

Quarterly Investment Update

032020

It Starts with the Strategy

by Cees de Jager

The dramatically changing market conditions, and evolving supply chain dynamics in the construction sector, necessitated a review and refinement of the Softwood Lumber Board's (SLB) go-to-market strategy. In Q3, the SLB set out to validate previous assumptions, investment priorities, and scope as well as update end-use demand forecasts for both traditional and emerging market segments for softwood lumber.

As a part of this process, the SLB conducted interviews with 57 industry stakeholders to validate the mission, programs, goals, and activities and identify gaps and areas for improvement. The respondents were nearly unanimous in recognizing the SLB's performance and management, confirming that the SLB's strategy, funding priorities, and program approaches meet our investors and industry stakeholders' needs and interests.

Moving into 2021, SLB's investments continue to focus on five key areas: codes, communications, conversion, education, and innovation. Each of these is interconnected and complement one another to bolster the collective impact. Investments are strategically weighted among the five focus areas to optimize service delivery and ensure the most effective use of industry funds. The SLB remains a data-driven organization, making investments on a need or opportunity basis and ensuring the outcomes are evaluated and measured. Nevertheless, most stakeholders also believe that the SLB should expand its strategic priorities to meet future challenges, including the potentially substantial and lasting impact of the pandemic on society and – by extension – the softwood lumber industry.

Our team has reviewed and organized proposed ideas for expansion into five priority areas and is currently assessing how to best deliver impact in these areas. At the same time, the SLB remains cognizant that it can't be everything to everyone and will remain true to its core mission of increasing demand for softwood lumber. For operational topics raised in the stakeholder interviews, such as communicating metrics, expanding and leveraging partnerships, and industry relations, staff are exploring various actionable ways to improve our approach and enhance what has been delivered to date.

We are grateful that we have earned your trust, and we look forward to continuing to receive your insights and guidance as we seek to take advantage of the many opportunities and address the challenges that affect softwood lumber's market share. Please reach out at any time with questions or comments about where we are headed with the program or feedback on how we can improve how we serve the industry – I can be reached at (425) 502-6967 or dejager@softwoodlumberboard.org.

Softwood Lumber Board Stakeholder Insights



Carbon and Climate Change.

Softwood lumber provides important carbon sequestration benefits and a pathway for buildings to achieve carbon neutrality. The SLB can create tremendous value for the industry by promoting and capitalizing on wood's carbon benefit through program development and strategic partnerships.



Forests.

Through partnerships and direct work, the SLB can integrate issues of forest access, working forests, and their beneficial impacts on landscapes and wood products development into promotion efforts in order to help motivate best practice in forest management.



Dramatic Change Affecting the Built Environment.

Shifts in commercial and non-residential construction markets and in residential and consumer preferences, including as induced by COVID-19, are likely to affect the building and construction industry for generations to come. The SLB is working to deepen its understanding of these forces in order to support the industry to adapt and capitalize.



Mass Timber and Hybrid Construction.

Tremendous strides have been made to gain mass timber acceptance; now the SLB must ensure adoption of 2021 IBC codes at local levels, address additional code barriers such as encapsulation restrictions, and solidify the research case for hybrid construction as a way to grow and sustain mass timber's market share.



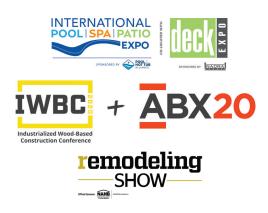
Residential Construction.

Long an anchor for the industry, the residential segment is facing growing threats from competing materials and unfriendly regulations in wildland-urban interface areas and high-wind zones. Investment in market protection and promotion is increasingly warranted.

Market Update

Virtual Realities - The SLB and Association Partners Find New Ways to Promote Wood Online

The SLB continues to identify and harness virtual opportunities to meaningfully engage specifiers and promote innovative wood use and design. With Think Wood, the SLB recently turned its attention to expanding virtual opportunities with its Association Partnership Program, as large in-person gatherings remain on hold.



The SLB is proactively working with and sponsoring a number of trade shows that have switched to virtual formats, including the Remodeling Show, International Pool | Spa | Patio and Deck Expo, ABX, and IWBC 2020. These engagements will create new opportunities for association partners and, more importantly, will position the SLB and partners to secure more prominent sponsorships and associated registrant data in 2021 and beyond.

The SLB is also encouraging association partners to add accredited and/or compelling education offerings to the Wood Institute as a way to promote wood products' value proposition virtually and generate leads. Just over two months since its launch, the Wood Institute has registered nearly 350 users, who have logged more than 230 hours of education. Architects make up 61% of users, with engineers, code officials, students, and residential contractors rounding out the roster.

The temporary shift away from in-person shows is spawning unique opportunities and benefits, particularly regarding the development of more localized and regional partnerships. For example, the SLB was pleased to partner with the Western Red Cedar Lumber Association to jointly develop a continuing education unit (CEU) course on how Western Red Cedar appearance products add value in multifamily and commercial segments. As your species organization is similarly championing new education programs, events, or other tools at regional or local levels, please contact Kabira Ferrell at ferrell@softwoodlumberboard.org to discuss opportunities for partnership.

Scaling Influence Through the Wood Innovation Network

This summer, WoodWorks debuted the WoodWorks Innovation Network (WIN), an online networking community that connects developers with design and construction professionals who have experience with innovative wood building systems and technologies. WIN is designed to cost-effectively scale up WoodWorks' project conversions and expand market development.

In Q3, WIN grew to more than 110 active members, representing 60 companies. WIN added 13 new projects in the quarter, bringing its total to 90, with 32 professionals linked. A total of 329 individuals are in the system, many of whom are waiting to have their mass timber project start construction or for WIN to expand its project database to include innovative light-frame and hybrid building systems.

WIN is still in the early stages, but progress is being made, and WIN has already produced meaningful engagement. In one instance, a WoodWorks staff member reconnected with an architect after meeting at an education event years ago. Thanks to WoodWorks' resources and support, the architect had overcome obstacles to specify mass timber in a project that is now catalogued on the WIN website.









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WoodWorks' 2021 Strategic Plan calls for additional staff investment into WIN to accelerate its growth. This includes making a concentrated effort to integrate product manufacturers, suppliers, and other members of the supply chain into WIN to build a continuum of professional contacts and project support for members.

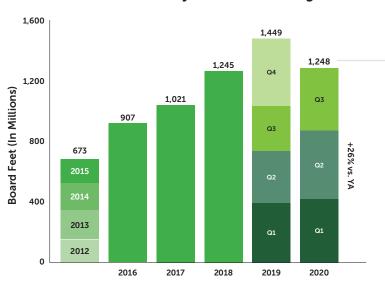
Demand for WoodWorks' Project Support Remains Strong

WoodWorks' efforts to educate and assist building professionals to convert projects to softwood lumber continue unabated across the United States and despite pandemic-related restrictions. In the most recent quarter, WoodWorks provided support to 158 new projects and, via 162 virtual external client engagements, more than 860 participants. By fully adjusting to operating in a virtual environment, WoodWorks is on track to meet all of its year-end project goals.

The cumulative impact and strong performance of WoodWorks, the AWC, and Think Wood is illustrated by the continued effort by design and construction professionals to move projects forward. Even though many respected analysts are forecasting downturns in specific market segments, WoodWorks is experiencing and proving that wood still has a significant opportunity to gain market share in key segments.

Proving Impact

Demand Generated by SLB-Funded Programs

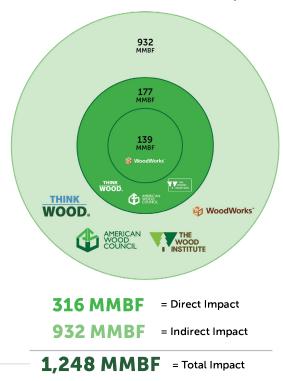


Since inception, the SLB and funded programs have generated over 7.5 billion board feet of demand and have an average return on investment ratio of \$25 for each \$1 spent.

Source: 2020 Prime Consulting ROI Report

Our work has lasting impact because those educated by an SLB-funded program will use their knowledge on future projects.

2020 Incremental Demand Impact



Source: Prime Consulting & SLB Partner Reports

The SLB continues to invest in rigorous metrics, monitoring, and evaluation of key performance indicators to quantify its impact and capture what matters most to the industry: *How much demand did our programs create, and how much softwood lumber was consumed each year as a result?*

As part of our Check-off Order, the SLB must validate its metrics methodology every five years. The SLB staff has raised the standard higher and, starting in 2020, will validate our metrics methodology annually, following USDA's guidelines. In addition, the SLB has engaged Prime Consulting to validate a percentage of WoodWorks' converted projects annually. To kick off this process and confirm our benchmarks, Prime Consulting will review 450 projects that WoodWorks has converted over the past five years (which is roughly a third of all projects converted) to validate each project's status, the amount of board feet consumed, and WoodWorks' influence factor.

Q3 Program Highlights



Code:

American Wood Council

- The American Wood Council (AWC) has identified multiple opportunities for International Code Council (ICC) 2024 Group A proposals in advance of ICC's January 2021 deadline. The AWC also contributed to the development of ICC's new Tall Mass Timber Buildings Special Inspector Certification, which it launched to support 2021 code changes.
- The AWC committees have agreed to implement annual surveys to ensure robust data is collected for industry environmental product declarations (EPDs). Increasing the number and quality of softwood lumber product EPDs is critical for the industry to remain competitive as specifiers and consumers increasingly place a premium on sustainability.
- The AWC received ANSI approval for its 2021 Special Design Provisions for Wind and Seismic and is seeking approval of its 2021 Permanent Wood Foundation Design Specification.
- The AWC's Q3 virtual education efforts reached more than 5,400 building and code professionals with more than 7,200 total contact hours, a 7% year-over-year increase.



Communications:

Think Wood

- In the first three quarters of 2020, Think Wood has generated 15 million pro-wood messages.
- Lead nurturing and the campaign's lead scoring framework generated 5 new projects YTD for a total of 1.54 million estimated project square footage.
- Touch point projects are those where Think Wood is co-nurturing on a WoodWorks project but was not the source of the lead. As of Q3, there are 26 reported and 92 active projects where Think Wood also provided education or a referral. The reported projects consisted of 58.4 million board feet.
- Think Wood published two new CEUs: "How to Calculate the Wood and Carbon Footprint of a Building" and "The Role of Wood Products in Green Building," and it partnered with Architectural Record to target professionals who took steel CEUs last year.





Construction and Conversion:

WoodWorks

- In Q3, WoodWorks provided support on 158 new projects, generated 1,435 new contacts, and directly influenced 95 projects that went into construction. Year-to-date, WoodWorks has influenced 304 projects, a 16% year-over-year increase. COVID-19's impact on WoodWorks' project pipeline has thus far been negligible because of the lead times involved in project development and construction.
- WoodWorks' Solutions team had 349 interactions in Q3, of which 334 were technical assistance, an 18% increase over Q2.
- When adding indirect impact, WoodWorks influenced 378 projects in the quarter, a 10.5% increase over Q3 2019, consisting of more than 19 million square feet and 392 million board feet of incremental softwood lumber demand.
- WoodWorks delivered 9,033 practitioner education hours through 61 WoodWorks-hosted and third-party events, webinars, and lunch-and-learns. Practitioner hours are on pace to match 2019 totals and meet 2020 goals.



WoodWorks Featured Project WoodWorks Helps Ascent Vie for World's Tallest Wood Building Title

Construction has begun on Ascent, a 25-story, 410,000-square-foot mass timber tower in Milwaukee, Wisconsin. Featuring 19 stories of cross laminated timber (CLT) and heavy timber post-and-beam framing over a six-level concrete podium, Ascent will become the world's tallest mass timber building when complete.

WoodWorks has been involved in this singular project since Ascent's earliest design stages. Ascent's architecture team at Korb + Associates was introduced to WoodWorks in 2012 via a Think Wood CEU. In the intervening years, a team member had taken an additional CEU and attended a WoodWorks' seminar on mass timber.

As Ascent developed, WoodWorks supported the design team on many fronts, including by providing information on fire protection, detailing, structural connections, material suppliers, codes, and other technical topics. WoodWorks staff also participated in meetings with city building and fire officials alongside Korb + Associates, the project's developer, New Land Enterprises, and its structural engineering firm, Thornton Tomasetti.

According to Korb + Associates, WoodWorks "has been instrumental in helping move this project forward from the start," and its "participation as a third-party expert in meetings with the city was invaluable, since we wanted to go higher than is prescriptively allowed, and because our firm was still learning the intricacies of mass timber."

Korb + Associates has reached out to WoodWorks to discuss three more mass timber projects.



Description: Four Type V-B buildings, mass timber and light wood-frame

Size: 200,003 square feet

Value of construction: \$80 million Value of wood products: \$4.8 million Volume of lumber: 3 million board feet

Status: In Progress

Program News

Think Wood Rolls Out New Content Highlighting Wood Developers and Architects

Think Wood created several new content series that bring to life the people and firms behind innovative wood buildings. These pieces deliver both information and inspiration, and they respond to designers' expressed need for more information and case studies that prove the concept of wood building design, regardless of experience levels in building with wood. The series include:

- Project Profiles, which offer case studies that describe and promote innovation as it is happening.
- Developer Q&As that define the business case behind building with wood.
- Studio Spotlights, in which design firms tell wood's story in their own words, using their stunning imagery.



Think Wood is promoting this content across its channels to spark action and engagement, encourage more wood use, and support design professionals in overcoming challenges in building with wood.

The AWC Partners on Mass Timber Sound Testing

The AWC has partnered with other interested parties to carry out extensive sound transmission testing on mass timber floor/ceiling assemblies in order to expand Technical Report 15 (TR15) Calculation of Sound Transmission Parameters for Wood-Framed Assemblies. TR15 was initially published in 2018 and describes a model for estimating code-regulated sound transmission class (STC) and impact insulation class (IIC) parameters for light-framed wood floor/ceiling assemblies. The new testing will enable TR15 to address mass timber assemblies.

A first round of tests was performed on bare mass timber floor/ceiling panels in September, and additional rounds will

be conducted before year's end. When complete, testing results will be paired with existing sound transmission data (cumulatively reflecting more than 60 unique mass timber assemblies, many with the most common components) and will enable the development of an empirical model for estimating STC and IIC values for a wide range of mass timber floor/ceiling assembly configurations. By partnering, the AWC is maximizing resources available for this project to create a comprehensive output.

NFPA 5000 and NFPA 101 Standards Updated for Tall Mass Timber

The AWC's three-year effort to recognize tall mass timber buildings in the National Fire Protection Association (NFPA) 5000 Building Construction and Safety Code® and NFPA 101 Life Safety Code® succeeded this fall with the NFPA Standards Council's formal adoption of new tall mass timber provisions. The provisions were developed by several NFPA Technical Committees and were ratified during NFPA's June 2020 virtual membership meeting.



The NFPA tall mass timber provisions complement the height and area limits contained in the International Building Code (IBC), though with a few exceptions to allow for more stories and exposed mass timber elements. Because the NFPA 101 Life Safety Code has been adopted by 43 states, it could have limited the design flexibility of the IBC. Instead, these new provisions will ensure that the IBC and NFPA provisions for tall mass timber buildings are compatible, thereby furthering the market opportunity for tall mass timber buildings.

The AWC Announces Expanded Environmental, Energy, and Safety Data Survey Program

The AWC, in cooperation with the SLB, has initiated an expanded biannual environmental, energy, and safety (EE&S) data survey program to improve the data on which the industry is evaluated. As public demand for lower embodied-carbon building materials continues to grow, it is incumbent upon the softwood lumber industry to put forward accurate data to inform specifier and consumer decision-making in order to capture this expanding market opportunity. The industry's data will also be useful to policymakers, regulators, and the media as they consider environmental, energy, and safety policies.

The AWC is requesting that lumber manufacturers of all sizes and across geographies participate in these surveys. Diverse sampling at a scale of 80% of all mills or greater will be critical to putting forward accurate and representative information. Without sufficient participation, the industry will be poorly positioned to develop new EPDs – an area where the softwood lumber industry already lags significantly behind its competitors. Without EPDs, the industry can anticipate a negative trickledown effect, including lost tax credits, certifications, and ultimately sales opportunities.

To learn more about the types of data that will be requested and to add your company to the AWC database of committed mills, contact Kenneth Bland at kbland@awc.org.

Sustainability Matters

In keeping with the findings of the SLB's strategic review, the SLB continues to track conversations related to sustainability, climate change, and sustainable forest management and to look for and act when opportunities to assert softwood lumber as a proven solution become available.

To respond to increased demand for education on building carbon footprint, Think Wood published two new CEUs during the quarter:

- "How to Calculate the Wood and Carbon Footprint of a Building," which overviews the principal methods and tools used to assess carbon footprints in building materials, including life cycle assessment (LCA) and EPDs, and why demand for wood products supports investment in forest management.
- "The Role of Wood Products in Green Building," which outlines why wood is a natural choice to minimize a building's environmental impact both during construction and over a building's life cycle.

Both CEUs are available at Thinkwood.com.



Also in Q3, at a congressional briefing, WoodWorks' CEO, Jennifer Cover, presented an educational overview of mass timber's role in building a green workforce and how it can contribute to low-carbon economic recovery. The briefing also featured Rep. Bruce Westerman (R-Arkansas); Tyler Freres, Vice President of Freres Lumber Co.; and Carter Sterling, CEO of Sterling Solutions. Cover cited WoodWorks' work in training construction workers to use mass timber materials as an important piece of the value chain.



Independently, WoodWorks produced video content on wood products' sustainability and other competitive advantages for use in the California AlA's "Designing for Resources" webinar and at the Texas State AlA virtual convention. WoodWorks is also developing six presentation modules for use by its field staff nationwide to help respond to commonly asked questions from specifiers on forest products, sustainability, and carbon.

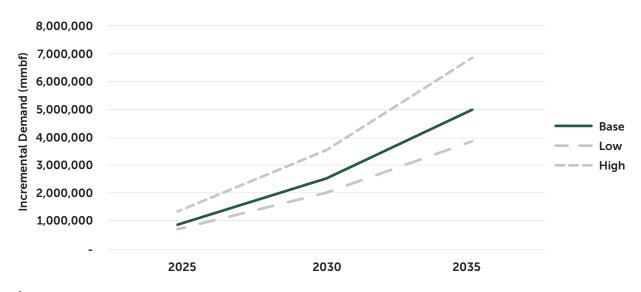
SLB News

Updated Mass Timber Forecast Outlines Opportunities for Growth Through 2035

The SLB partnered with FPInnovations to chart the potential course for incremental softwood lumber opportunity in the United States through 2035, using a combination of current and historical market shares, wood building construction trends, and Forest Economic Advisors' long-term forecast. The final analysis identifies a potential 3.7 to 6.7 BBF incremental opportunity in the market through 2035. Sixty-five percent of estimated opportunity is projected to occur in non-residential construction; 78% occurs in the one- to six-story range (occurring in both residential and non-residential construction); and 20% is composed of wood cores, including elevator shafts and structural cores. The full analysis also provides detailed regional forecasts.

To receive a copy of the forecast or to access the forecasting tool to develop your company's own projections, contact Ryan Flom at flom@softwoodlumberboard.org. The SLB will also be hosting on-demand webinars with Ben Romanchych of Ben Romanchych Consulting and Nick Milestone of the SLB. Visit softwoodlumberboard.org/events to view the videos in the coming months.

Mass Timber Forecast / Forecasting Tool U.S. Incremental Lumber Demand



Sources: RBC Capital Markets, Imagine 2020 Mass Timber Report, 9/20 SLB Mass Timber Demand Forecast, 2020 FP Innovations, 10/20

2021–2025 Consensus Forecast Now Available

The SLB engaged Ben Romanchych Consulting to develop a consensus forecast for 2021–2025 using 2020 data from FPInnovations, FEA, and Fastmarkets RISI. The analysis resulted in predictions of a total market segment of 50.73 BBF in 2021, rising to 59.98 BBF in 2025. According to the forecast, repair and remodeling is expected to be the highest gross performing segment, but single-family is expected to post the greatest growth through 2025.

In addition to overall national results, the consensus forecast also provides breakdowns according to the repair and remodeling, single-family, industrial, non-residential, and multifamily segments, as well as forecasts by region. To receive a copy of the complete consensus forecast, email Ryan Flom at flom@softwoodlumberboard.org.

