

# Memo



**Date:** June 18, 2010  
**File:** 1310-01  
**To:** City Manager  
**From:** R. Cleveland, Director, Infrastructure Planning  
**Subject:** Wood First

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**Recommendation:**

THAT Council adopts the following Wood First Resolution in acknowledgement and support of Bill 9 - BC's Wood First Act:

WHEREAS BC's forest industry as an integral part of the City of Kelowna's economy is developing new markets and new opportunities for wood products as a long-term strategy for a sustainable wood industry;

AND WHEREAS the BC Government has passed a Wood First Act to facilitate a culture of wood by requiring the use of wood as the primary material in all new provincially funded buildings, in a manner consistent with the British Columbia Building Code;

AND WHEREAS the City of Kelowna has adopted a Sustainable Infrastructure Policy (#352) to improve the performance of City-owned municipal infrastructure as evaluated against a comprehensive dashboard of evidence-based sustainability targets;

THEREFORE BE IT RESOLVED that the City of Kelowna will continue to support the development of its wood culture by:

- Being a wood champion and supporting the BC government's Wood First Act by adopting the Wood First Resolution per the report to Council dated June 18, 2010 from the Director of Infrastructure Planning;
- Ensuring that the performance of wood systems and products are considered whenever appropriate to maximize the achievement of the objectives of Kelowna's Sustainable Infrastructure Policy throughout all phases of infrastructure procurement and ownership.
- Ensuring that all municipal infrastructure projects in Kelowna receiving Provincial or wood industry financial support employ the appropriate structural or architectural use of wood.

A handwritten signature in blue ink, located in the bottom right corner of the page.

## Purpose:

At a regular meeting of Council on February 22, 2010, Council directed staff “to examine the consequences of the City of Kelowna adopting a ‘wood first’ resolution and report back to Council.”

## Background:

Bill 9 (Wood First Act) was adopted by the Provincial government on October 19, 2009. Further to previous resolutions of the Federation of Canadian Municipalities and especially the Union of BC Municipalities Resolution B19 (BC Builds Wood Industry Competitiveness, 2002), Bill 9 was intended to “facilitate a culture of wood by requiring the use of wood as the primary building material in all new provincially funded buildings, in a manner consistent with the British Columbia Building Code” (see [http://qp.gov.bc.ca/39th\\_1st/3rd\\_read/gov09-3.htm](http://qp.gov.bc.ca/39th_1st/3rd_read/gov09-3.htm), note that this exempted unconditional grants). Subsequently the UBCM Executive (Jan 21-22, 2010) further determined to “work with Wood First BC and Ministry of Forests’ staff in the development of a strategy around the use of wood in local construction projects that receive provincial funding”. Providing additional regulatory support, the British Columbia Building Code was recently revised to allow 6-storey wood frame construction following successful testing for seismic, life and fire safety.

Since then several local governments have adopted similar resolutions to support the Act including Quesnel, Prince George, Nakusp, Castlegar, Fruitvale, Campbell River and the Cariboo Regional District. A key motivation for them is the importance of forestry related industries in their municipal economies.

The Federation of Canadian Municipalities has awarded “Green Municipal Fund” low-cost loans and grants to support new buildings emphasizing the use of wood to reduce climate change impacts (ex. Whistler’s Public Library). Wood Works! BC, associated with the Canadian Wood Council, provides technical advice in conjunction with the Wood First initiative ([www.woodworks.org](http://www.woodworks.org)). Notable recent award-winning wood buildings include the Richmond Olympic Oval, Trout Lake Rink, Percy Norman Aquatic Centre, Whistler Nordic Centre, UBC Winter Sports Centre and the Vancouver Convention Centre.

Some key values associated with wood products in construction include (see [www.naturallywood.com](http://www.naturallywood.com), [www.woodworks.org](http://www.woodworks.org), [www.bcclimatechange.ca/.../Book Tackle Climate Change Use Wood eVersion.pdf](http://www.bcclimatechange.ca/.../Book_Tackle_Climate_Change_Use_Wood_eVersion.pdf))

- importance of the forest industry in the provincial/municipal economy in BC (including the harvesting, manufacturing, consulting and construction sectors) and innovation in product development (wood fibre insulation, engineered wood structural elements);
- contribution of wood to climate change reduction (low embodied energy or GHG emissions in manufacture, carbon storage while in use, reduced transportation GHG emissions when sourced locally);
- contribution to sustainability (renewable resource-especially in conjunction with CSA sustainable forestry certifications, reduced pollution & solid waste, favourable life-cycle costing, durability, structures easy to expand-renovate-adapt to changing uses);
- material efficiency in combining a number of design attributes such as acoustics, insulation, light-weight, structural integrity and weather resilience;
- contribution to healthy interior environments.

In consideration of these attributes, wood deserves serious consideration in the design and construction of Kelowna's municipal infrastructure. Similar requirements for high performance design, construction, operation and decommissioning of municipal infrastructure have already been established in the *Sustainable Infrastructure Policy*. (It is recommended, therefore, that Kelowna need only adopt a resolution that reinforces the desire to evaluate wood systems and products within the context of that policy, and supports the use of wood as a primary building material in all new provincially-funded buildings.

**Internal Circulation:**

Director, Design & Construction  
Director, Real Estate and Building Services  
Director, Civic Operations  
Director, Regional Services  
Manager, Building & Permitting, Development Services  
Manager, Purchasing, Corporate Services  
Legislative Coordinator, Corporate Services

**Legal/Statutory Authority:**

The *Community Charter* authorizes that a Council may, by bylaw regulate, prohibit and impose requirements in relation to buildings and other structures.

**Existing Policy:**

The Sustainable Infrastructure Policy (#352) requires that infrastructure projects be considered in light of carbon footprint and GHG emissions, ecological impact, life-cycle cost (including O&M costs and the imputed costs of environmental impact), cost/benefit evaluations, and distinctive place-making. Serious consideration of wood products and construction technologies is applicable in light of each of these criteria.

**Financial/Budgetary Considerations:**

The total cost of ownership, or life-cycle cost, is the principle budgetary consideration in the acquisition of municipal infrastructure. Wood will be selected when it provides equivalent benefit at the least life-cycle cost.

**External Agency/Public Comments:**

Quesnel's Bylaw No 1675 (adopted May 10, 2010) included language to "strongly encourage the use of wood as a primary building material in the design and construction of City funded buildings". The general requirements included:

- 5.1 "All design proposals for City funded buildings shall include a detailed description of how wood will be used as a primary building material," [and that the failure to do so could result in non-consideration of the proposal] (clause paraphrased).
- 5.2 "Favourable consideration may be given to design proposals for City funded buildings that demonstrate a more substantial and/or innovative use of wood content as a primary building material."
- 5.3 "Favourable consideration may be given to design proposals for City funded buildings from proponents who demonstrate a greater degree of expertise in the use of wood as a primary building material," [and that the failure to do so could result in non-consideration of the proposal] (clause paraphrased).
- 5.4 "Favourable consideration may be given to design proposals for City funded buildings that maximize the use of available local wood products," [and that the failure to do so could result in non-consideration of the proposal] (clause paraphrased).

This is consistent with the resolutions of other local governments.

**Community & Media Relations Comments:**

A news release will be prepared and copies of the Resolution will be sent to The Minister of Forests and Range and the Executive Director of Wood WORKS! BC.

**Considerations not applicable to this report:**

- Legal/Statutory Procedural Requirements:
- Personnel Implications:
- Alternate Recommendation:

Submitted by:



R. Cleveland, Director, Infrastructure Planning

Approved for inclusion:



J. Paterson, General Manager, Community Sustainability

Attachment: Wood First Resolution

CC: Honourable Pat Bell, Minister of Forests & Range and Minister Responsible for the Integrated Land Use Bureau  
Mary Tracey, Executive Director, Wood WORKS! BC  
Director, Design and Construction  
Director, Real Estate and Building Services  
Director, Corporate Services  
Director, Development Services  
Director, Community & Media Relations

# WOOD FIRST RESOLUTION

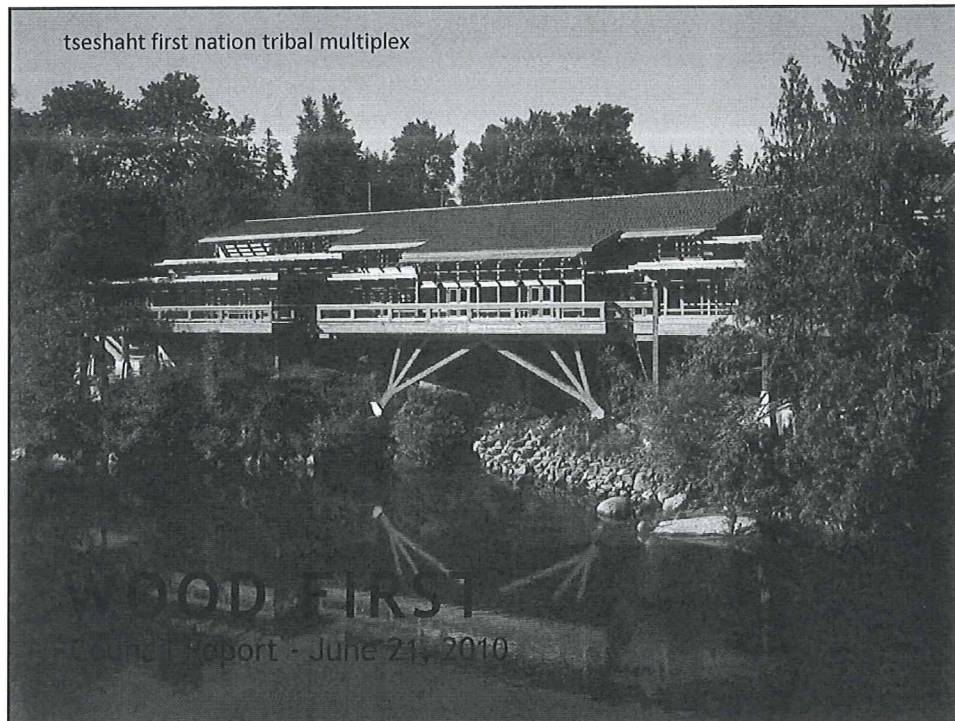
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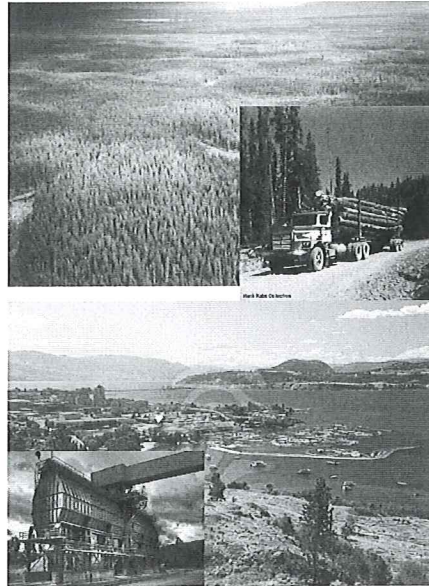


## **POLICY ENVIRONMENT**

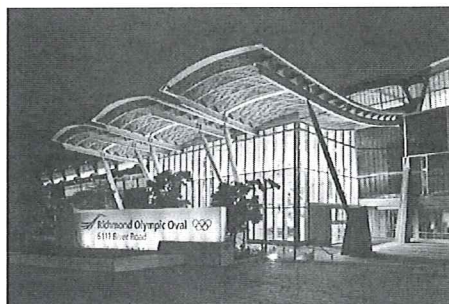
- ▶ **Bill 9 - Wood First Act, 2009.10.19**
  - ▶ “facilitate a culture of wood by requiring the use of wood as the primary building material in all new provincially funded buildings, in a manner consistent with the British Columbia Building Code”
- ▶ **Supported by FCM and UBCM Resolutions**
- ▶ **BCBC 6-storey construction**
- ▶ **Local Government Resolutions**

## LUMBER INDUSTRY ECONOMY

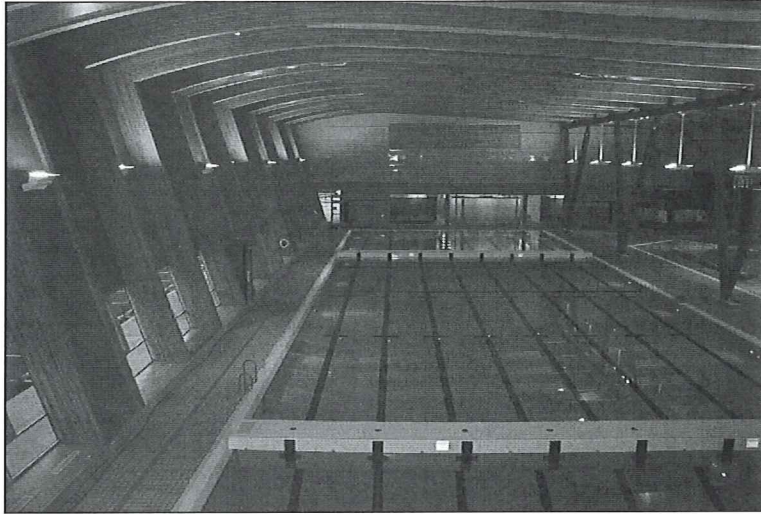
- ▶ Logging & replanting
- ▶ Manufacturing
- ▶ Transportation
- ▶ Consulting
- ▶ Contracting
- ▶ Demolition & waste reuse



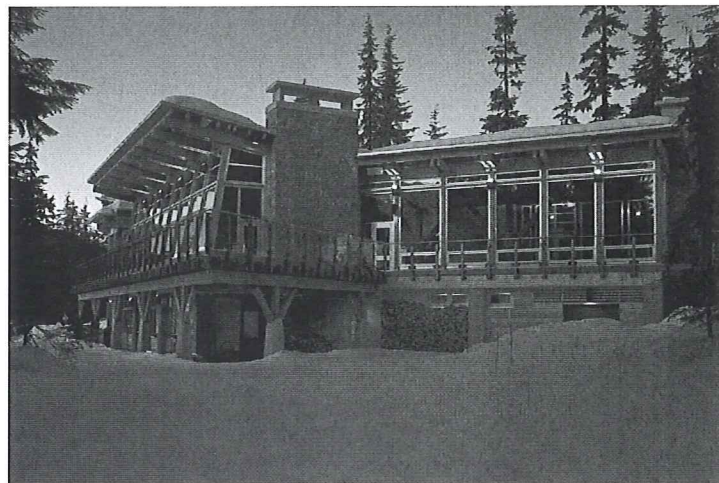
## RICHMOND OLYMPIC OVAL



**HILLCREST POOL, VANCOUVER**

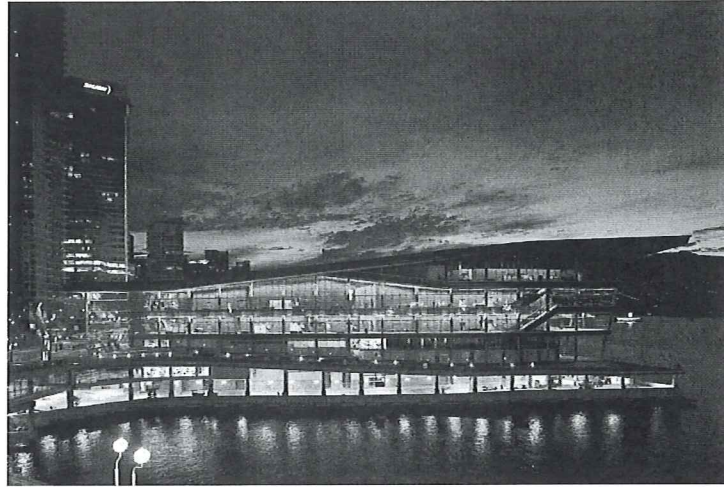


**WHISTLER NORDIC CENTRE**

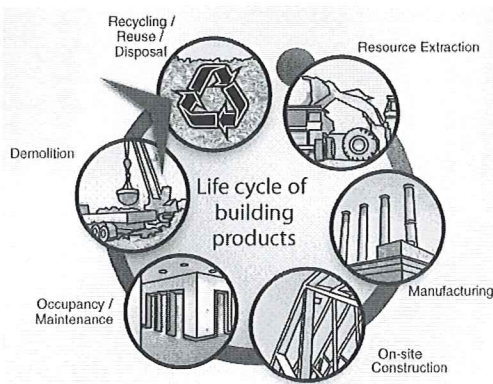




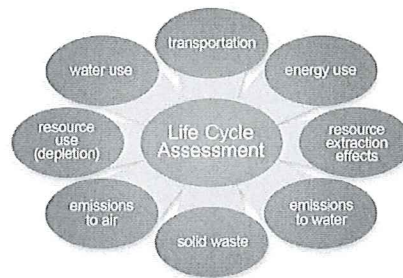
## VANCOUVER CONVENTION CENTRE



## WOOD ATTRIBUTES LIFE CYCLE ASSESSMENT

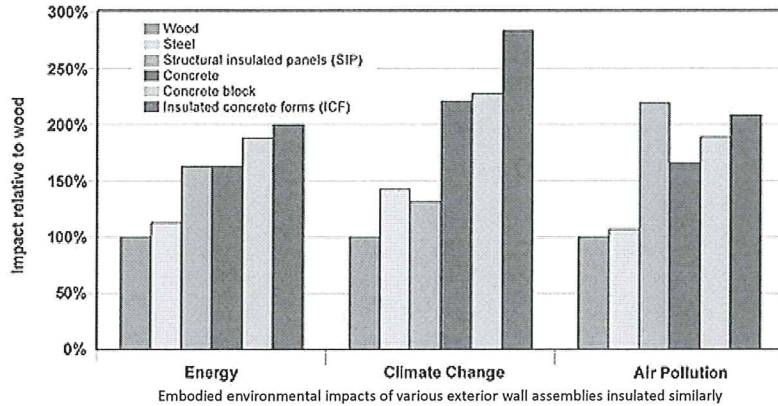


[www.woodworks.org](http://www.woodworks.org)



[www.naturallywood.com](http://www.naturallywood.com)

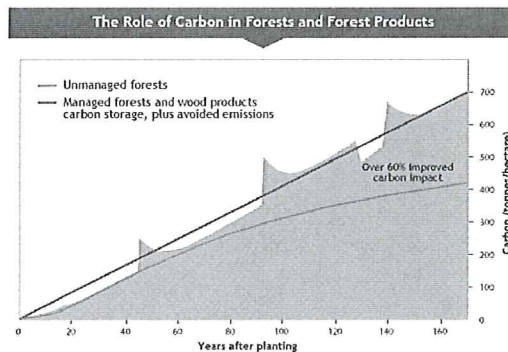
## WOOD ATTRIBUTES: ENVIRONMENTAL PERFORMANCE



([www.naturallywood.com](http://www.naturallywood.com))

## WOOD ATTRIBUTES: CARBON STORAGE

Continuously pumping the growing forest carbon into other wood uses provides the greatest mitigation of carbon emissions.

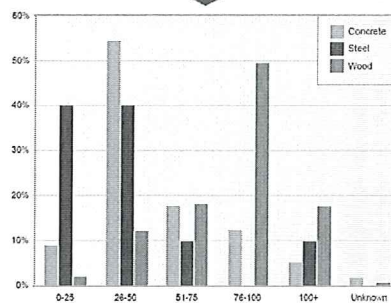


Borgund Stave Church, 1150 AD



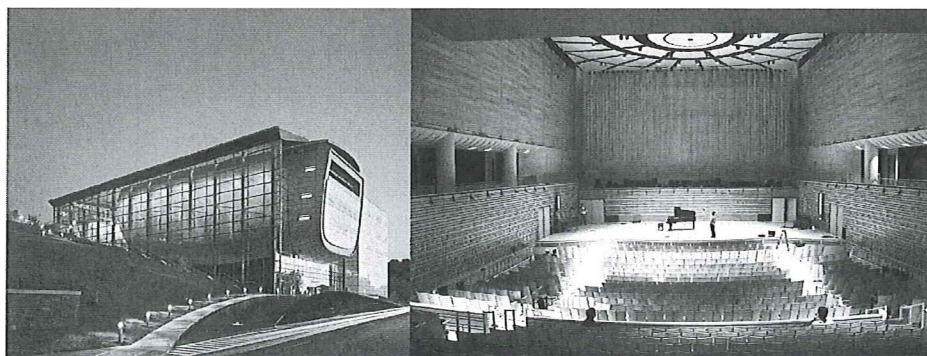
## WOOD ATTRIBUTES: DURABILITY

Comparison of percentage of demolished buildings in each age group by structural material



Source: FPIInnovations - Forintek Division  
Data from Minneapolis/St Paul, 2000-03

## WOOD ATTRIBUTES: DESIGN INNOVATION



Rensselaer Experimental Media & Performing Arts Centre

## SUSTAINABLE INFRASTRUCTURE POLICY

- ▶ Reduce Climate Change
- ▶ Reduce Ecological Footprint
- ▶ Increase Habitat & Biodiversity
- ▶ Increase Value of Built Capital
- ▶ Increase Distinct Meaningful Landmarks
- ▶ Minimize Life-Cycle Cost per Level of Service
- ▶ Attract External Investments

## RECOMMENDATIONS

- ▶ Adopt a Wood First Resolution to support Bill 9 and high performance sustainable infrastructure

