Steve Marshall Oct 11, 2021 5 min read

Mass Timber Benefits for Communities: A Citizen's Guide

There is a new climate-friendly building technology called Mass Timber that is taking off across North America. Some have described it as the biggest change in building design and construction in the last 100 years. We are now seeing wood in the form of Mass Timber go into a wide range of buildings where we have never seen it before. This technology has become well established in Europe and is just becoming common here in the U.S. and Canada. While designers and builders recognize some key advantages to building with Mass Timber, this brochure highlights the various benefits Mass Timber offers to communities.

Carbon Benefits

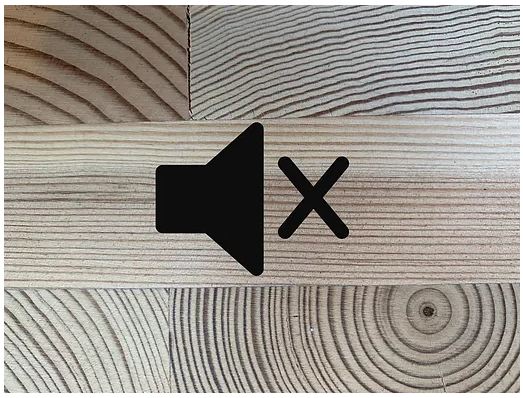
While there are number of good reasons for building with Mass Timber, the most important one is that is a renewable carbon-friendly construction material. Building construction in general is responsible for large volumes of carbon emissions. In contrast, Mass Timber buildings sequester carbon. As communities strive to address climate change by reducing their carbon footprints, Mass Timber can be a key tool in their toolbox.

Traffic Benefits

This is what a convoy of Mass Timber delivery trucks looks like:

Mass Timber greatly reduces the congestion commonly associated with construction. Truck deliveries are reduced by up to 90%. This both reduces the number of trucks passing through communities and reduces the noise and emissions associated with that traffic. Construction crew sizes are commonly reduced by 50% or more and the time of construction is reduced by 30%. This means it is not just the big construction truck traffic that is reduced, but all the other worker related traffic as well.

Quiet



Mass Timber construction projects are notably quieter than similarly sized conventional construction projects. The Mass Timber itself is delivered ready for onsite assembly using very quiet tools. Some noise construction activities such as mixing and pumping of concrete and the use of generators are greatly reduced or eliminated. Workers on Mass Timber job sites commonly marvel at how quiet the job site is.

Speed

Mass Timber construction is typically at least 30% faster than conventional construction. The components arrive flat-packed in the order they will be assembled to become the new building. This can take place quite rapidly. Also, as the buildings are lighter there is sometimes less time needed for foundation construction and site excavation. Further impacting speed, crews that will come in to

install plumbing, electrical and other build-out items are able to enter completed portions of the building more rapidly as cure time delays for concrete are greatly reduced.

Smaller Crew Sizes

A 70% reduction in crew size leads to less congestion related to crews commuting and parking in nearby neighborhoods. In some metropolitan areas this might even mean no extra long lines at popular food trucks. This is important at this time when many communities need large amounts of multi-family housing yet many areas are experiencing shortages of construction labor. With its smaller-sized crews, Mass Timber offers the opportunity to address these critical housing needs particularly well.

Nominal Onsite Construction Waste

That’s fewer dumpsters in your neighborhood and fewer traffic blocking moments as dumpsters are being emptied or hauled away.

Happy People

A number of studies have been done that indicate people benefit from being around wood. This shows up in attention spans, blood pressure, etc: Some of this may be simply natural reaction to the beauty of wood. We think this can be loosely translated into healthier happier people. Healthier happier people are priceless in your community.

Calls to Action

What can I do to encourage Mass Timber construction?

If you are interested in both the direct community benefits of Mass Timber as well as the powerful role it can play in making our buildings more carbon friendly, share this perspective with friends and the officials that represent your community. Share why you think it matters. Grassroots efforts can change the world.

What can my community do?

Make sure your community is staying current with the most up-to-date building codes. Codes are changing in significant ways recognizing Mass Timber as an appropriate construction alternative. But many jurisdictions update the edition of the available building codes on only a time-to-time basis. The significant master code changes that have taken place warrant local adoption now.

Consider regulations that encourage carbon friendly construction. The carbon it takes to build a building is called embodied carbon. Ironically, much of this so-called “embodied” carbon is actually carbon that was emitted in order to make the building. Many states and jurisdictions are recognizing the importance of embodied carbon and are looking at actions such as their own construction portfolio with an eye towards reducing the embodied carbon in new buildings. Mass Timber can be quite competitive in achieving this goal.

Now that you have familiarized yourself with the community benefits of Mass Timber, listen to what some elected officials have to say about it in their community. This video includes excellent remarks by the Mayor of Sunnyvale, California and two of Sunnyvale's Council members. Enjoy.

FAQs

What is Mass Timber?

Mass Timber is a series of wood products that are made by binding tougher lumber or wood veneer in to panels, columns, and beams. The are climate-friendly alternatives to conventional construction with concrete and steel and are often used for commercial-scale buildings. Common forms of Mass Timber include cross laminated timber, glulam, and mass plywood panels.

What makes mass timber climate friendly?

Trees use sunlight and absorb carbon from the atmosphere to grow. When wood from trees is harvested and turned into Mass Timber, the buildings that are constructed with that timber

sequester carbon. Often for many decades. Tree planting follows the harvesting and additional carbon is absorbed from the atmosphere by that new growth. This solar-powered carbon sequestering construction is in contrast to the use of other building materials which are net emission sources for carbon.

How does this carbon stuff relate to my community?

Globally, record levels of carbon in our atmosphere is one of the primary factors driving climate change. In order to turn this carbon emissions situation around we need to engage a number of tools. Mass Timber is one of the most cost-effective options we have to achieve this. And it is widely available now. Buildings account for nearly 40% of carbon emissions. Much of this is in the operating of the building once it is built. Mass Timber can reduce the carbon footprint of the construction of the building itself.

Will Mass Timber production wipe out forests?

No. Mass Timber connects sustainable buildings with sustainable forests. There is ample documentation of the capacity of forests to produce timber for the long-term when appropriate management and safe guards are in place. Mass Timber connects sustainable buildings to sustainable forests.

I've never seen Mass Timber. Is it a real thing?

Yes, it is very real. While this technology has only recently seen wide use in North America, it has been well-established in Europe. In the U.S. there have now been hundreds of Mass Timber buildings erected. They are present all across the U.S. and Canada now and even more are in the design phase. Building codes in the U.S. have recently been modified to support more use of Mass Timber. The carbon benefits of Mass Timber are becoming more widely known. You can expect to see more Mass Timber Production in the future.

How tall can a Mass Timber building be?

In theory the sky is the limit. We expect most mass timber buildings to are 20 stories or less though some will be more. For example, the Ascent Mass Timber project in Milwaukee under construction in 2021 and 2022 is 25 stories. Around the world consideration is being given to Mass Timber buildings that would be higher than that.

Is it safe? Doesn't wood burn?

Yes, it is safe. While wood does indeed burn, Mass Timber burns at remarkably slow rates. This has been conclusively proven and in recognition of that building codes are being modified to recognize the high degree of safety achieved when building with Mass Timber.

Will wood last?

Yes. When protected from repeated cycles of getting wet and drying wood lasts a long, long time. Some wood buildings have been around for more than 1,000 years.

More information about all of these aspects of Mass Timber benefits for communities are available on our website.

Learn more about Mass Timber Benefits