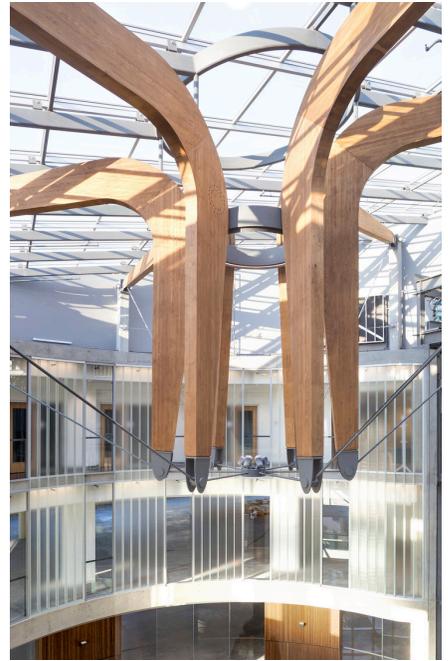


1515 Douglas Street, Victoria, BC

The 20-metre diameter glass rotunda roof at the six-storey 1515 Douglas office development across from City Hall in Victoria provided an opportunity to develop a unique structural and architectural solution. RJC Engineers worked with D'Ambrosio Architecture + Urbanism to develop options and build three scale models. The selected option-which minimized material and optimized daylight transmission-is a composite structure consisting of six "boomerang"-shaped glulam members supported by tension rods, and steel tension and compression rings. Concealed steel dowels connect the horizontal and vertical glulam members of each "boomerang", and custom steel fabrications at each node connect the tension rods to the composite structure.

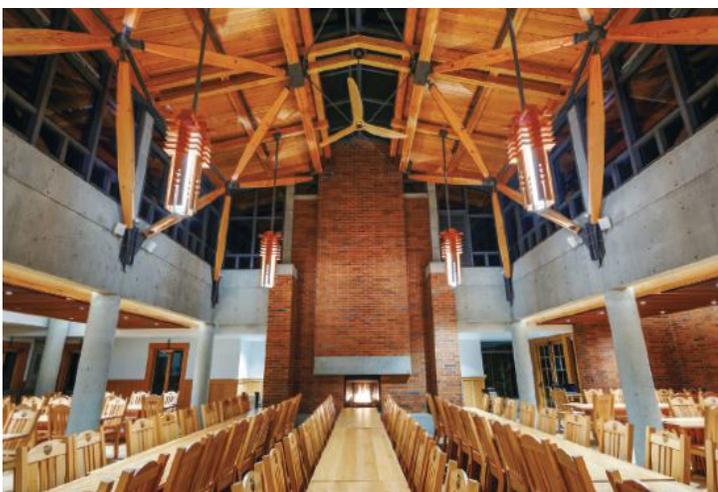
Participate: Jawl Enterprises (owner), RJC Engineers, D'Ambrosio Architecture + Urbanism, Applied Engineering Solutions, Campbell Construction, and StructureCraft Builders. Photo: Sama Jim Canzian



ECOLOCK Kelowna Storage Facility

Adopting a highly ambitious, deep green approach, this five-storey, 110,000 sq.ft. self-storage locker facility will also include ground and second-floor co-working office spaces. The building will incorporate leading-edge energy efficiency in design through an envelope-first approach, utilizing Just BioFiber blocks to significantly reduce thermal energy for the building and sequestering carbon. Energy will be generated through a 150-kilowatt solar photovoltaic array resulting in net-positive energy generation on-site. A 70,000-litre below-grade rainwater cistern is sized to provide 100 percent of the project's irrigation needs-a first for the arid desert-like conditions of the Okanagan and Kelowna. A Canada Green Building Council Pilot Program project targeting International Living Future's Petal Certification, the facility will utilize 91 percent less energy consumption than its counterparts.

Project Owner: Ulmus Development. Mechanical, Electrical, Sustainability Engineering: Integral Group, Scott Ghomeshi, P.Eng. Architects: McLennan Design, Christine Lintott Architects. Image created and owned by McLennan Design



St. Michaels University School Sun Centre

Located in the heart of St. Michaels University School, the Sun Centre consists of two-storeys and over 30,600 sq. ft. (2,840 sq. m.). The ground level features the new Student Services Commons and adjacent university and Personal Counselling Services Centre. The upper level contains a modern and open dining hall and kitchen, able to seat more than 380 people. This space is designed to transform for special events into an elegant setting complete with lofty cathedral ceilings, natural light, and views of the fields and quadrangle. The new Sun Centre is the hub of St. Michaels University School's community life.

Project Owner: St. Michaels University. Architect: Merrick Architecture. Mechanical: The AME Consulting Group. Electrical: AES Engineering. Structural: RJC Engineers. Photo: Tristan Shouldice