



Wood Innovation and Design Centre Whole Building Life Cycle Assessment

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 LVL (Laminated Veneer Lumber)
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Summary:

This document provides supporting information for LEED accreditation of the Wood Innovation and Design Centre (WIDC) in Prince George British Columbia. In particular, this document supports materials and resources pilot credit 63 - whole building life cycle assessment - in LEED BC+C: Core and shell v2009. The baseline building design for comparison is a reinforced concrete structure with light gauge steel envelope walls. The WIDC building is a mass timber building with cross-laminated timber used for the floors and stairwell/elevator core and structural insulated panels for the envelope walls. This work shows multi-storey office buildings in BC with mass timber structural systems and laminated veneer lumber curtain wall structures can have environmental performance improvements for non-renewable energy consumption, global warming potential, particulate matter formation and smog potential when compared to reinforced concrete buildings with aluminum-framed curtain walls. Reducing global warming potential requires future emphasis on reduced operational energy consumption.

Online Access: Free

Resource Link

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