

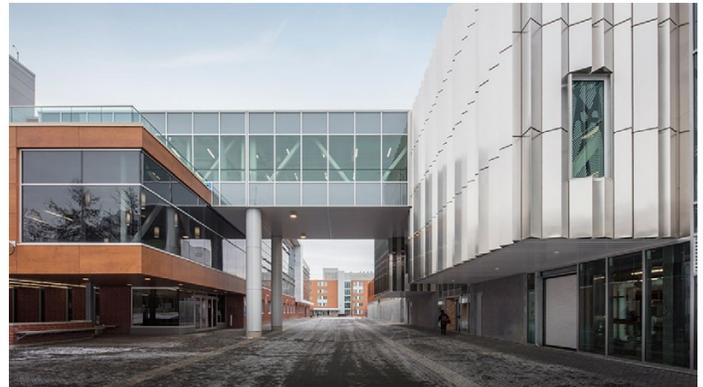
## Sheridan College, Ontario

Founded in 1967 near Toronto, Ontario, Sheridan College had humble beginnings. Nonetheless, it has emerged as a leading postsecondary educational institution in the area. Now serving over 23,000 full-time students and 3700 part-time students annually, Sheridan consists of three locations:

- ❑ The Davis Campus in Brampton
- ❑ The Hazel McCallion Campus in Mississauga
- ❑ The Trafalgar Road Campus in Oakville

### Locations

The Davis Campus is Sheridan's largest accommodating over 13,000 students with 6 buildings. This bustling campus is home to applied health, community services, and engineering and technology programs.



A bridge connects the Skilled Trades Centre to the remainder of the Davis campus.



The Hazel McCallion Campus is Sheridan's newest, opened in 2011. It is home to the Pilon School of Business as well as programs related to the sustainable built environment. Its two buildings, built to LEED gold standards, can accommodate 5500 students.

Two architectural firms, Moriyama & Teshima Architects and Montgomery Sisam Architects, collaborated to design the latest edition on the Hazel McCallion campus.

The Trafalgar Road Campus in the lakeside community of Oakville, Ontario is Sheridan's original location. This campus of 11 buildings can accommodate over 9500 students. The artistic environment offers programs in animation, arts and design, advanced film and television, music theatre, business, community studies, liberal arts, applied science and technology, and more.

The Trafalgar Road campus is home to college administration as well as Canada's largest arts school with over 6000 students: the Faculty of Animation, Arts, and Design.



Across all campuses, over 100 countries are represented in over 6400 international students. The student body also consists of over 13,000 continuing education professionals who have access to over 200 courses.

## Facility Services

The college employs 3700 full time and part time employees. Among these are approximately 80 employees of the Facility Services Department. This department consists of Facility Services Operations and Facility Services Projects. The projects team is primarily responsible for new construction. Meanwhile, the operations team is responsible for maintaining the 19 buildings across the three campuses of this mostly commuter college.

When these buildings must serve approximately 30,000 students and staff each year, the work of the Facility Services department becomes critical.

One employee plays a hybrid role between the Operations and Projects teams. He is Hunter Fitzpatrick, a project manager. Hunter, a graduate of Sheridan's Architectural Technology program, has responsibility for the facade integrity of all building exteriors including all openings, such as windows and doors, as well as walls and roofs.

Specifically, Hunter considers it his responsibility to attend to the thermal integrity of the facilities. Such work is essential for the thermally challenging environment of Toronto. As he goes about his work, doors tend to be the hottest topic of discussion.

## The Entrance Issues

Until recently, according to Hunter, many entrances of the Sheridan facilities have been using "hollow metal doors inside hollow metal frames."

That has led to two issues. One relates to the snow-melt salt used to treat entrance areas each Winter. It has been eating away at the steel entrance systems.



Corrosion destroys a hollow metal entrance on the Trafalgar Road campus due to salt usage and weathering.

The other issue has to do with air leakage.

“With doors,” Hunter says, “I typically see two scenarios. You have a door that opens very easily but shows daylight when closed, which means that the door is not sealing properly. Or, you have a door with weatherstripping on all sides and is sealed so tightly that you can slam against it and it won’t open!”

“That sweet spot in the middle that we need,” continues Hunter, “are exterior doors that seal well to preserve the thermal integrity of the building and that operate smoothly and easily for the students and staff.”

## The Solution

These two issues, air leakage and corrosion, led Hunter to consider alternatives. That’s when he met Emily Colliss of Dugan Associates, an authorized manufacturing representative for Special-Lite.

“When she told me about the fiberglass products of Special-Lite, I jumped at the chance to use them,” says Hunter.



The Trafalgar Road entrance is retrofitted with a thermally efficient and corrosion-resistant combination of Special-Lite SL-17 hybrid doors (aluminum and fiberglass) and AF-150 pultruded fiberglass framing.

*“That sweet spot in the middle that we need, are exterior doors that seal well to preserve the thermal integrity of the building and that operate smoothly and easily for the students and staff.”  
(Hunter Kirkpatrick)*

Hunter realized that the corrosion would be mitigated by the construction of the Special-Lite products. He also soon realized the thermal efficiency of these products. After retrofitting the first door pair with Special-Lite, he observed the following:

“I can install a set of doors and stand back on the inside and not see any daylight around the perimeter,” says Hunter. “Then I can hit the operator to open the door, whether manual or automatic opener, and the door opens smoothly. As the door closes, it closes to the same perfect stop as it was previously. Maintaining this seal and doing so consistently is the biggest reason why I like the Special-Lite system.”

### By the Numbers

This combination of SL-17 door and AF-150 framing offers superior thermal efficiency as described in the following test data:

#### Thermal Transmittance per NFRC 100

For Opaque Swinging Door (< than 50% glass)

U-Factor = 0.32 Btu/hr•ft<sup>2</sup>•°F.

For Commercially Glazed Swinging Entrance Door (> than 50% glass)

U-Factor = 0.57 Btu/hr•ft<sup>2</sup>•°F.

#### Air Leakage per NFRC 400, ASTM-E283

For Opaque Swinging Door (< than 50% glass)

0.12 cfm/sqft @ 1.57 psf.

0.06 cfm/sqft @ 6.24 psf.

For Commercially Glazed Swinging Entrance Door (> than 50% glass)

0.04 cfm/sqft @ 1.57 psf.

0.14 cfm/sqft @ 6.24 psf.

For more information or to locate the Special-Lite representative for your area, visit [www.special-lite.com](http://www.special-lite.com).



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Item #3416