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# WOOD IN INDIGENOUS PROJECTS

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**SPECIAL  
8-PAGE SUPPLEMENT**

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**ABOUT US:**

**WOOD WORKS!**

Wood *WORKS!* is a national initiative by the Canadian Wood Council (CWC) that advocates for the adoption of wood in the building and construction sector. With the goal of transforming markets and promoting holistic built environments, this industry-led initiative enables innovative systems integration, provides strategic market outreach and supports the sector through training, best practices, research, networking and direct technical support.

**Contact us for support on your next project:**

Toll Free: (800) 463-5091

**Barbara Murray** at [bmurray@cbc.ca](mailto:bmurray@cbc.ca)

[www.wood-works.ca](http://www.wood-works.ca)

**Content sources:**

Element5 – Cardinal House by Douglas Cardinal Architect

Cecobois – CLSC Naskapi by STGM architectes and Éric Lirette

**The *Wood Design & Building 2020 and 2022 Awards submissions:***

Métis Crossing Cultural Gathering Centre by Reimagine Architects Ltd.

Tsleil-Waututh Administration and Health Centre by Lubor Trubka Associates Architects

Seine River First Nation Cultural Centre by Cohlmeier Architecture

Articles compiled and written by Natalie Tarini

Cover Image: CLSC Naskapi by STGM architectes and Éric Lirette

Photo: Alexandre Guérin

# Harmonious Architecture

## Wood in Indigenous Projects

Canada's forestry sector is the largest employer in the country for Indigenous workers, employing nearly 11,600 individuals. There are also over 1,400 Indigenous-owned businesses in the forest sector.<sup>1</sup>

Deputy Grand Council Chief Wawia, who was honored as a Forest Community Champion by the Forest Products Association of Canada, once noted the important link between Indigenous peoples and sustainable forestry. "We need to do our part to ensure sustainability as we continue to live in harmony with our forests," he said. "I encourage our First Nations youth to get involved, whether as professional foresters, biologists, or conservation officers, or in forest operations."

Our industry recognizes that inclusiveness is an ongoing commitment and that it cannot successfully happen without a focus on respecting the communities where forestry operates. Indigenous stewardship and honoring the cultural and spiritual connections to the land are critical practices for forestry operations in Canada.

One way to celebrate the link between Indigenous peoples and forestry is through architecture. Known as a visionary in the architecture community, Douglas Cardinal dedicated his career to creating beautiful, thriving, and harmonious buildings. Drawing inspiration from nature, Cardinal practiced organic architecture and often took a holistic approach to fulfilling his clients' vision and social commitments. "We are limited only by our lack of creativity," he said. "Our buildings should symbolize the exuberance of a free nation that encourages individual effort and creativity."

Architecture has the ability to enact social change. While strides are being made in Canada toward reconciliation, the role of architecture is often underplayed. Whether a renovation or a new build, Indigenous architecture is a mindful process that creates spaces that respect tradition, embrace cultural expression, and link elements of the Earth with our surroundings.

Join us as we celebrate wood in Indigenous projects throughout Canada.



**Andrew Bowerbank**  
Vice-President, Market Development  
*Vice-président, Développement des marchés*  
Canadian Wood Council  
National Director  
**Wood WORKS!**

<sup>1</sup>[www.fpac.ca](http://www.fpac.ca)



Métis Crossing Cultural Gathering Centre

## ALBERTA MÉTIS CROSSING CULTURAL GATHERING CENTRE

ARCHITECT / REIMAGINE ARCHITECTS LTD.  
PHOTOGRAPHY / COOPER & O'HARA

Located in Smoky Lake, AB, the Métis Crossing Cultural Gathering Centre offers over 10,000 sq.ft. of contemporary space for gathering, learning, and sharing the Métis story. Wood seemed the natural choice for this project, which features an expansive 2,600-sq.ft. deck and canopy on the south side with scenic views of the river valley.

In addition, wood has a long history in traditional Métis construction practices. The project integrated various types of wood construction, from traditional methods such as heavy timber and stud framing, to contemporary engineered wood products such as glulam and engineered lumber.

Homing in on Métis tradition, the dovetail joint and the post-and-beam millwork details are reminiscent of their historical use during the fur trade in building homesteads or forts. Post-and-beam detail can be found on the outside corners of the cladding, as well as in the dovetail joints utilized in the bench of the fireplace, the Métis kitchen table, and the mobile kiosk cart.

The butterfly-shaped roof, which spans 47 ft. across the hall, presented a unique challenge for the design team, as the client wished to avoid the use of columns. To achieve this ambitious design, the designers used

rustic finished spruce-pine glulam decking panels for the roof framing; these panels were supported by hybrid heavy timber and steel trusses. Each truss consisted of solid 10-in. x 12-in. Douglas fir timber chords and circular steel web members. The long spans were achieved with a unique truss system that allowed the timber chords to be discontinuous in the middle, at the low point in the roof. The truss shape is intended to mimic the infinity symbol, which has important meaning in the Métis culture. The timber truss shape was purposely separated from the Douglas fir glulam columns that support the hybrid trusses and glulam roof beams to celebrate the integration of historical and contemporary materials.

The large roof canopy over the south deck explores the nuance of Métis culture, where indoor and outdoor integration is key. This extended deck tempers the environment between indoor and outdoor in a significant, considered way, with Accoya structural joists supported by Douglas fir glulam beams and columns.



The Métis Crossing Cultural Gathering Centre is a stunning structure that integrates traditional craftsmanship with modern materials, designed to engage and excite visitors through an exploration of Métis cultural experiences.



**ATLANTIC  
CARDINAL HOUSE**

Located in Elsipogtog First Nation, NB, Cardinal House is a prototype for a prefabricated mass timber home. Renowned Canadian architect Douglas Cardinal designed this project with a vision to create healthy, beautiful, long-lasting, and affordable homes in response to the growing housing crisis of First Nations communities. Built to be a highly durable, energy-efficient, and high-quality home, Cardinal House is a two-story, 1,100-sq.ft. structure with three bedrooms. CLT was used for the majority of the walls and floors. The building envelope was built at Element5's manufacturing facility and shipped on a single truck to the site. Final assembly took a mere three days—a definite advantage when faced with labor challenges and short construction seasons.

The prefabricated, modular design and mass timber construction deliver a high-performance, durable home that can be passed down through the generations. Cardinal House is an all-wood design that uses innovative structural panels called CLIPs (cross-laminated insulated panels) for the exterior walls. CLIPs are highly customizable and can be prefabricated as finished exterior walls that include insulation, windows, doors, and exterior cladding. Superior thermal performance of the building envelope was achieved by energy-efficient, triple-glazed windows that were preinstalled into the CLIPs in the factory. Using sustainably sourced mass timber products demonstrates that construction of the home is easily repeated, so quality housing can be delivered to remote locations.

ARCHITECT / DOUGLAS CARDINAL ARCHITECT  
PHOTOGRAPHY / MARK HEMMINGS



Cardinal House



Cardinal House



Cardinal House

**BRITISH COLUMBIA**  
**TSEIL-WAUTUTH ADMINISTRATION AND HEALTH CENTRE**

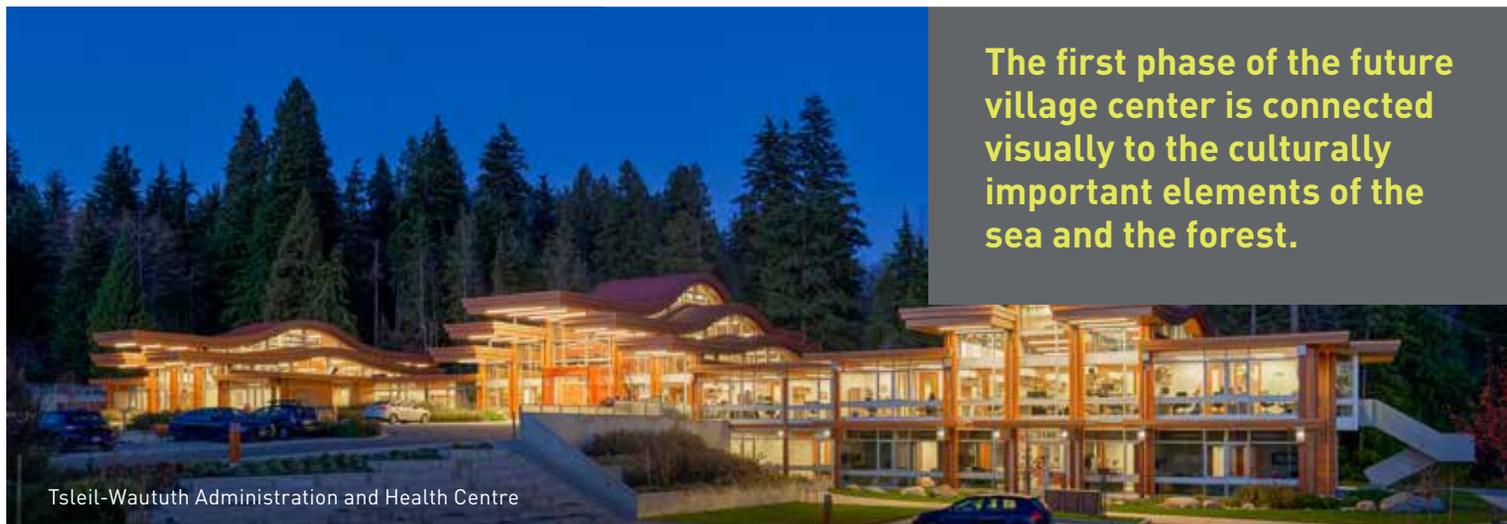
Tseil-Waututh means "People of the Inlet." The new seat of the Tseil-Waututh Nation government and health, cultural, and community services is the first phase of a campus-style village center located on a mountainside site overlooking the Burrard Inlet.

During their history, the Tseil-Waututh Nation has developed sophisticated art, philosophy, social structures, and building technology using the versatile properties of wood from the Pacific Forest. Cultural heritage was celebrated throughout the design solutions, which were developed through an integrated collaborative design process with the entire Tseil-Waututh community. The building is placed on a north-south axis and follows the course of a creek on the east side of the site. This positioning strengthens the relationship between the water and forest, such that the forest and views of the ocean can be appreciated inside and out.

Cedar log columns and beams, symbolic of traditional structures, define the Government Chamber. The chamber can be easily closed off for privacy or opened up to provide an addition to the main gathering space. The cedar-clad walls surrounding the chamber provide a background for permanent or temporary displays of traditional and contemporary art created by Tseil-Waututh artists.



Tseil-Waututh Administration and Health Centre



Tseil-Waututh Administration and Health Centre

**The first phase of the future village center is connected visually to the culturally important elements of the sea and the forest.**

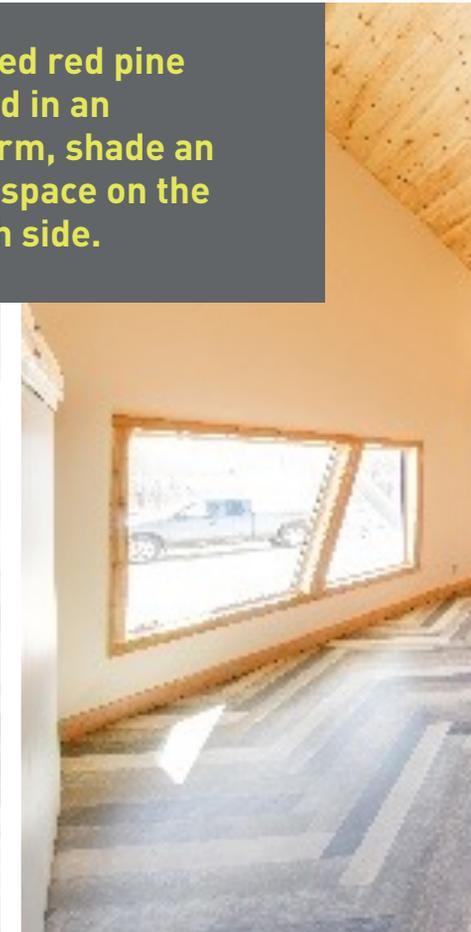
The structure, utilizing engineered wood products and natural lumber, is a combination of post-and-beam frames infilled with glazing and a limited number of strategically placed shear walls. This design exposes every element of the structure as an architectural feature and demands skilful concealment of the dense network of building services. The hidden technical infrastructure contains heating, cooling, ventilation, acoustics, audio/visual, electrical distribution, lighting distribution, fire protection, and the security network. The British Columbia government's Forestry Innovation Investment conducted a Life Cycle Assessment and concluded that the project qualifies for LEED Gold standing.

Extensive fenestration allows for plenty of natural light, minimizing the need for electrical lighting, while operable windows provide natural ventilation to individual offices. Green roofs are planted with indigenous plant species to help regulate the indoor temperature, save energy, and encourage endemic biodiversity.



Locally sourced red pine logs, arranged in an undulating form, shade an outdoor workspace on the center's south side.

Seine River First Nation Cultural Centre



## ONTARIO SEINE RIVER FIRST NATION CULTURAL CENTRE

The Seine River First Nation Cultural Centre is a multipurpose building built on the Seine River First Nation (SRFN) Reserve in Northwestern Ontario. The project draws inspiration from traditional Indigenous design to create an original, contemporary community center. Wood is featured extensively throughout the building to embrace the warmth and texture of the nature that surrounds the structure.

The 7,500-sq.ft. center has a distinctive form that reflects the First Nation's functional requirements: a community hall, offices, crafting rooms, and a ceremonial space. The building repurposed materials gleaned from an incomplete structure, a home building kit, to echo traditional Indigenous crafts and the natural surroundings. The design team was challenged with understanding how the existing materials, which consisted of glulam columns and beams and wood studs, could be reassembled into new configurations to suit the center's design. A scale model of the building parts assisted in this process so that materials could be used economically.

Stepping into the building, visitors are greeted by a wall of stacked glulam beams, a glulam reception desk, and exposed glulam framing. Vaulted ceilings

clad with tongue-and-groove pine slope up to clerestory windows that fill the space with natural light. Detail was given to incorporate wood wherever possible, including baseboards, casings, doors, and millwork.

The round shape and low ceiling of the ceremonial space and the selection of door colors—white, yellow, red, and black—represent the Medicine Wheel. The floor in the ceremonial space is composed of packed earth and sand, mixed with traditional medicines from sacred sites in the SRFN territory. Indirect lighting and sound-absorbing materials enhance the ritual purposes of the ceremonial space. Spruce pillars, selected from the four corners of the territory, encircle the room.

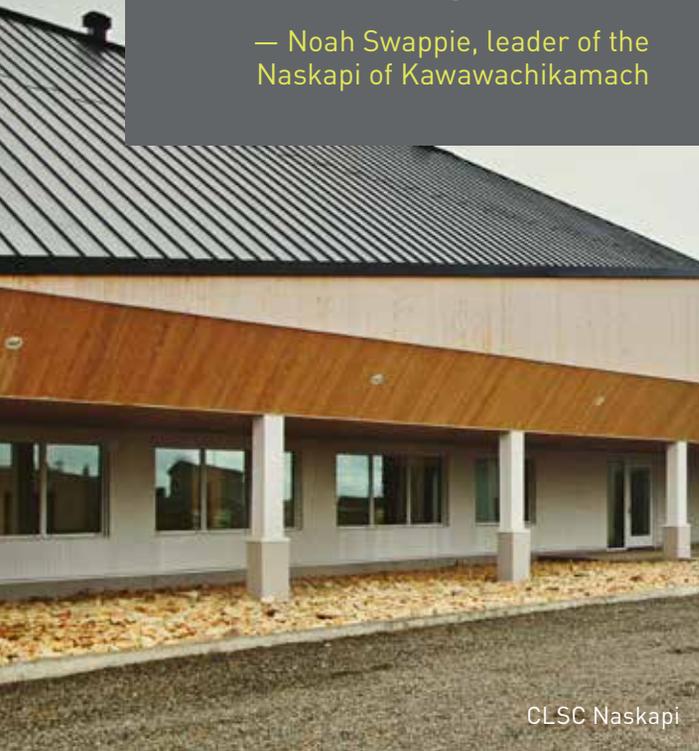
Exterior cladding is reclaimed cedar colored to mimic the appearance of birch bark, which is abundant in the territory. Locally sourced red pine logs, arranged in an undulating form, shade an outdoor workspace on the center's south side. Wood selection and cutting of the red pine were directed by a tribal Elder. The building's design was a collaboration that involved listening, open dialogue, and feedback from the chief and band council. The use of wood, both reclaimed and locally sourced, reaffirms the significant character and local identity of the building.



Seine River First Nation Cultural Centre

**“We really needed it. It’s better to bring services to our community than to have to evacuate our patients.”**

— Noah Swappie, leader of the Naskapi of Kawawachikamach



CLSC Naskapi

## QUÉBEC CLSC NASKAPI

Located approximately 15 km from Schefferville, QC, the Kawawachikamach CLSC Naskapi offers its services to the Naskapi Nation. This Indigenous community represents approximately 1,300 people and has experienced extensive population growth over the past two decades. The clinic that was built 25 years ago was no longer able to adequately serve the growing population’s needs. The new project, spanning 22,000 sq.ft., is four times larger than the previous clinic. In Québec, CLSCs (local community services centres) are public organizations offering frontline health services and assistance programs for families, newborns, young mothers, adolescents, seniors, and adults in need.

As the leader of the Naskapi of Kawawachikamach put it, “We really needed it. It’s better to bring services to our community than to have to evacuate our patients.”

The light prefabricated wooden frame was a natural choice for building designers. The soil conditions would not support a heavier building, and the light prefabricated wooden frame proved to be the most economical and efficient solution in terms of method of construction, supply, and transportation. It was also the fastest build system, a key consideration for a site where the ground is only thawed three or four months of the year.

This one-story building has a unique appearance, thanks to its black sheet metal roof that descends to the ground in some places. The geometry follows the profile of the surrounding landscape: open and relatively flat with small elevations. The black roof is reminiscent of the relatively dark hues of the landscape in summer, while the declining white walls of pre-painted or natural cedar on a portion of them reflect the light winter environment.

The project consists of more than 120 rooms, including emergency, dentistry, social module, rehabilitation, routine and outpatient health services, administrative services, and X-ray room. Architecturally, the building has been designed to take the harsh climate into consideration. Its envelope is modulated according to the anticipated passage of the prevailing winds to reduce impact, direct snow loads, and release sheltered alcoves around the building.

Wood is definitely in the spotlight for this project, with the laminated timber roof structure, the walls made of prefabricated wood components, and the red cedar exterior covering.

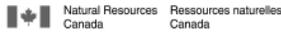
ARCHITECT / STGM ARCHITECTES AND ÉRIC LIRETTE

PHOTOGRAPHY / ALEXANDRE GUÉRIN



CLSC Naskapi

# NATIONAL PARTNERS



## WOOD WORKS! REGIONS IN CANADA



### NATIONAL

c/o Canadian Wood Council  
99 Bank St., Suite 400  
Ottawa, ON K1P 6B9  
Tel: 613.747.5544

### ONTARIO

1240 Centennial Cres.  
Corbeil, ON P0H 1K0  
Tel: 866.886.3574

### BRITISH COLUMBIA

837 Riverside Dr.  
North Vancouver, BC V7H 1V6  
Tel: 877.929.WOOD (9663)

### QUÉBEC

1175, avenue Lavigerie Bureau  
200 Québec, QC G1V 4P1  
Tel: 418.650.7193

### ALBERTA

900-10707 100 Ave.  
Edmonton, AB T5J 3M1  
Tel: 780.392.1952

### ATLANTIC

c/o Maritime Lumber Bureau  
P.O. Box 459, Amherst, NS B4H 4A1  
Tel: 902.667.3889