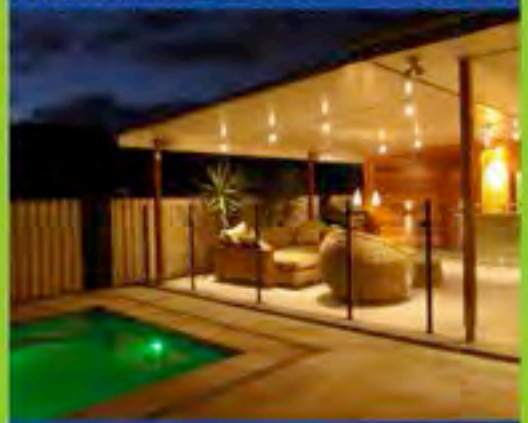




PATIOS | ROOFING | DECKS | CARPORTS | COVERS  
[www.ausdeck.com.au](http://www.ausdeck.com.au)  
Ph: 1300 AUSDECK

# Insulated Roofing Engineering and Construction Manual Non – Cyclonic Region

01 January 2008



# Form 15—Compliance Certificate for building Design or Specification

<b>NOTE</b>	<p>This is to be used for the purposes of section 10 of the <i>Building Act 1975</i> and/or section 46 of the <i>Building Regulation 2006</i>.</p> <p><b>RESTRICTION:</b> A building certifier (class B) can only give a compliance certificate about whether building work complies with the BCA or a provision of the QDC. A building certifier (Class B) can not give a certificate regarding QDC boundary clearance and site cover provisions.</p>
<p><b>1. Property description</b> This section need only be completed if details of street address and property description are applicable. EG. In the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable.</p>	<p>Street address <i>(include no., street, suburb / locality &amp; postcode)</i></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <div style="border: 1px solid black; height: 20px; width: 100%; text-align: right;">Postcode</div> <p>Lot &amp; plan details <i>(attach list if necessary)</i></p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div> <p>In which local government area is the land situated?</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>
<p><b>2. Description of component/s certified</b> Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams.</p>	<p>Patio Roof Systems (Suitable for Class 1A Buildings) Including:</p> <ul style="list-style-type: none"> <li>-Sandwich Panel System</li> <li>-Timber and Steel Support Beams</li> <li>-Connection &amp; Tie-down Details</li> <li>-Post Pad Footings</li> </ul> <p><b>CERTIFICATE VALID TO 31/12/2013</b></p>
<p><b>3. Basis of certification</b> 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.</p>	<p>AS/NZS 1170.0, 1 &amp; 2 - 2002 Structural Design Actions - Part 0: General Principles, - Part 1: Permanent, Imposed and Other Actions, - Part 2: Wind Actions</p> <p>AS4055-2006 Wind Loads for Housing</p> <p>AS1684.2-1999 Residential Timber-Framed Construction - Part 2 Non-Cyclonic Areas</p> <p>AS1720.1-1997 Timber Structures Part 1: Design Methods</p> <p>AS2870.1-1996 Residential Slabs and Footings - Construction</p> <p>AS3600-2001 Concrete Structures</p> <p>AS3700-2001 Masonry Structures</p> <p>AS4100-1998 Steel Structures</p> <p>AS/NZS 4600:1996 Cold Formed Steel Structures</p> <p>AS1562.1-1992 Design &amp; Installation of Sheet Roof &amp; Wall Cladding, Part 1: Metal</p> <p>AS4040.3-1992 Methods of Testing Sheet Roof &amp; Wall Cladding, Part 2: Non-Cyclonic</p>
<p><b>4. Reference documentation</b> Clearly identify any relevant documentation, e.g. numbered structural engineering plans.</p>	<p>Ausdeck Patios &amp; Roofing Insulated Roofing Engineering and Construction Manual For Non-Cyclonic Areas:</p> <p>Reference Numbers Q04-054 Sheets: 1A (Oct 04), 2 to 7 (Oct 04), 8A (Oct 04), 9 (Oct 04), 10A (Oct 04), 11A (Nov '06), 12 to 14 (Oct 04), 15A (Dec 04), 16 (Oct 04), 17 &amp; 18(Nov 06)</p> <p>Neil McKenzie &amp; Associates Pty Ltd Maximum Spans of Auseck Insulated Roofing – Ribbed and Corrugated Profiles Q10-271</p>

## LOCAL GOVERNMENT USE ONLY

Date received	Reference Number/s	
---------------	--------------------	--

**5. Building certifier reference number**

Building certifier reference number

**6. Competent person details**

A competent person for building work, means a person who is assessed by the building certifier for the work as competent to practise in an aspect of the building and specification design, of the building work because of the individual's skill, experience and qualifications in the aspect. The competent person must also be registered or licensed under a law applying in the State to practice the aspect.

If no relevant law requires the individual to be licensed or registered to be able to give the help, the certifier must assess the individual as having appropriate experience, qualifications or skills to be able to give the help.

If the chief executive issues any guidelines for assessing a competent person, the building certifier must use the guidelines when assessing the person.

Name (*in full*)

Paul Conrad Wisowaty{B.E.(Civil)}

Company name *if applicable*

Neil McKenzie &amp; Associates Pty. Ltd.

Contact person

Paul Wisowaty

Phone no. *business hours*

(07) 3862 1886

Mobile no.

0403 158 027

Fax no.

(07) 3862 1397

Email address

paul@neilmckenzie.com.au

Postal address

14/699A Sandgate Road

Clayfield

Postcode 4011

Licence class

R.P.E.Q


Licence number

7908

**7. Signature of competent person**

This certificate must be signed by the individual assessed by the building certifier as competent.

Signature



Date

13/06/2013

# NEIL McKENZIE & ASSOCIATES PTY. LTD.

A.C.N 010 816 690

CIVIL AND STRUCTURAL CONSULTING ENGINEERS

Suite 14, Clayfield Courtyard,  
699A Sandgate Road, Clayfield, Qld. 4011  
Phone: (07) 3862 1886  
Fax: (07) 3862 1397

## **Structural Compliance Certificate for Building Design or Specification**

*This certificate is valid to 31/12/2013*

### **1. Property Description**

Building Description: - Patio Roof System  
Client: - Ausdeck Patios & Roofing Pty Ltd  
Site Address: - Various Locations  
Lot & Plan Details:- .....  
Local Government:- .....

### **2. Description of Components Certified**

The following structural components are covered by this certificate:

Patio Roof Systems (Suitable for Class 1A Buildings) Including:

-Sandwich Panel System , Timber and Steel Support Beams, Connection & Tie-down Details, Post Pad Footings

### **3. Basis of Certification**

The Following Codes of Practice/Documents/Reports were applied in the design of this Structure:

AS/NZS 1170.0, 1 & 2 - 2002 Structural Design Actions - Part 0: General Principles, - Part 1: Permanent,

Imposed and Other Actions, - Part 2: Wind Actions

AS4055-2006 Wind Loads for Housing

AS1684.2-1999 Residential Timber-Framed Construction - Part 2 Non-Cyclonic Areas

AS1720.1-1997 Timber Structures Part 1: Design Methods

AS2870.1-1996 Residential Slabs and Footings - Construction

AS3600-2001 Concrete Structures

AS3700-2001 Masonry Structures

AS4100-1998 Steel Structures

AS/NZS 4600:1996 Cold Formed Steel Structures

AS1562.1-1992 Design & Installation of Sheet Roof & Wall Cladding, Part 1: Metal

AS4040.3-1992 Methods of Testing Sheet Roof & Wall Cladding, Part 2: Non-Cyclonic

### **4. Documentation Certified**

The following documentation is covered by this certificate:

Ausdeck Patios & Roofing Insulated Roofing Engineering and Construction Manual For Non-Cyclonic Areas:

Reference Numbers Q04-054 Sheets: 1A (Oct 04), 2 to 7 (Oct 04), 8A (Oct 04), 9 (Oct 04), 10A (Oct 04), 11A (Nov '06), 12 to 14 (Oct 04), 15A (Dec 04), 16 (Oct 04), 17 & 18(Nov 06)

Neil McKenzie & Associates Pty Ltd Maximum Spans of Auseck Insulated Roofing – Ribbed and Corrugated Profiles Q10-271

**(This certificate is valid till 31/12/2013.)**



## 5. Building Certifiers Reference Number

(for Building Certifiers use only)

---

## 6. Competent Persons Details

**Name:** James Neil McKenzie {B.E. (Civil) M.I.E.Aust}

**Registration:** N.P.E.R. 3

**Company:** Neil McKenzie & Associates Pty. Ltd.

**Contact:** Neil McKenzie

**Phone:** 07 3862 1886 **Fax:** 07 3862 1397 **Mobile:** 04 1174 6878

**Email:** mail@neilmckenzie.com.au

**Address:** Suite 14/699A Sandgate Road  
Clayfield Qld 4011

## 7. Signature of Competent Person



J.N. McKenzie

for and on behalf of

Neil McKenzie & Associates Pty Ltd

Civil and Structural Consulting Engineers

December 5, 2012

Date

**Job Reference: Q10-271**

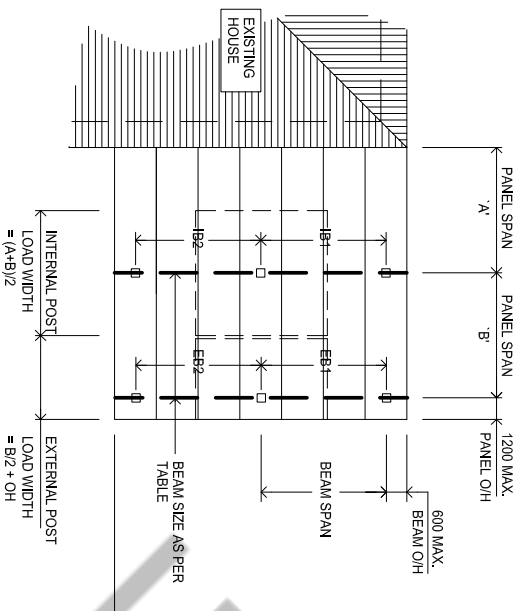
**Maximum Spans of Ausdeck Insulated Roofing - Ribbed and Corrugated Profiles.**

Panel Depth (mm)	Wall on 1 Side			Walls on 2 or 3 Sides			Maximum Cantilever		
	N1/N2	N3	N4	N1/N2	N3	N4	N1/N2	N3	N4
50	5.00	4.40	3.60	4.20	3.30	2.70	0.90	0.90	0.60
75	6.50	5.40	4.40	5.10	4.10	3.10	0.90	0.90	0.90
100	7.00	5.60	4.60	5.40	4.30	3.50	1.20	1.20	1.20
125	7.80	6.20	5.10	6.00	4.80	3.90	1.50	1.50	1.30
150	8.60	6.90	5.60	6.60	5.20	4.30	1.80	1.70	1.40

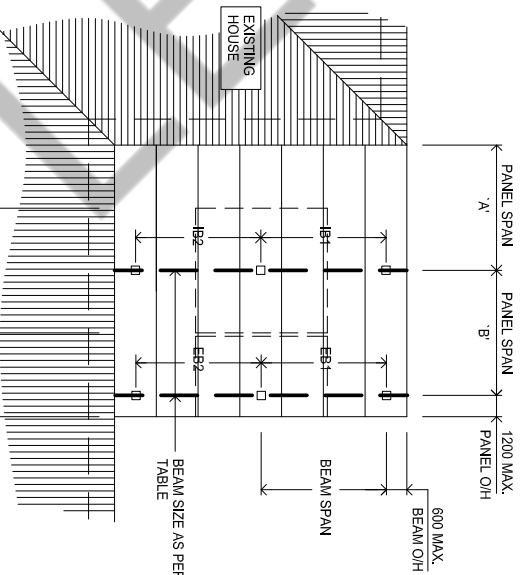
**Maximum Spans of Ausdeck Insulated Roofing - Ribbed and Corrugated Profiles.**

Panel Depth (mm)	Single Span - Fully Enclosed			Maximum Cantilever		
	N1/N2	N3	N4	N1/N2	N3	N4
50	4.60	3.80	3.10	0.90	0.90	0.60
75	5.90	4.70	3.90	0.90	0.90	0.90
100	6.20	4.90	4.00	1.20	1.20	1.20
125	6.90	5.50	4.50	1.50	1.50	1.30
150	7.60	6.10	5.00	1.80	1.70	1.40

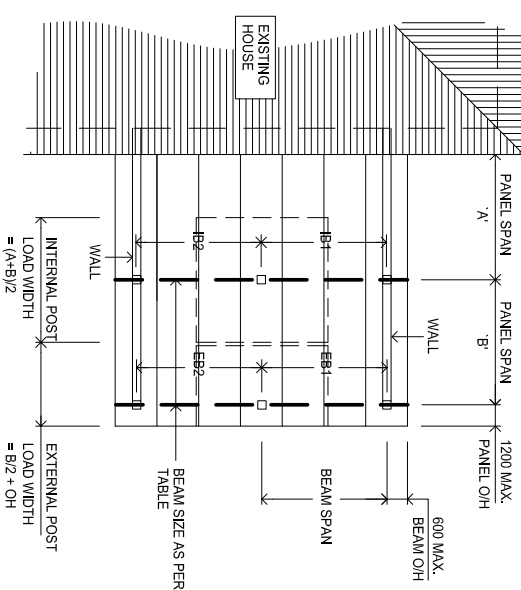
## Walls 1 side only



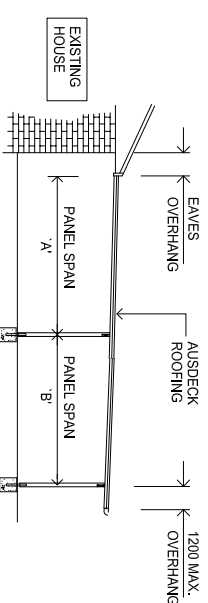
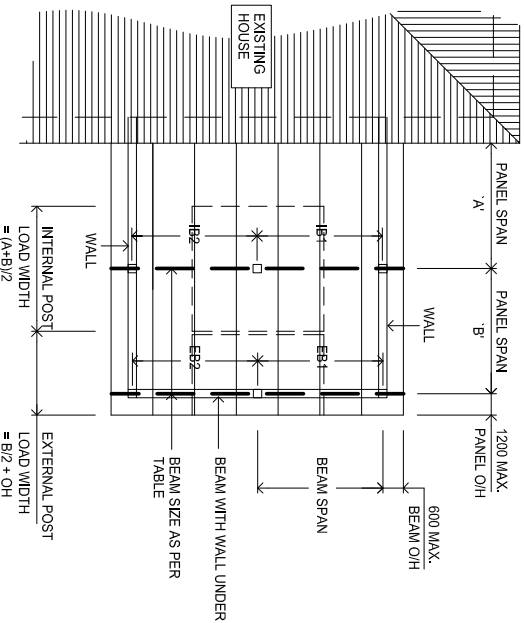
## Walls 2 sides



## Walls 3 sides



## Fully Enclosed



## Typical Patio Section

## Table 1 - Maximum Spans of Ausdeck Roofing

Tabulated Values are the Maximum Spans in Metres

Panel Depth	Wall on 1 Side				Walls on 2 or 3 Sides or Fully Enclosed				Maximum Cantilever			
	N1/N2	N3	N4		N1/N2	N3	N4		N1/N2	N3	N4	
50mm Panel	5.0	4.4	3.6		4.2	3.3	2.7		0.90	0.90	0.60	
75mm Panel	6.5	5.4	4.4		5.1	4.1	3.3		0.90	0.90	0.90	
100mm Panel	7.0	5.6	4.6		5.4	4.3	3.5		1.20	1.20	1.20	

## Patio Roof Layout Plans

No.		Revision		Date		DWG	
A		ALTERATION TO DESIGN		03.12.07		D.N.	

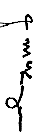


**AUSDECK PATIOS & ROOFING**

ABN : 26 169 972 626  
 16 MCA STREET, CAROLE PARK, QLD 4300  
 PO BOX 214 CAROLE PARK, QLD 4300  
 PHONE : 07 3271 4555 FAX : 07 3271 4600  
 WEBSITE : www.ausdeck.com.au

**ENGINEERING CERTIFICATION**

THIS AUSDECK PATIO ROOFING SYSTEM IS STRUCTURALLY CERTIFIED BY NEIL MCKENZIE & ASSOCIATES CONSULTING ENGINEERS 14/699A SANDGATE ROAD, CLAYFIELD, QLD 4011

SIGNED : 

M.L. MCKENZIE, RPEQ 2097, NPEER3

**PATIO ROOF LAYOUT PLANS**

DATE : OCTOBER 2004

004-054

**SHEET 1 OF 16**

REVISION

**A**

**N1/N2**

Beam Load Width (m) =  $(A+B)/2$  OR  $(B/2+OH)$

Beam Type	Beam Load Width (m) = (A+B)/2 OR (B/2+OH)																	
	Single Span									Continuous Span								
	1.5	2.1	2.7	3.3	3.9	4.5	5.1	6.0	7.0	1.5	2.1	2.7	3.3	3.9	4.5	5.1	6.0	7.0
Ausdeck																		
100x65 Shure-lock	5.2	4.7	4.3	4.0	3.8	3.6	3.5	3.3	3.1	5.7	5.1	4.7	4.4	4.2	4.0	3.8	3.6	3.4
150x65 Shure-lock	7.2	6.6	6.2	5.8	5.5	5.2	5.0	4.8	4.5	8.3	7.4	6.8	6.4	6.1	5.8	5.5	5.2	5.0
200x65 Shure-lock	8.5	7.8	7.4	7.0	6.7	6.5	6.3	6.0	5.6	9.0	9.0	8.6	8.0	7.6	7.2	6.9	6.6	6.2
100x50x2 RHS	5.0	4.4	4.1	3.8	3.6	3.4	3.3	3.1	2.9	5.5	4.9	4.5	4.2	4.0	3.8	3.6	3.5	3.3
100x50x2.5 RHS	5.3	4.7	4.4	4.1	3.9	3.7	3.5	3.3	3.1	5.8	5.2	4.8	4.5	4.3	4.1	3.9	3.7	3.5
100x50x4 RHS	5.6	5.0	4.6	4.3	4.1	3.9	3.7	3.5	3.3	6.2	5.5	5.1	4.7	4.5	4.3	4.1	3.9	3.7
125x75x3 RHS	7.1	6.5	6.0	5.7	5.3	5.1	4.9	4.6	4.3	8.1	7.2	6.7	6.2	5.9	5.6	5.4	5.1	4.9
125x75x4 RHS	7.5	6.9	6.5	6.1	5.8	5.5	5.3	5.0	4.7	8.7	7.8	7.2	6.7	6.4	6.1	5.8	5.5	5.2
125x75x5 RHS	7.8	7.2	6.7	6.4	6.1	5.8	5.6	5.3	5.0	9.0	8.3	7.6	7.1	6.7	6.4	6.2	5.8	5.6
150x50x3 RHS	7.4	6.8	6.4	6.1	5.7	5.5	5.2	5.0	4.7	8.7	7.8	7.1	6.7	6.3	6.0	5.8	5.5	5.2
150x50x4 RHS	7.9	7.2	6.8	6.5	6.2	5.9	5.6	5.4	5.1	9.0	8.4	7.7	7.2	6.8	6.5	6.2	5.9	5.6
150x50x5 RHS	8.2	7.5	7.1	6.7	6.5	6.2	6.0	5.7	5.4	9.0	8.9	8.2	7.6	7.2	6.9	6.6	6.2	5.9
200x50x4 RHS	9.0	8.8	8.2	7.8	7.5	7.2	7.0	6.7	6.3	9.0	9.0	9.0	9.0	8.8	8.4	8.0	7.6	7.2
C150 15	4.6	4.2	3.9	3.7	3.5	3.4	3.3	3.1	3.0	6.3	5.7	5.3	4.9	4.6	4.4	4.2	3.9	3.5
C150 19	5.0	4.5	4.3	4.0	3.8	3.7	3.5	3.4	3.3	6.9	6.2	5.8	5.4	5.1	4.9	4.7	4.3	4.0
C200 15	5.6	5.1	4.8	4.5	4.3	4.2	4.0	3.8	3.6	7.7	7.0	6.5	6.0	5.7	5.4	5.2	4.7	4.2
C200 19	6.2	5.6	5.2	5.0	4.7	4.5	4.4	4.2	4.0	8.5	7.7	7.2	6.7	6.3	6.1	5.8	5.5	5.0
140x45 F7 Pine	4.0	3.6	3.3	3.1	2.8	2.6	2.5	2.3	2.2	s/s	s/s	3.4	3.1	2.9	2.7	2.5	2.3	2.2
170x45 F7 Pine	4.8	4.4	4.1	3.8	3.5	3.2	3.0	2.8	2.7	s/s	s/s	s/s	s/s	3.5	3.2	3.1	2.8	2.7
190x45 F7 Pine	5.2	4.8	4.5	4.2	3.9	3.6	3.4	3.1	3.0	s/s	s/s	s/s	s/s	s/s	s/s	3.4	3.1	3.0
125x50 F14 Hwd	3.4	3.1	2.9	2.7	2.6	2.5	2.4	2.3	2.2	3.5	3.5	3.5	3.5	3.5	3.4	3.2	3.0	2.8
150x50 F14 Hwd	4.0	3.7	3.5	3.3	3.1	3.0	2.9	2.7	2.6	s/s	s/s	s/s	s/s	s/s	3.5	3.5	3.5	3.3
175x50 F14 Hwd	4.6	4.3	4.0	3.8	3.6	3.5	3.4	3.2	3.1	s/s	s/s	s/s	s/s	s/s	s/s	s/s	s/s	3.5
200x50 F14 Hwd	5.1	4.8	4.6	4.3	4.1	4.0	3.8	3.7	3.6	s/s	s/s	s/s	s/s	s/s	s/s	s/s	s/s	s/s
125x75 F14 Hwd	3.8	3.4	3.2	3.1	2.9	2.8	2.7	2.6	2.5	s/s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.4
150x75 F14 Hwd	4.4	4.1	3.9	3.7	3.5	3.4	3.3	3.1	3.0	s/s	s/s	s/s	s/s	s/s	s/s	s/s	s/s	3.5
175x75 F14 Hwd	5.0	4.7	4.5	4.3	4.1	3.9	3.8	3.6	3.5	s/s	s/s	s/s	s/s	s/s	s/s	s/s	s/s	s/s
200x75 F14 Hwd	5.5	5.2	5.0	4.8	4.6	4.5	4.3	4.2	4.1	s/s	s/s	s/s	s/s	s/s	s/s	s/s	s/s	s/s

s/s - See Single Span as Timber is unavailable in continuous lengths greater than 7m

[illegible]



**N3**

Tabulated Values are the Maximum Span in Metres

Tabulated Values are the Maximum Span in Metres

s/s - See Single Span as Timber is unavailable in continuous lengths greater than 7m

[illegible]

**N4**

Tabulated Values are the Maximum Span in Metres

Tabulated Values are the Maximum Span in Metres

s/s - See Single Span as Timber is unavailable in continuous lengths greater than 7m

No.	REVISION	DATE	DWN
			
<b>AUSDECK PATIOS &amp; ROOFING</b> ARN : 26 169 972 626 16 MICA STREET, CAROLE PARK, QLD 4300 PO BOX 214 CAROLE PARK, QLD 4300 PHONE : 07 3271 4555 FAX : 07 3271 4600 WEBSITE : <a href="http://www.ausdeck.com.au">www.ausdeck.com.au</a>			
<b>ENGINEERING CERTIFICATION</b> THIS AUSDECK PATIO ROOFING SYSTEM IS STRUCTURALLY CERTIFIED BY NEIL WAKENZEN & ASSOCIATES SIGNED :  14/699A SANDSATE ROAD, CLAYFIELD, QLD 4011 M.A.E. M.B.E., R.P.E.O 2097, N.P.E.R.3			
<b>TABLE 4</b>			
DATE : OCTOBER 2004			
004-054			
SHEET 4 OF 16		REVISION	

**Table 5 - Beams Supporting Ausdeck Roofing, Walls on 2 or 3 Sides or Fully Enclosed**

Tabulated Values are the Maximum Span in Metres

Beam Type	Beam Load Width (m) = (A+B)/2 OR (B/2+OH)															
	Single Span								Continuous Span							
1.5	2.1	2.7	3.3	3.9	4.5	5.1	6.0	1.5	2.1	2.7	3.3	3.9	4.5	5.1	6.0	
Ausdeck	4.3	3.8	3.5	3.3	3.1	3.0	2.8	2.7	4.7	4.2	3.9	3.6	3.4	3.3	3.0	
	6.2	5.5	5.1	4.7	4.5	4.3	4.1	3.9	6.8	6.1	5.6	5.2	4.9	4.7	4.3	
	7.3	6.7	6.3	5.9	5.6	5.4	5.1	4.9	8.5	7.6	7.0	6.6	6.2	5.9	5.4	
100x65 Shure-lock	4.3	3.8	3.5	3.3	3.1	3.0	2.8	2.7	4.7	4.2	3.9	3.6	3.4	3.3	3.0	
150x65 Shure-lock	6.2	5.5	5.1	4.7	4.5	4.3	4.1	3.9	6.8	6.1	5.6	5.2	4.9	4.7	4.3	
200x65 Shure-lock	7.3	6.7	6.3	5.9	5.6	5.4	5.1	4.9	8.5	7.6	7.0	6.6	6.2	5.9	5.4	
100x50x2 RHS	4.1	3.6	3.3	3.1	3.0	2.8	2.7	2.6	4.5	4.0	3.7	3.4	3.3	3.1	2.9	
100x50x2.5 RHS	4.3	3.9	3.6	3.3	3.2	3.0	2.9	2.7	4.8	4.3	3.9	3.7	3.5	3.3	3.0	
100x50x4 RHS	4.6	4.1	3.7	3.5	3.3	3.2	3.0	2.9	5.0	4.5	4.1	3.9	3.7	3.5	3.3	
125x75x3 RHS	6.0	5.4	4.9	4.6	4.4	4.2	4.0	3.8	6.6	5.9	5.4	5.1	4.8	4.6	4.4	
125x75x4 RHS	6.4	5.8	5.3	5.0	4.7	4.5	4.3	4.1	7.1	6.4	5.9	5.5	5.2	5.0	4.8	
125x75x5 RHS	6.7	6.1	5.7	5.3	5.0	4.8	4.6	4.3	7.6	6.8	6.2	5.8	5.5	5.3	5.0	
150x50x3 RHS	6.4	5.8	5.3	5.0	4.7	4.5	4.3	4.1	7.1	6.3	5.8	5.5	5.2	4.9	4.7	
150x50x4 RHS	6.8	6.2	5.7	5.3	5.0	4.8	4.6	4.4	7.6	6.8	6.3	5.9	5.6	5.3	5.1	
150x50x5 RHS	7.1	6.5	6.0	5.6	5.3	5.1	4.9	4.6	8.1	7.2	6.7	6.2	5.9	5.6	5.4	
200x50x4 RHS	8.2	7.5	7.1	6.7	6.4	6.2	5.9	5.6	9.0	8.8	8.1	7.6	7.2	6.8	6.6	
C150 15	3.9	3.5	3.3	3.1	3.0	2.8	2.7	2.6	5.2	4.7	4.2	3.9	3.5	3.3	3.0	
C150 19	4.2	3.8	3.6	3.4	3.2	3.1	3.0	2.8	5.7	5.2	4.7	4.4	4.1	3.9	3.7	
C200 15	4.7	4.3	4.0	3.8	3.6	3.5	3.4	3.2	6.5	5.7	5.2	4.7	4.2	3.9	3.7	
C200 19	5.2	4.7	4.4	4.2	4.0	3.8	3.7	3.5	7.1	6.4	5.9	5.5	5.1	4.9	4.6	
140x45 F7 Pine	3.5	3.0	2.6	2.4	2.2	2.0	1.9	1.7	3.5	3.0	2.6	2.4	2.2	2.0	1.9	
170x45 F7 Pine	4.2	3.6	3.2	2.9	2.6	2.5	2.3	2.1	s/s	s/s	3.2	2.9	2.6	2.5	2.3	
190x45 F7 Pine	4.6	4.0	3.6	3.2	3.0	2.7	2.6	2.4	s/s	s/s	s/s	3.2	3.0	2.8	2.6	
125x50 F14 Hwd	3.4	3.1	2.8	2.6	2.5	2.4	2.3	2.2	3.5	3.5	3.4	3.1	2.8	2.6	2.5	
150x50 F14 Hwd	4.0	3.7	3.4	3.2	3.0	2.9	2.8	2.6	s/s	s/s	3.5	3.5	3.5	3.2	3.0	
175x50 F14 Hwd	4.6	4.3	4.0	3.8	3.6	3.4	3.3	3.1	s/s	s/s	s/s	s/s	s/s	3.5	3.3	
200x50 F14 Hwd	5.1	4.7	4.4	4.2	4.1	3.9	3.7	3.5	s/s	s/s	s/s	s/s	s/s	s/s	3.5	
125x75 F14 Hwd	3.7	3.4	3.2	3.1	2.9	2.8	2.6	2.5	s/s	3.5	3.5	3.5	3.5	3.2	3.0	
150x75 F14 Hwd	4.4	4.1	3.9	3.7	3.5	3.3	3.2	3.0	s/s	s/s	s/s	s/s	s/s	3.5	3.4	
175x75 F14 Hwd	5.0	4.7	4.5	4.3	4.1	3.9	3.8	3.6	s/s	s/s	s/s	s/s	s/s	s/s	s/s	
200x75 F14 Hwd	5.5	5.2	5.0	4.7	4.5	4.4	4.2	4.1	s/s	s/s	s/s	s/s	s/s	s/s	s/s	

s/s - See Single Span as Timber is unavailable in continuous lengths greater than 7m

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Tabulated Values are the Maximum Span in Metres

Tabulated Values are the Maximum Span in Metres

Beam Type	Beam Load Width (m) = (A+B)/2 OR (B/2+OH)															
	Single Span								Continuous Span							
	1.5	2.1	2.7	3.3	3.9	4.5	5.1	6.0	1.5	2.1	2.7	3.3	3.9	4.5	5.1	6.0
Ausdeck																
	100x65 Shure-lock	3.6	3.2	3.0	2.8	2.6	2.5	2.4	2.3	4.0	3.6	3.3	3.1	2.9	2.8	2.5
	150x65 Shure-lock	5.3	4.7	4.3	4.0	3.8	3.6	3.5	3.3	5.8	5.2	4.8	4.5	4.2	4.0	3.7
	200x65 Shure-lock	6.5	5.9	5.4	5.1	4.8	4.4	3.8	3.3	7.3	6.5	6.0	5.6	5.0	4.4	3.3
100x50x2 RHS	3.5	3.1	2.8	2.7	2.5	2.4	2.3	2.1	3.8	3.4	3.1	2.9	2.6	2.4	2.3	2.1
100x50x2.5 RHS	3.7	3.3	3.0	2.8	2.7	2.6	2.5	2.3	4.1	3.6	3.3	3.1	3.0	2.8	2.7	2.6
100x50x4 RHS	3.9	3.5	3.2	3.0	2.8	2.7	2.6	2.4	4.3	3.8	3.5	3.3	3.1	3.0	2.8	2.7
125x75x3 RHS	5.1	4.6	4.2	3.9	3.7	3.6	3.4	3.2	5.6	5.0	4.6	4.3	4.1	3.9	3.7	3.4
125x75x4 RHS	5.5	4.9	4.5	4.2	4.0	3.8	3.7	3.5	6.1	5.4	5.0	4.7	4.4	4.2	4.1	3.8
125x75x5 RHS	5.9	5.2	4.8	4.5	4.3	4.1	3.9	3.7	6.5	5.8	5.3	5.0	4.7	4.5	4.3	4.1
150x50x3 RHS	5.5	4.9	4.5	4.2	4.0	3.8	3.7	3.5	6.1	5.4	5.0	4.7	4.4	4.1	3.9	3.6
150x50x4 RHS	5.9	5.3	4.9	4.5	4.3	4.1	3.9	3.7	6.5	5.8	5.4	5.0	4.7	4.5	4.3	4.0
150x50x5 RHS	6.3	5.6	5.1	4.8	4.6	4.3	4.2	3.9	6.9	6.2	5.7	5.3	5.0	4.8	4.6	4.3
200x50x4 RHS	7.3	6.7	6.3	5.9	5.5	5.3	5.1	4.8	8.4	7.5	6.9	6.5	6.1	5.8	5.6	5.1
C150 15	3.4	3.1	2.9	2.7	2.5	2.4	2.3	2.1	4.4	3.9	3.4	3.1	2.9	2.7	2.5	2.2
C150 19	3.7	3.3	3.1	2.9	2.8	2.7	2.5	2.4	4.9	4.4	3.9	3.6	3.4	3.1	2.9	2.7
C200 15	4.2	3.8	3.5	3.3	3.2	3.0	2.9	2.8	5.4	4.7	4.0	3.5	3.2	2.9	2.8	2.7
C200 19	4.5	4.1	3.9	3.6	3.5	3.3	3.2	3.0	6.1	5.4	4.9	4.5	4.1	3.9	3.6	3.2
140x45 F7 Pine	2.8	2.3	2.0	1.8	1.7	1.6	1.5	1.4	2.8	2.3	2.0	1.9	1.7	1.6	1.5	1.4
170x45 F7 Pine	3.4	2.9	2.5	2.3	2.1	1.9	1.8	1.7	3.4	2.9	2.5	2.3	2.1	1.9	1.8	1.7
190x45 F7 Pine	3.8	3.2	2.8	2.5	2.3	2.2	2.0	1.9	s/s	3.2	2.8	2.5	2.4	2.2	2.0	1.9
125x50 F14 Hwd	3.0	2.7	2.5	2.3	2.2	2.1	1.9	1.8	3.5	3.1	2.7	2.4	2.2	2.1	1.9	1.8
150x50 F14 Hwd	3.6	3.2	3.0	2.8	2.6	2.5	2.4	2.2	s/s	3.5	3.3	3.0	2.7	2.5	2.4	2.2
175x50 F14 Hwd	4.2	3.8	3.5	3.3	3.1	3.0	2.8	2.6	s/s	s/s	3.5	3.5	3.2	3.0	2.8	2.6
200x50 F14 Hwd	4.6	4.3	4.0	3.8	3.5	3.3	3.1	2.9	s/s	s/s	s/s	3.5	3.5	3.4	3.2	3.0
125x75 F14 Hwd	3.5	3.1	2.9	2.7	2.5	2.4	2.3	2.2	3.5	3.5	3.3	3.0	2.7	2.6	2.4	2.2
150x75 F14 Hwd	4.2	3.8	3.5	3.2	3.1	2.9	2.8	2.6	s/s	s/s	3.5	3.5	3.3	3.1	2.9	2.7
175x75 F14 Hwd	4.7	4.3	4.0	3.8	3.6	3.4	3.3	3.1	s/s	s/s	s/s	3.5	3.5	3.5	3.4	3.1
200x75 F14 Hwd	5.2	4.8	4.5	4.3	4.1	3.9	3.8	3.6	s/s	s/s	s/s	s/s	s/s	s/s	s/s	s/s

s/s - See Single Span as Timber is unavailable in continuous lengths greater than 7m

[illegible]

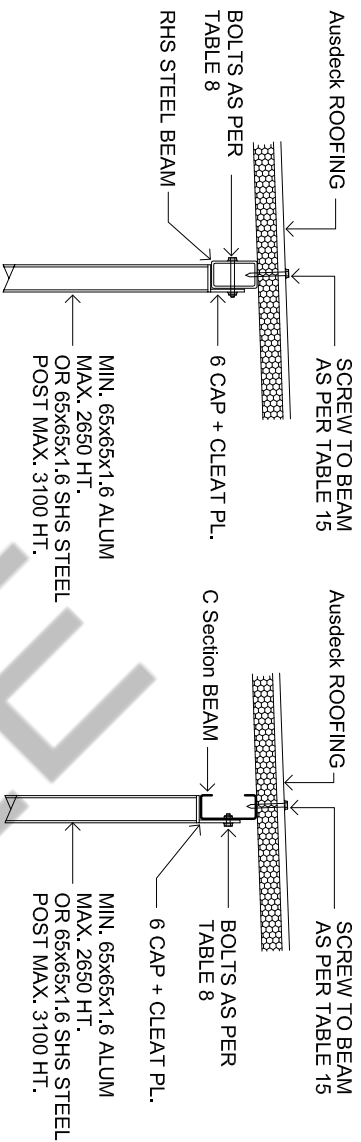
Tabulated Values are the Maximum Span in Metres

Beam Type	Beam Load Width (m) = (A+B)/2 OR (B/2+OH)															
	Single Span								Continuous Span							
	1.5	2.1	2.7	3.3	3.9	4.5	5.1	6.0	1.5	2.1	2.7	3.3	3.9	4.5	5.1	6.0
Ausdeck 100x65 Shure-lock 150x65 Shure-lock 200x65 Shure-lock	3.2	2.8	2.6	2.4	2.3	2.2	2.1	2.0	3.5	3.1	2.9	2.7	2.5	2.4	2.3	2.1
	4.6	4.1	3.8	3.5	3.3	3.2	3.0	2.8	5.0	4.5	4.1	3.9	3.7	3.5	3.2	2.8
	5.7	5.1	4.7	4.4	3.3	2.9	2.5	2.2	6.3	5.7	4.8	3.9	3.3	2.9	2.5	2.2
100x50x2 RHS	3.0	2.7	2.5	2.3	2.1	2.0	1.9	1.7	3.3	2.9	2.6	2.3	2.1	2.0	1.9	1.7
100x50x2.5 RHS	3.2	2.9	2.6	2.5	2.3	2.2	2.1	2.0	3.5	3.2	2.9	2.7	2.6	2.4	2.2	2.1
100x50x4 RHS	3.4	3.0	2.8	2.6	2.5	2.3	2.2	2.1	3.7	3.3	3.1	2.9	2.7	2.6	2.5	2.3
125x75x3 RHS	4.5	4.0	3.7	3.4	3.2	3.1	3.0	2.8	4.9	4.4	4.0	3.7	3.4	3.2	3.0	2.8
125x75x4 RHS	4.8	4.3	4.0	3.7	3.5	3.3	3.2	3.0	5.3	4.7	4.4	4.1	3.9	3.6	3.4	3.1
125x75x5 RHS	5.1	4.6	4.2	3.9	3.7	3.5	3.4	3.2	5.6	5.0	4.6	4.3	4.1	3.9	3.7	3.4
150x50x3 RHS	4.8	4.3	3.9	3.7	3.5	3.3	3.1	2.9	5.3	4.7	4.3	3.9	3.6	3.3	3.1	2.9
150x50x4 RHS	5.1	4.6	4.2	4.0	3.7	3.6	3.4	3.2	5.7	5.1	4.7	4.4	4.0	3.8	3.5	3.3
150x50x5 RHS	5.5	4.9	4.5	4.2	4.0	3.8	3.6	3.4	6.0	5.4	4.9	4.6	4.4	4.1	3.9	3.6
200x50x4 RHS	6.5	5.9	5.5	5.1	4.8	4.6	4.4	4.2	7.3	6.5	6.0	5.6	5.2	4.8	4.5	4.2
C150 15	3.0	2.7	2.5	2.3	2.1	2.0	2.0	1.9	3.7	3.2	2.8	2.5	2.2	2.0	2.0	1.9
C150 19	3.3	3.0	2.8	2.6	2.4	2.3	2.2	2.0	4.2	3.7	3.2	2.9	2.7	2.5	2.2	2.0
C200 15	3.7	3.4	3.1	2.9	2.8	2.7	2.6	2.5	4.5	3.5	3.1	2.8	2.7	2.6	2.5	2.4
C200 19	4.0	3.7	3.4	3.2	3.0	2.9	2.8	2.7	5.2	4.5	4.0	3.7	3.2	2.9	2.8	2.7
140x45 F7 Pine	2.3	1.9	1.7	1.6	1.4	1.3	1.2	1.1	2.3	1.9	1.7	1.6	1.4	1.3	1.2	1.1
170x45 F7 Pine	2.7	2.3	2.0	1.8	1.7	1.6	1.5	1.4	2.7	2.3	2.0	1.8	1.7	1.6	1.5	1.4
190x45 F7 Pine	3.1	2.6	2.3	2.0	1.9	1.8	1.7	1.6	3.1	2.6	2.3	2.0	1.9	1.8	1.7	1.6
125x50 F14 Hwd	2.6	2.3	2.1	2.0	1.8	1.7	1.6	1.4	3.0	2.5	2.2	2.0	1.8	1.7	1.6	1.4
150x50 F14 Hwd	3.2	2.8	2.6	2.4	2.2	2.0	1.9	1.8	3.5	3.0	2.7	2.4	2.2	2.0	1.9	1.8
175x50 F14 Hwd	3.7	3.3	3.1	2.8	2.6	2.4	2.2	2.1	s/s	3.5	3.1	2.8	2.6	2.4	2.2	2.1
200x50 F14 Hwd	4.2	3.8	3.5	3.2	2.9	2.7	2.6	2.4	s/s	s/s	3.5	3.2	3.0	2.8	2.6	2.4
125x75 F14 Hwd	3.0	2.7	2.5	2.3	2.2	2.0	1.9	1.8	3.5	3.1	2.7	2.4	2.2	2.1	1.9	1.8
150x75 F14 Hwd	3.7	3.3	3.0	2.8	2.7	2.5	2.3	2.1	s/s	3.5	3.0	2.9	2.7	2.5	2.3	2.2
175x75 F14 Hwd	4.2	3.9	3.6	3.3	3.1	2.9	2.8	2.5	s/s	s/s	s/s	3.5	3.2	3.0	2.8	2.5
200x75 F14 Hwd	4.7	4.3	4.1	3.8	3.6	3.4	3.2	2.9	s/s	s/s	s/s	s/s	s/s	3.4	3.2	2.9

s/s - See Single Span as Timber is unavailable in continuous lengths greater than 7m

[illegible]





**Detail 1**  
**Steel Post to Steel Beam (RHS)**

**Detail 2**  
**Steel Post to Steel Beam (C Section)**

**Table 8 - Maximum Area of Roof Tied Down by Bolted Connection - Steel Beam to Steel Post (Details 1 & 2)**

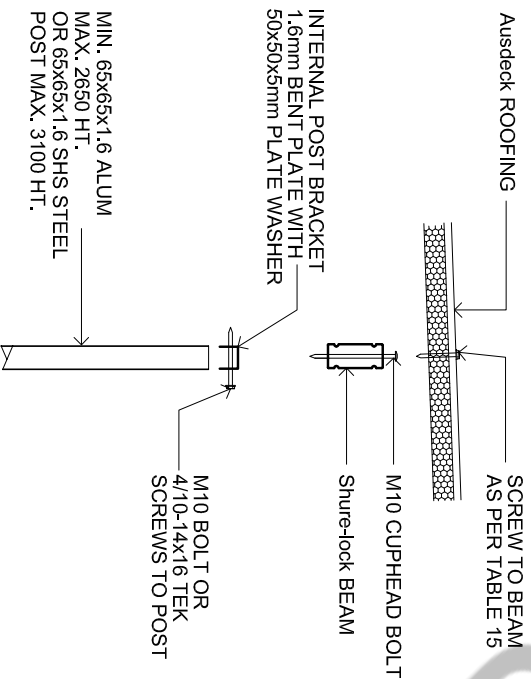
Tabulated Values are the Maximum Area in Square Metres

Number or Bolts and Diameter	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
1/M12 Bolt	24.3	14.7	9.5	13.2	8.2	5.4
2/M12 Bolts	48.6	29.4	19.0	26.4	16.4	10.8
1/M16 Bolt	49.5	29.9	19.4	27.0	16.7	11.0
2/M16 Bolts	99.0	59.8	38.8	54.0	33.4	22.0
1/M20 Bolt	77.5	46.8	30.4	42.2	26.1	17.2
2/M20 Bolts	128.3	77.4	50.3	69.9	43.3	28.5

**Table 8a - Maximum Area of Roof Tied Down by Bolted Connection - Shure-lock Beam to Alum Post (Detail 3)**


Tabulated Values are the Maximum Area in Square Metres

Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
N1/N2	N3	N4	N1/N2	N3	N4
7.5	4.5	2.9	4.0	2.5	1.6



**Detail 3**  
**Shure-lock Beam to Alum Post**

A		ALTERATION TO DRAWING		20.11.07	D.N.
No.		REVISION		DATE	DWN

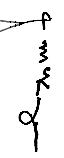


**AUSDECK PTIOS & ROOFING**

ABN : 26 169 972 626  
16 MICA STREET, CAROLE PARK, QLD 4300  
PO BOX 214 CAROLE PARK, QLD 4300  
PHONE : 07 3271 4555 FAX : 07 3271 4800  
WEBSITE : [www.ausdeck.com.au](http://www.ausdeck.com.au)

**ENGINEERING CERTIFICATION**

THIS AUSDECK PATIO ROOFING SYSTEM IS STRUCTURALLY CERTIFIED BY NEIL MCKENZIE & ASSOCIATES CONSULTING ENGINEERS  
14/699A SANDGATE ROAD, CLAYFIELD, QLD 4011

SIGNED : 

M.E. MCKENZIE, RPEQ 2007, NPE.R.3

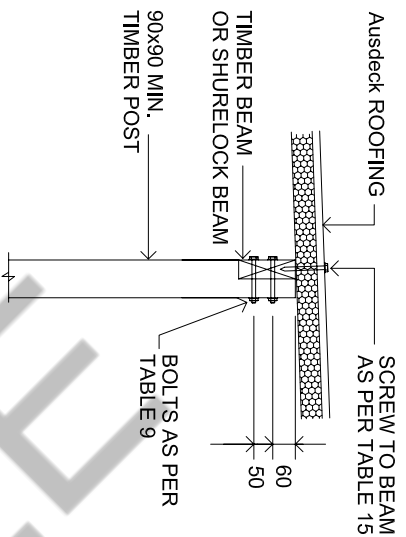
**TABLES 8 & 8a**

DATE : OCTOBER 2004

004-054

**SHEET 8 OF 16**

REVISION **A**

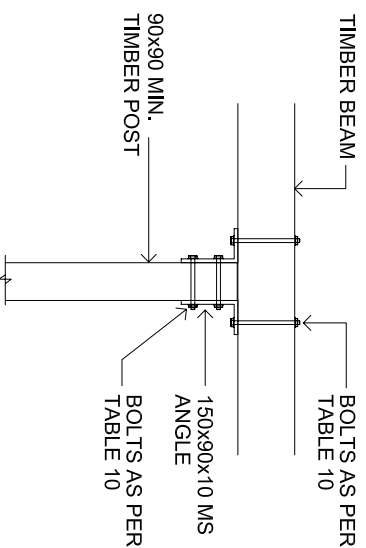


**Detail 4**  
**Timber Post to Beam**

**Table 9 - Maximum Area of Roof Tied Down by Bolted Connection - Timber Beam to Post (Detail 4) - SHURELOCK BEAM (Detail 4)**

Tabulated Values are the Maximum Area in Square Metres

Number or Bolts and Diameter	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
1/M10 Bolt	7.5	4.5	2.9	4.0	2.5	1.6
2/M10 Bolts	14.6	8.8	5.7	7.9	4.9	3.2
1/M12 Bolt	8.8	5.3	3.4	4.8	3.0	2.0
2/M12 Bolts	17.2	10.4	6.7	9.4	5.8	3.8
1/M16 Bolt	12.0	7.2	4.7	6.5	4.0	2.6
2/M16 Bolts	24.0	14.4	9.4	13.0	8.0	5.2



**Detail 5**  
**Timber Post to Beam**

**Table 10 - Maximum Area of Roof Tied Down by Bolted Connection - Timber Beam to Post (Detail 5)**

Tabulated Values are the Maximum Area in Square Metres

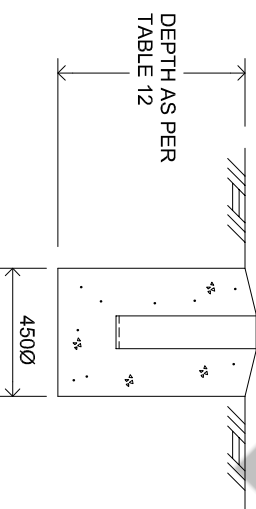
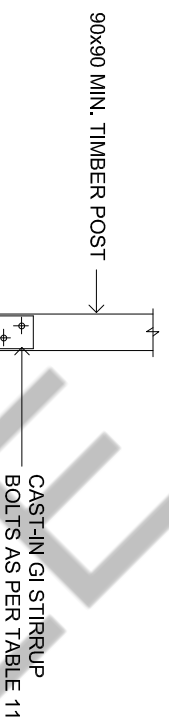
Number of Bolts and Diameter	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
2/M10 Bolts	40.0	24.1	15.7	21.8	13.5	8.9
2/M12 Bolts	57.3	34.6	22.5	31.2	19.3	12.7
2/M16 Bolts	99.0	59.8	38.8	54.0	33.4	22.0

$$\text{AREA} = \{(A+B)/2 \text{ OR } (B/2+OH)\} \times \{(EB+EB)/2 \text{ OR } (IB+IB)/2 \text{ OR } (EB/2+OH) \text{ OR } (IB/2+OH)\}$$

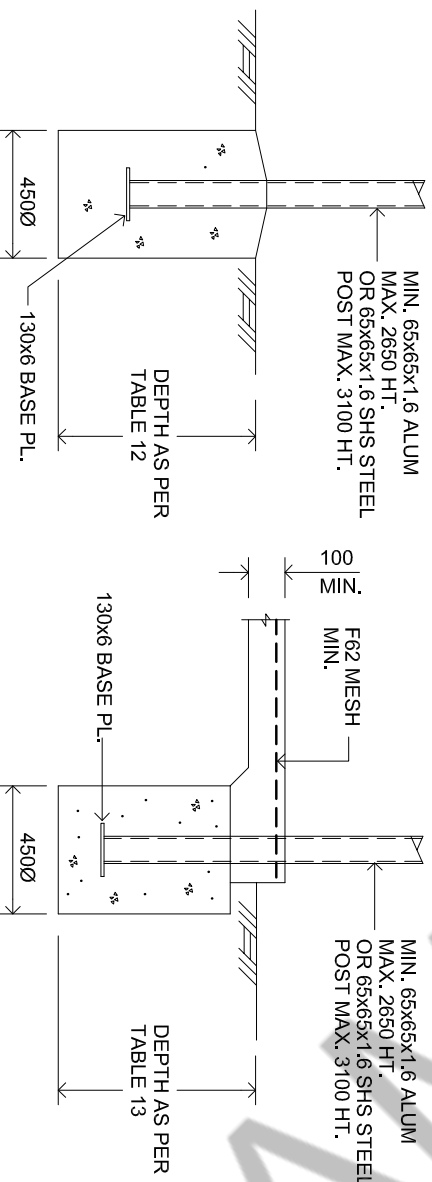
**Table 11 - Maximum Area of Roof Tied Down by Bolted Connection - Timber Post to Stirrup**

Tabulated Values are the Maximum Area in Square Metres

Number of Bolts and Diameter	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
2/M12 Bolts	57.3	34.6	22.5	31.2	19.3	12.7
2/M16 Bolts	99.0	59.8	38.8	54.0	33.4	22.0



**Timber Post to Pad Footing**



**Steel Post to Pad Footing**

**Steel Post to Pad Footing With Slab Over**

**Table 12 - Maximum Area of Roof Supported by Pad Footing Without Slab Over**

Tabulated Values are the Maximum Area in Square Metres

Depth of Pad (m)	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
0.60	9.8	5.9	3.9	5.4	3.3	2.2
0.75	15.1	9.1	5.9	8.2	5.1	3.4
0.90	21.8	13.2	8.6	11.9	7.4	4.9
1.05	30.3	18.3	11.9	16.5	10.2	6.7
1.20	40.7	24.6	16.0	22.2	13.7	9.1
1.35	53.2	32.1	20.9	29.0	18.0	11.8
1.50	68.0	41.0	26.7	37.0	22.9	15.1
1.65	85.3	51.4	33.4	46.5	28.8	19.0
1.80	105.3	63.5	41.3	57.4	35.5	23.4

- All Pad Footings are 4500Ø

- Soil Type to be a Minimum of Nat. Medium Dense Sand or Nat. Stiff Clay

- For Footings of Greater Depth than 0.9m Reinforce with 2/N12 Bars

**Table 13 - Maximum Area of Roof Supported by Pad Footing With Slab Over**

Tabulated Values are the Maximum Area in Square Metres

Depth of Pad (m)	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
0.60	17.3	10.4	6.8	9.4	5.8	3.8
0.75	23.0	13.9	9.0	12.5	7.8	5.1
0.90	30.2	18.2	11.8	16.5	10.2	6.7
1.05	39.1	23.6	15.3	21.3	13.2	8.7
1.20	49.8	30.0	19.5	27.1	16.8	11.1
1.35	62.6	37.8	24.6	34.1	21.1	13.9
1.50	77.7	46.9	30.5	42.3	26.2	17.3
1.65	95.2	57.4	37.3	51.9	32.1	21.2
1.80	115.4	69.6	45.2	62.9	39.0	25.7


- All Pad Footings are 4500Ø

- Slab is to be a minimum of 20MPa, 100mm Thick with F62 Reinforcement

- Soil Type to be a Minimum of Nat. Medium Dense Sand or Nat. Stiff Clay

- For Footings of Greater Depth than 0.9m Reinforce with 2/N12 Bars

No.		REVISION	
A		ALTERATION TO DRAWING	
20.11.07		D.N.	
DATE		DWN	

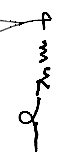


**AUSDECK PATIOS & ROOFING**

ABN : 26 169 972 626  
16 MICA STREET, CAROLE PARK, QLD 4300  
PO BOX 214 CAROLE PARK, QLD 4300  
PHONE : 07 3271 4555 FAX : 07 3271 4600  
WEBSITE : [www.ausdeck.com.au](http://www.ausdeck.com.au)

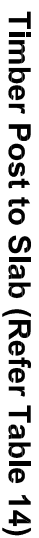
**ENGINEERING CERTIFICATION**

THIS AUSDECK PATIO ROOFING SYSTEM IS STRUCTURALLY CERTIFIED BY NEIL MCKENZIE & ASSOCIATES CONSULTING ENGINEERS 14/699A SANDGATE ROAD, CLAYFIELD, QLD 4011

SIGNED : 

M.E. MCK., RPED 2097, NPE.R.3

<b>TABLES 11, 12 &amp; 13</b>	
DATE :	OCTOBER 2004
004-054	
<b>SHEET 10 OF 16</b>	
REVISION <b>A</b>	



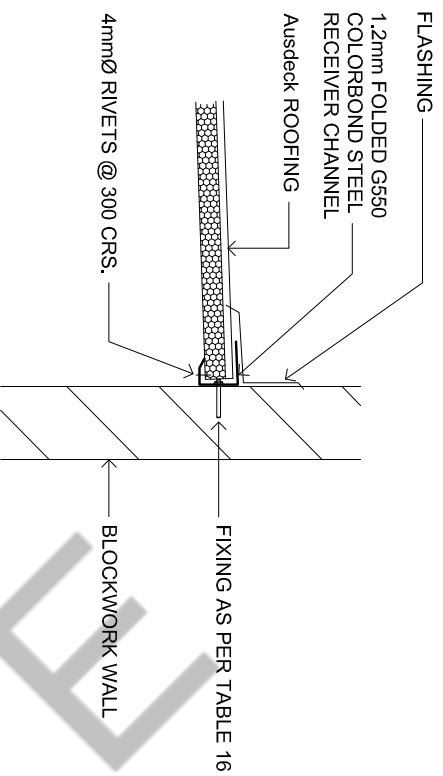
Tabulated Values are the Maximum Load Width of Supported Panel in Metres

- Screws to Timber Beam are to be Type 17-14 with Minimum 65mm Penetration into Timber
- Climaseal coated with Cyclone Washer
- Screws to Steel Beams are to be Tek 14, Climaseal Coated with Cyclone Washer.

Tabulated Values are the Maximum Area in Square Metres

- Slab is to be a minimum of 20MPa, 100mm Thick with F62 Reinforcement





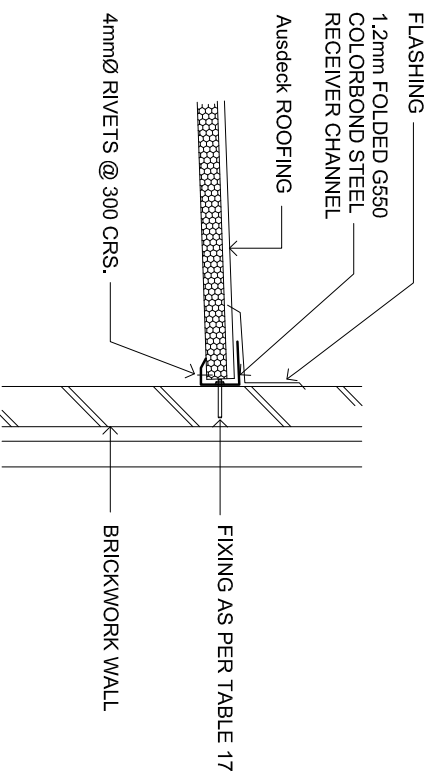
**Roofing to Blockwork Wall**

**Table 16 - Connection of Ausdeck Roofing Channel to Blockwork Wall**

Tabulated Values are the Maximum Load Width of Supported Panel in Metres

Connection of Roofing to Blockwork Wall	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
6mm Shuredrive @ 300c/c	3.5	2.6	1.7	2.3	1.4	0.9
6mm Shuredrive @ 200c/c	3.5	2.8	2.3	2.7	2.0	1.3
M8 Dynabolts @ 400 c/c	3.5	2.8	2.3	2.7	2.2	1.8

- Blockwork is to be Fully Reinforced and Grouted else seek Engineering Advice



**Roofing to Brickwork Wall**

**Table 17 - Connection of Ausdeck Roofing Channel to Brickwork Wall**

Tabulated Values are the Maximum Load Width of Supported Panel in Metres

Connection of Roofing to Blockwork Wall	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
6mm Shuredrive @ 300c/c	3.5	2.6	1.7	2.3	1.4	0.9
6mm Shuredrive @ 200c/c	3.5	2.8	2.0	2.7	1.7	1.1

- Brickwork is to have a Minimum of 1.5m Brickwork over Support, else seek Engineering Advice

- Seek Engineering Advice where situation is outside Table



Technical drawing illustrating the connection between a new metal roof and an existing roof structure.

Labels and components shown:

- METAL FACIA
- Ausdeck ROOFING
- 1.2mm FOLDED G550 COLORBOND STEEL RECEIVER CHANNEL
- 4mmØ RIVETS @ 300 CRS.
- FIXING CHANNEL TO EACH TRUSS TAIL
- AWNING BRACKET WITH 2M12 BOLTS
- EXISTING ROOF STRUCTURE
- 750 MAX. (Dimension indicating maximum length)

Technical drawing illustrating the connection between a new timber fascia and an existing roof structure.

Labels and specifications:

- TIMBER FACIA FIX TO EACH TRUSS TAIL** (with arrow pointing to the top edge of the fascia)
- 2/75mm No.14 TYPE 17 SCREWS** (with arrow pointing to the screws securing the fascia to the truss tail)
- Ausdeck ROOFING** (with arrow pointing to the corrugated metal roofing sheet)
- 1.2mm FOLDED G550 COLORBOND STEEL RECEIVER CHANNEL FIX TO FACIA WITH BATTEN SCREWS @ 300 CRS.** (with arrow pointing to the channel profile)
- 4mmØ RIVETS @ 300 CRS.** (with arrow pointing to the rivets securing the channel to the fascia)
- CUT BACK TRUSS TAIL AS SHOWN** (with arrow pointing to the cut end of the truss tail)
- EXISTING ROOF STRUCTURE** (with arrow pointing to the existing roof structure below the fascia)

Rafter/Truss Spacing	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
600mm	3.5	2.7	1.7	2.4	1.5	1.0
900mm	2.3	1.8	1.1	1.6	1.0	0.7
1200mm	1.8	1.4	0.9	1.2	0.8	0.5
600mm Stiffened	3.5	2.8	2.3	2.7	2.2	1.8
900mm Stiffened	3.5	2.8	2.3	2.7	2.2	1.5
1200mm Stiffened	3.5	2.8	2.0	2.7	1.7	1.1

- Rafter/Truss Tail to Cantilever 750mm Maximum  
- 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.  
75mm No 14 Type 17 Batten Screws @ 300c/c  
- Builder to ensure adequate Tie-Down of Existing Roof Structure to Support  
- Seek Engineering Advice where situation is outside Table

Table 19 - Connection of Ausdeck Roofing Channel to Trusses where Fascia & Soffit are Removed

Tabulated Values are the Maximum Load Width of Supported Panel in Metres

Rafter/Truss Spacing	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
600mm	3.5	2.8	2.3	2.7	2.2	1.8
900mm	3.5	2.8	2.3	2.7	2.2	1.5
1200mm	3.5	2.8	2.0	2.7	1.7	1.1

Rafter/Truss Spacing	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed		
	N1/N2	N3	N4	N1/N2	N3	N4
600mm	3.5	2.8	2.3	2.7	2.2	1.8
900mm	3.5	2.8	2.3	2.7	2.2	1.5
1200mm	3.5	2.8	2.0	2.7	1.7	1.1

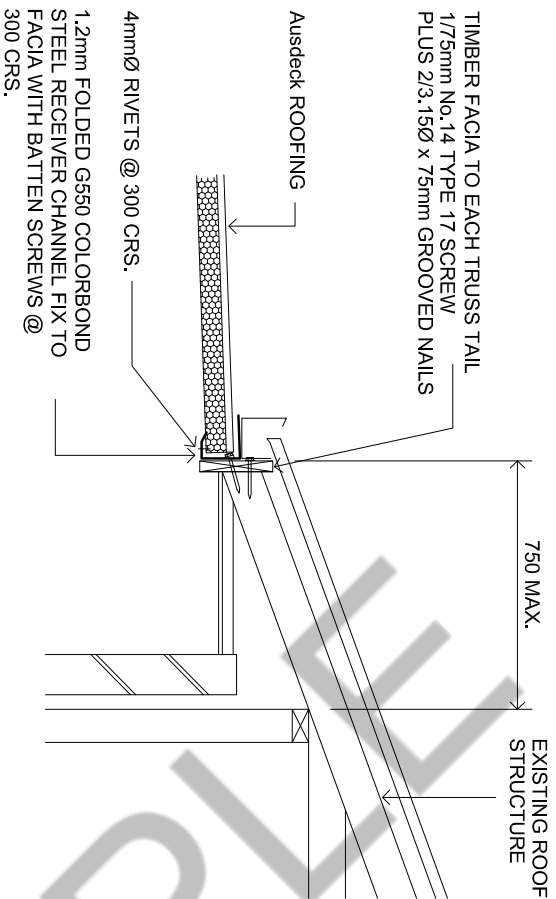
[illegible]

SIGNED:  NEIL MCKENZIE & ASSOCIATES  
CONSULTING ENGINEERS  
14/689A SANDGATE ROAD,  
CLAYFIELD, QLD 4011  
MAIL MAIL, RP10 2097, NPE&A

DATE : OCTOBER 2004	
004-054	
SHEET 13 OF 16	REVISION

### Table 20 - Connection of Ausdeck Roofing Channel

Tabulated Values are the Maximum Load Width of Supported Panel in Metres



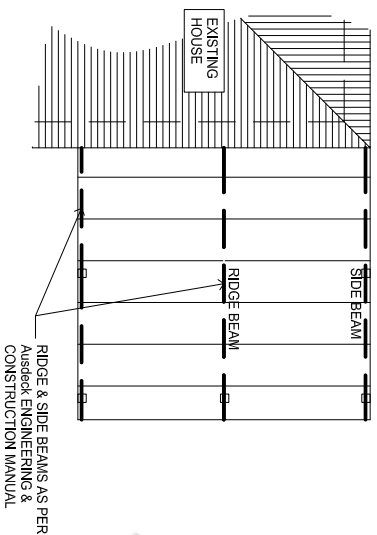
### Roofing to Timber Facia (Refer Table 20)

- Rafter/Truss Tail to Cantilever 750mm Maximum
  - Rafter/Truss Tail to be Minimum 90x35 F8 Pine or 90x35 F17 Seas. Hwd
  - Where Rafter Tails are to be stiffened use 90x45 F8 Pine x 1500 long Stiffener.  
75mm No 14 Type 17 Batten Screws @ 300c/c
  - Fix Recliver Channel to Fascia with No. 14 Type 17 Batten Screws @ 300c/c
  - Timber Fascia to be fixed to each Rafter Tail 1/75mm No 14 Type 17 Batten Screws and 2/75 x 3.15dia Grooved Nail
  - Timber Fascia to be 190x25 min
  - Builder to ensure adequate Tie-Down of Existing Roof Structure to Support
- Seek Engineering Advice where situation is outside Table

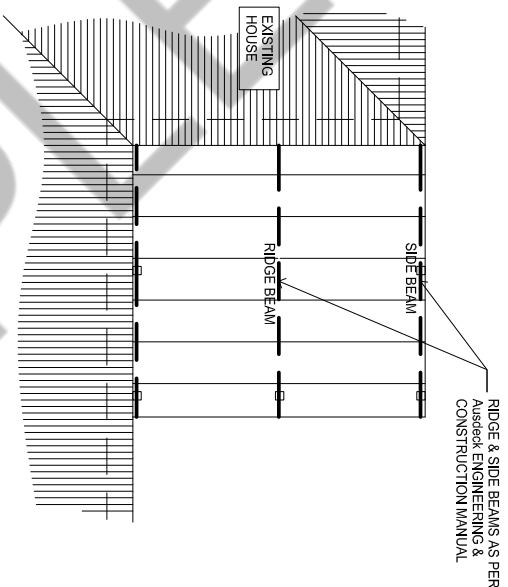
Rafter/Truss Spacing	Wall on 1 Side			Walls on 2 or 3 Sides or Fully Enclosed			
	N1/N2	N3	N4	N1/N2	N3	N4	
600mm	3.5	2.7	1.7	2.4	1.5	1.0	
900mm	2.9	1.7	1.1	1.6	1.0	0.6	
1200mm	2.2	1.3	0.8	1.2	0.7	0.5	
600mm Stiffened	3.5	2.8	2.3	2.7	2.2	1.8	
900mm Stiffened	3.5	2.8	2.3	2.7	2.2	1.7	
1200mm Stiffened	3.5	2.8	2.0	2.7	1.7	1.1	

[illegible]

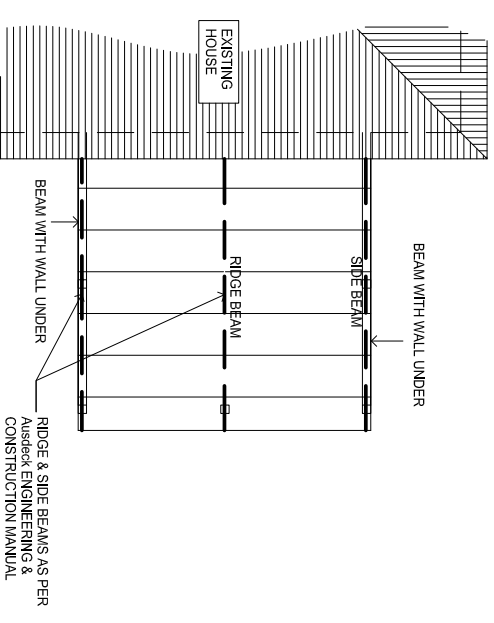
## Walls 1 side only



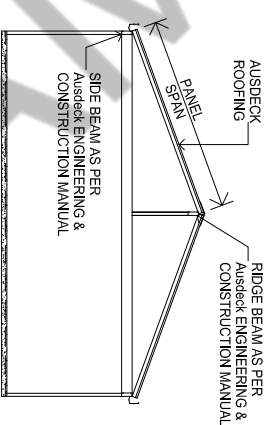
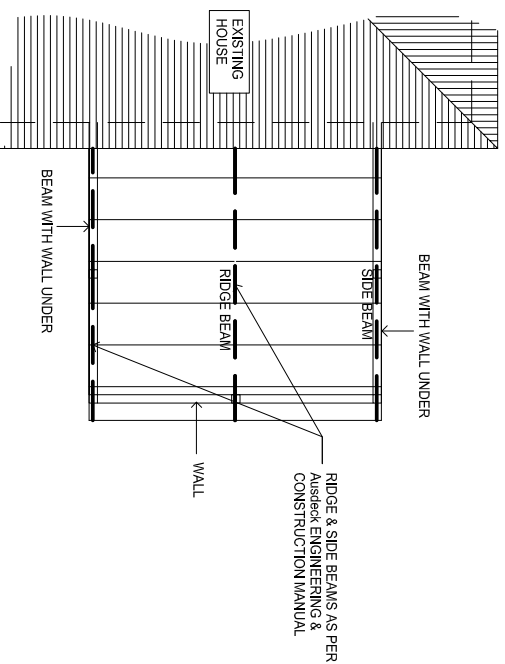
## Walls 2 sides



## Walls 3 sides



## Fully Enclosed



## Typical Gable Section

## Table 22-Maximum Spans of Ausdeck Roofing in a Gable Structure

Tabulated Values are the Maximum Spans in Metres

Panel Depth	Wall on 1 Side				Walls on 2 or 3 Sides or Fully Enclosed				Maximum Cantilever			
	N1/N2	N3	N4	N1/N2	N3	N4	N1/N2	N3	N4	N1/N2	N3	N4
50mm Panel	4.2	3.3	2.7	3.7	3.0	2.4	0.90	0.90	0.60	0.90	0.90	0.60
75mm Panel	5.1	4.1	3.1	4.6	3.6	2.5	0.90	0.90	0.90	0.90	0.90	0.90
100mm Panel	5.4	4.3	3.5	4.8	3.8	3.1	1.20	1.20	1.20	1.20	1.20	1.20

## Gable Patio Roof Layout Plans


**Table 21 - Design Calculation Sheet for Ausdeck Panel Roofing**

<p>1. Wind Classification at Site (e.g. N2) _____</p> <p>2. Patio Roof Enclosure Type (e.g. Wall 1 Side) _____</p> <p>3. Maximum Required Span of Panel (Maximum of A. or B.) _____ (m)</p> <p>4. Panel Thickness Selected (Table 1) _____ (mm)</p> <p>5. External Beam Span Required (Maximum of EB<sub>1</sub> or EB<sub>2</sub>) _____ (m)</p> <p>6. External Beam Size &amp; Type Selected (Tables 2 to 7) _____</p> <p>7. Internal Beam Span Required (Maximum of IB<sub>1</sub> or IB<sub>2</sub>) _____ (m)</p> <p>8. Internal Beam Size &amp; Type Selected (Tables 2 to 7) _____</p> <p>9. Area of Roof Load on External Column (equals (B/2+OH) x (EB<sub>1</sub>+EB<sub>2</sub>)/2) _____ (m<sup>2</sup>)</p> <p>10. Tie-Down of Beam to External Column Selected (Tables 8 to 11) _____</p> <p>11. Area of Roof Load on Internal Column (equals (A+B)/2 x (EB<sub>1</sub>+EB<sub>2</sub>)/2) _____ (m<sup>2</sup>)</p>	<p>12. Tie-Down of Beam to Internal Column Selected (Tables 8 to 11) _____</p> <p>13. Area of Roof Load on External Column (equals (B/2+OH) x (EB<sub>1</sub>+EB<sub>2</sub>)/2) _____ (m<sup>2</sup>)</p> <p>14. Footing Size and Type Selected for External Column (Tables 12 to 14) _____</p> <p>15. Area of Roof Load on Internal Column (equals (A+B)/2 x (EB<sub>1</sub>+EB<sub>2</sub>)/2) _____ (m<sup>2</sup>)</p> <p>16. Footing Size and Type Selected for Internal Column (Tables 12 to 14) _____</p> <p>17. Load Width of Panel on External Beam (equals B/2 + OH) _____ (m)</p> <p>18. Tie-Down Selected Roof Panel to External Beam (Table 15) _____</p> <p>19. Load Width of Panel on Internal Beam (equals A/2 + B/2) _____ (m)</p> <p>20. Tie-Down Selected Roof Panel to Internal Beam (Table 15) _____</p> <p>21. Load Width of Panel Supported by Existing Structure (equals A/2) _____ (m)</p> <p>22. Tie-Down to Existing Structure Selected (Tables 16 to 20) _____</p>
--	---

No.	REVISION	DATE	DMN	<div style="text-align: center;">  <p><b>AUSDECK PATIOS &amp; ROOFING</b></p> <p>ABN : 26 169 972 626  16 MICA STREET, CAROLE PARK, QLD 4300  PO BOX 214 CAROLE PARK, QLD 4300  PHONE : 07 3271 4555 FAX : 07 3271 4600  WEBSITE : www.ausdeck.com.au</p> </div>					
<p><b>ENGINEERING CERTIFICATION</b></p> <p>THIS AUSDECK PATIO ROOFING SYSTEM IS STRUCTURALLY CERTIFIED BY NEIL MCKENZIE &amp; ASSOCIATES CONSULTING ENGINEERS  14/699A SANDGATE ROAD, CLAYFIELD, QLD 4011</p> <p>SIGNED :  M.E. NEIL MCKENZIE 2007, N.E.E.R.3</p>				<p><b>TABLE 21</b></p> <p>DATE : OCTOBER 2004</p> <p>004-054</p> <p><b>SHEET 16 OF 16</b></p> <p>REVISION</p>					



## Ausdeck Insulated Panel Ribbed

### Description

An insulated roofing system providing a pre-painted steel underside complete with tongue and groove roll formed edge, bonded to an insulating polystyrene core and a profiled roofing sheet on the top side.

### Recommended Uses

Patios, Pergolas, Carports, Eco-Housing, Commercial roofing applications, transportable buildings, cold storage facilities, wineries and most insulated roofing applications.

For further information please consult Ausdeck Engineering Details.

\* Please consult Ausdeck Insulated Panel Warranty.

\*\*Thicknesses available subject to quantity considerations.



### ROOF PANEL SPECIFICATIONS

WIDTH	CORE AS 1366, PART 3 1992	LENGTH	"K" VALUE CORE	MAX SKIN TEMP	ADHESIVE	FINISH
1000 mm cover	SL Grade Polystyrene 13.5 Kg/m <sup>2</sup>	Cut to order Min. 2000 mm	0.037	78°C Dry Heat Sustained	Thermosetting two part Polyurethane CFC Free	Plain face

### ROOF PANEL SKIN DETAILS

FINISH	THICKNESS	SUBSTRATE	GLOSS LEVEL	COLOUR
Upper Skin	0.42 mm (BMT)	AZ150 G550	25%	Off White, Smooth Cream, Merino, Pale Eucalypt, Gull Grey, Birch, Iron Grey, Jasmin Brown, Tuscan Red, Slate Grey, Mountain Blue*, Ebony*
Lower Skin	0.60 mm (BMT)	AZ150 G300	25%	Off White

### EARLY FIRE HAZARD AS 1530.3

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

### TECHNICAL DATA

Thickness (mm)	50	75	100	125**	150**
Weight (kg/m <sup>2</sup> )	10.58	10.94	11.37	11.80	12.23
R Value 8°C m <sup>2</sup> K/W	1.61	2.26	2.66	3.25	3.94
R Value 20°C m <sup>2</sup> K/W	1.59	2.22	2.59	3.17	3.75
Minimum Pitch: 2°					





## Ausdeck Insulated Panel Corrugated

### Description

An insulated roofing system providing a pre-painted steel underside complete with tongue and groove roll formed edge, bonded to an insulating polystyrene core and a profiled roofing sheet on the top side.

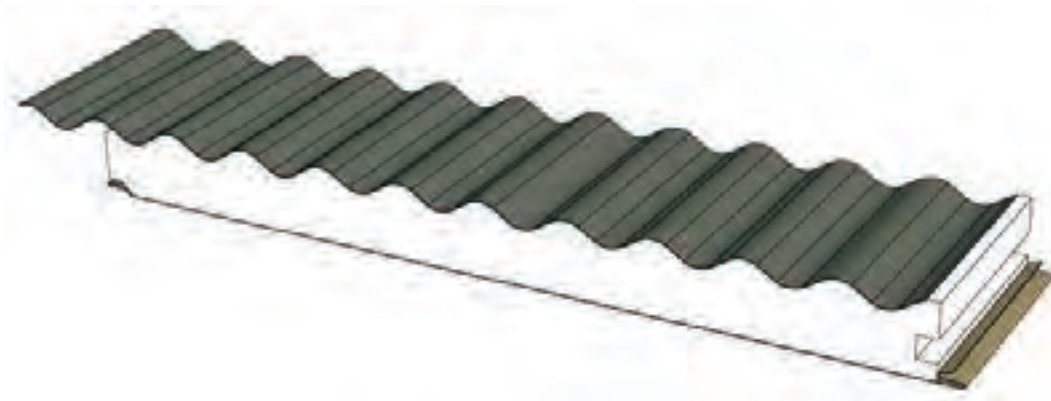
### Recommended Uses

Patios, Pergolas, Carports, Eco-Housing, Commercial roofing applications, transportable buildings, cold storage facilities, wineries and most insulated roofing applications.

For further information please consult Ausdeck Engineering Details.

\* Please consult Ausdeck Insulated Panel Warranty.

\*\*Thicknesses available subject to quantity considerations.



#### ROOF PANEL SPECIFICATIONS

WIDTH	CORE AS 1366, PART 3 1992	LENGTH	"K" VALUE CORE	MAX SKIN TEMP	ADHESIVE	FINISH
1000 mm cover	SL Grade Polystyrene 13.5 Kg/m <sup>2</sup>	Cut to order Min. 2000 mm	0.037	78°C Dry Heat	Thermosetting two part Polyurethane CFC Free	Plain face

#### ROOF PANEL SKIN DETAILS

FINISH	THICKNESS	SUBSTRATE	GLOSS LEVEL	COLOUR
Upper Skin	0.42 mm (BMT)	AZ150 G550	25%	Off White, Smooth Cream, Merino, Pale Eucalypt, Gull Grey, Birch, Iron Grey, Jasmin Brown, Tuscan Red, Slate Grey, Mountain Blue*, Ebony*
Lower Skin	0.60 mm (BMT)	AZ150 G300	25%	Off White

#### EARLY FIRE HAZARD AS 1530.3

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

#### TECHNICAL DATA

Thickness (mm)	50	75	100	125**	150**
Weight (kg/m <sup>2</sup> )	10.85	11.21	11.65	12.08	12.51
R Value 8°C m <sup>2</sup> K/W	1.61	2.26	2.66	3.25	3.94
R Value 20°C m <sup>2</sup> K/W	1.59	2.22	2.59	3.17	3.75
Minimum Pitch: 5°					

