

NHBC Risk Guide

Spandrel Panels (Revised May 2020)

(Refer to NHBC Technical Guidance 7.2/25, Technical Extra 23 and Trussed Rafter Association Guidance)

Site ref: Site manager: Inspector:

Date: Signature: Signature:

General

Spandrel panels should be designed by the manufacturer in accordance with the building designer's details and requirements and manufactured in accordance with guidance from the Structural Timber Association (www.structuraltimber.co.uk) or Trussed Rafter Association (www.tra.org.uk).

Gable spandrel panels must resist wind loads acting on the gable end walls and any loads from applied cladding, e.g. tile hanging. These loads are transmitted through the panel to the roof structure via lateral restraints (See fig. 1).

In accordance with masonry codes, wall ties to masonry cladding should be increased in number at the top of a wall. Wall ties should also be increased at potential slip planes, e.g. horizontal cavity tray locations. Please see detail 10 in Technical Guidance 7.2/25 for further information.

Gable panels should be installed level with the top of the trusses with flush roof verges; or to the underside of gable ladders with boxed verges.

Party wall panels require tying back into the roof structure on both sides, so that they remain in place in the event of the roof on one side burning away (See fig. 4 for masonry wall configuration).

The top of party wall panels should be slightly lower than the level of adjacent trusses (typically 25-50mm, measured perpendicular to the top of the rafters), to allow the trusses to deflect on application of the roof tiles, without causing hogging of the tiles over the panel.

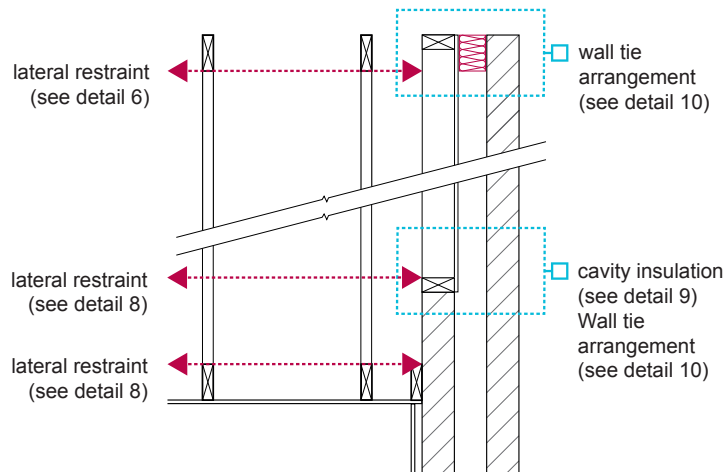


Fig 1

Type of spandrel panel

Please select which type of panel(s) will be used on this site:

1	Twin leaf panels supported on a timber framed party wall		2	Single leaf panel supported on a timber framed party wall	
3	Single leaf panel supported on a masonry party wall		4	Single leaf panel supported on a timber framed party wall	
5	Single leaf panel supported on the inner leaf of a masonry cavity gable wall				
6	Single leaf panel supported on the outer leaf of a masonry cavity gable wall				
Has the manufacturer's details and design details been provided?					Yes / No

Note 1: In Scotland, generally, only twin leaf panels are used.
 Note 2: If a different panel is specified than one listed above, please contact Standards and Technical for further information.

Handling and protection

Spandrel panels should be lifted and handled in accordance with the manufacturers guidance	Is this information available on site?	Yes / No
Any damage to the panel should be made good. Where excessive damage is evident, the manufacturer should be notified to ensure repair work is satisfactory		
Panels with plasterboard linings should be protected from wetting		
Ensure that impervious weather protection is removed once the roof is watertight		
<p>Note 1: It may be necessary to remove breathable protective membranes for inspection of the panel if there are signs of trapped moisture. Note 2: Where membranes are retained on gable walls, the position of the studs should be marked on the membrane to enable wall ties to be correctly located.</p>		

Lateral restraint

Spandrel panels require lateral restraint at rafter level and along the base of the panel. In addition, tall panels may require further restraint.

Does the design specify positioning of lateral restraint straps?

Yes / No

Note: If the information is unavailable, verify with the designer prior to commencement of work.

Lateral restraint can be provided by:

- Timber members (e.g. the longitudinal bracing secured to the spandrel with timber ledgers/noggings), fixed into at least two studs within the panels
- Metal restraint straps fixed to the panel and to noggings, or timber bracing fixed between or across the trusses

Ensure stud positions are identified for fixing restraints

Note: Multiple fixings into narrow studs, e.g. 38mm wide, at the end of restraint straps, should be avoided by fixing the straps into timber ledgers, fixed across and into two studs within the panel

Fire protection and fire stopping to gable end spandrel panels

The need for fire protection to gable end spandrel panels is dependent on the dwelling type, e.g. house or flat, its height, and distance from relevant boundaries. This should be designed in line with the relevant Building Regulations and made available to site.

Has this information been made available?

Yes / No

Note: If this information is not available, verify with the designer and Building Control Body prior to commencement of work.

Fire protection and fire stopping at party walls

Party wall spandrel panels should provide a minimum 60 minute's fire protection (unless otherwise specified).

Please specify in minutes fire protection required.

Does the spandrel panel have two layers of 12.5mm plasterboard on both sides?

Yes / No

Are (min 150mm wide) double layer cover strips provided where vertical joints are present? (See fig. 2).

Yes / No

Note: Where another method of providing fire protection is specified e.g. single layer board, test reports will be required to show compliance.

Are details available showing the position and material for the fire stopping?

Yes / No

Note: If the information is unavailable, verify with the designer prior to commencement of work.

Confirmation is required that the fire stopping will be provided at the following junctions:

At the head of the party wall and roof covering (See fig. 3)

Yes / No

In masonry construction - between the base of the spandrel unit and masonry supporting wall (See. Fig 4)

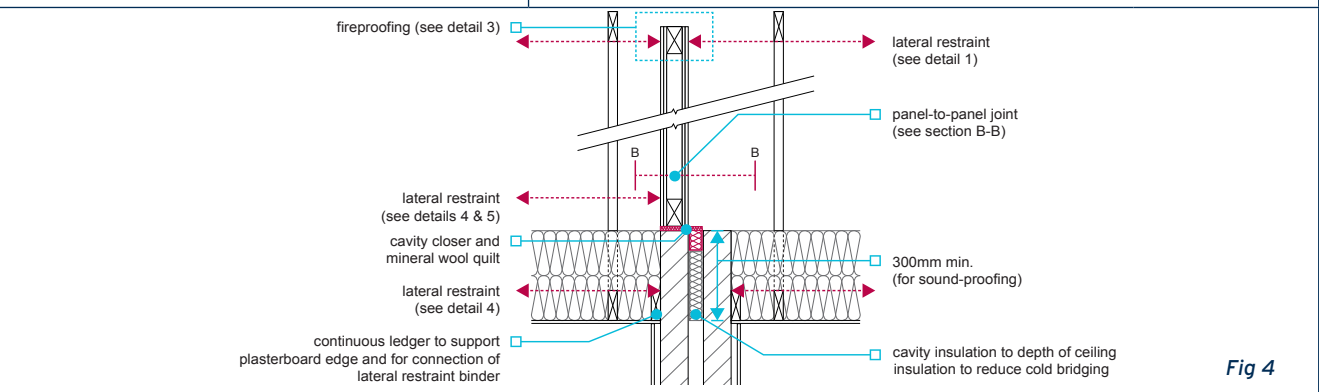
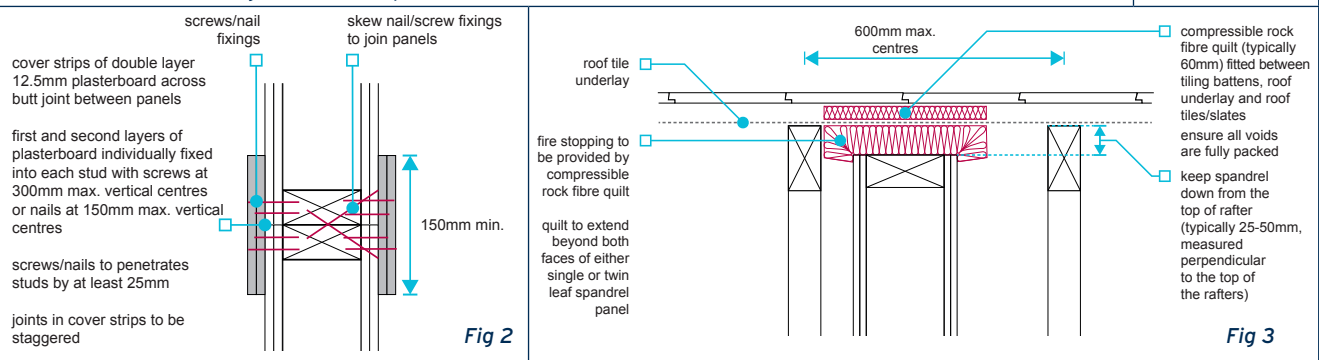
Yes / No

Within the boxed eaves utilising fire-resisting board, or;

Yes / No

Within the boxed eaves utilising wired rock fibre quilt (screwed or nailed)

Yes / No



Acoustics

How are sound requirements to be met?

Robust details

Sound testing

Is the party wall below the spandrel panel

Masonry

Timber frame

Note: Where the party wall is of masonry construction it must extend at least 300mm into the cold roof space

