



KALESNIKOFF LUMBER'S

BY MATTHEW BRADFORD

MASS TIMBER PLANT TAKES SHAPE

Kalesnikoff Lumber is branching out. This year, the West Kootenay-based lumber mill began development on a new mass timber manufacturing facility in the South Slocan region with the intent to expand the company's footprint.

"We knew that to secure our business for the future, we had to invest downstream," says Chris Kalesnikoff, who serves as Chief Operating Officer at the family-owned mill alongside his sister and Chief Financial Officer Krystle Seed, and company owner Willy Kalesnikoff. "We started looking at a variety of opportunities over the last six to eight years and, ultimately, mass timber was something that made a lot of sense for our company because we'd already been supplying that marketplace for over 30 years with the Canadian lumber stocks."

The Kalesnikoffs' plans were also motivated by incoming changes to the National Building Code, which will allow the construction of mass timber building up to 12 storeys in 2020.

"When we saw that opportunity coming, we knew embracing mass timber was a good move for our business and something we had to pursue," Kalesnikoff continues. "Adding value is something that's in this

company's bloodlines, and we knew it was a really good transition for us to go one more step downstream and produce some of the finished products."

FUTURE-READY

The Kalesnikoff Lumber mass timber plant will span 110,000 square feet over a 17-acre site in South Slocan, which is located a short drive away from its existing operations. The greenfield building will feature what the company is touting as some of the most technologically-advanced mass timber manufacturing equipment in North America.

"The first thing we did is travelled to Europe where the experts in mass timber production are to get a sense of who the best producers of mass timber products were and what equipment they were using. Then, we started building relationships with those equipment manufacturers," recalls Kalesnikoff.

Kalesnikoff's team ultimately selected high-frequency press technology for its mass timber production operations, which enables the plant to "cook" its glue lines in a matter of moments. The company chose Denmark-based Kallesoe Machinery A/S equipment to supply its high-frequency presses and Quebec's Conception R.P. Inc. for its finger-joint machine. The plant

will include additional machinery and systems sourced from Germany, Austria, Slovenia and Italy.

"From an equipment standpoint, we are focused on going with partners who have a history in mass timber and who we felt could truly provide us the ability to produce the highest-quality panels with the most amount of flexibility," says Kalesnikoff, noting, "They've all embraced the latest technologies, methods, and tools like 3D modelling, and now we can too."

Once open, the plant will produce three main mass timber products. First and foremost will be its cross-laminated timber, as well as glue-laminated timber panels and Glulam beams. The company is also intent on equipment to produce additional offerings such as nonstructural finger-jointed products.

"We call it from forest to finale," says Kalesnikoff. "Not only are we going to be out there harvesting our timber and making sure that that right tree is going into the right product, but we're also following that product all the way through our plant and right into the final build."

STEADY GROWTH

The \$35 million Kalesnikoff project is currently being constructed by Norsteel Building Systems Ltd., based in West Kelowna. Norsteel and Kalesnikoff

have partnered in the past, as the Kalesnikoffs' business expanded and needed additional buildings. Norsteel is with them again on this build with another pre-engineered steel building, custom designed for this unique project.

Ray Smith, Project Manager with Norsteel, will be with this project until completion, and is pleased with how well orchestrated the entire process is with his company's 27-plus years of experience. "We mapped out the project, the schedules, the 50-plus truckloads of steel, the crews, the customer expectations and put our experience to work. When you have the expertise and the builds that we have, nothing is a surprise. The Kalesnikoffs are a great family and great business to work with."

By late July, Norsteel's crews had erected all the structural steel and had already completed part of the roofing and wall cladding.

"The building is designed specifically for its South Slocan location with its exceptionally high snow loads," says Smith. "This means the steel rafters must be extremely large to withstand the weight of the snow – up to seven feet deep and 25,000 pounds. This requires specialized equipment and cranes to hoist the steel into place."

The plant is designed to support two 7.5-ton bridge cranes spanning 80 feet. These will move the mass timber products inside the building from station to station, and requires considerable interior clearances.

"Because the timber products are so long, the cranes need to maneuver them from one crane area to another. This required additional 70-foot-wide Jack Beams supporting the roof weight plus the additional weight of the cranes," says Smith.

Groundwork began in March as soon as the frost receded, and all 50 truckloads of steel arrived in May as the foundation was being poured. It has been non-stop production for the Norsteel crews since then, who have been utilizing their own in-house erecting crews and hiring locals to support the workforce. "This is a project manager's dream! It



plant's high-tech equipment and processes.

"What's great about this plant is we're growing our employment by 35 per cent without harvesting any additional timber. It's all downstream," says Kalesnikoff, explaining, "We're embracing a lot of new building technology such as 3D modelling and advanced automation, so over half of that new employment is technology-based or technology-driven jobs. The other half is among the project management team, the sales team, where all the growth is really occurring."

Construction on the plant is slated to wrap up in early fall, with Kalesnikoff's initial mass timber products slated to come down the line by the end of 2019. Full operations are expected to commence in the summer of 2020. ■

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