

LBP-exempted work for homeowners

Under an exemption to the Licensed Building Practitioners Scheme, homeowners are allowed to build or renovate their homes. However, it will be recorded on the property file held by the local council that the homeowner carried out the work. This means that this information will be accessible to future purchasers and/or owners.

Minimum bracing in external subfloor bracing lines

Clause 5.5.2.2 of NZS 3604:2011 *Timber-framed buildings* (Minimum bracing capacity in external subfloor bracing lines) sets out the minimum amount of bracing that is required to be provided under external walls. Each external subfloor bracing line shall have a total bracing capacity of not less than the greater of:

- 100 bracing units **or**
- 50% of the total bracing demand divided by the number of bracing lines in the direction being considered (along or across the building) **or**
- 15 bracing units times the external wall length in metres.

Using polystyrene insulation under concrete slabs

Suitable polystyrene to provide insulation under concrete slabs on ground is a minimum of S grade expanded polystyrene (EPS) board (with a nominal density of 16 kg per cubic metre) with a minimum thickness of 50 mm.

The insulation should:

- be laid over the top of the concrete underlay or damp-proof membrane
- be close butted
- have the reinforcing steel installed immediately following the polystyrene so that the insulation is held in place (unsecured polystyrene will become airborne) – place mesh over the polystyrene on mesh chairs.

Do not lay the polystyrene under footings or slab thickenings.

Where the R-value is required to be at least R1.9 for a heated slab, edge insulation will also need to be provided.

Is strapping required across intermediate floor junctions?

Where a lower-level framed wall supports joists and a framed wall above, there needs to be a physical connection between the upper and lower frames.

However, determining the specific requirements is not easy as the relevant information is spread throughout NZS 3604:2011. To attempt to unravel the requirements:

- use Table 8.19 for lower-floor framing stud to top plate connections
- use Table 7.5 for intermediate-floor joist to lower-floor wall framing top plate connections
- use Table 8.19 for upper-floor wall framing bottom plate to intermediate-floor joist connections.

In essence, no straps are required to the above connections **except** where there are windows within the upper level framing. This triggers the lintel fixing requirements of Table 8.14 (lintel fixings).

Where lintel fixings are required by Table 8.14, the specifics are given in Figure 8.12 (for example, having the trimming stud strapped to the floor joist and the lintel strapped to the trimming stud).

Note that, where the wall incorporates a proprietary bracing system such as plasterboard sheets, their specific fixing and holding-down requirements need to be incorporated. This may include the use of strapping or alternative fixing requirements for studs and bottom plates.

Loaded dimension

The term loaded dimension is used in NZS 3604 when determining the proportion of load a beam or rafter is carrying. The official definition is “a measure of the weight of construction contributing to the member under construction”.

Figure 1.3 in section 1 of the standard demonstrates how to calculate the loaded dimension for a range of beam types and locations.

More detailed information is given in an article called "Loaded dimension – a guide" published in *Build* 61 dated Nov/Dec 2000. This can be obtained free on the BRANZ website by following this link:

www.branz.co.nz/cms_show_download.php?id=6b82d38f08ff3ddb59217c5beb0d43cabeab42

Extract fan ducting requirements

House inspections highlight a continuing issue with the installation of extract fans and dryers and their associated ducting. Too often, the ducting does not vent to the outside (it discharges into a roof space), and ducts are often installed in a way that restricts their performance – examples are folds and creases in flexible ducting that constrict the flow.

New web tool

BRANZ Maps is an online tool that tells you the earthquake zone and corrosion zone for any address in New Zealand. It is in the toolbox at www.branz.co.nz/branz-maps.

New publication

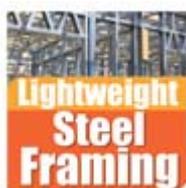
Orders are now being taken for the second title in the BRANZ Building Basics series – *Steel Framing*.

BRANZ seminars 2012

Lightweight Steel Framing

While many of us may have seen a steel-frame building being erected, most of us are unfamiliar with lightweight steel as a framing system, as we have not worked with it. This seminar will outline design and construction information specific to steel framing for designers, builders and building consent authorities (BCAs) to make attendees more familiar with the requirements of lightweight steel framing.

Buildings covered by this seminar fall within the design parameters of the NASH standard *Residential and low-rise steel framing – Part 1: 2010 Design criteria*, which is cited as a means of compliance for Building Code clause B1 *Structure* in compliance document B1/VM1.



Topics that this seminar will cover include:

- statutory requirements relating to the consenting of lightweight steel-framed buildings
- applicable standards
- what is lightweight steel framing?
- factors that influence the use of lightweight steel framing
- steel framing systems currently available
- materials and profiles used in lightweight steel framing
- why thermal breaks are required, suitable materials, where they must be installed and their installation requirements
- incorporating drained and vented cavities with thermal breaks
- application of E2/AS1 details to steel framing
- installation requirements specific to lightweight steel framing
- thermal insulation of steel frames.

Seminars will be presented by Trevor Pringle ANZIA (author of *Building Basics: Steel Framing*) and run from 1 pm to 4 pm as listed below:

Location	Date
Dunedin	Monday 30 April
Queenstown	Tuesday 1 May
Christchurch	Wednesday 2 May
Wellington	Thursday 3 May
Tauranga	Monday 7 May
Hamilton	Tuesday 8 May
Auckland – Albany	Wednesday 9 May
Auckland – Ellerslie	Thursday 10 May

Registration and venue details will be available on the BRANZ website from early April.

Guideline is a free monthly update on building issues prepared by BRANZ and funded by the Building Research Levy.

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