

BC government's commitment to a province wide strategy to manage construction and demolition waste

Whereas construction and demolition ("C&D") waste comprises approximately 2.8 million metric tonnes of materials annually in British Columbia ("BC"), and about one-third of municipal solid waste disposed in the province;¹ and

Whereas the materials disposed could have been resold, reused or recycled, they represent sources of embodied carbon, and deconstruction provides six times more job opportunities;

Whereas recent research in just Metro Vancouver suggests the value of salvageable wood at \$343 million annually, and the addition of other materials and other regions would radically increase this number of value;

Therefore be it resolved that UBCM request the Ministry of Environment and Climate Change Strategy develop a plan, including changes to regulations, provincial procurement policy, and economic and industrial policy, to significantly reduce Construction and Demolition waste.

Background

Our ask to BC Government:

To set a provincial target for the significant reduction of construction and demolition waste, as part of a larger BC-wide Circular Economy Strategy. The construction and demolition elements within the Strategy should take the form of a plan ("the Plan") which should include at least three core elements:

- Regulations — including, but not limited to, goals, targets, and specific regulatory limits on the disposal of construction and demolition waste;
- Procurement —including, but not limited to, goals, targets, actions, and other work to use provincial procurement power to help catalyze a market for salvaged and reused building materials;
- Economic and Industrial Policy — including, but not limited to, workforce transition planning, supply-chain coordination, and work to integrate salvage and re-use with BC's emerging mass timber industry.

More specifically, the Province should look to undertake elements of all of the following:

- A provincial target for the reduction of construction and demolition waste reduction, reuse and recycling that must be met before any use for fuel for in all municipal and private landfills, and all other waste processing sites and service providers, including waste that is currently processed out-of-province;
- The creation of inter-ministerial and inter-departmental working group, led by the Climate Action Secretariat;
- Implementation and conclusion of remaining recommendations from the 2016 *Guide for Selecting Policies to Reduce and Divert Construction, Renovation, and Demolition Waste*

submitted to the Canadian Council of Ministers of the Environment (CCME);

- Implementation of all waste streams identified in Phase 2 of the CCME Canada-wide Action Plan for Extended Producer Responsibility, including and especially construction and demolition materials;
- Engagement with, and direction to, all regional districts to continue their work to develop and implement solid waste plans that include mandatory diversion rates for construction and demolition waste;
- Collaboration with the Greater Vancouver Sewerage and Drainage District, the City of Vancouver, the Regional District of Nanaimo, the City of Port Moody, and other relevant regional districts and municipalities that have put in place mandatory material bans, demolition, and deconstruction bylaws and other regulations, to create a template bylaw for deconstruction and green demolition;
- A directive the province to ensure that recycling is defined and that it does not include use of wood as fuel nor uses at landfill (alternative daily cover, contouring, etc.) to ensure highest and best use of the materials.
- Amendments to the Environmental Management Act to ensure regular auditing and public reporting for private waste haulers and processes of C&D materials (e.g., asbestos, concrete, etc.), especially for inter-provincial haulers that move materials between regional districts; and
- Direction to amend or undertake follow-up work to the forthcoming CleanBC Labour Transition Strategy and identify interventions that provincial skills and training institutions, industry and professional associations, and other organizations can provide to help transition workers in the demolition industry, and provide pathways for new entrants to meet the growing needs of the circular economy of buildings, especially Indigenous peoples, persons of colour, newcomer Canadians, and youth.

Issue:

- Construction and demolition waste makes up one third of municipal waste in Canada, and over 75% of the materials which are disposed of could have been salvaged, resold, or recycled.
- Since construction and renovations often occur before the materials and buildings have finished their useful lives, this wastes not only the materials but the embodied energy it took to make them, meaning they represent a source of embodied carbon.
- Current abatement policies are problematic. For example, there are many “loopholes” which still leaves asbestos after the removal process, and the certification process is inconsistent and unreliable. This is dangerous for the health of people nearby, since any amount of exposure is considered to be unsafe.²

- Thus, a complete strategy with a shift towards deconstruction and full abatement would bring ecological, climate, health, and economic benefits across the province.

Background:

Environmental benefits:

- The embodied carbon from building materials globally represent 11% of all emissions produced, with concrete production alone accounting for 8% of global emissions.³
- Construction is the largest source of material demand globally, and the disposal of these materials include those that could have been sold and reused, upcycled, and prevent further emissions from decomposition in landfills or via incineration.

Economic benefits:

- Deconstruction provides an opportunity for job creation, as there are six times more jobs when deconstructing a home compared to demolishing it, and some jobs can be designed for those with barriers to employment.
- The Vancouver Economic Commission, Canada's first commercial 'deconstruction' company, Unbuilders, and BCIT researchers have estimated the potential value of just the deconstructable wood in single-detached homes in Metro Vancouver, at \$343 million annually.⁴
- The Canada Green Building Council estimates that a progressive, "Climate Forward" green building policy regime could grow the green building sector across the province from over 70,000 jobs and \$8 billion in revenues today to approximately \$180,000 jobs and \$29.5 billion by 2030.⁵
- There are many other materials arising out of deconstructed homes which could provide more economic opportunities.

Alignment with previous commitments from the BC provincial government:

- The Government of Canada, Province of BC, and industry bodies such as Forestry Innovation Investments, (FII) FP Innovations, are already working on 'design for disassembly' approaches that may be eventually incorporated into the BC Building Code (BCBC) and industrial policies, especially approaches that enable greater use of mass timber and other engineered wood products
- The Province of BC committed to the Canada-wide Action Plan for Extended Producer Responsibility which included developing programs for construction and demolition materials.

¹ Marc Lee, Belinda Li, Sue Maxwell, Tamara Shulman. *Closing the Loop 2020*. (2021) Pre-publication calculation, Table 1.

² Kurumatani, Norio, and Shinji Kumagai. "Mapping the risk of mesothelioma due to neighborhood asbestos exposure." *American Journal of Respiratory and Critical Care Medicine* 178, no. 6 (2008): 624-629. Accessed from <h

<https://www.atsjournals.org/doi/full/10.1164/rccm.200801-063OC>>

³ Canada Green Building Council (CaGBC). *Zero Carbon Building - Design Standard Version 2.0*. (CaGBC, 2020) Accessed from:

<https://www.cagbc.org/cagbcdocs/zerocarbon/v2/CaGBC_Zero_Carbon_Building_Standard_v2_Design.pdf>

⁴ Kinsey Elliott, Erica Locatelli, Carl Xu. *The Business Case for Deconstruction*. (July, 2020) Accessed from:

<<https://www.vancouvereconomic.com/research/the-business-case-for-deconstruction/>>

⁵ CaGBC. *Canada's Green Building Engine: Market Impact and Opportunities in a Critical Decade*.

(2020). Accessed from:

https://www.cagbc.org/cagbcdocs/advocacy/CaGBC_CanadasGreenBuildingEngine_EN.pdf