

MEETING NOTES
Building Research Committee Meeting
Wednesday, June 6, 2007 at 9:00 am
Plaza 500 Hotel, 500 West 12th Avenue, Vancouver, B.C.

In attendance:

Bob Sloat - Cement Association of Canada (chair)	Chris Kiiveri - HPO (recording)
Hua Ge - BCIT	Denisa Ionescu - HPO
Richard Kadulski - AIBC	John Bell - HPO
Brian Delbrueck - CITW	John Ruddick - UBC Dept. of Wood Science
Warren Knowles - RDH Building Engineering	Karen Liu - BCIT - CAGRT
Allan Dobie - CMHC/BCYRO	Elia Sterling - Theodor Sterling Associates
Rick McWhinney - Artisan Building Consultants	Mark Lawton - Morrison Hershfield
Dr. Paul Morris - Forintek Canada Corp.	Doug Watts - BCBECC
Silvio Plescia - CMHC National Office	Eric Burnett - RDH
Fred Tai – Simpson Strong Tie	JP LeBerg - Masonry Institute of BC

Regrets:

Mark Angelini - Structural Board Association	Bill McEwen - Masonry Institute of BC
Dave Ricketts - APEGBC	Jason Teetaert - Detec Systems
Jennifer O'Connor - Forintek Canada Corporation	Bob Thompson - BC Building Policy Branch

1. Approval of the agenda/additional items

The meeting was called to order at 9:06 a.m. B. Sloat welcomed everyone to the meeting on behalf of BCBECC. The June 6, 2007 BRC meeting agenda was approved.

2. Approval of November 9, 2006 Meeting Minutes and agenda.

The minutes from the November 9, 2006 BRC meeting were approved.

3. Business arising from previous meeting

J. Bell provided a summary of the business arising from the previous meeting, including:

- Canada Green Building Council released an addendum for the LEED durability credit in March (handout).
- A follow-up visit to BCIT's Centre for the Advancement of Green Roof Technology. HPO organized the Conference "Green Roofs and Homeowner Protection in British Columbia" on May 29, 2007 (proceedings handout).

4. Phase II Research: ACQ treated wood and use of metal fasteners and connectors

As a result of the HPO Phase I field investigations (report handout) on the application of ACQ treated wood and use of metal fasteners and connectors in BC residential construction, the Canadian Wood Council organized a forum on the suitability of fasteners and treated wood. Current issues, actions, ongoing work, methods of working together and next steps have been identified. HPO submitted a draft research proposal for a larger field survey, complemented by a laboratory research (handout). The scope and methodology are now being reviewed by stakeholder representatives. The project will be carried out in partnership. Currently, HPO is confirming funding partners.

BRC members were asked to provide feedback to HPO regarding the research proposal.

5. Green Roofs

In May 2007, the HPO organized a green roofs conference, where participants provided input on issues specific to residential buildings and green roofs applications. The HPO conference helped clarify the misunderstanding between the insurance and construction industries.

A partial analysis of participant responses identified various research-related issues: green roofs should be looked at in the context of the whole building; more research, test roofs and funding needed; lack of historical data; lack of green roofs standards; need to quantify green roofs benefits; need to justify green roofs for residential construction; more education needed for strata owners industry stakeholders and public in general.

BCIT started green roof testing in 2004 with NSERC funding, and looked at performance issues, created roof modules and it is optimizing different green roof system for Vancouver climate. The test units are movable, so they can be installed elsewhere and information could be collected from different BC climate zones.

BRC members indicated that both the durability of materials and the collection of historical data specific to different BC climates need to be addressed. An inventory of GVRD green roof with emphasis on maintenance information was recommended. Other areas of research identified include: the determination of the impact of putting green roof on a building, cost and maintenance for long term, heat island effect, CO₂ retention and quantification of advantages, earthquake effect on the horizontal and vertical motion of a top heavy roof.

6. Issue of concern: Sidewall venting of gas appliances (handout)

The issue was brought up to the attention of the CHBA technical committee about two years ago. The moisture generated by the gas combustion moves upward against the house, and can condense water on cold surfaces-such as siding, which will often be near moisture saturation conditions. This can compromise the building envelope of the house. These situations are more prevalent in winter, when the maximum amount of gas combustion takes place, and for infill and narrow lot subdivisions, where the drying or dissipation of gases and moisture are reduced. There are concerns that increased use of energy efficient gas appliances that are sidewall vented will have unintended consequences on the performance and durability of the building envelope.

HPO will prepare a research proposal and circulate for feedback from BRC.

7. Next steps on research in high-rise in-slab ductwork (handout)

The HPO informed that feedback was received from consulting firms and TECA. Members discussed the research proposal and recommended that HPO proceed with the project.

8. Updates on recently completed or current research projects

CMHC Report

- **Test Hut Facility Project**
A highlights type report will be available this summer.
- **Wind and Rain Impact on Buildings Study**
A report summarizing data obtained so far is being prepared.

The 2007/2008 CMHC research planning focuses on climate change and housing. Future CMHC research will deal with sustainable housing and communities groups.

HPO Report

- Two CMHC/HPO funded projects will be finalized and released soon, including:
 - The Effects of Green Building on the Durability of Buildings
 - Indoor Humidity Control in Multi-Unit Residential Buildings for Temperate Coastal Climates
- **Maintenance Matters Bulletins**
Two more bulletins will be released soon with another six to follow.
- **Building Envelope Guide for Houses**
Has been released and can be purchased from the HPO website www.hpo.bc.ca
- **Building Monitoring Study**
The monitoring study was completed and will be posted on the HPO website.
- **Bibliography Update**
BCIT has updated the HPO building envelope bibliography. The new on-line searchable database will be hosted by BCIT with a link to the HPO website.

BCIT Report

- **Wind and Rain Impact on Buildings Study**
A preliminary report will be prepared by end of summer.
- **BCIT Test Hut Facility**
The construction of test hut facility structure is almost complete and should be ready by the end of summer.

9. Open forum and discussion

BRC members discussed new research issues.

Improvement of Energy Performance in High-rise Rehabilitations

RDH is currently working on a report for the City of Vancouver involving the rehabilitation of high-rises and improving energy performance of buildings. The research findings may be applicable to new buildings as well.

Changes in Building Energy -Effects on Energy Consumption

W. Knowles proposed a new research idea -that HPO and CMHC should consider a research project on changes in building energy regulations and their effect on energy consumption.

ICF Construction

B. Sloat proposed that ICF wall system details be included in the HPO's Building Envelope Detail Guide for Houses. There is a need to work with industry to promote better details in ICF construction. BRC suggested to inquire with the ICF Association if they have a detail guide and consult Spratt Emanuel's ICF manual.

Standards and Building Product Certification

Issues arose in the last meeting regarding imported windows that do not meet standards. There are counterfeit products with fake stamps. It was suggested a note on non-compliant material should be put out. Also, it was recommended to check if information is available on the CHBA national website.

10. Next BRC meeting

To be confirmed.

The meeting adjourned at 11:45 a.m.