



**SPAN GUIDE -  
GL20 BEAMS &  
GL18 POSTS**



**PARKSIDE  
TIMBER**

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# Span Tables - GL20 Beams & GL18 Posts

## Preface

This document provides span tables for dressed seasoned spotted gum Glued-laminated timber beams, posts and handrails which may be used to supplement the design information provided in AS 1684 Residential Timber Framed Construction, Part 2: Non-Cyclonic Areas and Part 3: Cyclonic Areas, as applicable.

It provides builders, designers and other specifiers with a valuable source of information relating to Parkside glued laminated timber for many common applications in domestic construction. The format of some tables within this document has been customised where appropriate to reflect common practices.

Span tables covering 6 wind classifications in non-cyclonic and cyclonic areas are included for:

- GL 20 Beams
- GL 18 Posts

Whilst this document has been prepared with due care and every effort has been made to ensure the information contained in it is in accordance with current technology, it is not intended as an exhaustive statement of all relevant data and, as successful design and construction depends upon numerous factors outside the scope of this document, MacKenzie Consulting and Parkside Group accept no responsibility for errors in, or omissions from, the document, nor for specifications or work done or omitted to be done in reliance on this document.

30 April 2018



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Dear Sir

Re: Parkside GL20 beams and GL18 Post Span Tables

We hereby certify that the span tables prepared for Parkside Group for spotted gum GL20 beams and GL18 posts, have been prepared, generally in accordance with the design criteria contained in AS 1684.1 – 1999, Residential timber-framed construction, and therefore satisfy the intent of the structural requirements of the Building Code of Australia.

In preparation of these span tables, reliance has been placed upon the characteristic strength and stiffness material properties for GL 20 and GL18 as certified by the GLTAA Qualification Certificate, February 2015 and Test Report by Universal Testing Laboratory, Test Report 18/014, March 2015, together with supplementary properties given in AS 1720.1 2010.

The span tables have been prepared based on the general requirements of the following:

- AS1170.1 – Structural design actions Part 1 Permanent, imposed and other actions
- AS 4055 - Wind loads for housing
- AS 1720.1 - Timber Structures: Part 1 – Design methods
- AS1684.1 - Residential timber-framed construction, Part 1: Design criteria
- The design software, 'Timbaspan Professional', developed for the preparation of the span tables contained in AS 1684 – 2010.

This certification will remain valid until 31 April 2023 or earlier should the design properties or other criteria in the relevant Australian Standards be revised so as to require a revision of the span tables.

Yours Faithfully

Colin MacKenzie

FIEAust; CPEng; RPEQ; NPER  
MacKenzie Consulting

MONASH University



GLUED LAMINATED TIMBER  
ASSOCIATION OF AUSTRALIA



## CERTIFICATE OF QUALIFICATION

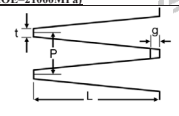
The Glued Laminated Timber Association of Australia (GLTAA) HEREBY CERTIFIES that PT Indo Furnitama Raya at its Pasuruan, East Jawa, Indonesia glulam plant is licensed by the Glued Laminated Timber Association of Australia to use the GLTAA Mark in respect of products listed hereunder which comply with applicable provisions of AS/NZS 1328.1, *Glued laminated structural timber Part 1: Performance requirements and minimum production requirements*, that the quality control system in effect at said plant is periodically inspected and verified by the Glued Laminated Timber Association of Australia Inspectorate at Monash University and that, in the judgement of GLTAA, said company is capable of complying with applicable manufacturing and testing provisions of said Standard in respect of products manufactured at said plant and listed below. Conformance with the Standard in respect of any specific or particular product is the sole responsibility of the manufacturer; GLTAA's guarantee here-under being that the said company is qualified to produce product meeting the said Standard that its plant is periodically inspected and verified by the GLTAA Inspectorate.

Product commercial Name	GL18 Pösts (90, 100, 115mm), GL18 (140x140) GL20 <sup>1</sup> Glulam (up to 290x65mm)
Production Plant	PT Indo Furnitama Raya
Location	Desa Gerongan-Kraton, Pasuruan, East Jawa, 617 Indonesia
Date of Registration	16 December 2013
Registration Number	G-21
Species	Spotted Gum ( <i>Corymbia Citriodora</i> )

Adhesive Types	Manufacturer	Brand Name	Type
4 in the GLTAA qualified adhesives list	Jowat Universal Adhesive Australia Pty. Ltd.	Jowat Universal, PA3 resin, and PB16 hardener	Pure resorcinol

Finger Joint Profile for GL21 (MOR=50MPa, MOE=21000MPa)

Type of finger joint	High speed steel cutter
Length (L)	12mm
Pitch (P)	4mm
Tip Width (t)	0.5mm
Tip gap (g)	0.0



<sup>1</sup> GL20 has a characteristic modulus of elasticity of 19500MPa and a characteristic bending strength of 45MPa.

Signature:   
Director GLTAA Inspectorate  
Date: 04 February 2015

# Introduction

This document provides span tables for the selection of structural glue laminated members used in specific applications in the construction of domestic and similar framed buildings; Class 1 and Class 10 as defined in the Building Code of Australia (BCA).

The span tables provided were generated utilising the structural design software “Timber Span Professional” and the design criteria of AS 1684 Residential timber-framed construction, Part 1 : Design criteria.

## Scope

This document is primarily concerned with determination of timber member sizes. Other aspects associated with the successful design and construction of houses, including building practice, bracing and tie-down, is beyond the scope of this document. Users should consult the NCC Building Code of Australia (BCA) and AS 1684 for additional information.

The span tables given in this document must be used strictly in accordance with the building practice, definitions and general requirements given in AS 1684, Residential timber-framed construction, Part 2: Non-Cyclonic Areas and Part 3 Cyclonic Areas as applicable, accept as given below.

## Application

The information in this document is provided specifically for conventional timber framed buildings, and is applicable to single and two storey construction with a maximum roof pitch of 35° (70:100), and building shapes that are essentially rectangular or a combination of essentially rectangular elements. Other geometric building limitations shall be in accordance with AS 1684.2 Clauses 1.4.4 to 1.4.7.

## Design criteria

The general basis of the design used in preparation of the span tables in this document is AS 1684 Residential timber-framed construction, Part 1: Design Criteria and AS 1720 Timber Structures Part 1: Design Methods.

The design loadings recommended in AS 4055 Wind loads for housing were taken into account in the member computations, with appropriate allowances, where relevant, for the distribution of concentrated or localised loads over a number of members.

This document caters for non-cyclonic wind classifications N1/N2, N3 and N4 and cyclonic wind classifications C1, C2 and C3 as defined by AS 4055 Wind loads for housing.

## Dimensions and tolerances

The member sizes given in the span tables are the minimum dressed dimensions at the time of machining, subject to the following tolerances:

Depth	-2 mm, +2 mm
Breadth	-2 mm, +2 mm

## Available beam lengths and maximum spans

Prior to selecting a member size from the span charts, designers and specifiers should ensure that the maximum length of a beam or post is available. Some maximum single spans and many continuous spans given in the charts may result in a beam/post length required that exceeds maximum lengths currently available.

Maximum beam/post lengths currently available are given in the table below.

Beam width	Maximum length
65mm	6.0m
<b>Square posts</b>	
90 x 90mm 100 x 100mm 115 x 115mm 135 x 135mm	6.0m

## Characteristic values

The characteristic values for strength and stiffness used in the preparation of the span tables for GL 20 and GL18 are as certified by the GLTAA Qualification Certificate, February 2015 and Test Report by Universal Testing Laboratory, Test Report 18/014, March 2015, together with supplementary properties given in AS 1720.1 2010.

## Species, properties and use

Some basic properties for seasoned Spotted Gum are given in the table below:

Property	Timber Species - Spotted Gum
<b>Strength group</b>	SD2
<b>Joint group</b>	JD1
<b>Density (seasoned - kg/m<sup>3</sup>)</b>	1010
<b>Above ground durability class (AS5604)</b>	Class 1
<b>Bushfire resistant (AS3959)</b>	Yes
<b>Termite resistant (AS3660.1)</b>	Yes
<b>Lyctid susceptibility</b>	Susceptible

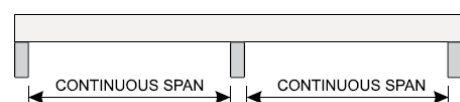
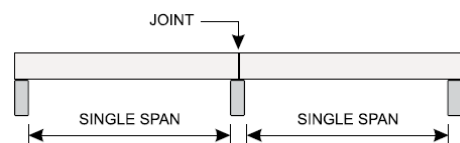
Parkside Glued-laminated timber shall not be used in ground contact or in permanently damp situations but is suitable for used above ground, exposed to the weather and well ventilated when used in accordance with Parkside recommendations.

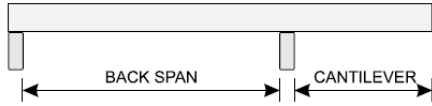
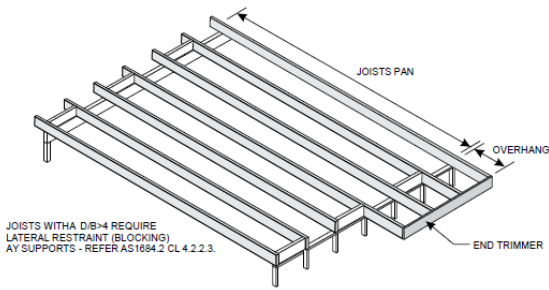
## Definitions applicable to use of span tables

Definitions shall be as defined in AS 1684.2 Clause 2.6 or AS 1684.3 Clause 2.6. Some are briefly described below.

### Span

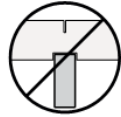
Span shall mean the distance between the internal face of support locations. Single spans members are supported at two points only and continuous span are supported at three or more points.





Continuous spans given by the tables are only applicable where:

- The beams are not notched or partially cut through at internal supports, and
- For unequal spans, the larger span is not greater than twice the smaller span



### Spacing

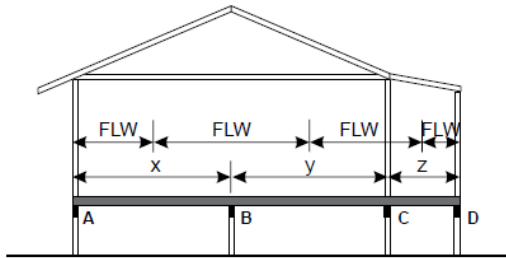
Spacing where, required to determine a member size, shall be the centre to centre distance between adjacent members.

### Load Widths and Area Supported

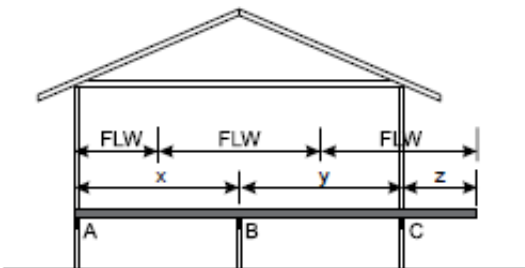
Brief definitions for Roof Load Width, Floor Load Width and Area supported referred to in the span tables are shown below.

### Floor load widths

Bearer / Lintel	Floor Load Width 'FLW'
A	$FLW = x/2$
B	$FLW = x/2 + y/2$
C	$FLW = y/2 + z/2$
D	$FLW = z/2$

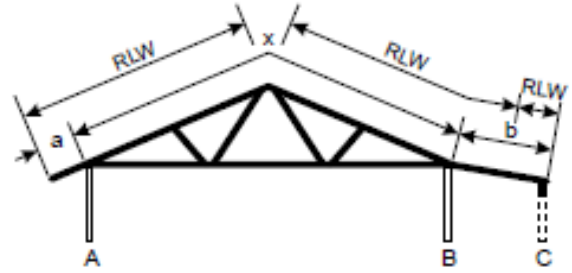


Bearer / Lintel	Floor Load Width 'FLW'
A	$FLW = x/2$
B	$FLW = x/2 + y/2$
C	$FLW = y/2 + z$

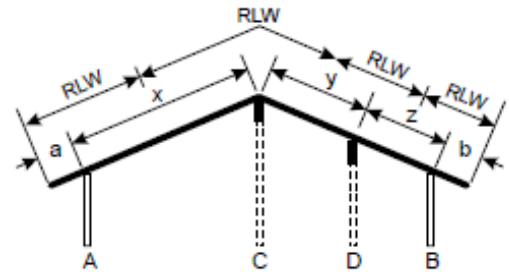


### Roof load widths

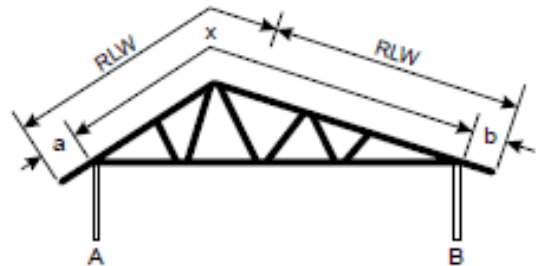
Beam / Lintel	Roof Load Width 'RLW'
A	$RLW = a + x/2$
B	$RLW = x/2 + b/2$
C	$RLW = b/2$



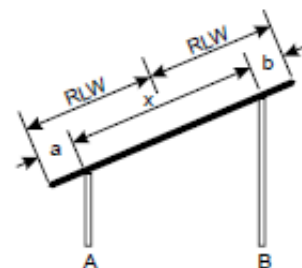
Beam / Lintel	Roof Load Width 'RLW'
A	$RLW = a + x/2$
B	$RLW = z/2 + b$
C	$RLW = x/2 + y/2$
D	$RLW = y/2 + z/2$



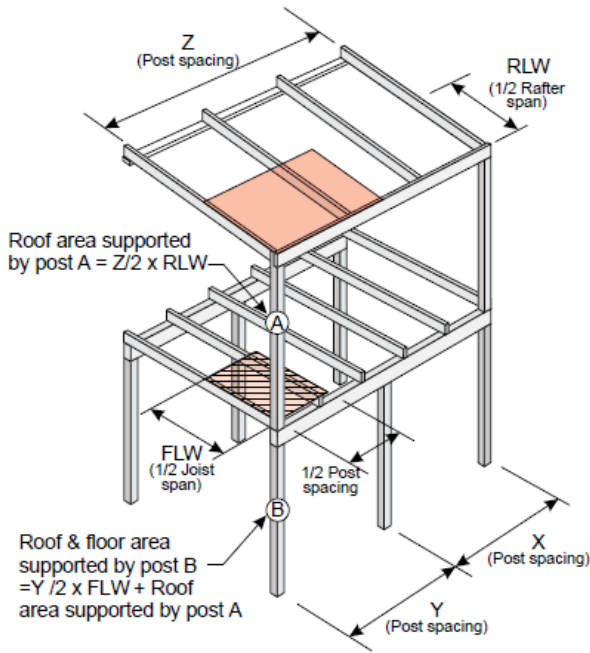
Beam / Lintel	Roof Load Width 'RLW'
A	$RLW = a + x/2$
B	$RLW = b + x/2$



Beam / Lintel	Roof Load Width 'RLW'
A	$RLW = a + x/2$
B	$RLW = b + x/2$



## Roof and floor area supported

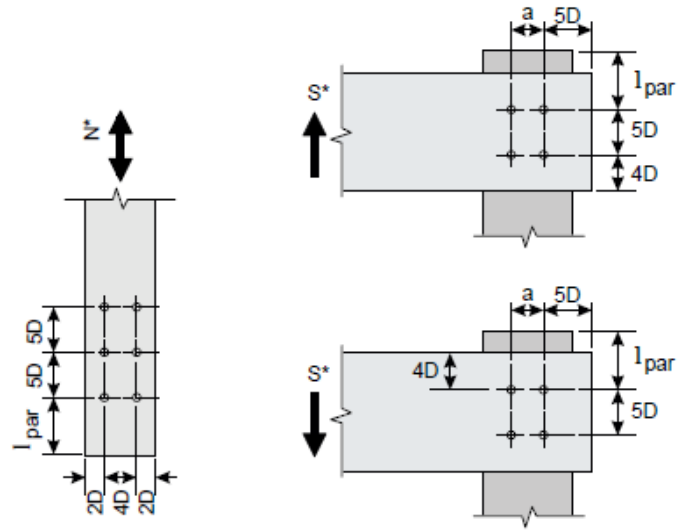


## Posts

$N^*$  and  $S^*$  are load directions

$D$  = Diameter of bolt

1 par is  $6D$  and  $a$  is  $3D$



## Notches and holes and birdsmouths

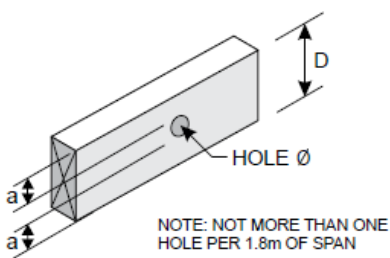
Member sizes are based on maintaining the full cross section of the member.

Beams and posts shall not be notched, trenched or housed within the span of the member.

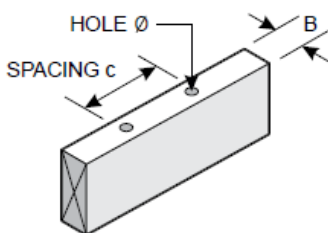
Vertical holes up to 14 mm diameter may be drilled in the outer 1/3 of the span, through the depth of 65 mm thick members.

Holes through the thickness of members may be installed in accordance with AS 1684.2 Clause 4.1.6 or AS 1684.3 Clause 4.1.6 and as shown below:

### Holes



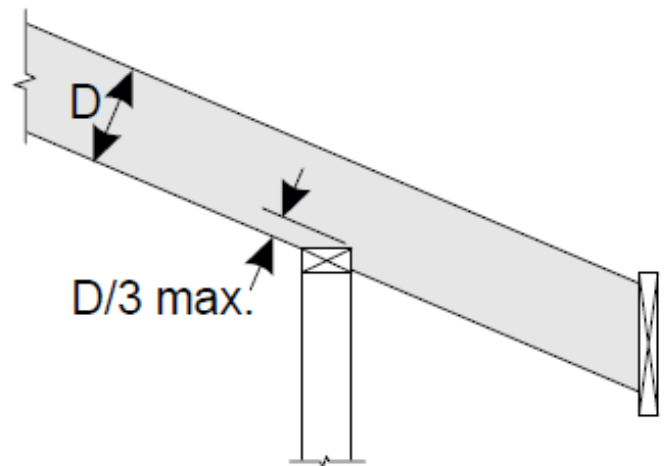
'a' min 5 Hole dia. Hole dia. max  $D/8$



Hole dia. max 14 mm and outside middle 1/3 of beam span

## Birdsmouths

Birdsmouths shall be a maximum of rafter depth/3,  $D/3$ .



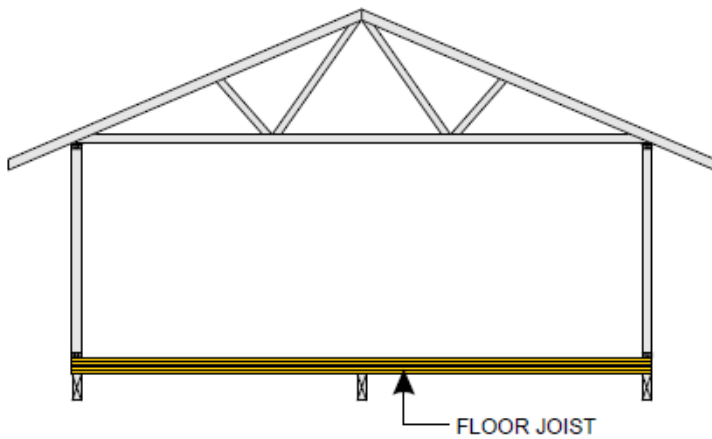
**BEARERS AND FLOOR JOISTS**

# Floor Joists - all wind speeds

## Supporting floor loads only

SIZE D x B (mm)	Joist Spacing (mm)							
	450	600	900	1200	450	600	900	1200
	Maximum Floor Joist Span (mm)							
	Single Span				Continuous Span			
140 x 65	3800	3400	3200	2900	4600	4000	3600	3500
190 x 65	5100	4800	4400	4000	6000	5600	5000	4700
240 x 65	6000	5700	5200	4800	7200	6700	6000	5600
290 x 65	6800	6500	6000	5600	7500	7500	7500	6500

- Notes**
- D = member depth, B = member breadth, NS = not suitable.
  - The above table was based on a maximum floor mass of 60 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
  - End bearing lengths = 35mm at end supports and 70mm at internal supports for continuous members.
  - Floor loads may consist of floor covering, flooring and/or ceilings. Floor loads up to 60 kg/m<sup>2</sup> have been applied to account for thicker flooring required for the 1200mm maximum spacing. No heavy point roof loads shall be applied to floor joists. Cantilevers may be up to 25%. For load bearing walls supported by cantilevered floor joists, the maximum floor joist cantilever shall not exceed 15% of the span for
  - The appropriate roof load width (RLW); provided that the minimum back span is at least four times the cantilever distance.



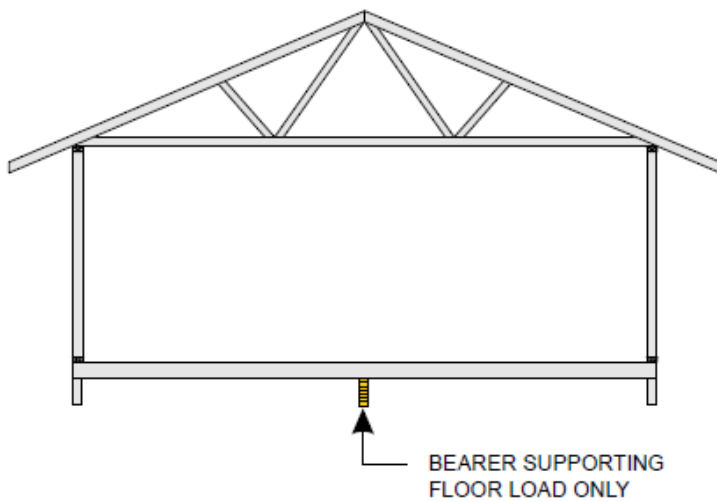


# Floor Bearers - all wind speeds

## Supporting floor loads only - cantilever may support balcony

SIZE D x B (mm)	Floor Load Width (mm)											
	1200		1800		2400		3600		4800		6000	
	Maximum Bearer Span (mm)											
	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever
	Single Span											
140 x 65	3100	900	2700	800	2400	700	2100	600	1800	500	1600	400
190 x 65	4000	1200	3600	1000	3300	900	2800	800	2400	700	2100	600
240 x 65	4800	1400	4300	1200	4000	1200	3600	1000	3100	900	2700	800
290 x 65	5500	1600	5000	1500	4600	1300	4100	1200	3700	1100	3300	900
Continuous Span												
140 x 65	3700	950	3000	800	2600	750	2100	600	1800	500	1600	400
190 x 65	4700	1250	4000	1100	3500	1000	2800	800	2400	700	2100	600
240 x 65	5600	1550	5100	1400	4400	1250	3600	1000	3100	900	2700	800
290 x 65	6500	1900	5900	1650	5300	1500	4300	1200	3700	1100	3300	900

- Notes**
- D = member depth, B = member breadth, NS = not suitable, C'lever = cantilever (mm).
  - The above table was based on a maximum floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN), balcony live load of 2 (kPa).
  - Minimum back span = 200% of overhang.
  - Maximum overhang = 30% of back span.
  - End bearing lengths = 50mm at end supports and 100mm at internal supports for continuous members.



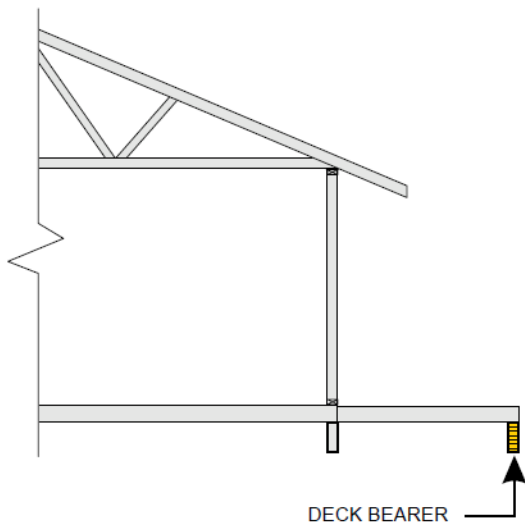
# Deck Bearers - all wind speeds

May support decks greater than 1000mm above the ground

SIZE D x B (mm)	Floor Load Width (mm)											
	1200		2400		4800		1200		2400		4800	
	Maximum Bearer Span (mm)											
	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever
	Single Span						Continuous Span					
140 x 65	3200	900	2300	600	1600	400	3200	900	2300	600	1600	400
190 x 65	4400	1300	3100	900	2100	600	4400	1300	3100	900	2100	600
240 x 65	5400	1600	3900	1100	2700	800	5500	1600	3900	1100	2700	800
290 x 65	6200	1800	4700	1400	3300	900	6600	1900	4700	1400	3300	900

## Notes

- D = member depth, B = member breadth, NS = not suitable, C'lever = cantilever (mm).
- The above table was based on a maximum deck mass of 30 (kg/m<sup>2</sup>), floor point load of 1.8 (kN), balcony live load of 2 (kPa).
- Minimum back span = 200% of overhang.
- Maximum overhang = 30% of back span.
- End bearing lengths = 50mm at end supports and 100mm at internal supports for continuous members.



**LINTELS**

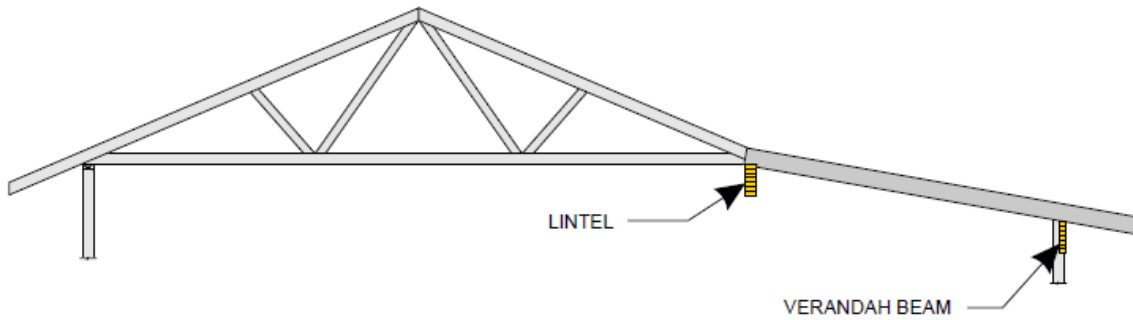
# Lintels - sheet roof N2

## Single or upper storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter/Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3600	3500	3000	3000	2700	2700	2500	2500	2300	2300
190 x 65	4400	4400	3800	3800	3500	3400	3200	3200	3100	3000
240 x 65	5200	5200	4500	4500	4100	4100	3800	3800	3600	3600
290 x 65	6000	5900	5200	5200	4700	4700	4400	4400	4200	4200

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



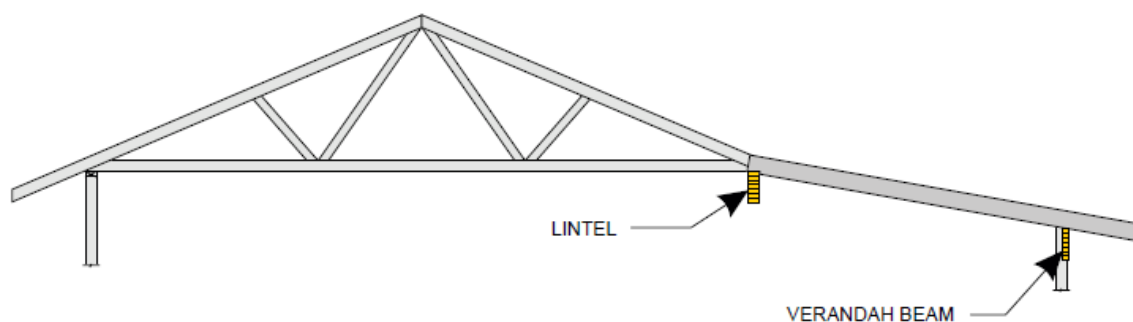
# Lintels - tile roof N2

## Single or upper storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter/Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3000	3000	2400	2400	2100	2000	1900	1900	1700	1700
190 x 65	3700	3700	3100	3100	2800	2800	2600	2600	2400	2400
240 x 65										
290 x 65										

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



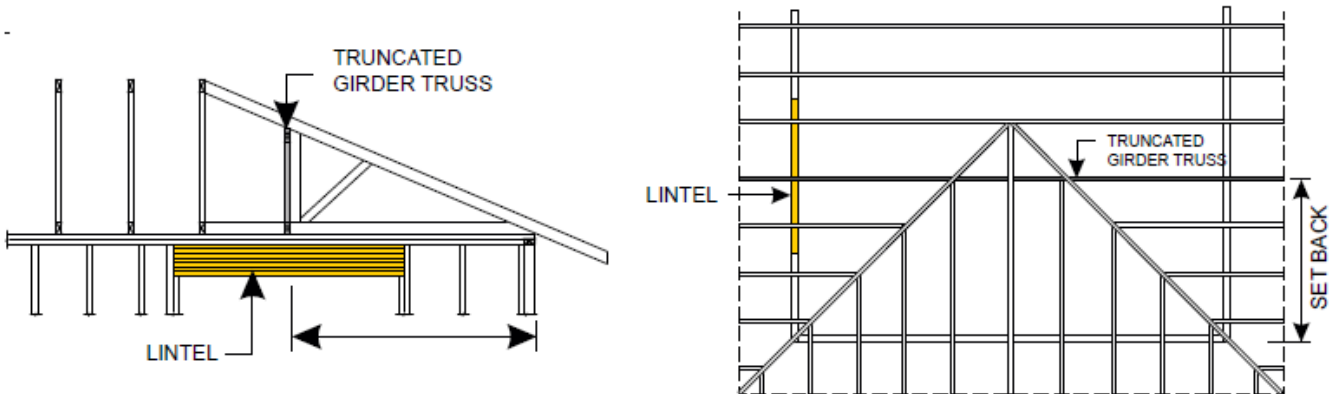
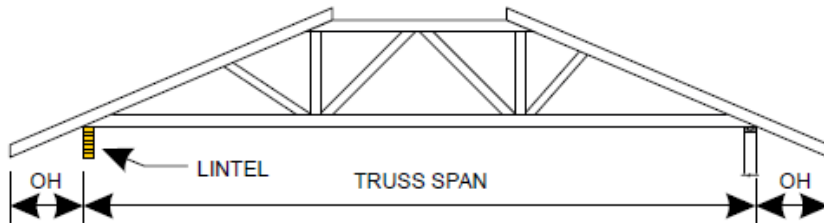
# Lintel supporting truncated girders - hip ends only N2

## Sheet roof - girder truss setback 2700mm

SHEET ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2700	2700	2700	2700	2700	2700	2700	2700
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3500	2800	2700	2700	2600	2600	2600	2500
190 x 65	3500	3400	3200	3200	3100	3100	3000	3000
240 x 65	4000	4000	3800	3800	3600	3600	3500	3400
290 x 65	4600	4600	4300	4300	4100	4100	4000	3900

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



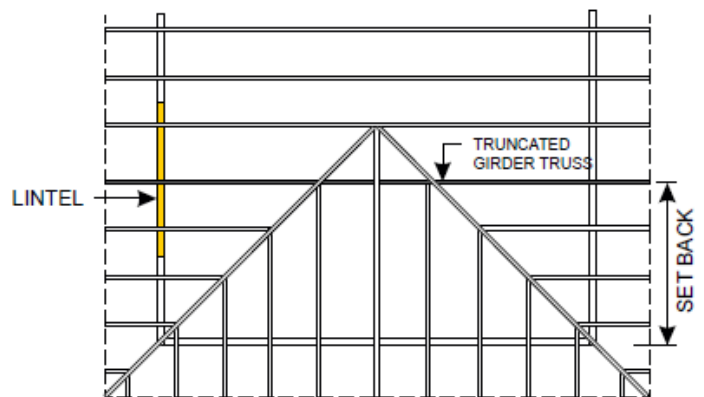
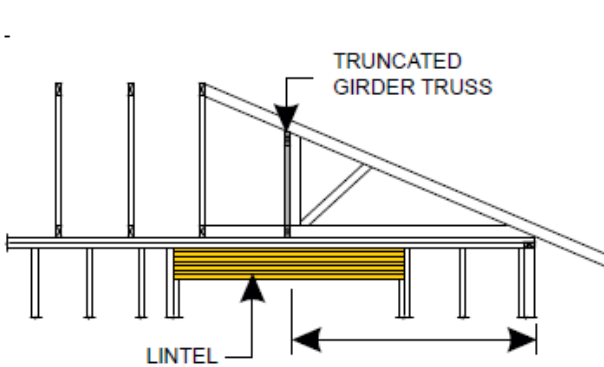
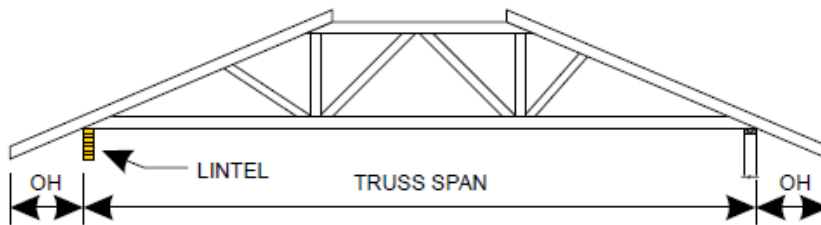
# Lintel supporting truncated girders - hip ends only N2

## Tile roof - girder truss setback 2400mm

TILE ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2400	2400	2400	2400	2400	2400	2400	2400
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3100	2300	2200	2200	2200	2100	2100	2100
190 x 65	2900	2800	2700	2600	2500	2500	2500	2300
240 x 65	3600	3300	3200	3100	3000	2900	2800	2700
290 x 65	3900	3900	3600	3600	3400	3400	3300	3100

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35mm.



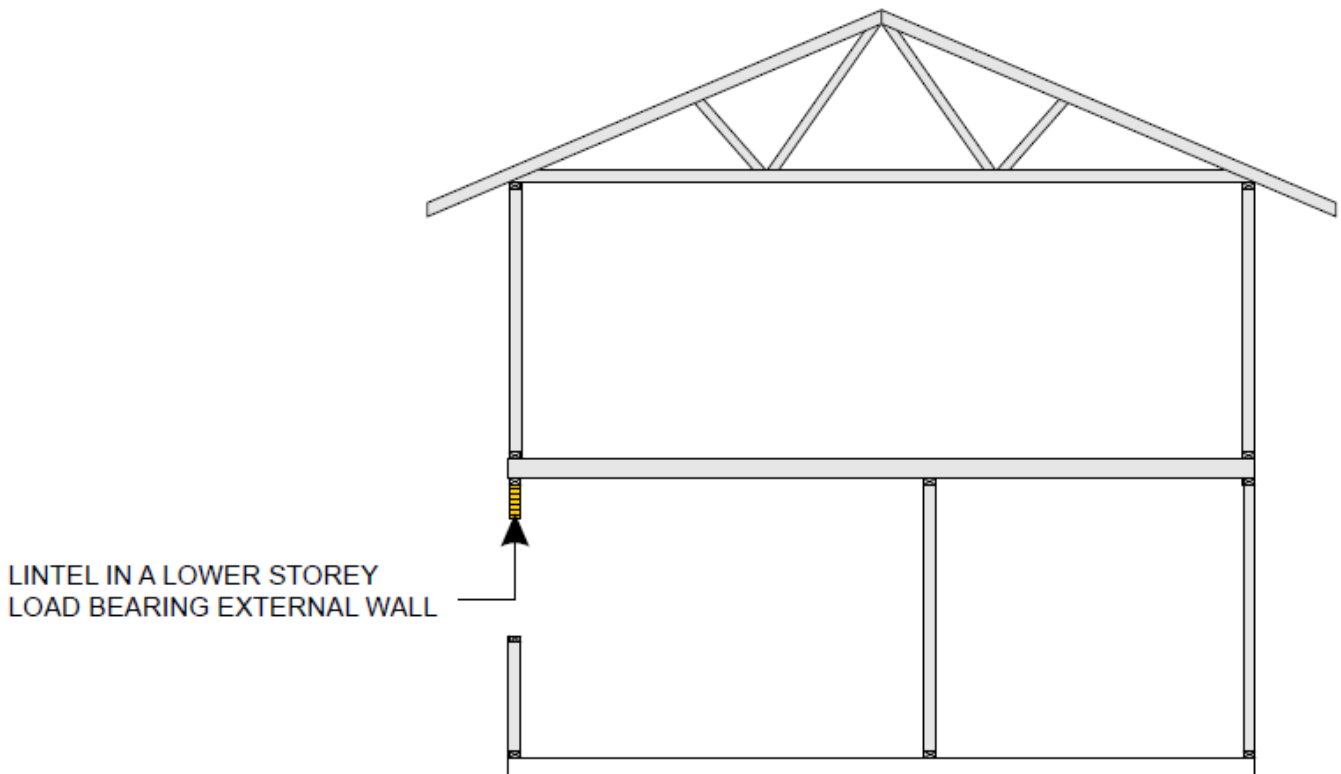
# Lintels - sheet roof N2

## Lower storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2400	2000	2200	1900	2100	1800	2000	1800	1900	1700
190 x 65	3100	2700	3000	2600	2800	2500	2700	2400	2600	2300
240 x 65	3700	3300	3600	3200	3400	3100	3300	3000	3200	3000
290 x 65	4300	3800	4100	3700	3900	3600	3800	3500	3700	3400

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports.





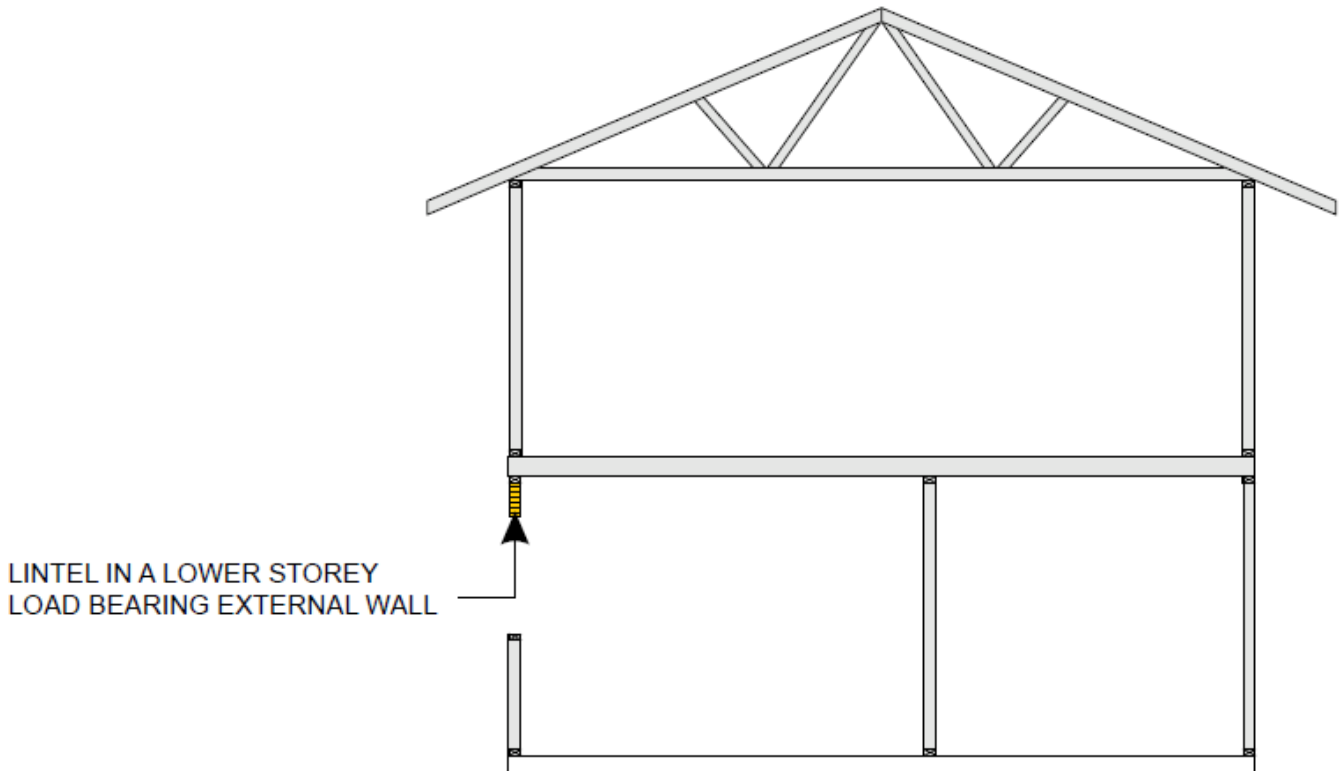
# Lintels - tile roof N2

## Lower storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2200	1900	2000	1800	1800	1600	1700	1600	1600	1500
190 x 65	3000	2600	2700	2400	2400	2200	2300	2100	2200	2000
240 x 65	3500	3200	3200	3000	3100	2800	2900	2700	2700	2600
290 x 65	4100	3600	3700	3500	3500	3300	3400	3200	3200	3100

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum tile roof mass of 90 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35mm.



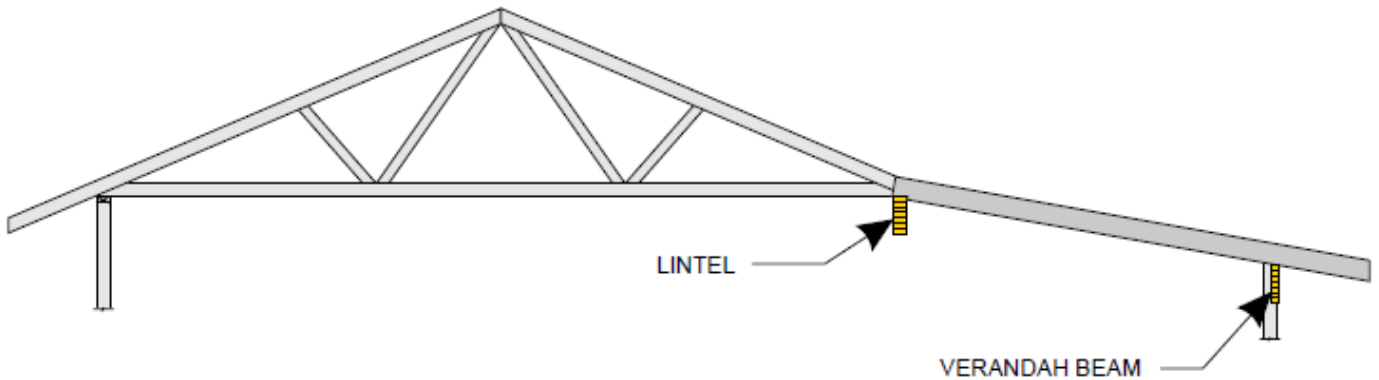
# Lintels - sheet roof N3

## Single or upper storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3600	3500	3000	3000	2700	2700	2500	2500	2300	2300
190 x 65	4400	4400	3800	3500	3500	3400	3200	3200	3100	3000
240 x 65	5200	5200	4500	4500	4100	4100	3800	3800	3600	3600
290 x 65	6000	5900	5200	5200	4700	4700	4400	4400	4200	4200

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



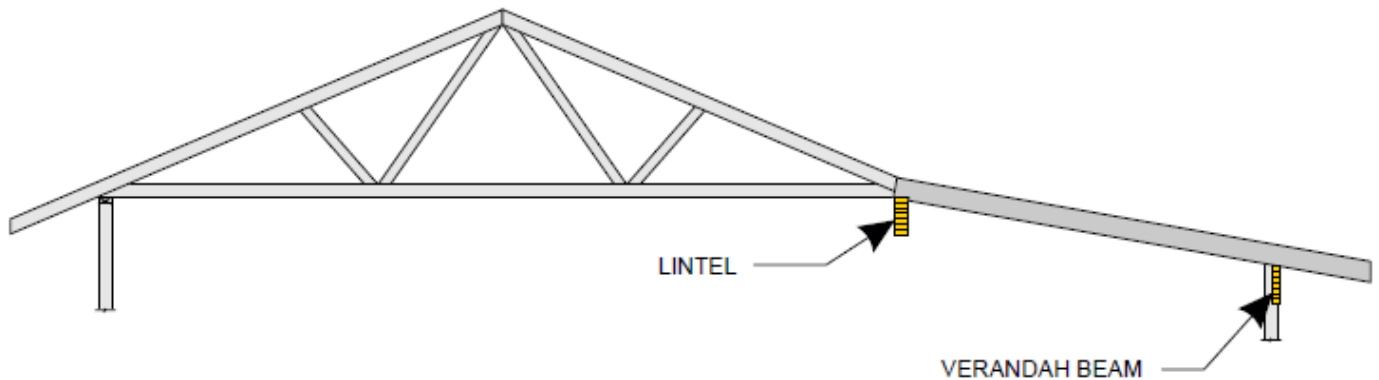
# Lintels - tile roof N3

## Single or upper storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3000	3000	2400	2400	2100	2000	1900	1900	1700	1700
190 x 65	3700	3700	3100	3100	2800	2800	2600	2600	2400	2400
240 x 65	4400	4400	3700	3700	3400	3400	3200	3100	3000	3000
290 x 65	5000	5000	4300	4300	3900	3900	3600	3600	3400	3400

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



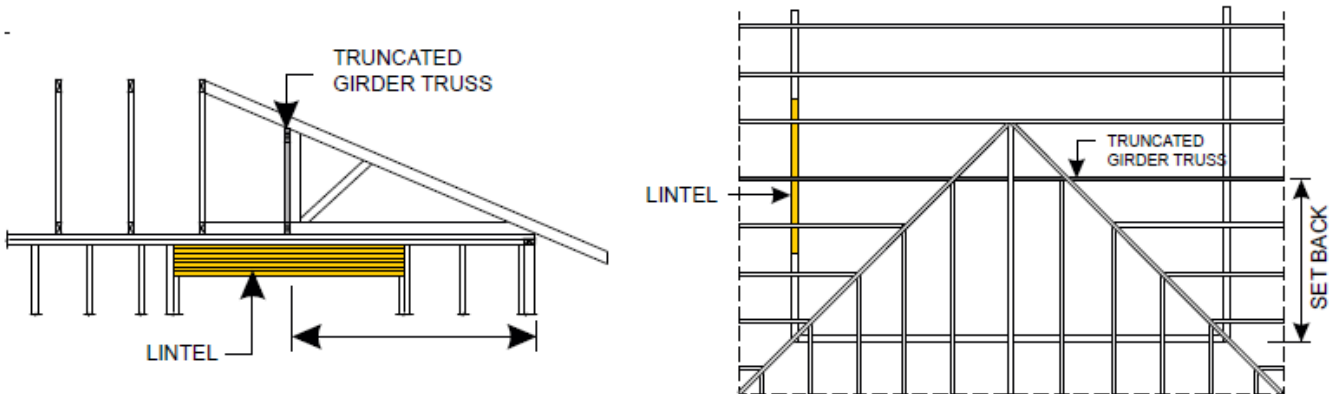
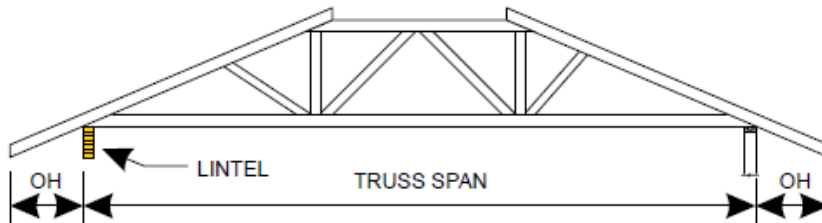
# Lintel supporting truncated girders - hip ends only N3

## Sheet roof - girder truss setback 2700mm

SHEET ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2700	2700	2700	2700	2700	2700	2700	2700
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3500	2800	2700	2700	2600	2600	2600	2500
190 x 65	3500	3400	3200	3200	3100	3000	3000	2900
240 x 65	4000	4000	3800	3800	3600	3600	3500	3300
290 x 65	4600	4600	4300	4300	4100	4100	4000	3900

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



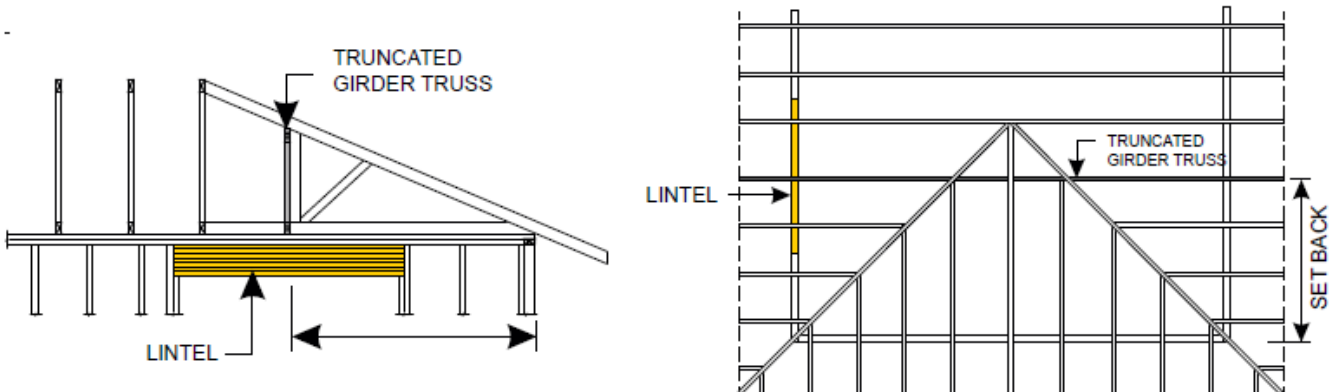
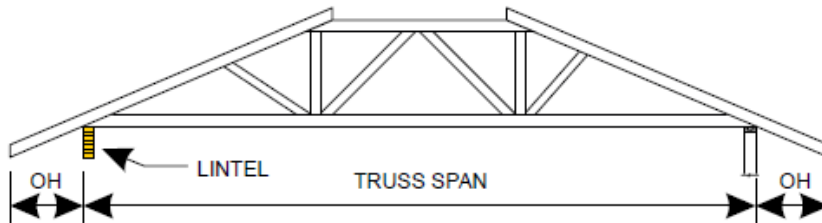
# Lintel supporting truncated girders - hip ends only N3

## Tile roof - girder truss setback 2400mm

TILE ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2400	2400	2400	2400	2400	2400	2400	2400
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3100	2300	2200	2200	2200	2100	2100	2100
190 x 65	2900	2800	2700	2600	2500	2500	2500	2300
240 x 65	3600	3300	3200	3100	3000	2900	2800	2700
290 x 65	3900	3900	3600	3600	3400	3400	3300	3100

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



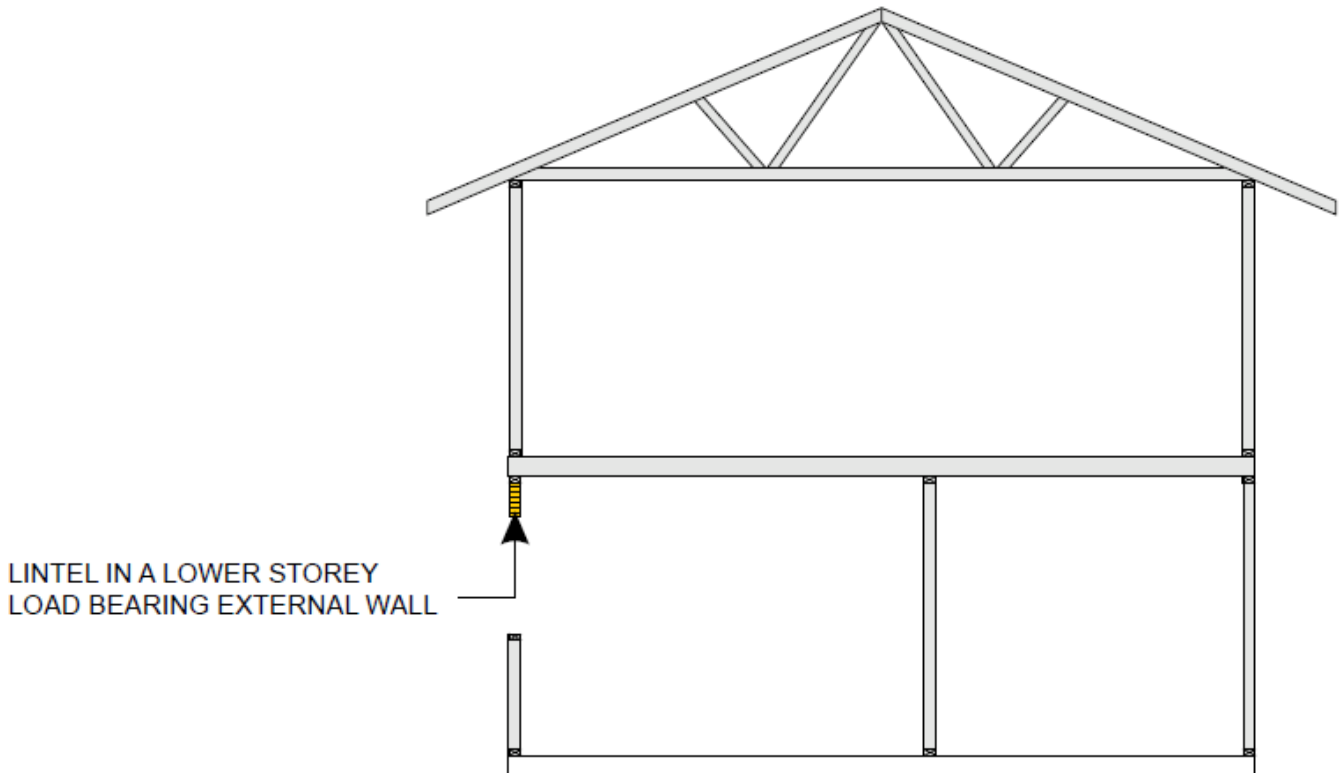
# Lintels - sheet roof N3

## Lower storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2400	2000	2200	1900	2100	1800	2000	1800	1900	1700
190 x 65	3100	2700	3000	2600	2800	2500	2700	2400	2600	2300
240 x 65	3700	3300	3600	3200	3400	3100	3300	3000	3200	3000
290 x 65	4300	3800	4100	3700	3900	3600	3800	3500	3700	3400

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports.



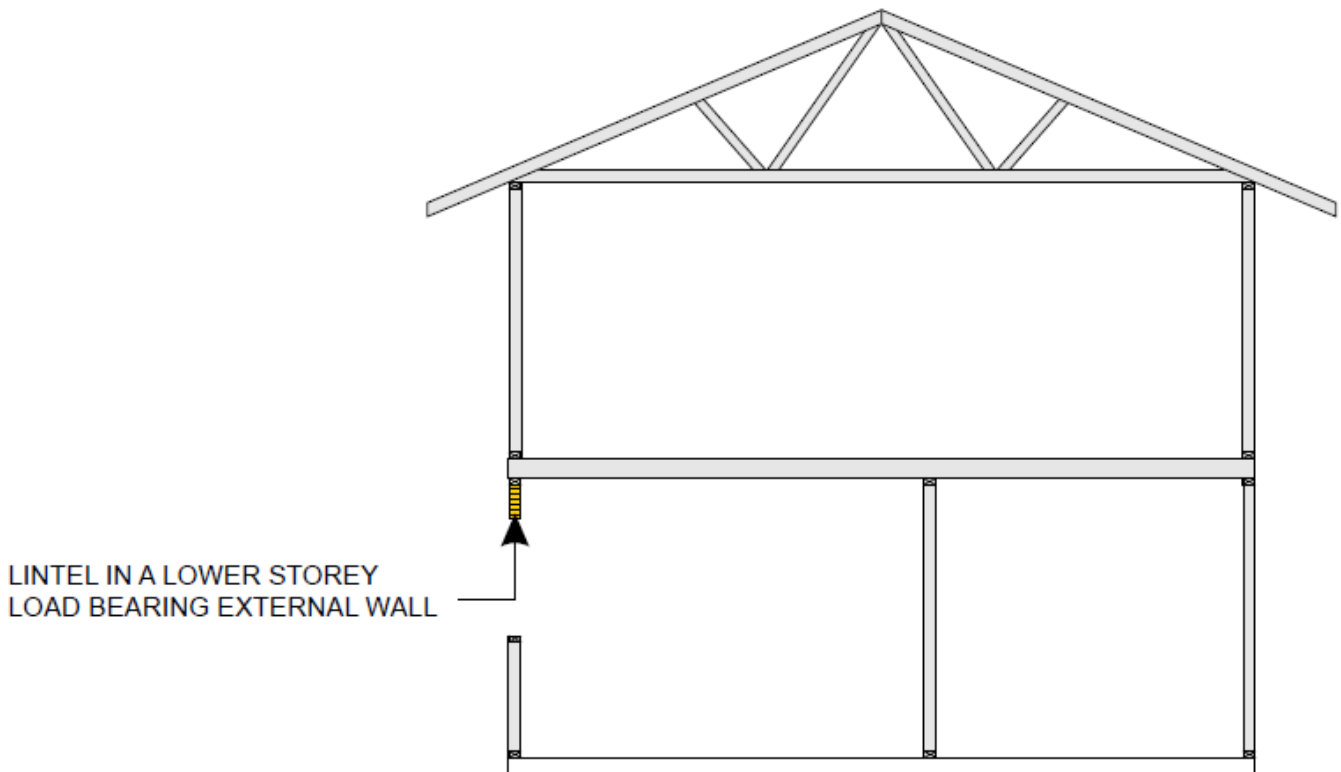
# Lintels - tile roof N3

## Lower storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2200	1900	2000	1800	1800	1600	1700	1600	1600	1500
190 x 65	3000	2600	2700	2400	2400	2200	2300	2100	2200	2000
240 x 65	3500	3200	3200	3000	3100	2800	2900	2700	2700	2600
290 x 65	4100	3600	3700	3500	3500	3300	3400	3200	3200	3100

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 90 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35mm.



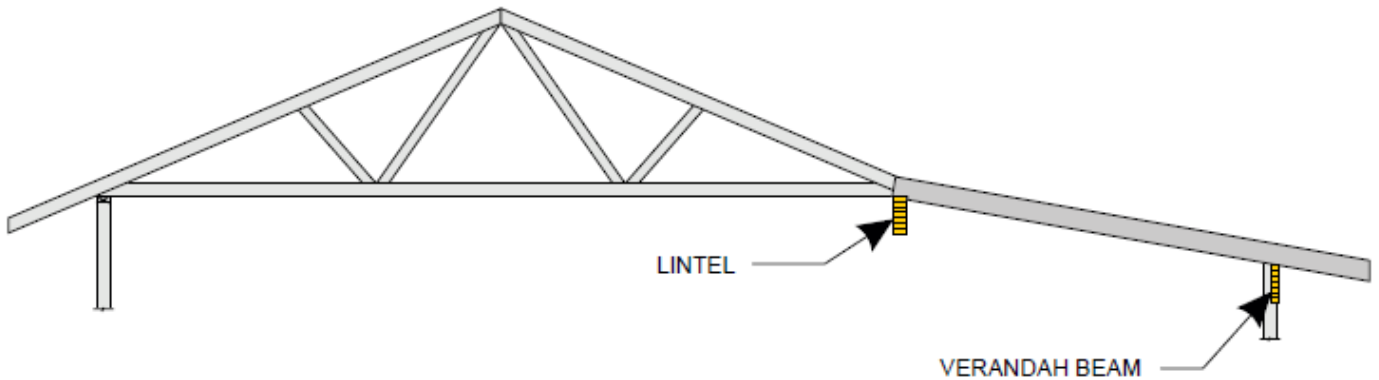
# Lintels - sheet roof N4

## Single or upper storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3600	3500	3000	3000	2600	2500	2200	2100	1900	1700
190 x 65	4400	4400	3800	3800	3400	3300	2900	2800	2600	2600
240 x 65	5200	5200	4500	4500	4100	4100	3700	3500	3300	3100
290 x 65	6000	5900	5200	5200	4700	4700	4400	4400	3900	3800

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.





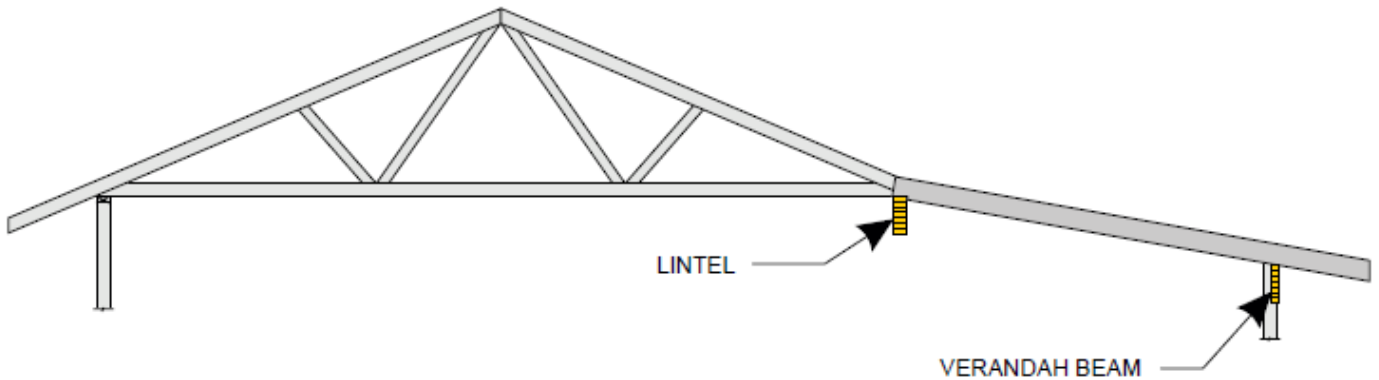
# Lintels - tile roof N4

## Single or upper storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3000	3000	2400	2400	2100	2000	1900	1700	1700	1400
190 x 65	3700	3700	3100	3100	2800	2800	2600	2600	2400	2200
240 x 65	4400	4400	3700	3700	3400	3400	3200	3100	2900	2800
290 x 65	5000	5000	4300	4300	3900	3900	3600	3600	3400	3300

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



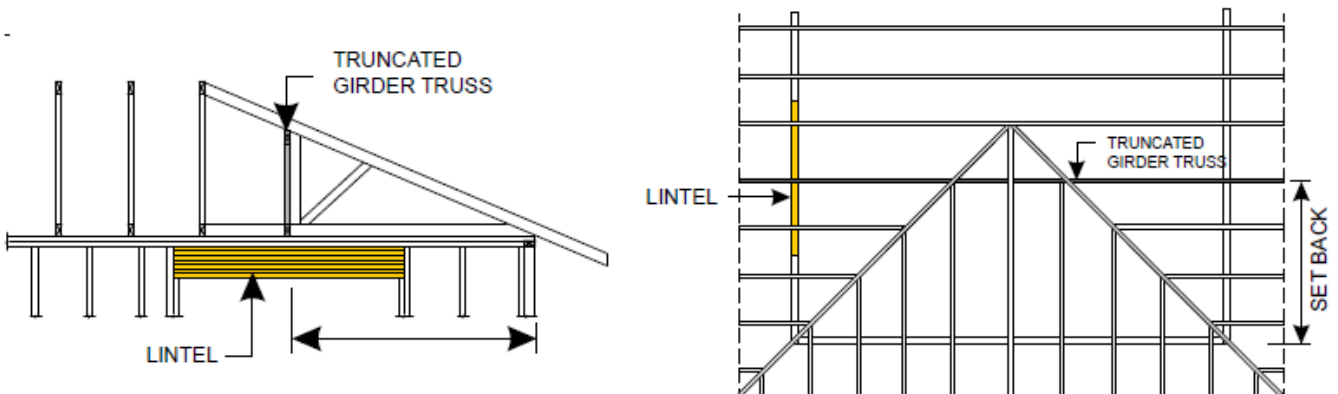
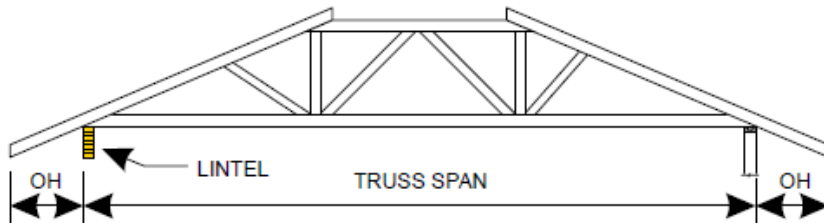
# Lintel supporting truncated girders - hip ends only N4

## Sheet roof - girder truss setback 2700mm

SHEET ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2700	2700	2700	2700	2700	2700	2700	2700
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3500	2800	2700	2700	2600	2500	2500	2500
190 x 65	3500	3300	3100	2900	2900	2700	2700	2500
240 x 65	4400	4000	3600	3400	3300	3100	3100	2900
290 x 65	4600	4600	4300	4100	3800	3600	3500	3300

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



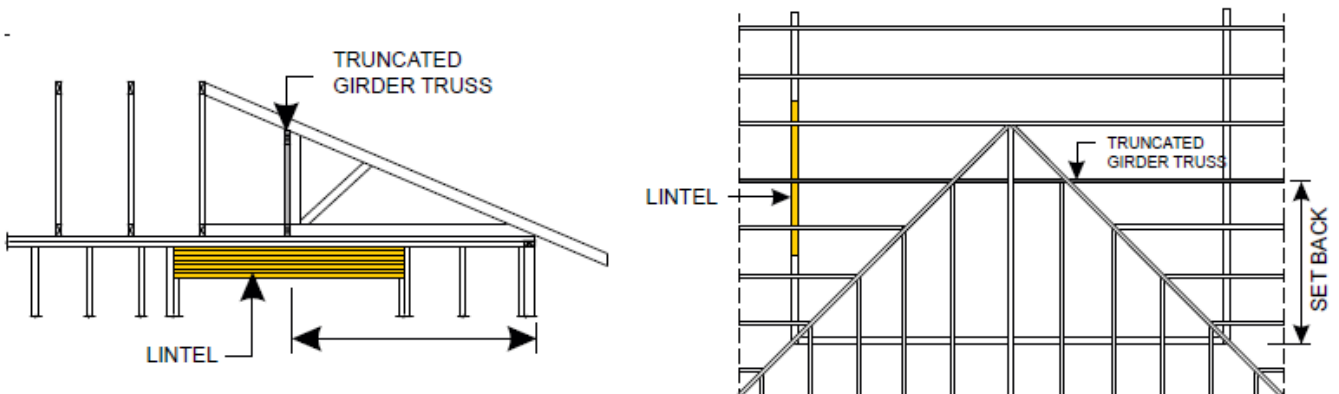
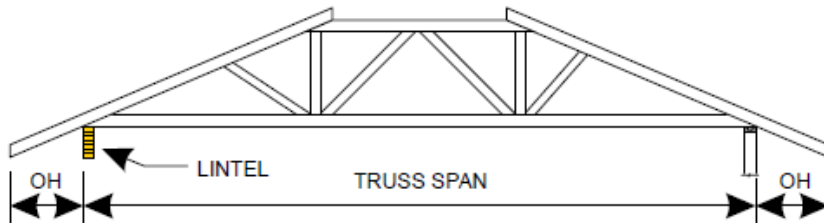
# Lintel supporting truncated girders - hip ends only N4

## Tile roof - girder truss setback 2400mm

TILE ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2400	2400	2400	2400	2400	2400	2400	2400
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3100	2300	2200	2200	2200	2100	2100	2100
190 x 65	2900	2800	2700	2600	2500	2400	2400	2200
240 x 65	3600	3300	3200	3100	2900	2800	2700	2600
290 x 65	3900	3900	3600	3600	3400	3200	3200	2900

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



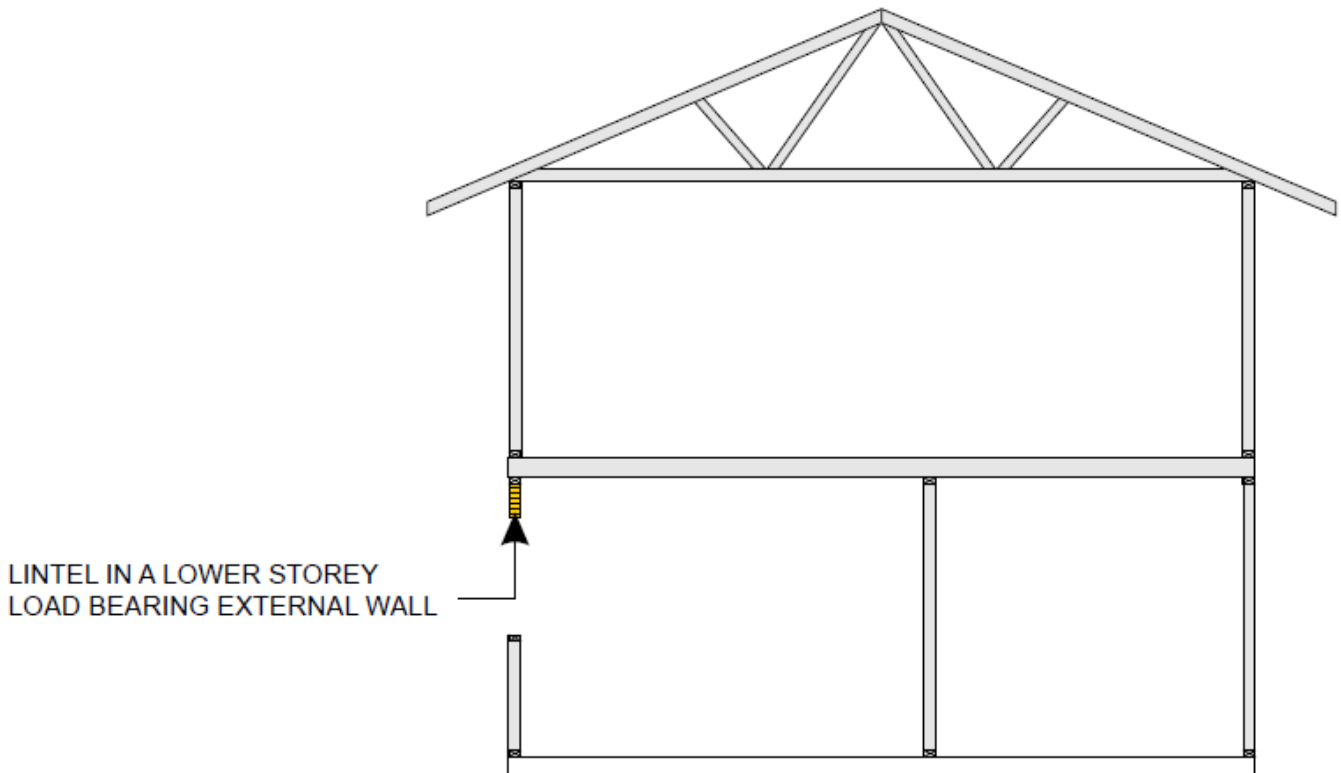
# Lintels - sheet roof N4

## Lower storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2400	2000	2200	1900	2100	1800	2000	1800	1900	1700
190 x 65	3100	2700	3000	2600	2800	2500	2700	2400	2600	2300
240 x 65	3700	3300	3600	3200	3400	3100	3300	3000	3200	3000
290 x 65	4300	3800	4100	3700	3900	3600	3800	3500	3700	3400

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports.



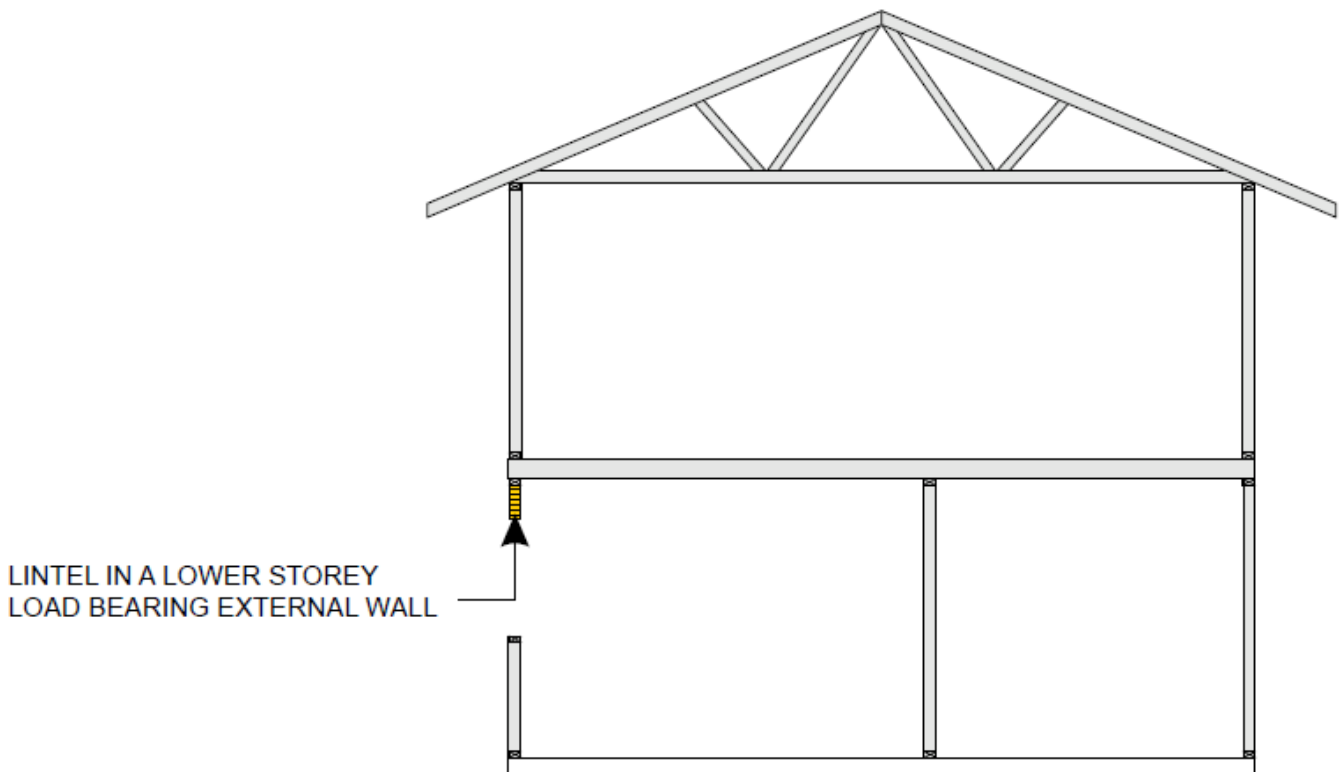
# Lintels - tile roof N4

## Lower storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2200	1900	2000	1800	1800	1600	1700	1600	1600	1500
190 x 65	3000	2600	2700	2400	2400	2200	2300	2100	2200	2000
240 x 65	3500	3200	3200	3000	3100	2800	2900	2700	2700	2600
290 x 65	4100	3600	3700	3500	3500	3300	3400	3200	3200	3100

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 90 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35mm.



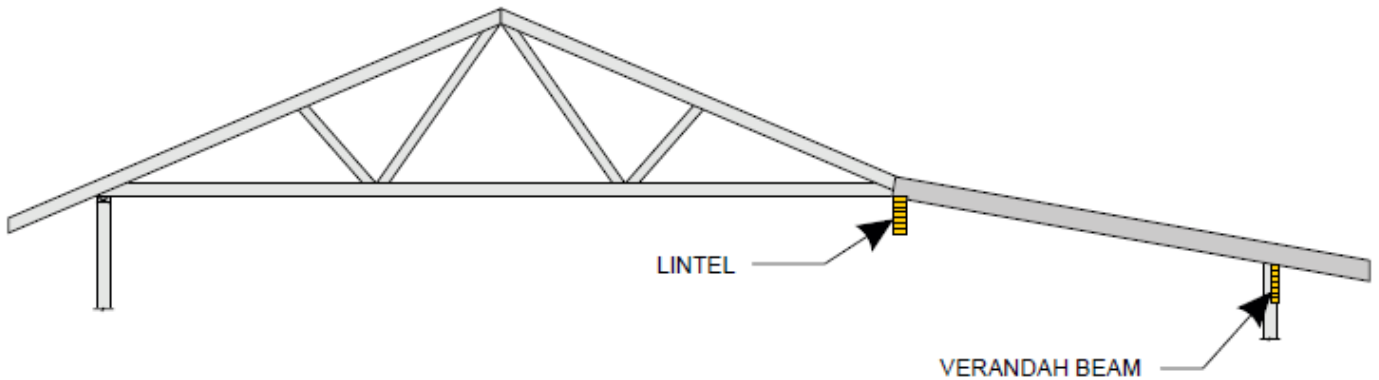
# Lintels - sheet roof C1

## Single or upper storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3600	3500	3000	3000	2600	2600	2300	2100	2000	1800
190 x 65	4400	4400	3800	3800	3500	3300	3000	2900	2700	2600
240 x 65	5200	5200	4500	4500	4100	4100	3800	3600	3300	3200
290 x 65	6000	5900	5200	5200	4700	4700	4400	4400	4000	3900

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



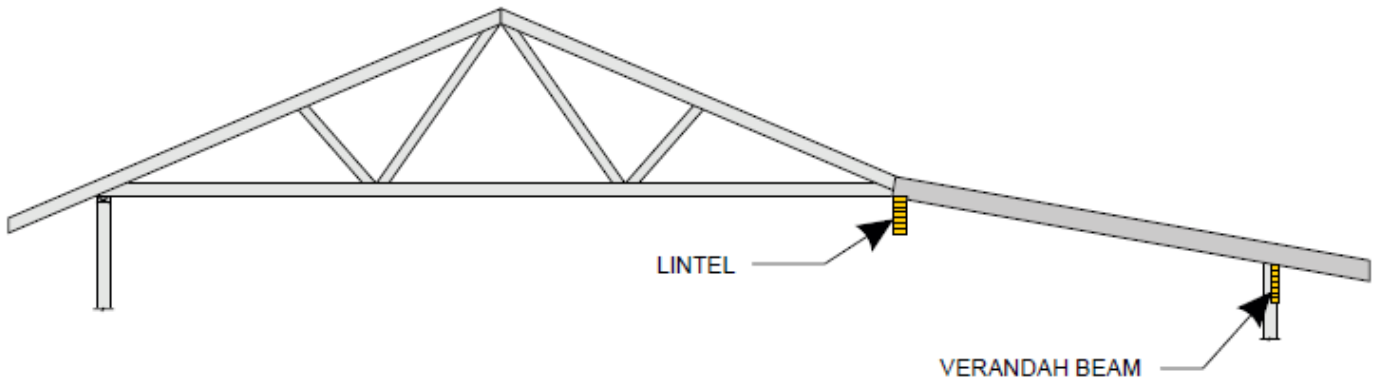
# Lintels - tile roof C1

## Single or upper storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3000	3000	2400	2400	2100	2000	1900	1900	1700	1500
190 x 65	3700	3700	3100	3100	2800	2800	2600	2600	2400	2300
240 x 65	4400	4400	3700	3700	3400	3400	3200	3100	3000	2900
290 x 65	5000	5000	4300	4300	3900	3900	3600	3600	3400	3400

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



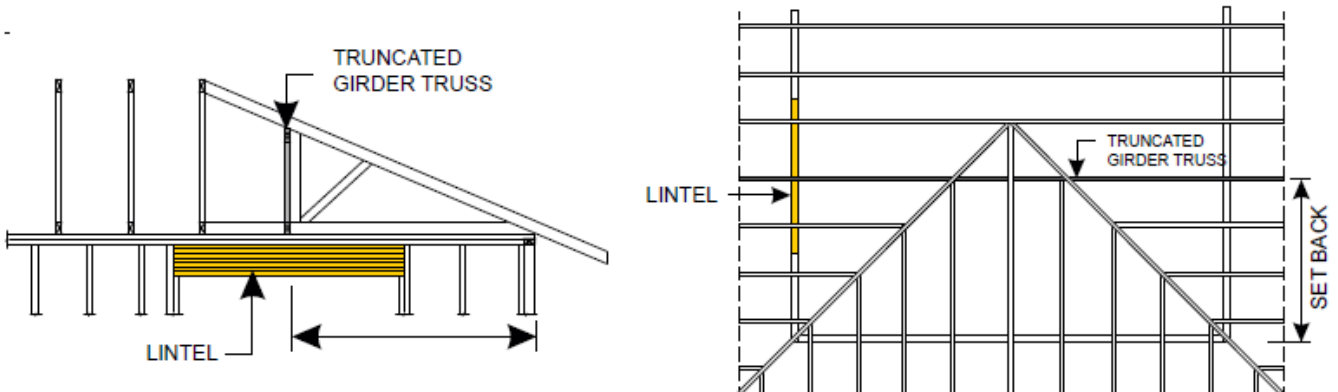
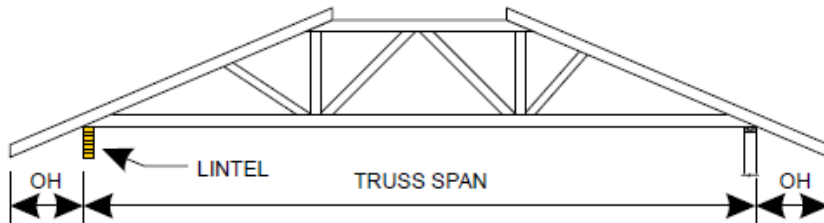
# Lintel supporting truncated girders - hip ends only C1

## Sheet roof - girder truss setback 2700mm

SHEET ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2700	2700	2700	2700	2700	2700	2700	2700
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3500	2800	2700	2600	2600	2500	2500	2500
190 x 65	3500	3300	3100	2900	2900	2800	2800	2500
240 x 65	4400	4000	3700	3500	3300	3100	3100	2900
290 x 65	4600	4600	4300	4200	3900	3600	3500	3300

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.





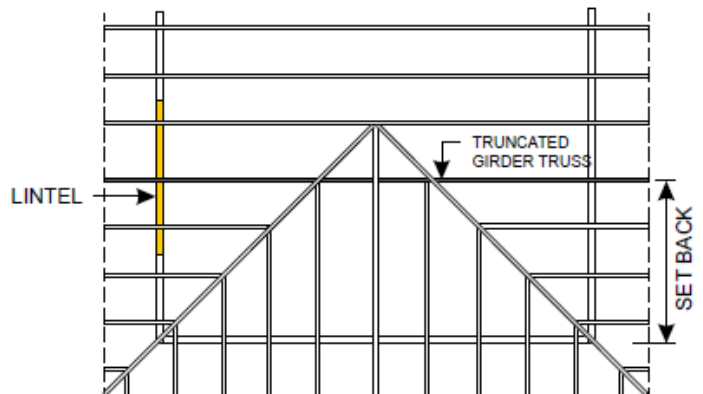
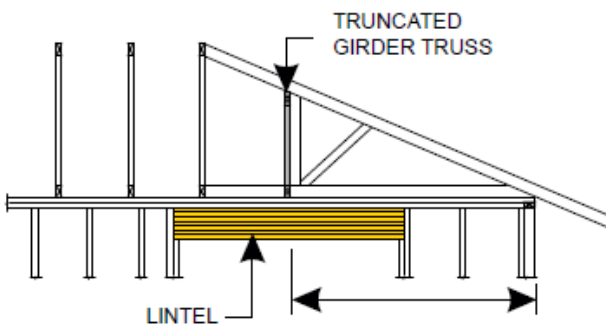
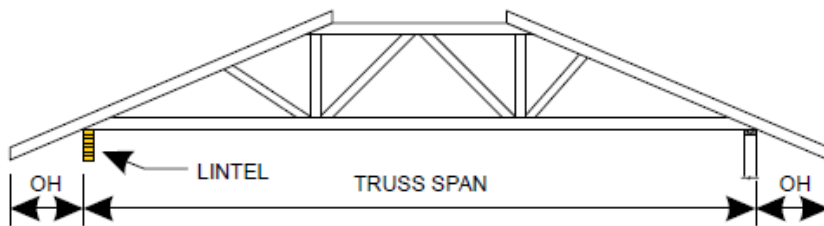
# Lintel supporting truncated girders - hip ends only C1

## Tile roof - girder truss setback 2400mm

TILE ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2400	2400	2400	2400	2400	2400	2400	2400
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3100	2300	2200	2200	2200	2100	2100	2100
190 x 65	2900	2800	2700	2600	2500	2500	2500	2400
240 x 65	3400	3300	3200	3100	3000	2900	2800	2700
290 x 65	3900	3900	3600	3600	3400	3400	3300	3100
330 x 65	4300	4300	4000	3900	3800	3700	3600	3500
360 x 65	4600	4600	4300	4200	4000	3900	3800	3800

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



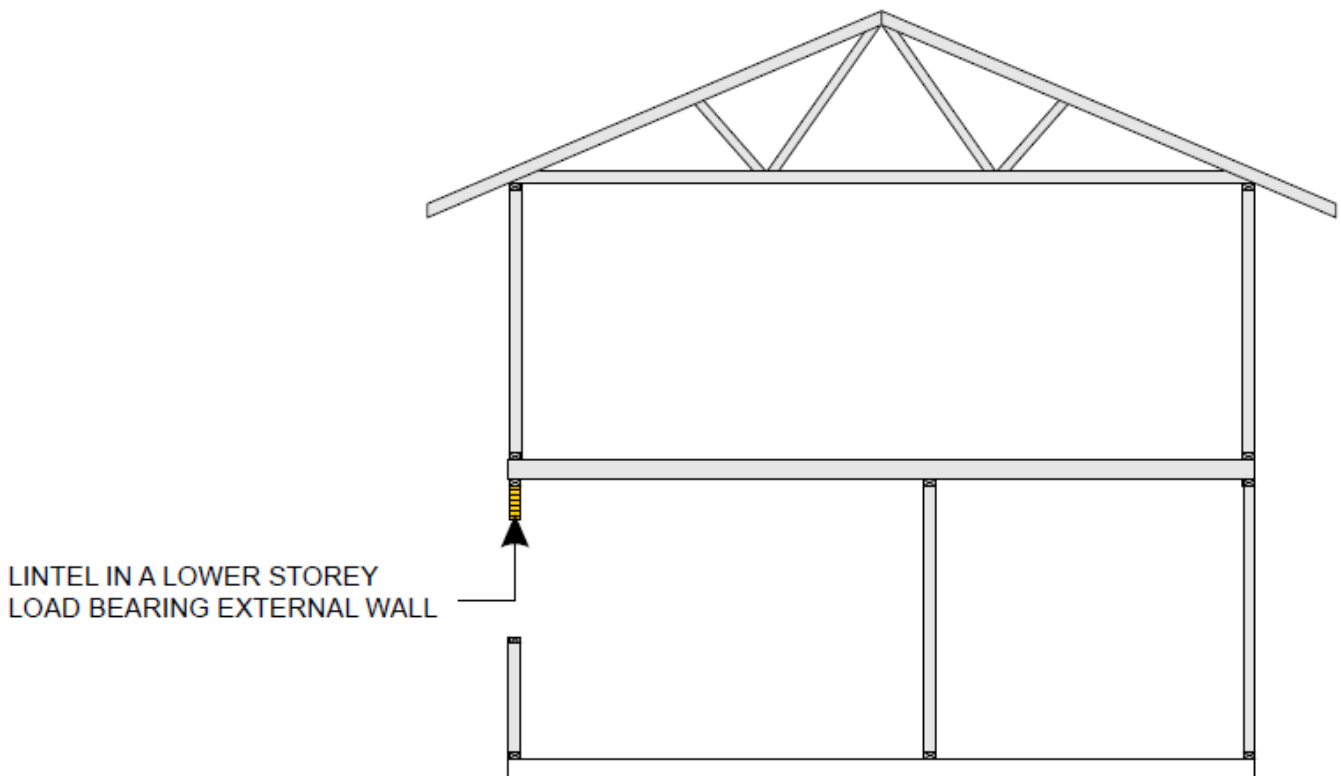
# Lintels - sheet roof C1

## Lower storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2400	2000	2200	1900	2100	1800	2000	1800	1900	1700
190 x 65	3100	2700	3000	2600	2800	2500	2700	2400	2600	2300
240 x 65	3700	3300	3600	3200	3400	3100	3300	3000	3200	3000
290 x 65	4300	3800	4100	3700	3900	3600	3800	3500	3700	3400

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports.



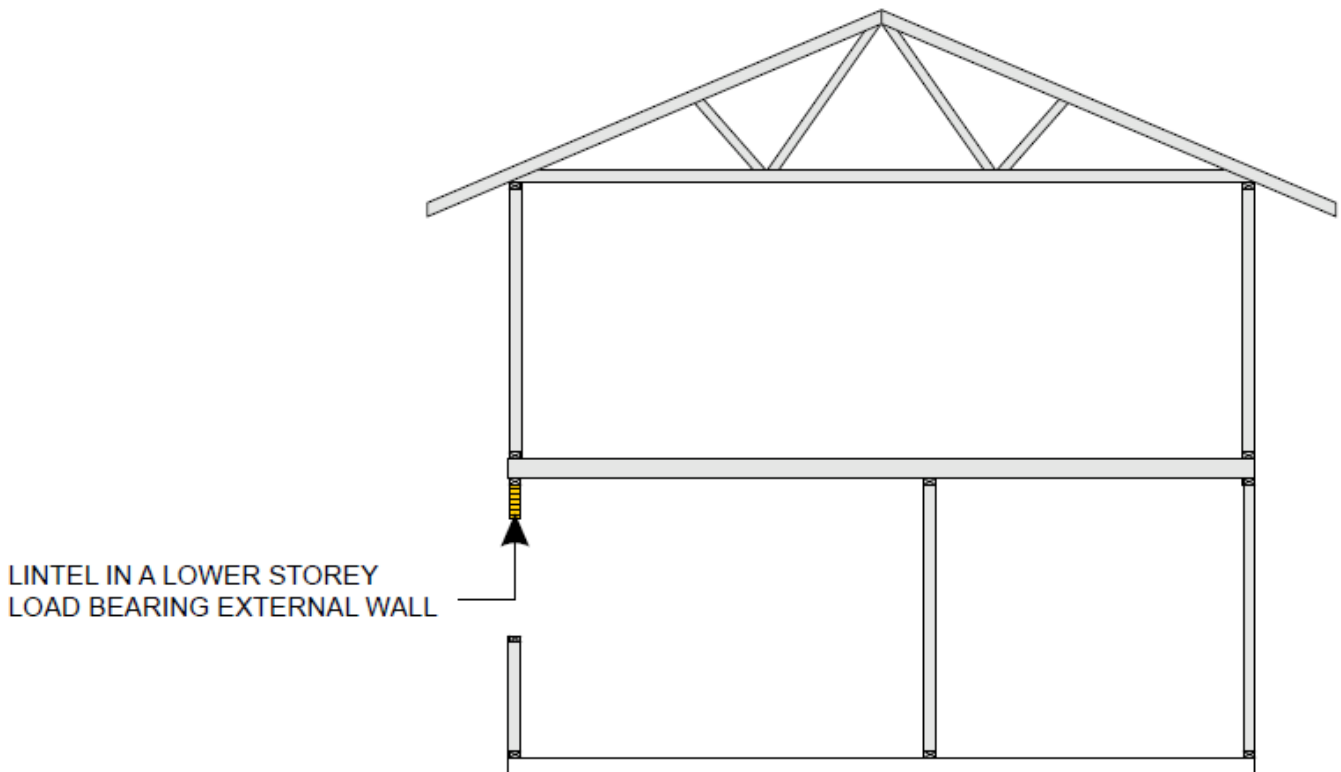
# Lintels - tile roof C1

## Lower storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2200	1900	2000	1800	1800	1600	1700	1600	1600	1500
190 x 65	3000	2600	2700	2400	2400	2200	2300	2100	2200	2000
240 x 65	3500	3200	3200	3000	3100	2800	2900	2700	2700	2600
290 x 65	4100	3600	3700	3500	3500	3300	3400	3200	3200	3100

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 90 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35mm.



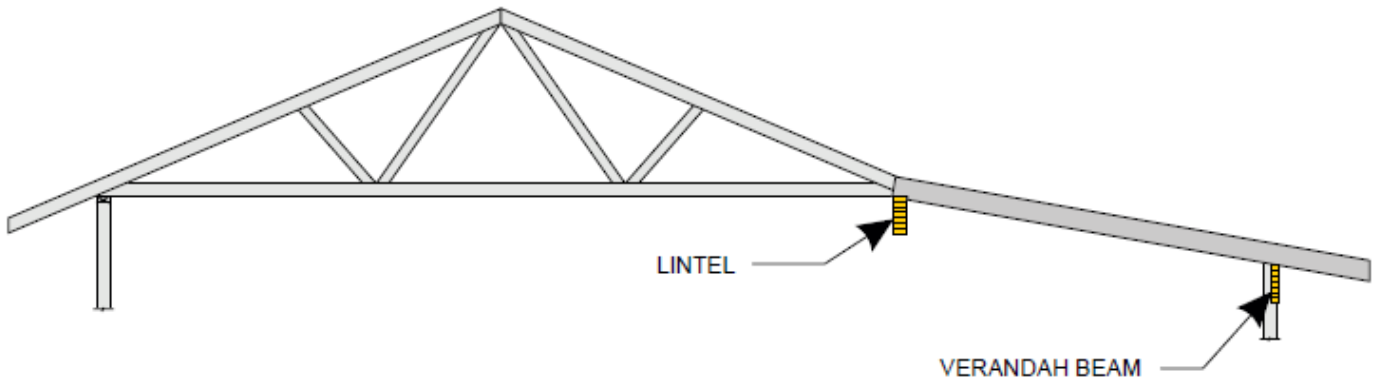
# Lintels - sheet roof C2

## Single or upper storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3600	3500	2600	2500	2000	1900	1700	1400	1500	1100
190 x 65	4400	4400	3400	3200	2700	2700	2400	2200	2100	1900
240 x 65	5200	5200	4200	4100	3400	3300	2900	2800	2600	2600
290 x 65	6000	5900	5100	5000	4100	4000	3600	3400	3200	3000

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



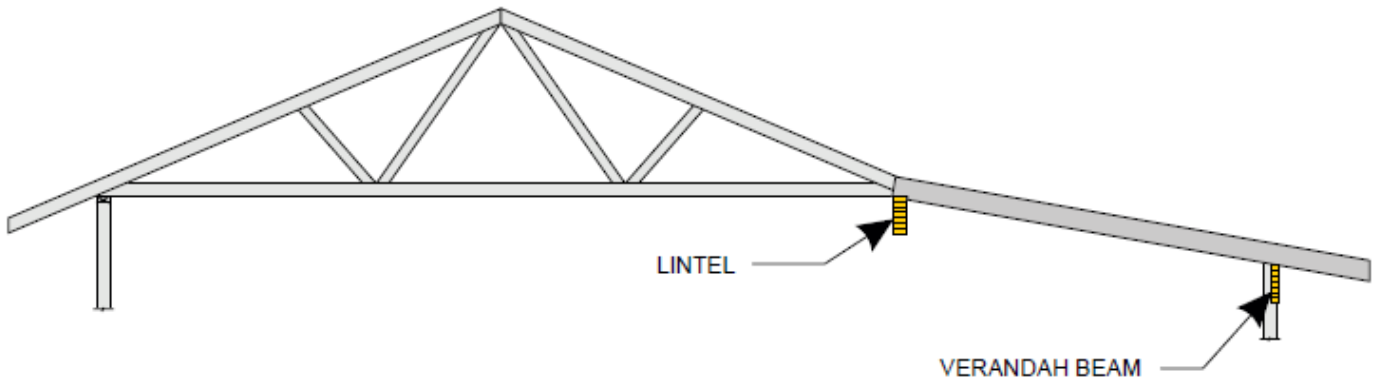
# Lintels - tile roof C2

## Single or upper storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3000	3000	2400	2400	2100	2000	1800	1500	1600	1200
190 x 65	3700	3700	3100	3100	2800	2700	2400	2300	2200	2100
240 x 65	4400	4400	3700	3700	3400	3400	3000	2900	2700	2600
290 x 65	5000	5000	4300	4300	3900	3900	3600	2500	3300	3100

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.
- 



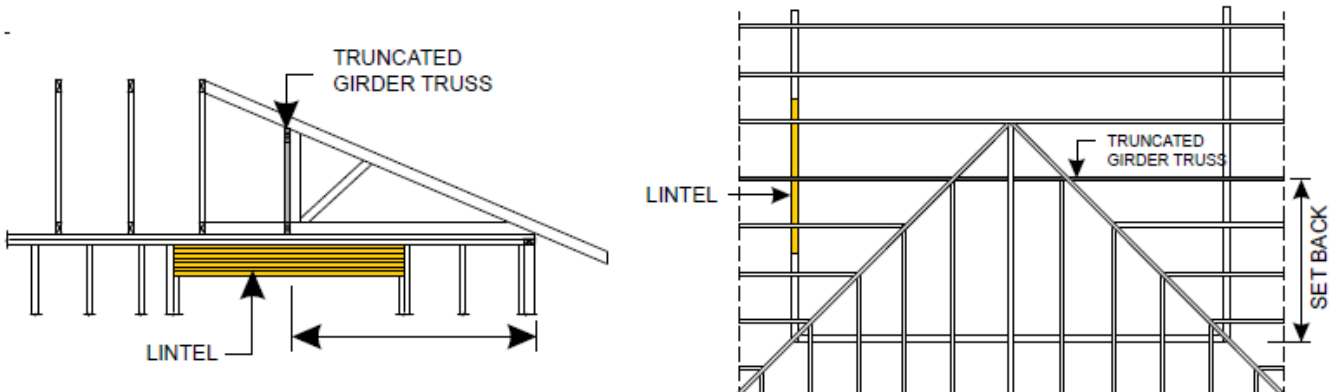
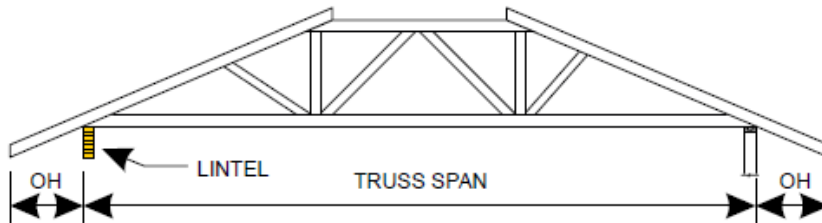
# Lintel supporting truncated girders - hip ends only C2

## Sheet roof - girder truss setback 2700mm

SHEET ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2700	2700	2700	2700	2700	2700	2700	2700
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3500	3400	3300	3200	3100	3000	2900	2800
190 x 65	3000	3000	2700	2500	2500	2600	2500	2500
240 x 65	3600	3300	3100	2900	2900	2600	2600	2600
290 x 65	5000	3900	3500	3300	3200	3000	3000	2700

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



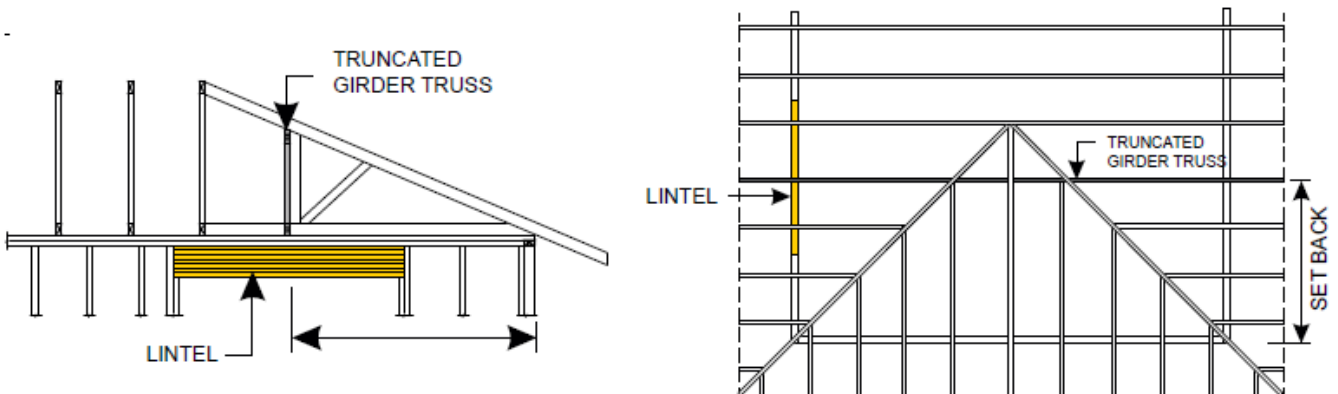
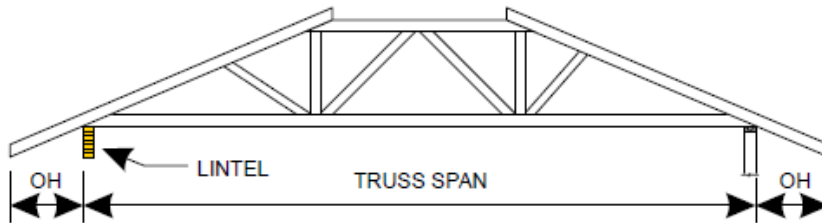
# Lintel supporting truncated girders - hip ends only C2

## Tile roof - girder truss setback 2400mm

TILE ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2400	2400	2400	2400	2400	2400	2400	2400
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3100	2300	2200	2200	2200	2100	2100	2100
190 x 65	2900	2800	2600	2400	2400	2200	2200	2200
240 x 65	3600	3300	3000	2900	2800	2600	2600	2300
290 x 65	4400	3900	3600	3400	3200	3000	2900	2800

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



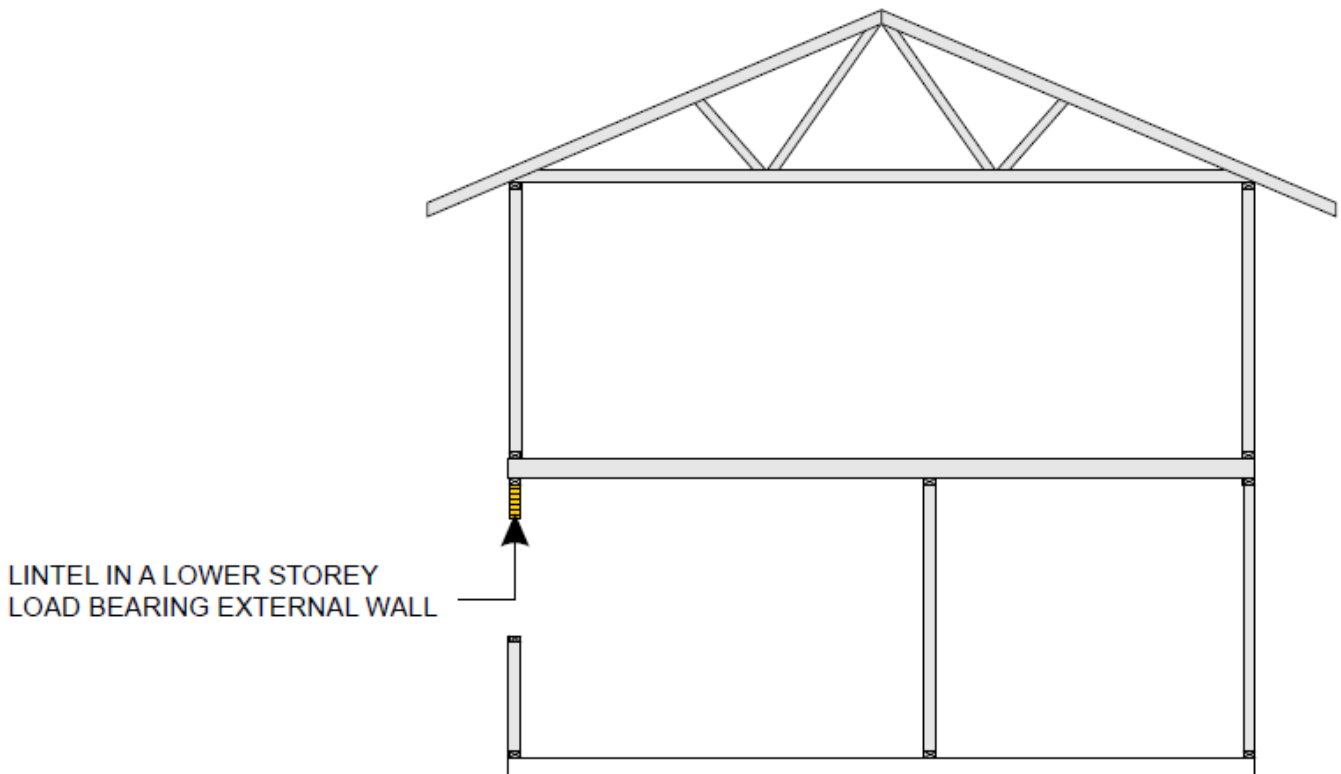
# Lintels - sheet roof C2

## Lower storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2400	2000	2200	1900	2100	1800	2000	1800	1900	1700
190 x 65	3100	2700	3000	2600	2800	2500	2700	2400	2600	2300
240 x 65	3700	3300	3600	3200	3400	3100	3300	3000	3200	3000
290 x 65	4300	3800	4100	3700	3900	3600	3800	3500	3700	3400

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports.





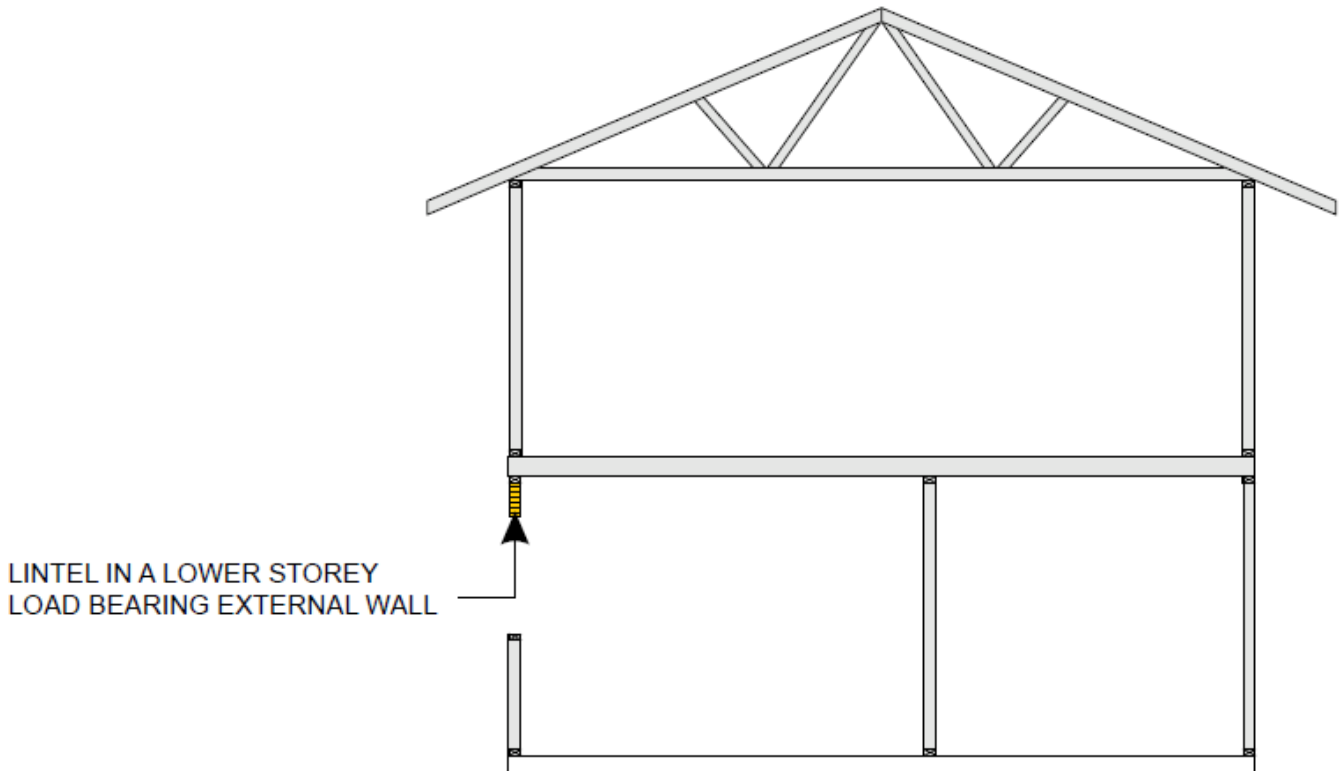
# Lintels - tile roof C2

## Lower storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2200	1900	2000	1800	1800	1600	1700	1600	1600	1500
190 x 65	3000	2600	2700	2400	2400	2200	2300	2100	2200	2000
240 x 65	3500	3200	3200	3000	3100	2800	2900	2700	2700	2600
290 x 65	4100	3600	3700	3500	3500	3300	3400	3200	3200	3100

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 90 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35mm.



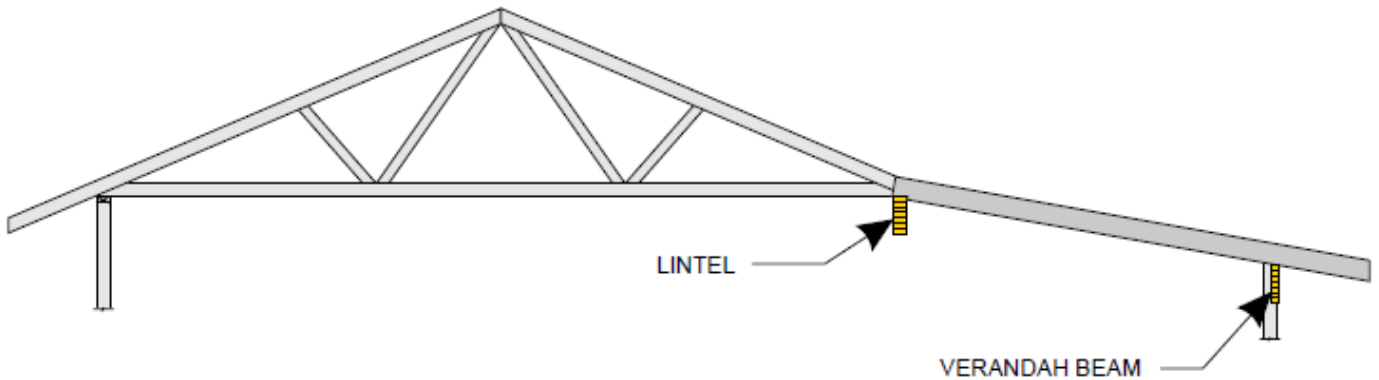
# Lintels - sheet roof C3

## Single or upper storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2900	2800	2000	1900	1600	1200	1400	900	1200	NS
190 x 65	3900	3700	2700	2600	2200	2100	1800	1600	1600	1300
240 x 65	4900	4800	3400	3200	2700	2700	2400	2300	2100	1900
290 x 65	5900	2800	4100	4000	3300	3200	2800	2800	2600	2500

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



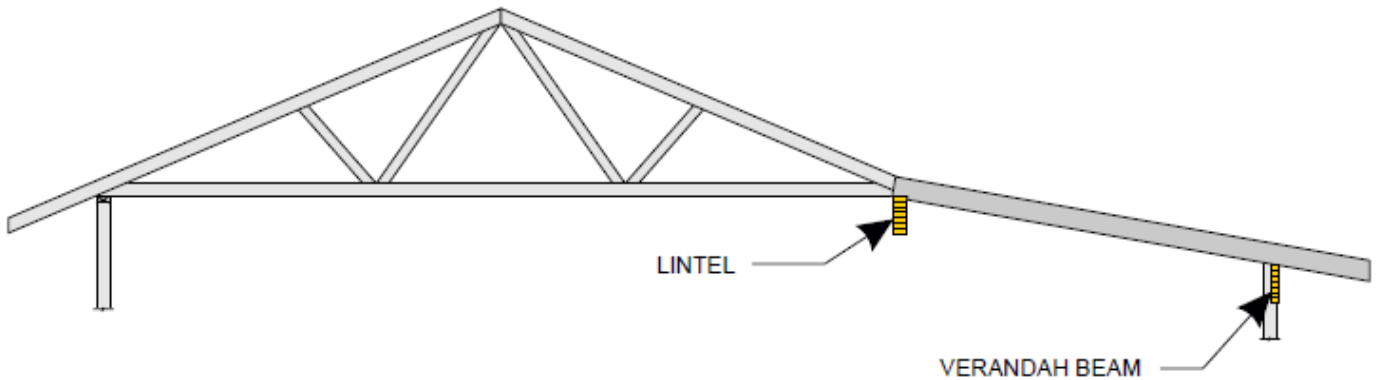
# Lintels - tile roof C3

## Single or upper storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter / Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	3000	3000	2200	2000	1700	1300	1500	1000	1300	700
190 x 65	3700	3700	2800	2800	2300	2200	2000	1700	1700	1400
240 x 65	4400	4400	3600	3400	2900	2800	2500	2400	2200	2100
290 x 65	5000	5000	4300	4200	3500	3300	3000	2900	2700	2600

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- Minimum bearing length = 35mm at end supports.



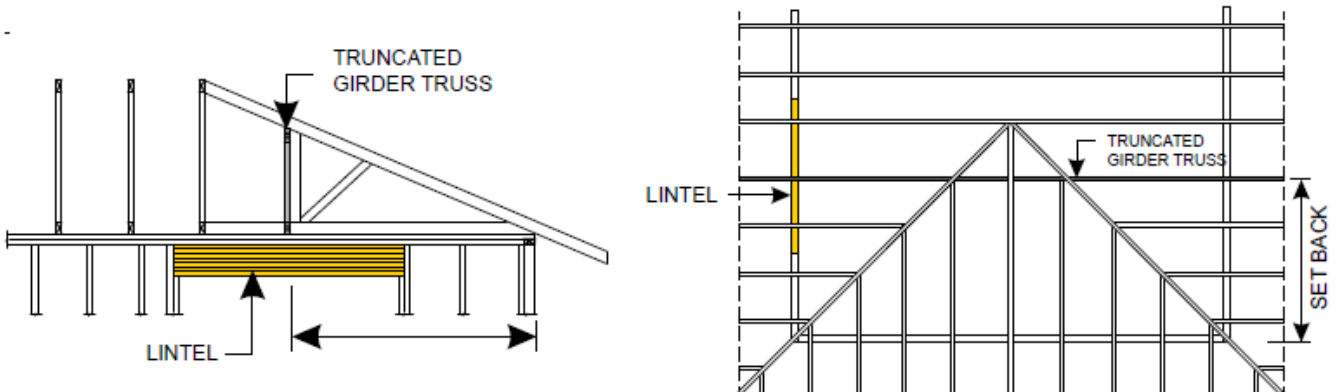
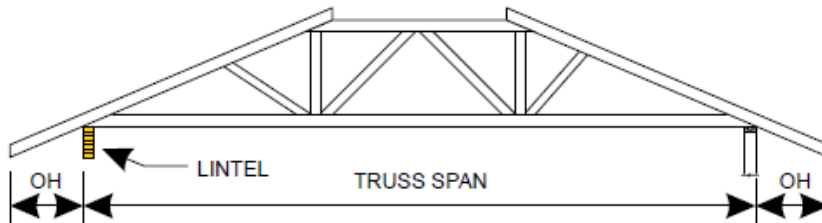
# Lintel supporting truncated girders - hip ends only C3

## Sheet roof - girder truss setback 2700mm

SHEET ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2700	2700	2700	2700	2700	2700	2700	2700
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	2900	2800	2700	2600	2500	2400	2300	2300
190 x 65	2700	2500	2500	2500	2500	2400	2400	2400
240 x 65	3000	2900	2600	2600	2600	2500	2600	2500
290 x 65	3500	3200	3000	2700	2700	2700	2700	2600

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 40 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



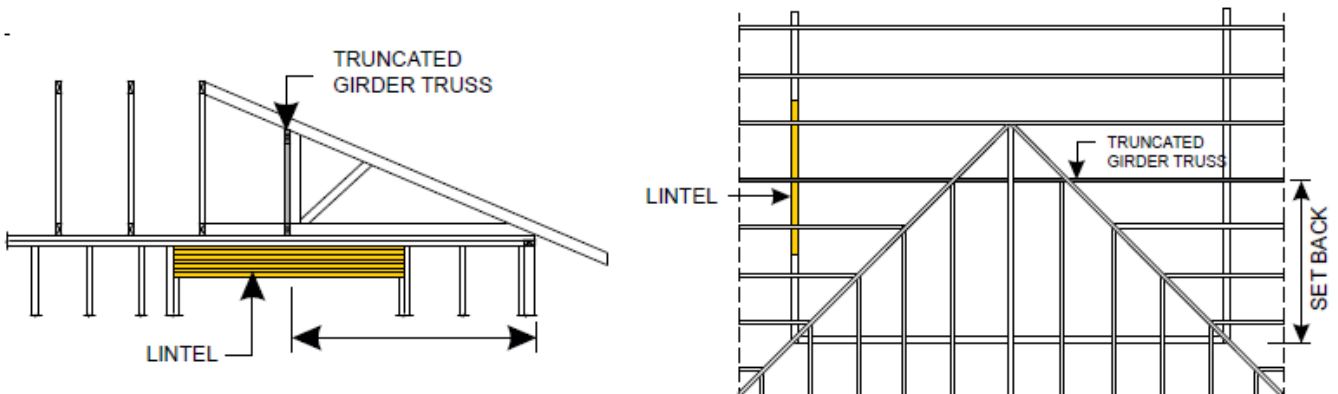
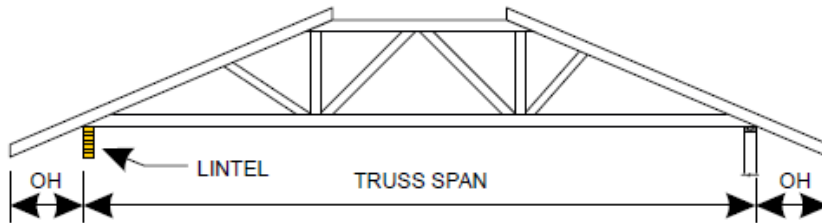
# Lintel supporting truncated girders - hip ends only C3

## Tile roof - girder truss setback 2400mm

TILE ROOF	Truss Span (mm)							
	6000		9000		12000		15000	
Truss Spacing	600	1200	600	1200	600	1200	600	1200
GT Setback (mm)	2400	2400	2400	2400	2400	2400	2400	2400
SIZE D x B (mm)	Maximum Lintel Span (mm)							
140 x 65	3100	3000	2900	2800	2700	2600	2500	2400
190 x 65	NS	5000	2200	2200	2200	2200	2200	2100
240 x 65	3000	2700	2600	2300	2300	2300	2300	2200
290 x 65	3900	3200	2900	2800	2700	2400	2400	2400

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum roof mass of 90 (kg/m<sup>2</sup>).
- The above table was based on a lintel setback (mm) of 400, lintel setback (mm) of 600.
- Minimum bearing length = 35mm at end supports.



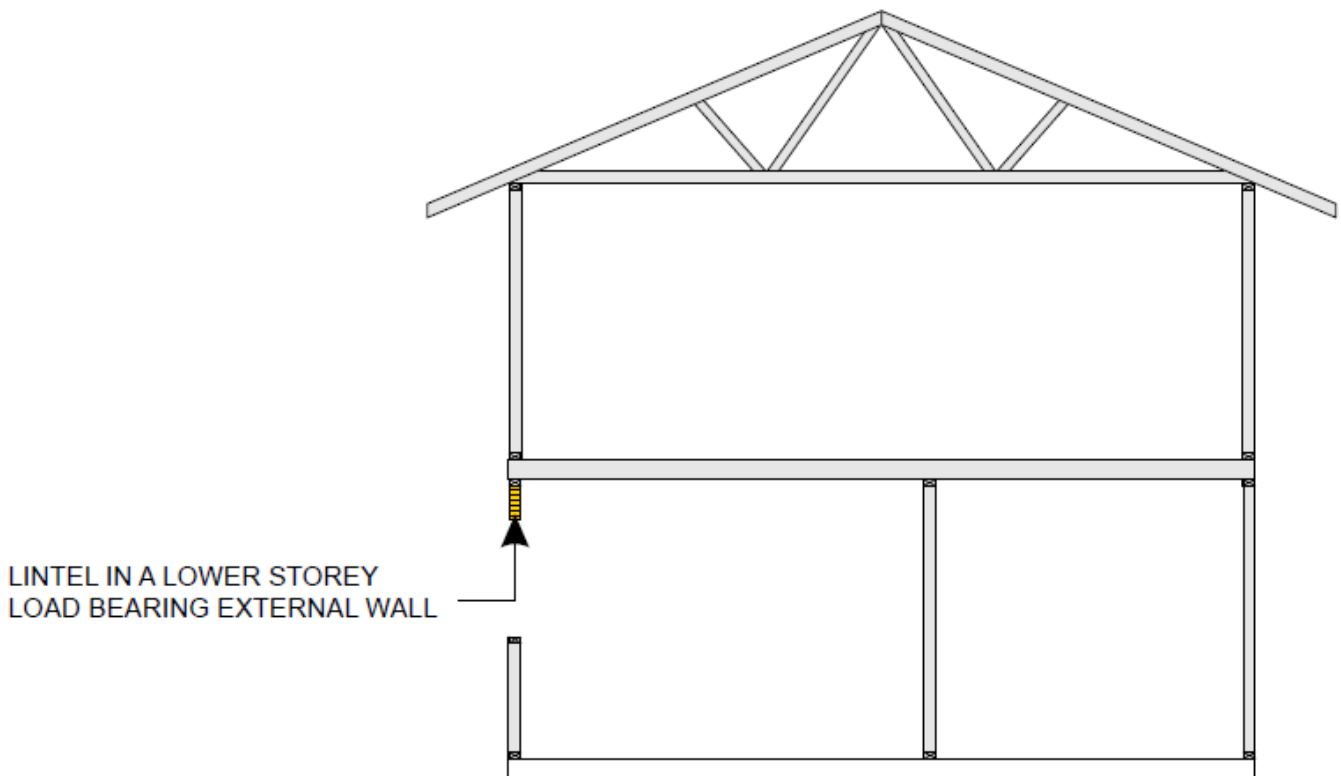
# Lintels - sheet roof C3

## Lower storey load bearing walls

SHEET ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2400	2000	2200	1900	2100	1800	2000	1800	1900	1700
190 x 65	3100	2700	3000	2600	2800	2500	2700	2400	2600	2300
240 x 65	3700	3300	3600	3200	3400	3100	3300	3000	3200	3000
290 x 65	4300	3800	4100	3700	3900	3600	3800	3500	3700	3400

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports.



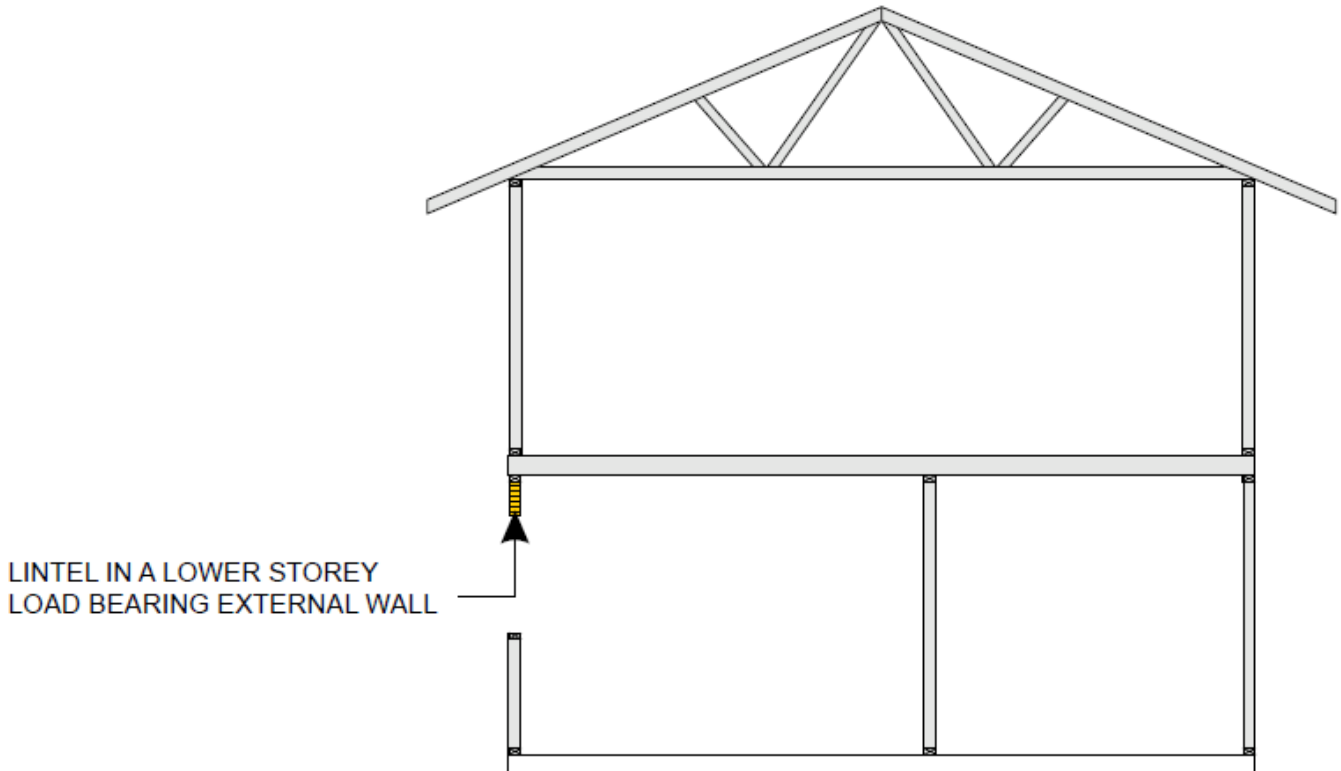
# Lintels - tile roof C3

## Lower storey load bearing walls

TILE ROOF	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Upper Floor Load Width (mm)	1800	3600	1800	3600	1800	3600	1800	3600	1800	3600
SIZE D x B (mm)	Maximum Lintel Span (mm)									
140 x 65	2200	1900	2000	1800	1800	1600	1700	1600	1600	1500
190 x 65	3000	3600	3700	2400	2400	2200	2300	2100	2200	2000
240 x 65	3500	3200	3200	3000	3100	2800	2900	2700	2700	2600
290 x 65	4100	3600	3700	3500	3500	3300	3400	3200	3200	3100

### Notes

- D = member depth, B = member breadth, NS = not suitable.
- The above table was based on a maximum sheet roof mass of 90 (kg/m<sup>2</sup>), Total upper floor mass of 40 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa), floor point load of 1.8 (kN).
- Minimum bearing length = 35mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35mm.



**ROOF MEMBERS**



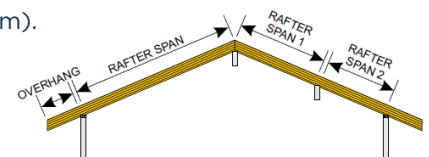
# Rafters - single span N2

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Single Span							
140 x 65	10	6300	1850	6200	1750	5900	1600	5600	1350
	20	5900	1850	5600	1750	5100	1600	4800	1400
	40	5100	1850	4800	1750	4300	1600	4000	1450
	60	4700	1850	4300	1750	3900	1600	3600	1550
	75	4400	1850	4100	1750	3600	1600	3300	1550
	90	4200	1850	3900	1750	3400	1600	3100	1550
190 x 65	10	7500	2500	7400	2350	7100	2100	6900	1750
	20	7100	2500	6900	2350	6500	2100	6300	1800
	40	6500	2500	6300	2350	5800	2150	5400	1900
	60	6100	2500	5800	2350	5200	2150	4800	2000
	75	5900	2500	5500	2350	4900	2150	4500	2100
	90	5600	2500	5200	2350	4600	2150	4300	2050
240 x 65	10	7500	3150	7500	2950	7500	2550	7500	2150
	20	7500	3150	7500	2950	7500	2600	7300	2200
	40	7500	3150	7300	2950	6800	2700	6500	2300
	60	7200	3150	6800	2950	6300	2750	6000	2450
	75	6900	3100	6600	2950	6100	2700	5600	2500
	90	6700	3000	6300	2850	5800	2600	5300	2450
290 x 65	10	7500	3700	7500	3550	7500	3000	7500	2550
	20	7500	3700	7500	3550	7500	3050	7500	2600
	40	7500	3700	7500	3550	7500	3200	7400	2700
	60	7500	3650	7500	3500	7200	3200	6800	2850
	75	7500	3550	7500	3350	6900	3100	6500	2900
	90	7500	3450	7200	3250	6700	3000	6300	2800

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



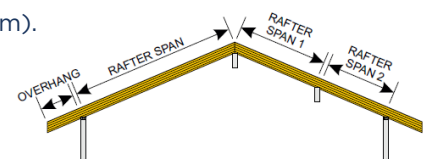
# Rafters - continuous span N2

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Continuous Span							
140 x 65	10	7500	1850	7500	1750	7400	1600	7100	1350
	20	7400	1850	7100	1750	6700	1600	6400	1400
	40	6700	1850	6400	1750	5900	1600	5400	1450
	60	6300	1850	5900	1750	5300	1600	4800	1550
	75	6000	1850	5500	1750	4900	1600	4500	1550
	90	5700	1850	5300	1750	4700	1600	4300	1550
190 x 65	10	7500	2500	7500	2350	7500	2100	7500	1750
	20	7500	2500	7500	2350	7500	2100	7500	1800
	40	7500	2500	7500	2350	7300	2150	6900	1900
	60	7500	2500	7300	2350	3800	2150	6400	2000
	75	7400	2500	7000	2350	6500	2150	6100	2100
	90	7200	2500	6800	2350	6200	2150	5800	2050
240 x 65	10	7500	3150	7500	2950	7500	2550	7500	2150
	20	7500	3150	7500	2950	7500	2600	7500	2200
	40	7500	3150	7500	2950	7500	2700	7500	2300
	60	7500	3150	7500	2950	7500	2750	7500	2450
	75	7500	3100	7500	2950	7500	2700	7200	2500
	90	7500	3000	7500	2850	7400	2600	6900	2450
290 x 65	10	7500	3700	7500	3550	7500	3000	7500	2550
	20	7500	3700	7500	3550	7500	3050	7500	2600
	40	7500	3700	7500	3550	7500	3200	7500	2700
	60	7500	3650	7500	3500	7500	3200	7500	2850
	75	7500	3550	7500	3350	7500	3100	7500	2900
	90	7500	3450	7500	3250	7500	3000	7500	2800

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



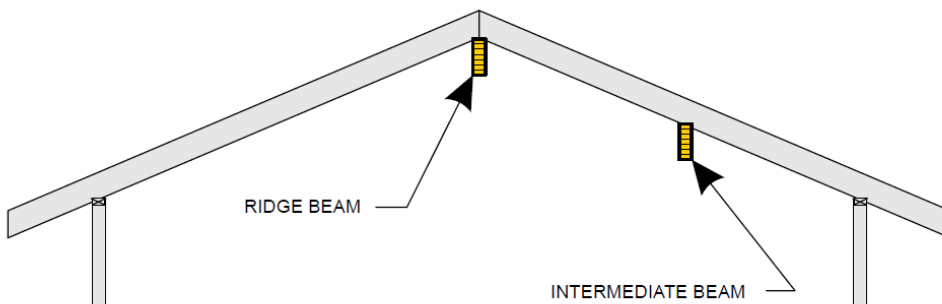
# Roof beams N2

## Ridge or intermediate

SIZE D x B (mm)	ROOF MASS (kg/m <sup>2</sup> )	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Maximum Beam Span and Overhang (mm)											
140 x 65	20	4400	1850	3500	1400	2900	1200	2600	1050	2400	950
	40	3700	1850	2900	1400	2500	1250	2200	1100	2000	1000
	60	3300	1850	2600	1300	2200	1100	2000	1000	1800	900
	90	2900	1400	2300	1100	2000	1000	1800	900	1600	800
190 x 65	20	5800	2500	4700	1900	4000	1650	3500	1450	3200	1300
	40	4900	2500	3900	1900	3400	1700	3000	1500	2800	1350
	60	4400	2500	3500	1700	3000	1500	2700	1300	2500	1200
	90	3900	1900	3100	1500	2700	1300	2400	1200	2200	1100
240 x 65	20	6900	3150	5900	2400	2500	2100	4500	1800	4100	1650
	40	6100	3150	5000	2300	4300	2050	3800	1900	3500	1700
	60	5600	3100	4400	2150	3900	1950	3500	1700	3200	1600
	90	5000	2400	3900	1900	3400	1700	3100	1500	2800	1400
290 x 65	20	7500	2900	6700	2900	6000	2500	5400	2200	4900	2000
	40	7000	2900	6000	2650	5200	2400	4600	2200	4200	2050
	60	6500	2900	5400	2500	4700	2250	4200	2050	3800	1900
	90	6000	2750	4800	2300	4100	2000	3700	1800	3400	1700

### Notes

- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Minimum bearing length = 45mm at end supports.
- Rafter spacing up to 1200mm.

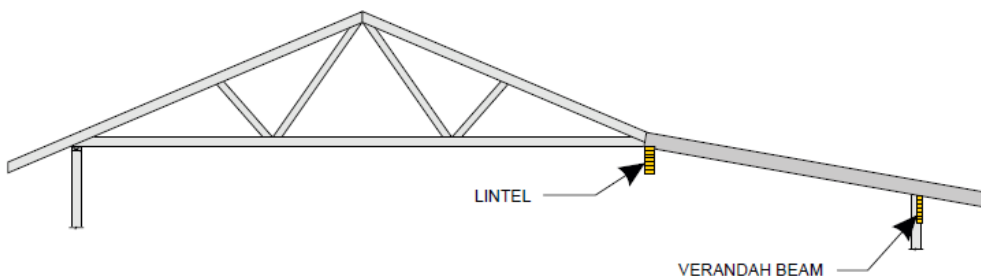


# Deck, verandah and pergola beams N2

		Roof Load Width (mm)							
		1800	2400	3000	4500	1800	2400	3000	4500
Rafter Truss Spacing (mm)		900	900	900	900	900	900	900	900
Size D x B (mm)	Roof Mass (kg/m <sup>2</sup> )	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
140 x 65	10	4500	4200	4100	3300	5400	4700	4200	3400
	20	3900	3600	3400	3000	4900	4600	4300	3500
	40	3200	2900	2700	2400	4200	4000	3700	3200
	60	2800	2500	2400	2100	3800	3500	3200	2800
	90	2500	2300	2100	1900	3300	3100	2800	2300
190 x 65	10	5500	5300	5000	4600	6800	6400	5700	4600
	20	4900	4600	4400	4000	6100	5700	5500	4800
	40	4200	4000	3700	3300	5300	5000	4700	4300
	60	3900	3500	3300	2800	4800	4500	4300	3900
	90	3400	3100	2800	2500	4400	4100	3900	3200
240 x 65	10	6400	6100	5900	5500	8000	7600	7300	5900
	20	5700	5500	5200	4800	7200	6800	6500	6000
	40	5000	4700	4500	4100	6300	5900	5600	5100
	60	4600	4300	4100	3600	5700	5400	5100	4600
	90	4200	3900	3600	3200	5200	4900	4600	4000
290 x 65	10	7200	6900	6700	6300	8400	8400	8400	7100
	20	6500	6200	5900	5500	8100	7700	7400	6800
	40	5700	5400	5200	4700	7200	6800	6400	5900
	60	5300	5000	4700	4300	6600	6200	5900	5400
	90	4800	4500	4300	3900	6000	5600	5400	4900

## Notes

- D = member depth, B = member breadth, NS = not suitable.
- End bearing lengths = 70mm at end supports and 70mm at internal supports for continuous members.
- Overhangs shall not exceed 25% of the actual back span. Minimum bearing length = 35mm at end supports and 70mm at continuous supports.



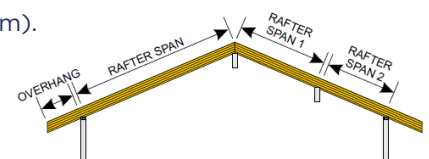
# Rafters - single span N3

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Single Span							
140 x 65	10	6300	1800	6200	1550	5900	1250	5600	1050
	20	5900	1850	5600	1550	5100	1250	4800	1050
	40	5100	1850	4800	1600	4300	1300	4000	1100
	60	4700	1850	4300	1650	3900	1300	3600	1150
	75	4400	1850	4100	1700	3600	1350	3300	1150
	90	4200	1850	3900	1750	3400	1400	3100	1200
190 x 65	10	7500	2350	7400	2000	7100	1600	6900	1350
	20	7100	2400	6900	2050	6500	1600	6300	1400
	40	6500	2450	6300	2100	5800	1650	5400	1400
	60	6100	2500	5800	2150	5200	1700	4800	1450
	75	5900	2500	5500	2200	4900	1750	4500	1500
	90	5600	2500	5200	2250	4600	1800	4300	1550
240 x 65	10	7500	2900	7500	2450	7500	1950	7500	1650
	20	7500	2950	7500	2500	7500	2000	7300	1700
	40	7500	3000	7300	2550	6800	2050	6500	1750
	60	7200	3100	6800	2650	6300	2100	6000	1800
	75	6900	3100	6600	2700	6100	2150	5600	1850
	90	6700	3000	6300	2750	5800	2200	5300	1900
290 x 65	10	7500	3400	7500	2900	7500	2300	7500	1950
	20	7500	3450	7500	2950	7500	2350	7500	2000
	40	7500	3550	7500	3000	7500	2400	7400	2050
	60	7500	3650	7500	3100	7200	2450	6800	2100
	75	7500	3550	7500	3200	6900	2550	6500	2150
	90	7500	3450	7200	3250	6700	2600	6300	2200

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



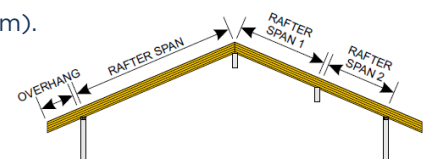
# Rafters - continuous span N3

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Continuous Span							
140 x 65	10	7500	1800	7500	1550	7400	1250	7100	1050
	20	7400	1850	7100	1550	6700	1250	6400	1050
	40	6700	1850	6400	1600	5900	1300	5400	1100
	60	6300	1850	5900	1650	5300	1300	4800	1150
	75	6000	1850	5500	1700	4900	1350	4500	1150
	90	5700	1850	5300	1750	4700	1400	4300	1200
190 x 65	10	7500	2350	7500	2000	7500	1600	7500	1350
	20	7500	2400	7500	2050	7500	1600	7500	1400
	40	7500	2450	7500	2100	7300	1650	6900	1400
	60	7500	2500	7300	2150	3800	1700	3400	1450
	75	7400	2500	7000	2200	6500	1750	6100	1500
	90	7200	2500	6800	2250	6200	1800	5800	1550
240 x 65	10	7500	2900	7500	2450	7500	1950	7500	1650
	20	7500	2950	7500	2500	7500	2000	7500	1700
	40	7500	3888	7500	2550	7500	2050	7500	1750
	60	7500	3100	7500	2650	7500	2100	7500	1800
	75	7500	3100	7500	2700	7500	2150	7200	1850
	90	7500	3000	7500	2750	7400	2200	6900	1900
290 x 65	10	7500	3400	7500	2900	7500	2300	7500	1950
	20	7500	3450	7500	2950	7500	2350	7500	2000
	40	7500	3550	7500	3000	7500	2400	7500	2050
	60	7500	3650	7500	3100	7500	2450	7500	2100
	75	7500	3550	7500	3200	7500	2550	7500	2150
	90	7500	3450	7500	3250	7500	2600	7500	2200

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



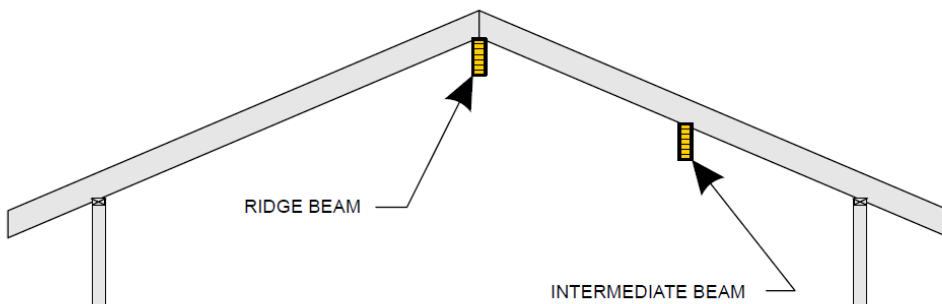
# Roof beams N3

## Ridge or intermediate

SIZE D x B (mm)	ROOF MASS (kg/m <sup>2</sup> )	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Maximum Beam Span and Overhang (mm)											
140 x 65	20	4400	1400	3500	1150	2900	950	2500	800	2200	750
	40	3700	1400	2900	1200	2500	950	2200	850	2000	750
	60	3300	1400	2600	1200	2200	1000	2000	850	1800	800
	90	2900	1400	2300	1100	2000	1000	1800	900	1600	800
190 x 65	20	5800	1900	4700	1550	4000	1300	3500	1100	3100	1000
	40	4900	1900	3900	1600	3400	1300	3000	1150	2800	1050
	60	4400	1900	3500	1650	3000	1350	2700	1200	2500	1050
	90	3900	1900	3100	1500	2700	1300	2400	1200	2200	1100
240 x 65	20	6900	2400	5900	2000	5000	1600	4400	1400	3900	1250
	40	6100	2400	5000	2050	4300	1650	3800	1450	3500	1300
	60	5600	2400	4400	2100	3900	1700	3500	1500	3200	1350
	90	5000	2400	3900	1900	3400	1700	3100	1550	2800	1400
290 x 65	20	7500	2900	6700	2400	6000	1950	5300	1700	4700	1550
	40	7000	2900	6000	2450	5200	2000	4600	1750	4200	1600
	60	6500	2900	5400	2500	4700	2050	4200	1800	3800	1600
	90	6000	2750	4800	2300	4100	2000	3700	1800	3400	1700

### Notes

- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Minimum bearing length = 45mm at end supports.
- Rafter spacing up to 1200mm.

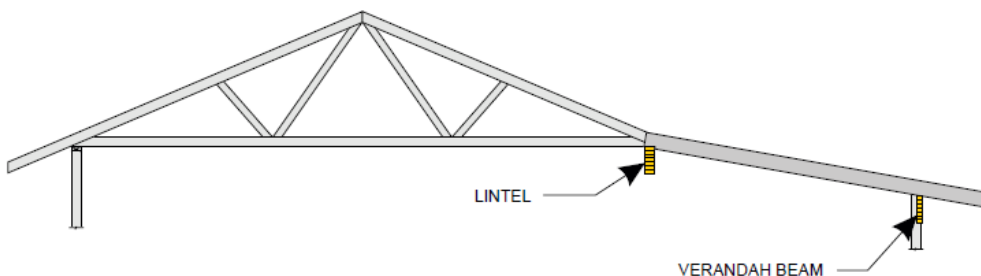


# Deck, verandah and pergola beams N3

		Roof Load Width (mm)							
		1800	2400	3000	4500	1800	2400	3000	4500
Rafter Truss Spacing (mm)		900	900	900	900	900	900	900	900
Size D x B (mm)	Roof Mass (kg/m <sup>2</sup> )	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
140 x 65	10	4200	3600	3600	2500	4200	4700	3200	2600
	20	3900	3600	3600	2600	4300	4600	3300	2700
	40	3200	2900	2900	2400	4200	4000	3600	2900
	60	2800	2500	2500	2100	3800	2500	3200	2800
	90	2500	2300	2300	1900	3300	3100	2800	2300
190 x 65	10	5500	5000	5000	3600	5800	6400	4400	3600
	20	4900	4600	4600	3700	6000	5700	4600	3800
	40	4200	4000	4000	3300	5300	5000	4700	4000
	60	3900	3500	3500	2800	4800	4500	4300	3900
	90	3400	3100	3100	2500	4400	4100	3900	3200
240 x 65	10	6400	6100	6100	4500	7400	7600	5700	4600
	20	5700	5500	5500	4700	7200	6800	5800	4700
	40	5000	4700	4700	4100	6300	5900	5600	5000
	60	4600	4300	4300	3600	5700	5400	5100	4600
	90	4200	3900	3900	3200	5200	4900	4600	4000
290 x 65	10	7200	6900	6900	5600	8400	8400	6900	5600
	20	6500	6200	6200	5500	8100	7700	7100	5800
	40	5700	5400	5400	4700	7200	6800	6400	5900
	60	5300	5000	5000	4300	6600	6200	5900	5400
	90	4800	4500	4500	3900	6000	5600	5400	4900

## Notes

- D = member depth, B = member breadth, NS = not suitable.
- End bearing lengths = 70mm at end supports and 70mm at internal supports for continuous members.
- Overhangs shall not exceed 25% of the actual back span. Minimum bearing length = 35mm at end supports and 70mm at continuous supports.





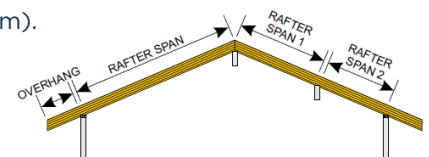
# Rafters - single span N4

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Single Span							
140 x 65	10	6300	1450	6200	1250	5900	1000	5600	850
	20	5900	1450	5600	1250	5100	1000	4800	850
	40	5100	1500	4800	1250	400	1000	4000	850
	60	4700	1500	4300	1300	3900	1050	3600	900
	75	4400	1550	4100	1300	3600	1050	3300	900
	90	4200	1550	3900	1350	3400	1050	3100	900
190 x 65	10	7500	1900	7400	1600	7100	1250	6900	1100
	20	7100	1900	6900	1600	6500	1300	6300	1100
	40	6500	1950	6300	1650	5800	1300	5400	1100
	60	6100	1950	5800	1700	5200	1350	4800	1150
	75	5900	2000	5500	1700	4900	1350	4500	1150
	90	5600	2000	5200	1750	4600	1350	4300	1150
240 x 65	10	7500	2300	7500	1950	7500	1550	7500	1300
	20	7500	2300	7500	1950	7500	1550	7300	1350
	40	7500	2350	7300	2000	6800	1600	6500	1350
	60	7200	2400	6800	2050	6300	1650	6000	1400
	75	6900	2450	6600	2100	6100	1650	5600	1400
	90	6700	2500	6300	2100	5800	1700	5300	1450
290 x 65	10	7500	2700	7500	2300	7500	1800	7500	1550
	20	7500	2700	7500	2300	7500	1850	7500	1550
	40	7500	2800	7500	2350	7500	1850	7400	1600
	60	7500	2850	7500	2400	7200	1900	6800	1600
	75	7500	2900	7500	2450	6900	1950	6500	1650
	90	7500	2900	7200	2500	6700	1950	6300	1650

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



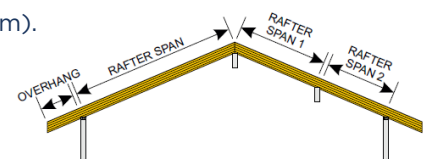
# Rafters - continuous span N4

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Continuous Span							
140 x 65	10	7500	1450	7500	1250	6700	1000	5700	850
	20	7400	1450	7100	1250	6700	1000	5800	850
	40	6700	1500	6400	1250	5900	1000	5400	850
	60	6300	1500	5900	1300	5300	1050	4800	900
	75	6000	1550	5500	1300	4900	1050	4500	900
	90	5700	1550	5300	1350	4700	1050	4300	900
190 x 65	10	7500	1900	7500	1600	7500	1250	7500	1100
	20	7500	1900	7500	1600	7500	1300	7500	1100
	40	7500	1950	7500	1650	7300	1300	6900	1100
	60	7500	1950	7300	1700	6800	1350	6400	1150
	75	7400	2000	7000	1700	6500	1350	6100	1150
	90	7200	2000	6800	1750	6200	1350	5800	1150
240 x 65	10	7500	2300	7500	1950	7500	1550	7500	1300
	20	7500	2300	7500	1950	7500	1550	7500	1350
	40	7500	2350	7500	2000	7500	1600	7500	1350
	60	7500	2400	7500	2050	7500	1650	7500	1400
	75	7500	2450	7500	2100	7500	1650	7200	1400
	90	7500	2500	7500	2100	7400	1700	6900	1450
290 x 65	10	7500	2700	7500	2300	7500	1800	7500	1550
	20	7500	2700	7500	2300	7500	1850	7500	1550
	40	7500	2800	7500	2350	7500	1850	7500	1600
	60	7500	2850	7500	2400	7500	1900	7500	1600
	75	7500	2900	7500	2450	7500	1950	7500	1650
	90	7500	2900	7500	2500	7500	1950	7500	1650

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



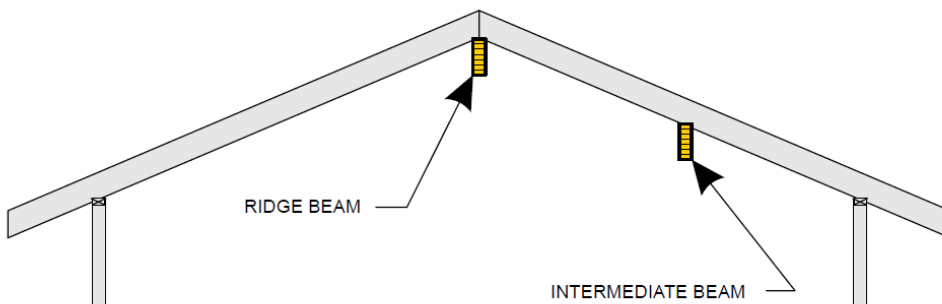
# Roof beams N4

## Ridge or intermediate

SIZE D x B (mm)	ROOF MASS (kg/m <sup>2</sup> )	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Maximum Beam Span and Overhang (mm)											
140 x 65	20	4200	1300	2900	950	2300	750	2000	650	1800	600
	40	3700	1350	2900	950	2400	800	2000	700	1800	600
	60	3300	1350	2600	950	2200	800	1900	700	1700	600
	90	2900	1400	2300	1000	2000	800	1800	700	1600	650
190 x 65	20	5800	1850	3900	1250	3200	1050	2800	900	2500	800
	40	4900	1850	3900	1300	3300	1050	2800	900	2500	800
	60	4400	1900	3500	1300	3000	1050	2600	950	2300	850
	90	3900	1900	3100	1350	2700	1100	2400	950	2200	850
240 x 65	20	6900	2350	5000	1600	4100	1300	3500	1150	3200	1000
	40	6100	2400	5000	1650	4100	1300	3600	1150	3200	1050
	60	5600	2400	4400	1650	3900	1350	3400	1200	3000	1050
	90	5000	2400	3900	1700	3400	1400	3100	1200	2800	1100
290 x 65	20	7500	2900	6000	1950	4900	1600	4300	1400	3900	1250
	40	7000	2900	6000	1950	5000	1600	4300	1400	3800	1250
	60	6500	2900	5400	2000	4700	1650	4100	1450	3600	1300
	90	6000	2750	4800	2050	4100	1700	3700	1450	3300	1300

### Notes

- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Minimum bearing length = 45mm at end supports.
- Rafter spacing up to 1200mm.

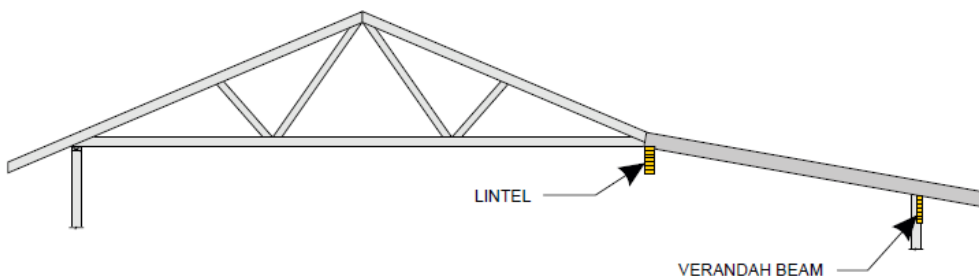


# Deck, verandah and pergola beams N4

		Roof Load Width (mm)							
		1800	2400	3000	4500	1800	2400	3000	4500
Rafter Truss Spacing (mm)		900	900	900	900	900	900	900	900
Size D x B (mm)	Roof Mass (kg/m <sup>2</sup> )	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
140 x 65	10	3400	2800	2500	2000	3400	2900	2600	2100
	20	3500	2900	2500	2100	3500	3000	2600	2200
	40	3200	2900	2700	2100	3700	3100	2700	2200
	60	2800	2500	2400	2100	3800	3200	2900	2300
	90	2500	2300	2100	1900	3300	3100	2800	2300
190 x 65	10	4600	4000	3600	2800	4700	4100	3600	2900
	20	4700	4100	3600	2900	4800	4100	3700	3000
	40	4200	4000	3700	3000	5000	4300	3800	3100
	60	3900	3500	3300	2800	4800	4400	4000	3200
	90	3400	3100	2800	2500	4400	4100	3900	3200
240 x 65	10	5900	5100	4500	3700	6000	5100	4600	3700
	20	5700	5200	4600	3800	6100	5200	4700	3800
	40	5000	4700	4500	3900	6300	5400	4900	4000
	60	4600	4300	4100	3600	5700	5400	5100	4100
	90	4200	3900	3600	3200	5200	4900	4600	4000
290 x 65	10	7200	6200	5600	4400	7200	6200	5600	4500
	20	6500	6200	5600	4500	7400	6300	5700	4600
	40	5700	5400	5200	4700	7200	6600	5900	4800
	60	5300	5000	4700	4300	6600	6200	5900	5000
	90	4800	4500	4300	3900	6000	5600	5400	4900

## Notes

- D = member depth, B = member breadth, NS = not suitable.
- End bearing lengths = 70mm at end supports and 70mm at internal supports for continuous members.
- Overhangs shall not exceed 25% of the actual back span. Minimum bearing length = 35mm at end supports and 70mm at continuous supports.



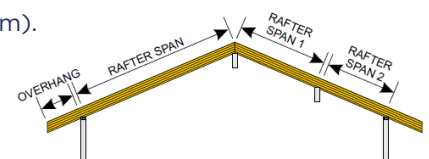
# Rafters - single span C1

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Single Span							
140 x 65	10	6300	1800	6200	1550	5900	1250	5600	1050
	20	5900	1850	5600	1550	5100	1250	4800	1050
	40	5100	1850	4800	1600	4300	1300	4000	1100
	60	4700	1850	4300	1650	3900	1300	3600	1150
	75	4400	1850	4100	1700	3600	1350	3300	1150
	90	4200	1850	3900	1750	3400	1400	3100	1200
190 x 65	10	7500	2350	7400	2000	7100	1600	6900	1350
	20	7100	2400	6900	2050	6500	1600	6300	1400
	40	6500	2450	6300	2100	5800	1650	5400	1400
	60	6100	2500	5800	2150	5200	1700	4800	1450
	75	5900	2500	5500	2200	4900	1750	4500	1500
	90	5600	2500	5200	2250	4600	1800	4300	1550
240 x 65	10	7500	2900	7500	2450	7500	1950	7500	1650
	20	7500	2950	7500	2500	7500	2000	7300	1700
	40	7500	3000	7300	2550	6800	2050	6500	1750
	60	7200	3100	6800	2650	6300	2100	6000	1800
	75	6900	3100	6600	2700	6100	2150	5600	1850
	90	6700	3000	6300	2750	5800	2200	5300	1900
290 x 65	10	7500	3400	7500	2900	7500	2300	7500	1950
	20	7500	3450	7500	2950	7500	2350	7500	2000
	40	7500	3550	7500	3000	7500	2400	7400	2050
	60	7500	3650	7500	3100	7200	2450	6800	2100
	75	7500	3550	7500	3200	6900	2550	6500	2150
	90	7500	3450	7200	3250	6700	2600	6300	2200

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



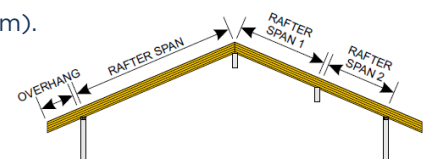
# Rafters - continuous span C1

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Continuous Span							
140 x 65	10	7500	1800	7500	1550	7400	1250	7100	1050
	20	7400	1850	7100	1550	6700	1250	6400	1050
	40	6700	1850	6400	1600	5900	1300	5400	1100
	60	6300	1850	5900	1650	5300	1300	4800	1150
	75	6000	1850	5500	1700	4900	1350	4500	1150
	90	5700	1850	5300	1750	4700	1400	4300	1200
190 x 65	10	7500	2350	7500	2000	7500	1600	7500	1350
	20	7500	2400	7500	2050	7500	1600	7500	1400
	40	7500	2450	7500	2100	7300	1650	6900	1400
	60	7500	2500	7300	2150	6800	1700	6400	1450
	75	7400	2500	7000	2200	6500	1750	6100	1500
	90	7200	2500	6800	2250	6200	1800	5800	1550
240 x 65	10	7500	2900	7500	2450	7500	1950	7500	1650
	20	7500	2950	7500	2500	7500	2888	7500	1700
	40	7500	3000	7500	2550	7500	2050	7500	1750
	60	7500	3100	7500	2650	7500	2100	7500	1800
	75	7500	3100	7500	2700	7500	2150	7200	1850
	90	7500	3000	7500	2750	7400	2200	6900	1900
290 x 65	10	7500	3400	7500	2900	7500	2300	7500	1950
	20	7500	3450	7500	2950	7500	2350	7500	2000
	40	7500	3550	7500	3000	7500	2400	7500	2050
	60	7500	3650	7500	3100	7500	2450	7500	2100
	75	7500	3550	7500	3200	7500	2550	7500	2150
	90	7500	3450	7500	3250	7500	2600	7500	2200

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



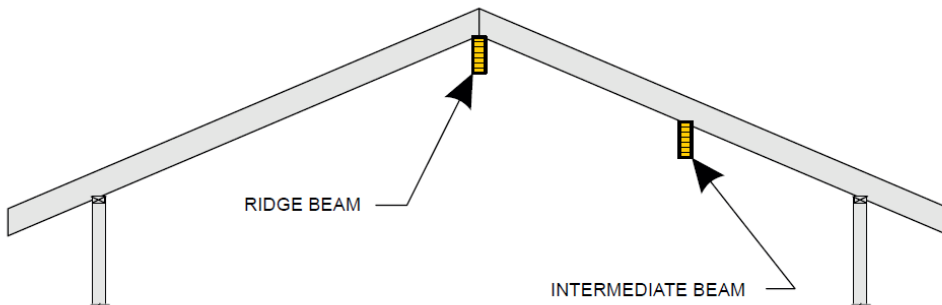
# Roof beams C1

## Ridge or intermediate

SIZE D x B (mm)	ROOF MASS (kg/m <sup>2</sup> )	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Maximum Beam Span and Overhang (mm)											
140 x 65	20	4300	1400	2900	1150	2400	950	2100	800	1800	750
	40	3700	1400	2900	1200	2500	950	2200	850	1900	750
	60	3300	1400	2600	1200	2200	1000	2000	850	1800	800
	90	2900	1400	2300	1100	2000	1000	1800	900	1600	800
190 x 65	20	5800	1900	4000	1550	3300	1300	2800	1100	2500	1000
	40	4900	1900	3900	1600	3400	1300	2900	1150	2600	1050
	60	4400	1900	3500	1650	3000	1350	2700	1200	2400	1050
	90	3900	1900	3100	1500	2700	1300	2400	1200	2200	1100
240 x 65	20	6900	2400	5000	2000	4100	1600	3600	1400	3200	1250
	40	6100	2400	5000	2050	4300	1650	3700	1450	3300	1300
	60	5600	2400	4400	2100	3900	1700	3500	1500	3100	1350
	90	5000	2400	3900	1900	3400	1700	3100	1550	2800	1400
290 x 65	20	7500	2900	6100	2400	5000	1950	4300	1700	3900	1550
	40	7000	1900	6000	2450	5200	2000	4500	1750	4000	1600
	60	6500	2900	5400	2500	4700	2050	4200	1800	3800	1600
	90	6000	2750	4800	2300	4100	2000	3700	1800	3400	1700

### Notes

- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Minimum bearing length = 45mm at end supports.
- Rafter spacing up to 1200mm.

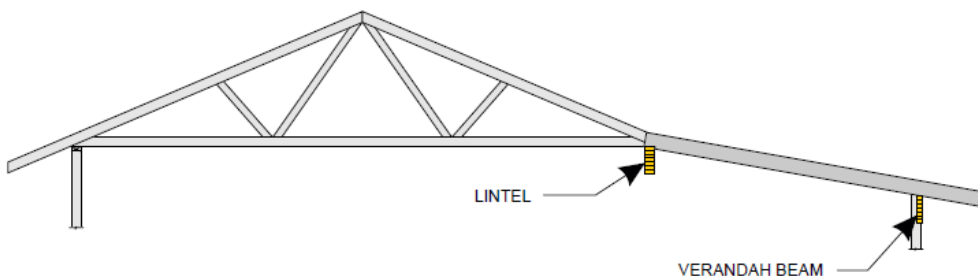


# Deck, verandah and pergola beams C1

		Roof Load Width (mm)							
		1800	2400	3000	4500	1800	2400	3000	4500
Rafter Truss Spacing (mm)		900	900	900	900	900	900	900	900
Size D x B (mm)	Roof Mass (kg/m <sup>2</sup> )	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
140 x 65	10	4200	3600	3200	2500	4200	3700	3200	2600
	20	3900	3600	3300	2600	4300	3800	3300	2700
	40	3200	2900	2700	2400	4200	4000	3600	2900
	60	2800	2400	2400	2100	3800	3500	3200	2800
	90	2500	2300	2100	1900	3300	3100	2800	2300
190 x 65	10	5500	5000	4400	3600	5800	5000	4400	3600
	20	4900	4600	4400	3700	6000	5100	4600	3800
	40	4200	4000	3700	3300	5300	5000	4700	4000
	60	3900	3500	3300	2800	4800	4500	4300	3900
	90	3400	3100	2800	2500	4400	4100	3900	3200
240 x 65	10	6400	6100	5700	4500	7400	6400	5700	4600
	20	5700	5500	5200	4700	7200	6500	5800	4700
	40	5000	4700	4500	4100	6300	5900	5600	5000
	60	4600	4300	4100	3600	5700	5400	5100	4600
	90	4200	3900	3600	3200	5200	4900	4600	4000
290 x 65	10	7200	6900	6700	5600	8400	7700	6900	5600
	20	6500	6200	5900	5500	8100	7700	7100	5800
	40	5700	5400	5200	4700	7200	6800	6400	5900
	60	5300	5000	4700	4300	6600	6200	5900	5000
	90	4800	4500	4300	3900	6000	5600	5400	4900

## Notes

- D = member depth, B = member breadth, NS = not suitable.
- End bearing lengths = 70mm at end supports and 70mm at internal supports for continuous members.
- Overhangs shall not exceed 25% of the actual back span. Minimum bearing length = 35mm at end supports and 70mm at continuous supports.





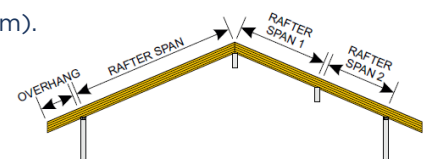
# Rafters - single span C2

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Single Span							
140 x 65	10	6300	1450	6200	1250	5900	1000	5600	850
	20	5900	1450	5600	1250	5100	1000	4800	850
	40	5100	1500	4800	1250	4300	1000	4000	850
	60	4700	1500	4300	1300	3900	1050	3600	900
	75	4400	1550	4100	1300	3600	1050	3300	900
	90	4200	1550	3900	1350	3400	1050	3100	900
190 x 65	10	7500	1900	7400	1600	7100	1250	6900	1100
	20	7100	1900	6900	1600	6500	1300	6300	1100
	40	6500	1950	6300	1650	5800	1300	5400	1100
	60	6100	1950	5800	1700	5200	1350	4800	1150
	75	5900	2000	5500	1700	4900	1350	4500	1150
	90	5600	2000	5200	1750	4600	1350	4300	1150
240 x 65	10	7500	2300	7500	19500	7500	1550	7500	1300
	20	7500	2300	7500	1950	7500	1550	7300	1350
	40	7500	2350	7300	2000	6800	1600	6500	1350
	60	7200	2400	6800	2050	6300	1650	6000	1400
	75	6900	2450	6600	2100	6100	1650	5600	1400
	90	6700	2500	6300	2100	5800	1700	5300	1450
290 x 65	10	7500	2700	7500	2300	7500	1800	7500	1550
	20	7500	2700	7500	2300	7500	1850	7500	1550
	40	7500	2800	7500	2350	7500	1850	7400	1600
	60	7500	2850	7500	2400	7200	1900	6800	1600
	75	7500	2900	7500	2450	6900	1950	6500	1650
	90	7500	2900	7200	2500	6700	1950	6300	1650

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



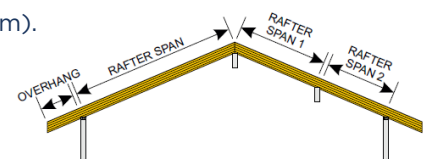
# Rafters - continuous span C2

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Continuous Span							
140 x 65	10	7500	1450	7500	1250	6700	1000	5700	850
	20	7400	1450	7100	1250	6700	1000	5800	850
	40	6700	1500	6400	1250	5900	1000	5400	850
	60	6300	1500	5900	1300	5300	1050	4800	900
	75	6000	1550	5500	1300	4900	1050	4500	900
	90	5700	1550	500	1350	4700	1050	4300	900
190 x 65	10	7500	1900	7500	1600	7500	1250	7500	1100
	20	7500	1900	7500	1600	7500	1300	7500	1100
	40	7500	1950	7500	1650	700	1300	6900	1100
	60	7500	1950	7300	1700	6800	1350	6400	1150
	75	7400	2000	7000	1700	6500	1350	6100	1150
	90	7200	2000	6800	1750	6200	1350	5800	1150
240 x 65	10	7500	2300	7500	1950	7500	1550	7500	1300
	20	7500	2300	7500	1950	7500	1550	7500	1350
	40	7500	2350	7500	2000	7500	1600	7500	1350
	60	7500	2400	7500	2050	7500	1650	7500	1400
	75	7500	2450	7500	2100	7500	1650	7200	1400
	90	7500	2500	7500	2100	7400	1700	6900	1450
290 x 65	10	7500	2700	7500	2300	7500	1800	7500	1550
	20	7500	2700	7500	2300	7500	1850	7500	1550
	40	7500	2800	7500	2350	7500	1850	7500	1600
	60	7500	2850	7500	2400	7500	1900	7500	1600
	75	7500	2900	7500	2450	7500	1950	7500	1650
	90	7500	2900	7500	2500	7500	1950	7500	1650

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



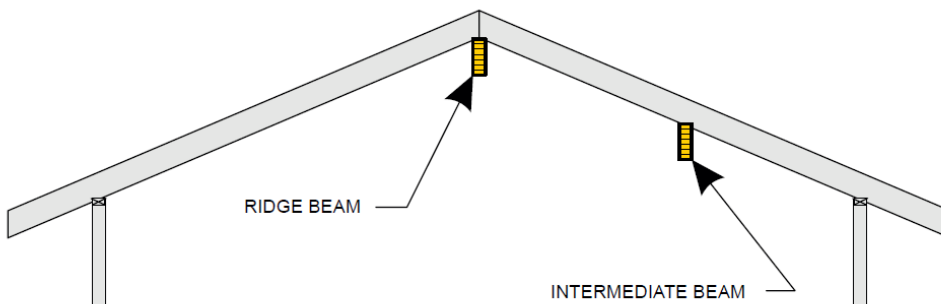
# Roof beams C2

## Ridge or intermediate

SIZE D x B (mm)	ROOF MASS (kg/m <sup>2</sup> )	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Maximum Beam Span and Overhang (mm)											
140 x 65	20	3400	1300	2300	950	1900	750	1600	650	1500	600
	40	3500	1350	2400	950	1900	800	1700	700	1500	600
	60	3300	1350	2500	950	2000	800	1700	700	1600	600
	90	2900	1400	2300	1000	1900	800	1700	700	1500	650
190 x 65	20	4700	1850	3200	1250	2600	1050	2300	900	2000	800
	40	4900	1850	3300	1300	2700	1050	2300	900	2100	800
	60	4400	1900	3400	1300	2800	1050	2400	950	2100	850
	90	3900	1900	3100	1350	2700	1100	2300	950	2000	850
240 x 65	20	6100	2350	4000	1600	3300	1300	2900	1150	2600	1000
	40	6100	2400	4200	1650	3400	1350	2900	1150	2600	1050
	60	5600	2400	4300	1650	3500	1350	3000	1200	2700	1050
	90	5000	2400	3900	1700	3400	1400	2900	1200	2600	1100
290 x 65	20	7500	2900	4900	1950	4000	1600	3500	1400	3100	1250
	40	7000	2900	5000	1950	4100	1600	3600	1400	3200	1250
	60	6500	2900	5200	2000	4200	1650	3700	1450	3300	1300
	90	6000	2750	4800	2050	4100	1700	3500	1450	3100	1300

### Notes

- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Minimum bearing length = 45mm at end supports.
- Rafter spacing up to 1200mm.

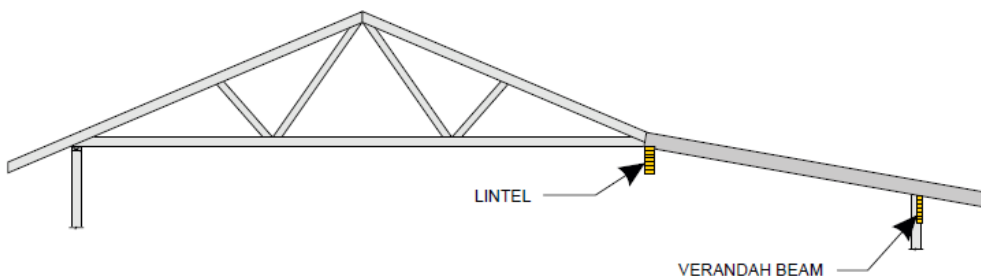


# Deck, verandah and pergola beams C2

		Roof Load Width (mm)							
		1800	2400	3000	4500	1800	2400	3000	4500
Rafter Truss Spacing (mm)		900	900	900	900	900	900	900	900
Size D x B (mm)	Roof Mass (kg/m <sup>2</sup> )	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
140 x 65	10	3400	2800	2500	2000	3400	2900	2600	2100
	20	3500	2900	2500	2100	3500	3000	2600	2200
	40	3200	2900	2700	2100	3700	3100	2700	2200
	60	2800	2500	2400	2100	3800	3200	2900	2300
	90	2500	2300	2100	1900	3300	3100	2800	2300
190 x 65	10	4600	4000	3600	2800	4700	4100	3600	2900
	20	4700	4100	3600	2900	4800	4100	3700	3000
	40	4200	4000	3700	3000	5000	4300	3800	3100
	60	3900	3500	3300	2800	4800	4400	4000	3200
	90	3400	3100	2800	2500	4400	4100	3900	3200
240 x 65	10	5900	5100	4500	3700	6000	5100	4600	3700
	20	5700	5200	4600	3800	6100	5200	4700	3800
	40	5000	4700	4500	3900	6300	5400	4900	4000
	60	4600	4300	4100	3600	5700	5400	5100	4100
	90	4200	3900	3600	3200	5200	4900	4600	4000
290 x 65	10	7200	6200	5600	4400	7200	6200	5600	4500
	20	6500	6200	5600	4500	7400	6300	5700	4600
	40	5700	5400	5200	4700	7200	6600	5900	4800
	60	5300	5000	4700	4300	6600	6200	5900	5000
	90	4800	4500	4300	3900	6000	5600	5400	4900

## Notes

- D = member depth, B = member breadth, NS = not suitable.
- End bearing lengths = 70mm at end supports and 70mm at internal supports for continuous members.
- Overhangs shall not exceed 25% of the actual back span. Minimum bearing length = 35mm at end supports and 70mm at continuous supports.



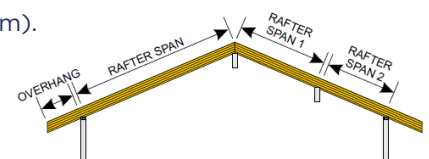
# Rafters - single span C3

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Single Span							
140 x 65	10	6300	1150	6200	1000	5500	800	4600	650
	20	5900	1150	5600	1000	5100	800	4700	700
	40	5100	1200	4800	1000	4300	800	4000	700
	60	4700	1200	4300	1000	3900	800	3600	700
	75	4400	1200	4100	1050	3600	800	3300	700
	90	4200	1200	3900	1050	3400	850	3100	700
190 x 65	10	7500	1500	7400	1300	7100	1000	6400	850
	20	7100	1500	6900	1300	6500	1050	6300	850
	40	6500	1550	6300	1300	5800	1050	5400	900
	60	6100	1550	5800	1300	5200	1050	4800	900
	75	5900	1550	5500	1350	4900	1050	4500	900
	90	5600	1600	5200	1350	4600	1050	4300	900
240 x 65	10	7500	1850	7500	1550	7500	1250	7500	1050
	20	7500	1850	7500	1550	7500	1250	7300	1050
	40	7500	1850	7300	1600	6800	1250	6500	1100
	60	7200	1900	6800	1600	6300	1300	6000	1100
	75	6900	1900	6600	1650	6100	1300	5600	1100
	90	6700	1950	6300	1650	5800	1300	5300	1100
290 x 65	10	7500	2150	7500	1850	7500	1450	7500	1250
	20	7500	2150	7500	1850	7500	1450	7500	1250
	40	7500	2200	7500	1850	7500	1500	7400	1250
	60	7500	2250	7500	1900	7200	1500	6800	1250
	75	7500	2250	7500	1900	6900	1500	6500	1300
	90	7500	2250	7200	1950	6700	1550	6300	1300

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



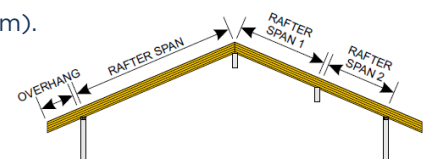
# Rafters - continuous span C3

## Supporting roof and/or ceiling loads (including verandah rafters)

MEMBER SIZE	ROOF MASS (kg/m <sup>2</sup> )	Rafter Spacing (mm)							
		450		600		900		1200	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
		Continuous Span							
140 x 65	10	7500	1150	6800	1000	5400	800	4600	650
	20	7400	1150	6900	1000	5500	800	4700	700
	40	6700	1200	6400	1000	5600	800	4800	700
	60	6300	1200	5900	1800	5300	800	4800	700
	75	6000	1200	5500	1050	4900	800	4500	700
	90	5700	1200	5300	1050	4700	850	4300	700
190 x 65	10	7500	1500	7500	1300	7500	1000	6400	850
	20	7500	1500	7500	1300	7500	1050	6500	850
	40	7500	1550	7500	1300	7300	1050	6600	900
	60	7500	1550	7300	1300	6800	1050	6400	900
	75	7400	1550	7000	1350	6500	1050	6100	900
	90	7200	1600	6800	1350	6200	1050	5800	900
240 x 65	10	7500	1850	7500	1550	7500	1250	7500	1050
	20	7500	1850	7500	1550	7500	1250	7500	1050
	40	7500	1850	7500	1600	7500	1250	7500	1100
	60	7500	1900	7500	1600	7500	1300	7500	1100
	75	7500	1900	7500	1650	7500	1300	7200	1100
	90	7500	1950	7500	1650	7400	1300	6900	1100
290 x 65	10	7500	2150	7500	1850	7500	1450	7500	1250
	20	7500	2150	7500	1850	7500	1450	7500	1250
	40	7500	2200	7500	1850	7500	1500	7500	1250
	60	7500	2250	7500	1900	7500	1500	7500	1250
	75	7500	2250	7500	1900	7500	1500	7500	1300
	90	7500	2250	7500	1950	7500	1550	7500	1300

### Notes

- Methods : Load Sharing : LL Def. Check : Complex : Limit State Design.
- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- The above table was based on a batten spacing of 900mm.
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Maximum birds mouth depth = 30% of depth.
- End bearing lengths = 35mm at end supports and 35mm at internal supports for continuous members.
- Construction loads shall not be applied to overhangs until a 190 x 19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.



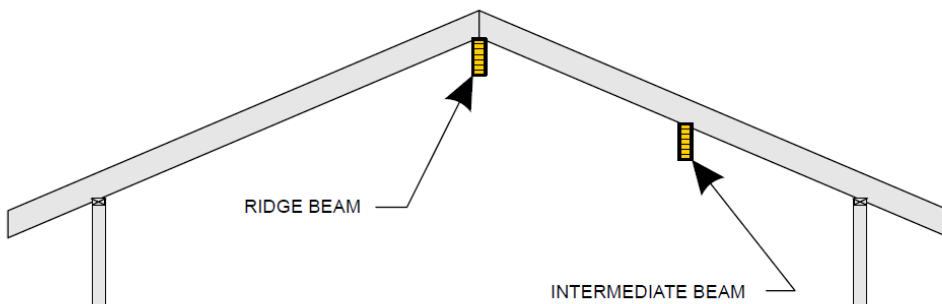
# Roof beams C3

## Ridge or intermediate

SIZE D x B (mm)	ROOF MASS (kg/m <sup>2</sup> )	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Maximum Beam Span and Overhang (mm)											
140 x 65	20	2700	2700	2700	2700	2700	2700	1300	550	1200	500
	40	2700	2700	2700	2700	2700	2700	1300	550	1200	500
	60	2800	2800	2800	2800	2800	2800	1400	550	1200	500
	90	2900	2900	2900	2900	2900	2900	1400	550	1300	500
190 x 65	20	3800	3800	3800	3800	3800	3800	1800	750	1600	650
	40	3800	3800	3800	3800	3800	3800	1900	750	1700	650
	60	3900	3900	3900	3900	3900	3900	1900	750	1700	650
	90	3900	3900	3900	3900	3900	3900	1900	750	1700	700
240 x 65	20	4900	4900	4900	4900	4900	4900	2300	950	2100	850
	40	5000	5000	5000	5000	5000	5000	2400	950	2700	850
	60	5100	5100	5100	5100	5100	5100	2400	950	2200	850
	90	5000	5000	5000	5000	5000	5000	2500	950	2200	850
290 x 65	20	6000	6000	6000	6000	6000	6000	2800	1100	2500	1000
	40	6100	6100	6100	6100	6100	6100	2900	1150	2600	1000
	60	6300	6300	6300	6300	6300	6300	2900	1150	2600	1050
	90	6000	6000	6000	6000	6000	6000	3000	1150	2700	1050

### Notes

- D = member depth, B = member breadth, NS = not suitable, O/H = overhang (mm).
- Minimum back span = 200% of overhang.
- Maximum overhang = 50% of back span.
- Minimum bearing length = 45mm at end supports.
- Rafter spacing up to 1200mm.

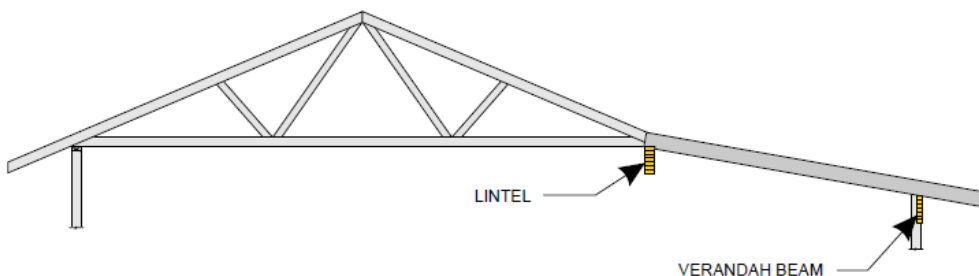


# Deck, verandah and pergola beams C3

		Roof Load Width (mm)							
		1800	2400	3000	4500	1800	2400	3000	4500
Rafter Truss Spacing (mm)		900	900	900	900	900	900	900	900
Size D x B (mm)	Roof Mass (kg/m <sup>2</sup> )	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
140 x 65	10	2700	2300	2100	1600	2700	2400	2100	1700
	20	2700	2300	2100	1700	2800	2400	2200	1800
	40	2800	2400	2100	1700	2900	2500	2200	1900
	60	2800	2400	2200	1800	3000	2500	2300	1900
	90	2500	2300	2100	1900	3100	2600	2400	2000
190 x 65	10	3800	3300	2800	2300	3900	3300	2900	2400
	20	3800	3300	2900	2300	3900	3300	3000	2400
	40	3900	3400	3000	2400	4000	3400	3100	2400
	60	3900	3500	3000	2400	4100	3500	3100	2500
	90	3400	3100	2800	2500	4200	3700	3300	2600
240 x 65	10	4800	4100	3700	2900	4900	4200	3800	3000
	20	4900	4200	3800	3000	4900	4200	3800	3100
	40	5000	4300	3900	3100	5100	4300	3900	3200
	60	4600	4300	3900	3200	4200	4400	4000	3300
	90	4200	3900	3600	3200	5200	4600	4200	3400
290 x 65	10	5900	5100	4500	3700	5900	5100	4500	3700
	20	5900	5100	4500	3700	6000	5200	4600	3700
	40	5700	5300	4600	3800	6100	5300	4700	3900
	60	5300	5000	4700	3900	6300	5400	4800	4000
	90	4800	4500	4300	3900	6000	5600	5100	4100

## Notes

- D = member depth, B = member breadth, NS = not suitable.
- End bearing lengths = 70mm at end supports and 70mm at internal supports for continuous members.
- Overhangs shall not exceed 25% of the actual back span. Minimum bearing length = 35mm at end supports and 70mm at continuous supports.





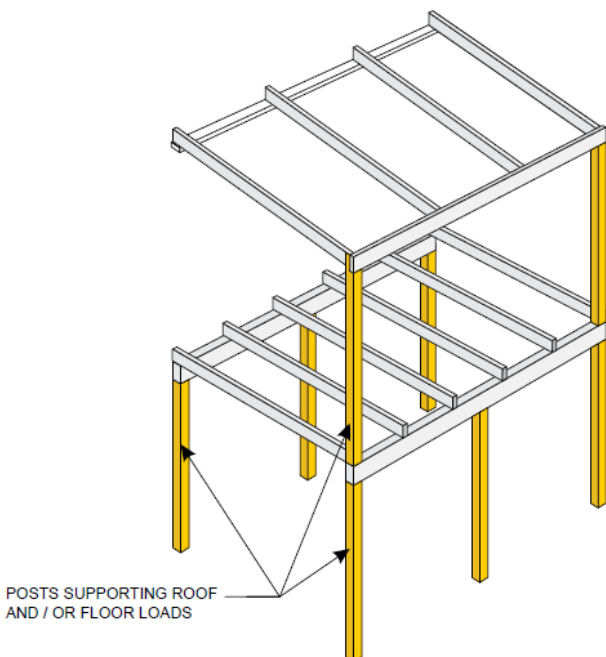
**POSTS**

# Posts N2

## Supporting roof and/or floor loads

SHEET ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	7500	5500	4900	4500	4200	3500	3300	3200
100 x 100	7500	7500	6800	6100	5600	5200	4300	4100	3900
115 x 115	7500	7500	7500	7500	7400	6800	5700	5400	5200
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7500
TILE ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	5400	3800	4900	4100	3400	3500	3100	2900
100 x 100	7500	6700	4700	6100	5100	4200	4300	3900	3600
115 x 115	7500	7500	6300	7500	6700	5600	5700	5200	4700
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7100

- Notes**
- D = member depth, B = member breadth, NS = not suitable.
  - The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), tile roof mass of 90 (kg/m<sup>2</sup>), total uppler floor mass of 50 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa).

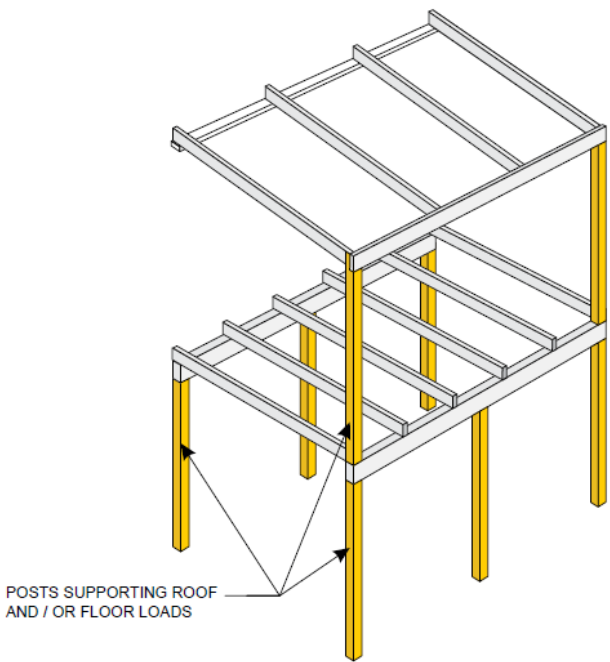


# Posts N3

## Supporting roof and/or floor loads

SHEET ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	6900	4900	4900	4500	4200	3500	3300	3200
100 x 100	7500	7500	6100	6100	5600	5200	4300	4100	3900
115 x 115	7500	7500	7500	7500	7400	6800	5700	5400	5200
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7500
TILE ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	5400	3800	4900	4100	3400	3500	3100	2900
100 x 100	7500	6700	4700	6100	5100	4200	4300	3900	3600
115 x 115	7500	7500	6300	7500	6700	5600	5700	5200	4700
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7100

- Notes**
- D = member depth, B = member breadth, NS = not suitable.
  - The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), tile roof mass of 90 (kg/m<sup>2</sup>), total uppler floor mass of 50 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa).

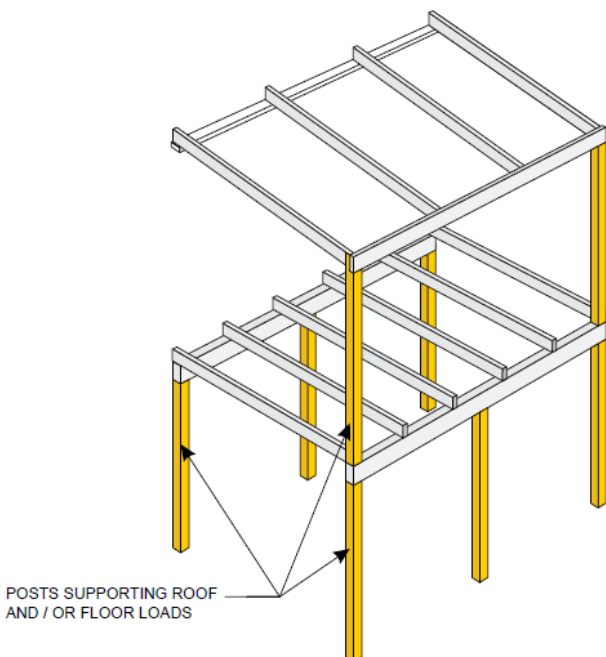


# Posts N4

## Supporting roof and/or floor loads

SHEET ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	6100	4300	4900	4500	3900	3500	3300	3200
100 x 100	7500	7500	5300	6100	5600	4900	4300	4100	3900
115 x 115	7500	7500	7100	7500	7400	6500	5700	5400	5200
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7500
TILE ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	5100	3600	4900	4100	3400	3500	3100	2900
100 x 100	7500	6400	4500	6100	5100	4200	4300	3900	3600
115 x 115	7500	7500	6000	7500	6700	5600	5700	5200	4700
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7100

- Notes**
- D = member depth, B = member breadth, NS = not suitable.
  - The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), tile roof mass of 90 (kg/m<sup>2</sup>), total uppler floor mass of 50 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa).

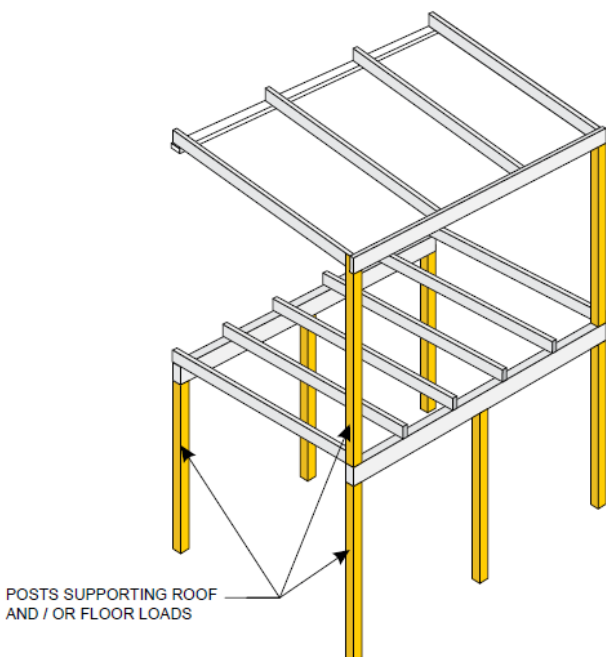


# Posts C1

## Supporting roof and/or floor loads

SHEET ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	6400	4500	4900	4500	4100	3500	3300	3200
100 x 100	7500	7500	5600	6100	5600	5100	4300	4100	3900
115 x 115	7500	7500	7400	7500	7400	6700	5700	5400	5200
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7500
TILE ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	5300	3800	4900	4100	3400	3500	3100	2900
100 x 100	7500	6600	4700	6100	5100	4200	4300	3900	3600
115 x 115	7500	7500	6200	7500	6700	5600	5700	5200	4700
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7100

- Notes**
- D = member depth, B = member breadth, NS = not suitable.
  - The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), tile roof mass of 90 (kg/m<sup>2</sup>), total uppler floor mass of 50 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa).



# Posts C2

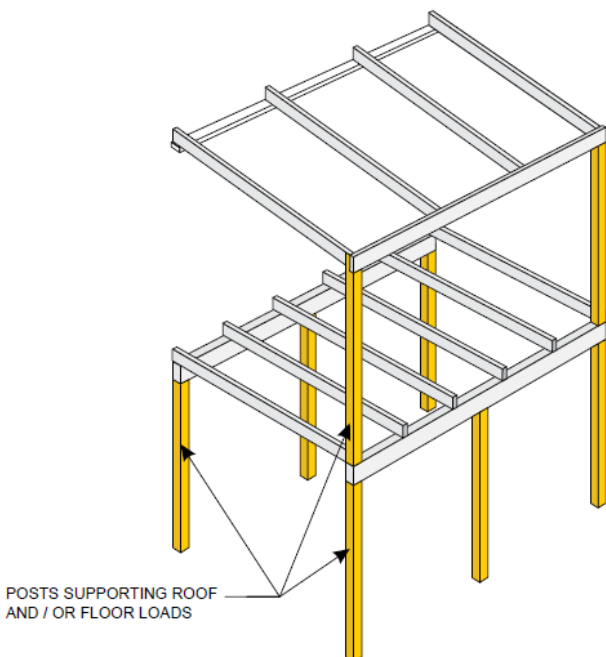
## Supporting roof and/or floor loads

SHEET ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	5600	3900	4900	4500	3700	3500	3300	3200
100 x 100	7500	6900	4900	6100	5600	4500	4300	4100	3900
115 x 115	7500	7500	6500	7500	7400	6000	5700	5400	5200
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7500

TILE ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	4800	3400	4900	4100	3200	3500	3100	2900
100 x 100	7500	6000	4200	6100	5100	4000	4300	3900	3600
115 x 115	7500	7500	5600	7500	6700	5300	5700	5200	4700
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7100

- Notes**
- D = member depth, B = member breadth, NS = not suitable.
  - The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), tile roof mass of 90 (kg/m<sup>2</sup>), total uppler floor mass of 50 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa).

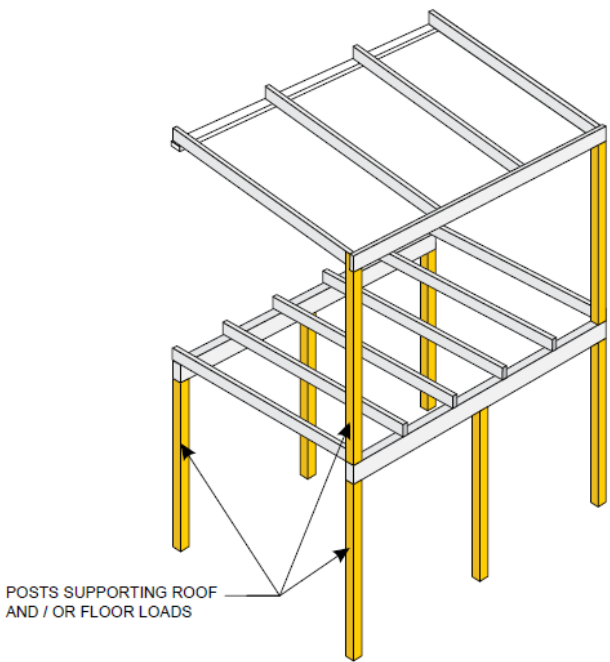


# Posts C3

## Supporting roof and/or floor loads

SHEET ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	4800	3400	4900	4300	3200	3500	3300	3000
100 x 100	7500	5900	4200	6100	5300	4000	4300	4100	3800
115 x 115	7500	7500	5600	7500	7100	5300	5700	5400	5000
140 x 140	7500	7500	7500	7500	7500	7500	7500	7500	7400
TILE ROOF	Floor Load Area (mm)								
	0			10			20		
Roof Load Area (mm)	0	10	20	0	10	20	0	10	20
SIZE D x B (mm)	Maximum Lintel Span (mm)								
90 x 90	7500	4300	3000	4900	3900	2900	3500	3100	2800
100 x 100	7500	5300	3800	6100	4900	3600	4300	3900	3400
115 x 115	7500	7100	5000	7500	6400	4800	5700	5200	4600
140 x 140	7500	7500	7400	7500	7500	7100	7500	7500	6800

- Notes**
- D = member depth, B = member breadth, NS = not suitable.
  - The above table was based on a maximum sheet roof mass of 40 (kg/m<sup>2</sup>), tile roof mass of 90 (kg/m<sup>2</sup>), total uppler floor mass of 50 (kg/m<sup>2</sup>), floor live load of 1.5 (kPa).





# PARKSIDE TIMBER