

Building Better in the Kootenays:

Low Carbon Building Assemblies Workshop



This workshop was developed by FortisBC, BCIT, and the City of Nelson, and was hosted at the Prestige hotel on September 19th, 2023. It was delivered through the Low Carbon Homes Pilot, which has been an on-going effort between the City of Nelson and FortisBC that has been working to reduce embodied carbon emissions in the local construction industry. This work aligns with the ambitious aspirations found in the [Nelson Next](#) climate action plan.

The workshop was designed to help inform and educate the local building industry on what materials and building assemblies could help reduce carbon emissions associated with new construction projects. Presentations included: an overview of embodied carbon considerations in the construction industry, a review of the current political landscape in BC regarding low carbon building, a demonstration of four different low-carbon building assemblies, and two local case studies of buildings that deployed low embodied carbon design.

Workshop Details

Approximately 35 builders, architects/designers, engineers, energy advisors, and other building professionals attended. The workshop was free, and General Contractors who attended the meeting earned 6 Continued Professional Development (CPD) points towards their annual licensing requirements.

This was the first time this workshop has been offered and it was very well received! It provided an invaluable opportunity for attendees, facilitators, and City staff to engage in discussion centered around opportunities and barriers to more wide scale industry adoption of the low carbon materials and assemblies presented, and how these might be overcome.



What We Heard

- Local builders that are already using some of these materials and assemblies state that they have not found that their projects have increased costs due to these choices. Attendees were excited to see the two local case studies and were thrilled to be able to ask these builders directly about their experiences on their project.
- Attendees voiced a need to more formally balance work on operational and embodied carbon emissions and acknowledged how heavily the Province still focuses on operational emissions. There was also discussion about the need to integrate considerations about project/material cost and durability.
- Attendees identified the following as some **barriers** to action on embodied carbon: Provincial Code and material regulations, uninformed insurers and warranty providers, uninformed local building inspectors, limited local industry capacity and expertise, local material supply chains limitations for low-embodied carbon materials, societal assumptions around cost and what is feasible, limited data to characterize decision impacts, building costs.
- Suggested **approaches to these barriers** included: hands-on learning opportunities for builders regarding specific materials and applications, training and education targeting both homeowners and building inspectors, support for natural building material applications, financial supports for embodied emission reductions, databases for low-carbon material sourcing, contact lists for low-carbon home professionals, more local case studies on alternative building design, and cost-effective solutions, permitting process support, new building lot size restrictions and existing lot subdivision support.

Conclusion

Overall, attendees seemed to be highly satisfied with the content provided through this workshop and were hopeful that they could apply some of what they had learned to their work. There was a high-level of interest in the uptake of natural building materials and applications if concerns around building costs were addressed. Many recommended that the workshop should be offered to other communities!

To find out more about embodied carbon emissions and the Low Carbon Homes Pilot and how it relates to the City's climate plan – Nelson Next - please check out the Low Carbon Construction icon at: [Nelson.ca/programs](https://nelson.ca/programs)

Your participation matters!

