

Pre-fabrication: The Key to Mid-rise Savings

Mid-rise wood frame construction opens up the opportunity to design beautiful, sustainable, human-scale buildings that are also cost-effective to build.

It also promises opportunities for savings - framing in wood is recognized as being less expensive than putting up the same building in concrete or steel. The reason? The cost of materials and the speed of erection for pre-fabricated wood structures.

KOTT has more than 25 years experience as a wood pre-fabricator – our expertise can contribute to savings at the design and construction phases of your project.

Light Wood Frame

Mid-rise wood frame construction makes significant use of familiar light wood frame products and framing methods.

KOTT can provide pre-fabricated light wood frame components for the floors, walls and roofs. From simple wall panels and floor cassettes built in our factory, to components that include insulation, air leakage control and are “cladding ready”. We can design, build and deliver a pre-fabricated wood solution that is optimized for your mid-rise project.



Mass Timber Products

Mass timber products like cross-laminated timber (CLT), nail-laminated timber (NLT), glulam and structural composite lumber products have transformed what is possible with wood construction. These products offer an effective way to use smaller wood elements to produce members that are strong and reliable, with almost no shrinkage. The structural design and a strength-to-cost tradeoff will determine the role mass timber products could play in your project.



About KOTT

For more than 40 years we have been a supplier of lumber and building materials. As industry needs have evolved, so too have our offerings. For the last 25 years, we have been a leading supplier of pre-fabricated trusses, factory-built wall panels and floor cassettes.

Why build mid-rise in wood?

»Cost

Considering the total cost of materials and labour, a mid-rise light frame wood building is estimated to cost 10-15% less than the same building in concrete or steel. Its lighter weight significantly reduces foundation costs alone, particularly in poor soil conditions.

»Speed

All wood structural components can be pre-fabricated, saving substantial time on site and significantly reducing development carrying costs.

»Marketability

Wood mid-rise offers an opportunity for new product offerings that increase affordable choices for home buyers, meet municipal intensification targets, and maximize the ROI on infill sites.

»Quality

Pre-fabricating the structure improves overall product quality through: better control of moisture content, consistency in detailing and connections, and more robust quality control procedures.

»Performance

Wood has proven durability, based on existing buildings that are hundreds of years old. Wood's seismic performance is excellent - its lighter mass means lower forces are exerted during an earthquake.

»Sustainability

Using wood reduces the carbon footprint of a building - wood *stores* approximately one tonne of carbon/m³, while concrete is estimated to *emit* approximately 400kg of carbon/m³. Wood also outperforms concrete and steel in terms of life cycle assessment: it uses less overall energy to produce, releases fewer pollutants and generates less solid waste. It is also the only major construction material that is renewable.

