



BCIT's High Performance Building Lab

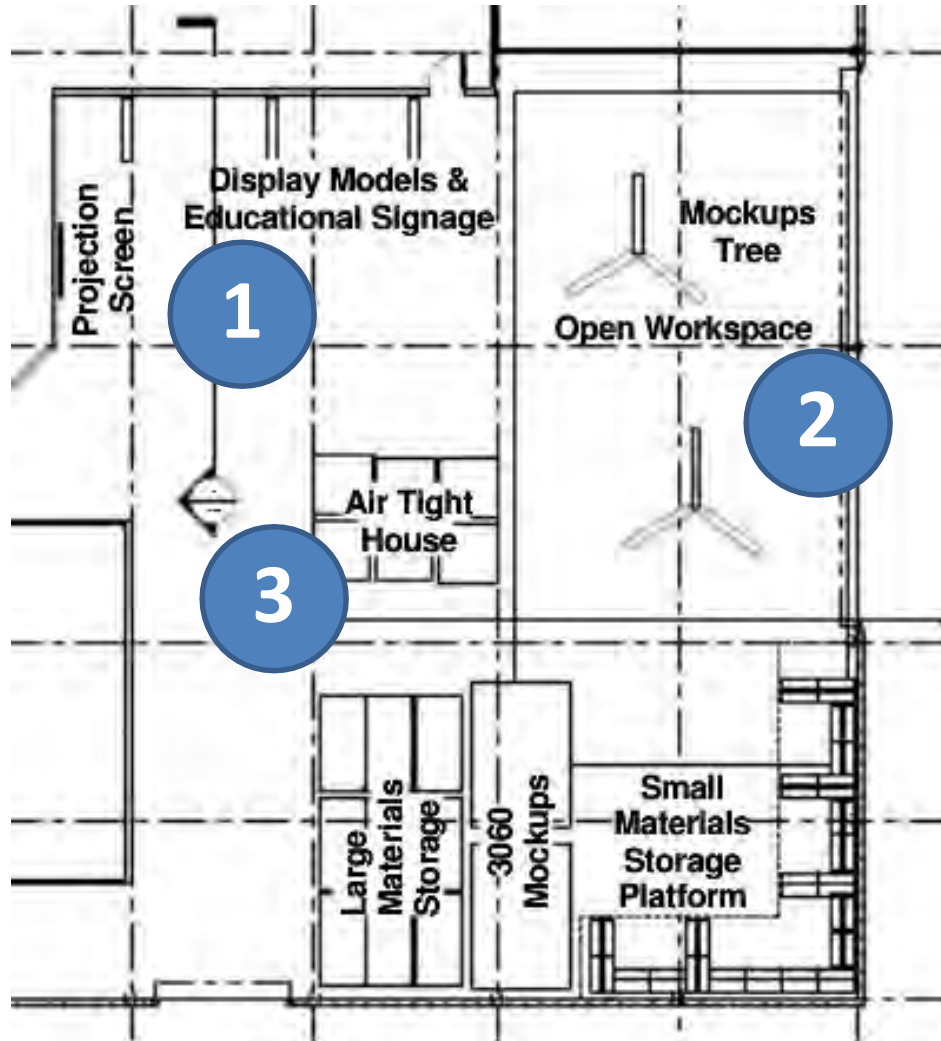
A virtual tour

High Performance Building Lab

SCHOOL OF CONSTRUCTION AND THE ENVIRONMENT



The lab, located on the Burnaby campus, consists of 3 main areas:



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1

Classroom



1

Classroom



2

Open Workspace



2

Open Workspace



3 Air-tight house



3

Air-tight house

Airtightness Testing Hut






An air barrier system is used to control the flow of air into and out of a building. Control of these airflows is important to energy efficiency, to ventilation, to reduce the potential for mold and moisture condensation, for occupant comfort, and for indoor air quality.

Blower Door Testing is carried out in the Airtightness Testing Hut to measure the number of air changes per hour (ACH50) at 50 Pa pressure difference (ACH50). Carrying out the City of Vancouver, new residential construction must achieve an airtightness of 3 ACH50. Buildings constructed to Passive House standards must reach an airtightness of 0.6 ACH50.

The Airtightness Testing Hut is a specialized building built by BC Passive House Technologies, BCIT. It is an example of zero-net-energy construction with green-roofed insulation.

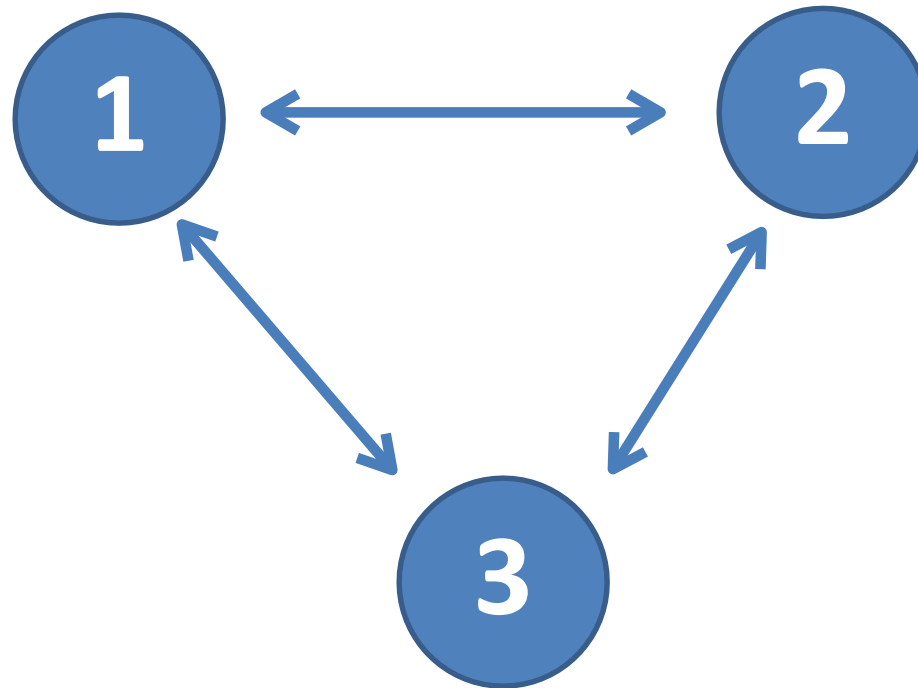
In this case, the air barrier is achieved by using the interior and exterior sheathing layers with high performance foam (SIGA-Wigluv, Tarsan-Wood). Vapor resistance is provided by the exterior rigid sheathing. The exterior Airtightness Testing Hut provides a constant barrier as well as being water resistant. Windows are installed by Exelon.

High Performance Building Lab
School of Construction and the Environment

BCIT



21st Century Classroom



Students and instructors move easily
from 1 to 2 to 3...

21st Century Classroom



Thank you to our partners:



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