

Meeting Notes

Building Research Committee (BRC)

Wednesday, November 25, 2015, 8:30 a.m. to 12:00 p.m.

The Italian Cultural Centre Society

3075 Slocan Street

In Attendance:

Denisa Ionescu HPO (Chair)
Remi Charron HPO (recording)
Wilma Leung, HPO
Graham Finch, RDH Building Engineering
Gordon Monk, BC Hydro
Shakir Rashid, Levelton Consultants
Riccardo DeSantis, Intertek Testing Services
Nichole Wapple, Sense Engineering
Kevin Davis, Quad-Lock Building Systems
Patrick Shek, City of Burnaby
Fred Tai, Simpson Strong Tie
Wei Chen, Trican Consulting Ltd.
Julio Reynel, JRG Building Engineering Inc.
Douglas Watts, Read Jones Christoffersen
Martin Austin, BC Housing

Hamid Heidarali, Hamid Design Build Ltd.
Christopher Black, LDR Engineering Group
Maureen Connelly, BCIT
Mark Lawton, Morrison Hershfield Ltd.
Mathew Pel, Morrison Hershfield Ltd.
Radu Postole, Morrison Hershfield Ltd.
Ralph Moore, Aviva Canada
Jieying Wang, FP Innovations
Gary Hamer, BC Hydro
Einar Halbig, E3 Eco Group
Mark Gauvin, Gauvin Construction Ltd.
Andy Chase, Building and Safety Standards Branch
Jason Teetaert, SMT Research
Murray Frank, Constructive Home Solutions
Richard Kadulski, Richard Kadulski Architect

1. Approval of the Agenda/Additional Items

The meeting was called to order at 8:35 a.m. D. Ionescu welcomed everyone to the meeting on behalf of BRC. The November 25, 2015 BRC meeting agenda was approved.

2. Approval of April 14, 2015 Meeting Minutes

The minutes from the April 14, 2015, BRC meeting were approved.

3. Drainage Capabilities & Heat Loss of Different Inverted Roof Assemblies

Mathew Pel and Radu Postole of Morrison Hershfield presented ongoing work where they have designed and built a guarded hot box that will be able to measure the drainage capabilities and heat loss characteristics of different inverted roof assemblies.

4. BC Local Energy Efficiency Partnership (LEEP) Project

Gary Hamer of BC Hydro presented results from the BC LEEP project that saw 13 builders from the Lower Mainland and Island South participate in the LEEP process (facilitated by Natural Resource Canada). LEEP aims to present and narrow down potential technologies and approaches to reduce energy consumption of houses by 25% or more below code. The next phase, occurring over the next year, will see the builders implement the different technologies in new home projects.

5. ICF-Window Interfaces – Recent Field Tests

Kevin Davis of Quad-Lock Building Systems Ltd. presented the results of field tests of different ICF window interfaces. Of the four interfaces tested, 2 experienced failures at high pressures (associated with high-rise MURBs) and two passed all tests.

6. Acoustic Properties of Various Building Envelope Walls – A Research Proposal

Maureen Connelly of BCIT presented a proposal for the first phase of a multi-phase project that aims to better predict sound transmission through building assemblies. Existing data has not kept up with new building assemblies that have emerged in industry. The first phase will focus strictly on measuring and validating sound transmissions through specific wood frame wall assemblies.

7. Forum Discussion

- Gordon Monk updated the group about getting full funding for the next step in the deep-MURB retrofit project. A project with the City of Vancouver looked at taking the Belmont project to further energy reductions to meet the Passive House EnerPhit designation, with results to be presented on December 7th. They recently received a proposal from a consultant to compare and try to harmonize the HRV test standards for North America and Europe. NRCAN CANMET's next phase of funding will focus on developing archetypes of Part 3 buildings using Open Studio linked with EnergyPlus.
- Gary Hamer gave an update on the project looking at developing a test-standard for variable capacity heat pumps. They also did a rough analysis of compliance to the BCBC and found that it was at around 60%. He also described work being done by BC Hydro and partners in developing a white paper on the potential of introducing a Stretch Code to BC.
- Andy Chase mentioned that they will be gearing up to update the BCBC, as the 2015 NBCC will be coming out next month.
- Kevin Davis mentioned how he has seen more collaboration between ICF manufacturers and concrete producers to the benefit of the industry.
- Wilma Leung indicated that BC Housing is now publishing monthly reports on HPO's New Home Registry statistics. She also told the group about a new Building Smart half day workshop that will happen on January 20th on LEEP and right sizing of HVAC systems.
- Jason Teetaert talked about their ongoing project to develop new concrete moisture sensors applicable to many industries. They have seen a big uptake in the interest in test huts, where they have helped construct 7 this year. They are also initiating a major study on the hygrothermal impact of transportation of building products across North America.
- Denisa Ionescu talked about the Building Excellence Research Grant Program. She also encouraged people to visit the HPO website as there have been many new publications competed recently.
- Mark Lawton indicated that they have been doing ongoing updates to the BETB Guide.
- Murray Frank indicated that potential topics for the next three Building Smart seminars include NBC 2015 and Regulatory Reform, and encouraged the group to send other ideas to him and the HPO.
- Graham Finch indicated that he could give a presentation on the update to the HPO BEDG Guide at the next BRC meeting. They are completing a North American survey of the airtightness of large building across North America. Indicated that they are moving ahead with the installation of HRV's as part of the next phase of retrofits at the Belmont project.
- Jieying Wang presented a new mid-rise wood construction handbook that was just published by FPInnovations in October 2015. FPInnovations is also doing work on monitoring energy retrofits with hygrothermal instrumentation, as well as a project looking at different energy efficient wall assemblies. They have another project looking at nail-laminated assemblies.
- Richard Kadulski reiterated that the Building Code is very reactive, if you find that there is an issue that needs to be addressed, put a proposal together and submit a code change request. A

future project he wishes the BRC members to explore is to do a review of all the issues that have emerged in the City of Vancouver going to R22 in the VBBL so that lessons learned could be shared more broadly.

7. Next BRC Meeting

Meeting scheduled for April 20, 2016, 8:30am – 12:00pm.