

## Meeting Notes

### Building Research Council (BRC)

Tuesday November 22, 2022, 9:00 a.m. to 12:00 p.m.

#### Online Meeting

#### In Attendance:

Denisa Ionescu, BC Housing Chair  
Afshin Mombeni, BCIT  
Al Jaugelis, Fenestration Canada  
Alex Blue, Evoke Buildings  
Andriana Beauchemin, EcoAmmo  
Antje Wahl, Forestry Innovation Investment  
Arash Azadeh, BC Housing  
Cara Lozinsky, University of Toronto  
Charling Li, City of Vancouver  
Christopher Black, LDR Engineering  
Cindy Moran, BC Housing  
Dave Ramslie, OPEN Technologies  
David Bruce, Pacific Energy Efficiency Assoc  
David Fookes, Evoke Buildings  
Don Munich, Travelers Canada  
Fabian Navarro, BC Housing  
Faizan Mithani, BC Housing  
Fitsum Tariku, BCIT

Graham Finch, RDH Building Science  
Hamid Ghanbari, EduBuild Solutions  
Harshan Radhakrishnan, EGBC  
Ivan Lee, Morrison Hershfield  
James Higgins, RDH Building Science  
Jieying Wang, FPInnovations  
Joe Hildebrandt, RDH  
Linden Holmen  
Michael Lemm, Busque Engineering  
Murray Frank, Building It Right  
Patrick Roppel, Evoke Buildings  
Peter Moonen, Wood WORKS  
Remi Charron, BC Housing  
Richard Kadulski, RKA  
Rob Jonkman, Canadian Wood Council  
Scott Williams, Building Standards and Safety Branch  
Terry Adamson, Fenestration Canada

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#### 1. Approval of Agenda/Additional Items

The meeting was called to order at 9.00 a.m. D. Ionescu welcomed everyone to the meeting on behalf of the BRC followed by a roundtable introduction. The meeting agenda was approved.

#### 2. The Digital Tools to Drive Decarbonisation, Dave Ramslie, OPEN Technologies

Dave Ramslie presented a suite of tools being developed by OPEN Technologies to help drive building decarbonization. He introduced existing tools (Thermal Envelope, Building Pathfinder, GRID) and tools to be released in the new year (Affordable Housing Navigator, Net-Zero Navigator, Mass Timber Toolkit).

#### 3. Challenges with Airtightness Targets and Recognizing High Levels of Airtightness on Wood-frame Projects, Alex Blue and David Fookes, Evoke Buildings

Alex and David talked about challenges they are encountering with regards to the lack of consensus that exists in how to translate airtightness testing results into energy modelling parameters. There are different guidelines used in the industry in what shape factors and flow coefficients that are used to translate modelled values to tested requirements. This leads to confusion in what different airtightness improvement levels mean to different stakeholders.

#### 4. Glazing Options for Thermal Comfort, Al Jaugelis, Fenestration Canada

Al presented the main findings on a white paper "*A new look at glass properties relevant to the thermal comfort of building occupants*" that was distributed to the group. He makes the case that Relative Heat Gain (RHG) in  $W/m^2$  is a metric that could be used instead of a focus on solar heat gain coefficients that give more meaning to the values in terms of energy impacts. Using RHG while

keeping an eye on glass temperature to mitigate condensation issues can be the main factors in helping decide on the number of glazings and number and location of the low-e coatings.

**5. Update on MURB HRV Retrofit Research at Marquis Grande, James Higgins, RDH Building Science**

James and Joe presented an update on a project that has been discussed at the BRC over the years, relating to the Belmont retrofit project. The project is now focused on Marquis Grande, a 26-storey MURB undergoing HRV retrofit work to help resolve ongoing condensation issues while providing other benefits. Challenges with design and getting owner approval were discussed, as well as costs for fully ducted HRV retrofits. Monitoring equipment has captured one year of “pre-retrofit” conditions, and work is progressing on retrofits using single room wall-mounted HRVs. Post-retrofit monitoring will take place following this work in 2023.

**6. Forum Discussion**

- A virtual roundtable of discussions followed the presentations.

**7. Next BRC Meeting**

Next meeting is scheduled for April 19, 2023 at Italian Cultural Centre- in person from 8:30 am to 12 pm