Lions arena has been transformed into arts and media studios that serve students previously in the old “L” building. The structure also is serving students in one of Humber’s newest degree programs in film and television.

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