



SPAN TABLES

DRESSED ALL ROUND (DAR)

DRESSED PENCIL ROUND (DPR)

UNSEASONED HARDWOOD – F14 & F17

Thora

Wholesale Timbers P/L

"The Merchants Hardwood Yard"

Preface

This document provides span tables for dressed unseasoned hardwood which may be used to supplement the design information provided in AS 1684 Residential Timber Framed Construction, Part 2: Non-Cyclonic areas..

It provides builders, designers and other specifiers with a valuable source of information catering for dressed unseasoned hardwood for many common applications in domestic construction. The format of some tables within this document have been customized where appropriate to reflect common practices.

Span tables are included for:

Unseasoned Hardwood – F14
Unseasoned Hardwood – F17

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, Timber Queensland Ltd and Thora Wholesale Timbers P/L 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.

About Thora

Thora Wholesale Timbers specialises in the supply of unseasoned sawn hardwood. We mill it, we stock it, we sell it and we understand it - and we can make it easy for you. We have now been servicing merchants in Brisbane for 15 years.

We have built our reputation on fast order fulfilment from our large stocks of Hardwood held here in Brisbane. Our primary business objective is to enable building material suppliers to trade in sawn hardwood products without the need to carry a significant stock of their own. We believe Our Business can increase Your Business.

With a Hardwood job lot turnaround of 24 to 48 hours we can supply hardwood orders to our customers quickly and efficiently throughout the Queensland Timber Industry.

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**76A Richland Ave,
Coopers Plains, QLD 4108**



Introduction.

This document provides span tables for the selection of structural timber 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 here were generated utilizing the structural design software “Timber Span Professional” and the design criteria of AS 1684 Residential timber-framed construction, Part 1 : Design criteria.

For alternative stress grades or additional span tables not found in this document, refer to AS 1684 Residential timber-framed construction, Part 2: Non-cyclonic areas.

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 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 given in AS 1684, Residential timber-framed construction, Part 2: Non-cyclonic areas.

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

Design Criteria.

The 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 for the distribution of concentrated or localized loads over a number of members where relevant.

This document caters for non-cyclonic wind classifications N1, N2 & N3 as defined by AS 4055 Wind loads for housing.

Dimensions & 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	-1 mm, +2 mm,
Breadth	-1 mm, +2 mm

Shrinkage in unseasoned members.

Unseasoned timber can be expected to shrink as its moisture content reduces. For the hardwood species blackbutt, spotted gum and ironbark an average shrinkage rate of approximately 6 - 8% should be assumed (Note: Some other hardwood species can shrink in excess of 10%). Allowances should be made for shrinkage particularly where:

- timbers of different shrinkage characteristics are used together, or
- where unseasoned timber is used in conjunction with seasoned timber, steel or masonry.

In these instances, well accepted standard building practices for unseasoned timber should be adhered to, particularly the allowance of suitable clearances between brick sills and windows, design of eaves linings, design of split levels and detailing around doors.

Where it is not practical to allow for shrinkage, seasoned timbers should be used.

Species and Properties.

The timber species supplied by Thora Wholesale Timbers as DAR and DPR comprise blackbutt, spotted gum or ironbark either as single species or a mix. Some basic properties for these species are given in the table below:

PROPERTY	Timber Species		
	Blackbutt	Spotted Gum	Ironbark spp
Strength Group	S2	S2	S2
Joint Group	J2	J1	J1
Density (unseasoned) (kg/m ³)	1150	1200	1250
Tangential Shrinkage (%)	7.3	6.1	6.3 – 7.5
In – ground durability Class (AS 5604)	Class 2	Class 2	Class 1
Above ground durability class (AS 5604)	Class 1	Class 1	Class 1
Bushfire resistant (AS 3959)	Yes	Yes	Yes (red ironbark only)
Termite resistant (AS 3660.1)	Yes	Yes	Yes
Lyctid Susceptibility	Not susceptible	Susceptible	Not susceptible

Contents – Span Tables

Legend: ☉ = contained in this document ☐ = Refer to AS 1684

Single or Upper Storey

TABLE No (As 1684 and this document)	MEMBER	Timber Grade	
		US F14	US F17
1	Bearers Supporting Single Storey Loadbearing Walls – Maximum Floor Load Width 1800 mm	●	☉
2	Bearers Supporting Single Storey Loadbearing Walls – Maximum Floor Load Width 2400 mm	☉	☉
3	Bearers Supporting Single Storey Loadbearing Walls – Maximum Floor Load Width 3600 mm	☉	☉
4	Bearers Supporting Single Storey Loadbearing Walls – Maximum Floor Load Width 4800 mm	☉	☉
5	Bearers Supporting Floor Load Only	☉	☉
m6	Floor Joists	☉	☉
7	Wall Studs – Single or Upper Storey - Not Notched	☐	☐
8	Wall Studs – Single or Upper Storey - Notched	☐	☐
9	Studs Supporting Concentrated Loads – Not Notched	☐	☐
10	Studs Supporting Concentrated Loads – Notched	☐	☐
11	Jamb Studs – Single or Upper Storey	☐	☐
12	Internal Loadbearing Wall Studs– Single or Upper Storey– Not Notched	☐	☐
13	Internal Loadbearing Wall Studs– Single or Upper Storey– Notched	☐	☐
14	Bottom Plates – Single or Upper Storey	☐	☐
15	Top Plates – Sheet Roof - Single or Upper Storey	☐	☐
16	Top Plates – Tile Roof – Single or Upper Storey	☐	☐
17	Lintels – Sheet Roof - Single or Upper Storey	☉	☉
18	Lintels – Tile Roof - Single or Upper Storey	☉	☉
19	Lintels - Supporting Truncated Girder Trusses – Sheet Roof - Single or Upper Storey	☉	☉
20	Lintels Supporting Truncated Girder Trusses– Tile Roof - Single or Upper Storey	☉	☉
21	Ceiling Joists – Supporting Ceiling Loads – No Overbatten	☐	☐
22	Ceiling Joists – Supporting Ceiling Loads – With Overbatten	☐	☐
23	Hanging Beams	☉	☉
24	Counter Beams	☉	☉
25	Combined Strutting/Hanging Beams	☉	☉
26	Combined Strutting/Counter Beams	☉	☉
27	Strutting Beams	☉	☉
28	Underpurlins	☉	☉
29	Rafters or Roofing Purlins (House, Pergola or Deck)	☉	☉
30	Loadbearing Ridge or Intermediate Beams – Single Span	☉	☉
31	Loadbearing Ridge or Intermediate Beams – Continuous Span	☐	☐
32	Roof Battens	☉	☉

Contents – Span Tables

Legend: ☺ = contained in this document = Refer to AS 1684

Lower Storey of Two Storey

TABLE No	MEMBER	Timber Grade	
		US F14	US F17
33	Bearers Supporting Two Storey Loadbearing Walls – <i>Floor Load Width - 1800</i>	☺	☺
34	Bearers Supporting Two Storey Loadbearing Walls – <i>Floor Load Width - 3600</i>	☺	☺
35	Bearers Supporting Upper and Lower Floor Loads Only – Lower Storey	☺	☺
36	Wall Studs – Not Notched – Lower Storey Loadbearing Walls		
37	Wall Studs – Notched 20 mm– Lower Storey Loadbearing Walls		
38	Studs - Not Notched – Supporting Concentrated Floor Loads		
39	Studs - Notched 20 mm– Supporting Concentrated Floor Loads		
40	Jamb Studs – Lower Storey of Two Storey – <i>Floor Load Width 1800 mm</i>		
41	Jamb Studs – Lower Storey of Two Storey – <i>Floor Load Width 3600 mm</i>		
42	Jamb Studs – Lower Storey of Two Storey – <i>Floor Load Width 4800 mm</i>		
43	Wall Studs – Not Notched – Supporting Floor Loads Only		
44	Wall Studs – Notched 20 mm – Supporting Floor Loads Only		
45	Bottom Plates – Lower Storey of Two Storey		
46	Top Plates – Lower Storey of Two Storey		
47	Lintels – Sheet Roof - Lower Storey Loadbearing Walls	☺	☺
48	Lintels – Tile Roof - Lower Storey Loadbearing Walls	☺	☺

Decks and Verandahs

TABLE No	MEMBER	Timber Grade	
		US F14	US F17
49	Deck Bearers	☺	☺
50	Deck Joists	☺	☺
51	Verandah Beams – Single Span	☺	☺
52	Verandah Beams – Continuous Span	☺	☺
53	Posts Supporting Roof and/or Floor Loads	☺	☺

Our ref: Thora 2011

10th September 2011

Mr Justin Aaron
Thora Wholesale Timbers P/L
PO Box 3236
SUNNYBANK QLD 4109



Dear Sir

Timber Queensland Ltd
ACN 092 686 756 ABN 50 092 686 756

Re: Thora Timbers Dressed Hardwood Span Tables

We hereby certify that the span tables prepared for Thora Wholesale Timbers P/L for dressed hardwood, stress grades F14 and F17, 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.

500 Brunswick Street,
Fortitude Valley Qld 4006

In preparation of these span tables, reliance has been placed upon the characteristic strength and stiffness material properties for F14 and F17 given in AS 1720.1 2010, Timber Structures: Part 1 – Design methods and the design software, 'Timbaspan Professional', developed for the preparation of the span tables contained in AS 1684 – 2010.

PO Box 2014,
Fortitude Valley BC Qld 4006

This certification will remain valid until 10th September 2016 or sooner should the design properties or other criteria in the relevant Australian Standards be revised so as to require a revision of the span tables.

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Yours Faithfully

Colin E Mackenzie CP Eng, MIE Aust., NPER-3, RPEQ
Manager – Timber Application & Use





UNSEASONED HARDWOOD – F14 SPAN TABLES

*DRESSED ALL ROUND (DAR)
DRESSED PENCIL ROUND (DPR)*

TABLE 1 **Floor Bearers**
Supporting Single or Upper Storey Loadbearing Walls - Floor Load Width 1800 mm

	Floor Load Width (mm)							
	1800				1800			
Roof Load Width (mm)	3000	4500	6000	7500	3000	4500	6000	7500
Size DxB (mm)	Maximum Bearer Span (mm)							
	Single Span				Continuous Span			
Sheet Roof								
90x68	1000	1000	NS	NS	1400	1300	1300	1200
118x68	1400	1300	1200	1200	1900	1800	1700	1600
140x68	1600	1500	1500	1400	2200	2100	2000	1900
168x68	2000	1900	1800	1700	2700	2500	2400	2300
190x68	2200	2100	2000	1900	3000	2900	2700	2600
218x68	2600	2400	2300	2200	3500	3300	3200	3000
240x68	2800	2700	2500	2400	3800	3600	3500	3300
265x68	3100	2900	2800	2700	4100	3900	3800	3600
290x68	3400	3200	3100	3000	4300	4200	4000	3900
Tile Roof								
90x68	NS	NS	NS	NS	1200	1100	1100	1000
118x68	1200	1100	1000	1000	1600	1500	1400	1300
140x68	1400	1300	1200	1200	2000	1800	1700	1600
168x68	1700	1600	1500	1400	2400	2200	2000	1900
190x68	2000	1800	1700	1600	2700	2500	2300	2200
218x68	2300	2100	1900	1800	3100	2800	2700	2500
240x68	2500	2300	2200	2000	3400	3100	2900	2800
265x68	2800	2500	2400	2300	3700	3500	3200	3100
290x68	3000	2800	2600	2500	4000	3700	3600	3400

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) The above table was based on a Wall Height (mm) of 2400.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members.

TABLE 2 **Floor Bearers**
Supporting Single or Upper Storey Loadbearing Walls - Floor Load Width 2400 mm

	Floor Load Width (mm)							
	2400				2400			
Roof Load Width (mm)	3000	4500	6000	7500	3000	4500	6000	7500
Size DxB (mm)	Maximum Bearer Span (mm)							
	Single Span				Continuous Span			
Sheet Roof								
90x68	1000	NS	NS	NS	1300	1300	1200	1200
118x68	1300	1200	1200	1100	1800	1700	1600	1600
140x68	1500	1500	1400	1400	2100	2000	1900	1900
168x68	1800	1800	1700	1600	2500	2400	2300	2200
190x68	2100	2000	1900	1900	2900	2700	2600	2500
218x68	2400	2300	2200	2100	3300	3100	3000	2900
240x68	2700	2500	2400	2300	3600	3500	3300	3200
265x68	2900	2800	2700	2600	3900	3800	3600	3500
290x68	3200	3100	2900	2800	4200	4000	3900	3800
Tile Roof								
90x68	NS	NS	NS	NS	1200	1100	1000	1000
118x68	1200	1100	1000	NS	1600	1500	1400	1300
140x68	1400	1300	1200	1100	1900	1700	1600	1600
168x68	1700	1500	1400	1400	2300	2100	2000	1900
190x68	1900	1700	1600	1600	2600	2400	2300	2100
218x68	2200	2000	1900	1800	3000	2800	2600	2500
240x68	2400	2200	2100	2000	3300	3000	2900	2700
265x68	2600	2500	2300	2200	3600	3400	3200	3000
290x68	2900	2700	2500	2400	3800	3600	3500	3300

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) The above table was based on a Wall Height (mm) of 2400.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members.

TABLE 3 **Floor Bearers**
Supporting Single or Upper Storey Loadbearing Walls - Floor Load Width 3600 mm

	Floor Load Width (mm)							
	3600				3600			
Roof Load Width (mm)	3000	4500	6000	7500	3000	4500	6000	7500
Size DxB (mm)	Maximum Bearer Span (mm)							
	Single Span				Continuous Span			
Sheet Roof								
90x68	NS	NS	NS	NS	1200	1200	1100	1100
118x68	1200	1100	1100	1000	1600	1500	1500	1400
140x68	1400	1300	1300	1300	1900	1800	1800	1700
168x68	1700	1600	1600	1500	2300	2200	2100	2100
190x68	1900	1800	1800	1700	2600	2500	2400	2400
218x68	2200	2100	2000	2000	3000	2900	2800	2700
240x68	2400	2300	2300	2200	3300	3200	3100	3000
265x68	2700	2600	2500	2400	3600	3500	3400	3300
290x68	2900	2800	2700	2700	3900	3800	3700	3600
Tile Roof								
90x68	NS	NS	NS	NS	1100	1000	1000	NS
118x68	1100	1000	NS	NS	1500	1400	1300	1200
140x68	1300	1200	1100	1100	1700	1600	1600	1500
168x68	1500	1400	1400	1300	2100	2000	1900	1800
190x68	1700	1600	1600	1500	2400	2200	2100	2000
218x68	2000	1900	1800	1700	2700	2600	2500	2400
240x68	2200	2100	2000	1900	3000	2900	2700	2600
265x68	2500	2300	2200	2100	3300	3200	3000	2900
290x68	2700	2500	2400	2300	3600	3500	3300	3100 _s

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) The above table was based on a Wall Height (mm) of 2400.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 4 **Floor Bearers**
Supporting Single or Upper Storey Loadbearing Walls - Floor Load Width 4800 mm

	Floor Load Width (mm)							
	4800				4800			
Roof Load Width (mm)	3000	4500	6000	7500	3000	4500	6000	7500
Size DxB (mm)	Maximum Bearer Span (mm)							
	Single Span				Continuous Span			
Sheet Roof								
90x68	NS	NS	NS	NS	1100	1100	1000	1000
118x68	1100	1000	1000	1000	1400	1400	1400	1400
140x68	1300	1200	1200	1200	1700	1700	1600	1600
168x68	1500	1500	1500	1400	2100	2000	2000	1900
190x68	1700	1700	1700	1600	2400	2300	2300	2200
218x68	2000	2000	1900	1900	2700	2700	2600	2500
240x68	2200	2200	2100	2100	3000	2900	2900	2800
265x68	2500	2400	2300	2300	3300	3200	3200	3100
290x68	2700	2600	2500	2500	3600	3500	3500 _s	3400 _s
Tile Roof								
90x68	NS	NS	NS	NS	1000	1000	NS	NS
118x68	1000	NS	NS	NS	1400	1300	1200	1200
140x68	1200	1100	1100	1000	1600	1600	1500	1400
168x68	1400	1400	1300	1300	2000	1900	1800	1700
190x68	1600	1600	1500	1400	2200	2100	2000	2000
218x68	1900	1800	1700	1600	2600	2400	2300	2300
240x68	2100	2000	1900	1800	2800	2700	2600	2500
265x68	2300	2200	2100	2000	3100	3000	2900 _s	2700 ₁₀
290x68	2500	2400	2300	2200	3400 _s	3300 ₁₀	3100 ₁₅	3000 ₂₀

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) The above table was based on a Wall Height (mm) of 2400.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 5**Floor Bearers
Supporting Floor Load Only**

Size DxB (mm)	Floor Load Width (mm)				
	1800	2400	3600	4800	6000
	Maximum Bearer Span (mm)				
	Single Span				
90x68	1300	1100	1000	NS	NS
118x68	1700	1500	1300	1200	1100
140x68	2000	1800	1600	1400	1300
168x68	2400	2200	1900	1700	1500
190x68	2700	2500	2100	1900	1700
218x68	3100	2800	2400	2200	2000
240x68	3400	3100	2700	2400	2200
265x68	3700	3400	3000	2700	2400
290x68	4000	3700	3300	2900	2700
Continuous Span					
90x68	1700	1600	1300	1200	1000
118x68	2300	2100	1800	1500	1400
140x68	2700	2500	2100	1800	1600
168x68	3300	3000	2600	2200	2000
190x68	3700	3400	2900	2500	2200
218x68	4100	3800	3300	2900	2600
240x68	4400	4100	3600	3200	2800
265x68	4700	4400	3900	3500	3100
290x68	5000	4700	4200	3900	3400 _s

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 6a **Floor Joists - Sheet Roof - Supporting Floor Loads**
and/or Supporting Loadbearing Wall Perpendicular to Joists

	Roof Load Width (mm)											
	0			1500			4500			7500		
Joist Spacing (mm)	300	450	600	300	450	600	300	450	600	300	450	600
Size DxB (mm)	Maximum Floor Joist Span (mm)											
	Single Span											
90x32	1700	1400	1300	1500	1300	1200	1200	1000	NS	1000	NS	NS
90x44	2000	1600	1500	1700	1500	1300	1400	1200	1000	1200	1000	NS
118x32	2400	2000	1800	2100	1800	1600	1700	1500	1300	1500	1200	1100
118x44	2600	2200	2000	2400	2000	1800	2000	1700	1500	1700	1400	1200
140x32	2800	2400	2200	2500	2200	2000	2100	1800	1600	1900	1600	1400
140x44	3100	2700	2500	2800	2500	2200	2400	2100	1800	2100	1800	1600
168x32	3400	2900	2700	3100	2700	2400	2700	2300	2000	2400	2000	1800
168x44	3700	3300	3000	3400	3000	2700	3000	2600	2300	2700	2300	2000
190x32	3800	3400	3100	3500	3100	2800	3100	2700	2400	2800	2300	2100
190x44	4100	3700	3400	3900	3400	3100	3500	3000	2700	3100	2700	2400
218x32	4300	3800	3500	4000	3600	3200	3600	3100	2800	3300	2800	2500
218x44	4600	4200	3900	4400	4000	3600	4000	3500	3200	3700	3200	2800
240x32	4600	4200	3900	4500	3900	3600	4000	3500	3100	3700	3100	2800
240x44	4900	4600	4300	4800	4400	4000	4500	3900	3500	4100	3600	3200
265x44	5300	4900	4600	5100	4700	4400	4800	4400	4000	4600	4000	3600
290x44	5600	5200	4900	5500	5000	4700	5200	4700	4400	4900	4500	4000
	Continuous Span											
90x32	2200	1700	1600	2000	1700	1500	1500	1300	1100	1200	1000	NS
90x44	2700	1900	1800	2300	1900	1800	1700	1500	1300	1400	1200	1000
118x32	3200	2300	2100	2800	2300	2100	2200	1800	1600	1800	1500	1300
118x44	3600	2600	2400	3100	2600	2400	2500	2100	1900	2100	1800	1500
140x32	3800	2800	2600	3400	2800	2600	2700	2300	2000	2300	1900	1700
140x44	4200	3200	2900	3800	3200	2900	3100	2600	2300	2700	2200	2000
168x32	4500	3600	3100	4100	3600	3100	3400	2900	2600	3000	2500	2200
168x44	4800	4100	3500	4500	4000	3500	3900	3300	3000	3400	2900	2500
190x32	4900	4100	3600	4600	4100	3600	4000	3400	3000	3500	2900	2600
190x44	5300	4700	4100	5000	4500	4100	4500	3900	3500	4000	3400	3000
218x32	5400	4800	4200	5100	4700	4200	4600	4000	3600	4100	3500	3100
218x44	5800	5300	4800	5500	5000	4700	5000	4500	4100	4600	4000	3600
240x32	5900	5300	4700	5500	5000	4700	5000	4500	4000	4600	4000	3500
240x44	6200	5700	5300	5900	5400	5100	5400	4900	4500	5000	4500	4000
265x44	6700	6200	5800	6400	5800	5500	5900	5300	4900	5500	4900	4500
290x44	7100	6600	6200	6800	6200	5900	6300	5700	5300	5900	5300	4900

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Floor Mass of 40 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) End bearing lengths = 32 mm at end supports and 68 mm at internal supports for continuous members.
- iv) Floor loads may consist of floor covering, flooring and/or ceilings. No heavy point roof loads shall be applied to Floor Joists. Cantilevers may be up to 25%. For loadbearing 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 backspan is at least four times the cantilever distance.

TABLE 6b Floor Joists - Tile Roof - Supporting Floor Loads
and/or Supporting Loadbearing Wall Perpendicular to Joists

	Roof Load Width (mm)											
	0			1500			4500			7500		
Joist Spacing (mm)	300	450	600	300	450	600	300	450	600	300	450	600
Size DxB (mm)	Maximum Floor Joist Span (mm)											
	Single Span											
90x32	1700	1400	1300	1300	1100	1000	NS	NS	NS	NS	NS	NS
90x44	2000	1600	1500	1500	1300	1100	1000	NS	NS	NS	NS	NS
118x32	2400	2000	1800	1800	1600	1400	1300	1100	NS	1100	NS	NS
118x44	2600	2200	2000	2100	1800	1600	1500	1300	1100	1200	1000	NS
140x32	2800	2400	2200	2300	1900	1700	1700	1400	1200	1400	1100	1000
140x44	3100	2700	2500	2600	2200	2000	1900	1600	1400	1600	1300	1100
168x32	3400	2900	2700	2800	2400	2200	2200	1800	1600	1800	1500	1300
168x44	3700	3300	3000	3100	2700	2500	2500	2100	1800	2100	1700	1500
190x32	3800	3400	3100	3200	2800	2500	2500	2100	1900	2100	1800	1500
190x44	4100	3700	3400	3600	3100	2800	2900	2500	2200	2500	2100	1800
218x32	4300	3800	3500	3800	3300	3000	3000	2600	2300	2600	2100	1900
218x44	4600	4200	3900	4200	3700	3300	3400	2900	2600	3000	2500	2200
240x32	4600	4200	3900	4200	3600	3300	3400	2900	2600	2900	2400	2100
240x44	4900	4600	4300	4600	4100	3700	3900	3300	3000	3400	2800	2500
265x44	5300	4900	4600	4900	4500	4100	4300	3700	3300	3800	3200	2900
290x44	5600	5200	4900	5300	4800	4500	4700	4200	3700	4300	3600	3200
Continuous Span												
90x32	2200	1700	1600	1700	1400	1200	1100	NS	NS	NS	NS	NS
90x44	2700	1900	1800	1900	1600	1400	1300	1000	NS	1000	NS	NS
118x32	3200	2300	2100	2400	2000	1800	1600	1300	1200	1300	1000	NS
118x44	3600	2600	2400	2700	2300	2000	1900	1600	1400	1500	1200	1100
140x32	3800	2800	2600	2900	2500	2200	2100	1700	1500	1700	1400	1200
140x44	4200	3200	2900	3300	2800	2500	2400	2000	1700	1900	1600	1400
168x32	4500	3600	3100	3600	3100	2800	2700	2200	1900	2200	1800	1600
168x44	4800	4100	3500	4100	3500	3200	3100	2600	2300	2500	2100	1800
190x32	4900	4100	3600	4200	3600	3200	3200	2600	2300	2600	2100	1900
190x44	5300	4700	4100	4600	4100	3700	3600	3100	2700	3000	2500	2200
218x32	5400	4800	4200	4800	4300	3800	3800	3200	2800	3200	2600	2300
218x44	5800	5300	4800	5200	4700	4300	4300	3700	3200	3600	3000	2700
240x32	5900	5300	4700	5200	4700	4300	4300	3600	3200	3600	3000	2600
240x44	6200	5700	5300	5600	5100	4700	4800	4200	3700	4100	3500	3100
265x44	6700	6200	5800	6000	5500	5100	5200	4600	4200	4700	4000	3500
290x44	7100	6600	6200	6500	5900	5500	5600	5000	4600	5100	4500	4000

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Floor Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) End bearing lengths = 32 mm at end supports and 68 mm at internal supports for continuous members.
- iv) Floor loads may consist of floor covering, flooring and/or ceilings. No heavy point roof loads shall be applied to Floor Joists. Cantilevers may be up to 25%. For loadbearing 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 backspan is at least four times the cantilever distance.

TABLE 17

Lintels - Sheet Roof
Single or Upper Storey Loadbearing Walls

	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter/Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
Size DxB (mm)	Maximum Lintel Span (mm)									
Sheet Roof										
90x44	1700	1600	1400	1200	1200	900	1100	800	1000	700
90x68	1900	1900	1500	1400	1400	1100	1200	1000	1100	900
2/90x44	2000	2000	1600	1500	1400	1300	1300	1100	1200	1000
118x44	2100	2100	1700	1700	1500	1400	1400	1200	1300	1000
118x68	2400	2500	1900	1900	1700	1700	1500	1400	1400	1300
2/118x44	2600	2600	2100	2100	1800	1800	1700	1600	1500	1400
140x44	2500	2600	2000	2000	1700	1700	1600	1500	1500	1300
140x68	2800	2800	2300	2300	2000	2000	1800	1800	1700	1600
2/140x44	3000	3000	2500	2600	2200	2200	2000	2000	1800	1800
168x44	3000	3000	2400	2400	2100	2100	1900	1900	1700	1700
168x68	3300	3200	2700	2800	2400	2400	2200	2200	2000	2000
2/168x44	3400	3400	2900	2900	2600	2700	2400	2400	2200	2200
190x44	3200	3200	2700	2700	2400	2400	2200	2100	2000	2000
190x68	3600	3500	3000	3000	2700	2700	2500	2500	2300	2300
2/190x44	3700	3700	3200	3200	2900	2900	2700	2700	2500	2500
218x44	3600	3500	3000	3000	2700	2700	2500	2500	2300	2300
218x68	3900	3900	3400	3300	3100	3100	2800	2800	2600	2700
2/218x44	4100	4100	3600	3500	3300	3200	3000	3000	2900	2900
240x44	3800	3800	3300	3200	3000	3000	2700	2700	2500	2500
240x68	4200	4200	3600	3600	3300	3300	3100	3100	2900	2900
2/240x44	4400	4400	3800	3800	3500	3500	3300	3200	3100	3100
265x44	4100	4100	3500	3500	3200	3200	3000	3000	2800	2800
265x68	4500	4500	3900	3900	3500	3500	3300	3300	3100	3100
2/265x44	4700	4700	4100	4100	3800	3700	3500	3500	3300	3300
290x44	4400	4400	3800	3700	3400	3400	3200	3200	3000	3000
290x68	4800	4800	4100	4100	3800	3800	3500	3500	3400	3300
2/290x44	5000	5000	4400	4400	4000	4000	3800	3700	3600	3500

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²).
- iii) Minimum bearing length = 35 mm at end supports.

TABLE 18

Lintels - Tile Roof
Single or Upper Storey Loadbearing Walls

	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter/Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
Size DxB (mm)	Maximum Lintel Span (mm)									
Tile Roof										
90x44	1300	1100	1000	800	900	600	800	NS	700	NS
90x68	1500	1300	1200	900	1000	700	900	600	800	600
2/90x44	1600	1500	1300	1000	1100	800	1000	700	900	600
118x44	1600	1600	1300	1100	1100	900	1000	800	900	700
118x68	1900	1900	1500	1400	1300	1100	1200	900	1100	800
2/118x44	2000	2000	1600	1500	1400	1200	1300	1100	1200	1000
140x44	1900	1900	1500	1400	1400	1100	1200	1000	1100	900
140x68	2200	2200	1700	1700	1500	1400	1400	1200	1300	1100
2/140x44	2400	2400	1900	1900	1700	1600	1500	1400	1400	1200
168x44	2300	2300	1800	1800	1600	1500	1400	1300	1400	1100
168x68	2600	2700	2100	2100	1800	1800	1700	1600	1500	1400
2/168x44	2800	2900	2300	2300	2000	2000	1800	1800	1700	1600
190x44	2600	2600	2100	2000	1800	1800	1600	1500	1500	1400
190x68	3000	3000	2400	2400	2100	2000	1900	1900	1700	1700
2/190x44	3100	3100	2600	2600	2300	2200	2100	2000	1900	1900
218x44	3000	3000	2400	2400	2100	2000	1900	1900	1700	1700
218x68	3300	3300	2700	2800	2400	2400	2200	2100	2000	2000
2/218x44	3500	3400	3000	3000	2600	2700	2400	2300	2200	2100
240x44	3200	3200	2600	2700	2300	2200	2100	2000	1900	1900
240x68	3500	3500	3000	3000	2600	2700	2400	2400	2200	2200
2/240x44	3700	3700	3200	3200	2900	2900	2600	2600	2400	2400
265x44	3400	3400	2900	2900	2500	2500	2300	2200	2100 _s	2100
265x68	3800	3800	3200	3200	2900	2900	2700	2700	2500	2400
2/265x44	4000	4000	3400	3400	3100	3100	2900	2900	2700	2700
290x44	3700	3600	3100	3100	2800	2800	2500	2500 _s	2300 _s	2300
290x68	4000	4000	3500	3400	3100	3100	2900	2900	2700	2700
2/290x44	4300	4300	3700	3600	3300	3300	3100	3100	2900	2900

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Tile Roof Mass of 90 (kg/m²).
- iii) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 19

Lintel Supporting Truncated Girders - Hip Ends Only
Sheet Roof - Girder Truss Setback 2700 mm

	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 DxB (mm)	Maximum Lintel Span (mm)							
Sheet Roof								
90x44	1500	1500	1500	1500	1500	1500	1500	1500
90x68	1600	1700	1600	1700	1600	1700	1600	1700
2/90x44	1700	1800	1700	1800	1700	1800	1700	1800
118x44	1800	1900	1800	1900	1800	1900	1800	1900
118x68	2100	2200	2100	2200	2100	2200	2100	2200
2/118x44	2300	2300	2300	2300	2300	2300	2300	2300
140x44	2100	2300	2100	2300	2100	2300	2100	2300
140x68	2300	2400	2300	2300	2300	2300	2300	2300
2/140x44	2400	2500	2400	2400	2400	2400	2300	2300
168x44	NS	3000	2600	2500	2400	2300	2300	2300 ₁₀
168x68	2600	2600	2500	2500	2500	2500	2400	2400
2/168x44	2700	2700	2600	2600	2600	2500	2500	2500
190x44	2600	2600	2500	2500	2400	2400	2400	2400 ₁₀
190x68	2800	2800	2700	2700	2600	2600	2600	2500
2/190x44	3000	3000	2800	2800	2700	2700	2700	2600
218x44	2800	2800	2700	2700	2600	2600	2600	2500 ₅
218x68	3100	3100	3000	2900	2800	2800	2800	2700
2/218x44	3200	3200	3100	3100	3000	2900	2900	2800
240x44	3000	3000	2900	2800	2800	2700	2700	2600 ₅
240x68	3300	3300	3100	3100	3000	3000	2900	2900
2/240x44	3500	3400	3300	3200	3200	3100	3100	3000
265x44	3200	3200	3000	3000	2900	2900	2800	2800 ₅
265x68	3500	3500	3300	3300	3200	3100	3100	3000
2/265x44	3700	3700	3500	3500	3400	3300	3200	3200
290x44	3400	3400	3200	3200	3100	3000	3000	2900 ₅
290x68	3700	3700	3500	3500	3400	3300	3300	3200
2/290x44	3900	3900	3700	3700	3600	3500	3400	3400

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²).
- iii) The above table was based on a Lintel setback (mm) of 400, Lintel setback (mm) of 600.
- iv) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 20

Lintel Supporting Truncated Girders - Hip Ends Only
Tile Roof - Girder Truss Setback 2400 mm

	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 DxB (mm)	Maximum Lintel Span (mm)							
Tile Roof								
90x44	1200	1200	1200	1200	1200	1200	1200	1200
90x68	1400	1400	1400	1400	1400	1400	1400	1400
2/90x44	1500	1500	1500	1500	1500	1500	1500	1500
118x44	1500	1600	1500	1600	1500	1600	1500	1600
118x68	1700	1900	1700	1900	1700	1900	1700	1900
2/118x44	1900	2000	1900	2000	1900	2000	1900	2000
140x44	1800	1900	1800	1900	1800	1900	1800	1900
140x68	2100	2000	2000	2000	2000	2000 ₅	2000 ₅	2000 ₁₀
2/140x44	2000	2100	2000	2000	2000	2000	2000	2000
168x44	2000	2000	2000	2000 ₁₀	2000 ₁₀	2000 ₂₀	2000 ₂₀	2000 ₃₅
168x68	NS	3100	2600	2500	2400	2300	2200	2100 ₁₀
2/168x44	2200	2200	2200	2200	2100	2100	2100	2100
190x44	2100	2100	2100	2100 ₁₀	2100 ₁₀	2100 ₂₀	2000 ₂₀	2000 ₃₀
190x68	2300	2300	2200	2200	2200	2100	2100	2100 ₁₀
2/190x44	2400	2400	2300	2300	2200	2200	2200	2200
218x44	2300	2300	2200	2200 ₅	2200 ₁₀	2100 ₂₀	2100 ₁₅	2100 ₃₀
218x68	2500	2500	2400	2300	2300	2300	2300	2200 ₁₀
2/218x44	2700	2600	2500	2500	2400	2400	2400	2300
240x44	2400	2400	2300	2300 ₅	2300 ₅	2200 ₁₅	2200 ₁₅	2200 ₃₀
240x68	2700	2700	2600	2500	2400	2400	2400	2300 ₅
2/240x44	3000	2900	2700	2600	2600	2500	2500	2400
265x44	2600	2600	2500	2400 ₅	2400 ₅	2300 ₁₅	2300 ₁₅	2300 ₂₅
265x68	3000	2900	2700	2700	2600	2500	2500	2400 ₅
2/265x44	3100	3100	2900	2900	2800	2700	2700	2600
290x44	2800	2800	2600	2600	2500 ₁₀	2400 ₁₀	2400 ₁₅	2400 ₂₅
290x68	3100	3100	3000	2900	2800	2700	2700	2600 ₅
2/290x44	3300	3300	3100	3100	3000	2900	2800	2700

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Tile Roof Mass of 90 (kg/m²).
- iii) The above table was based on a Lintel setback (mm) of 400, Lintel setback (mm) of 600.
- iv) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 23

**Hanging Beams
Supporting Ceiling Loads Only**

Size DxB (mm)	Ceiling Load Width (mm)					
	1800	2400	3000	3600	4200	4800
	Maximum Hanging Beam Span (mm)					
90x32	1800	1600	1500	1300	1200	1200
90x44	2000	1800	1600	1500	1400	1300
118x32	2400	2100	1900	1800	1700	1600
118x44	2600	2300	2100	2000	1800	1700
140x32	2800	2500	2300	2100	2000	1800
140x44	3100	2800	2500	2300	2200	2100
168x32	3300	3000	2700	2500	2400	2200
168x44	3600	3300	3000	2800	2600	2500
190x32	3700	3400	3100	2900	2700	2500
190x44	4100	3700	3400	3200	3000	2800
218x32	4300	3900	3500	3300	3100	2900
218x44	4700	4200	3900	3600	3400	3200
240x32	4700	4200	3900	3600	3400	3200
240x44	5100	4600	4300	4000	3700	3500
265x32	5100	4700	4300	4000	3700	3500
265x44	5600	5100	4700	4400	4100	3900
290x32	5600	5100	4700	4300	4100	3800
290x44	6000	5500	5100	4800	4500	4200

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Ceiling Mass of 12 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.
- iv) Roof loads must not be strutted onto hanging beams

TABLE 24

Counter Beams Supporting Hanging Beams

Size Dx B (mm)	Ceiling Load Width (mm)					
	1800	2400	3000	3600	4200	4800
	Maximum Counter Beam Span (mm)					
90x32	1800	1600	1500	1400	1400	1300
90x44	2000	1800	1700	1600	1500	1400
118x32	2300	2100	2000	1900	1800	1700
118x44	2600	2400	2200	2100	2000	1900
140x32	2800	2500	2400	2200	2100	2000
140x44	3000	2800	2600	2500	2400	2300
168x32	3300	3000	2800	2700	2600	2500
168x44	3600	3300	3100	3000	2800	2700
190x32	3700	3400	3200	3000	2900	2800
190x44	4000	3700	3500	3400	3200	3100
218x32	4100	3900	3700	3500	3300	3200
218x44	4400	4100	4000	3800	3700	3500
240x32	4400	4100	3900	3800	3700	3500
240x44	4700	4400	4200	4100	3900	3800
265x32	4700	4400	4200	4100	3900	3800
265x44	5000	4700	4500	4400	4200	4100
290x32	5000	4700	4500	4400	4200	4100
290x44	5300	5100	4800	4700	4500	4400

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Ceiling & Hanging Beam Mass of 20 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.
- iv) Roof loads must not be strutted onto counter beams.

TABLE 25

Strutting/Hanging Beams Supporting Roof and Ceiling Loads

Roof Area Supported (m ²)	Ceiling Load Width (mm)											
	1800						3600					
	2	4	6	8	10	12	2	4	6	8	10	12
Size DxB (mm)	Maximum Beam Span (mm)											
Sheet Roof												
90x68	1600	1300	1100	1000	NS	NS	1400	1200	1000	NS	NS	NS
118x68	2300	1900	1600	1400	1300	1200	1900	1700	1500	1300	1200	1100
140x68	2800	2300	2000	1800	1700	1500	2300	2100	1900	1700	1600	1500
168x68	3400	2900	2600	2400	2200	2000	2900	2600	2400	2200	2000	1900
190x68	3800	3400	3100	2800	2600	2400	3300	3000	2700	2600	2400	2300
218x68	4200	3900	3600	3300	3100	2900	3700	3500	3200	3000	2900	2700
240x68	4600	4200	3900	3700	3500	3300	4000	3800	3600	3400	3200	3100
265x68	4900	4600	4300	4100	3900	3700	4300	4100	3900	3800	3600	3500
290x68	5200	4900	4600	4400	4200	4000	4600	4400	4200	4100	3900	3800
Tile Roof												
90x68	1200	NS	NS	NS	NS	NS	1100	NS	NS	NS	NS	NS
118x68	1800	1300	1100	1000	NS	NS	1600	1300	1100	NS	NS	NS
140x68	2200	1700	1400	1300	1100	1000	2000	1600	1400	1200	1100	1000
168x68	2800	2200	1900	1700	1500	1400	2500	2100	1800	1600	1500	1300
190x68	3300	2600	2200	2000	1800	1600	2900	2400	2100	1900	1700	1600
218x68	3800	3200	2700	2400	2200	2000	3400	2900	2600	2300	2100	2000
240x68	4100	3600	3100	2800	2500	2300	3700	3300	2900	2600	2400	2300
265x68	4500	3900	3600	3200	2900	2700	4000	3700	3300	3000	2800	2600
290x68	4800	4300	3900	3600	3300	3100	4300	4000	3700	3400	3200	2900

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 20 (kg/m²), Tile Roof Mass of 60 (kg/m²), Total Ceiling Mass of 12 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.

TABLE 26

**Strutting/Counter Beams
Supporting Roof and Ceiling Loads**

	Effective Beam Spacing (mm)											
	1800						3600					
Roof Area Supported (m ²)	2	4	6	8	10	12	2	4	6	8	10	12
Size DxB (mm)	Maximum Beam Span (mm)											
Sheet Roof												
90x68	1700	1300	1100	1000	NS	NS	1500	1300	1100	NS	NS	NS
118x68	2400	1900	1600	1500	1300	1200	2100	1800	1600	1400	1300	1200
140x68	2900	2400	2100	1900	1700	1600	2600	2200	2000	1800	1600	1500
168x68	3500	3000	2700	2400	2200	2000	3100	2800	2500	2300	2100	2000
190x68	3900	3500	3100	2800	2600	2400	3600	3200	2900	2700	2500	2300
218x68	4300	4000	3700	3400	3200	2900	4000	3700	3500	3200	3000	2800
240x68	4600	4300	4000	3800	3600	3400	4300	4000	3800	3600	3400	3200
265x68	5000	4600	4300	4100	3900	3700	4600	4300	4100	3900	3800	3600
290x68	5300	5000	4700	4400	4200	4100	4900	4600	4400	4200	4100	3900
Tile Roof												
90x68	1200	NS	NS	NS	NS	NS	1200	NS	NS	NS	NS	NS
118x68	1800	1400	1100	1000	NS	NS	1700	1300	1100	1000	NS	NS
140x68	2300	1700	1500	1300	1100	1000	2100	1700	1400	1200	1100	1000
168x68	2900	2300	1900	1700	1500	1400	2700	2200	1900	1600	1500	1400
190x68	3400	2700	2300	2000	1800	1700	3100	2600	2200	2000	1800	1600
218x68	3800	3200	2800	2400	2200	2000	3600	3100	2700	2400	2200	2000
240x68	4200	3600	3200	2800	2500	2300	3900	3500	3000	2700	2500	2300
265x68	4500	4000	3600	3200	2900	2700	4200	3800	3500	3100	2900	2700
290x68	4900	4300	3900	3600	3300	3100	4500	4100	3800	3500	3200	3000

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 20 (kg/m²), Tile Roof Mass of 60 (kg/m²), Total Ceiling Mass of 12 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.

TABLE 27

Strutting Beams Supporting Roof Loads Only

Size DxB (mm)	Roof Area Supported (m2)					
	2	4	6	8	10	12
	Maximum Beam Span (mm)					
Sheet Roof						
118x68	2800	2100	1700	1500	1300	1200
140x68	3500	2700	2200	2000	1800	1600
168x68	4300	3400	2900	2500	2300	2100
190x68	4900	4000	3400	3000	2800	2500
218x68	5700	4800	4100	3700	3300	3100
240x68	6200	5300	4700	4200	3800	3500
265x68	6600	6000	5300	4800	4400	4100
290x68	7100	6400	5900	5400	4900	4600
Tile Roof						
118x68	2000	1400	1100	1000	NS	NS
140x68	2500	1800	1500	1300	1100	1000
168x68	3200	2400	2000	1700	1500	1400
190x68	3800	2800	2400	2000	1800	1700
218x68	4500	3500	2900	2500	2300	2100
240x68	5100	3900	3300	2900	2600	2400
265x68	5700	4500	3800	3300	3000	2800
290x68	6200	5100	4300	3800	3400	3200

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 20 (kg/m²), Tile Roof Mass of 60 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.

TABLE 28

**Underpurlins
Supporting Roof Loads Only**

		Roof Load Width (mm)					
		1800	2700	3600	1800	2700	3600
Rafter Spacing (mm)		900	900	900	900	900	900
Size DxB (mm)	Roof Mass (kg/m ²)	Maximum Underpurlin Span (mm)					
		Single Span			Continuous Span		
90x68	10	2400	2100	2000	3200	2500	2200
	20	2000	1800	1600	2600	2300	2200
	40	1600	1400	1200	2200	1900	1700
	60	1400	1100	1000	1900	1600	1500
118x68	10	3100	2800	2500	4200	3400	2900
	20	2500	2300	2100	3400	3100	2800
	40	2100	1900	1700	2800	2400	2200
	60	1900	1600	1400	2400	2200	2000
140x68	10	3600	3300	3000	4900	4100	3500
	20	3000	2700	2400	4100	3700	3300
	40	2400	2200	2000	3300	2900	2700
	60	2200	2000	1700	2900	2600	2300

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) End bearing lengths = 45 mm at end supports and 45 mm at internal supports for continuous members.
- iii) Maximum rafter spacing 900 mm.

TABLE 29 Rafter or Roofing Purlins (House, Pergola or Deck)

Size DxB (mm)	Roof Mass (kg/m ²)	Rafter Spacing (mm)											
		600		900		1200		600		900		1200	
		Maximum Rafter Span & OverHang (mm)											
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Single Span						Continuous Span							
68x32	10	1400	500	1300	400	1200	350	1700	500	1600	400	1500	350
	20	1400	500	1300	400	1200	350	1700	500	1600	400	1500	350
	40	1400	500	1200	400	1100	350	1700	500	1600	400	1500	350
	60	1200	500	1100	400	1000	350	1700	500	1500	400	1400	350
	90	1100	450	1000	400	900	350	1500	450	1300	400	1200	350
68x44	10	1700	600	1500	500	1500	400	2000	600	1900	500	1800	400
	20	1700	600	1500	500	1500	400	2000	600	1900	500	1800	400
	40	1600	600	1400	500	1300	450	2000	600	1900	500	1700	450
	60	1400	650	1200	500	1100	450	1900	650	1700	500	1500	450
	90	1200	600	1100	500	1000	450	1700	600	1500	500	1300	450
90x32	10	2200	650	2100	500	2000	450	2700	650	2500	500	2400	450
	20	2200	650	2100	500	1900	450	2700	650	2500	500	2400	450
	40	1900	650	1700	550	1500	450	2600	650	2300	550	2100	450
	60	1700	700	1500	550	1300	450	2300	700	2000	550	1800	450
	90	1500	700	1300	550	1200	500	2000	700	1800	550	1600	500
90x44	10	2600	750	2500	600	2300	500	3400	750	3100	600	3000	500
	20	2500	750	2300	600	2100	500	3400	750	3100	600	2800	500
	40	2100	800	1800	650	1700	550	2800	800	2500	650	2300	550
	60	1800	800	1600	650	1500	550	2500	800	2200	650	2000	550
	90	1600	800	1400	650	1300	550	2200	850	1900	650	1800	550
118x32	10	3500	800	3200	650	3000	550	4800	800	4200	650	3800	550
	20	3000	800	2700	650	2500	550	4100	800	3700	650	3400	550
	40	2500	850	2200	650	2000	550	3400	850	3000	650	2700	550
	60	2200	850	1900	700	1800	600	3000	850	2600	700	2400	600
	90	1900	900	1700	700	1500	600	2600	900	2300	700	2100	600
118x44	10	3800	950	3500	750	3200	650	5100	950	4700	750	4400	650
	20	3200	950	2900	750	2700	650	4400	950	4000	750	3700	650
	40	2700	1000	2400	800	2200	650	3700	1000	3300	800	3000	650
	60	2400	1000	2100	800	1900	700	3300	1000	2900	800	2700	700
	90	2100	1050	1900	850	1700	700	2900	1050	2600	850	2300	700
140x32	10	4100	900	3800	750	3500	650	5600	900	5100	750	4600	650
	20	3500	950	3200	750	2900	650	4800	950	4300	750	4000	650
	40	2900	950	2600	750	2400	650	4000	950	3500	750	3200	650
	60	2600	1000	2300	800	2100	650	3500	1000	3100	800	2900	650
	90	2300	1000	2000	800	1800	700	3100	1000	2700	800	2500	700
140x44	10	4300	1100	4000	850	3800	750	5900	1100	5500	850	5200	750
	20	3800	1100	3400	900	3200	750	5200	1100	4700	900	4400	750
	40	3200	1150	2900	900	2600	750	4400	1150	3900	900	3600	750
	60	2900	1150	2500	950	2300	800	3900	1150	3500	950	3200	800
	90	2500	1200	2200	950	2000	850	3500	1200	3000	950	2800	850
168x32	10	4800	1100	4400	850	4200	750	6500	1100	6000	850	5500	750
	20	4200	1100	3800	850	3500	750	5700	1100	5100	850	4700	750
	40	3500	1100	3100	900	2800	750	4700	1100	4200	900	3900	750
	60	3100	1150	2700	900	2500	800	4200	1150	3700	900	3400	800
	90	2700	1200	2400	950	2200	800	3700	1200	3300	950	3000	800

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing (mm) of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 34 mm at end supports and 34 mm at internal supports for continuous members.
- vii) Construction loads shall not be applied to overhangs until a 190x19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.

TABLE 29 (cont) Rafters or Roofing Purlins (House, Pergola or Deck)

Size DxB (mm)	Roof Mass (kg/m ²)	Rafter Spacing (mm)											
		600		900		1200		600		900		1200	
		Maximum Rafter Span & OverHang (mm)											
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Single Span						Continuous Span							
168x44	10	5100	1250	4700	1000	4500	850	6900	1250	6400	1000	6100	850
	20	4500	1300	4100	1050	3800	900	6100	1300	5600	1050	5200	900
	40	3800	1300	3400	1050	3100	900	5200	1300	4600	1050	4300	900
	60	3400	1350	3000	1100	2800	900	4600	1350	4100	1100	3800	900
	90	3000	1400	2700	1150	2400	950	4100	1400	3700	1150	3300	950
190x32	10	5300	1200	4900	950	4600	800	7200	1200	6700	950	6300	800
	20	4600	1200	4200	950	3900	800	6300	1200	5700	950	5300	800
	40	3900	1250	3500	1000	3200	850	5300	1250	4800	1000	4400	850
	60	3500	1250	3100	1000	2800	850	4800	1250	4200	1000	3900	850
	90	3100	1300	2700	1050	2500	900	4200	1300	3700	1050	3400	900
190x44	10	5600	1400	5300	1100	5000	950	7200	1400	7100	1100	6800	950
	20	5000	1400	4600	1150	4300	950	6800	1400	6200	1150	5800	950
	40	4300	1450	3800	1150	3500	1000	5800	1450	5200	1150	4800	1000
	60	3800	1500	3400	1200	3100	1000	5200	1500	4700	1200	4300	1000
	90	3400	1550	3000	1250	2800	1050	4700	1550	4100	1250	3800	1050
218x32	10	6000	1350	5600	1050	5300	900	7200	1350	7200	1050	7100	900
	20	5300	1350	4800	1100	4500	900	7100	1350	6500	1100	6100	900
	40	4500	1400	4000	1100	3700	950	6100	1400	5400	1100	5000	950
	60	4000	1450	3500	1150	3300	950	5400	1450	4800	1150	4400	950
	90	3500	1500	3100	1200	2900	1000	4800	1500	4300	1200	3900	1000
218x44	10	6200	1600	5900	1250	5600	1050	7200	1600	7200	1250	7200	1050
	20	5600	1600	5200	1300	4800	1100	7200	1600	7000	1300	6600	1100
	40	4800	1650	4400	1300	4000	1100	6600	1650	5900	1300	5500	1100
	60	4400	1700	3900	1350	3600	1150	5900	1700	5300	1350	4900	1150
	90	3900	1750	3500	1400	3200	1200	5300	1750	4700	1400	4300	1200
240x32	10	6500	1450	6000	1150	5700	1000	7200	1450	7200	1150	7200	1000
	20	5700	1450	5200	1150	4900	1000	7200	1450	7100	1150	6600	1000
	40	4900	1500	4400	1200	4000	1000	6600	1500	6000	1200	5500	1000
	60	4400	1550	3900	1250	3600	1050	6000	1550	5300	1250	4900	1050
	90	3900	1600	3400	1300	3200	1100	5300	1600	4700	1300	4300	1100
240x44	10	6700	1700	6400	1350	6100	1150	7200	1700	7200	1350	7200	1150
	20	6100	1750	5600	1400	5300	1150	7200	1750	7200	1400	7200	1150
	40	5300	1800	4800	1400	4400	1200	7200	1800	6500	1400	6000	1200
	60	4800	1800	4300	1450	3900	1250	6500	1800	5800	1450	5400	1250
	90	4300	1900	3800	1500	3500	1300	5800	1900	5200	1500	4800	1300
265x44	10	7200	1850	6900	1500	6600	1250	7200	1850	7200	1500	7200	1250
	20	6600	1900	6100	1500	5800	1250	7200	1900	7200	1500	7200	1250
	40	5800	1950	5200	1550	4900	1300	7200	1950	7100	1550	6600	1300
	60	5200	2000	4700	1550	4300	1350	7100	2000	6400	1550	5900	1350
	90	4700	2050	4200	1650	3800	1400	6400	2050	5700	1650	5200	1400
290x44	10	7200	2000	7200	1600	7100	1350	7200	2000	7200	1600	7200	1350
	20	7100	2050	6600	1600	6300	1350	7200	2050	7200	1600	7200	1350
	40	6300	2100	5700	1650	5300	1400	7200	2100	7200	1650	7200	1400
	60	5700	2150	5100	1700	4700	1450	7200	2150	7000	1700	6400	1450
	90	5100	2250	4600	1800	4200	1500	7000	2250	6200	1800	5700	1500

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing (mm) of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 34 mm at end supports and 34 mm at internal supports for continuous members.
- vii) Construction loads shall not be applied to overhangs until a 190x19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.

TABLE 30

Ridge or Intermediate Beams

Size DxB (mm)	Roof Mass (kg/m ²)	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Maximum Beam Span & OverHang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
118x68	10	3200	1050	2500	1050	2100	900	1800	750	1600	700
	20	2800	1050	2200	1050	1900	900	1600	800	1500	700
	40	2300	1050	1800	900	1600	800	1400	700	1300	600
	60	2100	1050	1600	800	1400	700	1200	600	1100	500
	90	1800	900	1400	700	1200	600	1100	500	1000	500
140x68	10	3800	1200	3000	1200	2500	1050	2200	900	2000	800
	20	3300	1200	2600	1200	2200	1050	1900	900	1800	850
	40	2700	1200	2200	1100	1900	900	1700	800	1500	700
	60	2400	1200	1900	900	1700	800	1500	700	1400	700
	90	2200	1100	1700	800	1500	700	1300	600	1200	600
168x68	10	4400	1450	3500	1450	3000	1250	2600	1100	2400	1000
	20	3900	1450	3100	1450	2600	1250	2300	1100	2100	1000
	40	3300	1450	2600	1300	2200	1100	2000	1000	1800	900
	60	2900	1450	2300	1100	2000	1000	1800	900	1600	800
	90	2600	1300	2100	1000	1800	900	1600	800	1500	700
190x68	10	4900	1650	4000	1650	3400	1400	3000	1250	2700	1100
	20	4300	1650	3500	1650	3000	1450	2600	1250	2400	1100
	40	3700	1650	2900	1400	2500	1200	2300	1100	2100	1000
	60	3300	1650	2600	1300	2300	1100	2000	1000	1900	900
	90	2900	1400	2300	1100	2000	1000	1800	900	1700	800
218x68	10	5600	1900	4500	1900	3900	1650	3400	1400	3100	1250
	20	4900	1900	4000	1850	3400	1650	3000	1450	2700	1300
	40	4200	1900	3400	1700	2900	1400	2600	1300	2400	1200
	60	3800	1900	3000	1500	2600	1300	2300	1100	2100	1000
	90	3400	1700	2700	1300	2300	1100	2100	1000	1900	900
240x68	10	6000	2050	5000	2050	4300	1800	3700	1550	3400	1400
	20	5400	2050	4400	2000	3800	1800	3300	1600	3000	1400
	40	4600	2050	3700	1850	3200	1600	2900	1400	2600	1300
	60	4100	2050	3300	1600	2900	1400	2600	1300	2400	1200
	90	3700	1800	2900	1400	2600	1300	2300	1100	2100	1000
265x68	10	6600	2300	5400	2300	4700	2000	4100	1700	3700	1550
	20	5900	2300	4800	2150	4100	1900	3700	1750	3300	1550
	40	5100	2300	4100	2000	3500	1750	3200	1600	2900	1400
	60	4600	2200	3700	1850	3200	1600	2900	1400	2600	1300
	90	4100	2050	3300	1600	2800	1400	2500	1200	2300	1100
290x68	10	7100	2500	5900	2450	5100	2150	4500	1900	4100	1700
	20	6400	2500	5200	2300	4500	2050	4000	1900	3700	1700
	40	5500	2500	4500	2100	3900	1900	3500	1750	3200	1600
	60	5000	2350	4000	2000	3500	1700	3100	1500	2900	1400
	90	4400	2200	3600	1800	3100	1500	2800	1400	2600	1300

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) Minimum BackSpan = 200 % of Overhang.
- iii) Maximum Overhang = 50 % of Backspan.
- iv) Minimum bearing length = 35 mm at end supports.
- v) Rafter Spacing up to 1200mm.

TABLE 32**Roof Battens
Supporting Roofing Only**

Size DxB (mm)	Batten Spacing (mm)									
	330		450		600		900		1200	
	Batten Span (mm)									
	Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Sheet Roof										
32x44	N/A		1200	400	950	325	700	300	700	275
32x68	N/A		1200	600	1200	475	1100	400	1100	350
44x44	N/A		1200	600	1200	600	1200	475	1200	425
44x68	N/A		1200	600	1200	600	1200	600	1200	600
Tile Roof										
32x44	1100	500	N/A							
32x68	1200	600	N/A							
44x44	1200	600	N/A							
44x68	1200	600	N/A							

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a maximum Sheet Roof Mass of 10 (kg/m²), Tile Roof Mass of 60 (kg/m²).
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members.
- vi) During construction, roof battens should only be walked on at support points. Overhangs shall not exceed 50% of actual span.

TABLE 33

Floor Bearers Supporting Two Storey Load Bearing Walls - Lower FLW 1800 mm

	Lower Floor Load Width (mm)												
	1800						1800						
Upper Floor Load Width (mm)	1800			3600			1800			3600			
Roof Load Width (mm)	1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500	
Size DxB (mm)	Maximum Bearer Span (mm)												
	Single Span						Continuous Span						
Sheet Roof													
90x68	NS	NS	NS	NS	NS	NS	1200	1200	1100	1100	1000	1000	
118x68	1200	1100	1000	1100	1000	NS	1600	1500	1400	1400	1400	1300	
140x68	1400	1300	1200	1300	1200	1100	2000	1800	1700	1700	1600	1600	
168x68	1700	1600	1500	1500	1400	1400	2400	2200	2100	2100	2000	1900	
190x68	2000	1800	1700	1700	1600	1600	2700	2500	2300	2400	2200	2100	
218x68	2300	2100	2000	2000	1900	1800	3100	2900	2700	2700	2600	2500	
240x68	2500	2300	2200	2200	2100	2000	3400	3200	3000	3000	2800	2700	
265x68	2700	2600	2400	2400	2300	2200	3700	3500	3300	3300	3100	3000	
290x68	3000	2800	2600	2700	2500	2400	4000	3700	3600	3600	3400	3300	
Tile Roof													
90x68	NS	NS	NS	NS	NS	NS	1200	1000	NS	1100	NS	NS	
118x68	1100	1000	NS	1000	NS	NS	1600	1400	1200	1400	1300	1200	
140x68	1400	1200	1100	1200	1100	1000	1900	1600	1500	1700	1500	1400	
168x68	1600	1400	1300	1500	1300	1200	2300	2000	1800	2000	1800	1700	
190x68	1900	1600	1500	1700	1500	1400	2600	2200	2000	2300	2100	1900	
218x68	2200	1900	1700	1900	1700	1600	2900	2600	2300	2600	2400	2200	
240x68	2400	2100	1900	2100	1900	1800	3200	2800	2600	2900	2600	2400	
265x68	2600	2300	2100	2300	2100	2000	3600	3100	2900	3200	2900	2700 ₁₀	
290x68	2900	2500	2300	2600	2300	2200	3800	3400	3100 ₅	3500	3200	3000 ₂₅	

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Upper Floor Mass of 50 (kg/m²), Total Ground Floor Mass of 30 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) The above table was based on a Wall (upr+lwr) (mm) of 4800.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 34

Floor Bearers Supporting Two Storey Load Bearing Walls - Lower FLW 3600 mm

	Lower Floor Load Width (mm)												
	3600						3600						
Upper Floor Load Width (mm)	1800			3600			1800			3600			
Roof Load Width (mm)	1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500	
Size DxB (mm)	Maximum Bearer Span (mm)												
	Single Span						Continuous Span						
Sheet Roof													
90x68	NS	NS	NS	NS	NS	NS	1100	1000	1000	1000	1000	NS	
118x68	1100	1000	1000	1000	NS	NS	1500	1400	1300	1300	1300	1200	
140x68	1300	1200	1200	1200	1100	1100	1800	1700	1600	1600	1500	1500	
168x68	1500	1500	1400	1400	1300	1300	2100	2000	1900	1900	1800	1800	
190x68	1800	1700	1600	1600	1500	1500	2400	2300	2200	2200	2100	2000	
218x68	2000	1900	1800	1800	1800	1700	2800	2600	2500	2500	2400	2300	
240x68	2200	2100	2000	2000	1900	1900	3100	2900	2800	2800	2700	2600	
265x68	2500	2300	2200	2200	2200	2100	3400	3200	3000	3100	2900	2800 ₅	
290x68	2700	2600	2400	2500	2400	2300	3700	3500	3300 ₅	3400 ₅	3200 ₁₀	3100 ₁₅	
Tile Roof													
90x68	NS	NS	NS	NS	NS	NS	1100	1000	NS	1000	NS	NS	
118x68	1000	NS	NS	NS	NS	NS	1400	1300	1200	1300	1200	1100	
140x68	1200	1100	1000	1100	1000	1000	1700	1500	1400	1600	1400	1300	
168x68	1500	1300	1200	1400	1300	1200	2000	1800	1700	1900	1700	1600	
190x68	1700	1500	1400	1600	1400	1300	2300	2100	1900	2100	2000	1800	
218x68	2000	1800	1600	1800	1600	1500	2700	2400	2200	2400	2300	2100	
240x68	2200	1900	1800	2000	1800	1700	2900	2700	2500	2700	2500	2300 ₅	
265x68	2400	2200	2000	2200	2000	1900	3300	2900	2700 ₅	3000	2800 ₁₀	2600 ₂₀	
290x68	2600	2400	2200	2400	2200	2100	3600	3200 ₅	3000 ₂₀	3300 ₁₀	3000 ₂₀	2800 ₃₅	

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Upper Floor Mass of 50 (kg/m²), Total Ground Floor Mass of 30 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) The above table was based on a Wall (upr+lwr) (mm) of 4800.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 35 **Floor Bearers**
Lower Storey of Two Storey - Supporting Upper & Lower Floor Loads Only

	Lower Floor Load Width (mm)											
	1800			3600			1800			3600		
Upper Floor Load Width (mm)	3600	4800	6000	3600	4800	6000	3600	4800	6000	3600	4800	6000
Size DxB (mm)	Maximum Bearer Span (mm)											
	Single Span						Continuous Span					
90x68	NS	NS	NS	NS	NS	NS	1100	1000	1000	1000	1000	NS
118x68	1100	1000	NS	1000	NS	NS	1500	1400	1300	1400	1300	1200
140x68	1300	1200	1100	1200	1100	1100	1800	1700	1500	1600	1500	1400
168x68	1600	1500	1400	1400	1400	1300	2100	2000	1900	2000	1900	1700
190x68	1800	1700	1500	1600	1500	1500	2400	2300	2100	2200	2100	2000
218x68	2100	1900	1800	1900	1800	1700	2800	2600	2400	2600	2400	2300
240x68	2300	2100	2000	2100	2000	1900	3100	2900	2700	2800	2700	2500
265x68	2500	2300	2200	2300	2200	2100	3400	3200	3000	3100	3000	2800 ₁₀
290x68	2700	2500	2400	2500	2400	2300	3700	3500	3300	3400 ₅	3200 ₁₅	3100 ₂₅

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum upper floor mass of 50 (kg/m²), Total Ground Floor Mass of 30 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) The above table was based on a Wall (upr+lwr) (mm) of 4800.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 47

**Lintels - Sheet Roof
Lower Storey Load Bearing Walls**

	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 DxB (mm)	Maximum Lintel Span (mm)									
Sheet Roof										
118x44	1300	1100	1200	1000	1200	1000	1100	1000	1100	900
118x68	1500	1300	1400	1200	1300	1200	1300	1100	1200	1100
2/118x44	1600	1400	1500	1300	1400	1300	1400	1200	1300	1200
140x44	1500	1300	1400	1200	1400	1200	1300	1100	1200	1100
140x68	1800	1500	1700	1400	1600	1400	1500	1300	1400	1300
2/140x44	1900	1600	1800	1500	1700	1500	1600	1400	1500	1400
168x44	1800	1500	1700	1500	1600	1400	1500	1400	1500	1300
168x68	2100	1800	2000	1700	1900	1600	1800	1600	1700	1500
2/168x44	2300	1900	2100	1800	2000	1800	1900	1700	1900	1700
190x44	2100	1700	1900	1700	1800	1600	1700	1600	1700	1500
190x68	2400	2000	2200	1900	2100	1900	2000	1800	1900	1700
2/190x44	2600	2200	2400	2100	2300	2000	2200	2000	2100	1900
218x44	2400	2000	2200	1900	2100	1800	2000	1800	1900	1700
218x68	2700	2300	2600	2200	2400	2100	2300	2100	2200	2000
2/218x44	3000	2500	2800	2400	2600	2300	2500	2200	2400	2200
240x44	2600	2200	2400	2100	2300	2000	2200	2000	2100	1900
240x68	3000	2500	2800	2400	2700	2400	2600	2300	2500	2200
2/240x44	3200	2800	3000	2600	2900	2600	2800	2500	2700	2400
265x44	2900	2400	2700	2300	2600	2200	2400	2200	2300	2100
265x68	3200	2800	3100	2700	3000	2600	2800	2500	2700	2400
2/265x44	3400	3000	3300	2900	3100	2800	3000	2700	2900	2600
290x44	3100	2700	3000	2500	2800	2500 _s	2700	2400 _s	2600	2300 _s
290x68	3400	3000	3300	2900	3200	2800	3100	2800	3000	2700
2/290x44	3700	3200	3500	3100	3400	3000	3200	3000	3100	2900

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Total Upper Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 48

Lintels - Tile Roof
Lower Storey Load Bearing Walls

	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 DxB (mm)	Maximum Lintel Span (mm)									
Tile Roof										
118x44	1200	1000	1100	1000	1000	900	900	900	900	800
118x68	1400	1200	1200	1100	1100	1000	1100	1000	1000	900
2/118x44	1500	1300	1300	1200	1200	1100	1100	1100	1100	1000
140x44	1400	1200	1300	1100	1200	1100	1100	1000	1000	1000
140x68	1600	1400	1500	1300	1300	1200	1300	1200	1200	1100
2/140x44	1800	1500	1600	1400	1500	1300	1400	1300	1300	1200
168x44	1700	1500	1500	1400	1400	1300	1300	1200	1200	1200
168x68	2000	1700	1700	1600	1600	1500	1500	1400	1400	1300
2/168x44	2100	1800	1900	1700	1700	1600	1600	1500	1500	1400
190x44	1900	1700	1700	1500	1600	1400	1500	1400	1400	1300
190x68	2200	1900	2000	1800	1800	1700	1700	1600	1600	1500
2/190x44	2400	2100	2100	1900	2000	1800	1900	1700	1800	1600
218x44	2200	1900	2000	1800	1800	1700	1700	1600	1600	1500
218x68	2500	2200	2300	2000	2100	1900	2000	1800	1900	1700
2/218x44	2700	2400	2500	2200	2300	2100	2100	2000	2000	1900
240x44	2400	2100	2200	1900	2000	1800	1900	1700	1800	1700 ₅
240x68	2800	2400	2500	2200	2300	2100	2200	2000	2000	1900
2/240x44	3000	2600	2700	2400	2500	2300	2300	2200	2200	2100
265x44	2700	2300	2400	2100	2200	2000	2100	1900 ₅	1900	1800 ₅
265x68	3000	2700	2800	2500	2500	2300	2400	2200	2300	2100
2/265x44	3200	2900	3000	2700	2800	2500	2600	2400	2500	2300
290x44	2900	2500 ₅	2600	2300 ₅	2400	2200 ₅	2300	2100 ₁₀	2100 ₅	2000 ₁₀
290x68	3300	2900	3000	2700	2800	2600	2600	2400	2500	2300
2/290x44	3400	3100	3200	2900	3000	2800	2800	2600	2700	2500

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Tile Roof Mass of 90 (kg/m²), Total Upper Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 49

Deck Bearers May Support Decks Greater than 1000mm above the Ground

Size DxB (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						
90x68	1700	500	1300	300	NS	NS	1800	500	1300	300	NS	NS
118x68	2300	600	1700	500	1200	300	2400	700	1700	500	1200	300
140x68	2800	800	2000	600	1400	400	2900	800	2000	600	1400	400
168x68	3300	900	2400	700	1700	500	3400	1000	2400	700	1700	500
190x68	3600	1000	2700	800	1900	500	3900	1100	2700	800	1900	500
218x68	4000	1200	3100	900	2200	600	4400	1300	3100	900	2200	600
240x68	4300	1200	3500	1000	2400	700	4900	1400	3500	1000	2400	700
265x68	4600	1300	3800	1100	2700	800	5400	1600	3800	1100	2700 ₁₅	800
290x68	5000	1500	4200	1200	2900 ₅	800 ₅	5900	1700	4200	1200	2900 ₃₀	800 ₃₀

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, C'lever = Cantilever (mm).
- ii) The above table was based on a maximum Deck Mass of 20 (kg/m²), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 30 % of Backspan.
- v) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 50

Deck Joists
May Support Decks greater than 1000mm above the Ground

Size DxB (mm)	Joist Spacing (mm)											
	300		450		600		300		450		600	
	Maximum Floor Joist Span (mm)											
	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever
	Single Span						Continuous Span					
90x32	1300	300	1200	300	1200	300	1600	400	1500	400	1500	400
90x44	1600	400	1500	400	1500	400	1900	500	1800	500	1700	500
118x32	2100	600	1900	500	1900	500	2500	700	2400	700	2200	650
118x44	2500	700	2300	600	2200	600	3000	900	2800	800	2700	750
140x32	2700	800	2600	700	2500	700	3300	900	3100	850	2900	800
140x44	3200	900	3000	900	2900	850	3700	1100	3500	950	3300	850
168x32	3500	1000	3300	900	3200	950	4000	1150	3800	1050	3400	950
168x44	3900	1100	3700	1100	3500	1050	4400	1300	4200	1150	4000	1050
190x32	4000	1200	3800	1100	3500	1050	4500	1300	4300	1150	3900	1050
190x44	4400	1300	4100	1200	3800	1100	5000	1450	4800	1300	4500	1150
218x32	4600	1300	4200	1200	3900	1100	5200	1500	4900	1300	4400	1200
218x44	5100	1500	4600	1300	4300	1200	5800	1700	5500	1450	5100	1350
240x32	5000	1500	4500	1300	4200	1200	5700	1650	5400	1450	4900	1300
240x44	5500	1600	4900	1400	4600	1300	6300	1850	6100	1600	5600	1450
265x44	5900	1700	5300	1500	5000	1500	7000	2050	6700	1800	6200	1600
290x44	6300	1800	5700	1700	5300	1500	7200	2100	7200	1950	6700	1750

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, C'lever = Cantilever (mm).
- ii) The above table was based on a maximum Deck Mass of 20 (kg/m²), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 30 % of Backspan.
- v) End bearing lengths = 32 mm at end supports and 68 mm at internal supports for continuous members.

TABLES 51 & 52

Verandah & Pergola Beams

		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 DxB (mm)	Roof Mass (kg/m ²)	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
118x32	10	2400	2200	2100	1600	2700	2400	2100	1800
	20	2000	1800	1700	NS	2600	2400	2200	1700
	40	1600	NS	NS	NS	2100	1900	1800	1500
	60	NS	NS	NS	NS	1900	1600	1500	NS
	90	NS	NS	NS	NS	1600	NS	NS	NS
118x44	10	2600	2400	2300	2000	3200	2800	2500	2100
	20	2200	2000	1900	1600	2900	2700	2500	2100
	40	1800	1600	1500	NS	2300	2200	2000	1800
	60	1500	NS	NS	NS	2100	1900	1800	1500
	90	NS	NS	NS	NS	1800	1600	1500	NS
118x68	10	2900	2700	2600	2300	4000	3400	3100	2500
	20	2400	2300	2100	1900	3300	3100	2900	2500
	40	2000	1900	1700	1500	2700	2500	2300	2000
	60	1800	1600	1500	NS	2400	2200	2000	1800
	90	1500	NS	NS	NS	2100	1900	1800	1500
140x32	10	2800	2600	2400	2000	3300	2800	2500	2100
	20	2300	2100	2000	1700	3200	2900	2600	2100
	40	1900	1700	1600	NS	2500	2300	2200	1900
	60	1600	1500	NS	NS	2200	2000	1900	1600
	90	NS	NS	NS	NS	1900	1800	1600	NS
140x44	10	3100	2900	2700	2300	3900	3300	3000	2400
	20	2500	2300	2200	2000	3500	3200	3000	2400
	40	2100	2000	1800	1500	2800	2500	2300	2100
	60	1900	1600	1500	NS	2400	2300	2100	1800
	90	1600	NS	NS	NS	2200	2000	1800	1500
140x68	10	3500	3200	3100	2700	4500	4100	3700	3000
	20	2900	2700	2500	2200	3900	3700	3400	3000
	40	2400	2200	2100	1800	3200	2900	2700	2400
	60	2100	2000	1800	1500	2800	2600	2400	2100
	90	1900	1700	1500	NS	2500	2300	2100	1800
168x32	10	3400	3100	2900	2400	4000	3400	3100	2500
	20	2800	2500	2400	2100	3800	3400	3200	2500
	40	2200	2100	1900	1600	3000	2800	2600	2300
	60	2000	1800	1600	NS	2700	2400	2300	2000
	90	1700	1500	NS	NS	2300	2100	2000	1700
168x44	10	3700	3400	3200	2800	4600	4000	3600	2900
	20	3100	2800	2600	2300	4100	3800	3600	3000
	40	2500	2300	2100	1900	3400	3100	2900	2500
	60	2200	2000	1900	1600	2900	2700	2500	2200
	90	2000	1700	1600	NS	2600	2300	2200	1900
168x68	10	4000	3800	3600	3300	5000	4800	4400	3600
	20	3500	3200	3000	2600	4500	4200	4000	3600
	40	2800	2600	2400	2200	3900	3500	3300	2900
	60	2500	2300	2200	1900	3400	3100	2900	2500
	90	2200	2100	1900	1600	3000	2700	2500	2200

NOTES :

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

TABLES 51 & 52 (cont)

Verandah & Pergola Beams

		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 DxB (mm)	Roof Mass (kg/m ²)	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
190x32	10	3800	3500	3300	2700	4500	3900	3500	2800
	20	3200	2900	2700	2400	4200	3900	3600	2900
	40	2500	2300	2200	1900	3400	3100	2900	2500
	60	2200	2100	1900	1600	3000	2700	2500	2200
	90	2000	1800	1600	NS	2600	2400	2200	1900
190x44	10	4100	3900	3600	3200	5100	4500	4100	3300
	20	3400	3200	3000	2600	4500	4200	4000	3400
	40	2800	2600	2400	2100	3800	3500	3200	2800
	60	2500	2300	2100	1800	3300	3100	2800	2500
	90	2200	2000	1800	1600	2900	2700	2500	2200
190x68	10	4400	4200	4000	3700	5500	5200	5000	4100
	20	3900	3600	3400	3000	4900	4600	4400	4100
	40	3200	3000	2700	2400	4300	4000	3800	3300
	60	2800	2600	2400	2100	3900	3500	3300	2900
	90	2500	2300	2100	1900	3400	3100	2900	2500
218x44	10	4500	4300	4100	3700	5600	5200	4700	3800
	20	4000	3600	3400	3000	4900	4600	4400	3900
	40	3200	3000	2700	2400	4300	4000	3800	3300
	60	2800	2600	2400	2100	3900	3500	3300	2800
	90	2500	2300	2100	1800	3400	3100	2800	2500
218x68	10	4800	4600	4400	4100	6000	5700	5500	4700
	20	4300	4100	3900	3400	5400	5100	4900	4500
	40	3700	3400	3200	2800	4700	4400	4200	3800
	60	3300	3000	2800	2400	4300	4000	3800	3300
	90	2900	2600	2400	2200	3900	3600	3300	2900
240x44	10	4800	4500	4400	4000	6000	5700	5200	4200
	20	4200	4000	3800	3300	5300	5000	4700	4300
	40	3500	3300	3000	2600	4600	4300	4100	3600
	60	3100	2900	2600	2300	4200	3900	3600	3200
	90	2700	2500	2300	2100	3700	3400	3200	2700
240x68	10	5100	4900	4700	4400	6400	6100	5900	5200
	20	4600	4300	4200	3800	5700	5400	5200	4800
	40	4000	3700	3500	3100	5000	4700	4500	4100
	60	3600	3300	3100	2700	4600	4300	4100	3700
	90	3200	2900	2700	2400	4200	3900	3700	3200
265x68	10	5400	5200	5100	4700	6800	6500	6300	5700
	20	4900	4700	4500	4100	6200	5800	5600	5100
	40	4300	4100	3900	3400	5400	5100	4800	4400
	60	4000	3600	3400	3000	4900	4600	4400	4000
	90	3500	3200	3000	2600	4500	4200	4000	3500
290x68	10	5800	5500	5400	5000	7200	6900	6700	6200
	20	5200	5000	4800	4400	6500	6200	6000	5500
	40	4600	4300	4100	3700	5700	5400	5200	4700
	60	4200	4000	3700	3300	5300	5000	4700	4300
	90	3800	3500	3300	2900	4800	4500	4300	3900

NOTES :

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

TABLE 53**Posts Supporting Roof and/or Floor Loads**

	Floor Load Area (m2)								
	0			10			20		
Roof Load Area (m2)	0	10	20	0	10	20	0	10	20
Size Dx B (mm)	Maximum Post Height (mm)								
Sheet Roof									
90x90	4800	4800	3800	3500	3100	2900	2500	2300	2200
90x118	4800	4800	4300	4000	3600	3300	2800	2600	2500
118x118	4800	4800	4800	4800	4800	4800	4200	4000	3800
Tile Roof									
90x90	4800	3700	2600	3500	2800	2300	2500	2200	2000
90x118	4800	4200	3000	4000	3200	2600	2800	2500	2300
118x118	4800	4800	4500	4800	4800	4000	4200	3800	3400

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Upper Floor Mass of 50 (kg/m²), Floor Live Load of 1.5 (kPa).



UNSEASONED HARDWOOD – F17 SPAN TABLES

*DRESSED ALL ROUND (DAR)
DRESSED PENCIL ROUND (DPR)*

TABLE 1 **Floor Bearers**
Supporting Single or Upper Storey Loadbearing Walls - Floor Load Width 1800 mm

	Floor Load Width (mm)							
	1800				1800			
Roof Load Width (mm)	3000	4500	6000	7500	3000	4500	6000	7500
Size DxB (mm)	Maximum Bearer Span (mm)							
	Single Span				Continuous Span			
Sheet Roof								
90x68	1100	1000	1000	NS	1500	1400	1300	1300
118x68	1400	1400	1300	1200	2000	1900	1800	1700
140x68	1700	1600	1500	1500	2300	2200	2100	2000
168x68	2100	2000	1900	1800	2800	2700	2500	2400
190x68	2300	2200	2100	2000	3200	3000	2900	2800
218x68	2700	2500	2400	2300	3600	3500	3300	3200
240x68	3000	2800	2700	2600	3900	3800	3600	3500
265x68	3300	3100	3000	2800	4200	4000	3900	3800
290x68	3600	3400	3200	3100	4500	4300	4200	4100
Tile Roof								
90x68	1000	NS	NS	NS	1300	1200	1100	1100
118x68	1300	1200	1100	1000	1700	1600	1500	1400
140x68	1500	1400	1300	1200	2100	1900	1800	1700
168x68	1800	1700	1600	1500	2500	2300	2200	2000
190x68	2100	1900	1800	1700	2800	2600	2400	2300
218x68	2400	2200	2100	1900	3300	3000	2800	2700
240x68	2600	2400	2300	2100	3600	3300	3100	2900
265x68	2900	2700	2500	2400	3900	3600	3400	3200
290x68	3200	2900	2700	2600	4100	3900	3700	3500

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) The above table was based on a Wall Height (mm) of 2400.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members.

TABLE 2 **Floor Bearers**
Supporting Single or Upper Storey Loadbearing Walls - Floor Load Width 2400 mm

	Floor Load Width (mm)							
	2400				2400			
Roof Load Width (mm)	3000	4500	6000	7500	3000	4500	6000	7500
Size DxB (mm)	Maximum Bearer Span (mm)							
	Single Span				Continuous Span			
Sheet Roof								
90x68	1000	1000	NS	NS	1400	1300	1300	1200
118x68	1400	1300	1200	1200	1900	1800	1700	1600
140x68	1600	1500	1500	1400	2200	2100	2000	2000
168x68	1900	1900	1800	1700	2700	2500	2400	2400
190x68	2200	2100	2000	2000	3000	2900	2800	2700
218x68	2500	2400	2300	2200	3500	3300	3200	3100
240x68	2800	2700	2600	2500	3700	3600	3500	3400
265x68	3100	3000	2800	2700	4000	3900	3800	3700
290x68	3400	3200	3100	3000	4300	4200	4100	3900
Tile Roof								
90x68	NS	NS	NS	NS	1300	1200	1100	1000
118x68	1200	1100	1100	1000	1700	1500	1500	1400
140x68	1500	1300	1300	1200	2000	1800	1700	1600
168x68	1800	1600	1500	1500	2400	2200	2100	2000
190x68	2000	1800	1700	1600	2700	2500	2400	2300
218x68	2300	2100	2000	1900	3100	2900	2700	2600
240x68	2500	2300	2200	2100	3400	3200	3000	2900
265x68	2800	2600	2400	2300	3700	3500	3300	3200
290x68	3000	2800	2700	2500	4000	3800	3600	3500

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) The above table was based on a Wall Height (mm) of 2400.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members.

TABLE 3 **Floor Bearers**
Supporting Single or Upper Storey Loadbearing Walls - Floor Load Width 3600 mm

	Floor Load Width (mm)							
	3600				3600			
Roof Load Width (mm)	3000	4500	6000	7500	3000	4500	6000	7500
Size DxB (mm)	Maximum Bearer Span (mm)							
	Single Span				Continuous Span			
Sheet Roof								
90x68	NS	NS	NS	NS	1300	1200	1200	1100
118x68	1200	1200	1100	1100	1700	1600	1600	1500
140x68	1500	1400	1400	1300	2000	1900	1900	1800
168x68	1800	1700	1600	1600	2400	2300	2300	2200
190x68	2000	1900	1900	1800	2700	2600	2600	2500
218x68	2300	2200	2200	2100	3100	3000	2900	2900
240x68	2500	2400	2400	2300	3500	3300	3200	3100
265x68	2800	2700	2600	2500	3800	3700	3600	3500
290x68	3100	3000	2900	2800	4000	3900	3800	3700
Tile Roof								
90x68	NS	NS	NS	NS	1200	1100	1000	1000
118x68	1100	1100	1000	NS	1500	1500	1400	1300
140x68	1300	1300	1200	1100	1800	1700	1600	1600
168x68	1600	1500	1400	1400	2200	2100	2000	1900
190x68	1800	1700	1600	1600	2500	2400	2300	2200
218x68	2100	2000	1900	1800	2900	2700	2600	2500
240x68	2300	2200	2100	2000	3200	3000	2900	2700
265x68	2600	2400	2300	2200	3500	3300	3200	3000
290x68	2800	2700	2500	2400	3800	3600	3500 _s	3300 _o

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) The above table was based on a Wall Height (mm) of 2400.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 4 **Floor Bearers**
Supporting Single or Upper Storey Loadbearing Walls - Floor Load Width 4800 mm

	Floor Load Width (mm)							
	4800				4800			
Roof Load Width (mm)	3000	4500	6000	7500	3000	4500	6000	7500
Size DxB (mm)	Maximum Bearer Span (mm)							
	Single Span				Continuous Span			
Sheet Roof								
90x68	NS	NS	NS	NS	1200	1100	1100	1100
118x68	1100	1100	1100	1000	1500	1500	1500	1400
140x68	1300	1300	1300	1200	1800	1800	1700	1700
168x68	1600	1600	1500	1500	2200	2200	2100	2100
190x68	1800	1800	1700	1700	2500	2400	2400	2300
218x68	2100	2100	2000	2000	2900	2800	2700	2700
240x68	2300	2300	2200	2200	3200	3100	3000	3000
265x68	2600	2500	2500	2400	3500	3400	3300	3300 _s
290x68	2800	2800	2700	2600	3800 _s	3700 _s	3600 ₁₀	3600 ₁₅
Tile Roof								
90x68	NS	NS	NS	NS	1100	1000	1000	NS
118x68	1000	1000	NS	NS	1400	1400	1300	1300
140x68	1300	1200	1100	1100	1700	1600	1600	1500
168x68	1500	1400	1400	1300	2100	2000	1900	1800
190x68	1700	1600	1600	1500	2400	2200	2100	2100
218x68	2000	1900	1800	1700	2700	2600	2500	2400
240x68	2200	2100	2000	1900	3000	2800	2700	2600 _s
265x68	2400	2300	2200	2100	3300	3100 ₁₀	3000 ₁₀	2900 ₁₅
290x68	2700	2500	2400	2300	3600 ₁₀	3400 ₂₀	3300 ₂₅	3200 ₃₀

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) The above table was based on a Wall Height (mm) of 2400.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 5

Floor Bearers Supporting Floor Load Only

Size DxB (mm)	Floor Load Width (mm)				
	1800	2400	3600	4800	6000
	Maximum Bearer Span (mm)				
	Single Span				
90x68	1300	1200	1000	NS	NS
118x68	1800	1600	1400	1200	1100
140x68	2100	1900	1600	1500	1300
168x68	2500	2300	2000	1800	1600
190x68	2900	2600	2200	2000	1800
218x68	3300	3000	2600	2300	2100
240x68	3600	3300	2800	2500	2300
265x68	3900	3600	3100	2800	2600
290x68	4100	3900	3400	3100	2800
Continuous Span					
90x68	1800	1700	1400	1300	1100
118x68	2400	2200	1900	1700	1500
140x68	2900	2600	2200	2000	1800
168x68	3500	3100	2700	2400	2100
190x68	3800	3500	3100	2700	2400
218x68	4200	3900	3500	3100	2800
240x68	4500	4200	3800	3500	3100
265x68	4900	4500	4100	3800	3400 ₅
290x68	5200	4900	4400	4000	3700 ₁₅

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 6a **Floor Joists - Sheet Roof - Supporting Floor Loads**
and/or Supporting Loadbearing Wall Perpendicular to Joists

Joist Spacing (mm)	Roof Load Width (mm)											
	0			1500			4500			7500		
	300	450	600	300	450	600	300	450	600	300	450	600
Size DxB (mm)	Maximum Floor Joist Span (mm)											
	Single Span											
90x32	1800	1500	1400	1600	1400	1300	1300	1100	NS	1100	NS	NS
90x44	2100	1700	1600	1800	1600	1400	1500	1200	1100	1300	1000	NS
118x32	2500	2100	1900	2200	1900	1700	1800	1600	1400	1600	1300	1200
118x44	2800	2300	2200	2500	2200	2000	2100	1800	1600	1800	1500	1300
140x32	3000	2500	2300	2700	2300	2100	2300	1900	1700	2000	1700	1500
140x44	3300	2900	2600	3000	2600	2400	2600	2200	2000	2300	1900	1700
168x32	3500	3100	2800	3300	2900	2600	2800	2400	2200	2500	2100	1900
168x44	3900	3500	3200	3600	3200	2900	3200	2800	2500	2900	2400	2200
190x32	4000	3500	3300	3700	3300	3000	3300	2800	2500	2900	2500	2200
190x44	4300	3900	3600	4100	3600	3300	3700	3200	2900	3300	2900	2500
218x32	4500	4100	3700	4300	3800	3400	3800	3300	3000	3500	3000	2700
218x44	4800	4400	4100	4600	4200	3800	4300	3700	3400	3900	3400	3000
240x32	4800	4400	4100	4600	4200	3800	4300	3700	3300	3900	3400	3000
240x44	5100	4800	4500	5000	4600	4200	4700	4200	3800	4400	3800	3400
265x44	5500	5100	4800	5300	4900	4600	5000	4600	4200	4800	4300	3800
290x44	5800	5400	5100	5700	5200	4900	5400	4900	4600	5100	4700	4300
	Continuous Span											
90x32	2500	1800	1600	2100	1800	1600	1600	1300	1200	1300	1100	NS
90x44	2900	2000	1900	2400	2000	1900	1900	1600	1400	1600	1300	1100
118x32	3400	2500	2200	2900	2500	2200	2300	2000	1700	2000	1600	1400
118x44	3800	2800	2500	3300	2800	2500	2700	2300	2000	2300	1900	1700
140x32	4000	3000	2700	3600	3000	2700	2900	2500	2200	2500	2100	1800
140x44	4400	3500	3100	4000	3500	3100	3300	2800	2500	2900	2400	2100
168x32	4600	3800	3300	4300	3800	3300	3600	3100	2800	3200	2700	2300
168x44	5000	4300	3800	4700	4200	3800	4100	3500	3200	3600	3100	2700
190x32	5100	4400	3800	4800	4300	3800	4200	3600	3200	3700	3100	2800
190x44	5500	5000	4300	5200	4700	4300	4700	4100	3700	4200	3600	3200
218x32	5700	5100	4500	5300	4900	4500	4800	4300	3800	4400	3800	3300
218x44	6100	5500	5000	5700	5300	4900	5200	4700	4300	4800	4300	3800
240x32	6100	5500	5000	5800	5200	4900	5200	4700	4300	4800	4300	3800
240x44	6500	6000	5600	6200	5700	5300	5700	5100	4800	5300	4700	4300
265x44	6900	6400	6000	6600	6100	5700	6100	5600	5200	5700	5100	4800
290x44	7200	6800	6400	7100	6500	6100	6600	6000	5600	6200	5600	5200

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Floor Mass of 40 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) End bearing lengths = 32 mm at end supports and 68 mm at internal supports for continuous members.
- iv) Floor loads may consist of floor covering, flooring and/or ceilings. No heavy point roof loads shall be applied to Floor Joists. Cantilevers may be up to 25%. For loadbearing 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 backspan is at least four times the cantilever distance.

TABLE 6b Floor Joists - Tile Roof - Supporting Floor Loads
and/or Supporting Loadbearing Wall Perpendicular to Joists

Joist Spacing (mm)	Roof Load Width (mm)											
	0			1500			4500			7500		
	300	450	600	300	450	600	300	450	600	300	450	600
Size DxB (mm)	Maximum Floor Joist Span (mm)											
	Single Span											
	Continuous Span											
90x32	1800	1500	1400	1400	1200	1000	NS	NS	NS	NS	NS	NS
90x44	2100	1700	1600	1600	1400	1200	1100	NS	NS	NS	NS	NS
118x32	2500	2100	1900	2000	1700	1500	1400	1200	1000	1100	NS	NS
118x44	2800	2300	2200	2200	1900	1700	1600	1400	1200	1300	1100	1000
140x32	3000	2500	2300	2400	2100	1800	1800	1500	1300	1500	1200	1100
140x44	3300	2900	2600	2700	2300	2100	2100	1700	1500	1700	1400	1200
168x32	3500	3100	2800	3000	2600	2300	2300	1900	1700	1900	1600	1400
168x44	3900	3500	3200	3300	2900	2600	2600	2200	2000	2200	1900	1600
190x32	4000	3500	3300	3400	3000	2700	2700	2300	2000	2300	1900	1700
190x44	4300	3900	3600	3800	3300	3000	3100	2600	2300	2600	2200	1900
218x32	4500	4100	3700	4000	3500	3100	3200	2700	2400	2800	2300	2000
218x44	4800	4400	4100	4400	3900	3500	3700	3100	2800	3200	2700	2300
240x32	4800	4400	4100	4400	3900	3500	3600	3100	2800	3100	2600	2300
240x44	5100	4800	4500	4800	4300	3900	4100	3500	3200	3600	3000	2700
265x44	5500	5100	4800	5100	4700	4400	4600	4000	3600	4100	3500	3100
290x44	5900	5400	5100	5500	5000	4700	4900	4400	4000	4500	3900	3500
90x32	2500	1800	1600	1800	1500	1300	1200	1000	NS	NS	NS	NS
90x44	2900	2000	1900	2000	1700	1500	1400	1100	1000	1100	NS	NS
118x32	3400	2500	2200	2500	2100	1900	1700	1400	1200	1400	1100	1000
118x44	3800	2800	2500	2900	2400	2200	2000	1700	1500	1600	1300	1200
140x32	4000	3000	2700	3100	2700	2400	2200	1800	1600	1800	1500	1300
140x44	4400	3500	3100	3500	3000	2700	2600	2100	1900	2100	1700	1500
168x32	4600	3800	3300	3900	3300	3000	2900	2400	2100	2300	1900	1700
168x44	5000	4300	3800	4400	3800	3400	3300	2800	2400	2700	2300	2000
190x32	5100	4400	3800	4500	3900	3500	3400	2800	2500	2800	2300	2000
190x44	5500	5000	4300	4800	4300	3900	3900	3300	2900	3200	2700	2400
218x32	5700	5100	4500	5000	4500	4100	4100	3400	3000	3400	2800	2500
218x44	6100	5500	5000	5400	4900	4600	4600	3900	3500	3900	3300	2900
240x32	6100	5500	5000	5400	4900	4500	4600	3900	3400	3900	3200	2800
240x44	6500	6000	5600	5800	5300	4900	5000	4400	3900	4400	3700	3300
265x44	6900	6400	6000	6300	5700	5300	5400	4900	4500	4900	4300	3800
290x44	7200	6800	6400	6700	6200	5800	5900	5300	4900	5300	4700	4300

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Floor Mass of 90 (kg/m²), Total Ground Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) End bearing lengths = 32 mm at end supports and 68 mm at internal supports for continuous members.
- iv) Floor loads may consist of floor covering, flooring and/or ceilings. No heavy point roof loads shall be applied to Floor Joists. Cantilevers may be up to 25%. For loadbearing 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 backspan is at least four times the cantilever distance.

TABLE 17

Lintels - Sheet Roof
Single or Upper Storey Loadbearing Walls

	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter/Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
Size DxB (mm)	Maximum Lintel Span (mm)									
Sheet Roof										
90x44	1800	1800	1400	1300	1300	1000	1100	900	1000	800
90x68	2000	2000	1600	1500	1400	1200	1300	1100	1200	1000
2/90x44	2100	2200	1700	1700	1500	1400	1400	1200	1300	1100
118x44	2300	2300	1800	1800	1600	1500	1400	1300	1300	1100
118x68	2600	2600	2100	2000	1800	1800	1600	1600	1500	1400
2/118x44	2700	2800	2200	2200	1900	1900	1800	1700	1600	1600
140x44	2600	2700	2100	2100	1800	1800	1700	1600	1500	1400
140x68	3000	3000	2400	2500	2100	2100	1900	1900	1800	1800
2/140x44	3100	3100	2600	2700	2300	2300	2100	2100	1900	1900
168x44	3100	3100	2500	2600	2200	2200	2000	2000	1800	1800
168x68	3400	3400	2900	2900	2500	2600	2300	2300	2100	2100
2/168x44	3600	3500	3100	3100	2700	2800	2500	2600	2300	2300
190x44	3400	3300	2800	2800	2500	2500	2300	2200	2100	2100
190x68	3700	3700	3200	3100	2900	2900	2600	2700	2400	2400
2/190x44	3900	3900	3400	3300	3100	3000	2800	2800	2600	2700
218x44	3700	3700	3200	3100	2800	2900	2600	2700	2400	2400
218x68	4100	4100	3500	3500	3200	3200	3000	3000	2800	2800
2/218x44	4300	4300	3700	3700	3400	3400	3200	3100	3000	3000
240x44	4000	4000	3400	3400	3100	3100	2900	2900	2700	2700
240x68	4400	4300	3800	3700	3400	3400	3200	3200	3000	3000
2/240x44	4600	4600	4000	4000	3600	3600	3400	3400	3200	3200
265x44	4300	4300	3700	3600	3300	3300	3100	3100	2900	2900
265x68	4700	4700	4000	4000	3700	3700	3500	3400	3300	3200
2/265x44	4900	4900	4300	4300	3900	3900	3700	3600	3500	3400
290x44	4600	4500	3900	3900	3600	3500	3300	3300	3100	3100
290x68	5000	5000	4300	4300	3900	3900	3700	3700	3500	3500
2/290x44	5200	5200	4600	4500	4200	4200	3900	3900	3700	3700

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²).
- iii) Minimum bearing length = 35 mm at end supports.

TABLE 18

Lintels - Tile Roof
Single or Upper Storey Loadbearing Walls

	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter/Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
Size DxB (mm)	Maximum Lintel Span (mm)									
Tile Roof										
90x44	1400	1200	1100	800	900	700	800	600	700	NS
90x68	1500	1400	1300	1000	1100	800	900	700	900	600
2/90x44	1600	1600	1300	1100	1200	900	1000	800	900	700
118x44	1700	1700	1400	1200	1200	1000	1100	800	1000	700
118x68	2000	2000	1600	1500	1400	1200	1300	1000	1100	900
2/118x44	2100	2100	1700	1600	1500	1300	1400	1200	1300	1000
140x44	2000	2000	1600	1500	1400	1200	1300	1100	1200	900
140x68	2300	2400	1800	1800	1600	1500	1500	1300	1400	1200
2/140x44	2500	2600	2000	2000	1700	1700	1600	1500	1500	1300
168x44	2400	2500	1900	1900	1700	1600	1500	1400	1400	1200
168x68	2800	2800	2200	2200	1900	1900	1700	1700	1600	1500
2/168x44	3000	3000	2400	2400	2100	2100	1900	1900	1800	1700
190x44	2700	2800	2200	2100	1900	1900	1700	1700	1600	1500 _s
190x68	3100	3100	2500	2600	2200	2200	2000	2000	1800	1800
2/190x44	3300	3200	2700	2800	2400	2400	2200	2100	2000	2000
218x44	3100	3100	2500	2500	2200	2100	2000	1900	1800	1800
218x68	3400	3400	2900	2900	2500	2600	2300	2300	2100	2100
2/218x44	3600	3600	3100	3100	2700	2800	2500	2500	2300	2300
240x44	3300	3300	2700	2800	2400	2400	2200	2100	2000	2000
240x68	3700	3600	3100	3100	2800	2800	2500	2500	2300	2300
2/240x44	3900	3800	3300	3300	3000	3000	2700	2800	2500	2600
265x44	3600	3500	3000	3000	2700	2700	2400	2400 _s	2200 _s	2200
265x68	3900	3900	3400	3300	3000	3000	2800	2800	2600	2600
2/265x44	4200	4200	3600	3500	3200	3200	3000	3000	2800	2800
290x44	3800	3800	3200	3200	2900	2900	2700	2700 _s	2500 _s	2400 _{1s}
290x68	4200	4200	3600	3600	3300	3200	3000	3000	2800	2900 _s
2/290x44	4400	4400	3800	3800	3500	3400	3200	3200	3000	3000

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Tile Roof Mass of 90 (kg/m²).
- iii) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 19

Lintel Supporting Truncated Girders - Hip Ends Only
Sheet Roof - Girder Truss Setback 2700 mm

	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 DxB (mm)	Maximum Lintel Span (mm)							
Sheet Roof								
90x44	1500	1600	1500	1600	1500	1600	1500	1600
90x68	1700	1800	1700	1800	1700	1800	1700	1800
2/90x44	1800	1900	1800	1900	1800	1900	1800	1900
118x44	1900	2000	1900	2000	1900	2000	1900	2000
118x68	2200	2300	2200	2300	2200	2300	2200	2300
2/118x44	2300	2300	2300	2300	2300	2300	2300	2300
140x44	2300	2300	2300	2300	2300	2300 ₅	2300	2300 ₁₀
140x68	2400	2400	2400	2400	2300	2400	2300	2300
2/140x44	2500	2500	2400	2400	2400	2400	2400	2400
168x44	2500	2500	2400	2400	2400	2400	2400	2400 ₁₀
168x68	2700	2700	2600	2600	2500	2500	2500	2500
2/168x44	2800	2800	2700	2700	2600	2600	2600	2500
190x44	2600	2600	2600	2500	2500	2500	2500	2500 ₁₀
190x68	2900	2900	2800	2700	2700	2700	2600	2600
2/190x44	3100	3100	2900	2900	2800	2800	2800	2700
218x44	2900	2900	2800	2700	2700	2600	2600	2600 ₅
218x68	3200	3200	3000	3000	2900	2900	2800	2800
2/218x44	3400	3300	3200	3200	3100	3000	3000	2900
240x44	3100	3100	3000	2900	2900	2800	2800	2700 ₅
240x68	3400	3400	3200	3200	3100	3100	3000	3000
2/240x44	3600	3600	3400	3400	3300	3200	3200	3100
265x44	3300	3300	3100	3100	3000	3000	2900	2900
265x68	3600	3600	3400	3400	3300	3200	3200	3100
2/265x44	3800	3800	3600	3600	3500	3400	3400	3300
290x44	3500	3500	3300	3300	3200	3100	3100	3000 ₅
290x68	3900	3900	3600	3600	3500	3400	3400	3300
2/290x44	4100	4100	3800	3800	3700	3600	3600	3500

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²).
- iii) The above table was based on a Lintel setback (mm) of 400, Lintel setback (mm) of 600.
- iv) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 20

Lintel Supporting Truncated Girders - Hip Ends Only
Tile Roof - Girder Truss Setback 2400 mm

	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 DxB (mm)	Maximum Lintel Span (mm)							
Tile Roof								
90x44	1300	1300	1300	1300	1300	1300	1300	1300
90x68	1400	1500	1400	1500	1400	1500	1400	1500
2/90x44	1500	1600	1500	1600	1500	1600	1500	1600
118x44	1600	1700	1600	1700	1600	1700	1600	1700
118x68	1800	2000	1800	2000	1800	2000	1800	2000
2/118x44	2000	2000	2000	2000	2000	2000	2000	2000
140x44	1900	2100	1900	2100	1900	2100	1900	2100
140x68	2000	2000	2000	2000	2000	2000 ₅	2000	2000 ₁₀
2/140x44	2100	2100	2100	2100	2000	2000	2000	2000
168x44	2100	2100	2000	2000 ₁₀	2000 ₁₀	2000 ₂₀	2000 ₂₀	2000 ₃₅
168x68	2200	2200	2100	2100	2100	2100	2100	2100 ₁₀
2/168x44	2300	2300	2200	2200	2200	2100	2100	2100
190x44	2200	2200	2100	2100 ₅	2100 ₁₀	2100 ₂₀	2100 ₂₀	2100 ₃₀
190x68	2400	2300	2300	2200	2200	2200	2200	2100 ₁₀
2/190x44	2500	2500	2400	2300	2300	2300	2300	2200
218x44	2400	2300	2300	2200 ₅	2200 ₅	2200 ₂₀	2200 ₁₅	2100 ₃₀
218x68	2600	2600	2500	2400	2400	2300	2300	2300 ₅
2/218x44	2800	2800	2600	2500	2500	2400	2400	2300
240x44	2500	2500	2400	2300 ₅	2300 ₅	2300 ₁₅	2300 ₁₅	2200 ₂₅
240x68	2900	2800	2600	2600	2500	2400	2400	2400 ₅
2/240x44	3000	3000	2800	2700	2700	2600	2600	2500
265x44	2700	2700	2600	2500	2500 ₅	2400 ₁₅	2400 ₁₅	2300 ₂₅
265x68	3200	3000	2900	2800	2700	2600	2600	2500 ₅
2/265x44	3200	3200	3000	3000	2900	2800	2800	2700
290x44	3000	2900	2700	2700	2600 ₁₀	2500 ₁₀	2500 ₁₅	2400 ₂₀
290x68	3300	3200	3100	3000	2900	2800	2800	2700 ₅
2/290x44	3500	3400	3200	3200	3100	3000	3000	2900

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Tile Roof Mass of 90 (kg/m²).
- iii) The above table was based on a Lintel setback (mm) of 400, Lintel setback (mm) of 600.
- iv) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 23

Hanging Beams Supporting Ceiling Loads Only

Size DxB (mm)	Ceiling Load Width (mm)					
	1800	2400	3000	3600	4200	4800
	Maximum Hanging Beam Span (mm)					
90x32	1900	1700	1500	1400	1300	1200
90x44	2100	1900	1700	1600	1500	1400
118x32	2500	2200	2000	1900	1700	1600
118x44	2700	2500	2200	2100	1900	1800
140x32	2900	2600	2400	2200	2100	1900
140x44	3200	2900	2700	2500	2300	2200
168x32	3500	3200	2900	2700	2500	2300
168x44	3800	3500	3200	3000	2800	2600
190x32	3900	3600	3300	3000	2800	2700
190x44	4300	3900	3600	3300	3100	2900
218x32	4500	4100	3700	3500	3200	3000
218x44	4900	4500	4100	3800	3600	3400
240x32	4900	4500	4100	3800	3600	3400
240x44	5400	4900	4500	4200	3900	3700
265x32	5400	4900	4500	4200	3900	3700
265x44	5900	5400	5000	4600	4300	4100
290x32	5900	5300	4900	4600	4300	4000
290x44	6400	5800	5400	5000	4700	4500

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Ceiling Mass of 12 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.
- iv) Roof loads must not be strutted onto hanging beams

TABLE 24

Counter Beams Supporting Hanging Beams

Size DxB (mm)	Ceiling Load Width (mm)					
	1800	2400	3000	3600	4200	4800
	Maximum Counter Beam Span (mm)					
90x32	1900	1700	1600	1500	1400	1400
90x44	2100	1900	1800	1700	1600	1500
118x32	2500	2300	2100	2000	1900	1800
118x44	2700	2500	2300	2200	2100	2000
140x32	2900	2700	2500	2400	2200	2200
140x44	3200	3000	2800	2600	2500	2400
168x32	3500	3200	3000	2800	2700	2600
168x44	3800	3500	3300	3100	3000	2900
190x32	3900	3600	3400	3200	3100	2900
190x44	4100	3900	3700	3500	3400	3200
218x32	4300	4000	3800	3700	3500	3400
218x44	4500	4300	4100	4000	3800	3700
240x32	4600	4300	4100	3900	3800	3700
240x44	4900	4600	4400	4200	4100	4000
265x32	4900	4600	4400	4200	4100	4000
265x44	5200	4900	4700	4500	4400	4300
290x32	5200	4900	4700	4500	4400	4200
290x44	5500	5300	5000	4900	4700	4600

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Ceiling & Hanging Beam Mass of 20 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.
- iv) Roof loads must not be strutted onto counter beams.

TABLE 25

Strutting/Hanging Beams Supporting Roof and Ceiling Loads

Roof Area Supported (m ²)	Ceiling Load Width (mm)											
	1800						3600					
	2	4	6	8	10	12	2	4	6	8	10	12
Size DxB (mm)	Maximum Beam Span (mm)											
Sheet Roof												
90x68	1700	1400	1200	1000	NS	NS	1500	1300	1100	1000	NS	NS
118x68	2400	2000	1700	1500	1400	1300	2000	1800	1600	1400	1300	1200
140x68	2900	2500	2200	2000	1800	1700	2500	2200	2000	1800	1700	1600
168x68	3600	3100	2800	2500	2300	2200	3000	2700	2500	2300	2200	2000
190x68	4000	3600	3300	3000	2800	2600	3500	3200	2900	2700	2600	2400
218x68	4400	4100	3800	3600	3300	3100	3900	3700	3500	3200	3100	2900
240x68	4800	4400	4100	3900	3700	3600	4200	4000	3800	3600	3400	3300
265x68	5100	4800	4500	4200	4100	3900	4500	4300	4100	3900	3800	3700
290x68	5500	5100	4800	4600	4400	4200	4800	4600	4400	4200	4100	4000
Tile Roof												
90x68	1300	1000	NS	NS	NS	NS	1200	NS	NS	NS	NS	NS
118x68	1900	1400	1200	1000	NS	NS	1700	1400	1200	1000	NS	NS
140x68	2400	1900	1600	1400	1200	1100	2100	1700	1500	1300	1200	1100
168x68	3000	2400	2000	1800	1600	1500	2700	2200	1900	1700	1600	1400
190x68	3500	2800	2400	2100	1900	1800	3100	2600	2300	2100	1900	1700
218x68	4000	3400	2900	2600	2400	2200	3600	3100	2800	2500	2300	2100
240x68	4300	3800	3400	3000	2700	2500	3900	3500	3100	2800	2600	2400
265x68	4700	4100	3700	3400	3100	2900	4200	3800	3600	3200	3000	2800
290x68	5000	4500	4100	3800	3600	3300	4500	4100	3900	3600	3400	3200

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 20 (kg/m²), Tile Roof Mass of 60 (kg/m²), Total Ceiling Mass of 12 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.

TABLE 26

**Strutting/Counter Beams
Supporting Roof and Ceiling Loads**

Roof Area Supported (m ²)	Effective Beam Spacing (mm)											
	1800						3600					
	2	4	6	8	10	12	2	4	6	8	10	12
Size DxB (mm)	Maximum Beam Span (mm)											
Sheet Roof												
90x68	1800	1400	1200	1000	NS	NS	1600	1300	1200	1000	NS	NS
118x68	2500	2100	1800	1600	1400	1300	2300	1900	1700	1500	1400	1300
140x68	3100	2600	2200	2000	1800	1700	2700	2400	2100	1900	1800	1600
168x68	3700	3200	2900	2600	2400	2200	3300	3000	2700	2500	2300	2100
190x68	4100	3700	3400	3000	2800	2600	3700	3400	3100	2900	2700	2500
218x68	4500	4100	3800	3600	3400	3200	4100	3900	3600	3400	3200	3000
240x68	4800	4500	4200	3900	3700	3600	4400	4200	3900	3800	3600	3400
265x68	5200	4800	4500	4300	4100	3900	4800	4500	4300	4100	3900	3800
290x68	5500	5200	4900	4600	4400	4300	5100	4800	4600	4400	4200	4100
Tile Roof												
90x68	1300	1000	NS	NS	NS	NS	1300	1000	NS	NS	NS	NS
118x68	1900	1500	1200	1100	NS	NS	1800	1400	1200	1000	NS	NS
140x68	2500	1900	1600	1400	1200	1100	2300	1800	1500	1300	1200	1100
168x68	3100	2400	2100	1800	1600	1500	2900	2300	2000	1800	1600	1500
190x68	3600	2900	2400	2200	1900	1800	3300	2700	2400	2100	1900	1800
218x68	4000	3500	3000	2600	2400	2200	3800	3300	2900	2600	2300	2200
240x68	4400	3800	3400	3000	2700	2500	4100	3700	3300	2900	2700	2500
265x68	4700	4200	3800	3500	3200	2900	4400	4000	3700	3400	3100	2900
290x68	5100	4500	4100	3800	3600	3300	4700	4300	4000	3700	3500	3200

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 20 (kg/m²), Tile Roof Mass of 60 (kg/m²), Total Ceiling Mass of 12 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.

TABLE 27

Strutting Beams Supporting Roof Loads Only

Size DxB (mm)	Roof Area Supported (m2)					
	2	4	6	8	10	12
	Maximum Beam Span (mm)					
Sheet Roof						
118x68	3000	2300	1900	1600	1500	1300
140x68	3700	2900	2400	2100	1900	1700
168x68	4600	3700	3100	2700	2500	2300
190x68	5300	4300	3700	3300	3000	2700
218x68	6100	5100	4400	4000	3600	3300
240x68	6500	5700	5000	4500	4100	3800
265x68	7000	6300	5700	5100	4700	4400
290x68	7200	6700	6200	5700	5300	4900
Tile Roof						
118x68	2100	1500	1200	1100	NS	NS
140x68	2700	2000	1600	1400	1200	1100
168x68	3500	2600	2100	1800	1600	1500
190x68	4100	3100	2500	2200	2000	1800
218x68	4800	3700	3100	2700	2400	2200
240x68	5400	4200	3600	3100	2800	2600
265x68	6100	4800	4100	3600	3300	3000
290x68	6500	5400	4600	4100	3700	3400

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 20 (kg/m²), Tile Roof Mass of 60 (kg/m²).
- iii) Minimum bearing length = 70 mm at end supports.

TABLE 28

**Underpurlins
Supporting Roof Loads Only**

		Roof Load Width (mm)					
		1800	2700	3600	1800	2700	3600
Rafter Spacing (mm)		900	900	900	900	900	900
Size DxB (mm)	Roof Mass (kg/m ²)	Maximum Underpurlin Span (mm)					
		Single Span			Continuous Span		
90x68	10	2500	2200	2100	3400	2800	2400
	20	2100	1900	1700	2800	2400	2200
	40	1700	1500	1300	2200	2000	1800
	60	1500	1200	1100	2000	1700	1500
118x68	10	3300	2900	2700	4400	3800	3200
	20	2700	2400	2200	3700	3200	2900
	40	2200	2000	1800	2900	2600	2300
	60	2000	1700	1500	2600	2300	2100
140x68	10	3800	3500	3200	5100	4400	3800
	20	3200	2800	2600	4300	3900	3500
	40	2600	2300	2100	3500	3100	2800
	60	2300	2000	1900	3100	2700	2400

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) End bearing lengths = 45 mm at end supports and 45 mm at internal supports for continuous members.
- iii) Maximum rafter spacing 900 mm.

TABLE 29 Rafter or Roofing Purlins (House, Pergola or Deck)

Size DxB (mm)	Roof Mass (kg/m ²)	Rafter Spacing (mm)											
		600		900		1200		600		900		1200	
		Maximum Rafter Span & OverHang (mm)											
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Single Span						Continuous Span							
68x32	10	1500	500	1400	400	1300	350	1900	500	1700	400	1600	350
	20	1500	500	1400	400	1300	350	1900	500	1700	400	1600	350
	40	1500	550	1300	450	1200	350	1900	550	1700	450	1600	350
	60	1300	550	1200	450	1000	400	1800	550	1600	450	1400	400
	90	1200	550	1000	450	900	400	1600	550	1400	450	1300	400
68x44	10	1800	600	1700	500	1600	400	2200	600	2100	500	2000	400
	20	1800	600	1700	500	1600	400	2200	600	2100	500	2000	400
	40	1700	600	1500	500	1300	450	2200	600	2000	500	1800	450
	60	1500	650	1300	500	1200	450	2000	650	1800	500	1600	450
	90	1300	650	1100	550	1000	450	1800	650	1500	550	1400	450
90x32	10	2400	650	2200	500	2100	450	3100	650	2900	500	2700	450
	20	2400	650	2200	500	2000	450	3100	650	2900	500	2700	450
	40	2000	650	1800	550	1600	450	2700	650	2400	550	2200	450
	60	1800	700	1500	550	1400	450	2400	700	2100	550	1900	450
	90	1500	700	1300	550	1200	500	2100	700	1800	550	1700	500
90x44	10	3000	750	2800	600	2500	500	3900	750	3400	600	3200	500
	20	2700	750	2400	600	2200	500	3600	750	3300	600	3000	500
	40	2200	800	1900	650	1800	550	3000	800	2700	650	2400	550
	60	1900	800	1700	650	1600	550	2700	800	2300	650	2100	550
	90	1700	850	1500	650	1400	550	2300	850	2100	650	1900	550
118x32	10	3700	800	3400	650	3200	550	5100	800	4600	650	4100	550
	20	3200	800	2800	650	2600	550	4300	800	3900	650	3600	550
	40	2600	850	2300	650	2100	550	3600	850	3100	650	2900	550
	60	2300	850	2000	700	1800	600	3100	850	2800	700	2500	600
	90	2000	900	1800	700	1600	600	2800	900	2400	700	2200	600
118x44	10	4000	950	3600	750	3400	650	5400	950	5000	750	4700	650
	20	3400	950	3100	750	2900	650	4700	950	4200	750	3900	650
	40	2900	1000	2500	800	2300	650	3900	1000	3500	800	3200	650
	60	2500	1000	2200	800	2100	700	3500	1000	3100	800	2800	700
	90	2200	1050	2000	850	1800	700	3100	1050	2700	850	2500	700
140x32	10	4300	900	4000	750	3700	650	5900	900	5400	750	5000	650
	20	3700	950	3300	750	3100	650	5000	950	4500	750	4200	650
	40	3100	950	2700	750	2500	650	4200	950	3700	750	3400	650
	60	2700	1000	2400	800	2200	650	3700	1000	3300	800	3000	650
	90	2400	1000	2100	800	1900	700	3300	1000	2900	800	2600	700
140x44	10	4600	1100	4200	850	4000	750	6200	1100	5800	850	5400	750
	20	4000	1100	3600	900	3400	750	5400	1100	4900	900	4600	750
	40	3400	1150	3000	900	2800	750	4600	1150	4100	900	3800	750
	60	3000	1150	2700	950	2400	800	4100	1150	3600	950	3300	800
	90	2700	1200	2400	950	2100	850	3600	1200	3200	950	2900	850
168x32	10	5000	1100	4700	850	4400	750	6900	1100	6300	850	6000	750
	20	4400	1100	4000	850	3700	750	6000	1100	5400	850	5000	750
	40	3700	1100	3300	900	3000	750	5000	1100	4500	900	4100	750
	60	3300	1150	2900	900	2600	800	4500	1150	3900	900	3600	800
	90	2900	1200	2500	950	2300	800	3900	1200	3500	950	3200	800

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing (mm) of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 34 mm at end supports and 34 mm at internal supports for continuous members.
- vii) Construction loads shall not be applied to overhangs until a 190x19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.

TABLE 29 (cont) Rafters or Roofing Purlins (House, Pergola or Deck)

Size DxB (mm)	Roof Mass (kg/m ²)	Rafter Spacing (mm)											
		600		900		1200		600		900		1200	
		Maximum Rafter Span & OverHang (mm)											
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Single Span						Continuous Span							
168x44	10	5300	1250	5000	1000	4700	850	7200	1250	6800	1000	6400	850
	20	4700	1300	4300	1050	4000	900	6400	1300	5800	1050	5400	900
	40	4000	1300	3600	1050	3300	900	5400	1300	4900	1050	4500	900
	60	3600	1350	3200	1100	2900	900	4900	1350	4400	1100	4000	900
	90	3200	1400	2800	1150	2600	950	4400	1400	3800	1150	3500	950
190x32	10	5600	1200	5200	950	4900	800	7200	1200	7100	950	6600	800
	20	4900	1200	4400	950	4100	800	6600	1200	6000	950	5600	800
	40	4100	1250	3700	1000	3400	850	5600	1250	5000	1000	4600	850
	60	3700	1250	3300	1000	3000	850	5000	1250	4400	1000	4100	850
	90	3300	1300	2900	1050	2600	900	4400	1300	3900	1050	3600	900
190x44	10	5900	1400	5500	1100	5200	950	7200	1400	7200	1100	7100	950
	20	5200	1400	4800	1150	4500	950	7100	1400	6500	1150	6100	950
	40	4500	1450	4000	1150	3700	1000	6100	1450	5500	1150	5100	1000
	60	4000	1500	3600	1200	3300	1000	5500	1500	4900	1200	4500	1000
	90	3600	1550	3200	1250	2900	1050	4900	1550	4300	1250	4000	1050
218x32	10	6300	1350	5900	1050	5500	900	7200	1350	7200	1050	7200	900
	20	5500	1350	5000	1100	4700	900	7200	1350	6900	1100	6400	900
	40	4700	1400	4200	1100	3900	950	6400	1400	5700	1100	5300	950
	60	4200	1450	3700	1150	3400	950	5700	1450	5100	1150	4700	950
	90	3700	1500	3300	1200	3000	1000	5100	1500	4500	1200	4100	1000
218x44	10	6600	1600	6200	1250	5900	1050	7200	1600	7200	1250	7200	1050
	20	5900	1600	5400	1300	5100	1100	7200	1600	7200	1300	6900	1100
	40	5100	1650	4600	1300	4300	1100	6900	1650	6200	1300	5800	1100
	60	4600	1700	4100	1350	3800	1150	6200	1700	5600	1350	5200	1150
	90	4100	1750	3700	1400	3300	1200	5600	1750	5000	1400	4600	1200
240x32	10	6800	1450	6400	1150	6000	1000	7200	1450	7200	1150	7200	1000
	20	6000	1450	5500	1150	5100	1000	7200	1450	7200	1150	7000	1000
	40	5100	1500	4600	1200	4200	1000	7000	1500	6300	1200	5800	1000
	60	4600	1550	4100	1250	3800	1050	6300	1550	5600	1250	5100	1050
	90	4100	1600	3600	1300	3300	1100	5600	1600	4900	1300	4500	1100
240x44	10	7100	1700	6700	1350	6400	1150	7200	1700	7200	1350	7200	1150
	20	6400	1750	5900	1400	5600	1150	7200	1750	7200	1400	7200	1150
	40	5600	1800	5000	1400	4700	1200	7200	1800	6800	1400	6300	1200
	60	5000	1800	4500	1450	4200	1250	6800	1800	6100	1450	5600	1250
	90	4500	1900	4000	1500	3700	1300	6100	1900	5500	1500	5000	1300
265x44	10	7200	1850	7200	1500	7000	1250	7200	1850	7200	1500	7200	1250
	20	7000	1900	6500	1500	6100	1250	7200	1900	7200	1500	7200	1250
	40	6100	1950	5500	1550	5100	1300	7200	1950	7200	1550	7000	1300
	60	5500	2000	5000	1550	4600	1350	7200	2000	6700	1550	6200	1350
	90	5000	2050	4400	1650	4100	1400	6700	2050	6000	1650	5500	1400
290x44	10	7200	2000	7200	1600	7200	1350	7200	2000	7200	1600	7200	1350
	20	7200	2050	7000	1600	6600	1350	7200	2050	7200	1600	7200	1350
	40	6600	2100	6000	1650	5600	1400	7200	2100	7200	1650	7200	1400
	60	6000	2150	5400	1700	5000	1450	7200	2150	7200	1700	6800	1450
	90	5400	2250	4800	1800	4400	1500	7200	2250	6500	1800	6000	1500

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing (mm) of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 34 mm at end supports and 34 mm at internal supports for continuous members.
- vii) Construction loads shall not be applied to overhangs until a 190x19 (min) timber fascia or other fascia of equivalent stiffness is rigidly and permanently attached to the end of rafter overhangs.

TABLE 30

Ridge or Intermediate Beams

Size DxB (mm)	Roof Mass (kg/m ²)	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Maximum Beam Span & OverHang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
118x68	10	3400	1100	2700	1100	2200	950	1900	850	1700	750
	20	2900	1100	2300	1100	2000	950	1700	850	1600	750
	40	2400	1100	1900	900	1600	800	1500	700	1300	600
	60	2200	1100	1700	800	1500	700	1300	600	1200	600
	90	1900	900	1500	700	1300	600	1200	600	1100	500
140x68	10	4000	1300	3100	1300	2600	1150	2300	1000	2100	900
	20	3400	1300	2700	1300	2300	1150	2100	1000	1900	900
	40	2900	1300	2300	1100	2000	1000	1700	800	1600	800
	60	2600	1300	2000	1000	1800	900	1600	800	1400	700
	90	2300	1100	1800	900	1600	800	1400	700	1300	600
168x68	10	4700	1550	3700	1550	3200	1350	2800	1200	2500	1050
	20	4100	1550	3300	1550	2800	1350	2500	1200	2200	1050
	40	3400	1550	2700	1300	2400	1200	2100	1000	1900	900
	60	3100	1550	2400	1200	2100	1000	1900	900	1700	800
	90	2700	1300	2200	1100	1900	900	1700	800	1500	700
190x68	10	5200	1750	4200	1750	3600	1550	3100	1350	2800	1200
	20	4600	1750	3700	1700	3100	1550	2800	1350	2500	1200
	40	3900	1750	3100	1500	2700	1300	2400	1200	2200	1100
	60	3500	1750	2800	1400	2400	1200	2100	1000	2000	1000
	90	3100	1500	2500	1200	2100	1000	1900	900	1800	900
218x68	10	5900	2000	4800	2000	4100	1750	3600	1550	3200	1350
	20	5200	2000	4200	1950	3600	1700	3200	1550	2900	1400
	40	4400	2000	3600	1750	3100	1550	2700	1300	2500	1200
	60	4000	2000	3200	1600	2700	1300	2500	1200	2300	1100
	90	3500	1700	2800	1400	2400	1200	2200	1100	2000	1000
240x68	10	6400	2150	5200	2150	4500	1950	3900	1700	3500	1500
	20	5700	2150	4600	2100	4000	1850	3500	1700	3200	1550
	40	4900	2150	3900	1900	3400	1700	3000	1500	2800	1400
	60	4400	2150	3500	1700	3000	1500	2700	1300	2500	1200
	90	3900	1900	3100	1500	2700	1300	2400	1200	2200	1100
265x68	10	6900	2400	5700	2400	4900	2150	4300	1850	3900	1650
	20	6200	2400	5100	2250	4400	2000	3900	1850	3500	1700
	40	5300	2400	4300	2050	3700	1850	3300	1600	3000	1500
	60	4800	2300	3900	1950	3300	1600	3000	1500	2800	1400
	90	4300	2150	3400	1700	3000	1500	2700	1300	2500	1200
290x68	10	7200	2600	6200	2600	5400	2300	4700	2050	4300	1850
	20	6700	2600	5500	2400	4800	2150	4200	1950	3900	1850
	40	5800	2600	4700	2200	4100	2000	3700	1800	3300	1600
	60	5200	2450	4200	2100	3700	1850	3300	1600	3000	1500
	90	4700	2300	3700	1800	3300	1600	2900	1400	2700	1300

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) Minimum BackSpan = 200 % of Overhang.
- iii) Maximum Overhang = 50 % of Backspan.
- iv) Minimum bearing length = 35 mm at end supports.
- v) Rafter Spacing up to 1200mm.

TABLE 32

Roof Battens Supporting Roofing Only

Size Dx B (mm)	Batten Spacing (mm)									
	330		450		600		900		1200	
	Batten Span (mm)									
	Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Sheet Roof										
32x44	N/A		1200	450	1100	375	850	325	850	300
32x68	N/A		1200	600	1200	575	1200	450	1200	400
44x44	N/A		1200	600	1200	600	1200	550	1200	500
44x68	N/A		1200	600	1200	600	1200	600	1200	600
Tile Roof										
32x44	1150	550	N/A							
32x68	1200	600	N/A							
44x44	1200	600	N/A							
44x68	1200	600	N/A							

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a maximum Sheet Roof Mass of 10 (kg/m²), Tile Roof Mass of 60 (kg/m²).
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members.
- vi) During construction, roof battens should only be walked on at support points. Overhangs shall not exceed 50% of actual span.

TABLE 33

Floor Bearers Supporting Two Storey Load Bearing Walls - Lower FLW 1800 mm

	Lower Floor Load Width (mm)											
	1800						1800					
Upper Floor Load Width (mm)	1800			3600			1800			3600		
Roof Load Width (mm)	1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500
Size DxB (mm)	Maximum Bearer Span (mm)											
	Single Span						Continuous Span					
Sheet Roof												
90x68	NS	NS	NS	NS	NS	NS	1300	1200	1100	1200	1100	1000
118x68	1300	1200	1100	1100	1100	1000	1700	1600	1500	1500	1400	1400
140x68	1500	1400	1300	1300	1300	1200	2100	1900	1800	1800	1700	1700
168x68	1800	1700	1600	1600	1500	1500	2500	2300	2200	2200	2100	2000
190x68	2100	1900	1800	1800	1700	1700	2800	2600	2500	2500	2400	2300
218x68	2400	2200	2100	2100	2000	1900	3200	3000	2800	2900	2700	2600
240x68	2600	2400	2300	2300	2200	2100	3600	3300	3100	3200	3000	2900
265x68	2900	2700	2500	2600	2400	2300	3800	3600	3500	3500	3300	3200
290x68	3200	3000	2800	2800	2700	2500	4100	3900	3700	3800	3600	3500
Tile Roof												
90x68	NS	NS	NS	NS	NS	NS	1200	1100	1000	1100	1000	NS
118x68	1200	1100	1000	1100	1000	NS	1700	1400	1300	1500	1300	1200
140x68	1400	1300	1100	1300	1200	1100	2000	1700	1600	1800	1600	1500
168x68	1700	1500	1400	1600	1400	1300	2400	2100	1900	2100	1900	1800
190x68	2000	1700	1600	1800	1600	1500	2700	2400	2100	2400	2200	2000
218x68	2300	2000	1800	2000	1800	1700	3100	2700	2500	2800	2500	2300
240x68	2500	2200	2000	2200	2000	1900	3400	3000	2700	3100	2800	2600 ₅
265x68	2800	2400	2200	2500	2200	2100	3700	3300	3000	3400	3100	2800 ₂₀
290x68	3000	2700	2400	2700	2500	2300	4000	3600	3300 ₁₀	3700	3400 ₁₀	3100 ₃₀

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Upper Floor Mass of 50 (kg/m²), Total Ground Floor Mass of 30 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) The above table was based on a Wall (upr+lwr) (mm) of 4800.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 34 **Floor Bearers**
Supporting Two Storey Load Bearing Walls - Lower FLW 3600 mm

	Lower Floor Load Width (mm)												
	3600						3600						
Upper Floor Load Width (mm)	1800			3600			1800			3600			
Roof Load Width (mm)	1500	4500	7500	1500	4500	7500	1500	4500	7500	1500	4500	7500	
Size DxB (mm)	Maximum Bearer Span (mm)												
	Single Span						Continuous Span						
Sheet Roof													
90x68	NS	NS	NS	NS	NS	NS	1200	1100	1100	1100	1000	1000	
118x68	1100	1100	1000	1000	1000	NS	1600	1500	1400	1400	1400	1300	
140x68	1400	1300	1200	1200	1200	1100	1900	1800	1700	1700	1600	1600	
168x68	1600	1500	1500	1500	1400	1400	2200	2100	2000	2000	1900	1900	
190x68	1900	1800	1700	1700	1600	1600	2500	2400	2300	2300	2200	2100	
218x68	2100	2000	1900	1900	1900	1800	2900	2800	2600	2700	2500	2400	
240x68	2400	2200	2100	2100	2100	2000	3200	3000	2900	2900	2800	2700	
265x68	2600	2500	2400	2400	2300	2200	3600	3400	3200	3200	3100 ₅	3000 ₁₀	
290x68	2900	2700	2600	2600	2500	2400	3800	3700	3500 ₅	3500 ₁₅	3400 ₁₅	3300 ₂₅	
Tile Roof													
90x68	NS	NS	NS	NS	NS	NS	1100	1000	NS	1000	NS	NS	
118x68	1100	1000	NS	1000	NS	NS	1500	1300	1200	1400	1300	1200	
140x68	1300	1200	1100	1200	1100	1000	1800	1600	1500	1600	1500	1400	
168x68	1600	1400	1300	1400	1300	1200	2200	1900	1800	2000	1800	1700	
190x68	1800	1600	1500	1600	1500	1400	2400	2200	2000	2200	2100	1900	
218x68	2100	1900	1700	1900	1700	1600	2800	2500	2300	2600	2400	2200	
240x68	2300	2100	1900	2100	1900	1800	3100	2800	2600	2800	2600	2500 ₁₅	
265x68	2500	2300	2100	2300	2100	2000	3400	3100	2900 ₁₅	3100 ₅	2900 ₁₅	2700 ₃₀	
290x68	2800	2500	2300	2500	2300	2200	3700	3400 ₁₀	3100 ₃₀	3400 ₁₅	3200 ₃₀	3000 ₄₅	

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Upper Floor Mass of 50 (kg/m²), Total Ground Floor Mass of 30 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) The above table was based on a Wall (upr+lwr) (mm) of 4800.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 35 **Floor Bearers**
Lower Storey of Two Storey - Supporting Upper & Lower Floor Loads Only

	Lower Floor Load Width (mm)												
	1800			3600			1800			3600			
Upper Floor Load Width (mm)	3600	4800	6000	3600	4800	6000	3600	4800	6000	3600	4800	6000	
Size DxB (mm)	Maximum Bearer Span (mm)												
	Single Span							Continuous Span					
90x68	NS	NS	NS	NS	NS	NS	1200	1100	1000	1100	1000	1000	
118x68	1100	1100	1000	1100	1000	NS	1600	1500	1400	1400	1400	1300	
140x68	1400	1300	1200	1300	1200	1100	1900	1700	1600	1700	1600	1500	
168x68	1700	1500	1400	1500	1400	1400	2300	2100	2000	2100	2000	1900	
190x68	1900	1700	1600	1700	1600	1500	2600	2400	2200	2400	2200	2100	
218x68	2200	2000	1900	2000	1900	1800	3000	2700	2600	2700	2600	2400	
240x68	2400	2200	2100	2200	2100	2000	3300	3000	2800	3000	2800	2700 ₅	
265x68	2600	2400	2300	2400	2300	2200	3600	3300	3100	3300	3100 ₅	3000 ₂₀	
290x68	2900	2700	2500	2700	2500	2400	3800	3600	3400 ₅	3600 ₁₀	3400 ₂₀	3200 ₃₅	

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum upper floor mass of 50 (kg/m²), Total Ground Floor Mass of 30 (kg/m²), Total Wall Mass of 15 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) The above table was based on a Wall (upr+lwr) (mm) of 4800.
- iv) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 47

**Lintels - Sheet Roof
Lower Storey Load Bearing Walls**

	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 DxB (mm)	Maximum Lintel Span (mm)									
Sheet Roof										
118x44	1400	1200	1300	1100	1200	1100	1200	1000	1100	1000
118x68	1600	1300	1500	1300	1400	1200	1300	1200	1300	1100
2/118x44	1700	1400	1600	1400	1500	1300	1400	1300	1400	1200
140x44	1600	1400	1500	1300	1400	1300	1400	1200	1300	1200
140x68	1900	1600	1700	1500	1600	1400	1600	1400	1500	1400
2/140x44	2000	1700	1900	1600	1800	1600	1700	1500	1600	1500
168x44	1900	1600	1800	1600	1700	1500	1600	1400	1600	1400
168x68	2200	1900	2100	1800	2000	1700	1900	1700	1800	1600
2/168x44	2400	2000	2300	1900	2100	1900	2000	1800	2000	1800
190x44	2200	1800	2000	1800	1900	1700	1800	1600	1800	1600
190x68	2500	2100	2400	2000	2200	2000	2100	1900	2000	1800
2/190x44	2700	2300	2600	2200	2400	2100	2300	2100	2200	2000
218x44	2500	2100	2300	2000	2200	1900	2100	1900	2000	1800
218x68	2900	2400	2700	2300	2600	2200	2400	2200	2300	2100
2/218x44	3100	2600	2900	2500	2800	2400	2600	2400	2500	2300
240x44	2800	2300	2600	2200	2400	2100	2300	2100	2200	2000
240x68	3100	2700	3000	2600	2800	2500	2700	2400	2600	2300
2/240x44	3300	2900	3100	2800	3000	2700	2900	2600	2800	2500
265x44	3000	2600	2800	2500	2700	2400	2600	2300	2500	2200 _s
265x68	3400	3000	3200	2800	3100	2700	3000	2700	2900	2600
2/265x44	3600	3100	3400	3000	3300	3000	3100	2900	3100	2800
290x44	3200	2800 _s	3100	2700 _s	2900	2600 _s	2800	2500 _s	2700	2400 _s
290x68	3600	3200	3400	3100	3300	3000	3200	2900	3100	2800
2/290x44	3800	3400	3600	3300	3500	3200	3400	3100	3300	3000

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Total Upper Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 48

**Lintels - Tile Roof
Lower Storey Load Bearing Walls**

	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 DxB (mm)	Maximum Lintel Span (mm)									
Tile Roof										
118x44	1300	1100	1100	1000	1000	900	1000	900	900	900
118x68	1500	1300	1300	1200	1200	1100	1100	1000	1100	1000
2/118x44	1600	1400	1400	1300	1300	1200	1200	1100	1100	1100
140x44	1500	1300	1300	1200	1200	1100	1100	1100	1100	1000
140x68	1700	1500	1500	1400	1400	1300	1300	1200	1300	1200
2/140x44	1900	1600	1700	1500	1500	1400	1400	1300	1400	1300
168x44	1800	1500	1600	1400	1500	1300	1400	1300	1300	1200
168x68	2100	1800	1800	1600	1700	1600	1600	1500	1500	1400
2/168x44	2200	1900	2000	1800	1800	1700	1700	1600	1600	1500
190x44	2000	1700	1800	1600	1700	1500	1600	1400	1500	1400
190x68	2300	2000	2100	1900	1900	1800	1800	1700	1700	1600
2/190x44	2500	2200	2300	2000	2100	1900	2000	1800	1800	1700
218x44	2300	2000	2100	1900	1900	1700	1800	1700	1700	1600
218x68	2700	2300	2400	2100	2200	2000	2100	1900	2000	1800
2/218x44	2900	2500	2600	2300	2400	2200	2200	2100	2100	2000
240x44	2500	2200	2300	2000	2100	1900	2000	1800 ₅	1900	1700 ₅
240x68	2900	2500	2600	2400	2400	2200	2300	2100	2200	2000
2/240x44	3100	2800	2900	2600	2600	2400	2500	2300	2300	2200
265x44	2800	2400	2500	2300 ₅	2300	2100 ₅	2200	2000 ₅	2100 ₅	1900 ₁₀
265x68	3200	2800	2900	2600	2700	2500	2500	2300	2400	2200
2/265x44	3400	3000	3100	2800	2900	2700	2700	2500	2600	2400
290x44	3000	2700 ₅	2800	2500 ₅	2500	2300 ₁₀	2400 ₅	2200 ₁₀	2200 ₅	2100 ₁₀
290x68	3400	3000	3100	2900	2900	2700	2800	2600	2600	2400
2/290x44	3600	3200	3300	3100	3100	2900	3000	2800	2800	2700

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Tile Roof Mass of 90 (kg/m²), Total Upper Floor Mass of 40 (kg/m²), Floor Live Load of 1.5 (kPa), Floor Point Load of 1.8 (kN).
- iii) Minimum bearing length = 35 mm at end supports. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm.

TABLE 49

Deck Bearers May Support Decks Greater than 1000mm above the Ground

Size DxB (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						
90x68	1800	500	1400	400	NS	NS	2000	600	1400	400	NS	NS
118x68	2400	700	1800	500	1300	300	2600	700	1800	500	1300	300
140x68	2900	800	2200	600	1500	400	3100	900	2200	600	1500	400
168x68	3400	1000	2600	700	1800	500	3700	1100	2600	700	1800	500
190x68	3800	1100	3000	900	2100	600	4200	1200	3000	900	2100	600
218x68	4200	1200	3400	1000	2400	700	4800	1400	3400	1000	2400	700
240x68	4500	1300	3700	1100	2600	700	5300	1500	3700	1100	2600 ₁₀	700
265x68	4800	1400	4100	1200	2900 ₅	800 ₅	5800	1700	4100	1200	2900 ₂₅	800 ₂₅
290x68	5200	1500	4300	1200	3200 ₁₀	900 ₁₀	6400	1900	4500	1300	3200 ₄₅	900 ₄₅

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, C'lever = Cantilever (mm).
- ii) The above table was based on a maximum Deck Mass of 20 (kg/m²), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 30 % of Backspan.
- v) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

TABLE 50

Deck Joists
May Support Decks greater than 1000mm above the Ground

Size DxB (mm)	Joist Spacing (mm)											
	300		450		600		300		450		600	
	Maximum Floor Joist Span (mm)											
	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever
Single Span						Continuous Span						
90x32	1400	400	1300	300	1300	300	1800	500	1600	400	1600	400
90x44	1700	500	1600	400	1600	400	2100	600	2000	600	1900	500
118x32	2200	600	2100	600	2100	600	2800	800	2600	750	2400	700
118x44	2700	800	2500	700	2400	700	3300	950	3100	850	2900	800
140x32	3000	900	2800	800	2700	800	3500	1050	3300	900	3100	850
140x44	3400	1000	3300	900	3200	900	3900	1150	3700	1000	3600	900
168x32	3700	1100	3500	1000	3300	900	4200	1250	4000	1100	3700	1000
168x44	4100	1200	3900	1100	3600	1000	4700	1350	4500	1200	4300	1100
190x32	4200	1200	4000	1200	3700	1100	4700	1400	4500	1200	4200	1100
190x44	4700	1400	4300	1200	4000	1200	5300	1550	5000	1350	4800	1250
218x32	4800	1400	4400	1300	4100	1200	5400	1600	5200	1400	4800	1250
218x44	5300	1500	4800	1400	4400	1300	6100	1750	5800	1550	5600	1400
240x32	5200	1500	4700	1400	4400	1300	6000	1750	5700	1550	5300	1400
240x44	5700	1700	5100	1500	4800	1400	6700	1950	6400	1700	6000	1550
265x44	6100	1800	5500	1600	5100	1500	7200	2150	7000	1850	6500	1700
290x44	6600	1900	5900	1700	5500	1600	7200	2100	7200	2050	6900	1850

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, C'lever = Cantilever (mm).
- ii) The above table was based on a maximum Deck Mass of 20 (kg/m²), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 30 % of Backspan.
- v) End bearing lengths = 32 mm at end supports and 68 mm at internal supports for continuous members.

TABLES 51 & 52

Verandah & Pergola Beams

		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 DxB (mm)	Roof Mass (kg/m ²)	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
118x32	10	2500	2300	2200	1800	3000	2500	2300	2000
	20	2100	1900	1800	1500	2800	2500	2300	2000
	40	1700	1500	NS	NS	2200	2000	1900	1600
	60	NS	NS	NS	NS	2000	1800	1600	NS
	90	NS	NS	NS	NS	1700	1500	NS	NS
118x44	10	2800	2600	2400	2100	3500	3000	2600	2200
	20	2300	2100	2000	1700	3100	2800	2600	2200
	40	1900	1700	1500	NS	2500	2300	2100	1900
	60	1600	1500	NS	NS	2200	2000	1900	1600
	90	NS	NS	NS	NS	1900	1700	1600	NS
118x68	10	3100	2900	2700	2400	4100	3800	3300	2600
	20	2600	2400	2200	2000	3500	3200	3000	2700
	40	2100	2000	1800	1600	2900	2600	2400	2200
	60	1900	1700	1600	NS	2500	2300	2200	1900
	90	1600	1500	NS	NS	2200	2000	1900	1600
140x32	10	3000	2800	2600	2100	3600	3100	2700	2200
	20	2400	2200	2100	1900	3300	3000	2800	2300
	40	2000	1800	1700	NS	2700	2400	2300	2000
	60	1700	1500	NS	NS	2300	2100	2000	1700
	90	1500	NS	NS	NS	2000	1900	1700	1500
140x44	10	3300	3000	2800	2500	4200	3600	3200	2600
	20	2700	2500	2300	2100	3700	3300	3100	2600
	40	2200	2000	1900	1600	2900	2700	2500	2200
	60	2000	1800	1600	NS	2600	2300	2200	1900
	90	1700	1500	NS	NS	2300	2100	1900	1600
140x68	10	3700	3400	3200	2900	4600	4400	4000	3200
	20	3100	2800	2600	2300	4100	3900	3600	3200
	40	2500	2300	2200	1900	3400	3100	2900	2500
	60	2200	2100	1900	1600	3000	2700	2500	2200
	90	2000	1800	1600	NS	2600	2400	2200	1900
168x32	10	3600	3300	3100	2600	4300	3800	3300	2700
	20	2900	2700	2500	2200	4000	3700	3400	2700
	40	2400	2200	2000	1700	3200	2900	2700	2400
	60	2100	1900	1700	1500	2800	2500	2400	2100
	90	1800	1600	1500	NS	2400	2300	2100	1800
168x44	10	3900	3600	3400	3000	4900	4300	3900	3200
	20	3200	3000	2800	2400	4300	4000	3800	3200
	40	2600	2400	2200	2000	3600	3200	3000	2600
	60	2300	2100	2000	1700	3100	2800	2600	2300
	90	2100	1900	1700	1500	2700	2500	2300	2000
168x68	10	4200	4000	3800	3400	5200	5000	4800	3900
	20	3700	3400	3200	2800	4600	4400	4200	3800
	40	3000	2700	2600	2300	4000	3800	3500	3100
	60	2600	2400	2300	2000	3600	3300	3100	2700
	90	2300	2100	2000	1700	3200	2900	2700	2300

NOTES :

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

TABLES 51 & 52 (cont)

Verandah & Pergola Beams

		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 Dx B (mm)	Roof Mass (kg/m ²)	Maximum Verandah Beam Span (mm)							
		Single Span				Continuous Span			
190x32	10	4000	3700	3500	3000	4900	4200	3800	3100
	20	3300	3000	2800	2500	4300	4100	3900	3200
	40	2700	2400	2300	2000	3600	3300	3100	2700
	60	2300	2200	2000	1700	3200	2900	2700	2300
	90	2100	1900	1700	1500	2800	2500	2300	2000
190x44	10	4200	4000	3800	3400	5300	4900	4400	3600
	20	3600	3300	3100	2800	4600	4400	4200	3700
	40	3000	2700	2500	2200	4000	3700	3400	3000
	60	2600	2400	2200	2000	3500	3200	3000	2600
	90	2300	2100	2000	1700	3100	2800	2600	2300
190x68	10	4600	4400	4200	3900	5700	5500	5200	4400
	20	4100	3800	3600	3200	5100	4800	4600	4200
	40	3400	3100	2900	2500	4400	4200	3900	3500
	60	3000	2700	2500	2200	4000	3800	3500	3000
	90	2600	2400	2200	2000	3600	3200	3000	2600
218x44	10	4700	4400	4200	3900	5800	5500	5100	4100
	20	4100	3900	3600	3200	5100	4800	4600	4200
	40	3400	3100	2900	2500	4400	4200	3900	3500
	60	3000	2700	2500	2200	4000	3700	3500	3000
	90	2600	2400	2200	2000	3600	3200	3000	2600
218x68	10	5000	4800	4600	4300	6200	6000	5800	5100
	20	4500	4200	4000	3600	5600	5300	5100	4600
	40	3900	3600	3300	2900	4900	4600	4400	4000
	60	3400	3200	2900	2600	4500	4200	4000	3500
	90	3000	2800	2600	2300	4100	3800	3500	3100
240x44	10	5000	4700	4500	4200	6200	5900	5600	4500
	20	4400	4100	4000	3500	5500	5200	4900	4500
	40	3800	3400	3200	2800	4700	4500	4200	3800
	60	3300	3000	2800	2400	4400	4100	3800	3300
	90	2900	2600	2400	2200	3900	3600	3300	2900
240x68	10	5300	5100	4900	4600	6600	6400	6200	5600
	20	4800	4500	4300	4000	6000	5700	5400	5000
	40	4200	3900	3700	3200	5200	4900	4700	4300
	60	3800	3500	3200	2800	4800	4500	4300	3900
	90	3300	3100	2800	2500	4400	4100	3900	3400
265x68	10	5700	5400	5300	4900	7100	6800	6600	6200
	20	5100	4800	4600	4300	6400	6100	5800	5400
	40	4500	4200	4000	3600	5600	5300	5000	4600
	60	4100	3800	3600	3200	5100	4800	4600	4200
	90	3700	3400	3200	2700	4700	4400	4200	3700
290x68	10	6000	5800	5600	5200	7200	7200	7000	6500
	20	5400	5200	5000	4600	6800	6400	6200	5700
	40	4800	4500	4300	3900	6000	5600	5400	4900
	60	4400	4100	3900	3400	5500	5200	4900	4500
	90	4000	3700	3400	3000	5000	4700	4500	4100

NOTES :

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

TABLE 53**Posts Supporting Roof and/or Floor Loads**

	Floor Load Area (m ²)								
	0			10			20		
Roof Load Area (m ²)	0	10	20	0	10	20	0	10	20
Size Dx B (mm)	Maximum Post Height (mm)								
Sheet Roof									
90x90	4800	4800	4400	4000	3600	3300	2800	2700	2600
90x118	4800	4800	4800	4600	4100	3800	3200	3100	2900
118x118	4800	4800	4800	4800	4800	4800	4800	4600	4400
Tile Roof									
90x90	4800	4300	3000	4000	3300	2700	2800	2500	2300
90x118	4800	4800	3400	4600	3700	3000	3200	2900	2600
118x118	4800	4800	4800	4800	4800	4600	4800	4400	3900

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Upper Floor Mass of 50 (kg/m²), Floor Live Load of 1.5 (kPa).