

# Prefabricated Mass Timber Façades for Mass Timber Buildings

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## **Abstract:**

The rapidness of construction that can be possible with mass timber structures coupled with the need for moisture and fire protection during construction influences suitable façade systems. Non-load bearing and light-weight prefabricated systems including aluminum curtainwall and large-format panelized systems are preferable to keep up with the installation pace of the structure for taller mass timber buildings. Traditionally the structural materials for prefabricated façade systems consist primarily of aluminum, steel, or precast concrete however there is a growing desire to utilize mass timber given its lower embodied carbon emissions and interior exposed aesthetic finish especially on projects where the primary building structure is also mass timber.

Over the past decade a number of prefabricated façade systems constructed out of mass timber materials suitable for taller and more exposed buildings have been developed. Several prototypes, full scale air/water/structural performance mock-up tests, full scale fire-tests, and built project examples exist from a few different manufacturers with more to follow. This presentation covers the journey of iterative progress to understand how mass timber can safely be incorporated into façade designs what makes the leading systems work for mass timber building projects.

## **Presenter Biography:**

Graham Finch, MASC, P.Eng – Principal, Senior Building Science Specialist – RDH Building Science  
Graham Finch is a building science engineer who specializes in enclosure design, risk management, research, and investigation work for new and existing buildings. Graham also works with building product manufacturers and other clients on product research and development, and the creation of various industry guidelines and training initiatives. Graham is directly involved with the majority of RDH's mass timber and high-rise wood building projects and instrumental in leading industry research, risk management, and façade development for these new wood buildings. As a result of this experience, he is regularly invited by various organizations and clients to speak to the practical and technical issues of mass timber façade design and moisture management for mass timber buildings.