



## Project Explanation

Local Practice Project – BCA Part 3.12 Energy Efficiency

### TIMBER FRAMING: WALLS – THERMAL PERFORMANCE

**ABLE Web ref:** *Current Projects*

Published: 20 September 2011

Page 1 of 1

#### BACKGROUND INFORMATION

As-Built Learning Exchange (ABLE) undertakes Local Practice Projects to develop resources that support better local practice compliance and workmanship outcomes.

When a compliance and/or workmanship issue is discovered that is likely lead to a useful local outcome ABLE posts a project explanation ([www.asbuillearningexchange.com.au/current-projects](http://www.asbuillearningexchange.com.au/current-projects)) and invites regulators, businesses and experts-in-their-field to contribute to the project.

Projects are undertaken when the required support and resources are in place, and outcomes are published as Open Exchange resources on the ABLE website.

#### PROJECT OUTLINE

The Energy Efficiency Research Group (EERG) provides research support to ABLE with a current focus on investigating the BCA Part 3.12 Energy Efficiency provisions and the application of House Energy Rating Software (HERS) calculations.

A recently completed Local Practice Project (see sidebar) investigated the thermal cost benefit of different construction materials in terms of \$/MJ, %MJ Gain, and Weighted Cost Factor.

The current project is being undertaken to measure the thermal cost benefit gained when a composite construction approach is used to optimise building thermal performance. This project will measure the thermal cost difference between insulated cavity masonry and:

- Brick veneer construction, and
- Reverse brick veneer construction, and
- 90 x 35mm timber framing, and
- 120 x 35 timber framing.

This data will then be used to investigate the:

- Performance variances across the four NatHERS Climate Zones in the metropolitan area (Perth, Bickley, Swanbourne, Mandurah) and the two in the southwest (Albany and Manjimup) that affect construction south of Busselton.
- Performance gained which can be achieved by using a composite construction approach to maximise passive solar design.

#### PROJECT OUTCOME

This project will provide builders, designers and thermal assessors with:

- A useful example of how to measure the thermal cost benefit of a construction type.
- Comparative outcomes for different NatHERS Climate Zones to better understand the construction types that most likely to deliver zone specific cost efficiencies, and
- Options for utilising a composite construction approach to achieving a 6-Star outcome when site and/or house configuration limits the opportunity to optimise passive solar design.

#### PROJECT CONTRIBUTOR

The project will require \$6,500+GST to complete and Wespine is the Project Contributor.

ABLE values its industry reputation for providing information that is free of commercial interest. Wespine supports this endeavour and agrees that this project is intended to provide industry with information that will inform better timber framing practices. Published information will be generic in nature and will not support or endorse a particular material type or brand.

As the Project Contributor, Wespine will be recognised in the Contributor Registry and on the Local Practice Note publication ([www.asbuillearningexchange.com.au/contributor-registry](http://www.asbuillearningexchange.com.au/contributor-registry)).

Regards

**James Bertram** BArch Hons  
As-Built Learning Exchange

#### Energy Efficiency Research Group

The EERG emerged from the experience that assessors had when participating in recent 6-Star Local Practice Projects.

**ABLE Web ref:** *Research Groups*

#### Local Practice Notes

6-Star: DTS or Modelling?

6-Star: Planning for Better Outcomes Project Outline

6-Star: Compliance Reporting & Pre-Start

**ABLE Web ref:** *Compliance & Workmanship Information*

ABLE Defined Terms

Local Practice Projects, Local Practice Resource, Open Exchange, Building Professionals

**ABLE Web ref:** *Conditions of Use*