Situated on the south banks of the Fraser River, the site itself is an extension of the elevated dike looking over the farmlands to the south and the river to the north. The architect is also the owner and contractor for the project. The goal for the house was to rethink conventional wood framing to develop a sustainable approach to single family home construction. Wood as a sustainable building material was an integral component in the design. The house has achieved a LEED Platinum rating from the Canadian Green Building Council. No trees were cut to build the house. All the timber was milled from salvaged logs harvested from an elk reserve on Vancouver Island near Port Alberni. A significant number of trees were blown down during a large wind storm that hit the west coast a couple of years ago and the fallen trees presented a significant fire hazard as well as obstructing the natural migratory routes of the elk. This is the first forest harvesting of this kind on the west coast. A local prefabrication process maximized wood yield and minimized construction waste.

This project involved the restoration and rehabilitation of a designated historic structure that was used for the refining and processing of salt that was shipped up to Vancouver from San Francisco. The original Salt Building was built in the 1930’s, squeezed between two lumber operations, on a City-owned waterfront lot, with only the south west corner situated above the historic high water line. The original structure was supported on timber piles. The shell is a heavy timber structure made up of beams, columns and a spectacularly complex, heavy timber, longspan roof truss system that directs loads onto columns located in the lateral walls and down the centre of the floor to create a large, open space. The restoration and rehabilitation process required that any new wood integrated into the building be complementary in appearance, but not imitative of, the historic timber, i.e. new wood was not distressed or aged in any manner to make it appear to be original.

The Salt Building is one of very few heritage projects in Canada to target Gold certification under LEED-CS. To summarize, wood was used for the project simply because it was the most appropriate means by which to restore and rehabilitate the historic Salt Building in a sustainable manner that reduces the environmental impact of the project.
Multi-Unit Residential
Philip MacDonald, Philip MacDonald Architect Inc.
Willowbridge, Kelowna

Willowbridge is a supportive/transitional housing program for individuals who have experienced significant barriers to maintaining long-term housing. Wood framing and roof trusses were chosen because it is economical, sustainable and can be erected quickly and efficiently. The oversized glulam timbers were selected to create a focal point and help soften the building against a busy street. Given the nature of the facility the architect wanted to create a building that showcased what the Okanagan and British Columbia have to offer while providing a comfortable and soothing space. The cedar siding and soffits with a clear stain helps to frame the large commercial glazing and tie them into the glulam timbers. The bike enclosures were finished with open cedar slats affixed to a metal frame to provide security with the safety lighting at night and visibility during the daytime.

Commercial Wood Design
Darryl Condon, Hughes Condon Marler Architects
Carousel Pavilion, Butchart Gardens, Brentwood Bay

A traditional 32-figure wooden carousel is housed within a concrete, wood and glass carousel pavilion at the base of an existing mature forest at the Butchart Gardens. The building consists of two main elements: a 90-metre long serpentine wall made of board-formed concrete, and a glass drum with an exposed timber structure. The wall creates cave-like rooms for children’s parties, concession and service spaces, and also forms the retaining wall at the rear of the main circular carousel room. The circular roof of the carousel is constructed of exposed glulam beams and a four-metre diameter glazed oculus. The upper domed roof is covered in a thin layer of native mosses, sedums and corsica mint. The lower roofs are a continuation of the forest understorey: snow berry, ferns, salal.

Wood was the natural choice for the structure and interior cladding for the Children’s Pavilion at the Butchart Gardens. Wood’s availability, cost, ease of construction, beauty and acoustic qualities set wood ahead of any other options presented to the design team.
The Atrium, with its impressive central arrival hall, is situated in a prime area of the downtown Victoria business district. The building offers quality office space, market leading tenant amenities, as well as ground floor retail shops, restaurants and other services.

The building’s owner has a long history with dimensional lumber, owning one of the first lumber companies on Vancouver Island. This history inspired the expression of small dimension lumber in this important space. The leap of scale from the repetition of small dimension slats over the curving expanse of the atrium’s sides generates strong visual impact. The wood slats, as well as the cedar soffits, also form an integral part of the atrium’s acoustic strategy. As a semi-public urban room, The Atrium uses the warmth of wood to welcome in office workers and invite the public into the space.

The Aquatic Centre replaces an existing community scale pool on a neighboring site. The new centre is intended to serve the local neighborhood residents, but also act as a destination pool for the city at large. To this end, the building’s overall design needed to impart a sense of familiarity and friendliness to the local constituents and at the same time portray a grandeur and civic scale. By using wood as the primary structural and envelope element in the natatorium, the design imparts the necessary friendliness and grandeur at the same time.

The Aquatic Centre at Hillcrest Park was designed with the Vancouver Board of Parks ongoing commitment to sustainability in mind. This facility was built to high environmental standards, targeting leadership in Energy and Environmental Design (LEED®) Gold Standard. Wood use and sustainability are a big aspect to the success of the design. Wood’s natural properties allow it to absorb and release moisture in order to maintain equilibrium with the adjacent air. Building with wood contributes positively to an overall reduction in greenhouse gas emissions and the mitigation of climate change.
Wood was essential to this project for its cultural value - particularly cedar, since it is the “tree of life” for the Coastal Salish peoples and connects the Sliammon people with their traditions. The spirit of the building could only be described in wood. Wood was essential for its economy, for its flexibility of use, for its responsiveness to changes during construction on the remote site, and as a relevant construction technique for local labour.

The participation of the Sliammon people in the creation of their building made wood the valued choice. Design and construction techniques were selected to encourage local products and local skills. The construction management method of procurement allowed the whole Sliammon Nation to participate by the donation of red and yellow cedar culled from their traditional territories and facilitated an apprenticeship program that specifically recruited and trained local band members to become a part of the construction team.

The Canada Pavilion was a key component of Canada’s participation in the Shanghai 2010 International Exposition. It was built as a temporary building for the six month duration of Expo 2010 in Shanghai, May 1st to October 31st, 2010. The design and construction of the Canada Pavilion reflected Canadian values of inclusivity, sustainability, and creativity. Western Red Cedar wood was chosen for the exterior shell of the pavilion because it is a recyclable, reusable material and very Canadian - it is the official tree of British Columbia and has been called “the cornerstone of Northwest Coast aboriginal culture,” with great spiritual significance. Western Red Cedar is known and respected for its beauty, versatility and natural durability and is valued for its distinct appearance, fragrant aroma and high resistance to decay, moisture and insect damage. The cedar boards were individually fastened to a steel frame, allowing for an easy dismantling so the wood can be reused in construction projects following Expo 2010.
Corelam™ is a family of corrugated plywood products and a significant innovation in manufactured wood. The patented corrugation process results in a product with a combination of unique aesthetic and technical qualities using significantly less material to achieve a greater strength-to-weight ratio than flat plywood. The most basic product category within the family (PieceCore™) is a paneling system consisting of different sizes of square or rectangular panels intended for application to walls or ceilings using standard or custom hardware systems depending on the application. Lighter and more versatile than comparable flat panels, Corelam™ has built-in practical advantages for any interior design project (offices, restaurants, hotels, public spaces, etc.) as well as its attractive, unique appearance.

Corrugation has been used with metal and plastic and cardboard for a long time. It took longer, but now in the 21st century, corrugated wood is available to designers, architects, builders, and consumers.

The urban landscape in Washington, DC features many concrete and granite buildings. The architect felt this new structure would showcase wood and would stand out from the crowd. The design involved preserving and renovating two historic theaters while adding a new third theater. All three theaters were covered with a 475-foot long cantilevered roof thereby creating 200,000 square feet of enclosed space. A transparent wall so the old theaters were still visible is made possible with a heavy timber supported roof and glazing system.

According to the architect, the decision to use wood was an easy one. The project had a very tight budget and the structure had to be beautiful, and wood made perfect sense. In the end, wood ended up doing triple duty – it was used to hold up the roof and the glass; and it provided the final finish for the space. When Arena Stage reopened in 2010, it was the first modern structure to use heavy timber components in the United States capital. It is also the first project in the US to use an efficient hybrid wood and glass enclosure to envelop two existing structures.
The early 20th century timber “Bridge of Dreams” across the Tulameen River in the town of Princeton was the final link in the Kettle Valley Railroad and integral in sustaining the development of the British Columbia interior. When the span was decommissioned in the 1960s, however, the town was left with three large relics - two concrete abutments and a central pier. Recently, as part of Canada’s 125th anniversary celebrations, the creation of the Trans-Canada Trail was announced, which was to involve defunct railway corridors. The Trans Canada Trail Society’s local chapter partnered with the town of Princeton in the shared vision of completing their portion of the trail with a crossing which would utilize the existing piers.

The community was actively involved in the project, as evidenced by the presence of spectators at every construction milestone. On April 15, 2010 the bridge was officially opened to the public. The celebrations included performances by the local orchestra and the temporary installation of a small steam-driven train which once again carried children and their parents across the Bridge of Dreams.

Engineer
Gerald A. Epp, Fast+Epp Structural Engineers
“Bridge of Dreams” Footbridge, Princeton, BC

A leader in wood design, Bing Thom has been awarded the Wood WORKS! BC 2011 Wood Champion Award. Creative, innovative, expressive and uplifting – these are a few of the many words used to describe his designs in wood. On his company’s website, this architect writes “the transformative power of great architecture is to uplift, not only the physical, but also the economic and social conditions of a community.” This mandate is truly recognized through his designs in wood.

Wood Champion
Bing Thom, Bing Thom Architects

Bing Thom has been recognized many times, by many different organizations, for his inspiring work around the world. He has close to 40 awards spanning an impressive career – awards from the Lieutenant Governor of BC, Architect Institute of BC and the Royal Architecture Institute of Canada. He recently received the Chinese Canadian Entrepreneur Lifetime Achievement Award. Bing Thom is the author of two books on architecture – the second one to be released this spring.

HIGH RESOLUTION PHOTOS OF THE 2011 WOOD DESIGN AWARD
WINNING PROJECTS MAY BE OBTAINED BY CONTACTING:
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