APRIL 2018

ARCHITECTURE | DESIGN | CONSTRUCTION

Award

PRAIRIE ARCHITECTS INC.

Enriching The Human Experience

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PM #40065475

RENDERING COURTESY MONTGOMERY SISAM ARCHITECTS

LOCATION
2018 Simcoe Street N., Oshawa, Ontario

OWNER/DEVELOPER
Durham College

ARCHITECTS (JV)
Montgomery Sisam Architects
and Architecture Counsel Inc.

GENERAL CONTRACTOR
Eastern Construction Company Limited

STRUCTURAL CONSULTANT
RJC Engineers

MECHANICAL/ ELECTRICAL/SUSTAINABILITY/ SITE SERVICE CONSULTANT
WSP Canada Inc.

LANDSCAPE ARCHITECT
PMA Landscape Architects Ltd.

TOTAL SIZE
75,000 square feet

TOTAL COST
$27 million

Centre for Collaborative Education (CFCE) – Durham College

by **ROBIN BRUNET**

Durham College (DC) refers to its new Centre for Collaborative Education (CFCE) as its most ambitious and transformative initiative in the institution's 51-year history. This is an appropriate descriptive, considering the CFCE is a much needed addition to a college that has boosted its post-secondary registration spaces by over 3,000 since 2008.

The four-storey, 75,000-square-foot-facility was designed by Montgomery Sisam Architects in a joint venture with Architecture Counsel Inc. as an educational access point for students, while bringing together local, indigenous, and global community groups as well as members of key business sectors. It replaces DC's Simcoe building, which was built as a temporary structure and opened in 1969.

Located directly east of the Simcoe building and connected directly to the Student Services building, the CFCE was supported by $22 million from the provincial government and $13 million from Ottawa, the largest single-project investment made by government in the college's history.

DC president Don Lovisa remarked when the funding was announced in 2016, "In addition to creating a strong need for physical infrastructure at the Oshawa campus, our significant growth has positioned Durham College as a college of choice for students in Durham Region and well beyond. The CFCE is a direct reflection of that growth combined with our ongoing commitment to building a high-quality and sustainable post-secondary education system."

In March of 2018, as the facility neared completion, Lovisa remarked, "The site upon which the CFCE was built is extremely limited in size, and the design was dictated by these restrictions. However, this turned out to be an enormous benefit because while most of our campus buildings are set back from the main road, the CFCE is located front and centre and serves as a beautiful gateway for the college."

Montgomery Sisam and Architecture Counsel designed the CFCE to include a business incubator space, classrooms for the college's health programs (with state-of-the-art labs), as well as space for the college's Global Class initiative, which connects students to other learners and professors from around the world.

With all parties focused on providing something visually unique on a narrow, triangular site, the architects developed a building that is thin, tall, and long, with a jutting, tapering canopy at one end commemorating the entrance as well as serving as a gateway for the rest of the campus.

It was decided that a combination of limestone, white architectural block, wood soffit, and a Muntz copper metal panel system would be employed methodically to create a dynamic expression that references the existing campus, while maintaining an efficient, more modern enclosure.

Inside, Montgomery Sisam and Architecture Counsel designed light-filled, flexible spaces to accommodate a wide variety of programs and student needs. The new space for the college's current Aboriginal Student Centre was located in purpose-built spaces that accommodate cultural needs and practices. Food and social areas were included at key areas throughout the interior.

Lovisa points out that strategic, optimized planning resulted in a highly functional layout and an efficient net-to-gross ratio. Corridors were designed to accommodate informal study and social spaces, and floor plate dimension and structural bay sizes allow for flexibility in planning and future adaptability. "We also designed to LEED Silver standards," he says. "This led to the creation of solar panels on the rooftop, green roofs on the lower roof decks, plenty of glazing to bring natural light deep into the building – an objective that again was facilitated by the CFCE's relatively narrow profile – and HVAC developed to achieve optimum energy efficiency."

Ground broke on the project in November of 2016, and Dean Walker, project manager for Eastern Construction Company, says, "This was a design build process that very early in the design stage converted to GMP in order to give the owner price certainty; and in order to pull this off successfully we had to be acute to the owner's needs, with a sound understanding of the design."

Of the work conditions, Walker goes on to remark that, "We had to deal with very tight access, with high voltage lines running along the street, which required us to maintain careful monitoring of all work on the east side of the building. Also due to the site we had to schedule access and undertake just-in-time delivery, because there was virtually no room for storage or staging."

The winter of 2016/2017 was unusually wet and posed a challenge for concrete work "due to the proximity of the ground water table in relation to the footings," says Walker. "However, despite all this we were able to have the building weather tight fairly quickly – and all told the construction proceeded exceedingly well. We're very satisfied with the outcome."

But even though the CFCE was nearing completion as of March, it is part of a campus master plan that will see the facility serve as a gateway for a future quad. "The original intent was to demolish the Simcoe building and create a green space, with two other new buildings arranged in such a way that the CFCE would be part of a large courtyard, with pathways radiating out from it," says Lovisa. "This is still the intent; however, the province has just announced a $9.1 million grant to build a geothermal system on the green space that will soon see the drilling of approximately 300 boreholes and creation of a small education centre. The capacity of the geothermal system will be enough to serve our largest building on campus, which comprises a total of nine different wings and additions."

While the CFCE takes the place of the Simcoe building, the latter is fondly remembered by staff and students alike and lives on in a unique way. "The entrance to the CFCE building incorporates an 11-foot by 30-foot stone wall taken from Simcoe, disassembled, cleaned, and reassembled," says Lovisa. "It's a really cool addition to a building that we're very proud of." **A**