

## **Lyall excited to be ‘connected to a global community’ with steel-timber research project**

Angela Gismondi July 26, 2021



Residential Construction Council of Ontario president Richard Lyall says he is looking forward to being connected to a global community, researching the many benefits and innovations of steel-timber composite structures.

Lyall has been appointed to a steering committee that will oversee a research project examining these structures in order to determine the potential benefits of using it in the construction of tall buildings in the future.

“It’s basically taking projects under construction and projects to come, looking at the designs, looking at the costs, the benefits and who is doing the latest and greatest stuff,” said Lyall. “One of the things I’ve always believed in is we can’t operate in isolation. We have to look at what’s happening in other jurisdictions.

“The thing I like about this is we are connected to a global community on exploring ways to build better, to reduce carbon, to build healthier occupancies.”

The Chicago-based committee Council on Tall Buildings and Urban Habitat (CTBUH) will oversee a research project called The Future Potential of Steel-Timber Composite Structures, which will study the design, life-cycle cost, environmental and market benefits.

The research will include “detailed, data-driven case study analyses including built, under-construction, and proposed buildings, the primary motivators that dictate and enable the use of steel-timber composite systems will be identified, and the life cycle costs and environmental impacts will be studied,” states the website.

The CTBUH received a grant from constructsteel, the steel construction market-development program of the World Steel Association, to conduct the research.

Lyall pointed out the adoption of mass timber is still relatively new in Canada and while average heights of buildings range around the world, timber will need to be used with other materials such as steel to achieve greater heights.

“This committee is going to look at where steel and wood comes together,” Lyall noted.

“As you go higher with tall wood buildings it is going to be about combining steel with timber. What is the best way of doing that? Who is doing what? The CTBUH provides a forum to share that kind of information globally.”

At the end of the project, which is expected in June 2023, a research report will be published and promoted to guide and influence the future of the building industry, underscoring the value proposition of the steel-timber hybrid.

“It’s an educational tool,” Lyall said. “This will be used to assist designers, proponents, investors on what are the opportunities here, what are the benefits and to see what is working, what are the best methods and who is doing what.”

There are many benefits to mass timber construction including a lower carbon footprint in production and its ability to sequester carbon from the atmosphere. Being in spaces with exposed wood has also been shown to have health benefits, Lyall said.

“If you are talking about getting to net zero and capturing carbon mass timber just makes sense,” Lyall said, adding it also has benefits during construction on larger projects.

“You don’t have all the concrete trucks and you don’t have all the noise that one normally associates with a major project because wood is pretty quiet. You don’t have a lot of dust, you don’t have the concrete finishing which in infill environments is an issue.”

He hopes Toronto and Ontario will eventually become world leaders in mass timber and net zero construction.

“We are not at the cutting edge of a lot of these developments, and I think that problem is reflected in our housing crisis,” said Lyall.

“It’s important for the industry and our aspiration to be a cutting-edge city in Toronto. We’ve got to look at cutting-edge developments around the world and bring it home.”