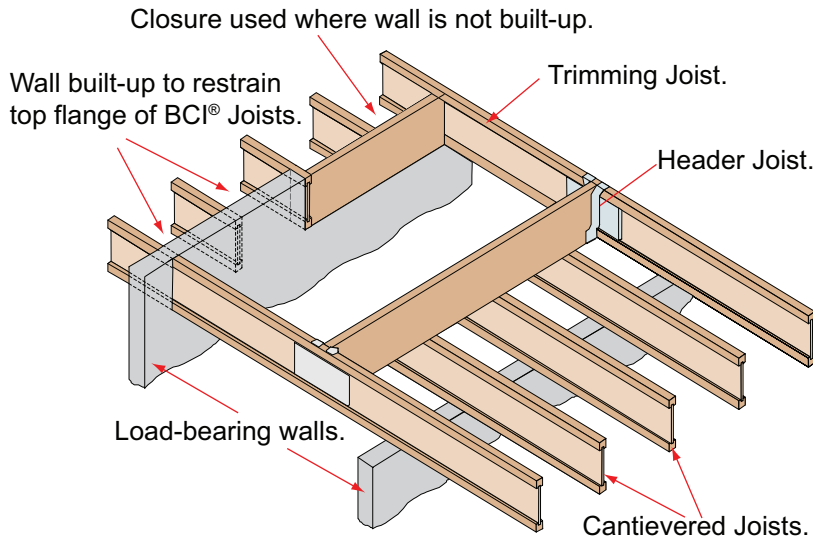


## Framing Around Stair Openings

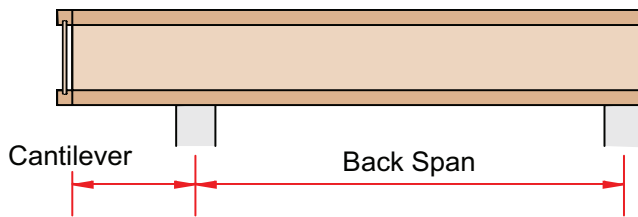


When framing around stair openings in floors, it is often possible to cantilever the oncoming BCI® joists over an adjacent load-bearing wall, provided an adequate fixing exists between the header joist and the trimming joist either side.

Full scale laboratory tests on floors framed in this manner have highlighted the important role the decking plays in this arrangement in acting as a structural diaphragm, and of the importance of the header joist/trimming joist connection, particularly when the decking is discontinuous in the vicinity of the openings (i.e. decking joints occur).

Based on these laboratory tests, suitable framing/fixing arrangements for this situation are recommended below.

Two alternative framing/fixing details are recommended when framing around stairwells, depending upon the ratio of the cantilever length to the back span of the joists in question, as follows:



**If in doubt, ask!**

Boise Engineering on  
01420 590078

Back span to cantilever ratio	Recommended Detail (See details overleaf)
Up to 3 : 1	No cantilever possible – Split joists over wall – Use Detail B
3 – 5 : 1	Use Detail A
Over 5 : 1	No cantilever possible – Split joists over wall – Use Detail B

Based upon the above guidance, the following look-up tables provide a quick reference to the appropriate framing detail for a range of back span/cantilever ratios:

STAIRWELL FRAMING DETAIL REFERENCE TABLE (See details overleaf)									
Cantilever distance (mm)	Back span (mm)								
	2000	2500	3000	3500	4000	4500	5000	5500	6000
600	A	A	A	B	B	B	B	B	B
700	B	A	A	A	B	B	B	B	B
800	B	A	A	A	A	B	B	B	B
900	B	B	A	A	A	A	B	B	B
1000	B	B	A	A	A	A	A	B	B
1100	B	B	B	A	A	A	A	A	B
1200	B	B	B	B	A	A	A	A	A
1300	B	B	B	B	A	A	A	A	A
1400	B	B	B	B	B	A	A	A	A
1500	B	B	B	B	B	A	A	A	A

Where cantilever arrangements are required around stairwells in non-domestic applications, contact Boise Engineered Wood Products Engineering to establish which of the above details will apply, or for a specific framing detail engineered to suit the situation.