

January 31st,2020

Joe Maure
Forest Sector Strategy
Ministry of Natural Resources and Forestry (MNRF)
70 Foster Drive, suite 160
Sault Ste Marie, ON P6A 6V5

Re: Ontario's Forest Sector Strategy Draft, ERO 019-0880

Dear Mr. Maure

The Canadian Wood Council (CWC), and its Wood *WORKS!* program, are pleased to provide comments and observations on the draft Ontario Forest Sector Strategy as a follow-up to our initial participation in the regional roundtable sessions that led to the development of the draft strategy.

CWC is the National Federation of forest and wood industry associations representing Canadian manufacturers of structural wood products used in construction. Its mission is to expand market access and increase demand for Canadian wood products through its work in codes, standards, regulations and education.

Wood *WORKS!* is a CWC industry-led program intended to help increase the use of wood in non-residential, mid-rise (mixed-use, office, multifamily), low-rise commercial, bridge and tall building markets in Canada. The initiative seeks to build proficiency in using wood through training, networking and direct technical support.

CWC wishes to focus its comments on the Ontario draft strategy action pillar "Fostering Innovation, Markets & Talent", which aligns with what CWC and its Wood *WORKS!* program have accomplished over the past 20 years, and builds on the recommendations we provided in the government's roundtable sessions.

In the recent past, Ontario has supported National Building Code (NBC) changes by, for example, being an early provincial adopter of 6-storey mid-rise wood frame construction, which was introduced in the 2015 NBC. The Province has also supported four tall wood demonstration projects: the 14-storey University of Toronto Academic Tower, the 12-storey George Brown College Arbour Development, a 12-storey condominium in North Bay and the 8-storey Wade Avenue office building. However, more support from the Province is needed to materially increase wood construction in Ontario. Overall, Ontario lags behind other Canadian jurisdictions when it comes to updating its building code, and allowing more wood construction in public and private projects.

CWC and the Wood *WORKS!* program have historically worked in close partnership with the MNRF to create opportunities to increase the use of wood; more specifically in Midrise, Tall Wood, Low-Rise Commercial buildings, Institutional buildings and wood bridges. Ontario offers great potential to grow

the use of wood and represents 42% of Canada's construction markets. CWC and the Wood *WORKS!* program have worked closely with the MNRF to provide Technical Outreach, Education and Resources to increase the use of Ontario products in construction projects ("Tall Wood Building Guide", "The 2015 Reference Guide: Midrise Wood Construction in the Ontario Building Code", the "Ontario Wood Bridge Reference Guide", as well as numerous case studies). The new Carbon Calculator (GESTIMAT) is a collaboration with CWC, Cecobois (Quebec Wood *WORKS!*) and the Quebec government.

Our field experience shows that design tools, technical support and educational events with building design, development and construction players is needed to increase the use of wood construction in Ontario. Financial support from MNRF to CWC and the Wood *WORKS!* Program, enables industry to contribute to achievement of the Ontario's Forest Strategy. In addition, financial support received from the MNRF in the past has helped CWC and the Wood *WORKS!* Program to leverage over \$ 660,000 in Federal Funding and \$ 300,000 from industry for market development activities. The partnership has proven effective in augmenting the use of wood in Ontario construction projects.

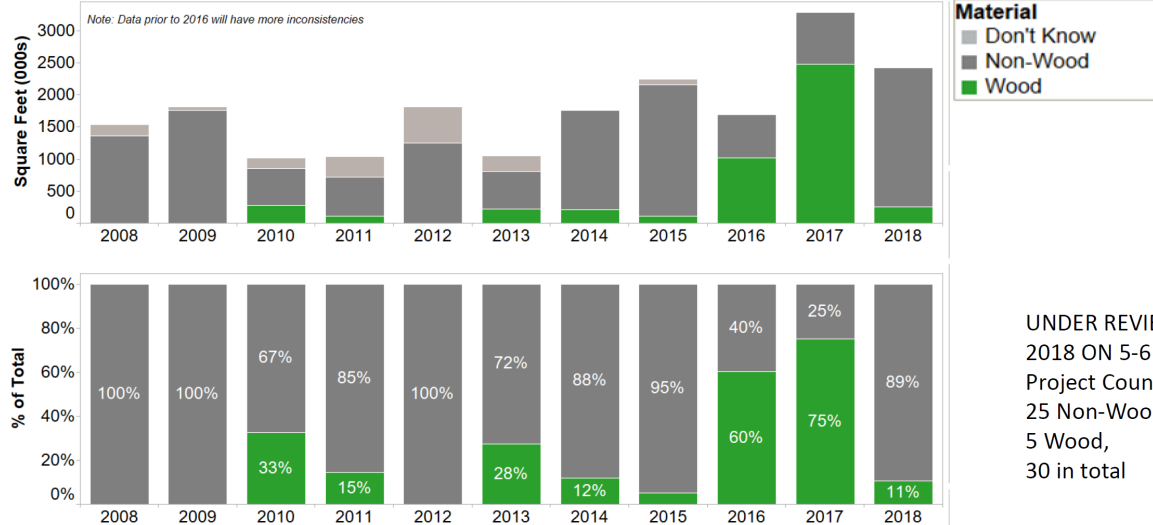
Recommendation 1 - Re-instate the ability of representative industry associations to access MNRF funding. The current MNRF funding mechanism appears to no longer provide an avenue for not-for-profit industry associations like CWC's Wood *WORKS!* program to receive funding. This would seem an oversight as funding through a representative industry body like CWC is of great value to industry, and more specifically to Ontario-based wood products companies. Provincial support for CWC's Wood *WORKS!* Program is critical to achieving key objectives in the Ontario Forest Sector Strategy, as well as for leveraging funds from the Federal Government and Industry.

Mid-rise wood construction

A key focus of CWC and the Wood *WORKS!* program is to support the increased use of wood in the Ontario's Midrise market. This approach can help address urban densification and affordable housing (especially in Southern Ontario). If we do not increase the use of wood in midrise/taller buildings, we may actually lose market share and reduce growth opportunities for Ontario's wood products industry.

As of Dec 2019, Wood *WORKS!* was tracking 176 wood midrise projects in Ontario (completed, under construction or in planning). Following the 2015 Ontario Building Code changes allowing 5 and 6-storey wood frame construction, we saw an initial rapid uptake of midrise construction. However, in 2018, we saw some resistance from the marketplace due to the high cost of wood. The FPInnovations publication "Canada Construction Trends 2019" verified this market adoption slowdown. In 2017, wood had 75% of the 5-6 storey midrise market, which fell to only 11% in 2018 (see table).

5-6 Multi-family



Source: CMD 2018; FPI Est 2019

UNDER REVIEW:
2018 ON 5-6
Project Counts:
25 Non-Wood,
5 Wood,
30 in total

This slowdown is a cause for concern, especially when other Canadian jurisdictions such as BC have seen their wood-frame midrise construction grow exponentially. Recently, Wood *WORKS!*, with support from NRCan, conducted five Focus group sessions across Canada to examine market variances. A Wood *WORKS!* report “Midrise Wood Construction in the Canadian Market; A summary of Nationwide Focus groups”, was produced (and attached for information). The Ontario focus group session held in Toronto highlighted the following:

- The economics of mid-rise buildings is not bearing fruit the way some developers expected – In Ontario, concrete is cheaper than in BC so that causes some differences in pricing benefits for wood. However, developers and builders have found themselves having to do a lot of extra work on wood projects to get them done properly, so they lose the economic benefit of “speed” of construction, meaning that costs today are close with concrete. The addition of concrete stairwells, not required in any other Province is a hindrance. In addition, labour shortages & untrained crews in Ontario are driving higher than expected construction costs with wood over the past year to 18 months.
- Municipal building officials are slowing approval processes down, in various ways, in various jurisdictions.
- Fire officials in some regions/municipalities are creating more challenges and need to be educated on Midrise-Taller Wood construction.
- Quality control issues around inexperienced builders and trades. In comparison to BC where Midrise is more successful, Ontario does not have knowledgeable engineers involved with quality control.
- The availability of panelized systems varied across the country.

The report goes on to state that there are some market-based solutions that should be pursued in order for mid-rise construction to accelerate. The following are report recommendations that can be implemented by Wood *WORKS!*, if needed support from the MNRF can be obtained:

1. A detailed, illustrated ‘Constructing Midrise’ user guide that provides actionable ways means of building these types of structures, with particular emphasis on a few areas that are often pain points in the process, such as: Connectors /Tie downs / Shear walls /Mitigating Shrinkage issues / Ventilation/ Listed fire assembly / Sound transmission / Fire safety / Best practices from other areas/ Pre-approved solution templates for combustibile stair shafts
2. Include OBOA/ other Building official associations to develop a template protocol (this might be separate rather than in the guide). This user guide would serve dual purposes, for developers/crews as well as for building officials who we are told are in need of some best practice guides to learn themselves.
3. Build out educational programmes/ workshops for builder teams and crews to go along with this guide. Whether these are in-person courses or online, there is a need for education that schools and trades are not currently providing.
4. Build a stronger network of experts that are respected within the fire and building code community, who can help broker engagement and educational efforts with officials about these types of structures. Those experts need to be identified and fostered within specific regions – “outside experts”, even in the same field, will not be seen as all that credible.
5. Building Code work, specifically concrete stairwells and elevator shafts (either eliminate them or recommend specific wood systems that would be best aligned to them to minimize issues associated with shrinkage).

Recommendation 2

The Ontario Strategy should clearly state the importance of educating, training, networking with, and influencing individuals responsible for the procurement and specification of wood products in the mid rise sector. The importance of technology transfer needs to be better highlighted as a path to increased midrise wood construction.

Tall Wood buildings

The “Tall Wood” market in Ontario is still in its early stages with several demonstration projects leading the way. Much work still needs to be done to support this sector. An update to “Ontario’s Tall Wood Reference” with more technical details and approaches to navigate the Ontario alternative code solutions process in Ontario would be helpful. This goes together with the need to quickly harmonize the Ontario Building Code with the upcoming 2020 National Building Code with its new provisions for taller wood buildings.

Recommendation 3

The Ontario Strategy should also support “Tall Wood” education, training, and technology transfer of expertise that can to lead taller and larger buildings being constructed with wood.

Low-rise commercial buildings

CWC has also been developing strategic communications to help grow the Low-Rise Commercial Buildings sector. This includes the development of six new cost-competitive systems in wood that can compete head-on with other structural systems. The design and detailing of the mass timber and light-frame systems should soon be completed, and will be ready for promotion this summer. To support the launch of these new systems, Wood *WORKS!* plans to deliver workshops across the various regions. Collaboration and support from the Ontario government will accelerate this market adoption.

Recommendation 3: The Ontario Strategy should highlight the importance of a well-defined communication plan (including social media) for the Province, aligned with the programs/organizations that will help implement initiatives identified in the Strategy.

Wood Bridges

Wood *WORKS!* has previously collaborated with the MNRF to produce the “Ontario Wood Bridge Reference Guide”. There has been some progress and interest from municipalities, however, the Ontario Ministry of Transportation (MTO) has been slow in considering wood bridges. Support from the MNRF and more education of MTO staff is needed to advance this market.

Recommendation 4: The forest sector strategy should clearly state the importance of the wood products industry in the education/training of government staff and their contractors about the benefits and opportunities of wood construction (including wood bridges). The focus should be on technology transfer that would lead government employees to better-understand the structural capabilities of wood, its attributes and its environmental benefits.

Advanced Education Road Map

In order to address labour shortages in the design community and construction industry, and advance knowledge on wood construction, more technical and practical education is needed. The CWC has recently launched a new education roadmap to support post-secondary institutions, educators, and students. This Roadmap will help ensure that future architects, engineers, and construction professionals have up-to-date knowledge and skillsets to design, manufacture and construct advanced wood buildings. The program collaborates with universities and colleges to help increase the availability, and content, of wood design courses through various activities including but not limited to:

- Development of up-to-date curriculum and other teaching resources that are freely available to Canadian educators.
- Create, engage, and support a network of wood educators
- Ensure additional teaching and reference resources are available for students
- Improve student’s awareness of the benefits of studying wood design and construction

Recommendation 5: A section of the Strategy should present the importance of educating and influencing our future architects, engineers, designers, builders and trades. The path of least resistance and faster social acceptance of wood in the market place is to educate future practitioners about the benefits of using wood.

A key pillar of the Forest Sector strategy ‘Fostering Innovation, Markets & Talent’ is to grow talent in the forest sector. It should not stop there. We need to focus on the specifiers and users of wood products.

We thank you for providing us the opportunity to comment on the Draft Forest Sector Strategy. Overall the Draft Strategy is a workable, high-level document, that charts a path for success if linkages are made with, and support provided to, key players like CWC and its Wood *WORKS!* program.

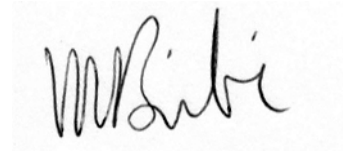
If you need any additional information about our observations and recommendations, we would be pleased to discuss with you. CWC and Wood *WORKS!* look forward to continuing to work closely with the provincial government to expand markets for Ontario’s wood products.

Regards,



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Canadian Wood Council

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Marianne Berube
Executive Director
ON Wood WORKS!

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