SPAN TABLES SG8/SG10

NORTHPINE
Growing stronger

A helpful guide for Architects, Designers, Engineers, other Specifiers and Builders

These tables from NZS 3604:2011 combine and compare SG8 with SG10. Using them will help you to identify situations when specifying SG10 and/or 7.2 metre lengths could be beneficial to a project.

Specifying Northbeam SG10 can:

- **Optimise stud centre requirements**
- **Reduce timber volume requirements**
- **Increase spans by up to 30%**
- **Eliminate an entire row of foundation piles**

Examples are highlighted in dark green on pages 9, 11, 12, 16, 19 and 20.

Specifying SG10 as per these tables is an Acceptable Solution - no PS1 is required.

Northbeam SG10 is more cost-effective and easier to work with than some engineered wood products.

Northbeam SG10 is readily available within reasonable timeframes from timber merchants nationwide.

NORTHBEAM
A product range of Northpine

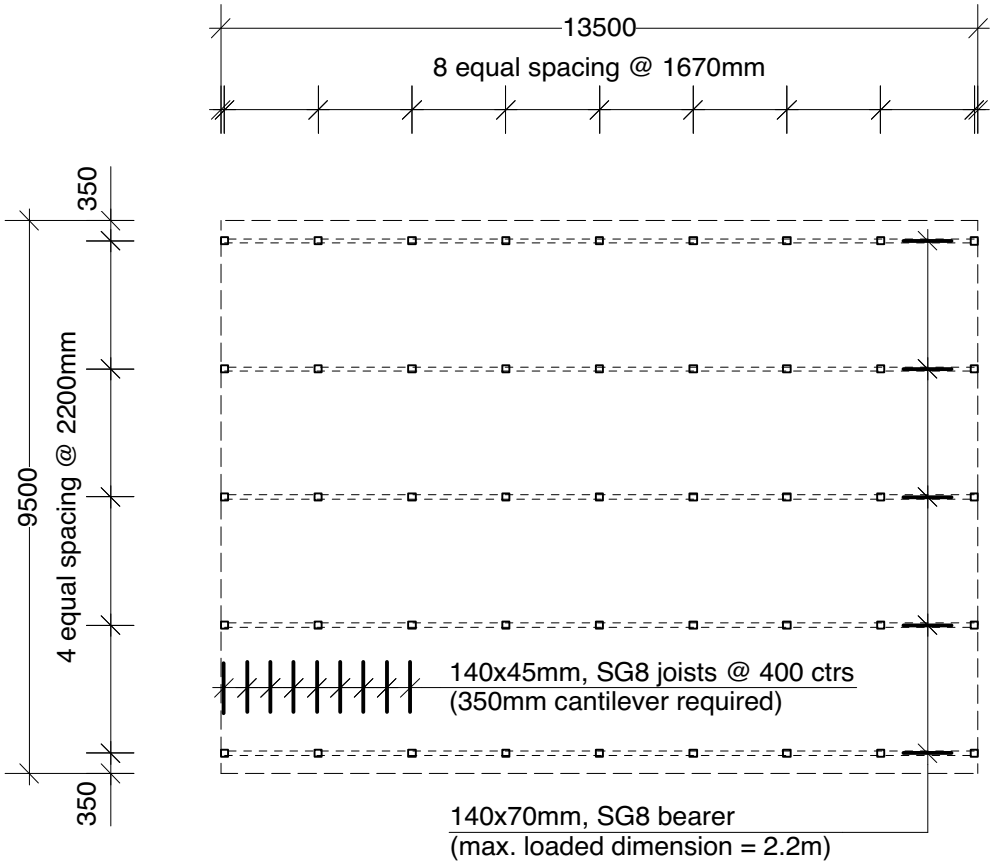
BRANZ Appraised
Appraisal No.986 [2017]

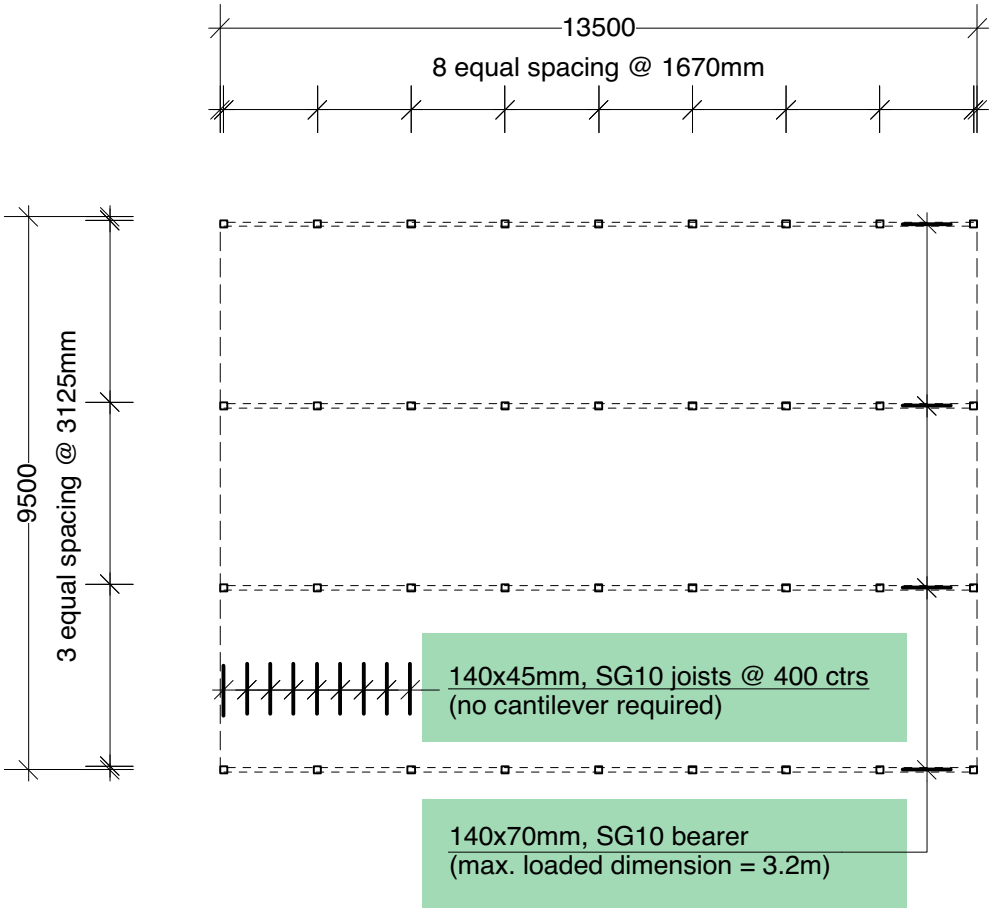
0508 432 115 | www.northpine.co.nz
34 Cove Road, Waipu, Northland

Bearers & Joists

See page 7-8

These diagrams illustrate some examples where SG10 is cost-effective as a design solution.
Examples are highlighted in dark green on pages 9,11,12,16,19 and 20.



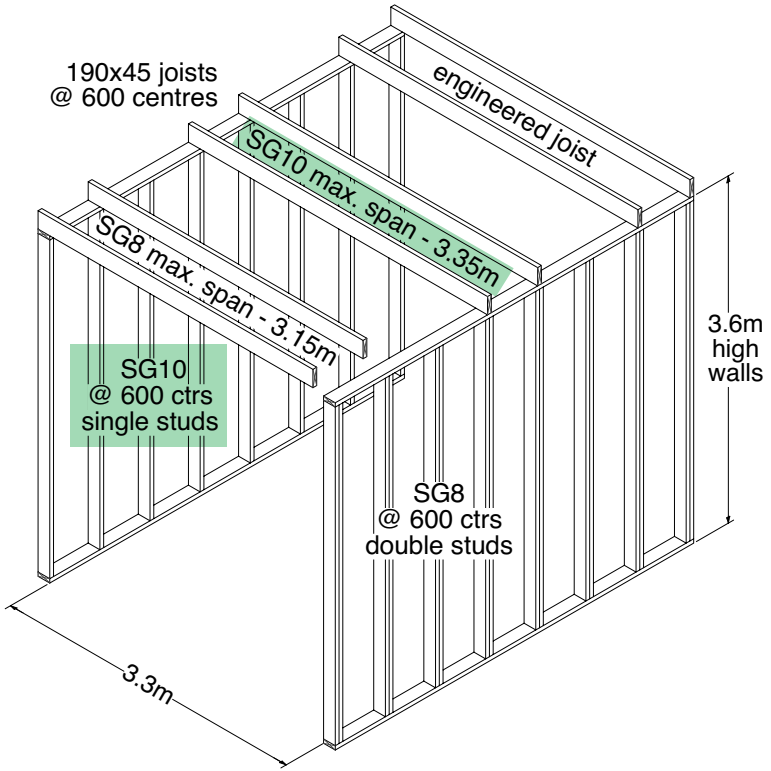


NORTHBEAM
A product range of Northpine

BRANZ Appraised
Appraisal No.986 [2017]

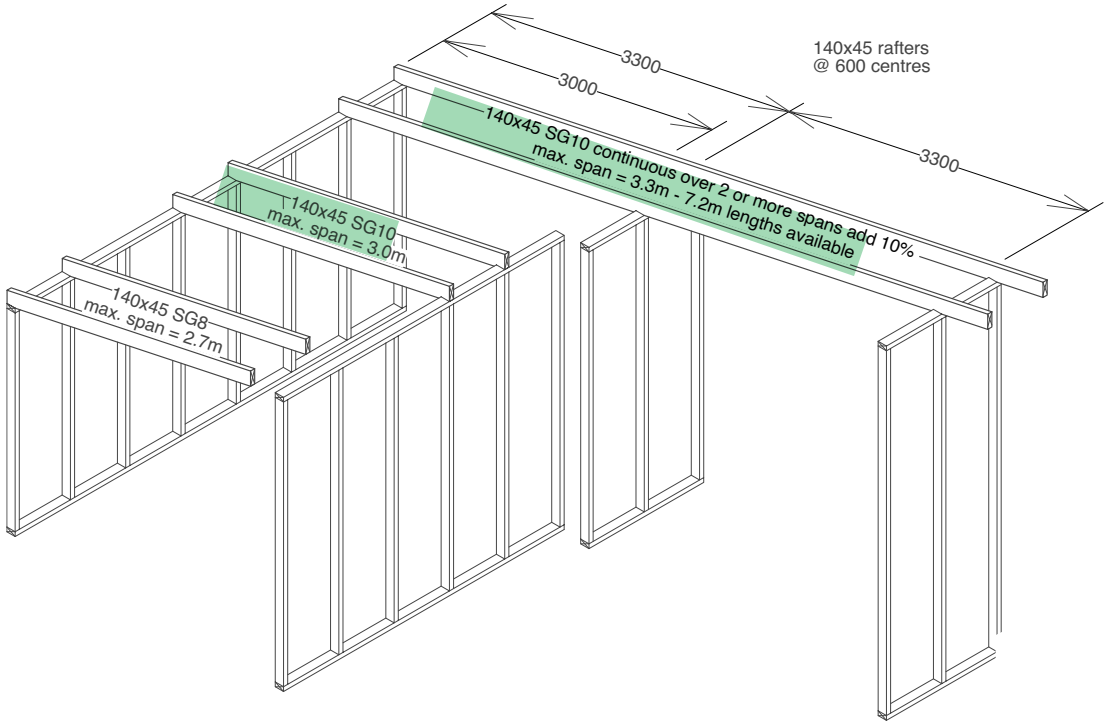
Joists & Studs

See page 11-15



Rafters

See page 16-23



CONTENTS

WHAT THE SCIENCE SAYS

"Northland radiata pine is stronger and denser than pine grown in other parts of the country because the cell walls are thicker. This is partly due to the good growing conditions in autumn and winter. It means our pine forms the basis of a top quality structural product for housing construction."

– Keith Reay, founder of Northpine

Northland pine is stronger

A 1991 study conducted by the Forest Research Institute (FRI, now Scion) demonstrated, in essence, that the further north in New Zealand the timber comes from, the denser and stronger it is.

A further study by FRI in 1997 then showed conclusively that visual grading (ie using the NZ grading rules No1 Framing), gave different performance characteristics depending on which region the timber came from.

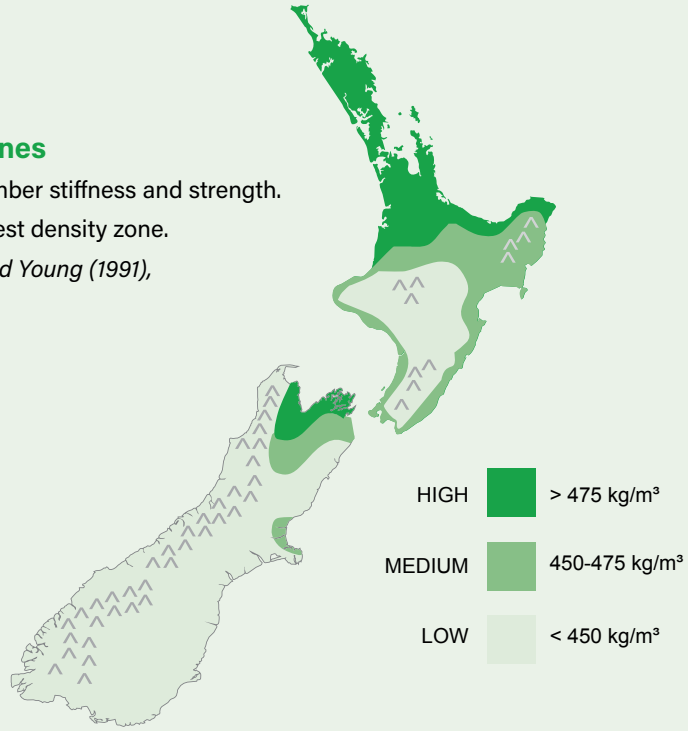
The result showed that out of the six regions tested, only two met the actual requirements that the visual grading was designed to achieve. One of these regions is Northland.

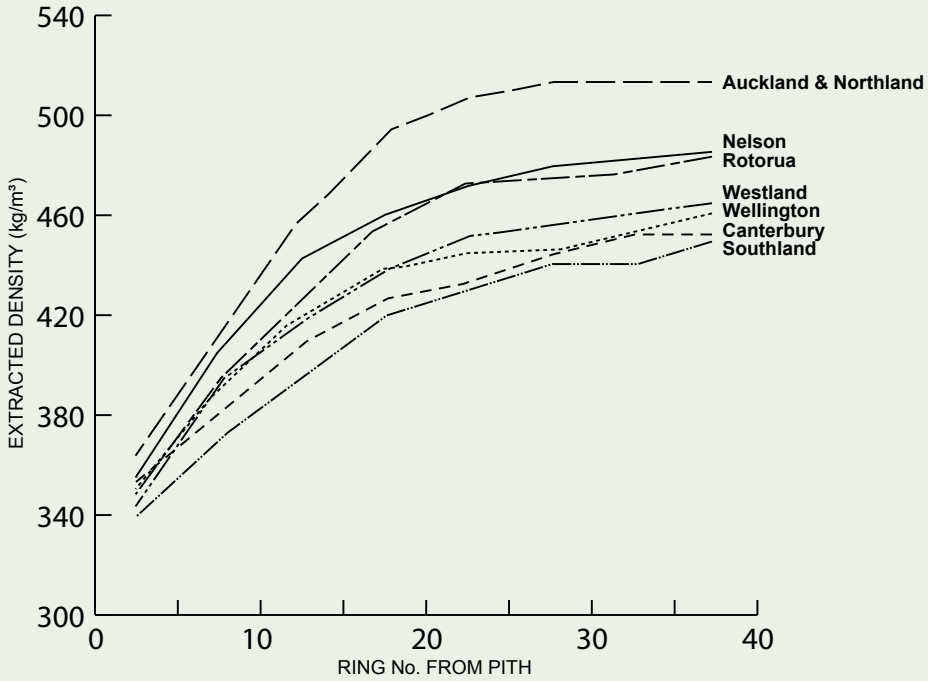
Radiata pine density zones

Density is closely related to timber stiffness and strength.

Northland wood is in the highest density zone.

Source: Cowan, McConchie and Young (1991), FRI Bulletin 50.

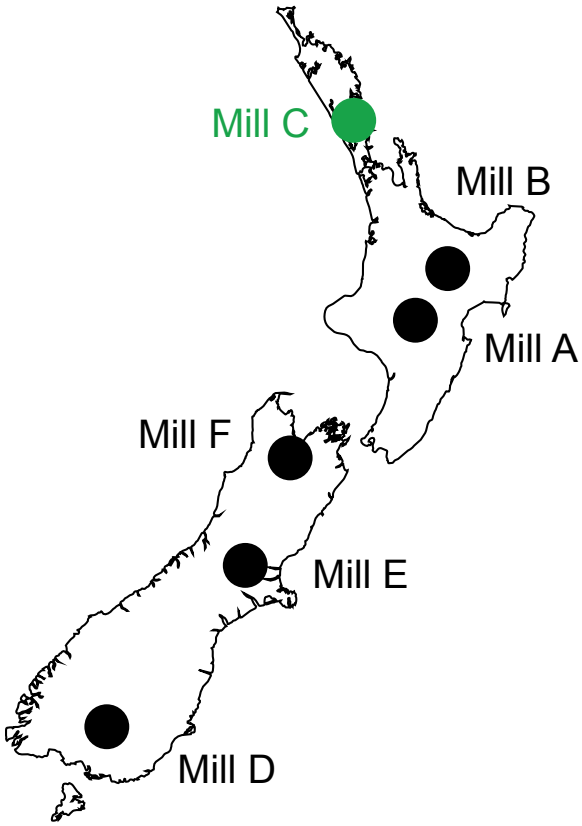




Regional and ring density trends (mean density at 1.3m above ground). Northland wood is included in the Auckland area, and is significantly higher than other areas.

Source: Cowan, McConchie and Young (1991), FRI Bulletin 50.

WHAT THE SCIENCE SAYS



Location of study timber

Source: Cowan, McConchie and Young (1991), FRI Bulletin 50.

Timber grading

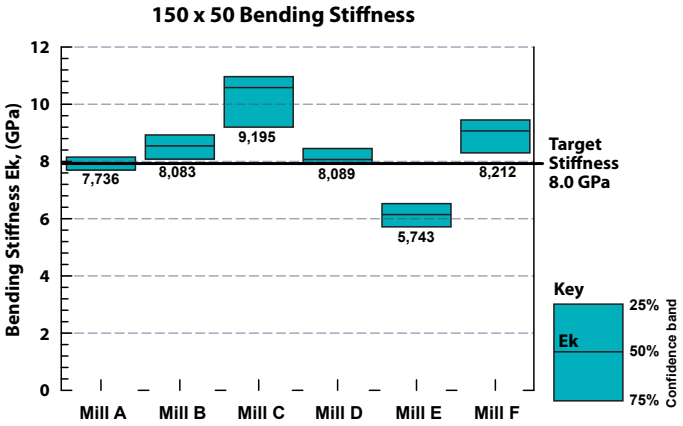
One study undertaken by the Forest Research Institute in 1997 took correctly graded No1 Framing timber from six mills around NZ (see map, left) and, in conjunction with the bending strength and stiffness data, determined the **characteristic bending strength and stiffness values**.

Stiffness and strength

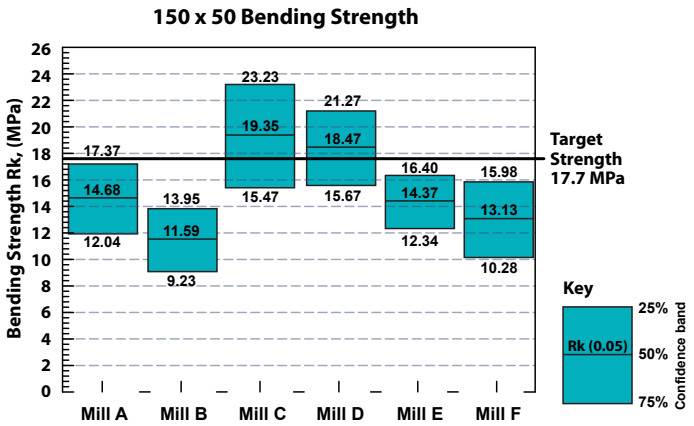
The two images below show characteristic bending strength and stiffness for this sample of 150x50 timber. **Mill C (located in Northland) is consistently the highest rated producer**.

In terms of bending stiffness there was a 4GPa difference across the country with 5 of the 6 mills achieving the No1 Framing grade value of 8GPa. In terms of bending strength only two mills achieved the No1 Framing grade target value of 17.7GPa. **Mill C (in Northland) is the highest rated producer**.

No.1 Framing Bending Stiffness



No.1 Framing Bending Strength



"This trend of wide variations in bending stiffness within a single visual grade confirms the view that you cannot determine timber strength or stiffness just by looking at it. That's why Northpine has a rigorous machine stress testing regime that is independently verified by Grade Right."

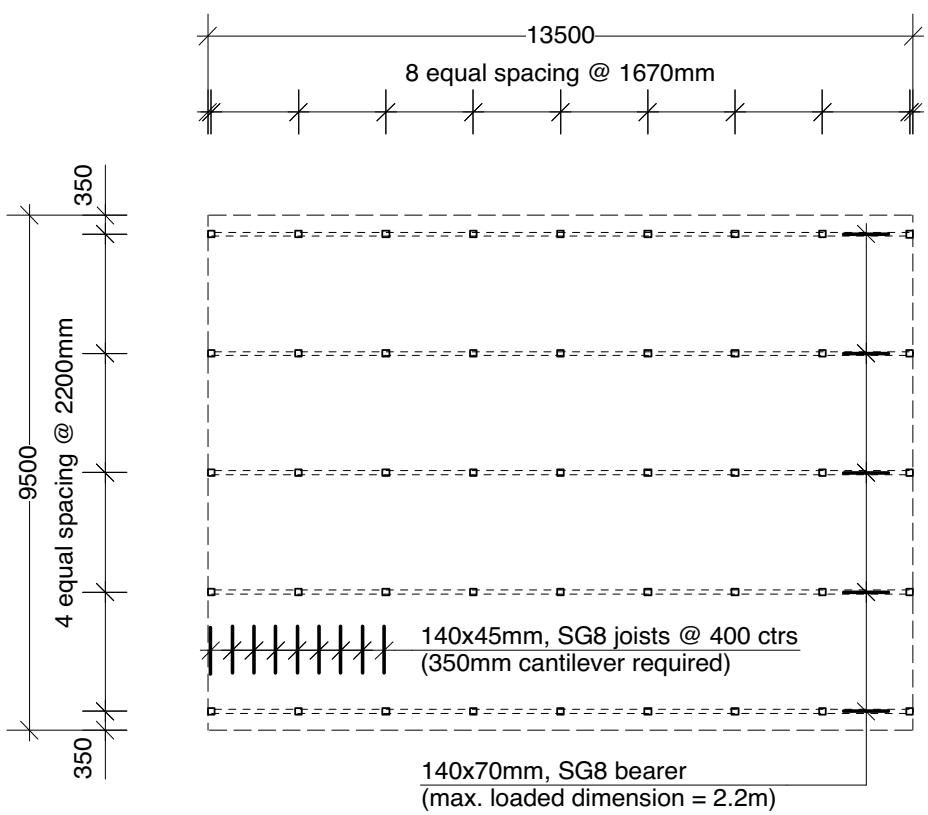
– Bruce Larsen, General Manager, Northpine

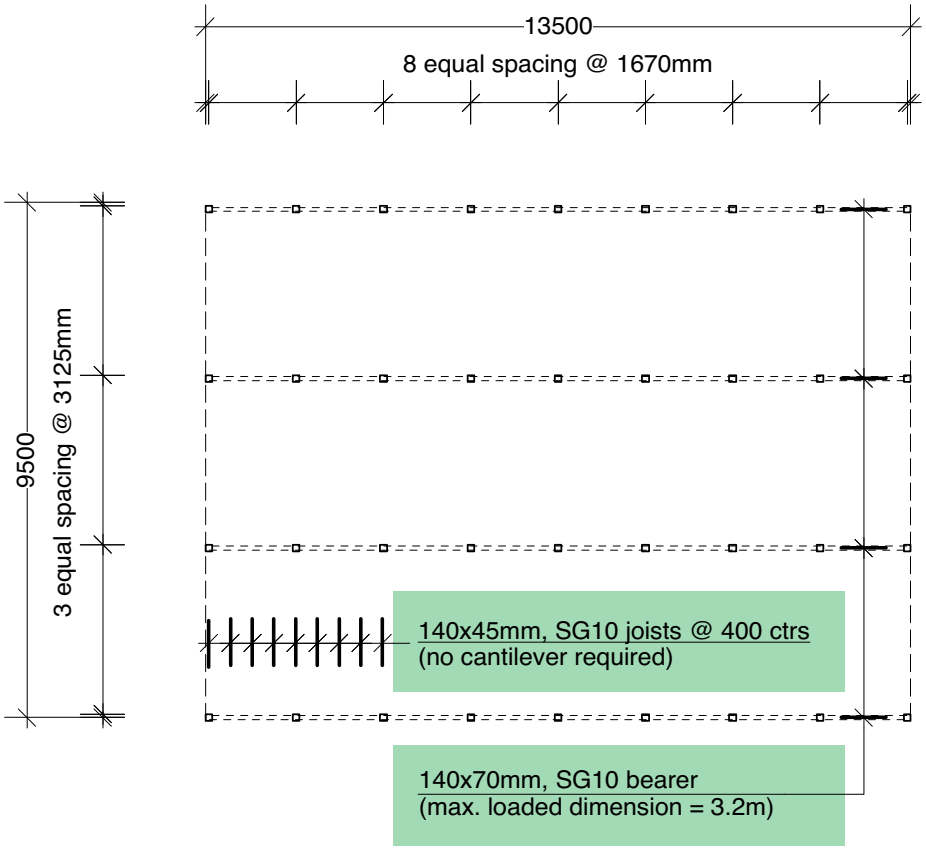
FOUNDATION AND SUBFLOOR FRAMING - Bearers for up to 2 kPa floor loads

Maximum span of bearer continuous over 2 or more spans	Loaded dimension* of bearer		Bearer size (width x thickness)	
(m)	(m)		(mm x mm)	
(a) 1.5 kPa floor load SG8 / SG10 (dry in service)				
	SG8	**SG10**	**SG8**	**SG10**
1.30	1.5 1.9 3.6 4.6 6.6	2.1 2.7 5.1 6.6 –	90 x 70 90 x 90 140 x 70 140 x 90 190 x 70	90 x 70 90 x 90 140 x 70 140 x 90 –
1.65	2.2 2.8 4.1	3.2 4.1 5.9	140 x 70 140 x 90 190 x 70	140 x 70 140 x 90 190 x 70
2.00	1.5 1.9 2.8	2.1 2.8 4.0	140 x 70 140 x 90 190 x 70	140 x 70 140 x 90 190 x 70
(b) 2.0 kPa floor load SG8 / SG10 and SG8 / SG10 (Wet) (wet in service)				
1.30	1.2 2.3 3.0 4.3	1.2 2.3 3.0 4.3	90 x 90 140 x 70 140 x 90 190 x 70	90 x 90 140 x 70 140 x 90 190 x 70
1.65	0.7 1.4 1.8 2.7	0.7 1.4 1.8 2.7	90 x 90 140 x 70 140 x 90 190 x 70	90 x 90 140 x 70 140 x 90 190 x 70
2.00	1.2 1.8	1.2 1.8	140 x 90 190 x 70	140 x 90 190 x 70

Refer NZS3604:2011 Tables 6.4 and A6.4
* For definition of loaded dimension see 1.3 in NZS3604:2011.
NOTE – Members 70 mm and 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

BEARERS & JOISTS





VALUE EQUATION

For the example shown, SG10 will save one line of piles (9 piles and 13.5 lineal metres of bearers).

1. All timber sizings ex NZS3604:2011, Tables 6.4, 7.1, A6.4 and A7.1

2. 1.5kPa floor load (dry in service)

By specifying Northbeam 7.2m lengths, spans may be increased by 10%. See note below.

Floor joists

Floor joist size	Maximum span* of joists at a maximum spacing (mm) of:					
	400		450		600	
(mm x mm)	(m)		(m)		(m)	
	SG8	SG10	SG8	SG10	SG8	SG10
(a) 1.5 kPa floor load (dry in service)						
90 x 45	1.45	1.55	1.40	1.50	1.25	1.30
140 x 45	2.70	2.90	2.60	2.80	2.00	2.15
190 x 45	3.55	3.80	3.45	3.70	3.15	3.35
240 x 45	4.40	4.70	4.30	4.60	3.90	4.20
(b) 2 kPa floor load (wet in service)						
90 x 45	1.60	1.60	1.50	1.50	1.30	1.30
140 x 45	2.50	2.50	2.35	2.35	2.05	2.05
190 x 45	3.40	3.40	3.20	3.20	2.75	2.75
240 x 45	4.30	4.30	4.05	4.05	3.50	3.50

Refer NZS3604:2011 Tables 7.1 and A7.1

*** SPANS MAY BE INCREASED BY 10 % FOR JOISTS CONTINUOUS OVER 2 OR MORE SPANS.**

Cantilevered floor joists

Joist size	Joist spacing	Maximum cantilever length of joist supporting:													
		Wall, 1.5 kPa floor load												2 kPa floor load	
		Light roof of span: (m)						Heavy roof of span: (m)						Balcony* floor and balustrade only	
		4.0		8.0		12.0		4.0		8.0		12.0			
(mm x mm)	(mm)	(mm)		(mm)		(mm)		(mm)		(mm)		(mm)		(mm)	
		SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
90 x 45**	600	100	150	50	50	50	50	100	100	50	50	50	50	550	550
	450	150	150	50	100	50	50	100	100	50	50	50	50	650	650
	400	150	150	100	100	50	50	100	100	50	50	50	50	700	700
140 x 45**	600	300	300	150	200	100	100	250	250	150	150	100	150	900	900
	450	300	350	200	250	150	150	250	250	150	200	150	150	1100	1100
	400	350	350	250	300	150	200	250	300	200	200	150	150	1150	1150
190 x 45	600	550	550	300	350	200	250	450	450	300	300	250	250	1300	1300
	450	600	600	400	500	250	300	450	500	350	350	250	250	1500	1500
	400	600	650	450	500	300	350	500	500	350	350	250	300	1600	1600
240 x 45	600	800	850	450	600	300	400	650	700	500	500	350	400	1650	1650
	450	900	950	600	750	400	500	700	750	500	550	400	450	1900	1900
	400	900	1000	700	800	450	600	750	800	550	600	450	450	2050	2050
290 x 45	600	1150	1200	700	850	450	600	950	1000	700	750	550	600	2000	2000
	450	1200	1300	900	1050	600	750	1000	1050	750	800	600	650	2350	2350
	400	1250	1350	1000	1100	700	850	1050	1100	750	850	600	650	2500	2500

Refer NZS3604:2011 Tables 7.2 and A7.2
* Applies to balconies of domestic self-contained dwellings only. Only these joists may be Grade SG8 (Wet).
** 90 and 140 joist depth is insufficient where cantilevered balustrades are used.

Studs in loadbearing walls for all wind zones

Wind zone	Loaded dimension* of wall	Stud sizes for maximum length (height) of: (m)																	
		3.6						4.2						4.8					
		At maximum stud spacing (mm) of:						At maximum stud spacing (mm) of:						At maximum stud spacing (mm) of:					
		300		400		600		300		400		600		300		400		600	
	(m)	(mm x mm) (width x thickness)																	
		SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
(a) Single or top storey – Light and heavy roof																			
Extra high	2.0	140 x 45	90 x 90	140 x 45	140 x 45	140 x 90	140 x 45	140 x 90	140 x 45	140 x 90	140 x 90	190 x 45	140 x 90	140 x 90	140 x 90	190 x 90	140 x 90	190 x 90	190 x 90
	4.0	140 x 45	90 x 90	140 x 45	140 x 45	140 x 90	140 x 45	140 x 90	140 x 45	140 x 90	140 x 90	190 x 45	140 x 90	140 x 90	140 x 90	190 x 90	140 x 90	190 x 90	190 x 90
	6.0	140 x 45	90 x 90	140 x 45	140 x 45	140 x 90	140 x 45	140 x 90	140 x 45	140 x 90	140 x 90	190 x 45	140 x 90	140 x 90	140 x 90	190 x 90	140 x 90	190 x 90	190 x 90
Very high	2.0	140 x 45	90 x 70	140 x 45	90 x 90	140 x 90	140 x 45	140 x 90	140 x 45	140 x 90	140 x 45	190 x 45	140 x 90	140 x 90	140 x 90	190 x 45	140 x 90	190 x 90	190 x 45
	4.0	140 x 45	90 x 70	140 x 45	90 x 90	140 x 90	140 x 45	140 x 90	140 x 45	140 x 90	140 x 45	190 x 45	140 x 90	140 x 90	140 x 90	190 x 45	140 x 90	190 x 90	190 x 45
	6.0	140 x 45	90 x 70	140 x 45	90 x 90	140 x 90	140 x 45	140 x 90	140 x 45	140 x 90	140 x 45	190 x 45	140 x 90	140 x 90	140 x 90	190 x 45	140 x 90	190 x 90	190 x 45
High	2.0	90 x 90	90 x 70	140 x 45	90 x 70	140 x 45	140 x 45	140 x 45	140 x 45	140 x 90	140 x 45	140 x 90	140 x 90	140 x 90	140 x 45	140 x 90	140 x 90	190 x 90	140 x 90
	4.0	90 x 90	90 x 70	140 x 45	90 x 70	140 x 45	140 x 45	140 x 45	140 x 45	140 x 90	140 x 45	140 x 90	140 x 90	140 x 90	140 x 45	140 x 90	140 x 90	190 x 90	140 x 90
	6.0	90 x 90	90 x 70	140 x 45	90 x 70	140 x 45	140 x 45	140 x 45	140 x 45	140 x 90	140 x 45	140 x 90	140 x 90	140 x 90	140 x 45	140 x 90	140 x 90	190 x 90	140 x 90
Medium	2.0	90 x 70	–	90 x 70	90 x 45	140 x 45	90 x 70	90 x 90	90 x 70	140 x 45	90 x 90	140 x 90	140 x 45	140 x 45	140 x 45	140 x 90	140 x 45	140 x 90	140 x 90
	4.0	90 x 70	–	90 x 70	90 x 45	140 x 45	90 x 70	90 x 90	90 x 70	140 x 45	90 x 90	140 x 90	140 x 45	140 x 45	140 x 45	140 x 90	140 x 45	140 x 90	140 x 90
	6.0	90 x 70	–	90 x 70	90 x 45	140 x 45	90 x 70	90 x 90	90 x 70	140 x 45	90 x 90	140 x 90	140 x 45	140 x 45	140 x 45	140 x 90	140 x 45	140 x 90	140 x 90
Low	2.0	–	–	90 x 70	–	90 x 70	90 x 70	90 x 70	90 x 70	90 x 90	90 x 70	140 x 45	140 x 45	140 x 45	90 x 90	140 x 45	140 x 45	140 x 90	140 x 45
	4.0	–	–	90 x 70	–	90 x 70	90 x 70	90 x 70	90 x 70	90 x 90	90 x 70	140 x 45	140 x 45	140 x 45	90 x 90	140 x 45	140 x 45	140 x 90	140 x 45
	6.0	–	–	90 x 70	–	90 x 70	90 x 70	90 x 70	90 x 70	90 x 90	90 x 70	140 x 45	140 x 45	140 x 45	90 x 90	140 x 45	140 x 45	140 x 90	140 x 45
Internal walls for all wind zones	2.0	–	–	90 x 70	–	90 x 70	90 x 70	90 x 70	90 x 70	90 x 90	90 x 70	140 x 45	140 x 45	140 x 45	90 x 90	140 x 45	140 x 45	140 x 90	140 x 45
	4.0	–	–	90 x 70	–	90 x 70	90 x 70	90 x 70	90 x 70	90 x 90	90 x 70	140 x 45	140 x 45	140 x 45	90 x 90	140 x 45	140 x 45	140 x 90	140 x 45
	6.0	–	–	90 x 70	–	90 x 70	90 x 70	90 x 70	90 x 70	90 x 90	90 x 70	140 x 45	140 x 45	140 x 45	90 x 90	140 x 45	140 x 45	140 x 90	140 x 45

Refer NZS3604:2011 Tables 8.2 and A8.2
* For definition of loaded dimension see 1.3 in NZS3604:2011.
NOTE –
(1) Determine the loaded dimension of the wall at floor level and the loaded dimension of the wall above at roof level and use the greater value in this table.
(2) 140 x 45 may be substituted for 90 x 90. 90 x 35 may be substituted for 70 x 45.
(3) Studs 70 mm and 90 mm thick may be replaced with studs of 35 mm and 45 mm thickness respectively, provided they are placed at no more than one half the spacing required for the 70 mm and 90 mm stud they are replacing.
(4) Studs 70 mm and 90 mm thick may be substituted with built-up members sized in accordance with 8.5.1.2 and nailed together in accordance with 2.4.4.7

Lintel supporting floor only for all wind zones

Loaded dimension* of lintel (m)	Maximum span for lintel sizes listed below (m) I width x thickness (mm)															
	140 x 70		140 x 90		190 x 70		190 x 90		240 x 70		240 x 90		290 x 70		290 x 90	
	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
2.0	1.5	1.8	1.8	2.0	2.0	2.4	2.4	2.7	2.6	3.1	3.1	3.4	3.1	3.7	3.7	4.0
4.0	1.0	1.2	1.3	1.5	1.4	1.7	1.7	2.1	1.8	2.2	2.2	2.6	2.2	2.6	2.7	3.2
6.0	0.8	1.0	1.0	1.2	1.2	1.4	1.4	1.7	1.5	1.8	1.8	2.1	1.8	2.1	2.2	2.6

Refer NZS3604:2011 Tables 8.13 and A8.13
* For definition of loaded dimension see 1.3 in NZS3604:2011. NOTE – Members 70 mm and 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

Lintel supporting roof only for all wind zones

	Loaded dimension* of lintel (m)	Maximum span for lintel sizes listed below (m) I width x thickness (mm)																	
		90 x 70		90 x 90		140 x 70		140 x 90		190 x 70		190 x 90		240 x 70		240 x 90		290 x 70		290 x 90	
		SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
Light roof	2	1.2	1.4	1.4	1.5	2.0	2.2	2.1	2.4	2.7	3.0	2.9	3.3	3.4	3.7	3.6	4.0	4.0	4.3	4.2	4.6
	3	1.1	1.3	1.2	1.4	1.7	2.0	1.9	2.2	2.4	2.7	2.6	2.9	3.0	3.4	3.3	3.7	3.7	4.0	3.9	4.2
	4	1.0	1.2	1.1	1.3	1.5	1.8	1.8	2.0	2.1	2.5	2.4	2.7	2.7	3.2	3.1	3.4	3.2	3.7	3.7	4.0
	6	0.8	1.0	1.0	1.1	1.3	1.5	1.6	1.8	1.8	2.1	2.1	2.4	2.2	2.7	2.7	3.1	2.7	3.3	3.3	3.6
Heavy roof	2	1.0	1.1	1.0	1.2	1.5	1.7	1.6	1.8	2.1	2.3	2.3	2.5	2.6	2.9	2.9	3.2	3.2	3.5	3.5	3.8
	3	0.9	1.0	0.9	1.0	1.4	1.5	1.5	1.7	1.9	2.1	2.0	2.3	2.4	2.6	2.6	2.9	2.9	3.2	3.1	3.5
	4	0.8	0.9	0.9	1.0	1.3	1.4	1.4	1.5	1.7	1.9	1.9	2.1	2.2	2.4	2.4	2.7	2.6	3.0	2.9	3.2
	6	0.7	0.8	0.8	0.9	1.1	1.2	1.2	1.4	1.5	1.7	1.7	1.9	1.9	2.2	2.1	2.4	2.3	2.6	2.6	2.9

Refer NZS3604:2011 Tables 8.9 and A8.9
* Loaded dimension is defined in figure 1.3 in NZS3604:2011. NOTE – Members 70 mm and 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

Lintel supporting wall and floor for all wind zones

	Loaded dimension* of lintel (m)	Maximum span for lintel sizes listed below (m) I width x thickness (mm)															
		140 x 70		140 x 90		190 x 70		190 x 90		240 x 70		240 x 90		290 x 70		290 x 90	
		SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
Light wall	3.0	1.1	1.4	1.4	1.6	1.6	1.9	1.9	2.2	2.0	2.4	2.4	2.7	2.4	2.9	2.9	3.3
Medium wall	3.0	1.1	1.4	1.4	1.5	1.5	1.8	1.9	2.1	1.9	2.3	2.4	2.6	2.3	2.8	2.8	3.2

Refer NZS3604:2011 Tables 8.12 and A8.12
* For definition of loaded dimension see 1.3 in NZS3604:2011. NOTE – Members 70 mm and 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

WALLS - Lintel supporting roof and wall for all wind zones

	Loaded dimension* of lintel (m)	Maximum span for lintel sizes listed below (m)																			
		width x thickness (mm)																			
		90 x 70		90 x 90		140 x 70		140 x 90		190 x 70		190 x 90		240 x 70		240 x 90		290 x 70		290 x 90	
		SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
Light roof Light wall	2	1.0	1.2	1.1	1.3	1.6	1.8	1.8	2.0	2.2	2.5	2.4	2.7	2.8	3.2	3.1	3.5	3.4	3.8	3.7	4.0
	3	1.0	1.1	1.1	1.2	1.5	1.7	1.7	1.9	2.1	2.3	2.3	2.5	2.7	3.0	2.9	3.2	3.2	3.6	3.5	3.8
	4	0.9	1.0	1.0	1.1	1.4	1.6	1.6	1.8	2.0	2.2	2.2	2.4	2.5	2.8	2.7	3.1	3.0	3.4	3.3	3.7
	6	0.8	0.9	0.9	1.0	1.3	1.5	1.4	1.6	1.8	2.0	2.0	2.2	2.3	2.6	2.5	2.8	2.7	3.1	3.0	3.4
Light roof Medium wall	2	0.9	1.0	1.0	1.1	1.5	1.6	1.6	1.8	2.0	2.2	2.2	2.4	2.5	2.8	2.7	3.1	3.1	3.4	3.3	3.7
	3	0.9	1.0	1.0	1.1	1.4	1.5	1.5	1.7	1.9	2.1	2.1	2.3	2.4	2.7	2.6	2.9	2.9	3.3	3.2	3.5
	4	0.7	0.8	0.8	0.9	1.1	1.3	1.2	1.4	1.5	1.7	1.7	1.9	1.9	2.2	2.1	2.4	2.3	2.6	2.6	2.9
	6	0.6	0.7	0.7	0.8	1.0	1.1	1.1	1.2	1.3	1.6	1.5	1.7	1.7	2.0	1.9	2.2	2.0	2.4	2.4	2.6
Heavy roof Light wall	2	0.9	1.0	0.9	1.1	1.4	1.5	1.5	1.7	1.9	2.1	2.0	2.3	2.4	2.7	2.6	2.9	2.9	3.2	3.1	3.5
	3	0.8	0.9	0.9	1.0	1.3	1.4	1.4	1.5	1.7	1.9	1.9	2.1	2.2	2.5	2.4	2.7	2.7	3.0	2.9	3.2
	4	0.7	0.8	0.8	0.9	1.2	1.3	1.3	1.4	1.6	1.8	1.8	2.0	2.1	2.3	2.2	2.5	2.5	2.8	2.7	3.0
	6	0.6	0.7	0.7	0.8	1.0	1.2	1.2	1.3	1.4	1.6	1.6	1.8	1.8	2.1	2.0	2.3	2.1	2.5	2.4	2.7
Heavy roof Medium wall	2	0.8	0.9	0.9	1.0	1.3	1.4	1.4	1.5	1.7	1.9	1.9	2.1	2.2	2.5	2.4	2.7	2.7	3.0	2.9	3.3
	3	0.7	0.8	0.8	0.9	1.2	1.3	1.3	1.4	1.6	1.8	1.8	2.0	2.1	2.3	2.3	2.5	2.5	2.8	2.7	3.1
	4	0.7	0.8	0.8	0.9	1.1	1.3	1.2	1.4	1.5	1.7	1.7	1.9	1.9	2.2	2.1	2.4	2.3	2.6	2.6	2.9
	6	0.6	0.7	0.7	0.8	1.0	1.1	1.1	1.2	1.3	1.6	1.5	1.7	1.7	2.0	1.9	2.2	2.0	2.4	2.4	2.6

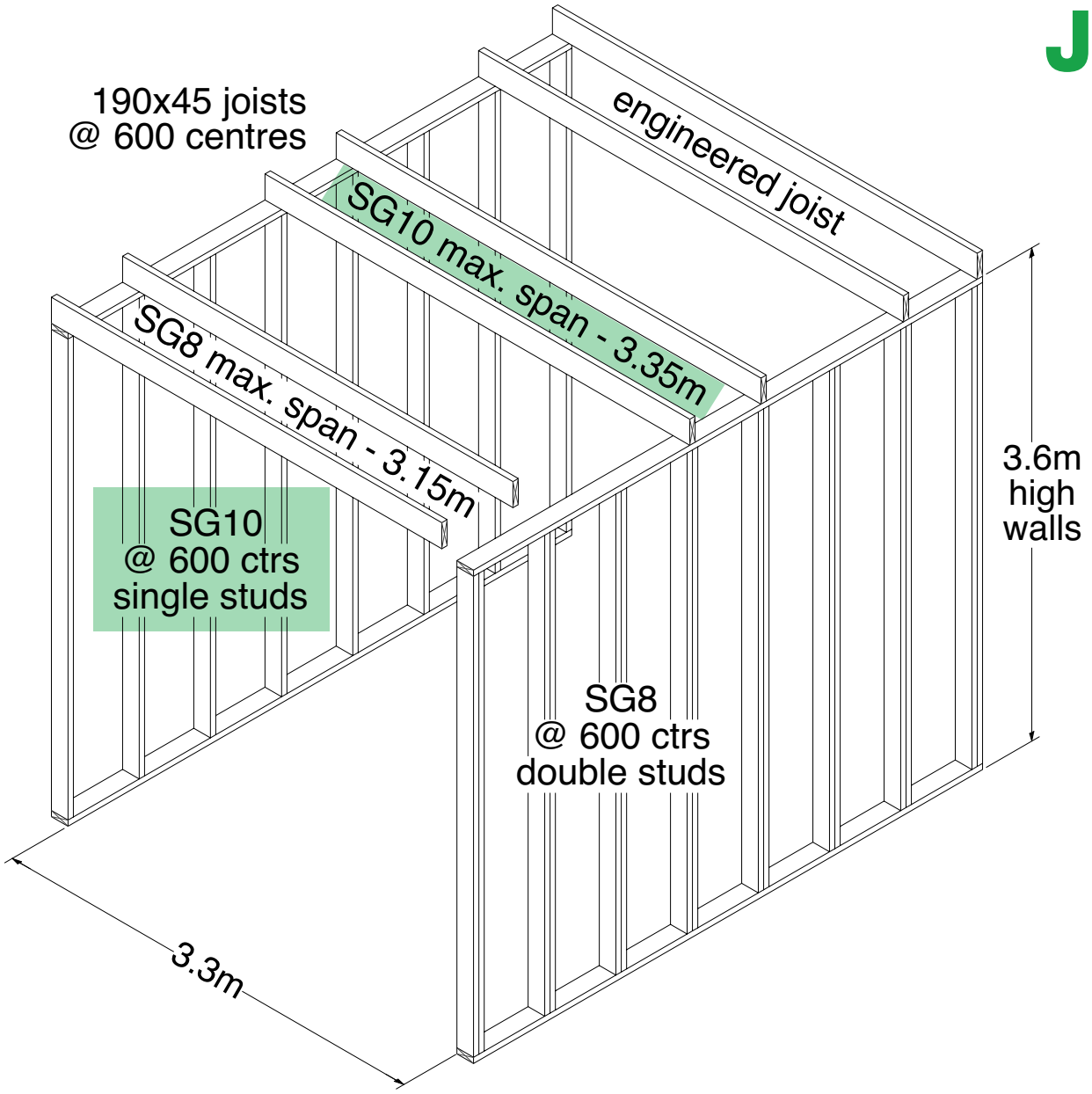
Refer NZS3604:2011 Tables 8.10 and A8.10
* For definition of loaded dimension see 1.3 in NZS3604:2011.
NOTE – (1) Determine the loaded dimension of the wall above the lintel at roof level and use this value in the table. (2) Members 70 mm and 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

WALLS - Lintel supporting roof, wall and floor for all wind zones

	Loaded dimension* of lintel (m)	Maximum span for lintel sizes listed below (m)															
		width x thickness (mm)															
		140 x 70		140 x 90		190 x 70		190 x 90		240 x 70		240 x 90		290 x 70		290 x 90	
		SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
Light roof Light wall	2	1.0	1.2	1.2	1.4	1.4	1.7	1.7	2.0	1.8	2.1	2.1	2.5	2.1	2.6	2.6	3.0
	3	1.0	1.2	1.2	1.4	1.3	1.6	1.6	1.9	1.7	2.0	2.1	2.4	2.1	2.5	2.5	3.0
	4	0.9	1.1	1.1	1.4	1.3	1.5	1.6	1.9	1.6	2.0	2.0	2.4	2.0	2.4	2.4	2.9
	6	0.9	1.1	1.1	1.3	1.2	1.4	1.5	1.8	1.5	1.8	1.9	2.2	1.9	2.2	2.3	2.7
Light roof Medium wall	2	1.0	1.2	1.2	1.4	1.3	1.6	1.6	1.9	1.7	2.0	2.1	2.4	2.1	2.5	2.5	2.9
	3	0.9	1.1	1.1	1.3	1.3	1.5	1.6	1.8	1.6	2.0	2.0	2.3	2.0	2.4	2.4	2.8
	4	0.8	1.0	1.0	1.2	1.1	1.4	1.4	1.6	1.5	1.7	1.8	2.1	1.8	2.1	2.1	2.5
	6	0.8	0.9	0.9	1.1	1.1	1.3	1.3	1.5	1.3	1.6	1.6	1.9	1.6	1.9	2.0	2.4
Heavy roof Light wall	2	0.9	1.1	1.2	1.3	1.3	1.6	1.6	1.8	1.7	2.0	2.0	2.3	2.0	2.4	2.4	2.8
	3	0.9	1.1	1.1	1.3	1.2	1.5	1.5	1.7	1.6	1.9	1.9	2.2	1.9	2.3	2.3	2.7
	4	0.9	1.0	1.0	1.2	1.2	1.4	1.4	1.7	1.5	1.8	1.8	2.1	1.8	2.2	2.2	2.6
	6	0.8	0.9	1.0	1.1	1.1	1.3	1.3	1.6	1.4	1.7	1.7	2.0	1.7	2.0	2.0	2.4
Heavy roof Medium wall	2	0.9	1.1	1.1	1.3	1.3	1.5	1.5	1.8	1.6	1.9	1.9	2.2	1.9	2.3	2.4	2.7
	3	0.9	1.0	1.1	1.2	1.2	1.4	1.5	1.7	1.5	1.8	1.9	2.1	1.8	2.2	2.2	2.6
	4	0.8	1.0	1.0	1.2	1.1	1.4	1.4	1.6	1.5	1.7	1.8	2.1	1.8	2.1	2.1	2.5
	6	0.8	0.9	0.9	1.1	1.1	1.3	1.3	1.5	1.3	1.6	1.8	1.9	1.6	1.9	2.0	2.4

Refer NZS3604:2011 Tables 8.11 and A8.11
* For definition of loaded dimension see 1.3 in NZS3604:2011.
NOTE – (1) Determine the loaded dimension of the lintel at floor level and the loaded dimension of the wall above the lintel at roof level and use the greater value in this table. (2) Members 70 mm and 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

JOISTS & STUDS



VALUE EQUATION

If SG8 costs 100%
then SG10 costs 125%
and Engineered timber costs 180%*

SG10 single stud wall cost about 65% less than SG8 double stud wall and is much lighter to transport and manoeuvre on site.

***Indicative only, based on prices current August 2023**

ROOF FRAMING - Rafters for all wind zones

Rafter size (width x thickness)	Rafter spacing (mm)															
	480				600				900				1200 (see Note (4))			
	Span		Fixing		Span		Fixing		Span		Fixing		Span		Fixing	
(mm x mm)	(m)		type		(m)		type		(m)		type		(m)		type	
	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
(a) Ordinary rafters for light and heavy roofs																
90 x 45	1.3	1.8	E	E	1.3	1.7	E	E	1.2	1.5	E	E	1.3	1.7	E	E
140 x 45	2.7	3.0	E	E	2.5	2.8	E	E	2.2	2.5	E	E	2.2	2.5	E	E
190 x 45	3.5	4.0	E	E	3.3	3.7	E	E	2.8	3.2	E	E	2.5	2.9	E	E
240 x 45	3.8	4.3	E	E	3.5	4.0	E	E	3.1	3.5	E	E	2.8	3.2	E	E
290 x 45	4.1	4.6	E	E	3.8	4.3	E	E	3.3	3.7	E	E	3.0	3.4	E	E
140 x 70	3.2	3.5	E	E	2.9	3.3	E	E	2.6	2.9	E	E	2.8	3.1	E	E
190 x 70	4.3	4.8	E	E	4.0	4.5	E	E	3.5	3.9	E	E	3.7	4.2	E	F
240 x 70	5.4	6.1	E	E	5.1	5.6	E	E	4.4	4.9	E	E	4.3	4.9	E	F
290 x 70	6.4	7.2	E	E	5.9	6.7	E	E	5.1	5.8	E	F	4.6	5.2	E	F
140 x 90	3.4	3.8	E	E	3.2	3.6	E	E	2.8	3.1	E	E	3.0	3.4	E	E
190 x 90	4.7	5.2	E	E	4.3	4.9	E	E	3.8	4.2	E	E	4.1	4.6	F	F
240 x 90	5.9	6.6	E	E	5.5	6.1	E	E	4.8	5.4	E	F	5.1	5.6	F	F
290 x 90	7.2	7.9	E	E	6.7	7.4	E	E	5.8	6.5	F	F	5.9	6.4	F	SED

The table gives maximum spans for Extra high wind zone. In other wind zones, span lengths shall be multiplied by the following factors:

Low and Medium: 1.3	High and Very high: 1.1

Fixing type	Description	Alternative fixing capacity (kN)
E	2 / 90 x 3.15 skew nails + 2 wire dogs	4.7
F	2 / 90 x 3.15 skew nails + strap fixing	7.0

Refer NZS3604:2011 Tables 10.1 and A10.1

NOTE –

(1) RAFTER SPANS MAY BE INCREASED BY 10 % FOR RAFTERS CONTINUOUS OVER 2 OR MORE SPANS THAT HAVE NOT BEEN BIRDSMOUTH JOINTED AT INTERMEDIATE SUPPORTS.

(2) Fixing types at intermediate supports for rafters running continuously over those supports shall have double the capacity of the fixing types given in this table.

(3) Members 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

(4) Rafter spacing of 1200 mm does not include heavy roofs.

ROOF FRAMING - Rafters for all wind zones (continued)

Rafter size (width x thickness)	Maximum span of valley rafters and their fixing types for all wind zones (m)							
	Light roof				Heavy roof			
	Rafter span		Fixing		Rafter span		Fixing	
(mm x mm)	(m)		type		(m)		type	
	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
(b) Valley rafters for light and heavy roofs								
90 x 45	1.6	1.8	E	E	1.4	1.6	E	E
140 x 45	2.3	2.5	E	E	2.0	2.2	E	E
190 x 45	2.9	3.1	E	E	2.6	2.8	E	E
240 x 45	3.4	3.7	E	E	3.1	3.3	E	E
290 x 45	3.8	4.3	E	E	3.6	3.9	E	E
90 x 70	1.8	2.0	E	E	1.6	1.8	E	E
140 x 70	2.5	2.8	E	E	2.3	2.5	E	E
190 x 70	3.2	3.5	E	E	2.9	3.1	E	E
240 x 70	3.8	4.2	E	E	3.4	3.7	E	E
290 x 70	4.4	4.8	E	E	4.0	4.3	E	E

Fixing type	Fixing to resist uplift	Alternative fixing capacity (kN)
E	2 / 90 x 3.15 skew nails + 2 wire dogs	4.7

Refer NZS3604:2011 Tables 10.1 and A10.1
NOTE – (1) Proprietary fixings that have the required fixing capacity indicated in tables may be used.
(2) Members 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

ROOF FRAMING - Ridge beams for all wind zones

Ridge beam size	Loaded dimension of ridge beam (m)															
	1.8				2.7				3.6				4.2			
	Span		Fixing		Span		Fixing		Span		Fixing		Span		Fixing	
(mm x mm)	(m)		type		(m)		type		(m)		type		(m)		type	
	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
(a) Light roof																
240 x 45	2.3	2.6	H	H	1.9	2.2	H	H	1.7	2.0	H	I	1.6	1.9	H	I
290 x 45	2.4	2.7	H	H	2.1	2.4	H	H	1.9	2.1	H	I	1.8	2.0	I	I
190 x 70	2.7	3.0	H	H	2.4	2.6	H	H	2.1	2.4	I	I	1.9	2.3	I	I
240 x 70	4.3	4.8	I	I	3.8	4.2	I	I	3.4	3.8	I	J	3.2	3.6	I	J
290 x 70	4.8	5.4	I	I	4.1	4.7	I	I	3.7	4.2	I	J	3.5	4.0	J	J
190 x 90	3.7	4.2	H	I	3.2	3.6	I	I	2.9	3.3	I	I	2.8	3.1	I	I
240 x 90	4.7	5.3	I	I	4.1	4.6	I	I	3.7	4.2	I	J	3.5	4.0	J	J
290 x 90	5.7	6.4	I	I	5.0	5.6	I	J	4.5	5.0	J	J	4.3	4.8	J	J
(b) Heavy roof																
240 x 45	2.3	2.7	G	H	1.9	2.2	H	H	1.6	1.9	H	H	1.5	1.8	H	H
290 x 45	2.5	2.9	H	H	2.2	2.5	H	H	1.9	2.2	H	H	1.7	2.1	H	I
190 x 70	2.3	2.5	G	H	2.0	2.2	H	H	1.7	2.0	H	H	1.6	1.9	H	H
240 x 70	3.6	4.1	H	H	3.2	3.5	I	I	2.9	3.2	I	I	2.7	3.1	I	I
290 x 70	4.4	4.9	H	I	3.8	4.3	I	I	3.5	3.9	I	I	3.3	3.7	I	I
190 x 90	3.1	3.5	H	H	2.7	3.0	H	H	2.5	2.8	I	I	2.3	2.6	I	I
240 x 90	4.0	4.4	H	H	3.5	3.9	I	I	3.1	3.5	I	I	3.0	3.3	I	I
290 x 90	4.8	5.4	I	I	4.2	4.7	I	I	3.8	4.2	I	I	3.6	4.0	I	J

Fixing type	Fixing to resist uplift		Alternative fixing capacity (kN)
	Base connection for capacity (kN) built-up studs	Ridge beam to built-up studs	
G	6 / 90 x 3.15 skew nails into bottom plate	10 / 90 x 3.15 nails (5 each side)	4.7
H	25 x 1 strap with 12 nails to stud	1 / M12 bolt	8.5
I	2 / 25 x 1 straps with 6 nails to stud and plate. 24 nails total	2 / M12 bolts	16.0
J	3 / 25 x 1 straps with 12 nails to stud and plate. 36 nails total	2 / M16 bolts	24.0

Refer NZS3604:2011 Tables 10.2 and A10.2
NOTE – (1) Fix plate to joist with 1 / M12 x 150 coach screw. (2) Fix plate to joist with 2 / M12 x 150 coach screws. (3) Strap nails to be 30 x 2.5 mm.

ROOF FRAMING - Underpurlins for all wind zones

Underpurlin size	Maximum span of underpurlin for loaded dimension* of: (m)											
	1.5				2.1				2.7			
	Span		Fixing		Span		Fixing		Span		Fixing	
(a) Light roof												
(mm x mm)	(m)		(type)		(m)		(type)		(m)		(type)	
	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
90 x 45	1.1	1.3	L	L	1.0	1.1	L	L	0.9	1.0	L	L
140 x 45	1.8	2.0	L	L	1.5	1.8	L	L	1.4	1.6	L	M
190 x 45	2.2	2.5	L	L	1.9	2.2	L	M	1.7	2.0	M	M
240 x 45	2.4	2.7	L	L	2.1	2.4	M	M	1.9	2.2	M	SED
290 x 45	2.6	2.9	L	M	2.3	2.6	M	M	2.1	2.4	SED	SED
90 x 70	1.3	1.5	L	L	1.2	1.3	L	L	1.1	1.2	L	L
140 x 70	2.1	2.4	L	L	1.9	2.1	L	M	1.7	1.9	M	M
190 x 70	2.9	3.2	M	M	2.6	2.9	M	SED	2.4	2.6	SED	SED
240 x 70	4.6	5.1	SED	SED	4.1	4.6	SED	SED	3.8	4.2	SED	SED
290 x 70	5.1	5.8	SED	SED	4.5	5.1	SED	SED	4.1	4.7	SED	SED
190 x 90	4.0	4.4	SED	SED	3.5	3.9	SED	SED	3.2	3.6	SED	SED
240 x 90	5.0	5.6	SED	SED	4.5	5.0	SED	SED	4.1	4.6	SED	SED
290 x 90	6.1	6.8	SED	SED	5.4	6.0	SED	SED	5.0	5.6	SED	SED

Fixing type	Underpurlin to strut fixing to resist uplift (see figures 10.11 and 10.12)	Alternative fixing capacity (kN)
L	2 / M12 Bolts	9.8
M	2 / M16 Bolts	13.0

Refer NZS3604:2011 Tables 10.5 and A10.5

* For definition of loaded dimension see 1.3 in NZS3604:2011.

NOTE –

(1) SPAN MAY BE INCREASED BY 10 % FOR UNDERPURLINS CONTINUOUS OVER 2 OR MORE SPANS.

(2) Fixing types for continuous spans shall have double the capacity to that listed in the table.

(3) For the full range of underpurlin fixing types and capacities see table 10.15. (4) Members 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

ROOF FRAMING - Underpurlins for all wind zones

Underpurlin size	Maximum span of underpurlin for loaded dimension* of: (m)											
	1.5				2.1				2.7			
	Span		Fixing		Span		Fixing		Span		Fixing	
(b) Heavy roof												
(mm x mm)	(m)		(type)		(m)		(type)		(m)		(type)	
	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
90 x 45	1.0	1.1	L	L	0.8	1.0	L	L	0.7	0.9	L	L
140 x 45	1.5	1.7	L	L	1.3	1.5	L	L	1.1	1.4	L	L
190 x 45	2.1	2.3	L	L	1.7	2.1	L	L	1.5	1.8	L	M
240 x 45	2.5	2.9	L	L	2.1	2.5	L	M	1.9	2.2	M	M
290 x 45	2.7	3.1	L	L	2.4	2.7	M	M	2.2	2.5	M	SED
90 x 70	1.1	1.3	L	L	1.0	1.1	L	L	0.9	1.0	L	L
140 x 70	1.8	2.0	L	L	1.6	1.8	L	L	1.4	1.6	L	L
190 x 70	2.4	2.7	L	L	2.2	2.4	L	M	2.0	2.2	M	M
240 x 70	3.9	4.3	M	SED	3.5	3.9	SED	SED	3.2	3.5	SED	SED
290 x 70	4.7	5.2	SED	SED	4.2	4.7	SED	SED	3.8	4.3	SED	SED
190 x 90	3.3	3.7	M	M	3.0	3.3	M	SED	2.7	3.0	SED	SED
240 x 90	4.2	4.7	M	SED	3.8	4.2	SED	SED	3.5	3.9	SED	SED
290 x 90	5.1	5.7	SED	SED	4.6	5.1	SED	SED	4.2	4.7	SED	SED

Fixing type	Underpurlin to strut fixing to resist uplift (see figures 10.11 and 10.12)	Alternative fixing capacity (kN)
L	2 / M12 Bolts	9.8
M	2 / M16 Bolts	13.0

Refer NZS3604:2011 Tables 10.5 and A10.5

* For definition of loaded dimension see 1.3 in NZS3604:2011.

NOTE –

(1) SPAN MAY BE INCREASED BY 10 % FOR UNDERPURLINS CONTINUOUS OVER 2 OR MORE SPANS.

(2) Fixing types for continuous spans shall have double the capacity to that listed in the table.

(3) For the full range of underpurlin fixing types and capacities see table 10.15 in NZS3604:2011. (4) Members 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

ROOF FRAMING - Purlins on their edge in all wind zones

Purlin size (depth x thickness)	Purlin spacing (m)															
	600				900				1200				1800			
	Span		Fixing		Span		Fixing		Span		Fixing		Span		Fixing	
(mm x mm)	(m)		(type)		(m)		(type)		(m)		(type)		(m)		(type)	
	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
140 x 45	2.6	2.8	E	E	2.2	2.4	E	E	2.0	2.2	F	F	1.7	1.9	E	F
190 x 45	3.5	3.8	E	E	3.1	3.3	F	E	2.8	3.0	F	F	2.4	2.6	F	F
240 x 45	4.4	4.8	F	E	3.9	4.2	F	F	3.5	3.8	F	F	3.0	3.3	SED	SED
290 x 45	5.4	5.8	E	F	4.7	5.0	F	F	4.1	4.6	SED	SED	3.4	4.0	SED	SED

Fixing type	Description	Alternative fixing capacity (kN)
E	2 / 90 x 3.15 skew nails + 2 wire dogs	4.7
F	2 / 90 x 3.15 skew nails + strap fixing (see figure 10.6)	7.0

Refer NZS3604:2011 Tables 10.11 and A10.11

NOTE – All fixing types are determined as required for the higher uplift loads at the periphery of the roof (based on local pressure factors in AS/NZS 1170.2 in NZS3604:2011).

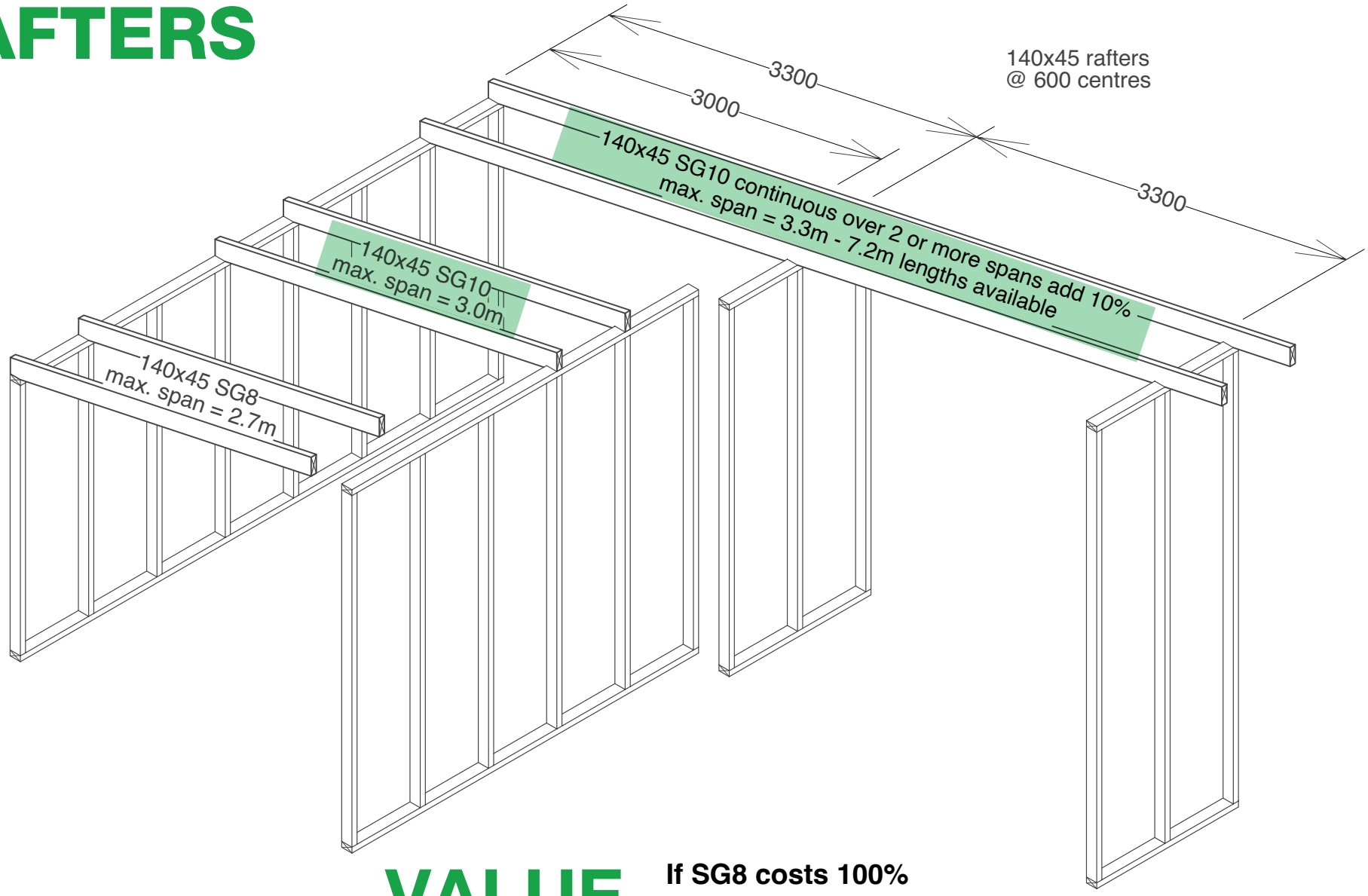
ROOF FRAMING - Verandah beams for all wind zones

Beam size (width x thickness) (mm x mm)	Loaded dimension of verandah beam (m)															
	0.9				1.4				1.8				2.1			
	Span (m)		Fixing (type)		Span (m)		Fixing (type)		Span (m)		Fixing (type)		Span (m)		Fixing (type)	
	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10	SG8	SG10
(a) Light roof																
140 x 45	1.8	2.0	N	N	1.6	1.8	N	N	1.5	1.7	N	O	1.4	1.7	N	O
190 x 45	2.1	2.4	N	N	2.0	2.2	N	O	1.8	2.1	O	O	1.8	2.0	O	O
240 x 45	2.4	2.7	N	O	2.2	2.5	O	O	2.1	2.3	O	O	2.0	2.3	O	P
290 x 45	2.5	2.9	O	O	2.3	2.7	O	O	2.2	2.5	O	P	2.1	2.4	O	P
140 x 70	2.1	2.3	N	N	1.9	2.1	N	O	1.8	2.0	O	O	1.8	2.0	O	O
190 x 70	2.8	3.1	O	O	2.6	2.9	O	P	2.5	2.8	O	P	2.4	2.7	P	P
220 x 70	3.3	3.7	O	P	3.0	3.4	P	P	2.9	3.2	P	P	2.7	3.1	P	P
240 x 70	3.5	4.0	O	P	3.2	3.7	P	P	3.0	3.5	P	P	2.9	3.4	P	P
290 x 70	3.9	4.4	P	P	3.6	4.1	P	P	3.4	3.9	P	P	3.3	3.7	P	P
140 x 90	2.2	2.5	N	O	2.1	2.3	O	O	2.0	2.2	O	O	1.9	2.1	O	O
190 x 90	3.1	3.4	O	O	2.8	3.2	O	P	2.7	3.0	P	P	2.6	2.9	P	P
240 x 90	3.9	4.3	P	P	3.6	4.0	P	P	3.4	3.8	P	P	3.3	3.7	P	P
290 x 90	5.9	6.6	P	P	5.5	6.2	P	Q	5.2	5.9	Q	Q	5.1	5.6	Q	Q
(b) Heavy roof																
140 x 45	1.5	1.7	N	N	1.4	1.6	N	N	1.3	1.5	N	N	1.2	1.5	N	N
190 x 45	2.1	2.4	N	N	1.9	2.2	N	N	1.7	2.0	N	O	1.7	2.0	N	O
240 x 45	2.3	2.6	N	N	2.1	2.4	N	O	2.0	2.3	O	O	1.9	2.2	O	O
290 x 45	2.5	2.8	N	N	2.3	2.6	N	O	2.1	2.4	O	O	2.1	2.4	O	O
140 x 70	1.8	2.0	N	N	1.7	1.9	N	N	1.6	1.8	N	N	1.5	1.7	N	N
190 x 70	2.4	2.7	N	N	2.3	2.5	N	O	2.1	2.4	O	O	2.1	2.3	O	O
220 x 70	2.8	3.2	N	O	2.6	2.9	O	O	2.5	2.8	O	O	2.4	2.7	O	P
240 x 70	3.1	3.5	O	O	2.9	3.2	O	O	2.7	3.1	O	P	2.6	2.9	P	P
290 x 70	3.8	4.2	O	O	3.5	3.9	P	P	3.3	3.7	P	P	3.1	3.6	P	P
140 x 90	1.9	2.2	N	N	1.8	2.0	N	N	1.7	1.9	N	N	1.7	1.8	N	O
190 x 90	2.7	3.0	N	O	2.5	2.8	O	O	2.3	2.6	O	O	2.3	2.5	O	O
240 x 90	3.4	3.8	O	O	3.1	3.5	O	P	3.0	3.3	P	P	2.9	3.2	P	P
290 x 90	5.2	5.8	P	P	4.8	5.4	P	P	4.6	5.1	P	P	4.4	4.9	P	P

Fixing type	Fixing to resist uplift	Alternative fixing capacity (kN)	Fixing type	Fixing to resist uplift	Alternative fixing capacity (kN)
N	6 / 100 x 4.0 nails hand-driven	4.7	P	2 / HDG ‘flat’ straps (see figure 9.3 (B))	13.7
O	2 / M12 bolts (see figure 9.3 (C))	6.8	Q	2 / HDG ‘tee’ straps (see figure 9.3 (A))	25.5

Refer NZS3604:2011 Tables 10.8 and A10.8. NOTE – (1) This table includes provision for the rafters cantilevering a maximum of 750 mm beyond the verandah beam to support a soffit. (2) Fixing type for continuous spans shall have a double capacity to that listed in the table. (3) Members 70 mm and 90 mm thick may be substituted with built-up members sized and nailed in accordance with 2.4.4.7.

RAFTERS



VALUE EQUATION

If SG8 costs 100%
then SG10 costs 125%
and Engineered timber costs 180%*

***Indicative only, based on prices current August 2023**

NORTHBEAM PRODUCT LIST

POSTS AND BEAMS

Wet H5 SG8 Beams

Structural | Exterior | Retaining etc

Sawn Finish Size	Lengths	MG Finish Size
150 x 75	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	140 x 70
200 x 75	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	190 x 70
250 x 75	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	240 x 70
300 x 75	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	290 x 70
150 x 100	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	140 x 90
200 x 100	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	190 x 90
250 x 100	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	240 x 90
300 x 100	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	290 x 90

Wet H5 SG8 Posts

Structural | Exterior | Multipurpose

Sawn Finish Size	Lengths	MG Finish Size
125 x 125	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	120 x 120
150 x 150	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	140 x 140
200 x 200	3.6 | 4.2 | 4.8 | 5.4 | 6.0 | 7.2	190 x 190

Wet H5 F1 Posts - Produced To Order

KILN DRIED

H1.2 SG8

Structural | Subfloor | Lintels

MG Finish Size	Lengths
140 x 45	7.2 only
190 x 45	7.2 only
240 x 45	7.2 only
290 x 45	7.2 only

H3.2 SG8

Structural | Subfloor | Lintels

MG Finish Size	Lengths
140 x 45	7.2 only
190 x 45	7.2 only
240 x 45	7.2 only
290 x 45	7.2 only

H3.2 SG8 Beams

Structural | Lintels | Rafters

MG Finish Size	Lengths
140 x 70	3.6 | 4.8 | 6.0
190 x 70	3.6 | 4.8 | 6.0
140 x 90	3.6 | 4.8 | 6.0
190 x 90	3.6 | 4.8 | 6.0

H1.2 SG10

Structural | Subfloor | Lintels

MG Finish Size	Lengths
90 x 45	4.8 | 6.0 | 7.2
140 x 45	4.8 | 6.0 | 7.2
190 x 45	4.8 | 6.0 | 7.2
240 x 45	4.8 | 6.0
290 x 45	4.8 | 6.0
90 x 70	4.8 | 6.0
140 x 70	4.8 | 6.0
190 x 70	4.8 | 6.0
240 x 70	4.8 | 6.0
140 x 90	4.8 | 6.0
190 x 90	4.8 | 6.0

H3.2 SG10

Structural | Subfloor | Lintels

MG Finish Size	Lengths
90 x 45	4.8 | 6.0 | 7.2
140 x 45	4.8 | 6.0 | 7.2
190 x 45	4.8 | 6.0 | 7.2
240 x 45	4.8 | 6.0
290 x 45	4.8 | 6.0
90 x 70	4.8 | 6.0
140 x 70	4.8 | 6.0
190 x 70	4.8 | 6.0
240 x 70	4.8 | 6.0
140 x 90	4.8 | 6.0
190 x 90	4.8 | 6.0

TREATED WET

Wet H5 SG8

Framing | Joists | Retaining etc

Sawn Finish Size	Lengths	MG Finish Size
75 x 50	Random	70 x 45
100 x 50	4.8 | 6.0	90 x 45
150 x 50	4.8 | 6.0 | 7.2	140 x 45
200 x 50	4.8 | 6.0 | 7.2	190 x 45
250 x 50	4.8 | 6.0 | 7.2	240 x 45
300 x 50	4.8 | 6.0 | 7.2	290 x 45
100 x 75	4.8 | 6.0 | Random	90 x 70
100 x 100 Structural	4.8 | 6.0	90 x 90
100 x 100 Appearance	Random	90 x 90

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Appropriate stainless steel fasteners and fixings should be used to optimise performance and account for corrosive treatments used to preserve timber such as CCA.
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- Available in standard timber sizes to ensure seamless matching with other structural timber members
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