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Canada Green Building Council
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LEED Technical Bulletin

October 2013

Version Française

Save the Date! **LEED v4 Overview - November 13th, 1pm**

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Technical Bulletin - EQp1 for Multi-Unit Residential Buildings

Recently the CaGBC has received feedback from the marketplace questioning the requirements of Indoor Environmental Quality Prerequisite 1 - Minimum IAQ Performance (EQp1) for mechanically ventilated multi-unit residential buildings pursuing LEED Canada certification. In some jurisdictions, the local code may only require that projects meet ASHRAE 62-2001 for ventilation design. However, for projects pursuing LEED Canada New Construction or Core & Shell certification through the 1.0 or 2009 rating systems, the EQp1 prerequisite requirements are to meet standards ASHRAE 62.1-2004 and ASHRAE 62.1-2007, respectively. Projects must meet all prerequisite requirements of the applicable rating system in order to achieve LEED Canada certification.

For example, consider a multi-unit residential project that is designed to deliver outdoor air to a single location in each residential unit, where each unit is equipped with bathroom and kitchen exhaust fans, but no other method of air circulation. This design would not meet the requirements of EQp1 for LEED Canada-NC 1.0 Addendum projects (those registered after February 29, 2008). The LEED Canada-NC 1.0 Addendum requires that the minimum requirements of Sections 4 through 7 of ASHRAE 62.1-2004 and all applicable addenda be met. Addendum h of ASHRAE 62.1-2004 added an occupancy category called "Residential - dwelling unit" to Table 6-1 – Minimum Ventilation Rates in Breathing Zone.

This significantly changed the requirement for air delivery within dwelling units. Previously, Appendix E of the Standard specified only the outdoor air requirements of residential facilities, but not the method of delivery. With Addendum h, the requirement for dwelling units to have ventilation air directly delivered to the breathing zone (as per 6.2.2.1 of the Standard) is introduced.

Further clarity on how air must be delivered to each ventilation zone was provided through the official ASHRAE interpretation [IC 62.1-2007-20](#) of ASHRAE 62.1-2007. This Interpretation states that "outdoor air must be supplied or distributed to the breathing zone in the occupiable space or spaces within a ventilation zone"; this means that each individual occupiable space requires the supply or delivery of outdoor air. As such, a project that delivers outdoor air only to one location within a residential unit,

without any means for directly distributing outdoor air to other occupiable spaces within the unit, does not comply with the mechanical ventilation requirements of the Standard.

Similarly, this project would not meet the EQp1 requirement for the LEED Canada NC 2009 Rating System, as ASHRAE 62.1-2007 has incorporated the changes from Addendum h of ASHRAE 62.1-2004.

There are many ventilation design solutions that would enable projects to distribute outdoor air to all occupied spaces within residential units to meet EQp1 requirements; for example, fan coils or heat pumps with direct ducting to each occupiable space. Project teams are strongly encouraged to consider the prerequisite requirements early on in the design phase in order to ensure successful LEED Canada certification. We kindly ask that you pass this technical bulletin along to all those who might benefit from this information.

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Share your opinion on Building Information Modeling (BIM) Implementation and be part of helping inform the global construction community

The CaGBC is pleased to be partnering with McGraw-Hill Construction on a new global survey, and we encourage you to participate. The survey will investigate Building Information Modeling (BIM) implementation and practices in nine major global markets that are actively using BIM: Australia, Brazil, Canada, France, Germany, Japan, Korea, UK and US.

By participating, you will be able to have your opinion inform the global construction community.

[To begin the survey, click here.](#)

The results of the survey will be used to produce a BIM for Global Construction SmartMarket Report (SMR), which will be widely distributed to the global design and construction community. This study will inform practitioners interested in learning about BIM implementation and practices from other parts of the world.

The survey will take approximately 15 minutes to complete. Your responses will be completely confidential and used for this survey only. All responses will be analyzed in aggregate, and no individual responses will be referenced or used in any way. In appreciation for your time, those completing the survey will have the option to receive this exciting new report.

Thank you for sharing your insights.

If you have any trouble accessing the survey from the link above, please copy and paste <http://kadence.dubinterviewer.com/scripts/dubinterviewer.dll/frames?Quest=90831&ass=2> into your browser.



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