

## Wood Frame Construction - The sustainable way of building with Canadian wood

It's time to move away from conventional building materials. The world is taking serious note of global warming and the carbon footprints. Increasingly architects and designers are adopting alternative materials and technologies as a measure to mitigate these environmental challenges. They have increased the usage of sustainable materials and techniques in construction. Canada is an acknowledged leader in these building techniques with expertise in building with wood.



One of the building techniques that is becoming popular the world over is Wood frame construction (WFC). It commonly involves dimension lumber, engineered wood products, and structural wood panels to make walls, floor, and roof assemblies.

These elements provide a framework for installing mechanical systems (MEP) and insulation. Spruce-pine-fir (SPF), is preferred for constructing homes and even tall buildings. Such constructions can be found globally, particularly in North America.

### Canadian Wood – Instrumental in promoting WFC in India

Canadian Wood actively promotes building with wood in India. It engages with contractors / manufacturers in India as knowledge partners, providing practical training and sharing best practices in building with wood, using different techniques. These include Wood frame construction (WFC), Tongue & Groove (T&G), Post & Beam etc.

In India, Canadian Wood promotes four other distinct wood species from B.C., Canada, in addition to SPF. They are Western hemlock, Douglas-fir, yellow cedar, and Western red cedar. All these five species are legally harvested, certified, and sourced from sustainably managed forests of British Columbia (B.C.), Canada. Each of these species is suitable for a wide range of indoor and outdoor applications



Single storey WFC house - Chennai, Tamil Nadu



Multi-storey WFC house - Mysuru, Karnataka



WFC resort style studio - Bengaluru, Karnataka

Canadian Wood has successfully demonstrated the use of WFC technique in its India projects at Mysuru, Chennai and recently at Hyderabad. All these WFC style houses have generated a lot of interest from the architects and designer community. These are landmark examples of the possibilities of building with Canadian wood for structural purposes. While each of the Canadian wood species have versatile applications, SPF in particular is used in the wood frame construction.

### Why SPF is the right choice for framing applications in all types of construction and structural applications:

- Spruce-pine-fir's strength, lightweight, ease of handling, stress ratings and good working properties have made it a preferred wood species for framing applications in all types of construction.
- Strong and stable, SPF is thus well-acknowledged world over by wooden house builders.
- It is a particular favourite due to its high structural performance, excellent weight to strength ratio, dimensional stability and superior gluing properties.
- Manufacturers of wooden houses, trusses, and other structural components, regularly specify kiln-dried SPF as their choice of wood for its consistent quality and precise dimensions.



### Why developers and architects are finding WFC style construction as advantageous

#### Durable



#### Efficient



#### Occupant well-being



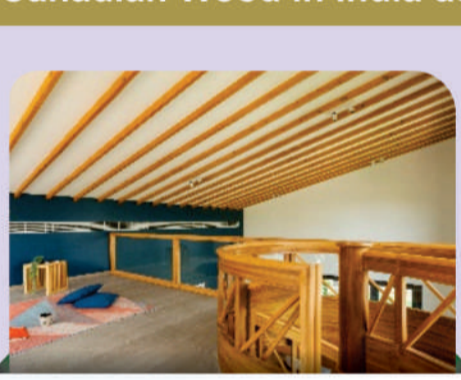
- Due to wood's high weight to strength ratio, WFC style construction is strong, durable and easy to build.
- The nail connections typically used in such constructions are effective in dissipating the energy in case of earthquakes or high wind incidents.
- It is suitable in varied climates and is excellent in terms of acoustics.
- It provides a few hours of extra vital time in the event of a conflagration provided appropriate steps are taken during construction.
- Use of high carbon and energy intensive and non-renewable resources such as water, sand, rock, cement etc are very much limited in case of building with wood.
- Building with wood is quick and efficient, resulting in reduced labour costs and massive opportunity cost savings. In India, wooden structures take considerably lesser time to construct as compared to building with steel-reinforced concrete.
- Wood buildings are more serene and pleasant to live in and work. It has been established that wood has health benefits for its occupants - well-being, productivity, and improved learning.



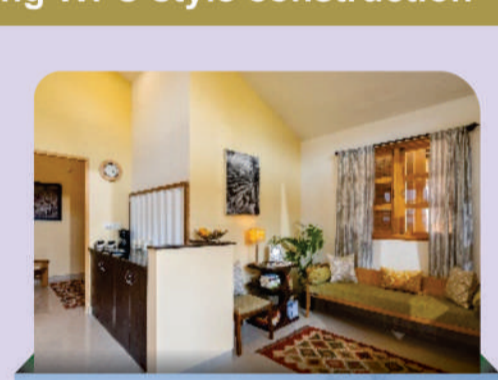
### Some signature projects of Canadian Wood in India using WFC style construction



Multi-storey WFC house - Mysuru, Karnataka



Single storey WFC house - Chennai, Tamil Nadu



WFC resort style studio - Bengaluru, Karnataka



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### Setting new benchmarks with Canadian Wood Villa, BTR Greens, Hyderabad



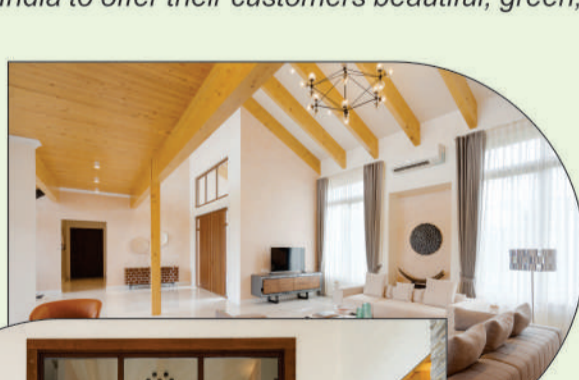
MAK Projects and Canadian Wood partnered together to build a sustainable villa made with certified timber sourced from sustainably managed forests of B.C. Canada.

- The project was commenced in October 2021 and was completed in less than 12 months.
- The villa is spread over a sprawling plot area of 15,000 sq.ft. with built-up area of 6,000 sq.ft. over two levels with a large leisure and living area, kitchen, pantry, four bedrooms with ensuite bathrooms, gymnasium, games room, AV room, outdoor sitting and expansive outdoor dining area.

Canadian Wood Villa is one of the first projects of its kind in the country to combine light wood frame construction with mass timber and prefabricated components.

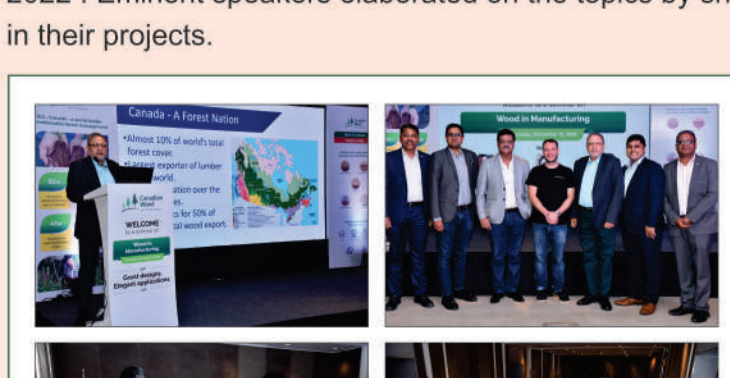
- The villa is almost entirely made from a variety of sustainably sourced and certified wood species from British Columbia, Canada, including spruce-pine-fir (S-P-F), western red cedar, yellow cedar, and western hemlock, which are showcased in both interior and outdoor applications.
- The many benefits of wood construction in terms of aesthetics, the environment, durability and performance were leveraged in the construction of this project.

*This Villa is a significant step by Canadian Wood, which will go a long way in reducing carbon footprint and pollution in the field of construction. It is a very good opportunity for developers in India to offer their customers beautiful, green, and climate friendly homes.*

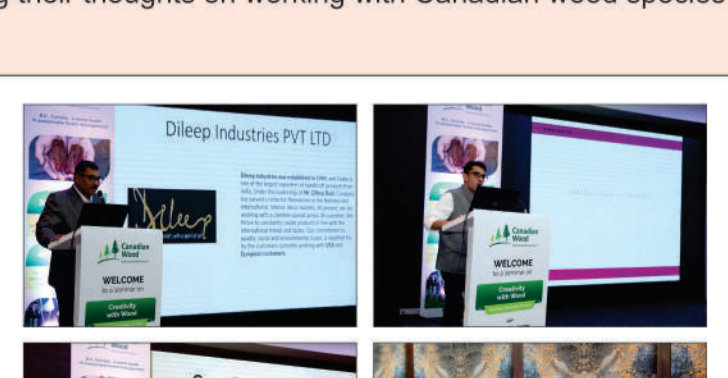


### Canadian Wood Seminars have started with a Bang

Canadian Wood recently conducted seminars on 'Re-man projects with Canadian Wood' in Mumbai on November 16, 'Wood in manufacturing' in Bengaluru on December 15 and 'Creativity with wood' in Jaipur on December 22, 2022. Eminent speakers elaborated on the topics by sharing their thoughts on working with Canadian wood species in their projects.



Bengaluru Seminar, December 15, 2022



Jaipur Seminar, December 22, 2022

**STAY TUNED**

for our upcoming Educational Seminars and Webinars