



Project Profile

Audain Art Museum – Whistler, BC

DELTA®-VENT SA and DELTA®-DRAIN

The Art of Proper Moisture Protection



→ General Information	
Building Name	Audain Art Museum
Building Location	Whistler, BC
Country	Canada
Project Size	52,000 sq. ft.
Building Type	Multistory
Project Type	Art Museum
Type of Cladding	Ribbed Steel Roof and Siding/ Sitka Spruce Siding
Total Building Costs	\$30,000,000
Owner	The Audain Foundation
Architect	Patkau Architects, Vancouver and Victoria, BC
Consultant/ Spec Writer	Spratt Emanuel Engineering
General Contractor	Axiom Builders
Subcontractor	Pocklington Roofing/ Durfeld Construction
Year	2016

→ Project Description

The multi-award-winning Audain Art Museum is quintessentially Canadian – from the eclectic art housed inside to the unassuming yet masterfully planned and executed hockey-stick-shaped building itself. Yet, despite all the beauty on display for visitors, it's the unseen elements that make this building truly amazing.

The 56,000 sq. ft. private museum sits nestled amidst the alpine forest of Whistler, BC. The exterior is clad in dark metal, allowing it to blend with the shadows of the surrounding forest as well as handle the high snow loads typical of the area. As noted by the Architectural Institute of British Columbia (AIBC), the deliberately restrained form and character of the building provide a quiet, minimalistic backdrop to the art within and the surrounding natural landscape.

Once up close, you can see the museum sits on six concrete piers. This was done to accommodate flood plain conditions from a nearby creek. The result is that the structure appears to be floating amongst the trees while sitting a full story above the grade. Patkau

Architects, the Vancouver-based architectural firm that designed the building, was tasked with creating a high-performance building that would preserve the precious art inside it while blending into the natural vegetation around it.

Wrapped Up Tight

While the envelope may appear simple, it was very challenging to build, having numerous angles and sloping walls – with some at a 50-degree slant. The

metal cladding also posed a challenge because of the ribbed pattern on the building's exterior.

The Audain Art Museum is designed to protect its contents through the harsh winters of the Canadian Rockies. And Patkau Architects chose DELTA®-VENT SA to provide such protection.

The air tightness provided by a fully adhered membrane also helps lower energy costs. The adhesion



The Audain Museum appears to float in the forest, minimising environmental impact and benefitting visitors.



DELTA®-VENT SA provides air tight protection high in the Rockies.



Factory installation of DELTA®-VENT SA speeds the roof construction process.



When protecting valuable art, keeping water out is critical.

capability of the membrane helped speed up the building process by allowing builders to construct the roof panels ahead of time in a modular format, in a factory setting. This meant the membrane could be installed in a controlled environment rather than an unpredictable one, and the panels could be transported to the site without the membrane blowing off.

The high vapor permeability of DELTA®-VENT SA allows moisture within the building to escape through the membrane, protecting the museum interior. The high-performance characteristics of DELTA®-VENT SA help the museum to maintain a constant temperature and humidity level year-round to protect the valuable artwork.

The Solutions Floating Above the Flood Plain

“The constraint of working within the forest in a flood plain drove the configuration of the building in a powerful way,” noted John Patkau, principal of Patkau Architects. Without a proper drainage system, the building would surely be damaged and the art inside would be left vulnerable. An improperly installed waterproofing system that lacks a drainage system can allow hydrostatic pressure to build, making any crack in a foundation an access point for water damage. The key water management issue on this project was the prevention of degradation by liquid water of the concrete piers. Patkau Architects needed to control the flow of below-grade water and direct it away from the load-bearing components of the building.

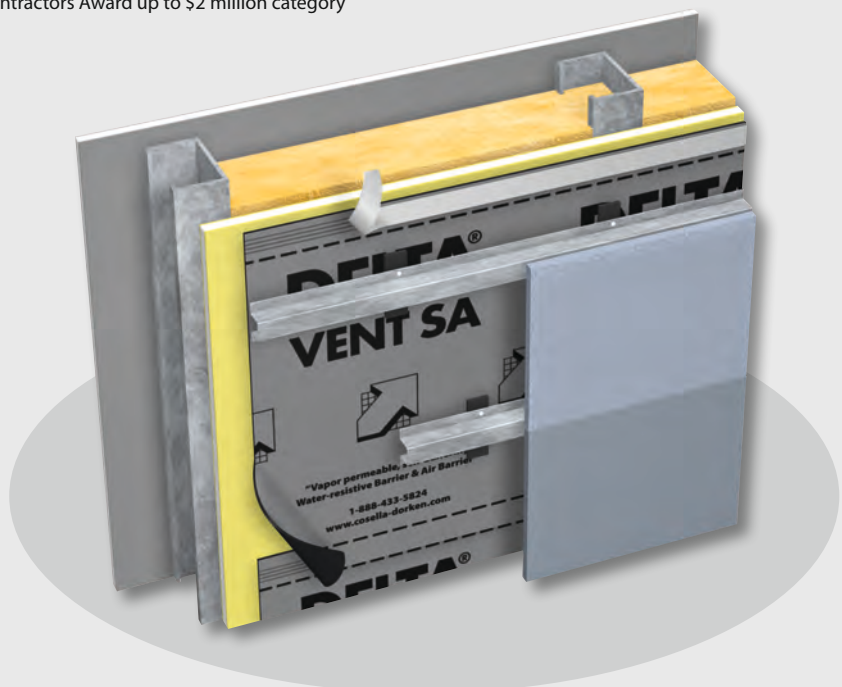
DELTA®-DRAIN was specified for the below-grade portions of the building. As the museum is located on a flood plain, the architects chose DELTA®-DRAIN, a drainage board that provides high compressive strength, excellent drainage capacity, and exceptional long-term performance.

Design Worth Celebrating

While housing an impressive collection of Canadian art, The Audain Art Museum is truly a masterpiece in and of itself. In fact, the general contractor, subtrades, and the architects responsible for its construction secured four awards at the 2016 28th annual Vancouver Regional Construction Association's (VRCA) Awards of Excellence gala and one medal at the 2017 AIBC Architectural Awards.

- Pocklington Building Systems Limited won the 2016 Awards of Excellence Gold in the President's Trade Award \$1 million to \$3 million category
- Alpine West Systems Electrical was awarded the 2016 Awards of Excellence Gold in the Electrical Contractors Award up to \$2 million category

- European Touch Hardwood Floors Inc. won 2016 Awards of Excellence Silver Award in the Chairman's Trade Award up to \$1 million category
- Axiom Builders won the 2016 Awards of Excellence Silver in the General Contractors Award \$15 million to \$45 million category
- Patkau Architects Inc. won the AIBC 2017 Lieutenant Governor of British Columbia Award in Architecture – Medal



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