



AUSDECK
PATIOS & ROOFING

ENGINEERING AND CONSTRUCTION MANUAL

JULY 2023



ABOUT AUSDECK

Ausdeck Group is one of Australia's leading manufacturers and suppliers of building products for the residential and commercial building industry.

We specialise in insulated and single-skin roofing systems, rainwater and flashing solutions, roll form structural steel products, expanded polystyrene products, and powder-coating services.

Ausdeck is 100% Australian-owned and manufactured. In fact, we design, engineer, and make almost all our products in-house, employing over 190 people across manufacturing facilities in Queensland and New South Wales.

With over 20 years of experience in the roll forming and sheet metal industry, we have earned a reputation for delivering high-quality products at affordable prices, with responsive lead times, supported by exceptional customer service. We have achieved this through manufacturing excellence and an experienced team that understand our customers and the industries we serve.

Ausdeck's products are tested and certified to meet the most stringent Australian standards and withstand the harshest Australian conditions. These are just a few reasons why we are trusted by some of Australia's largest dealers, resellers, and builders to deliver tailored solutions to meet their project needs.

WHY CHOOSE AUSDECK



Australian-owned and manufactured

We manufacture almost all our patios and roofing products in-house from high-quality materials.



Complete product range

We can supply everything you need to complete your project: roofing, flashings, gutters, beams and more.



Fully engineered system

Our products are made from high-quality materials and engineered to suit Australian standards and conditions.



Flexible design options

We give you the flexibility to order a complete patio system or only the supplies you need.



20+ years of experience

We have 20+ years of experience working with the residential and commercial building industry.

CONTENTS

04	BUSINESS OVERVIEW	18	BEAM SPANS
06	REFERENCED STANDARDS	45	GABLE SPANS
07	WINDSPEED	48	CONNECTION DETAILS
12	INSULATED SPANS	59	DECKS AND FLOORS
16	SINGLE-SKIN ROOFING SPANS	62	CERTIFICATION AND TESTING

DOCUMENT CONTROL

Version	V10.00.00
Date	July 2023
Document	Ausdeck Engineering and Construction Manual
Authorised by	Patrick Sharp Group Product Manager
Certified by	Summermore Pty Ltd

© Use of this document by unauthorised persons is prohibited.



BUSINESS OVERVIEW



VISION

Our vision is to combine innovation and experience to make construction easier and life better for our clients and their clients.



MISSION

Our mission is to shelter every Australian from the rigours of the Australian climate.



CORE VALUES

CUSTOMER FOCUS

We constantly strive to exceed expectations.

BETTER TOGETHER

We are there for each other, always.

BUILD TRUST

We do what we say, as our word is our bond.

EXCELLENCE ALWAYS

We believe that good enough is never good enough.

THINK FRESH

We are open to new ways of thinking and doing.



OUR HISTORY

2002

Ausdeck Patios and Roofing and parent company Ausdeck Group was formed to manufacture single-skin roofing products to the home improvement market.

2000

Roll Form Industries was acquired to manufacture quality roll form steel products for the building industry.

2003

Ausdeck Patios and Roofing introduced insulated roofing to their product portfolio.

2004

Ausdeck Patios and Roofing opened a new manufacturing facility in Sydney, NSW.

2007

Bent Sheetmetal was incorporated to manufacture quality flashings and rainwater goods to the commercial and residential building industry.

2015

Fusion EPS was formed to manufacture polystyrene core material to Ausdeck Patios and Roofing and other walling and roofing manufacturers.

2020

Ausdeck Group partnered with Alpin Investments to continue business growth throughout Australia.

2022

Pro Powdercoating and Sandblasting was acquired to further enhance Ausdeck's manufacturing capabilities.

2023

Ausdeck Patios and Roofing commenced manufacturing insulated roofing in their NSW facility.

“
**ALMOST ALL OUR PRODUCTS
ARE MANUFACTURED IN-HOUSE,
DELIVERING HIGH-QUALITY PRODUCTS
AND RESPONSIVE LEAD TIMES.**

REFERENCED STANDARDS

All information in this manual has been designed in accordance with the following Australian and New Zealand Standards:

- National Construction Code of Australia 2022
- Specification S4C2—Design of Building in Cyclonic Areas NCC2022 VOL 1
- Part HID7 Sheet Roofing of NCC 2022 Vol 2
- AS 1163:1991 Structural Steel Hollow Sections
- AS/NZS 1170.0:2002 Structural Design Actions Part 0—General Principles
- AS/NZS 1170.1:2002 Structural Design Actions Part 1—Permanent, Imposed & Other Actions
- AS/NZS 1170.2:2021 Structural Design Actions Part 2—Wind Actions
- AS/NZS 1170.3:2003 Design Actions Part 3—Snow and Ice Actions
- AS/NZS 1554.1:2004 Structural Steel Welding—Welding of Steel Structures
- AS1562.1: 2018 Design and installation of sheet roof and wall cladding Part 1: Metal
- AS/NZS 1664.1:1997 Aluminium structures—Limit state design
- AS 1684.2:2021 Residential Timber Framed Construction
- AS 3566.1:2002 Self Drilling Screws
- AS 3600:2018 Concrete Structures
- AS 4055:2021 Wind Loads for Housing
- AS 4100:2020 Steel Structures Code
- AS/NZS 4600:2018 Cold Formed Steel Structures

GENERAL NOTES

1. This Manual has been prepared to suit a range of Attached, Free Standing and Fly-Over Patios and Carports using structural sections, components and roofing designed and manufactured by Ausdeck Patio and Roofing Pty Ltd
2. All installation and connection details should be in accordance with the standard Ausdeck details contained in this manual
3. Minimum recommended Roof Pitches are as follows. V Line Roofing—2 Degrees, Corrugated Insulated—5 Degrees, Ribbed Insulated—2 Degrees
4. Footing Design as nominated in the Footing Tables (Page 48) are to be installed in natural soil. Concrete to have a minimum strength of 20kPa
5. It is the responsibility of the Installer must check that the existing structure to which a patio or carport is being attached has sufficient strength for the additional loads. In some cases it may be advisable to engage a structural engineer to determine the suitability of the existing structure
6. Ausdeck Patios and Roofing Pty Ltd recommend that non trafficable signs be clearly displayed on or around the new structure
7. A Patio or Carport is deemed to be freestanding unless it is attached to an existing structure for at least 50% of it's shortest side
8. Flat roofs attached to either one or both sides of a gable system should be treated as individual freestanding structures

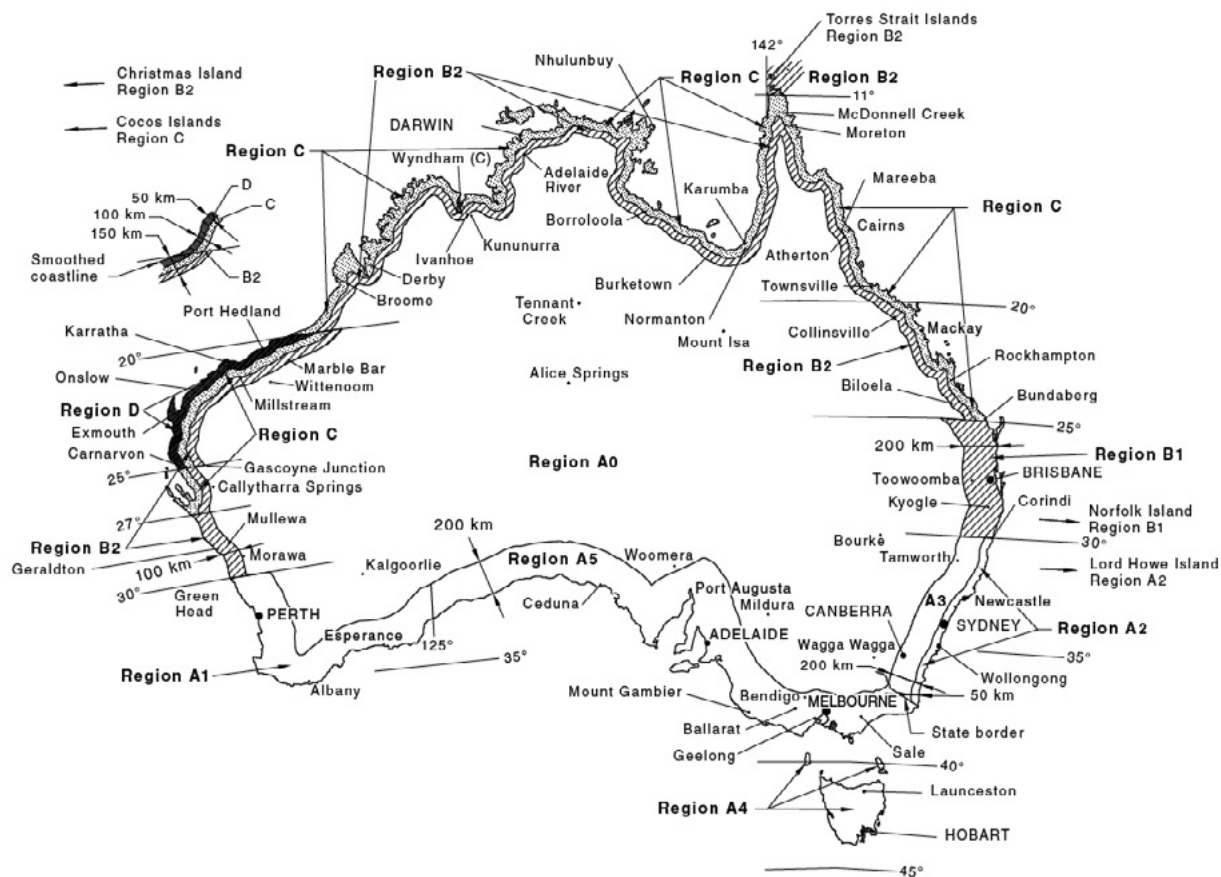


WINDSPEED

BASIC DESIGN PARAMETERS—WIND REGIONS

GEOGRAPHIC REGIONS

Regions are marked with the letters A (AO to A5), B1, B2, C and D. Coastal region boundaries are smooth lines set in from a smoothed coastline by 50, 100, 150 and 200 km. Islands within 50 km of the coast are designated in the same region as the adjacent coast.



TERRAIN CATEGORY

TC3	Numerous closely spaced house sized obstructions. (Normally houses or substantial trees). Density of buildings or substantial trees greater than 10 per hectare. Usually normal suburbia.
TC2.5	Spaced trees, sugar cane, long grass, isolated structures or outer suburbia. Density of buildings or substantial trees up to 10 per hectare.
TC2	Coastal areas or isolated trees, grass fields, airports or generally flat land. Any density of buildings or substantial trees.
TC1	Exposed or open terrain with few or no obstructions. Flat, treeless, poorly grassed plains of at least 10 km in width.

TOPOGRAPHICAL FACTORS

Average Site Slope	Site Location on the Slope		
	Lower Third	Middle Third	Upper Third
Less than 1 in 10	1	1	1
Between 1 in 10 and 1 in 7.5	1	1	2
Between 1 in 7.5 And 1 in 5	1	1	3
Between 1 in 5 and 1 in 3	1	2	4
Greater than 1 in 3	1	3	5

WIND REGIONS

Geographic Region	Terrain Category	Topographic Classification														
		T1			T2			T3			T4			T5		
		FS	PS	NS	FS	PS	NS	FS	PS	NS	FS	PS	NS	FS	PS	NS
A (A0 to A5)	TC3	N1	N1	N2	N1	N2	N2	N2	N3	N3	N1	N3	N3	N3	N4	N4
	TC2.5	N1	N2	N2	N2	N3	N3	N2	N3	N3	N3	N4	N4	N3	N4	N4
	TC2	N2	N2	N3	N3	N3	N3	N3	N3	N4	N3	N4	N4	N4	N5	N5
	TC1	N3	N3	N3	N3	N4	N4	N4	N4	N4	N4	N5	N5	N5	N5	N6
B1 / B2	TC3	N2	N2	N3	N2	N3	N3	N3	N3	N4	N3	N4	N4	N4	N4	N5
	TC2.5	N2	N3	N3	N3	N3	N4	N3	N4	N4	N4	N4	N5	N4	N5	N5
	TC2	N3	N3	N3	N3	N4	N4	N4	N4	N5	N4	N5	N5	N5	N5	N6
	TC1	N3	N4	N4	N4	N5	N5	N4	N5	N5	N5	N6	N6	N6	N6	–
C	TC3	C1	C1	C2	C2	C2	C2	C2	C2	C3	C3	C3	C3	C3	C4	C4
	TC2.5	C1	C2	C2	C2	C2	C3	C2	C3	C3	C3	C4	C4	C3	C4	C4
	TC2	C2	C2	C2	C2	C3	C3	C3	C3	C4	C3	C4	C4	C4	–	–
	TC1	C2	C2	C2	C2	C3	C3	C3	C3	C4	C3	C4	C4	C4	–	–
D	TC3	C2	C2	C3	C2	C3	C3	C3	C4	C4	C4	C4	–	C4	–	–
	TC2.5	C2	C3	C3	C3	C3	C4	C3	C4	C4	C4	–	–	–	–	–
	TC2	C3	C3	C3	C3	C4	C4	C4	–	–	–	–	–	–	–	–
	TC1	C3	C3	C3	C3	C4	C4	C4	–	–	–	–	–	–	–	–

WIND PRESSURE TABLE

Wind Category	N1	N2	N3	N4	C1	C2	C3	C4
Applicable Pz	0.69	0.96	1.50	2.23	1.50	2.23	3.29	4.44

SHIELDING CLASSIFICATION

Fully Shielded	10 buildings (or substantial trees in regions A and B) per hectare, all to be built within 5 years
Partial Shielding	2.5 buildings (or substantial trees in regions A and B) per hectare. Acreage development, all new or to be built within 5 years
No Shielding	Only occurs when shielding is less than that of partial shielding

TABLE OF COEFFICIENTS—ULTIMATE VALUES (kPa)

Wind Class	pZ	Coefficients					
		0.5	0.7	1.0	1.1	1.2	1.6
N1	0.69	0.35	0.48	0.69	0.76	0.83	–
N2	0.96	0.48	0.67	0.96	1.06	1.15	–
N3	1.50	0.75	1.05	1.50	1.65	1.80	–
N4	2.23	1.12	1.56	2.23	2.45	2.68	–
C1	1.50	0.75	1.05	1.50	–	1.80	2.40
C2	2.23	1.12	1.56	2.23	–	2.68	3.57
C3	3.29	1.65	2.30	3.29	–	3.95	5.26

APPLICABLE COEFFICIENTS CP'N TABLE

Building Description	Attached Flat Patios	Attached Flat Carports	Attached Gable Patios	Attached Gable Carports	Freestanding Flat Patios		Freestanding Gable Patios	
					Patios	Carports	Patios	Carports
Wall to One Side	0.5* / 0.7	1.0	1.0	1.0	–	–	–	–
Wall to Two Sides	1.0	1.0	1.0	1.0	–	–	–	–
Wall to Three Sides	1.2	1.2	1.2	1.2	–	–	–	–
Enclosed—Non Cyclonic	1.1	1.1	–	–	–	–	–	–
Enclosed—Cyclonic	1.6	1.6	–	–	–	–	–	–
Enclosed	–	–	1.1	1.1	–	–	–	–
Freestanding—Open on Four Sides	–	–	1.6	1.6	0.7	1	1.0	1.2

***Note** The following conditions apply to a Cp'n of 0.5:

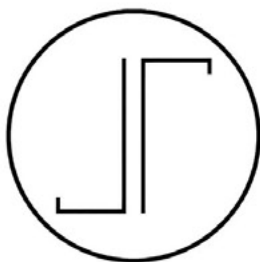
1. Attached flat patios only with a roof pitch of <6 degrees. (Flyover structures and freestanding structures excluded)
2. A maximum of 1 enclosed side
3. The mid height of the existing roof must be a minimum of 1.5 times the patio height
4. Patios must be a minimum of 2.5 metres wide
5. Site address must be in Terrain Category 3, fully shielded and with a topographical factor of 1.0.

SNOW LOADS

Ausdeck structures in the following locations that require snow loading shall be determined in accordance with the following table.

Location	Elevation	Ground Snow Load $k_{100}=1.4$, $k_1 = 0.7$ (kPa)	Multiplier Factor for Roof Sheet Spans, Beam Spans, Beam Spacings and Column Spacings per Wind Region		
			N2	N3	N4
Kanimbla Valley	650	0.61	0.87	1.00	1.00
Hartley Historic Village	790	0.99	0.78	0.94	1.00
Little Hartley	800	1.02	0.77	0.93	0.99
Capertree	800	1.02	0.77	0.93	0.99
Tarana	830	1.10	0.75	0.90	0.98
Orange	870	1.21	0.73	0.87	0.96
Cullen Bullen	900	1.29	0.72	0.85	0.94
Lithgow	920	1.35	0.71	0.83	0.93
Wallerawang	920	1.35	0.71	0.83	0.93
Portland	930	1.38	0.70	0.82	0.92
Rydal	980	1.51	0.68	0.79	0.90
Hampton	1000	1.57	0.67	0.78	0.89
Katoomba	1020	1.62	0.66	0.77	0.88
Blackheath	1070	1.76	0.64	0.75	0.86
Clarence	1100	1.84	0.63	0.74	0.85
Mount Lambie	1100	1.84	0.63	0.74	0.85
Bathurst	1200	2.12	0.58	0.68	0.77

Notes Roof sheet overhangs shall not exceed 300mm in snow regions. Minimum roof sheet pitch to be 2 degrees in snow regions.



SUMMERMORE Pty Ltd ABN 42 108 898 433
PO Box 1671,
Browns Plains BC,
Queensland, 4118
Tel: 07 3800 0973 Fax: 07 3800 1860 Mob:0438288116
E: ron@summermore.com.au
W: www.summermore.com.au

Tuesday, 6 September 2022

Mr Matt Johnson
Ausdeck
16 Mica St
Carole Park
QLD 4300

Dear Mr Johnson

STRUCTURAL DESIGN CERTIFICATION
DESIGN CERTIFICATION FOR AUSDECK V-LINE LIGHT STRIP WITH SNOW LOADS

We, Summermore Pty Ltd, being Registered Structural and Civil Engineers, hereby certify that the design the V-Line Light Strip has been designed in accordance with widely accepted engineering principles and the referenced codes of practice.

When used in conjunction with 0.42mm or 0.48mm V-Line Roofing, where the light strip is at least 1000mm from the end of the roof and limited to a ratio of one light strip to no more that five V-Line sections, the light strip is capable of supporting 0.9kPa of roof snow load.

Referenced Codes of Practice and Manuals

National Construction Code of Australia 2019

AS/NZS 1170.0:2002 Structural Design Actions Part 0—General Principles

AS/NZS 1170.1:2002 Structural Design Actions Part 1—Permanent, Imposed & Other Actions

AS/NZS 1170.3:2003 Structural Design Actions Part 3—Ice and Snow Actions

Summermore Pty Ltd accepts no responsibility for information that has not been expressly identified as part of this certification.

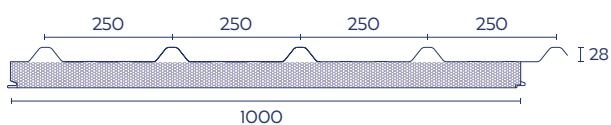
If we can be of any further assistance in this matter, please do not hesitate to contact this office.

Yours Faithfully

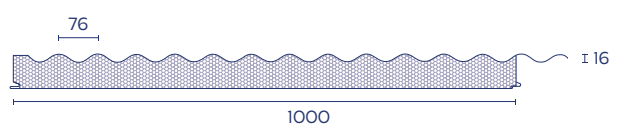
Ronald Bell
FIEAust (891940), CPEng, NER, APEC Engineer, IntPE(Aus), Registered Engineer Structural NSW (BDC04601).
Director
Summermore Pty Ltd

INSULATED SPANS

Ribbed Insulated Roofing



Corrugated Insulated Roofing



Note Refer to overall thickness for dimensions.

INSULATED SPECIFICATIONS

Panel Size (mm)	50	75	100	125	150
Ribbed Overall Thickness (mm)	78	103	128	153	178
Corrugated Overall Thickness (mm)	66	91	116	141	166
Panel Coverage (mm)	1000				
Min. Length (m)	Cut to length. 1.8				
Roof Profile and Material	Ribbed or Corrugated: 0.42 / AZ150 G550				
Ceiling Profile and Material	Flat: 0.60 / AZ150 G300				
Roof and Ceiling Finish	Roof: 25% Gloss, Ceiling: 25% Gloss				
Paint System	AS/NZS 2728 and AS 1397				
Core Material	SL Grade Polystyrene—Fire-Retardant				
Adhesive	Thermosetting two-part polyurethane CFC free				

RIBBED SPECIFICATIONS

Panel Size (mm)	50	75	100	125	150
R Value 8°C m²KW	1.61	2.26	2.66	3.25	3.94
R Value 20°C m²KW	1.59	2.22	2.59	3.17	3.75
Panel Weight (kg/m²)	10.58	10.94	11.37	11.8	12.23
Min. Roof Pitch (°)	2° (35mm / metre)				

CORRUGATED SPECIFICATIONS

Panel Size (mm)	50	75	100	125	150
R Value 8°C m²KW	1.61	2.26	2.66	3.25	3.94
R Value 20°C m²KW	1.59	2.22	2.59	3.17	3.75
Panel Weight (kg/m²)	10.85	11.21	11.65	12.08	12.51
Min. Roof Pitch (°)	5° (87mm / metre)				

Note 1 Degree is available of for ribbed only with limited span. Refer notes section [page 15](#).

EARLY FIRE HAZARD PROPERTIES

RIBBED INSULATED ROOFING—AS 1530.3—EPS-FR PANEL

Index	Test Range	External Top Skin	Exposed Core
Ignitability	0 – 20	0	12
Spread of Flame	0 – 10	0	9
Heat Evolved	0 – 10	0	7
Smoke Developed	0 – 10	1	7

CORRUGATED INSULATED ROOFING—AS 1530.3—EPS-FR PANEL

Index	Test Range	External Top Skin	Exposed Core
Ignitability	0 – 20	0	12
Spread of Flame	0 – 10	0	9
Heat Evolved	0 – 10	0	7
Smoke Developed	0 – 10	1	7

INSULATED ROOFING SPAN TABLE

Wind Class	Panel Size Coefficient	Wall to One Side (Cp'n 0.5/0.7)	Walls to Two Sides (Cp'n 1.0)	Walls to Three Sides (Cp'n 1.2)	Enclosed (Cp'n 1.1)	Freestanding (Cp'n 0.7)	Overhang
N1	50	5300	5300	4700	5400	5300	900
	75	7100	7000	5300	6500	7100	900
	100	7800	7100	6100	7000	7800	1200
	125	8800	8300	6700	7800	8800	1500
	150	9600	8700	7500	8500	9600	1800
N2	50	5000	4800	4200	4800	5000	900
	75	6500	6100	5100	5900	6500	900
	100	7000	6300	5400	6200	7000	1200
	125	7800	7200	6000	6900	7800	1500
	150	8600	7800	6600	7600	8600	1800
N3	50	4400	3900	3300	3800	4400	900
	75	5400	4900	4100	4800	5400	900
	100	5600	5000	4300	4900	5600	1200
	125	6200	5500	4800	5500	6200	1500
	150	6900	6300	5200	6100	6900	1700
N4	50	3600	3100	2700	3100	3600	600
	75	4400	3900	3100	3900	4400	900
	100	4600	4000	3500	4000	4600	1200
	125	5100	4500	3900	4500	5100	1300
	150	5600	5100	4300	5000	5600	1400
C1	50	3800	3500	2900	3600	3800	900
	75	4600	4200	3500	4400	4600	900
C2	100	5300	4900	4100	5100	5300	1200
	50	3100	2800	2300	2900	3100	600
	75	3800	3500	2900	3600	3800	600
C3	100	4400	4000	3300	4200	4400	900
	50	2500	2300	1900	2400	2500	400
	75	3100	2800	2400	2900	3100	600
	100	3600	3300	2700	3400	3600	600

Notes For designing attached/freestanding carports or gables it is important to [refer to page 5](#) and apply the correct coefficients for the application. Deflection limit of span 1/150 applies, and in accordance with Serviceability Limit State criteria per AS1170.0 - TABLE C1. Self weight of the panel has been allowed for, plus an allowance of max 25kg/m² uniformly distributed dead loads. (eg lights, fans, solar panels, etc). Non-trafficable maintenance access (concentrated load) of 140kg (exceeding min. requirement of AS/NZS 1170.1:2001) has been allowed for. Distributed live load of 0.25kPa (as per AS/NZS 1170.1:2001) has been allowed for.

MAXIMUM ROOF SHEET LENGTH FOR A ROOF PITCH OF 1 DEGREE

Product	Max. Roof Sheet Length @ 1 Degree
V-Line 0.48 Only	3600
50mm Ribbed Insulated	3800
75mm Ribbed Insulated	4550
100mm Ribbed Insulated	5300
125mm Ribbed Insulated	6000
150mm Ribbed Insulated	6700

Notes Ausdeck roofing products (V-Line 0.48 and Ribbed EPS Panels) installed with a roof pitch of 1 degree as per the maximum roof sheet length shown in table are based on rain intensity of 350mm/hr. This table does not override the standard roof sheet span tables. 1 Degree will affect warranty on materials. Please check with manufacture for warranties.

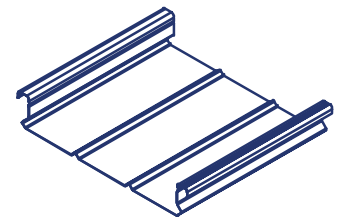
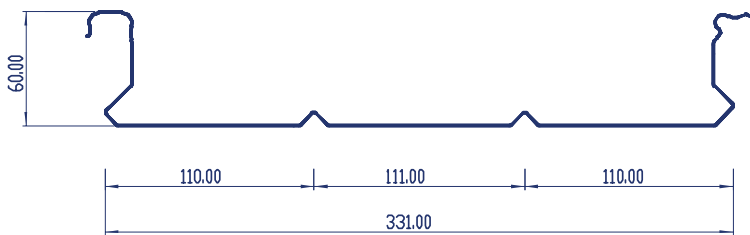
INSULATED ROOFING FIXINGS GUIDE

Product	Insulated to Metal Beam	Insulated to Timber Beam	Screws Required
50mm Ribbed	Tek 14x125 Screw	Type 17 14x125 Screw	4 per panel for each fixing point
75mm Ribbed	Tek 14x150 Screw	Type 17 14x150 Screw	4 per panel for each fixing point
100mm Ribbed	Tek 14x175 Screw Tek 14x175 Screw	Type 17 14x200 Screw	4 per panel for each fixing point
125mm Ribbed	Tek 14x200 Screw	Type 17 14x200 Screw	4 per panel for each fixing point
150mm Ribbed	Tek 14x225 Screw	Type 17 14x250 Screw	4 per panel for each fixing point
50mm Corrugated	Tek 14x125 Screw	Type 17 14x125 Screw	7 per panel for each fixing point
75mm Corrugated	Tek 14x150 Screw	Type 17 14x150 Screw	7 per panel for each fixing point
100mm Corrugated	Tek 14x150 Screw Tek 14x175 Screw	Type 17 14x200 Screw	7 per panel for each fixing point
125mm Corrugated	Tek 14x200 Screw	Type 17 14x200 Screw	7 per panel for each fixing point
150mm Corrugated	Tek 14x200 Screw	Type 17 14x250 Screw	7 per panel for each fixing point

Note Tek 12x20 stitching screws required every 900 crs on overlap for bracing.

All Tek 14 & Type 17 to have Climaseal coated with cyclonic washer.

SINGLE-SKIN ROOFING SPANS



Ausdeck's V-Line roofing is an affordable, single-skin system designed specifically for outdoor structures such as patios, carports, awnings, and walkways. It features a high-gloss ceiling finish with an aesthetically pleasing VJ appearance.

Our V-Line roofing is made from high-quality 0.42mm or 0.48mm steel and is available in a range of traditional and modern colours to suit your existing colour scheme. There are four single colours and three combination colours to choose from. When combined with our beams, posts, gutters, flashings and downpipes, our single-skin roofing delivers an affordable, stylish, and functional outdoor area that can add space and value to any home.

★ FEATURES

- Affordable, single-skin roofing system
- High-quality, pre-painted steel
- High-gloss ceiling finish with a VJ appearance
- Excellent spanning capabilities requiring fewer beams
- Unique interlocking system for fast and easy installation
- Lighting solutions like skylight strips available
- Range of popular colours available
- 15-year warranty*

✂ APPLICATIONS

- Residential and commercial projects
- Outdoor structures e.g. patios, carports, awnings, and walkways

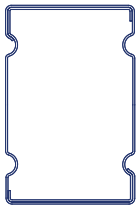
*Refer to our Warranty for full details.

V-LINE SPAN TABLE

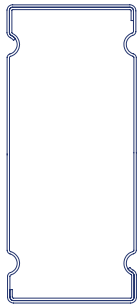
Wind Class	Thickness BMT Coefficient	Wall to One Side (Cp'n 0.5/0.7)	Walls to Two Sides (Cp'n 1.0)	Walls to Three Sides (Cp'n 1.2)	Enclosed (Cp'n 1.1)	Freestanding (Cp'n 0.7)	Overhang
N1/ N2	0.42	4650	4650	4200	4350	4650	900
	0.48	5150	5150	4650	4650	5150	900
N3	0.42	4500	4350	3850	3950	4600	900
	0.48	4950	4900	4450	4550	5150	900
N4	0.42	4150	4050	3400	3500	4300	875
	0.48	4700	4650	4200	4250	4800	900
C1	0.48	4180	4180	3400	3550	4180	750
C2	0.48	3400	3220	2800	2950	4050	525
C3	0.48	2700	2600	2500	2500	2850	275
Recommended Fixings		N1 to N4 Wind Conditions		C1 to C4 Wind Conditions			
V-Line Roofing to Receiver Channel		1/10–14 x 16 Self Drilling Tek or 1/6x13 Ripple Zip Screw per Pan		1/6 x 13 Ripple Zip per Pan and PE30 Weatherseal Infil			
V-Line Roofing to Beams		1/12–14x20 Self Drilling Tek per Pan into Beam and 4mm Rivets @200crs		1/12–14 x 30 Self Drilling Tek and 25 x 1.2mm Aluminium EPDM Washer per Pan			

Notes For designing attached/freestanding carports or gable structures. It is important to refer to the applicable coefficient table on [page 5](#) for these structures. These roof spans are non trafficable spans. It is recommended that a sign displaying this is located in the vicinity of access points to the roofs. Minimum Roof Pitch 2 Degrees. These tables do not consider serviceability limits.

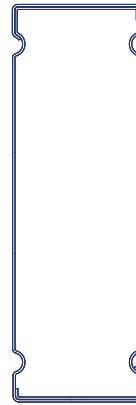
BEAM SPANS



**100 x 65 x 1.0mm G550
Roll Formed Box Beam**



**150 x 65 x 1.2mm G550
Roll Formed Box Beam**



**200 x 65 x 1.2mm G550
Roll Formed Box Beam**

Ausdeck's Shurelock beams have been purposely designed to provide superior spanning capabilities in outdoor structures. Made from high-tensile steel, they have been engineered and tested to comply with Australian Standards AS 1397/G550.

Their unique construction consists of two interlocking c-sections making them lightweight and robust. Choose from three sizes and seven standard high-gloss colours to suit your application and aesthetic preference.

★ FEATURES

- Stylish design to complement our roofing
- High-quality, high-tensile steel for durability
- Light, two-piece construction for superior spanning capabilities
- 65mm beam width makes it easy to secure roof panels and sheets
- Large selection of beam accessories available
- Range of colours to choose from

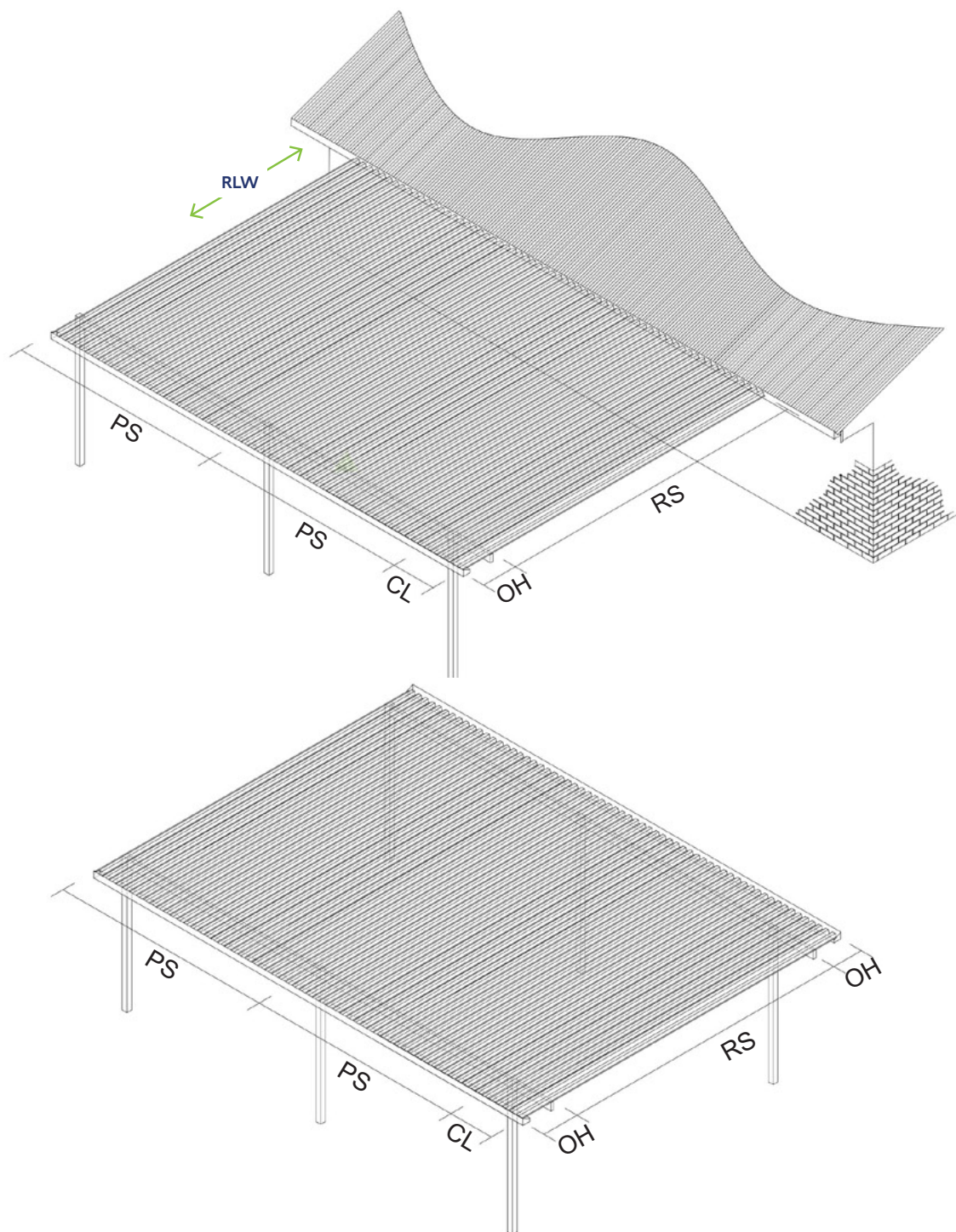
✂ APPLICATIONS

- Residential and commercial projects
- Outdoor structures e.g. patios, carports, awnings, and walkways

SHURELOCK BEAM SPANS

AUSDECK—ROLL FORMED BEAMS

FLAT PATIOS—SINGLE SPAN



Calculating Roof Load Width

$$RLW = RS/2 + OH$$

RS Roof Sheet Span
OH Roof Sheet Overhang

PS Post Spacing
CL Beam Cantilever

RLW Roof Load Width
RS/2 RLW

WIND REGION—N1

Roof Load Width	Walls to One Side							
	0.5 Cp'n				0.7 Cp'n			
Beam	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
1.20	6.80	9.05	10.70	12.70	6.05	8.80	10.70	12.70
1.50	6.30	8.55	10.10	12.00	5.65	8.15	10.10	11.95
1.80	5.95	8.15	9.65	11.50	5.30	7.70	9.65	11.25
2.10	5.65	7.85	9.30	11.05	5.05	7.30	9.15	10.70
2.40	5.40	7.60	9.00	10.70	4.80	7.00	8.75	10.20
2.70	5.20	7.35	8.75	10.35	4.60	6.70	8.40	9.80
3.00	5.00	7.20	8.50	10.10	4.45	6.45	8.10	9.50
3.30	4.85	7.00	8.30	9.85	4.30	6.25	7.85	9.20
3.60	4.70	6.80	8.10	9.65	4.20	6.10	7.65	8.90
3.90	4.60	6.65	7.95	9.45	4.10	5.95	7.45	8.70
4.20	4.45	6.45	7.80	9.30	4.00	5.80	7.25	8.45
4.50	4.35	6.35	7.70	9.15	3.90	5.65	7.10	8.30
4.80	4.25	6.20	7.55	9.00	3.80	5.55	6.95	8.10
5.10	4.20	6.05	7.45	8.85	3.75	5.40	6.80	7.95
5.40	4.10	5.95	7.35	8.70	3.65	5.30	6.65	7.80
5.70	4.05	5.85	7.25	8.55	3.60	5.20	6.55	7.65
6.00	3.95	5.75	7.15	8.40	3.55	5.15	6.45	7.50
6.30	3.90	5.65	7.05	8.30	3.50	5.05	6.35	7.40
6.60	3.85	5.55	7.00	8.15	3.45	4.95	6.25	7.30
6.90	3.80	5.50	6.90	8.05	3.40	4.90	6.15	7.20
7.20	3.75	5.40	6.80	7.90	3.35	4.85	6.05	7.10
7.50	3.65	5.35	6.70	7.80	3.30	4.75	5.95	7.00
7.80	3.65	5.25	6.60	7.70	3.25	4.70	5.90	6.90
8.10	3.60	5.20	6.50	7.60	3.20	4.65	5.80	6.80
8.40	3.55	5.15	6.45	7.50	3.15	4.60	5.75	6.70
8.70	3.50	5.05	6.35	7.45	3.10	4.55	5.70	6.65

Notes For freestanding structures use Cp'n 0.7 for patios and Cp'n 1 for carports. 200x65 1.2mm Shurelock with CI95-1.9 Insert (Wind load non trafficable and 15kg/m² roof load).

1. Maximum cantilever for 100mm beam = 900mm
2. Maximum cantilever for 150mm beam = 1200mm
3. Maximum cantilever for 200mm beam = 1500mm.

Walls to Two Sides				Walls to Three Sides				Enclosed			
1 Cp'n				1.2 Cp'n				1.1 Cp'n			
100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
5.40	7.80	9.50	11.45	5.20	7.35	9.20	10.75	5.05	7.55	9.50	11.05
5.00	7.25	8.80	10.60	4.85	6.80	8.55	10.00	4.70	7.00	8.80	10.30
4.70	6.80	8.30	10.00	4.55	6.40	8.05	9.40	4.40	6.60	8.30	9.65
4.45	6.45	7.85	9.50	4.30	6.10	7.65	8.90	4.20	6.25	7.85	9.20
4.25	6.20	7.50	9.05	4.15	5.80	7.30	8.55	4.00	6.00	7.50	8.80
4.10	5.95	7.25	8.70	3.95	5.60	7.00	8.20	3.85	5.75	7.25	8.45
3.95	5.75	7.00	8.40	3.85	5.40	6.80	7.90	3.75	5.55	7.00	8.15
3.85	5.55	6.75	8.15	3.70	5.25	6.55	7.65	3.60	5.40	6.75	7.90
3.75	5.40	6.55	7.90	3.60	5.10	6.40	7.45	3.50	5.25	6.55	7.65
3.65	5.25	6.40	7.70	3.50	4.95	6.20	7.25	3.40	5.10	6.40	7.45
3.55	5.15	6.25	7.50	3.45	4.85	6.05	7.10	3.35	4.95	6.25	7.30
3.45	5.00	6.10	7.35	3.35	4.70	5.90	6.90	3.25	4.85	6.10	7.10
3.40	4.90	5.95	7.20	3.30	4.60	5.80	6.75	3.20	4.75	5.95	6.95
3.30	4.80	5.85	7.05	3.20	4.50	5.70	6.65	3.10	4.65	5.85	6.85
3.25	4.70	5.75	6.90	3.15	4.45	5.55	6.50	3.05	4.55	5.75	6.70
3.20	4.65	5.65	6.80	3.10	4.35	5.45	6.40	3.00	4.50	5.65	6.60
3.15	4.55	5.55	6.70	3.05	4.30	5.40	6.30	2.95	4.40	5.55	6.45
3.10	4.50	5.45	6.55	3.00	4.20	5.30	6.20	2.90	4.35	5.45	6.35
3.05	4.40	5.35	6.45	2.95	4.15	5.20	6.10	2.85	4.25	5.35	6.25
3.00	4.35	5.30	6.35	2.90	–	–	–	–	4.20	5.30	6.15
2.95	4.30	5.52	6.30	2.85	–	–	–	–	4.15	5.52	6.10
2.90	4.25	5.15	6.20	2.80	–	–	–	–	4.10	5.15	6.00
2.85	4.15	–	6.10	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–

WIND REGION—N2

Roof Load Width	Walls to One Side							
	0.5 Cp'n				0.7 Cp'n			
Beam	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
1.20	6.85	9.05	10.70	12.70	6.15	8.90	10.70	12.70
1.50	6.40	8.55	10.10	12.00	5.70	8.25	10.10	12.00
1.80	6.00	8.15	9.65	11.50	5.35	7.80	9.65	11.40
2.10	5.70	7.85	9.30	11.05	5.10	7.40	9.25	10.80
2.40	5.45	7.60	9.00	10.70	4.85	7.05	8.85	10.35
2.70	5.25	7.35	8.75	10.35	4.70	6.80	8.50	9.95
3.00	5.05	7.20	8.50	10.10	4.50	6.55	8.20	9.60
3.30	4.90	7.00	8.30	9.85	4.40	6.35	7.95	9.30
3.60	4.75	6.85	8.10	9.65	4.25	6.15	7.75	9.05
3.90	4.65	6.70	7.95	9.45	4.15	6.00	7.55	8.80
4.20	4.50	6.55	7.80	9.30	4.05	5.85	7.35	8.60
4.50	4.40	6.40	7.70	9.15	3.95	5.70	7.20	8.40
4.80	4.30	6.25	7.55	9.00	3.85	5.60	7.00	8.20
5.10	4.25	6.15	7.45	8.85	3.80	5.50	6.90	8.05
5.40	4.15	6.05	7.35	8.70	3.70	5.40	6.75	7.90
5.70	4.10	5.90	7.25	8.60	3.65	5.30	6.65	7.75
6.00	4.00	5.80	7.15	8.50	3.60	5.20	6.50	7.60
6.30	3.95	5.70	7.05	8.40	3.50	5.10	6.40	7.50
6.60	3.90	5.65	7.00	8.25	3.45	5.05	6.30	7.40
6.90	3.85	5.55	6.90	8.15	3.40	4.95	6.20	7.25
7.20	3.75	5.45	6.85	8.00	3.35	4.90	6.15	7.15
7.50	3.70	5.40	6.75	7.90	3.30	4.80	6.05	7.05
7.80	3.65	5.35	6.70	7.80	3.30	4.75	5.95	7.00
8.10	3.65	5.25	6.60	7.70	3.25	4.70	5.90	6.90
8.40	3.60	5.20	6.50	7.60	3.20	4.65	5.85	6.80
8.70	3.26	5.15	6.45	7.55	3.15	4.60	5.75	6.75

Notes For freestanding structures use Cp'n 0.7 for patios and Cp'n 1 for carports. 200x65 1.2mm Shurelock with CI95-1.9 Insert (Wind load non trafficable and 15kg/m² roof load).

1. Maximum cantilever for 100mm beam = 900mm
2. Maximum cantilever for 150mm beam = 1200mm
3. Maximum cantilever for 200mm beam = 1500mm.

Walls to Two Sides				Walls to Three Sides				Enclosed			
1 Cp'n				1.2 Cp'n				1.1 Cp'n			
100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
5.45	7.90	9.90	11.60	5.15	7.45	9.35	10.90	5.30	7.65	9.60	11.20
5.05	7.35	9.20	10.75	4.75	6.90	8.65	10.10	4.90	7.10	5.90	10.40
4.75	6.90	8.65	10.10	4.50	6.50	8.15	9.50	4.60	6.70	8.40	9.80
4.50	6.55	8.20	9.60	4.25	6.15	7.75	9.05	4.40	6.35	7.95	9.30
4.30	6.25	7.85	9.20	4.05	5.90	7.40	8.65	4.20	6.05	7.60	8.90
4.15	6.05	7.55	8.85	3.90	5.65	7.10	8.30	4.00	5.85	7.30	8.55
4.00	5.80	7.30	8.50	3.75	5.45	6.85	8.00	3.90	5.65	7.05	8.25
3.90	5.65	7.05	8.25	3.65	5.30	6.65	7.75	3.75	5.45	6.85	8.00
3.75	5.45	6.85	8.00	3.55	5.15	6.45	7.55	3.65	5.30	6.65	7.75
3.65	5.35	6.70	7.80	3.45	5.00	6.30	7.35	3.55	5.15	6.45	7.55
3.60	5.20	6.50	7.60	3.35	4.90	6.15	7.15	3.45	5.05	6.30	7.40
3.50	5.10	6.35	7.45	3.30	4.80	6.00	7.00	3.40	4.90	6.15	7.20
3.45	4.95	6.25	7.30	3.20	4.70	5.85	6.85	3.30	4.80	6.05	7.05
3.35	4.85	6.10	7.15	3.15	4.60	5.75	6.70	3.25	4.70	5.90	6.90
3.30	4.80	6.00	7.00	3.10	4.50	5.65	6.60	3.20	4.65	5.80	6.80
3.25	4.70	5.90	6.90	3.05	4.40	5.55	6.45	3.15	4.55	5.70	6.65
3.20	4.60	5.80	6.78	3.00	4.35	5.45	6.35	3.10	4.45	5.60	6.55
3.15	4.55	5.70	6.68	2.95	4.25	5.35	6.25	3.05	4.40	5.50	6.45
3.10	4.45	5.60	6.55	2.90	4.20	5.25	6.15	3.00	4.35	5.45	6.35
3.05	4.40	5.50	6.45	–	–	–	–	2.95	4.25	5.35	6.25
3.00	4.35	5.45	6.35	–	–	–	–	2.90	4.20	5.25	6.15
2.95	4.30	5.35	6.25	–	–	–	–	2.85	4.15	5.20	6.10
2.90	4.20	5.30	6.20	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–

WIND REGION—N3

Roof Load Width	Walls to One Side							
	0.5 Cp'n				0.7 Cp'n			
Beam	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
1.20	—	—	—	—	5.30	7.65	9.60	11.25
1.50	—	—	—	—	7.90	7.10	8.95	10.45
1.80	—	—	—	—	7.60	6.70	8.40	9.80
2.10	—	—	—	—	7.40	6.35	8.00	9.30
2.40	—	—	—	—	7.20	6.10	7.65	8.90
2.70	—	—	—	—	7.05	5.85	7.35	8.55
3.00	—	—	—	—	3.90	5.65	7.10	8.25
3.30	—	—	—	—	3.75	5.45	6.85	8.00
3.60	—	—	—	—	3.65	5.30	6.65	7.80
3.90	—	—	—	—	3.55	5.15	6.50	7.60
4.20	—	—	—	—	3.50	5.05	6.35	7.40
4.50	—	—	—	—	3.40	4.95	6.20	7.20
4.80	—	—	—	—	3.30	4.80	6.05	7.05
5.10	—	—	—	—	3.25	4.75	5.95	6.95
5.40	—	—	—	—	3.20	4.65	5.80	6.80
5.70	—	—	—	—	3.15	4.55	5.70	6.65
6.00	—	—	—	—	3.10	4.50	5.60	6.55
6.30	—	—	—	—	3.05	4.40	5.50	6.45
6.60	—	—	—	—	3.00	4.35	5.45	6.35
6.90	—	—	—	—	2.90	4.25	5.35	6.25

Notes For freestanding structures use Cp'n 0.7 for patios and Cp'n 1 for carports. 200x65 1.2mm Shurelock with CI95-1.9 Insert (Wind load non trafficable and 15kg/m² roof load).

1. Maximum cantilever for 100mm beam = 900mm
2. Maximum cantilever for 150mm beam = 1200mm
3. Maximum cantilever for 200mm beam = 1500mm.

Walls to Two Sides				Walls to Three Sides				Enclosed			
1 Cp'n				1.2 Cp'n				1.1 Cp'n			
100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
4.70	6.80	8.55	9.95	4.40	6.40	8.05	9.40	4.55	6.60	8.25	9.65
4.35	6.30	7.90	9.25	4.10	5.95	7.45	8.70	4.20	6.10	7.70	8.95
4.10	5.95	7.45	8.70	3.85	5.60	7.00	8.20	3.95	5.75	7.20	8.45
3.90	5.65	7.10	8.25	3.65	5.30	6.65	7.80	3.75	5.45	6.85	8.00
3.70	5.40	6.75	7.90	3.50	5.10	6.35	7.45	3.60	5.25	6.55	7.65
3.60	5.20	6.50	7.60	3.35	4.90	6.10	7.15	3.45	5.05	6.30	7.35
3.45	5.00	6.30	7.35	3.25	4.70	5.90	6.90	3.35	4.85	6.10	7.10
3.35	4.85	6.10	7.10	3.15	4.55	5.75	6.70	3.25	4.70	5.90	6.90
3.25	4.70	5.90	6.90	3.05	4.45	5.55	6.50	3.15	4.55	5.75	6.70
3.15	4.60	5.75	6.70	2.95	4.30	5.40	6.35	3.06	4.45	5.60	6.50
3.10	4.50	5.30	6.55	2.90	4.20	5.30	6.15	3.00	4.35	5.45	6.35
3.00	4.35	5.50	6.40	2.85	4.10	5.15	6.05	2.90	4.25	5.30	6.20
2.95	4.30	5.35	6.25	2.75	4.05	4.95	5.90	2.85	4.15	5.20	6.10
2.90	4.20	5.25	6.15	2.70	3.95	4.80	5.75	2.80	4.05	5.05	5.95
2.85	4.10	5.15	6.05	–	–	–	–	2.75	4.00	4.90	5.80
2.80	4.05	5.00	5.90	–	–	–	–	2.70	3.90	4.75	5.65
2.75	3.95	4.85	5.80	–	–	–	–	2.65	3.80	4.65	5.50
2.70	3.90	4.75	5.65	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–

STANDARDS

WINDSPEED

INSULATED
SPANSSINGLE-SKIN
ROOFING SPANS

BEAM SPANS

GABLE SPANS

CONNECTION
DETAILSDECKS AND
FLOORSCERTIFICATION
AND TESTING

WIND REGION—N4

Roof Load Width	Walls to One Side							
	0.5 Cp'n				0.7 Cp'n			
Beam	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
1.20	—	—	—	—	4.65	6.70	8.40	9.85
1.50	—	—	—	—	4.30	6.25	7.80	9.15
1.80	—	—	—	—	4.05	5.85	7.35	8.60
2.10	—	—	—	—	3.85	5.55	7.00	8.15
2.40	—	—	—	—	3.65	5.35	6.70	7.80
2.70	—	—	—	—	3.55	5.10	6.40	7.50
3.00	—	—	—	—	3.40	4.95	6.20	7.25
3.30	—	—	—	—	3.30	4.80	6.00	7.00
3.60	—	—	—	—	3.20	4.65	5.85	6.80
3.90	—	—	—	—	3.10	4.55	5.70	6.65
4.20	—	—	—	—	3.05	4.40	5.55	6.45
4.50	—	—	—	—	2.95	4.30	5.40	6.35
4.80	—	—	—	—	2.90	4.20	5.30	6.20
5.10	—	—	—	—	2.85	4.15	5.15	6.05
5.40	—	—	—	—	2.80	4.05	5.05	5.95
5.70	—	—	—	—	2.50	4.00	4.90	5.80
6.00	—	—	—	—	—	—	—	—
6.30	—	—	—	—	—	—	—	—
6.60	—	—	—	—	—	—	—	—
6.90	—	—	—	—	—	—	—	—
7.20	—	—	—	—	—	—	—	—
7.50	—	—	—	—	—	—	—	—
7.80	—	—	—	—	—	—	—	—
8.10	—	—	—	—	—	—	—	—
8.40	—	—	—	—	—	—	—	—
8.70	—	—	—	—	—	—	—	—

Notes For freestanding structures use Cp'n 0.7 for patios and Cp'n 1 for carports. 200x65 12mm Shurelock with CI95-1.9 Insert (Wind load non trafficable and 15kg/m² roof load).

1. Maximum cantilever for 100mm beam = 900mm
2. Maximum cantilever for 150mm beam = 1200mm
3. Maximum cantilever for 200mm beam = 1500mm.

Walls to Two Sides				Walls to Three Sides				Enclosed			
1 Cp'n				1.2 Cp'n				1.1 Cp'n			
100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
4.10	5.95	7.50	8.78	3.85	5.60	7.05	8.20	4.00	5.80	7.25	8.45
3.80	5.55	6.95	8.10	3.60	5.20	6.55	7.65	3.70	5.35	6.70	7.85
3.60	5.20	6.55	7.65	3.35	4.90	6.15	7.20	3.45	5.05	6.30	7.40
3.40	4.95	6.20	7.25	3.20	4.65	5.85	6.80	3.30	4.80	6.00	7.00
3.25	4.75	5.95	6.95	3.05	4.45	5.60	6.50	3.15	4.60	5.75	6.70
3.15	4.55	5.70	6.65	2.95	4.25	5.35	6.25	3.05	4.40	5.50	6.45
3.00	4.40	5.50	6.45	2.85	4.15	5.15	6.05	2.95	4.25	5.35	6.25
2.95	4.25	5.35	6.25	2.75	4.00	4.90	5.85	2.85	4.10	5.15	6.05
2.85	4.15	5.15	6.05	2.65	3.75	4.70	5.60	2.75	4.00	4.90	5.85
2.75	4.00	4.95	5.90	2.60	3.70	4.50	5.35	2.70	3.90	4.70	5.60
2.70	3.90	4.75	5.65	2.50	3.55	4.35	5.20	2.60	3.75	4.55	5.40
2.65	3.80	4.60	5.50	–	–	–	–	2.55	3.60	4.40	5.20
2.55	3.65	4.45	5.30	–	–	–	–	2.45	3.50	4.25	5.05
2.50	3.55	4.30	5.15	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–

WIND REGION—C1

Roof Load Width	Walls to One Side							
	0.5 Cp'n				0.7 Cp'n			
Beam	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
1.20	5.90	8.60	10.70	12.55	5.30	7.65	9.60	11.25
1.50	5.50	7.95	9.40	11.65	4.90	7.10	8.95	10.45
1.80	5.15	7.50	8.95	11.00	4.60	6.70	8.40	9.80
2.10	4.90	7.10	8.55	10.45	4.40	6.35	8.00	9.30
2.40	4.70	6.80	8.20	9.95	4.20	6.10	7.65	8.90
2.70	4.50	6.55	7.90	9.60	4.05	5.85	7.35	8.55
3.00	4.35	6.30	7.70	9.25	3.90	5.65	7.10	8.25
3.30	4.20	6.10	7.45	8.95	3.75	5.45	6.85	8.00
3.60	4.10	5.95	7.25	8.70	3.65	5.30	6.65	7.80
3.90	4.00	5.80	7.10	8.50	3.55	5.15	6.50	7.60
4.20	3.90	5.65	6.90	8.25	3.50	5.05	6.35	7.40
4.50	3.80	5.50	6.75	8.10	3.40	4.95	6.20	7.20
4.80	3.70	5.40	6.65	7.90	3.30	4.80	6.05	7.05
5.10	3.65	5.30	6.50	7.75	3.25	4.75	5.95	6.95
5.40	3.60	5.20	6.40	7.60	3.20	4.65	5.80	6.80
5.70	3.50	5.10	6.30	7.45	3.15	4.55	5.70	6.65
6.00	3.45	5.00	6.20	7.35	3.10	4.50	5.60	6.55
6.30	3.40	4.95	6.10	7.20	3.05	4.40	5.50	6.45
6.60	3.35	4.85	6.00	7.10	3.00	4.35	5.45	6.25

Notes For freestanding structures use Cp'n 0.7 for Patios and Cp'n 1 for carports. 200x65 1.2mm Shurelock with CI95-1.9 Insert (Wind load non trafficable and 15kg/m² roof load).

1. Maximum cantilever for 100mm beam = 900mm
2. Maximum cantilever for 150mm beam = 1200mm
3. Maximum cantilever for 200mm beam = 1500mm.

Walls to Two Sides				Walls to Three Sides				Enclosed			
1 Cp'n				1.2 Cp'n				1.6 Cp'n			
100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
4.70	6.80	8.55	9.95	4.40	6.40	8.05	9.40	4.00	5.80	7.30	8.50
4.35	6.30	7.90	9.25	4.10	5.95	7.45	8.70	3.70	5.40	6.75	7.90
4.10	5.95	7.45	8.70	3.85	5.60	7.00	8.20	3.50	5.10	6.35	7.45
3.90	5.65	7.10	8.25	3.65	5.30	6.65	7.80	3.30	4.80	6.05	7.05
3.70	5.40	6.75	7.90	3.50	5.10	6.35	7.45	3.20	4.60	5.80	6.75
3.60	5.20	6.50	7.60	3.35	4.90	6.10	7.15	3.05	4.45	5.55	6.50
3.45	5.00	6.30	7.35	3.25	4.70	5.90	6.90	2.95	4.30	5.35	6.25
3.35	4.85	6.10	7.10	3.15	4.55	5.75	6.70	2.85	4.15	5.20	6.10
3.25	4.70	5.90	6.90	3.05	4.45	5.55	6.50	2.75	4.05	4.95	5.90
3.15	4.60	5.75	6.70	2.95	4.30	5.40	6.35	2.70	3.90	4.75	5.65
3.10	4.50	5.30	6.55	2.90	4.20	5.30	6.15	2.65	3.80	4.60	5.45
3.00	4.35	5.50	6.40	2.85	4.10	5.15	6.05	2.55	3.65	4.45	5.30
2.95	4.30	5.35	6.25	2.75	4.05	4.95	5.90	2.50	3.55	4.30	5.10
2.90	4.20	5.25	6.15	2.70	3.95	4.80	5.75	2.40	3.40	4.15	4.95
2.85	4.10	5.15	6.05	2.65	3.85	4.70	5.55	2.35	3.35	4.05	4.80
2.80	4.05	5.00	5.90	–	–	–	–	–	–	–	–
2.75	3.95	4.85	5.80	–	–	–	–	–	–	–	–
2.70	–	4.75	5.65	–	–	–	–	–	–	–	–
2.65	–	–	–	–	–	–	–	–	–	–	–

STANDARDS

WINDSPEED

INSULATED
SPANSSINGLE-SKIN
ROOFING SPANS

BEAM SPANS

GABLE SPANS

CONNECTION
DETAILSDECKS AND
FLOORSCERTIFICATION
AND TESTING

WIND REGION—C2

Roof Load Width	Walls to One Side				Walls to Two Sides			
	0.7 Cp'n				1 Cp'n			
Beam	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
1.20	4.65	6.70	8.40	9.85	4.10	6.70	7.50	8.75
1.50	4.30	6.25	7.80	9.15	3.80	6.25	6.95	8.10
1.80	4.05	5.85	7.35	8.60	3.60	5.85	6.55	7.65
2.10	3.85	5.55	7.00	8.15	3.40	5.55	6.20	7.25
2.40	3.65	5.35	6.70	7.80	3.25	5.35	5.95	6.95
2.70	3.55	5.10	6.40	7.50	3.15	5.10	5.70	6.65
3.00	3.40	4.95	6.20	7.25	3.00	4.95	5.50	6.45
3.30	3.30	4.80	6.00	7.00	2.95	4.80	5.35	6.25
3.60	3.20	4.65	5.85	6.80	2.85	4.65	5.15	6.05
3.90	3.10	4.55	5.70	6.65	2.75	4.55	4.95	5.90
4.20	3.05	4.40	5.55	6.45	2.70	4.40	4.75	5.65
4.50	2.95	4.30	5.40	6.35	2.65	4.30	4.60	5.50
4.80	2.90	4.20	5.30	6.20	2.55	4.20	4.45	5.30
5.10	2.85	4.15	5.15	6.05	2.50	4.15	4.30	5.15
5.40	2.80	4.05	5.05	5.95	–	–	–	–

WIND REGION—C3

Roof Load Width	Walls to One Side				Walls to Two Sides			
	0.7 Cp'n				1 Cp'n			
Beam	100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
1.20	4.05	5.90	7.40	8.65	3.60	5.25	6.55	7.65
1.50	3.75	5.45	6.85	8.00	3.35	4.85	6.10	7.10
1.80	3.55	5.15	6.45	7.55	3.15	4.55	5.75	6.70
2.10	3.35	4.90	6.15	7.15	3.00	4.35	5.45	6.35
2.40	3.20	4.70	5.85	6.85	2.85	4.15	5.20	6.10
2.70	3.10	4.50	5.65	6.60	2.75	4.00	4.90	5.85
3.00	3.00	4.35	5.45	6.35	2.65	3.80	4.65	5.50
3.30	2.90	4.20	5.25	6.15	2.55	3.65	4.45	5.25
3.60	2.80	4.10	5.05	6.00	2.45	3.50	4.25	5.05
3.90	2.75	3.95	4.85	5.80	2.35	3.35	4.05	4.85
4.20	2.65	3.85	4.70	5.60	–	–	–	–
4.50	2.60	3.70	4.55	5.40	–	–	–	–

Notes For freestanding structures use Cp'n 0.7 for Patios and Cp'n 1 for carports. 200x65 1.2mm Shurelock with CI95-1.9 Insert (Wind load non trafficable and 15kg/m² roof load).

1. Maximum cantilever for 100mm beam = 900mm
2. Maximum cantilever for 150mm beam = 1200mm
3. Maximum cantilever for 200mm beam = 1500mm.

Walls to Three Sides				Enclosed			
1.2 Cp'n				1.6 Cp'n			
100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
3.85	5.60	7.05	8.20	3.50	5.10	6.40	7.45
3.60	5.20	6.55	7.65	3.25	4.75	5.95	6.95
3.35	4.90	6.15	7.20	3.05	4.45	5.60	6.50
3.20	4.65	5.85	6.80	2.90	4.20	5.30	6.20
3.05	4.45	5.60	6.50	2.80	4.06	5.00	5.90
2.95	4.25	5.35	6.25	2.65	3.85	4.70	5.60
2.85	4.15	5.15	6.05	2.55	3.65	4.45	5.30
2.75	4.00	4.90	5.85	2.45	3.50	4.25	5.05
2.65	3.85	4.70	5.60	2.35	3.35	4.05	4.85
2.60	3.70	4.50	5.35	2.25	3.20	3.90	4.65
2.50	3.55	4.35	5.20	2.15	3.10	3.75	4.50
2.40	3.45	4.20	5.00	2.10	3.00	3.65	4.35
2.35	3.35	4.05	4.85	–	–	–	–
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–

Walls to Three Sides				Enclosed			
1.2 Cp'n				1.6 Cp'n			
100x65	150x65	200x65	200x65 Insert	100x65	150x65	200x65	200x65 Insert
3.40	4.90	6.20	7.20	3.10	4.45	5.60	6.55
3.15	4.55	5.75	6.70	2.85	4.15	5.20	6.10
2.95	4.30	5.40	6.30	2.70	3.90	4.75	5.65
2.80	4.10	5.05	6.00	2.55	3.60	4.40	5.20
2.70	3.90	4.75	5.65	2.35	3.35	4.10	4.90
2.60	3.65	4.45	5.30	2.25	3.20	3.85	4.60
2.45	3.50	4.25	5.05	2.10	3.00	3.65	4.35
2.35	3.30	4.05	4.80	2.00	2.85	3.50	4.15
2.25	3.20	3.85	4.60	1.95	2.75	3.35	4.00
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–

STANDARDS

WINDSPEED

INSULATED
SPANSSINGLE-SKIN
ROOFING SPANS

BEAM SPANS

GABLE SPANS

CONNECTION
DETAILSDECKS AND
FLOORSCERTIFICATION
AND TESTING

F17 KD HARDWOOD

N1 SPANS

Roof Load Width	Single Beam—35mm						Single Beam—45mm					
	120 x 35	140 x 35	170 x 35	190 x 35	220 x 35	240 x 35	120 x 45	140 x 45	170 x 45	190 x 45	220 x 45	240 x 45
1.00	3.30	3.80	4.70	5.00	5.60	5.90	3.60	4.20	4.90	5.30	5.80	6.20
2.00	2.80	3.20	3.90	4.20	4.70	5.00	3.00	3.50	4.10	4.50	5.00	5.30
3.00	2.30	2.70	3.30	3.70	4.20	4.30	2.50	2.90	3.60	4.00	4.40	4.70
4.00	2.00	2.40	2.90	3.20	3.60	3.80	2.20	2.60	3.10	3.50	4.00	4.30
5.00	1.80	2.10	2.60	2.90	3.30	3.40	2.00	2.30	2.80	3.10	3.60	4.00
6.00	1.70	1.90	2.40	2.70	3.00	3.10	1.80	2.10	2.60	2.90	3.30	3.60
7.00	1.50	1.80	2.20	2.40	2.80	2.90	1.70	2.00	2.40	2.70	3.10	3.40

N2 SPANS

Roof Load Width	Single Beam—35mm						Single Beam—45mm					
	120 x 35	140 x 35	170 x 35	190 x 35	220 x 35	240 x 35	120 x 45	140 x 45	170 x 45	190 x 45	220 x 45	240 x 45
1.00	3.10	3.60	4.40	4.90	5.60	5.90	3.40	3.90	4.80	5.30	5.80	6.20
2.00	2.40	2.80	3.50	3.70	4.00	4.10	2.70	3.10	3.80	4.20	4.90	5.30
3.00	2.10	2.40	2.80	3.00	3.30	3.40	2.30	2.70	3.30	3.70	4.20	4.50
4.00	1.80	2.10	2.40	2.60	2.80	2.90	2.00	2.40	2.90	3.20	3.70	3.90
5.00	1.60	1.90	2.20	2.30	2.50	2.60	1.80	2.10	2.60	2.90	3.30	3.50
6.00	1.50	1.70	2.00	2.20	2.30	2.40	1.70	1.90	2.40	2.70	3.00	3.20
7.00	1.40	1.60	1.90	2.00	2.20	2.20	1.50	1.80	2.20	2.50	2.80	3.00

N3 SPANS

Roof Load Width	Single Beam—35mm						Single Beam—45mm					
	120 x 35	140 x 35	170 x 35	190 x 35	220 x 35	240 x 35	120 x 45	140 x 45	170 x 45	190 x 45	220 x 45	240 x 45
1.00	2.70	3.10	3.80	4.30	4.60	4.70	2.90	3.40	4.20	4.70	5.40	5.90
2.00	2.00	2.40	2.80	3.00	3.20	3.30	2.30	2.70	3.30	3.70	4.20	4.40
3.00	1.70	1.90	2.30	2.40	2.60	2.70	1.90	2.20	2.70	3.00	3.40	3.60
4.00	1.40	1.70	2.00	2.10	2.30	2.30	1.60	1.90	2.30	2.60	3.00	31.00
5.00	1.30	1.50	1.80	1.90	2.00	2.10	1.50	1.70	2.10	2.30	2.70	2.80
6.00	1.20	1.40	1.60	1.70	1.90	1.90	1.30	1.60	1.90	2.10	2.40	2.60
7.00	1.10	1.30	1.50	1.60	1.70	1.80	1.20	1.40	1.80	2.00	2.20	2.40

Note All coefficients have been applied.

Double Beams—35mm						Double Beams—45mm					
2/120 x 35	2/140 x 35	2/170 x 35	2/190 x 35	2/220 x 35	2/240 x 35	2/120 x 45	2/140 x 45	2/170 x 45	2/190 x 45	2/220 x 45	2/240 x 45
4.10	4.60	5.30	5.60	6.20	6.60	4.30	4.80	5.40	5.80	6.40	6.80
3.40	3.90	4.50	4.90	5.40	5.70	3.60	4.10	4.70	5.10	5.70	6.00
2.90	3.40	4.00	4.40	4.90	5.20	3.10	3.60	4.30	4.60	5.10	5.40
2.50	3.00	3.60	4.00	4.40	4.00	2.80	3.20	3.90	4.20	4.70	5.00
2.30	2.70	3.20	3.60	4.10	4.40	2.50	2.90	3.50	3.90	4.40	4.70
2.10	2.50	3.00	3.30	3.80	4.10	2.30	2.70	3.20	3.60	4.10	4.40
1.90	2.30	2.70	3.10	3.60	3.90	2.10	2.50	3.00	3.30	3.80	4.10

Double Beams—35mm						Double Beams—45mm					
2/120 x 35	2/140 x 35	2/170 x 35	2/190 x 35	2/220 x 35	2/240 x 35	2/120 x 45	2/140 x 45	2/170 x 45	2/190 x 45	2/220 x 45	2/240 x 45
3.90	4.50	5.30	5.60	6.20	6.60	4.20	4.80	5.40	5.80	6.40	6.80
3.10	3.60	4.40	4.90	5.40	5.70	3.40	3.90	4.70	5.10	5.70	6.00
2.70	3.10	3.80	4.30	4.90	5.10	2.90	3.40	4.20	4.60	5.10	5.40
2.40	2.80	3.50	3.90	4.30	4.40	2.70	3.10	3.80	4.20	4.70	5.00
2.30	2.60	3.20	3.60	3.90	4.00	2.50	2.90	3.50	3.90	4.40	4.70
2.10	2.40	3.00	3.30	3.50	3.60	2.30	2.70	3.20	3.60	4.10	4.40
1.90	2.30	2.70	3.00	3.30	3.40	2.10	2.50	3.00	3.30	3.80	4.10

Double Beams—35mm						Double Beams—45mm					
2/120 x 35	2/140 x 35	2/170 x 35	2/190 x 35	2/220 x 35	2/240 x 35	2/120 x 45	2/140 x 45	2/170 x 45	2/190 x 45	2/220 x 45	2/240 x 45
3.40	4.00	4.80	5.40	6.20	6.60	3.70	4.30	5.30	5.80	6.40	6.80
2.70	3.10	3.80	4.30	4.90	5.10	2.90	3.40	4.20	4.70	5.40	5.90
2.30	2.70	3.30	3.70	4.00	4.10	2.60	3.00	3.60	4.10	4.70	5.20
2.10	2.50	3.00	3.20	3.50	3.60	2.30	2.70	3.30	3.70	4.30	4.70
2.00	2.30	2.70	2.90	3.10	3.20	2.10	2.50	3.10	3.40	4.00	4.30
1.80	2.10	2.50	2.60	2.80	2.90	2.00	2.40	2.90	3.20	3.70	3.90
1.70	1.90	2.30	2.40	2.60	2.70	1.90	2.20	2.70	3.00	3.40	3.60

F17 KD HARDWOOD

N4 SPANS

Roof Load Width	Single Beam—35mm						Single Beam—45mm					
	120 x 35	140 x 35	170 x 35	190 x 35	220 x 35	240 x 35	120 x 45	140 x 45	170 x 45	190 x 45	220 x 45	240 x 45
1.00	2.40	2.80	3.20	3.50	3.70	3.90	2.60	3.00	3.70	4.10	4.80	5.20
2.00	1.70	1.90	2.30	2.40	2.60	2.70	1.90	2.20	2.70	3.00	3.40	3.60
3.00	1.30	1.60	1.80	2.00	2.10	2.20	1.50	1.80	2.20	2.50	2.80	3.00
4.00	1.20	1.40	1.60	1.70	1.80	1.90	1.30	1.60	1.90	2.10	2.40	2.60
5.00	1.00	1.20	1.40	1.50	1.70	1.70	1.20	1.40	1.70	1.90	2.20	2.30
6.00	0.90	1.10	1.30	1.40	1.50	1.60	1.10	1.30	1.50	1.70	2.00	2.10
7.00	0.90	1.00	1.20	1.30	1.40	1.40	1.00	1.20	1.40	1.60	1.80	1.90

C1 SPANS

Roof Load Width	Single Beam—35mm						Single Beam—45mm					
	120 x 35	140 x 35	170 x 35	190 x 35	220 x 35	240 x 35	120 x 45	140 x 45	170 x 45	190 x 45	220 x 45	240 x 45
1.00	2.70	3.10	3.80	4.30	4.60	4.70	2.90	3.40	4.20	4.70	5.40	5.90
2.00	2.00	2.40	2.80	3.00	3.20	3.30	2.30	2.70	3.30	3.70	4.200	4.40
3.00	1.70	1.90	2.30	2.40	2.60	2.70	1.90	2.20	2.80	3.00	3.400	3.60
4.00	1.40	1.70	2.00	2.10	2.30	2.30	1.60	1.90	2.30	2.60	3.000	3.10
5.00	1.30	1.50	1.80	1.90	2.00	2.10	1.50	1.70	2.10	2.30	2.700	2.80
6.00	1.20	1.40	1.60	1.70	1.90	1.90	1.30	1.60	1.90	2.10	2.400	2.60
7.00	1.10	1.30	1.50	1.60	1.70	1.80	1.20	1.40	1.80	2.00	2.200	2.40

C2 SPANS

Roof Load Width	Single Beam—35mm						Single Beam—45mm					
	120 x 35	140 x 35	170 x 35	190 x 35	220 x 35	240 x 35	120 x 45	140 x 45	170 x 45	190 x 45	220 x 45	240 x 45
1.00	2.40	2.80	3.20	3.500	3.70	3.90	2.60	3.00	3.70	4.10	4.80	5.20
2.00	1.70	1.90	2.30	2.40	2.60	2.70	1.90	2.20	2.70	3.00	3.40	3.60
3.00	1.30	1.60	1.80	2.00	2.10	2.20	1.50	1.80	2.20	2.50	2.80	3.00
4.00	1.20	1.40	1.60	1.70	1.80	1.90	1.30	1.60	1.90	2.10	2.40	2.60
5.00	1.00	1.20	1.40	1.50	1.70	1.70	1.20	1.40	1.70	1.90	2.20	2.30
6.00	0.90	1.10	1.30	1.40	1.50	1.60	1.100	1.30	1.50	1.70	2.00	2.10
7.00	0.90	1.00	1.20	1.30	1.40	1.40	1.00	1.20	1.40	1.60	1.80	1.90

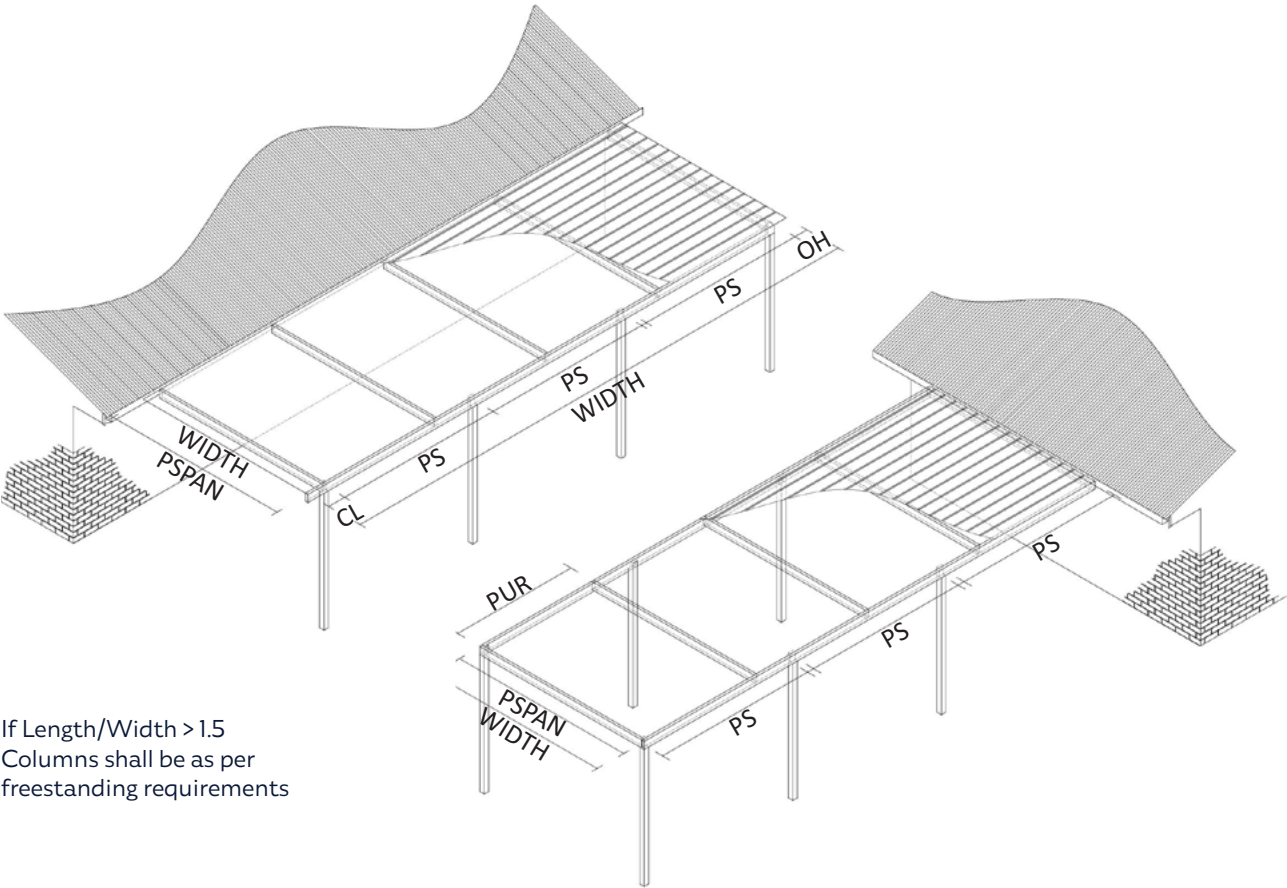
Note All coefficients have been applied.

Double Beams—35mm						Double Beams—45mm					
2/120 x 35	2/140 x 35	2/170 x 35	2/190 x 35	2/220 x 35	2/240 x 35	2/120 x 45	2/140 x 45	2/170 x 45	2/190 x 45	2/220 x 45	2/240 x 45
3.00	3.50	4.30	4.80	5.50	5.90	3.30	3.80	4.60	5.20	6.00	6.60
2.40	2.80	3.40	3.70	4.00	4.10	2.60	3.00	3.70	4.10	4.80	5.20
2.10	2.40	2.80	3.00	3.30	3.40	2.30	2.60	3.20	3.60	4.20	4.50
1.80	2.10	2.40	2.60	2.80	2.90	2.00	2.40	2.90	3.20	3.70	3.90
1.60	1.90	2.20	2.30	2.50	2.60	1.80	2.10	2.60	2.90	3.30	3.50
1.50	1.70	2.00	2.10	2.30	2.40	1.70	1.90	2.40	2.60	3.00	3.20
1.30	1.60	1.80	2.00	2.10	2.20	1.50	1.80	2.20	2.50	2.80	2.90

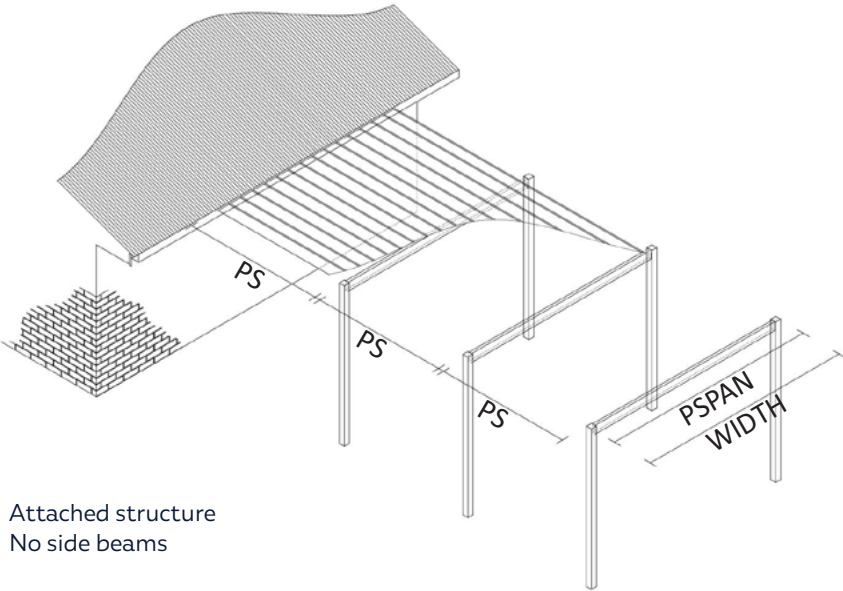
Double Beams—35mm						Double Beams—45mm					
2/120 x 35	2/140 x 35	2/170 x 35	2/190 x 35	2/220 x 35	2/240 x 35	2/120 x 45	2/140 x 45	2/170 x 45	2/190 x 45	2/220 x 45	2/240 x 45
3.40	4.00	4.80	5.40	6.20	6.60	3.70	4.30	5.30	5.80	6.40	6.80
2.70	3.10	3.80	4.30	4.90	5.10	2.90	3.40	4.20	4.70	5.40	5.90
2.30	2.70	3.30	3.70	4.00	4.10	2.60	3.00	3.60	4.10	4.70	5.20
2.10	2.50	3.00	3.20	3.50	3.60	2.30	2.70	3.30	3.70	4.30	4.70
2.00	2.30	2.70	2.90	3.10	3.20	2.10	2.50	3.10	3.40	4.00	4.30
1.80	2.10	2.50	2.60	2.80	2.90	2.00	2.40	2.90	3.20	3.70	3.90
1.70	1.90	2.30	2.40	2.60	2.70	1.90	2.20	2.70	3.00	3.40	3.60

Double Beams—35mm						Double Beams—45mm					
2/120 x 35	2/140 x 35	2/170 x 35	2/190 x 35	2/220 x 35	2/240 x 35	2/120 x 45	2/140 x 45	2/170 x 45	2/190 x 45	2/220 x 45	2/240 x 45
3.00	3.50	4.30	4.80	5.50	5.90	3.30	3.80	4.60	5.20	6.00	6.60
2.40	2.80	3.40	3.70	4.00	4.10	2.60	3.00	3.70	4.10	4.80	5.20
2.10	2.40	2.80	3.00	3.30	3.40	2.30	2.60	3.20	3.60	4.20	4.50
1.80	2.10	2.40	2.60	2.80	2.90	2.00	2.40	2.90	3.20	3.70	3.90
1.60	1.90	2.20	2.30	2.50	2.60	1.80	2.10	2.60	2.90	3.30	3.50
1.50	1.70	2.00	2.10	2.30	2.40	1.70	1.90	2.40	2.60	3.00	3.20
1.30	1.60	1.80	2.00	2.10	2.20	1.50	1.80	2.20	2.50	2.80	2.90

FLAT PATIOS/CARPORTS—OPEN STRUCTURES CONTINUOUS SPANS



If Length/Width > 1.5
Columns shall be as per
freestanding requirements



Attached structure
No side beams

- | | | | | | |
|-----------|---------------------|-----------|--------------|--------------|---------------------|
| RS | Roof Sheet Span | CL | Cantilever | BS | Beam/Rafter Spacing |
| OH | Roof Sheet Overhang | PS | Post Spacing | PURS | Purlin Spacing |
| | | | | PSPAN | Purlin Span |

ALLOWABLE BEAM SPANS

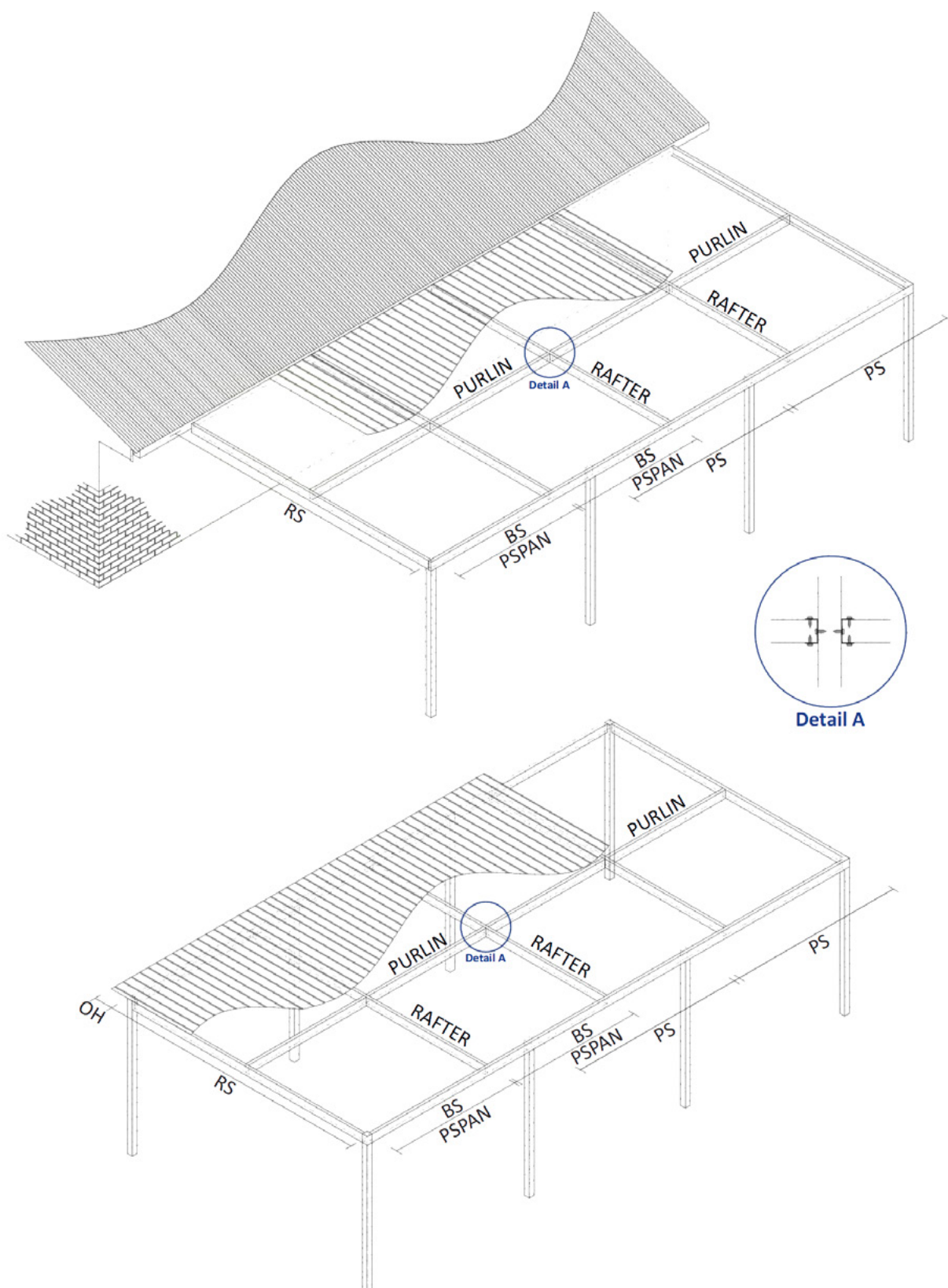
FLAT PATIOS/CARPORTS—OPEN STRUCTURES

Wind Class		N1/N2				N3				N4			
	Purlin Span (mm)	Post Spacing	Purlin Spacing		Post/Footing Load (kN)	Post Spacing	Purlin Spacing		Post/Footing Load (kN)	Post Spacing	Purlin Spacing		Post/Footing Load (kN)
			0.42	0.48			0.42	0.48			0.42	0.48	
100 x 65	3000	5670	4650	5150	6.84	5060	4600	4900	9.11	4540	4400	4600	8.18
	3600	5340	4650	5150	6.93	4760	4600	4900	9.46	3950	3760	3760	8.00
	4200	5070	4650	4740	7.31	4520	3360	3360	10.17	3380	2370	2370	7.61
	4800	4850	3180	3180	7.69	4320	2250	2250	10.70	2900	1590	1590	7.18
	5400	4660	2230	2230	8.06	3840	1580	1580	10.37	2630	1110	1110	7.11
	6000	4500	1630	1630	8.43	3450	1150	1150	10.1	2370	810	810	6.94
	6600	4360	1220	1220	8.79	3140	860	860	9.90	2150	610	610	6.78
	7200	4240	940	940	9.16	2880	670	670	9.72	1970	470	470	6.65
	7800	4010	740	740	9.24	2660	520	520	9.58	1820	370	370	6.56
	8400	3720	590	590	9.11	2470	420	420	9.45	1690	300	300	6.47
150 x 65	3000	8100	4650	5150	9.34	7200	4600	4900	12.96	6430	4400	4600	11.58
	3600	7620	4650	5150	9.88	6790	4600	4900	13.75	5500	4400	4600	11.14
	4200	7240	4650	5150	10.43	6450	4600	4900	14.52	4710	4400	4600	10.60
	4800	6920	4650	5150	10.97	6010	4600	4900	14.88	4120	4400	4600	10.20
	5400	6660	4650	5150	11.51	5350	4600	4600	14.45	3670	3240	3240	9.91
	6000	6430	4650	4730	12.04	4810	3350	3350	14.07	3300	2360	2360	9.66
	6600	6230	3560	3560	12.56	4370	2520	2520	13.77	3000	1780	1780	9.45
	7200	6060	2740	2740	13.09	4010	1940	1940	13.54	2750	1370	1370	9.29
	7800	5590	2150	2150	12.88	3700	1530	1530	13.32	2540	1080	1080	9.15
	8400	5190	1730	1730	12.71	3440	1220	1220	13.16	2300	860	860	8.18
200 x 65	3000	10100	4650	5150	11.64	9000	4600	4900	16.20	7960	4400	4600	14.33
	3600	9510	4650	5150	12.33	8470	4600	4900	17.16	6640	4400	4600	13.45
	4200	9030	4650	5150	13.01	8050	4600	4900	18.12	5690	4400	4600	12.81
	4800	8310	4650	5150	13.17	7260	4600	4900	17.97	4980	4400	4600	12.33
	5400	7640	4650	5150	13.21	6450	4600	4900	17.42	4420	4400	4600	11.94
	6000	8020	4650	5150	15.02	5810	4600	4900	17.00	3980	4400	4590	11.65
	6600	7770	4650	5150	15.67	5280	4600	4890	16.64	3620	3450	3450	11.41
	7200	7300	4650	5150	15.77	4840	3770	3770	16.34	3320	2660	2660	11.21
	7800	6740	4180	4180	15.53	4470	2960	2960	16.10	3060	2090	2090	11.02
	8400	6260	3350	3350	15.33	4150	2370	2370	15.88	2840	1067	1670	10.87

ALLOWABLE BEAM SPANS

FLAT PATIOS/CARPORTS—OPEN STRUCTURES

Wind Class		C1			C2			C3		
	Purlin Span (mm)	Post Spacing	Purlin Spacing 0.48	Post/Footing Load (kN)	Post Spacing	Purlin Spacing 0.48	Post/Footing Load (kN)	Post Spacing	Purlin Spacing 0.48	Post/Footing Load (kN)
100 x 65	3000	3950	2950	7.11	2680	1850	4.96	1840	900	7.27
	3600	3290	2950	6.67	2240	1850	5.57	1530	900	6.80
	4200	2820	2490	6.35	1920	1720	5.76	—	—	—
	4800	2470	1670	6.12	1680	1150	4.24	—	—	—
	5400	2190	1170	5.92	1490	810	3.26	—	—	—
	6000	1970	850	5.77	3450	—	—	—	—	—
	6600	1790	640	5.64	3140	—	—	—	—	—
	7200	1640	—	5.54	2880	—	—	—	—	—
	7800	1520	—	5.48	2660	—	—	—	—	—
	8400	1410	—	5.40	2470	—	—	—	—	—
150 x 65	3000	5500	2950	9.90	3740	1850	10.01	2560	900	10.11
	3600	4580	2950	9.28	3110	1850	9.37	2130	900	9.47
	4200	3930	2950	8.85	2670	1850	8.94	1830	900	9.04
	4800	3440	2950	8.52	2340	1850	8.62	1600	900	8.69
	5400	3050	2950	8.24	2080	1850	8.35	1420	900	8.41
	6000	2750	2480	8.05	1870	1720	8.14	—	—	—
	6600	2500	1860	7.88	1700	1290	7.97	—	—	—
	7200	2290	1440	7.73	1560	990	7.83	—	—	—
	7800	2110	1130	7.60	1440	780	7.71	—	—	—
	8400	1960	900	7.50	—	—	—	—	—	—
200 x 65	3000	6640	2950	11.96	4510	1850	12.07	3090	900	12.20
	3600	5530	2950	11.20	3760	1850	11.32	2570	900	11.42
	4200	4740	2950	10.06	3220	1850	10.78	2210	900	10.91
	4800	4150	2950	10.28	2820	1850	10.38	1930	900	10.48
	5400	3690	2950	9.97	2510	1850	10.08	1720	900	10.19
	6000	3320	2950	9.72	2260	1850	9.83	1540	900	9.88
	6600	3020	2950	9.52	2050	1850	9.61	1400	900	9.68
	7200	2760	2650	9.32	1880	1820	9.44	—	—	—
	7800	2550	2190	9.18	1730	1520	9.26	—	—	—
	8400	2370	1760	9.07	1610	1520	9.16	—	—	—



* Shall be the lesser of the tabulated values for the rafter beam spacing or purlin span.
 * Member sizes may be mixed to achieve the most economical structure.

RS Roof Sheet Span
OH Roof Sheet Overhang

CL Cantilever
PS Post Spacing

RBS Rafter Beam Spacing
PURS Purlin Spacing
PSPAN Purlin Span

OPEN AND PARTIALLY ENCLOSED STRUCTURES (CP'N—0.5/0.7/1.0/1.2)

Wind Class	Roof Load Width (mm)	Maximum Rafter Spacing			No. of Purlins	Maximum Span of Purlins			Maximum Post Spacing		
		100 x 65	150 x 65	200 x 65		100 x 65	150 x 65	200 x 65	100 x 65	150 x 65	200 x 65
N1/ N2	2325	4760	6600	7940	1	4760	6600	7940	6840	8850	8880
	2525	4100	6090	7330	1	4390	6090	7330	5810	8620	8650
	2725	3020	5650	6800	1	4070	5650	6800	4410	8410	8440
	2925	2280	5270	6340	1	3800	5270	6340	3390	8210	8230
	3125	1750	4940	5940	1	3560	4940	5940	2640	8020	8040
	3325	1360	3970	5590	1	3340	4650	5590	2090	7620	7870
	3525	1080	3140	5280	1	3160	4390	5280	—	6440	7700
	3725	—	2520	4890	1	2990	4150	5000	—	5490	7550
	3925	—	2040	3970	1	2840	3940	4750	—	4720	7400
	4125	—	1670	3250	1	2700	3760	4520	—	4090	7260
	4325	—	1390	2690	1	3580	3580	4320	—	3560	6880
	4525	—	1160	2250	1	2460	3430	4130	—	3120	6030
	4725	—	—	1890	2	3530	4900	5900	—	2760	5320
	4925	—	—	1600	2	3390	4700	5660	—	2440	4720
N3	2325	3910	5430	6540	1	3910	5430	6540	5620	6890	6900
	2525	3320	5010	6030	1	3600	5010	6030	5420	6710	6720
	2725	2850	4640	5590	1	3340	4640	5590	4410	6540	6550
	2925	2280	4330	5220	1	3120	4330	5220	3390	6390	6400
	3125	1750	4060	4890	1	2920	4060	4890	2640	6240	6250
	3325	1360	3710	4600	1	2740	3810	4600	2090	5460	6110
	3525	1080	3140	4340	1	2590	3600	4340	—	4610	5980
	3725	—	2520	4110	1	2450	3410	4110	—	3930	5860
	3925	—	2040	3880	1	2330	3240	3900	—	3380	5750
	4125	—	1670	3250	1	2210	3080	3710	—	2920	5640
	4325	—	1390	2690	1	2110	2940	3540	—	2550	4930
	4525	—	1160	2250	2	3020	4200	5060	—	2230	4320
	4725	—	—	1890	2	2890	4020	4850	—	1970	3810
	4925	—	—	1600	2	2780	3960	4650	—	—	3370
N4	2325	2700	4530	5460	1	3260	4530	5460	4680	5560	5570
	2525	2290	4170	5030	1	3000	4170	5030	4510	5410	5420
	2725	1960	3810	4660	1	2780	3870	4660	4220	5280	5290
	2925	1700	3300	4350	1	2590	3610	4350	3390	5150	5160
	3125	1490	2890	4070	1	2430	3380	4070	2640	4660	5040
	3325	1320	2560	3720	1	2280	3180	3830	2090	3890	4930
	3525	1080	2270	3310	1	2150	3000	3610	—	3280	4830
	3725	—	2040	2970	1	2040	2840	3420	—	2800	4730
	3925	—	1840	2670	1	1940	2690	3250	—	2400	4640
	4125	—	1660	2420	1	1840	2560	3090	—	2080	4020
	4325	—	1390	2200	2	2630	3660	4410	—	1810	3510
	4525	—	1160	2010	2	2520	3500	4220	—	—	3070
	4725	—	—	1840	2	2410	3350	4040	—	—	2710
	4925	—	—	1600	2	2310	3220	3880	—	—	2400

Wind Class	Roof Load Width(mm)	Maximum Rafter Spacing			No. of Purlins	Maximum Span of Purlins			Maximum Post Spacing		
		100 x 65	150 x 65	200 x 65		100 x 65	150 x 65	200 x 65	100 x 65	150 x 65	200 x 65
C1	2325	3910	5430	6540	1	3910	5430	6540	5280	6890	6900
	2525	3320	5010	6030	1	3600	5010	6030	4170	6710	6720
	2725	2850	4640	5590	1	3340	4640	5590	3350	6540	6550
	2925	2280	4330	5220	1	3120	4330	5220	2730	6390	6400
	3125	1750	4060	4890	1	2920	4060	4890	2260	6240	6250
	3325	1360	3710	4600	1	2740	3810	4600	1890	5460	6110
	3525	1080	3140	4340	1	2590	3600	4340	–	4610	5980
	3725	–	2520	4110	1	2450	3410	4110	–	3930	5860
	3925	–	2040	3880	1	2330	3240	3900	–	3380	5750
	4125	–	1670	3250	1	2210	3080	3710	–	2290	5640
	4325	–	1390	2690	2	3160	4390	5290	–	2550	4930
	4525	–	1160	2250	2	3020	4200	5060	–	2230	4320
	4725	–	–	1890	2	2890	4020	4850	–	1970	3810
	4925	–	–	1600	2	2780	3860	4650	–	–	3370
C2	2325	2700	4350	5460	1	3260	4530	5460	4680	5560	5570
	2525	2290	4170	5030	1	3000	4170	5030	4170	5410	5420
	2725	1960	3810	4660	1	2780	3870	4660	3350	5280	5290
	2925	1700	3300	4350	1	2590	3610	4350	2730	5150	5160
	3125	1490	2890	4070	1	2430	3380	4070	2260	4660	5040
	3325	1320	2560	3720	1	2280	3180	3830	1890	3890	4930
	3525	1080	2280	3310	2	3220	4480	5400	–	3280	4830
	3725	–	2040	2970	2	3050	4240	5110	–	2800	4730
	3925	–	1840	2670	2	2900	4030	4860	–	2400	4640
	4125	–	1660	2420	2	2760	3840	4620	–	2080	4020
	4325	–	1390	2200	2	2630	3660	4410	–	1810	3510
	4525	–	1160	2010	2	2520	3500	4220	–	–	3070
	4725	–	–	1840	2	2410	3350	4040	–	–	2710
	4925	–	–	1600	2	2310	3220	3880	–	–	2400
C3	2325	1860	3620	4550	1	2710	3780	4550	3900	4540	4540
	2525	1580	3070	4460	2	3740	5200	6270	3340	4420	4420
	2725	1360	2630	3830	2	3470	4830	5810	2730	4310	4310
	2925	1180	2280	3330	2	3230	4500	5420	2260	4030	4210
	3125	1030	2000	2910	2	3030	4210	5080	1890	3330	4110
	3325	–	1770	2570	2	2850	3960	4770	–	2780	4020
	3525	–	1570	2290	2	2690	3740	4510	–	2350	3940
	3725	–	1410	2050	2	2540	3540	4260	–	2000	3860
	3925	–	1270	1850	3	3210	4470	5390	–	–	3330
	4125	–	1150	1670	3	3060	4250	5130	–	–	2880
	4325	–	1040	1520	3	2920	4060	4890	–	–	2510
	4525	–	–	1390	3	2790	3880	4680	–	–	2200
	4725	–	–	1270	3	2670	3720	4480	–	–	1930
	4925	–	–	1170	3	2560	3570	4300	–	–	–

STANDARDS

WINDSPEED

INSULATED SPANS

SINGLE-SKIN ROOFING SPANS

BEAM SPANS

GABLE SPANS

CONNECTION DETAILS

DECKS AND FLOORS

CERTIFICATION AND TESTING

ENCLOSED STRUCTURES (CP'N 1.1)

Wind Class	Roof Load Width (mm)	Maximum Rafter Spacing			No. of Purlins	Maximum Span of Purlins			Maximum Post Spacing		
		100 x 65	150 x 65	200 x 65		100 x 65	150 x 65	200 x 65	100 x 65	150 x 65	200 x 65
N1/ N2	2325	3860	4360	5270	1	3960	4360	5270	5670	5680	5690
	2525	3270	4020	4850	1	3640	4020	4850	5090	5470	5480
	2725	2720	3720	4490	1	3370	3720	4490	4070	5290	5290
	2925	2200	3460	4180	1	3140	3460	4180	3310	5120	5120
	3125	1750	4140	5890	1	2940	4870	5890	2640	4960	4970
	3325	1360	3660	5330	1	2760	4580	5530	2090	4820	4830
	3525	1080	3140	4740	1	2600	4320	5210	–	4690	4700
	3725	–	2520	4250	1	2460	4080	4930	–	4570	4580
	3925	–	2040	3820	1	2340	3870	5680	–	4070	4470
	4125	–	1670	3250	1	2220	3690	4450	–	3510	4360
	4325	–	1390	2690	2	3190	3510	4240	–	3050	4270
	4525	–	1160	2250	2	3040	4480	5420	–	2670	4180
	4725	–	–	1890	2	2910	4290	5190	–	2350	4090
	4925	–	–	1600	2	2800	4120	4970	–	2080	4010
N3	2325	3860	4360	5270	1	3960	4360	5270	5670	5680	5690
	2525	3270	4020	4850	1	3640	4020	4850	5090	5470	5480
	2725	2720	3720	4490	1	3370	3720	4490	4070	5290	5290
	2925	2200	3460	4180	1	3140	3460	4180	3310	5120	5120
	3125	1750	4140	5890	1	2940	4870	5890	2640	4960	4970
	3325	1360	3660	5330	1	2760	4580	5530	2090	4820	4830
	3525	1080	3140	4740	1	2600	4320	5210	–	4690	4700
	3725	–	2520	4250	1	2460	4080	4930	–	4570	4580
	3925	–	2040	3820	1	2340	3870	5680	–	4070	4470
	4125	–	1670	3250	1	2220	3690	4450	–	3510	4360
	4325	–	1390	2690	2	3190	3510	4240	–	3050	4270
	4525	–	1160	2250	2	3040	4480	5420	–	2670	4180
	4725	–	N/A	1890	2	2910	4290	5190	–	2350	4090
	4925	–	N/A	1600	2	2800	4120	4970	–	2080	4010
N4	2325	1610	3130	3080	1	3890	8710	10930	2580	3660	3660
	2525	1370	2650	2610	1	3730	8750	10980	2030	3520	3530
	2725	1110	2280	2240	1	3520	8510	10670	–	3410	3410
	2925	–	1980	1940	1	3280	8560	10740	–	3300	3300
	3125	–	1730	1700	1	3070	8610	10790	–	3180	3200
	3325	–	1530	1500	1	2890	8650	10840	–	2650	3110
	3525	–	1360	1340	2	3860	8680	10880	–	2240	3030
	3725	–	1220	1200	2	3760	8510	10670	–	1900	2950
	3925	–	1080	1080	2	3660	8540	10710	–	–	2880
	4125	–	–	–	2	3480	8580	10760	–	–	2740
	4325	–	–	–	2	3320	8610	10800	–	–	2380
	4525	–	–	–	2	3180	8640	10830	–	–	2090
	4725	–	–	–	2	3050	8500	10660	–	–	1840
	4925	–	–	–	2	2920	8530	10700	–	–	–

ENCLOSED STRUCTURES (CP'N 1.6)

Wind Class	Roof Load Width(mm)	Maximum Rafter Spacing			No. of Purlins	Maximum Span of Purlins			Maximum Spacing of Edge Beam Posts		
		100 x 65	150 x 65	200 x 65		100 x 65	150 x 65	200 x 65	100 x 65	150 x 65	200 x 65
C1	2325	2430	4360	5270	1	3130	4360	5270	4000	4490	4500
	2525	2060	3990	4850	1	2880	4020	4850	3140	4330	4330
	2725	1700	3430	4490	1	2670	3720	4490	2520	4180	4190
	2925	1380	2970	4180	1	2480	3460	4180	2040	4050	4050
	3125	1130	2600	3790	2	3490	4870	5890	–	3930	3930
	3325	–	2300	3350	2	3280	4580	5530	–	3820	3820
	3525	–	2050	2980	2	3100	4320	5210	–	3460	3720
	3725	–	1830	2670	2	2930	4080	4930	–	2940	3620
	3925	–	1650	2410	2	2780	3870	4680	–	2520	3540
	4125	–	1430	2180	2	2640	3690	4450	–	2180	3450
	4325	–	1240	1980	2	2520	3510	4240	–	1890	3380
	4525	–	1080	1810	3	3220	4480	5420	–	–	3220
	4725	–	–	1660	3	3080	4290	5190	–	–	2840
	4925	–	–	1530	3	2950	4120	4970	–	–	2510
C2	2325	1610	3130	4560	2	4570	6540	7850	2580	3660	3660
	2525	1370	2650	3870	2	4450	6360	7590	2030	3520	3530
	2725	1110	2280	3320	2	4430	6130	7360	–	3410	3410
	2925	–	1980	2880	3	4670	6680	8030	–	3300	3300
	3125	–	1730	2520	3	4560	6530	7820	–	3180	3200
	3325	–	1530	2230	3	4460	6390	7630	–	2650	3110
	3525	–	1360	1980	3	4380	6230	7450	–	3460	3030
	3725	–	1220	1780	4	4640	6630	7970	–	2240	2950
	3925	–	1650	1600	4	4550	6520	7810	–	1900	2880
	4125	–	1080	1450	4	4480	6400	7650	–	–	2740
	4325	–	–	1320	4	4400	6290	7510	–	–	2380
	4525	–	–	1200	4	4340	6140	7370	–	–	2090
	4725	–	–	1100	4	4550	6510	7800	–	–	1840
	4925	–	–	1020	4	4480	6420	7670	–	–	–
C3	2325	1090	2110	3080	9	6070	8710	10930	–	3000	3000
	2525	–	1790	2610	10	6100	8750	10980	–	2890	2890
	2725	–	1540	2240	10	5930	8510	10670	–	2800	2800
	2925	–	1340	1940	11	5970	8560	10740	–	2590	2710
	3125	–	1170	1700	12	6000	8610	10790	–	2140	2630
	3325	–	1030	1500	13	6020	8650	10840	–	–	2550
	3525	–	–	1340	14	6050	8680	10880	–	–	2490
	3725	–	–	1200	14	5930	8510	10670	–	–	2420
	3925	–	–	1080	15	5960	8540	10710	–	–	2130
	4125	–	–	–	16	5980	8580	10760	–	–	1830
	4325	–	–	–	17	6000	8610	10800	–	–	–
	4525	–	–	–	18	6020	8640	10830	–	–	–
	4725	–	–	–	18	5930	8500	10660	–	–	–
	4925	–	–	–	19	5950	8530	10700	–	–	–

STANDARDS

WINDSPEED

INSULATED SPANS

SINGLE-SKIN ROOFING SPANS

BEAM SPANS

GABLE SPANS

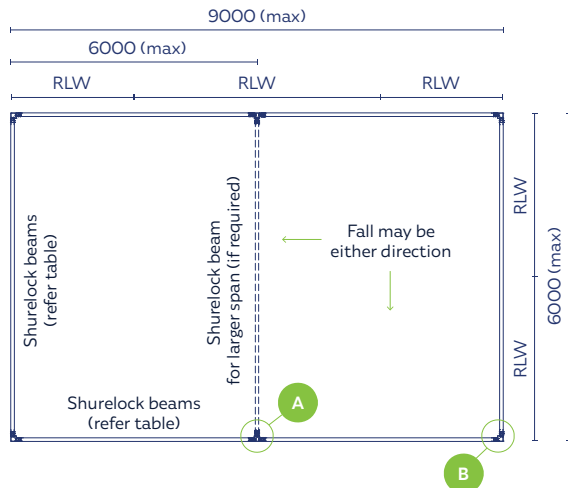
CONNECTION DETAILS

DECKS AND FLOORS

CERTIFICATION AND TESTING

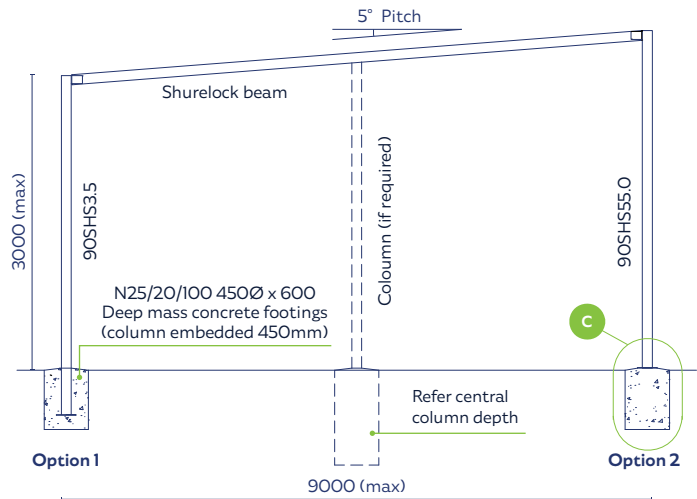
SKILLION FREESTANDING BOLT TO SLAB TO SUIT WINDSPEED N1 / N2 / N3

Plan View

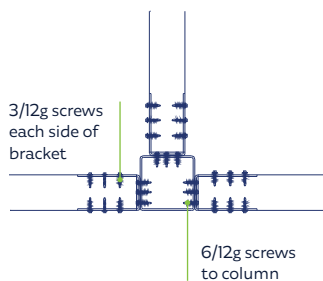


Elevation

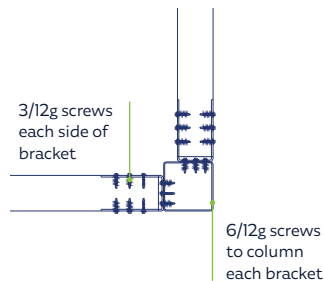
Note Fall may be either direction (refer plan).



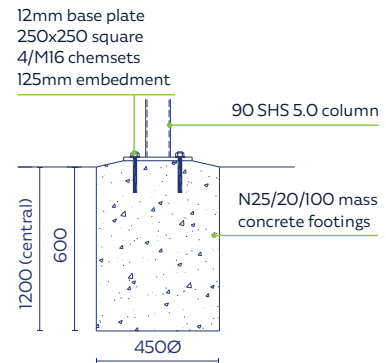
Detail A



Detail B



Detail C



BEAM MEMBERS AND SPAN TABLE

Beam (Shurelock)	Beam Span (mm)	Roof Load Width (mm)
100 x 65	3000	1500
150 x 65	4500	2250
200 x 65	6000	3000

Notes Please refer to roof span and apply the Cp'n 0.7 for patios or Cp'n 1 carport application.

Foundations

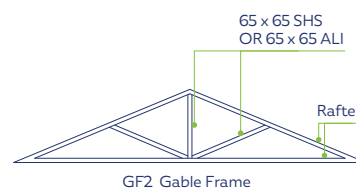
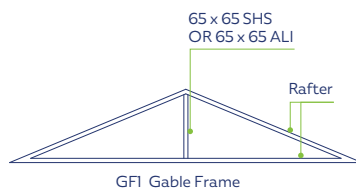
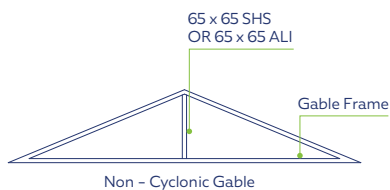
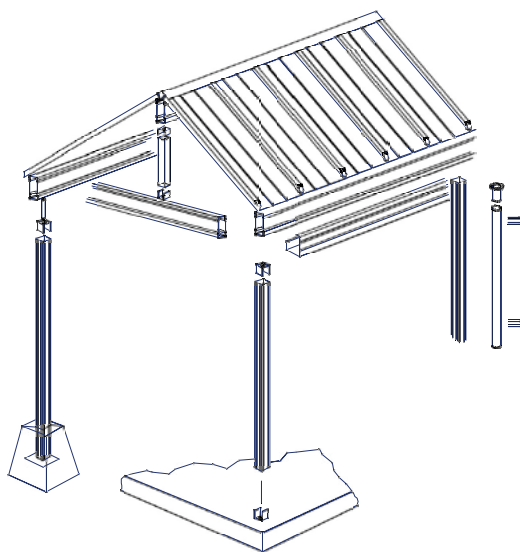
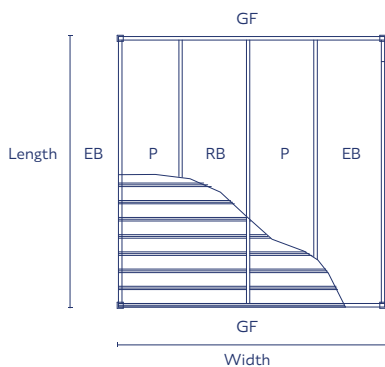
- Slab and footing designs is based upon a site classification "M" Class. Site conditions to be confirmed prior to commencement of construction.
- Foundation Material shall be approved by a Geotechnical Engineer for an allowable bearing intensity of 100kPa immediately prior to placing concrete. Notwithstanding this, the underside of all footings shall be founded in.
- Stiff natural ground

The cost of the geotechnical investigation and inspections shall be borne by the builder.

GABLE SPANS

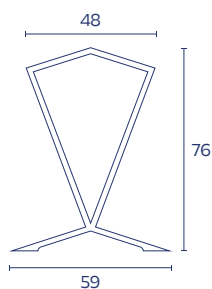
V-LINE AND INSULATED ROOFING

GF – Gable Frame – GF1 or GF2 Refer Table
EB – Edge Beam
P – Purlin
RB – Ridge Beam



AUSDECK COMPONENTRY

Aluminum extrusion on gable ridge extrusion.



INSULATED ROOFING

ATTACHED OR FREESTANDING OPEN, PARTIALLY ENCLOSED OR ENCLOSED (CP'N 1.0 /1.1/1.2)

	Gable Length	Gable Width	Edge Beam	Ridge Beam	Rafter Beams	Post Attached	Post Freestanding	Footing
N1/ N2/ N3	Up to 4000	Up to 4000	100 x 65	100 x 65	–	65 x 65	89 x 2 SHS	350/500
	4000 to 6000	4000 to 7000	150 x 65	150 x 65	–	65 x 65	89 x 3.5 SHS	400/600
	6000 to 8000	7000 to 8500	200 x 65	200 x 65	100 x 65	89 x 89	100 x 5 SHS	500/700
N4	Up to 4000	Up to 4000	150 x 65	150 x 65	100 x 65	65 x 65	89x3.5 SHS	400/600
	4000 to 6000	4000 to 7000	200 x 65	200 x 65	150 x 65	65 x 65	100 x 5 SHS	500/700

V-LINE ROOFING

ATTACHED OR FREESTANDING OPEN, PARTIALLY ENCLOSED OR ENCLOSED (CP'N 1.0/1.1/1.2)

	Gable Length	Gable Width	Edge Beam	Ridge Beam	Rafter Beams	Post Attached	Post Freestanding	Footing
N1/ N2/ N3	Up to 4000	Up to 4000	100 x 65	100 x 65	–	65 x 65	90 x 2 SHS	350x350 x 500
	4000 to 6000	4000 to 7000	150 x 65	150 x 65	–	65 x 65	100 x 3 SHS	400x400x600
	6000 to 8000	7000 to 8500	200 x 65	200 x 65	150 x 65	89 x 89	100 x 5 SHS	500x500x700
N4	Up to 4000	Up to 4000	150 x 65	150 x 65	100 x 65	65 x 65	100 x 3 SHS	400 x 400 x 600
	4000 to 6000	4000 to 7000	200 x 65	200 x 65	150 x 65	65 x 65	100 x 5 SHS	500 x 500 x 700

OPEN OR ENCLOSED (CP'N 1.0 / 1.2 / 1.6)

	Gable Width	Gable Length	Purlin	No. of Purlins Per Side	Edge Beam	Ridge Beam	Rafter Beams	Gable Frame Type	Enclosed		Open	
									Post Attached	Footing Type Attached	Post Free-standing or Attached	Free-standing Footing
C1	4000	4000	–	–	100	100	100	GF 1	89 x 2	400/600	125 x 4	350 x 1250
	4000	5000	–	–	150	150	150	GF 1	89 x 2	400/600	125 x 5	350 x 1500
	4000	6000	–	–	200	200	200	GF 1	89 x 2	400/600	150 x 3	350 x 1500
	4000	7000	–	–	200	200	200	GF 1	89 x 2	500/700	150 x 4	350 x 1500
	6000	4000	100	1	100	100	200	GF 2	89 x 2	400/600	150 x 3	350 x 1500
	6000	5000	150	1	150	150	200	GF 2	89 x 2	500/700	150 x 4	350 x 1750
	6000	6000	200	1	200	200	200	GF 2	89 x 2	500/700	150 x 5	350 x 1750
	6000	7000	200	1	200	200	200	GF 2	89 x 2	500/900	150 x 6	350 x 2000
	8000	4000	100	1	100	100	150	GF 2	89 x 2	500/700	150 x 4	350 x 1750
	8000	5000	150	1	150	150	150	GF 2	89 x 2	500/900	150 x 6	350 x 1750
C2	8000	6000	200	1	200	200	200	GF 2	89 x 2	500/900	200 x 5	350 x 1750
	8000	7000	200	1	200	200	200	GF 2	89 x 2	500/900	200 x 5	350 x 2000
	4000	4000	–	–	150	150	150	GF 1	89 x 2	500/700	150 x 3	350 x 1500
	4000	5000	150	1	150	150	200	GF 1	89 x 2	500/700	150 x 4	350 x 1500
	4000	6000	200	1	200	200	200	GF 2	89 x 2	500/700	150 x 5	350 x 1750
	6000	4000	150	1	150	150	200	GF 1	89 x 2	500/700	150 x 5	350 x 1750
C3	6000	5000	200	2	200	200	200	GF 1	89 x 2	500/700	150 x 6	350 x 1750
	8000	4000	100	3	100	100	200	GF 2	89 x 2	500/900	200 x 5	350 x 1750
	4000	4000	100	2	100	100	150	GF 1	89 x 2	2	150 x 5	350 x 1750
	4000	5000	100	2	100	100	150	GF 1	89 x 2	3	150 x 6	350 x 1750
	4000	6000	100	2	150	150	200	GF 1	89 x 2	3	200 x 3	350 x 2000
	6000	4000	100	3	100	100	100	GF 2	89 x 2	3	200 x 5	350 x 2000
	6000	5000	150	3	150	150	150	GF 2	89 x 2	3	200 x 5	350 x 2000
	6000	6000	150	3	150	150	150	GF 2	89 x 2	4	200 x 5	350 x 2250
	8000	4000	100	2	100	100	150	GF 2	89 x 2	4	200 x 5	350 x 2000
	8000	5000	150	4	150	150	200	GF 2	89 x 2	4	200 x 5	350 x 2250
	8000	6000	150	4	150	150	200	GF 2	89 x 2	4	200 x 6	350 x 2500

STANDARDS

WINDSPEED

INSULATED SPANS

SINGLE-SKIN ROOFING SPANS

BEAM SPANS

GABLE SPANS

CONNECTION DETAILS

DECKS AND FLOORS

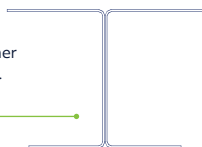
CERTIFICATION AND TESTING

CONNECTION DETAILS

POST AND BEAM CONNECTIONS RECEIVER CHANNELS

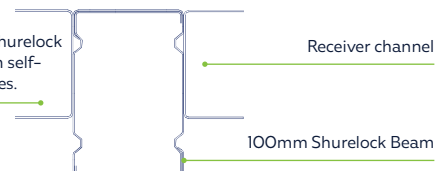
Back to Back Receiver Channel

Fix receiver channel together using 5mm diameter bolts. Max 500mm centres.



Max Spans (mm)	
N3, C1	3400
N4, C2	2950
C3	2600

Fix receiver channel to Shurelock Beam using 12–14 20mm self-drilling Tek @ 300 centres.



Max Spans (mm)	
N3, C1	5200
N4, C2	4500
C3	3950

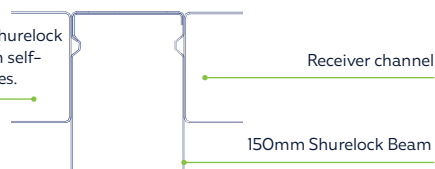
Single Reinforced Back to Back Receiver Channel

Fix receiver channel together using 5mm diameter bolts. Max 500mm centres.



Max Spans (mm)	
N3, C1	3500
N4, C2	3000
C3	2650

Fix receiver channel to Shurelock Beam using 12–14 20mm self-drilling Tek @ 300 centres.



Max Spans (mm)	
N3, C1	6800
N4, C2	5900
C3	5150

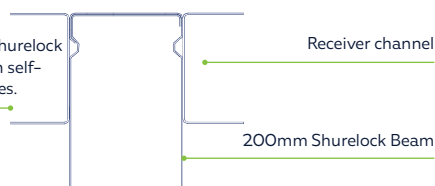
Double Reinforced Back to Back Receiver Channel

Fix receiver channel together using 5mm diameter bolts. Max 500mm centres.



Max Spans (mm)	
N3, C1	3700
N4, C2	3200
C3	2800

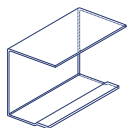
Fix receiver channel to Shurelock Beam using 12–14 20mm self-drilling Tek @ 300 centres.



Max Spans (mm)	
N3, C1	8000
N4, C2	6950
C3	6100

Receiver Channel—V-Line

G300 1.0mm

**Receiver Channel—Insulated**

G300 1.2mm

**STRUCTURAL BEAM END CAPS**

For the connection of posts to roll formed beams, timber/steel wall framing and concrete filled masonry block walls.

**Single Beam End Cap—
External**

1.0mm Folded Steel G300

Max. load 9.3kN

90°

**Angled Single Beam End Cap**

1.0mm Folded Steel G300

Max. load 9.3kN

67.5°, 45° and 22.5°

**Fascia Hanging Bracket**

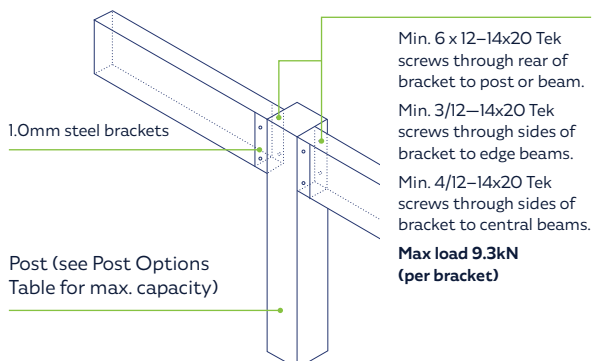
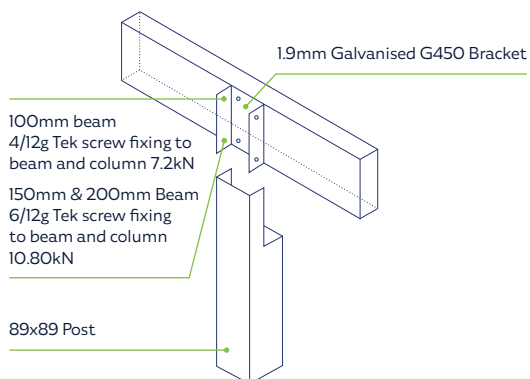
1.2m Folded Steel G300

Max. load 9.0kN

90°, 67.5°, 45° and 22.5°

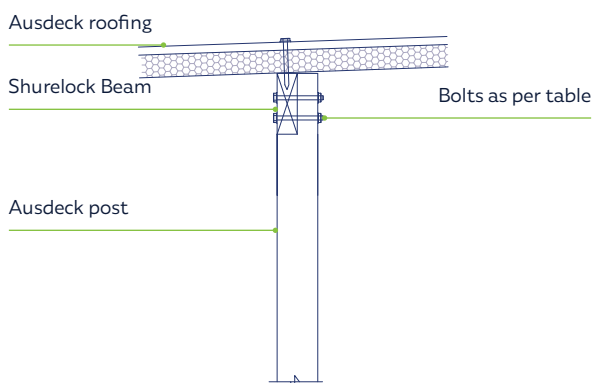
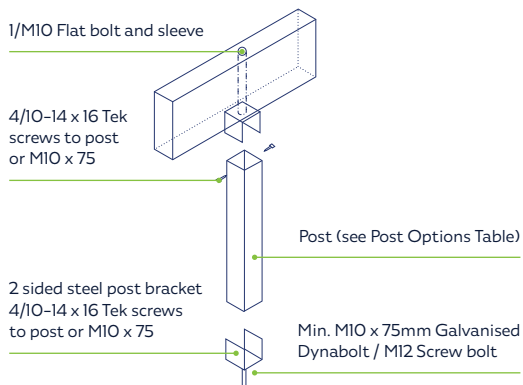
POST TO BEAM CONNECTION

Post Cut Out Bracket



Two Sided Steel Post Bracket

Max. load 9.5kN

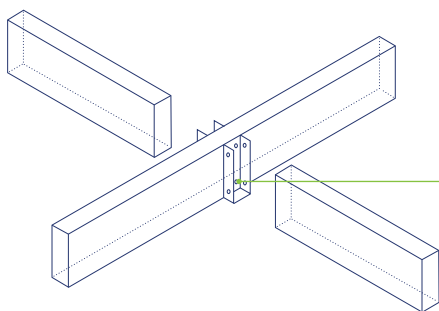


Note Not suitable for freestanding structures.

Maximum Area of Roof Tied Down by Bolted Connection (m²)

Post	Required Bolts	Freestanding			Wall to One Side			Wall to Two Sides			Wall to Three Sides			Enclosed		
		N1/N2	N3	N4	N1/N2	N3	N4	N1/N2	N3	N4	N1/N2	N3	N4	N1/N2	N3	N4
65ALSQT1.6	2/M10	14.8	9.0	5.9	10.2	6.3	4.1	6.2	3.9	2.6	4.2	2.6	1.7	5.7	3.5	2.3
	2/M12	17.8	10.8	7.0	12.2	7.5	4.9	7.5	4.7	3.1	5.0	3.2	2.1	6.8	4.3	2.8
	2/M16	20.2	12.3	8.0	13.8	8.5	5.6	8.5	5.3	3.5	5.7	3.6	2.4	7.7	4.8	3.2
90ALSQT2.6	2/M10	14.8	9.0	5.9	10.2	6.3	4.1	6.2	3.9	2.6	4.2	2.6	1.7	5.7	3.5	2.3
	2/M12	17.8	10.8	7.0	12.2	7.5	4.9	7.5	4.7	3.1	5.0	3.2	2.1	6.8	4.3	2.8
	2/M16	20.2	12.3	8.0	13.8	8.5	5.6	8.5	5.3	3.5	5.7	3.6	2.4	7.7	4.8	3.2
89SHS3.5	2/M10	21.6	13.1	8.5	14.8	9.1	6.0	9.1	5.7	3.7	6.1	3.8	2.5	8.3	5.2	3.4
	2/M12	25.9	15.7	10.3	17.7	10.9	7.2	10.9	6.8	4.5	7.3	4.6	3.0	9.9	6.2	4.1
	2/M16	29.4	17.8	11.6	20.1	12.4	8.2	12.3	7.7	5.1	8.3	5.2	3.5	11.3	7.0	4.7
100SHS3.0	2/M10	21.6	13.1	8.5	14.8	9.1	6.0	9.1	5.7	3.7	6.1	3.8	2.5	8.3	5.2	3.4
	2/M12	25.9	15.7	10.3	17.7	10.9	7.2	10.9	6.8	4.5	7.3	4.6	3.0	9.9	6.2	4.1
	2/M16	29.4	17.8	11.6	20.1	12.4	8.2	12.3	7.7	5.1	8.3	5.2	3.5	11.3	7.0	4.7

BEAM TO BEAM CONNECTION



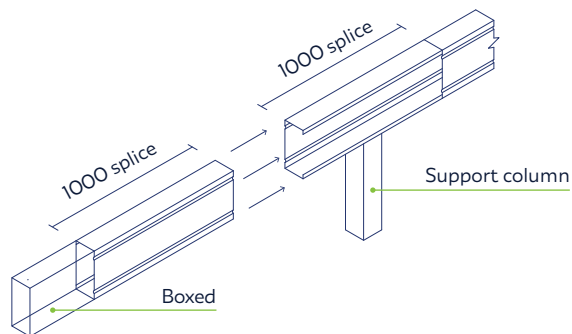
Min. 6/12-14x20 Tek screws through rear of bracket to post or beam.

Min. 4/12-14x20 Tek screws through sides of bracket to central beams.

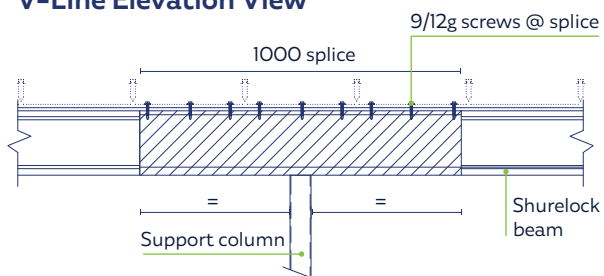
Max. load 9.3kN (per bracket)

SPLICE JOINS

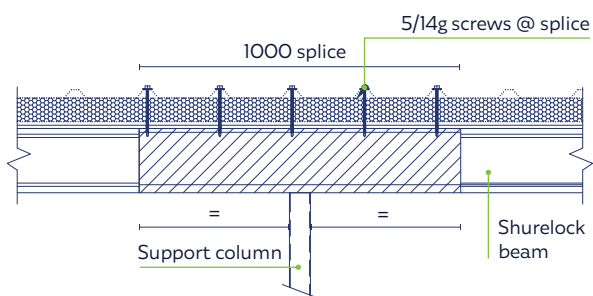
Isometric View



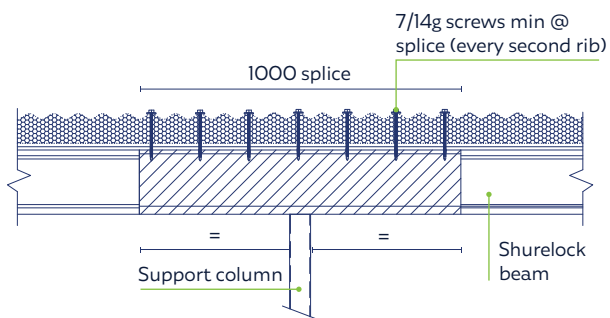
V-Line Elevation View



Ribbed Insulated Panel Elevation View



Corrugated Insulated Panel Elevation View



FOOTING CAPACITIES

POST OPTIONS FOR ATTACHED STRUCTURES

Post Type	Post Size	Maximum Height
Steel Posts	65 x 65 x 1.6	3950mm
	89 x 89 x 2.0	5600mm
	89 x 89 x 3.5	5800mm
	100 x 100 x 3.0	5800mm
	100 x 100 x 5.0	5000mm
Aluminium Posts 6063-TS	65 x 65 x 1.6	3850mm
	65 x 65 x 2.0	3950mm
	90 x 90 x 2.0	4000mm
	100 x 100 x 6.0	4500mm

POST OPTIONS FOR FREESTANDING STRUCTURES (Post into Footings)

Post Type	Post Size	Roof Area Up To	Maximum Height
Steel Posts	89 x 89 x 2	20m ²	3000mm
	89 x 89 x 3.5 / 100 x 100 x 3	40m ²	3600mm
	89 x 89 x 3.5 / 100 x 100 x 3	60m ²	3600mm

FOOTING CONTRIBUTORY HOLD DOWN FOR ATTACHED STRUCTURES

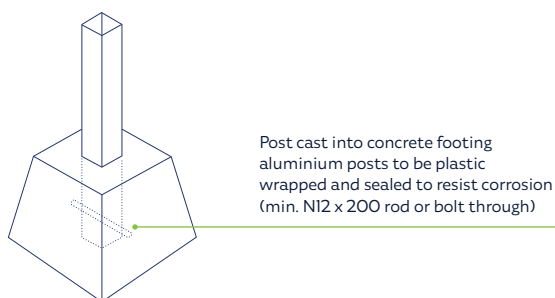
Width/Depth	Open and Partially Enclosed						Enclosed					
	N1/N1	N3	N4	C1	C2	C3	N1/N2	N3	N4	C1	C2	C3
350/500	10.3	6.6	4.4	6.6	4.4	3.0	5.7	3.7	2.5	3.7	2.5	1.7
400/600	16.3	10.4	7.0	10.4	7.0	4.8	9.1	5.8	3.9	5.8	3.9	2.6
500/700	26.8	17.2	11.5	17.2	11.5	7.8	14.9	9.5	6.4	9.5	6.4	4.4
500/900	35.0	27.7	18.6	27.7	18.6	12.7	24.1	15.4	10.3	15.4	10.3	7.0
500/1100	35.0	35.0	28.0	35.0	28.0	19.0	35.0	23.2	15.6	23.2	15.6	10.6
500/1300	35.0	35.0	35.0	35.0	35.0	27.2	35.0	33.1	22.2	33.1	22.2	15.1

POSTS FOR FREESTANDING STRUCTURES DESIGNED CP'N 0.7

Posts	Maximum Height	Footing Details (Width/Depth)						
		Roof Area Up To	N1/N2	N3	N4	C1	C2	C3
89x89x2 SHS Duragal	3.000mm	20m ²	500/1100	500/1100	500/1100	500/1100	500/1100	500/1300
89x89x3.5 SHS Duragal	3.600mm	40m ²	500/1100	500/1300	500/1300	500/1100	500/1800	500/2600
100x100x3 / 89x89x3.5 SHS Duragal	3.600mm	60m ²	500/1300	500/1800	500/1800	500/1800	500/2600	N/A

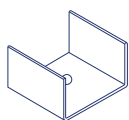
Note Freestanding structures to have posts cast in. For Patios where the projection is more than 1.2 times the length of the attached side of the patio, the posts and footing outside this dimension are to be treated as Freestanding. Attached structures assumed to transfer bracing to existing structure. Designs outside these parameters requires individual engineering certification.

POST TO FOOTING



POST CONNECTORS

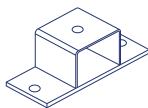
For the connection of posts to beams, concrete floors and footings.



Internal Post Brackets 65mm/90mm/100mm

2.4mm Galvanised Steel G300

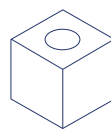
Max. load 7.7kN



Internal Cyclonic Post Bracket 65mm

3mm Galvanised Steel

Max. load 8.5kN



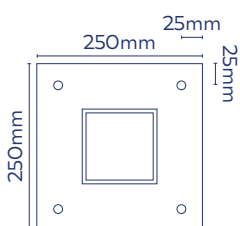
Internal Post Bracket Plastic 65mm/90mm/100mm

12gx25mm per screw 3.75kN

WELDED POST BASE PLATE LAYOUT

Attached Patios

Posts can be located at the centre edge of the base plate, provided the bolt locations remain unchanged.

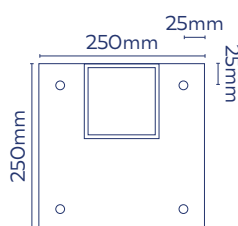


Max Loads

89 x 2 SHS 8mm Plate 27.2kN

89 x 3.5 SHS 10mm Plate **45kN**

100 x 3 SHS 10mm Plate **49kN**

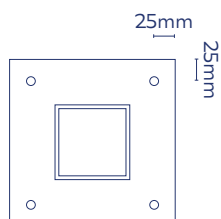


Max Loads

89 x 2 SHS 8mm Plate 13.6kN

89 x 3.5 SHS 10mm Plate 22.5kN

100 x 3 SHS 10mm Plate 24.5kN

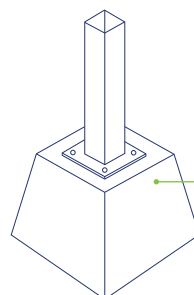


Minimum Edge Distance to Bolts

10mm Bolts 100mm

12mm Bolts 120mm

16mm Bolts 160mm

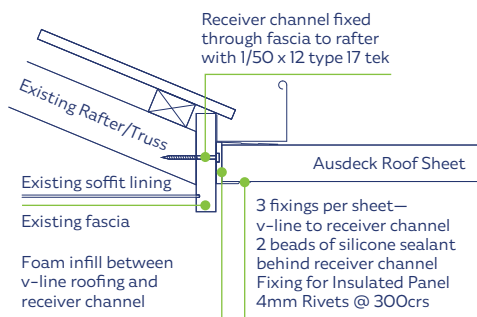


Notes Welded base plate layout as per 89/100 steel post base plate—10mm thick steel plate. All bolts/anchors to be installed strictly in accordance with manufacturers specifications and data sheets. Post-footing connection details to be selected according to anchor load requirements.

CONNECTION TO EXISTING STRUCTURES

FASCIA BRACKETS AND FIXING DETAILS

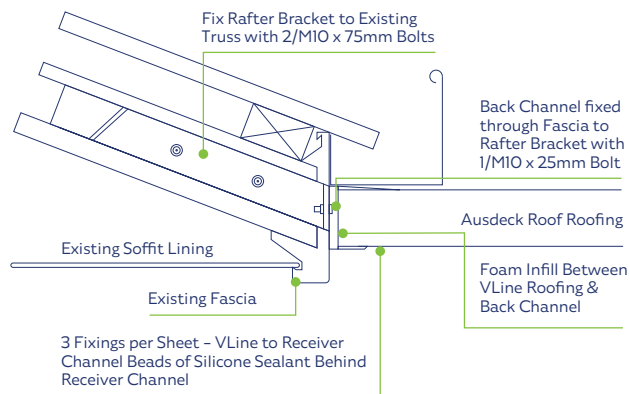
Timber Fascia



Fix the receiver channel every 600mm to the timber fascia with 12 x 25 or 12 x 50 Type 17 timber screws.

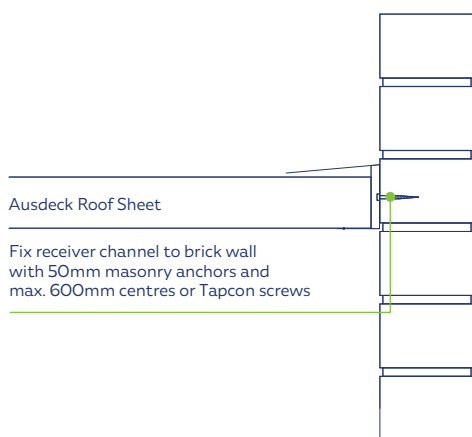
Notes Rafter/truss tail to be minimum 90x45 F8 pine or 90x35 F17 seas. Hwd. Where rafter tails are to be stiffened use 90x45 F8 pine x 1500 long stiffener. Builder to ensure adequate tie-down of existing roof structure to support.

Steel Fascia



Every 1200mm fit a fascia rafter bracket to existing rafter and bolt through to the receiver channel.

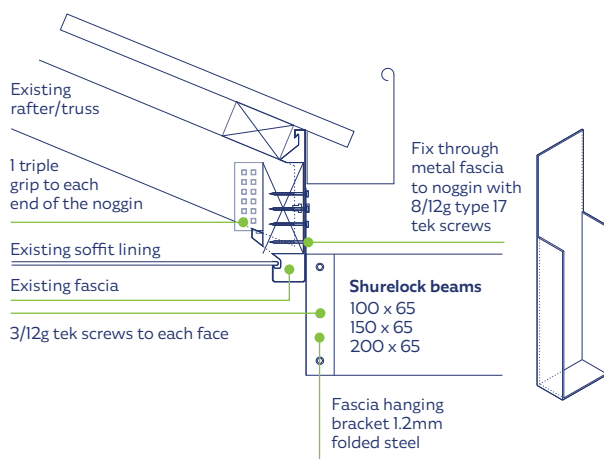
Brick Wall



Fix the receiver channel every 600mm to the wall with dynabolts suitable for the brickwork that you are attaching to. Or fix 14g x 45mm Tapcon screw every 450mm (not suitable structures with no eaves or two storey with blueboard over brick).

Fascia Hanging Bracket

1.2mm Folded Steel G550

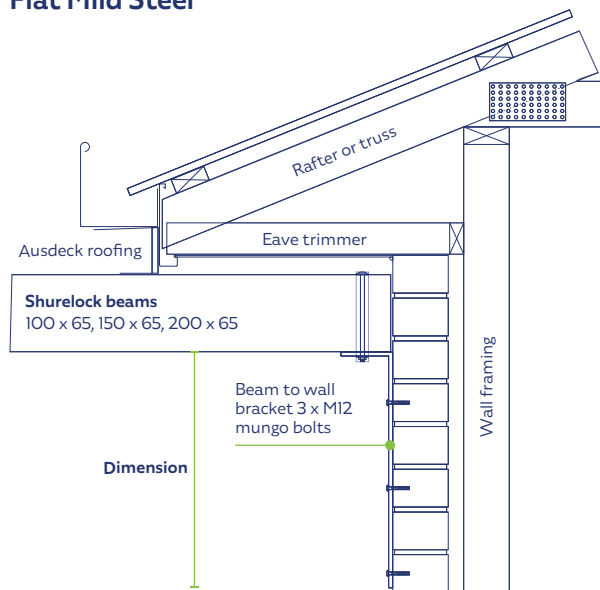


Maximum Contributory Area

Wind Region	Max. Area—m ²
N2	12.5
N3	8.7
N4	5.6
C1	8.7
C2	5.6
C3	3.7

Notes Figures shown are per bracket. Capacity of existing tie down/truss must be checked for structural adequacy prior to any construction.

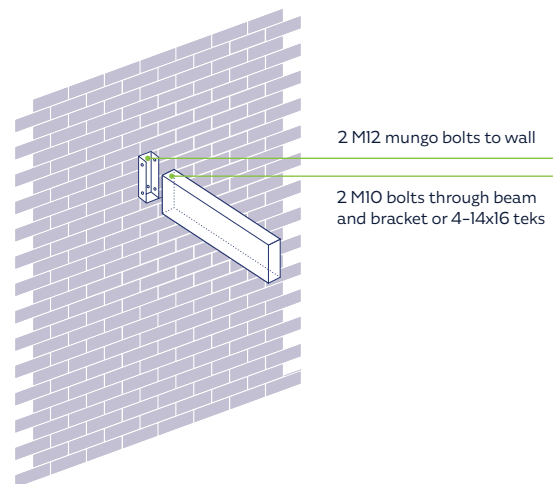
Beam to Wall Bracket 50 x 6mm Flat Mild Steel



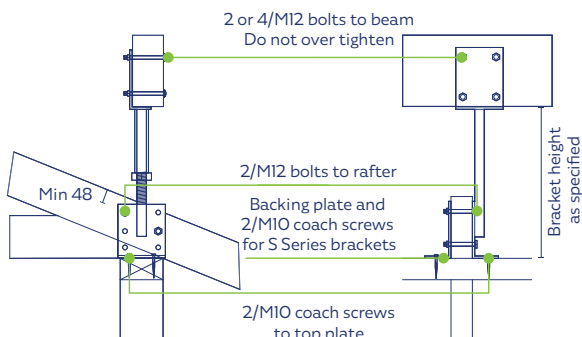
Dimensions

Type A—450mm, Type B—900mm, Type C—1800mm

Beam to Masonry Wall Bracket



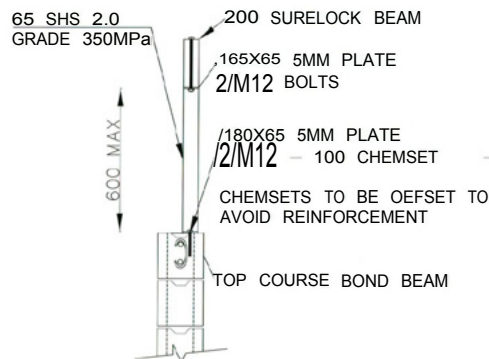
Roof Extenda Bracket—Series Type (300, 400 and 500)



Refer Extenda Design Tables for Mk II and S Series Brackets for Ausdeck Roofing

Generic Flyover Roof Bracket

1.2mm Folded Steel

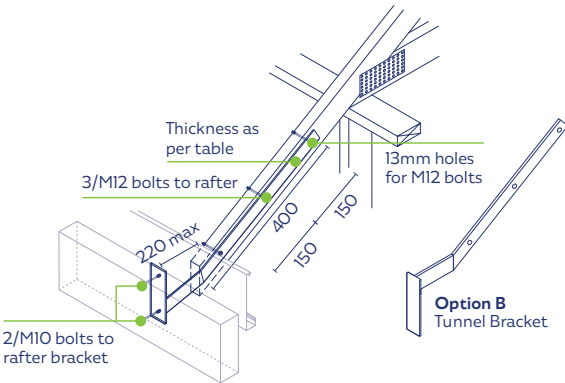


Maximum Contributory Area

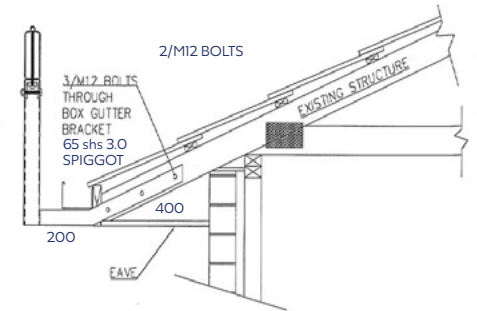
Wind Class	Maximum Contributory Area (m ²) (Per Bracket)
C1	5.5
C2	3.6
C3	2.5

Notes All construction shall comply with BCA and building regulations. All steelwork shall comply with AS4100. Chemsets shall be series 801 or equivalent.

Box Gutter Bracket



Fascia Upstand Bracket



Maximum Contributory Hold Down Area (m²)
10mm Plate Thickness

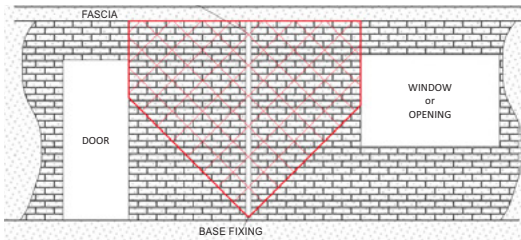
N2	N3	N4	C1	C2	C3
12.4	7.58	4.96	7.58	4.96	3.29

Maximum Fascia Upstand Bracket Spacing (m)

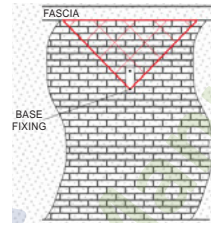
Spigot height (mm)	Vertical roof height (mm)	N2	N3	N4	C1	C2	C3
150	600	12.3	7.90	5.33	7.90	5.33	3.61
	800	9.24	5.93	4.00	5.93	4.00	2.70
	1000	7.39	4.74	3.20	4.74	3.20	2.16
	1200	6.16	3.95	2.66	3.95	2.66	1.80
	1400	5.28	3.39	2.28	3.39	2.28	1.55
300	600	6.16	3.95	2.66	3.95	2.66	1.80
	800	4.62	2.96	2.00	2.96	2.00	1.35
	1000	3.69	2.37	1.60	2.37	1.60	1.08
	1200	3.08	1.98	1.33	1.98	1.33	0.90
	1400	2.64	1.69	1.14	1.69	1.14	0.77

Spigot height (mm)	Vertical roof height (mm)	N2	N3	N4	C1	C2	C3
450	600	4.10	2.63	1.78	2.63	1.78	1.20
	800	3.08	1.98	1.33	1.98	1.33	0.90
	1000	2.46	1.58	1.07	1.58	1.07	0.72
	1200	2.05	1.32	0.89	1.32	0.89	0.60
	1400	1.76	1.13	0.76	1.13	0.76	0.52
600	600	3.08	1.98	1.33	1.98	1.33	0.90
	800	2.31	1.48	1.00	1.48	1.00	0.68
	1000	1.85	1.19	0.80	1.19	0.80	0.54
	1200	1.54	0.99	0.67	0.99	0.67	0.45
	1400	1.32	0.85	0.57	0.85	0.57	0.39

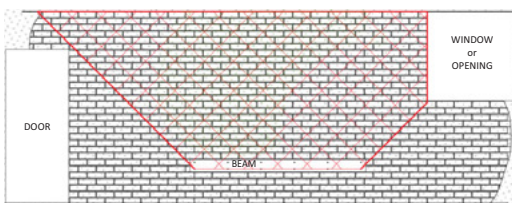
Anchor Capacity of Brickwork Post



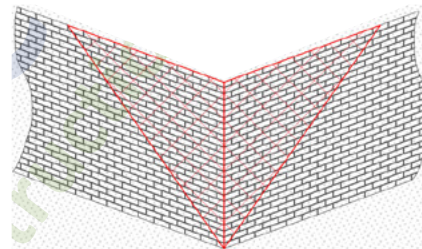
Anchor Capacity of Brickwork Bracket/ Beam End Cap



Anchor Capacity of Brickwork Beam



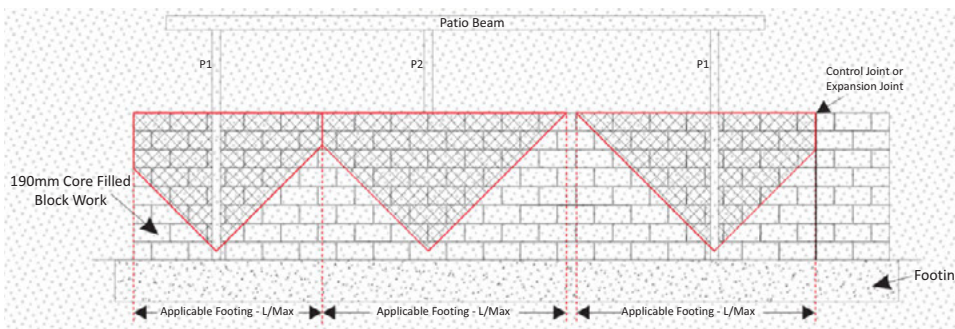
Anchor Capacity of Corner Brickwork



The area of the wall that can be considered effective to provide anchor resistance is that within a 45 degree zone from the base fixing to the top of the wall, excluding any openings. Average Brickwork—110 mm.

Dead Load = 1.9 kN Per M² of Average Brickwork. Calculate the area of brickwork above the base fixings as per diagram above and multiply by 1.9 = Maximum kN Capacity.

Anchor Capacity of 190mm Core Filled Blockwork—Post



The area of the wall that can be considered effective to provide anchor resistance is that within a 45 degree zone from the base fixing to the top of the wall excluding any openings. (The effective area of any post must not overlap the effective area of any other post).

Core Filled Block Work—190 mm

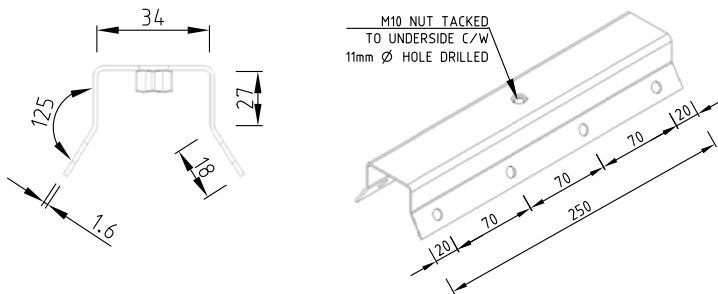
Dead load = 4.0kN Per M² of 190 mm Core Filled Block Work.

Calculate the area of the block work above the base fixing as per the diagram above and multiply by 4.0 = Maximum kN capacity.

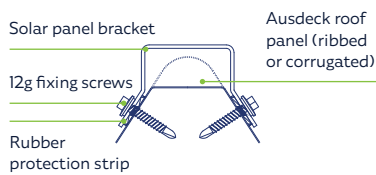
If the footing size can be accurately determined, add 22 kN per m³ of concrete. A minimum footing size of 300 x 300 can be assumed if the footing size cannot be accurately determined. For post fixings to the top of the block wall (P2 in Drawing 16E above) use M12 chemset min. 250 mm embedment into core fill (Embedment excludes any capping tile and the like that may be used on the top of the wall).

AUSDECK COMPONENTRY

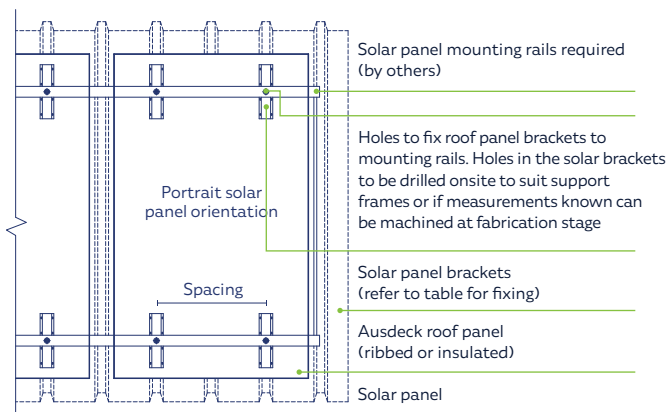
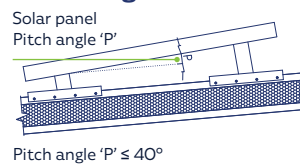
SOLARPANEL BRACKETS



Bracket Installation

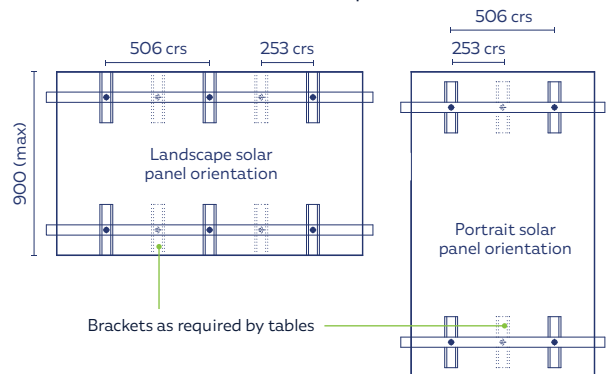


Pitch Angle



Typical Panel Orientation

Based on a 1500mm x 900mm panel



Notes If brackets are used in a coastal area we recommend powder-coating the brackets for corrosion resistance. All screws to be 12g class 4 screws with Neo. Locate panels away from roof edges and ridge.

NON TRAFFICABLE SPANS

Solar Panel Fixing Requirements

Wind Class	Limit State Design Pressure (kPa)	Portrait				Landscape			
		@ 253mm crs		@ 506mm crs		@ 253mm crs		@ 506mm crs	
		Brackets/ Panel	Scews/ Bracket	Brackets/ Panel	Scews/ Bracket	Brackets/ Panel	Scews/ Bracket	Brackets/ Panel	Scews/ Bracket
N2	2.16	6	4	4	4	10	4	6	4
N3	3.32	6	4	4	4	10	4	6	4
N4	4.97	6	4	4	6	10	4	6	4
N5	7.14	6	6	4	8	10	4	6	4
C1	3.79	6	4	4	4	10	4	6	4
C2	5.64	6	6	4	8	10	4	6	4
C3	8.11	6	6	4	10	10	4	6	4
C4	11.04	6	10	–	–	10	4	6	6

Note All brackets to be screwed with 12g class 4 screws with seal.

DECKS AND FLOORS

STANDARDS

WINDSPEED

INSULATED SPANS

SINGLE-SKIN ROOFING SPANS

BEAM SPANS

GABLE SPANS

CONNECTION DETAILS

DECKS AND FLOORS

CERTIFICATION AND TESTING

BEARER AND JOIST SPANS (JOIST CRS—MAXIMUM 450MM)

1.5KPA / 1.8KN LIVE LOAD

Joist Span	Joist Size	Bearer Span	Bearer Size
3000	C150-12	3000	LLC150-24
3300	C150-15	3000	LLC150-24
3600	C150-19	2900	LLC150-24
4000	C150-24	2800	LLC150-24
4100	C200-15	3000 3200	LLC200-19 LLC200-24
4500	C200-19	2900 3100	LLC200-19 LLC200-24
4800	C200-24	2800 3000	LLC200-19 LLC200-24
5100	C250-19	2800 3400	LLC250-19 LLC200-24
5500	C250-24	2900 3200	LLC250-19 LLC200-24
6800	C300-24	3300 3500	LLC300-24 LLC300-30
7300	C300-30	3100 3300	LLC300-24 LLC300-30
8000	C350-30	3600	LLC350-30

2.0KPA / 1.8KN LIVE LOAD

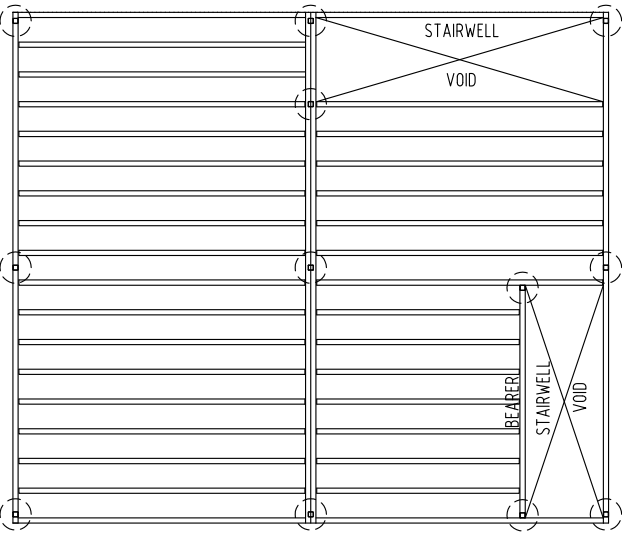
Joist Span	Joist Size	Bearer Span	Bearer Size
2925	C150-12	2700 2800	LLC150-19 LLC150-24
3250	C150-15	2500 2700	LLC150-19 LLC150-24
3600	C150-19	2500 2700	LLC150-19 LLC150-24
3875	C150-24	2400 2600	LLC150-19 LLC150-24
4025	C200-15	2900 3000	LLC200-19 LLC200-24
4300	C200-19	2900 3000	LLC200-19 LLC200-24
4600	C200-24	2800 3000	LLC200-19 LLC200-24
4800	C250-19	2800 3200	LLC250-19 LLC250-24
5150	C250-24	2700 3100	LLC250-19 LLC250-24
6400	C300-24	3300 3500	LLC300-24 LLC300-30
6850	C300-30	3200 3400	LLC300-24 LLC300-30
7800	C350-30	3600	LLC350-30

COLUMN MEMBER MAXIMUM AREA (m²)

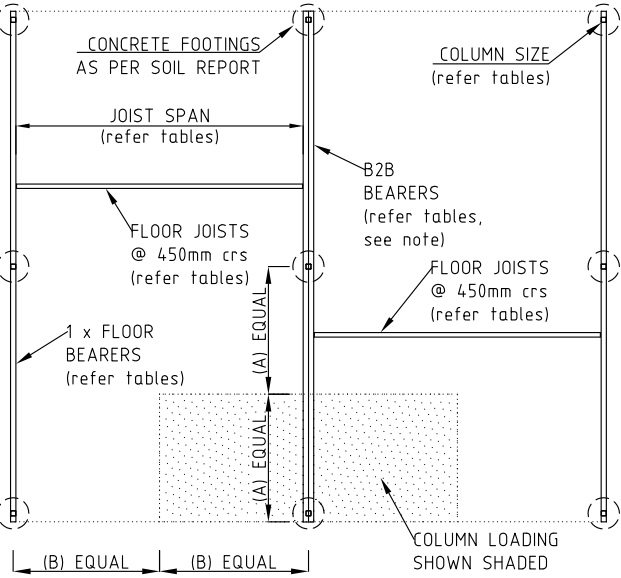
Column Height (mm)	Column Size	Live Load	
		1.5 kPa	2.0 kPa
2500	89 SHS 3.5	44	36
3000	89 SHS 3.5	34	28
3500	89 SHS 3.5	26	22
2500	89 SHS 3.5	52	42
3000	89 SHS 3.5	40	32
3500	89 SHS 3.5	30	24
2500	89 SHS 3.5	58	48
3000	89 SHS 3.5	44	36
3500	89 SHS 3.5	34	28

- All bearer spans shown are maximum and to be continuous where possible
- Use 2 equal sized bearers for B2B bearers
- Maximum joist spacings—450mm (joists to be spaced equally)
- Joist spans are maximum* where bearers/joists are different heights a 30 x 1.0mm fly brace (fb) is to be fixed with 2/12g screws each end at every other joist
- All columns to be embedded into concrete footings a minimum of 600mm for bracing capacity
- Columns are to be placed at the end of every bearer
- All columns to have 150 x 75 x 6.0 plates 6cfw to bottoms
- 100 x SHS 3.0mm columns may be used alternatively to the columns in the table
- All flooring materials to be installed as per manufacturers specifications

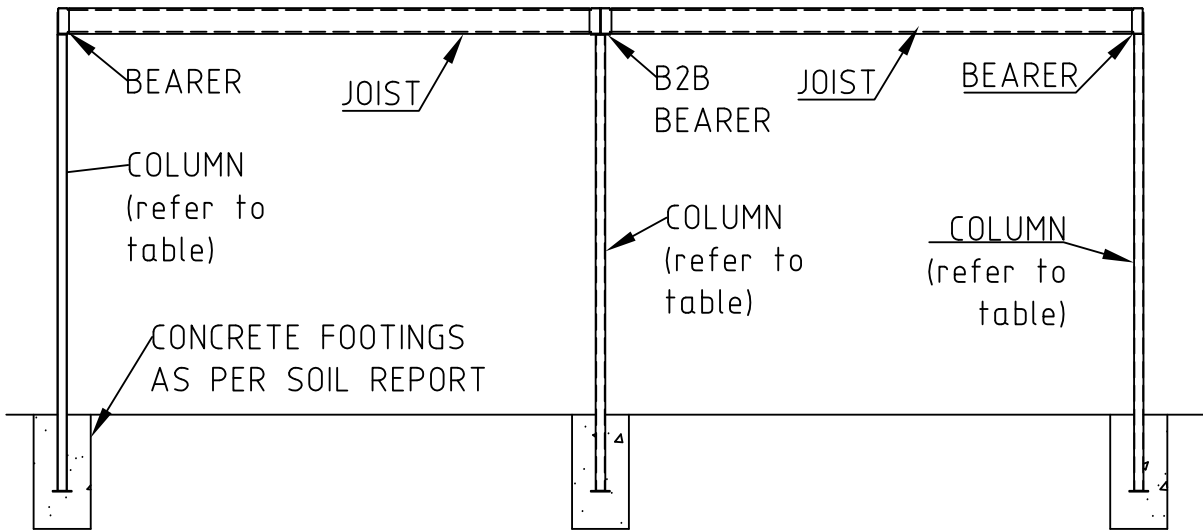
JOISTS WITH VOIDS PLAN



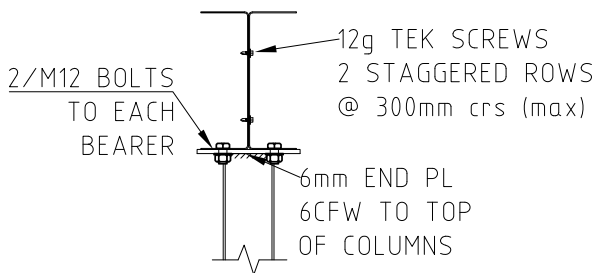
BEARERS/COLUMNS PLAN



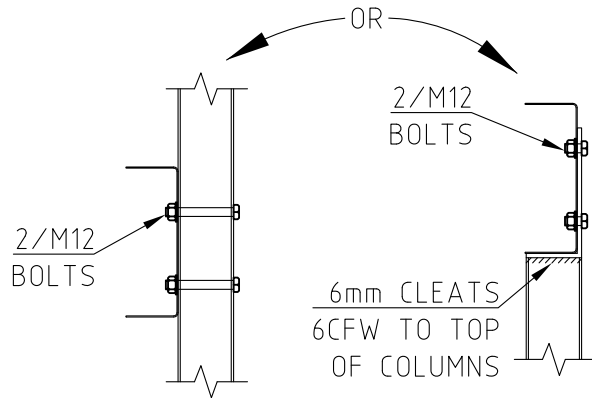
DECK ELEVATION



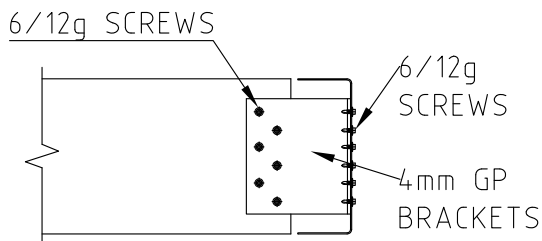
Column to B2B Bearer



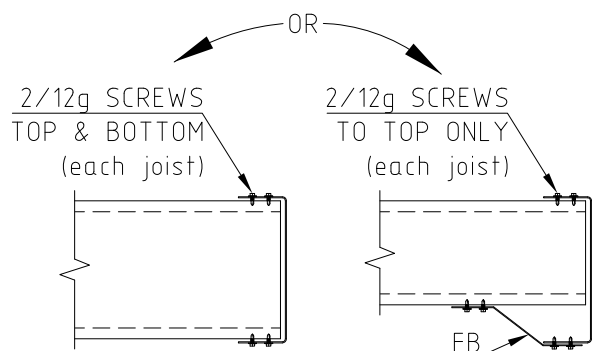
Column to Single Bearer



Bearer to Bearer



Joist to Bearer



STANDARDS

WINDSPEED

INSULATED SPANS

SINGLE-SKIN ROOFING SPANS

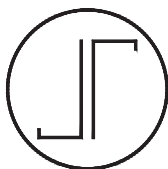
BEAM SPANS

GABLE SPANS

CONNECTION DETAILS

DECKS AND FLOORS

CERTIFICATION AND TESTING



SUMMERMORE Pty Ltd ABN 42 108 898 433
PO Box 1671,
Browns Plains BC,
Queensland, 4118
Tel: 07 3800 0973
W: www.summermore.com.au

Monday, 17 July 2023

Ausdeck
16 Mica St
Carole Park
QLD 4300

STRUCTURAL DESIGN CERTIFICATION (VALID UNTIL 01MAY2024)
GENERIC DESIGN CERTIFICATION FOR STRUCTURES THAT COMPLY WITH
AUSDECK CONSTRUCTION MANUALS

We, Summermore Pty Ltd, being Registered Structural and Civil Engineers, hereby certify that the design of roof framing, and brackets, posts, footings and sheeting for the Ausdeck patio system for patio structures in regions compliant with wind ratings of N2, N3, N4, C1, C2 and C3 in accordance with AS4055 and Specification S4C2—Design of Building in Cyclonic Areas NCC2022 VOL 1 and Part H1D7 Sheet Roofing of NCC 2022 VOL 2 have been designed in accordance with widely accepted engineering principles and the referenced codes of practice and the form of construction complies with the requirements of the Housing Provisions.

This certification covers the members, connections and bracing. The systems designed include Skillion Patios, Multi Beam Patios, Gable Roof Patios, Simple Beam Patios. This certificate is limited to the structural design only and no responsibility is taken for any loss, damage or failure resulting from the method of construction or wind exceeding the design wind rating nominated. For structures with snow and ice loadings refer to Appendix A of this certificate.

Referenced Codes of Practice and Manuals

Ausdeck Engineering and Construction Manual V10.00.00 July 2023
National Construction Code of Australia 2022,
Specification S4C2—Design of Building in Cyclonic Areas NCC2022 VOL 1
Part H1D7 Sheet Roofing of NCC 2022 Vol 2
AS 1163:1991 Structural Steel Hollow Sections
AS/NZS 1170.0:2002 Structural Design Actions Part 0—General Principles
AS/NZS 1170.1:2002 Structural Design Actions Part 1—Permanent, Imposed & Other Actions
AS/NZS 1170.2:2021 Structural Design Actions Part 2—Wind Actions
AS/NZS 1170.3:2003 Design Actions Part 3—Snow and Ice Actions
AS/NZS 1554.1:2004 Structural Steel Welding—Welding of Steel Structures
AS1562.1: 2018 Design and installation of sheet roof and wall cladding Part 1: Metal
AS/NZS 1664.1:1997 Aluminium structures - Limit state design
AS 1684:2010 Residential Timber Framed Construction
AS 3566.1:2002 Self Drilling Screws
AS 3600:2018 Concrete Structures
AS 4055:2012 Wind Loads for Housing
AS 4100:2020 Steel Structures Code
AS/NZS 4600:2018 Cold Formed Steel Structures

Summermore Pty Ltd accepts no responsibility for information that has not been expressly identified as part of this certification.

If we can be of any further assistance in this matter, please do not hesitate to contact this office.

Yours Faithfully

Ronald Bell

FIEAust (891940), CPEng, NER, APEC Engineer, IntPE(Aus), Registered Engineer Structural NSW (BDC04601).

Director

Summermore Pty Ltd

1. Property description

This section need only be completed if details of street address and property description are applicable.

E.g. in the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable.

The description must identify all land the subject of the application.

The lot and plan details (e.g. SP/RP) are shown on title documents or a rates notice.

If the plan is not registered by title, provide previous lot and plan details.

[illegible]

2. Description of aspect/s certified

Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams.

Design of roof framing, and brackets, posts, footings and sheeting for the Ausdeck patio system for patio structures in regions compliant with wind ratings of N2, N3, N4, C1, C2 and C3 in accordance with AS4055. This certification complies with the NCC2022 Part A5G1 Performance Solution by providing evidence of suitability in accordance with Part A5G3.1.5. Systems designed include Skillion Patios, Multi Beam Patios, Simple Beam Patios through demonstration of the requirements of H1P1. These structures have been designed in accordance with widely accepted engineering principles and the referenced codes of practice and the form of construction complies with the requirements of the Housing Provisions. This certificate is limited to the structural design only and no responsibility is taken for any loss, damage or failure resulting from the method of construction or wind exceeding the design wind rating nominated. The roofs have been designed as NON TRAFFICABLE. It is recommended that a sign displaying this is located in the vicinity of access points to the roofs. The self-weight of the panels has been allowed for as well as a further dead load allowance of 0.25 kPa for additional fittings or solar panels.

3. Basis of certification

Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications were relied upon.

National Construction Code of Australia 2022, Specification S4C2—Design of Building in Cyclonic Areas NCC2022 VOL 1
Part H1D7 Sheet Roofing of NCC 2022 Vol 2
AS 1163:1991 Structural Steel Hollow Sections
AS/NZS 1170.0:2002 Structural Design Actions Part 0—General Principles
AS/NZS 1170.1:2002 Structural Design Actions Part 1—Permanent, Imposed & Other Actions
AS/NZS 1170.2:2021 Structural Design Actions Part 2—Wind Actions
AS/NZS 1170.3:2003 Design Actions Part 3—Snow and Ice Actions
AS/NZS 1554.1:2004 Structural Steel Welding—Welding of Steel Structures
AS1562.1: 2018 Design and installation of sheet roof and wall cladding Part 1: Metal
AS/NZS 1664.1:1997 Aluminium structures - Limit state design
AS 1684:2010 Residential Timber Framed Construction
AS 3566.1:2002 Self Drilling Screws
AS 3600:2018 Concrete Structures
AS 4055:2012 Wind Loads for Housing

4. Reference documentation

Clearly identify any relevant documentation, e.g. numbered structural engineering plans.

Ausdeck Engineering and Construction Manual V11.00.00 July 2023

5. Building certifier reference number and building development approval number

Building certifier reference number		Building development application number (if available)	
-------------------------------------	--	--	--

6. Appointed competent person details

Under Part 6 of the Building Regulation a person must be assessed as a competent for the type of work (design-specification) by the relevant building certifier.

Name (in full)	Ronald Albert BELL		
Company name (if applicable)	Summermore Pty Ltd		
Contact person	Ron Bell		
Business phone number	0738000973	Mobile	0438288116
Email address	ron@summermore.com.au		
Postal address	PO Box 1671 Browns Plains, QLD, 4188.		
		Suburb/locality	
State	Choose an item.	Postcode	
Licence class or registration type (if applicable)	RPEQ		
Licence or registration number (if applicable)	6715		

9. Signature of appointed competent person

This certificate must be signed by the individual assessed and appointed by the building certifier as competent to give design-specification help.

Signature



This Certificate Expires on 01st May 2025

LOCAL GOVERNMENT USE ONLY

Date received	Click or tap to enter a date.	Reference number/s	
---------------	-------------------------------	--------------------	--



OUR PRODUCTS



ROOFING

We make insulated and single-skin roofing to suit patios and carports, as well as housing, sheds and buildings.



FLASHINGS

Standard or custom flashings can be made in various shapes, materials, gauges, and colours.



GUTTERS

Choose from traditional or contemporary gutters with matching accessories.



BEAMS

Customise your patio design with our two-piece, high-tensile steel beam, brackets and accessories.



ACCESSORIES

We offer everything you need to complete your project including downlights, skylight strips, downpipes, posts, fixings and more.







AUSDECK

PATIOS & ROOFING

**For further information and advice call
Ausdeck: 1300 287 332 or 1300 Ausdeck**

Queensland Head Office

16-18 Mica Street
Carole Park QLD 4300
P (07) 3718 8000

New South Wales Head Office

Unit 3, 34-38 Anzac Avenue
Smeaton Grange NSW 2567
P (02) 9725 3522

ausdeck.com.au

Disclaimer This catalogue has been compiled for specifiers and installers of residential and commercial building products. Ausdeck have taken reasonable care to ensure all information, specifications, illustrations, and drawings contained in this catalogue are accurate and reflect Ausdeck's products and applications at the time of publication. The catalogue is intended to be a guide only, Ausdeck are committed to continuous research, development and improvement of our products and therefore reserve the right to alter information, specifications, and the design of our products without prior notice and without incurring liability. Always refer to Ausdeck's Engineering Book for more information. Ausdeck do not accept responsibility or liability (including liability for negligence) (to the extent permitted by law) for any loss or damage resulting from the direct or indirect use or reliance on the information contained in this publication. It is the customer's responsibility to ensure Ausdeck's products are fit for purpose and the conditions for use are appropriate. This publication is protected by copyright and may not be reproduced or copied without prior written consent by Ausdeck. Ausdeck is a registered trademark of Ausdeck Group (Australian Lifestyle Construction Group Pty Ltd).