

Canadian
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Program of the Canadian Wood Council

Mid Rise Workshops

February 21st and 22nd, 2017

Presentation Abstracts

Structural Design and Optimization of Midrise Light Weight Wood Framed Buildings (1 HR)

Speaker: Michael Baldinelli, MEng., P.Eng., Principal, Large Buildings, Strik Baldinelli Moniz Structural Engineers

Light-weight wood framed (LWWF) construction has gained significant popularity over the past decade as a sustainable, cost-effective solution for low-rise multi-level buildings. More recently, the push has been to extend the use of LWWF to mid-rise construction for increased density on urban or rural projects. Over the past few years Strik Baldinelli Moniz (SBM) has completed the design of 4- Six Storey Wood Buildings in Ontario, with another 5 buildings in the design phase. To streamline the design process, SBM has developed a design program which takes into account the current OBC 2012 Code, Canadian Wood Design Manual 2014 Edition and Best Practices Guide from APEG BC , specifically for Six Storey Wood Framed Buildings. The presentation will highlight the design and analysis tools in combination with a unique optimization database that streamlines the design while minimizing material and labor costs on a job per job basis. The Optimization Tool takes into account 'local' wood panelization material and labor costs for a series of different shear wall assemblies. These wall assemblies are ranked and then selected by the program based on the least expensive option. The Optimization Tool ensures the most cost effective design has been met while maintaining all structural code requirements, the first in the industry

The GardenView housing project: Mid-Rise in Atlantic Canada (1HR)

Speaker: Tom Emodi | Principal | TEAL Architects+Planners Inc.

The GardenView housing project will help redevelop Dartmouth's Main Street Business District, and is being considered for support under CMHC's Affordable Rental Innovation Fund. The project will be the first 6 storey wood frame building developed in Nova Scotia. The building approval process is under the 2010 NBC, using the 2015 NBC as an alternative compliance path.

the Maritime Lumber Bureau, Atlantic WoodWORKS, Halifax Regional Municipality planning and building officials support the project. Through a partnership with Efficiency Nova Scotia, the building is also pioneering innovation in energy efficiency.

The project has a commercial/retail main level, with residential two floors emphasizing independent seniors living. The upper floors are aimed at families, young professionals and students. Communal facilities include a rooftop patio.

A partnership with Ocean View (a non-profit seniors service provider) will provide up to 20 optional services for those living in the seniors units as well as any others in the building. The technical innovations and partnerships have enabled seniors' accommodation costs that will be up to 40% lower than those being charged in nearby independent living facilities. The market rents in the building will be up to 20% less expensive than Halifax Regional Municipality's affordable rental thresholds.

The projected cost savings in building structure are a major factor in the provision of affordable housing. Last but not least: TEAL has a commitment to demonstrate that excellence in design and affordability can be integrated.