

The Value Proposition for Cross Laminated Timber (CLT) October 2010

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Executive Summary

About Cross-laminated Timber

Cross-laminated Timber (CLT) is a cost-effective wood-based solution that complements existing light- and heavy-frame construction options. It has been very successful in Europe and interest is rapidly growing in the US and Canada. Through optimal plant locations and partnerships with local sawmills, Canada has a clear advantage to seize the potential of this market.

CLT is a suitable substitute for some building types that currently use concrete, masonry and steel. It is fast to erect, environmentally sound, and performs well.



Why CLT?

The need for viable pre-fabricated systems suitable for use in both residential and non-residential applications is growing. With multi-family construction on the rise, CLT is well suited to structures of five storeys or more. The forest industry needs further penetration in non-residential markets where the market share for wood is currently very low (e.g., less than 10 percent in the US). As well as the benefits listed below, CLT does not require high-end lumber so it can be a use for less valuable species or grades – offering an ideal solution to designers and builders.

Benefits

CLT provides numerous benefits:

- Prefabricated system – fast, safe and precise
- Good seismic, fire and acoustic performance
- Good environmental credentials (e.g., high carbon storage, lower greenhouse gas emissions)
- 10 to 50 percent less expensive shell costs
- Provides an outlet for less valuable species or grades (e.g., cracked MPB lumber)
- Smaller, cheaper equipment (cranes, trucks, etc.) can be used
- Reduces job-site impact and leaves a small footprint
- Can be produced in Canada at a competitive cost
- Reduced construction time (by several weeks) when compared to poured concrete

What Market Approach Is Best?

CLT competes, both in cost and social terms, with concrete/steel buildings, especially in the non-residential and multi-family mid-rise market niche. To meet what will inevitably be a growth area, it is important to define short-, mid- and long-term goals, for example:

- *Short-term:* Floor slabs, with focus on both residential and non-residential
- *Mid-term:* Floors and walls—focus on industrial, then entire buildings from a limited portfolio (e.g., start with parking garages)
- *Long-term:* Custom projects.

A comprehensive market approach involves increasing awareness through advocacy groups, developing a generic product standard, and building alliances with sawmills, distributors and developers to better access the market.

Learn more

To find out more about the Bio-pathways II project and how Canada's forest industry is moving up the forestry value chain: www.fpac.ca/bio-pathways, www.fpinnovations.ca/bio-pathways.