

# STRATCO SANCTUARY VERANDAHS, PATIOS & CARPORTS

Independent Certification

TREVOR JOHN AND ASSOCIATES PTY LTD

consulting engineers

28 October, 2011

Our Ref. 35143C15

Stratco (Australia) Pty Ltd.  
PO Box 307  
ENFIELD PLAZA SA 5085



RE: STRATCO OUTBACK® SPAN TABLES.

We, TREVOR JOHN & ASSOCIATES PTY LTD, practicing structural Engineers, confirm that we have checked the designs prepared by Stratco (Australia) Pty Ltd., for the Outback® verandah, patio & carport systems, as detailed in the Stratco Outback® Span Table Book:

Stratco Outback® Verandahs, Patios, Carports & Pergolas, © 2011

We hereby certify that the calculations, materials, forms of construction and systems to which the designs relate will, if installed in accordance with the designs, conform to the structural requirements of the Building Code of Australia, and the following Australian Standards:-

#### Australian Standards

AS 3600 - 2009:	Concrete Structures
AS/NZS 4600 - 2005:	Cold Formed Steel Structures
AS 4100 - 1998:	Steel Structures
AS/NZS 1170.0 - 2002:	Structural Design Actions – Part 0: General Principles
AS/NZS 1170.1 - 2002:	Structural Design Actions – Part 1: Permanent, Imposed and Other Actions
AS/NZS 1170.2 - 2011:	Structural Design Actions – Part 2: Wind Actions
AS/NZS 1170.3 - 2003:	Structural Design Actions – Part 3: Snow and Ice Actions
AS 4055 - 2006:	Wind Loads For Housing
AS 1562.1 - 1992:	Design and Installation of Sheet Roof and Wall Cladding.

In the preparation of this certification, we have relied on the load test reports, product data sheets and specifications provided by Stratco (Australia) Pty. Ltd., and other relevant proprietary product specifications.

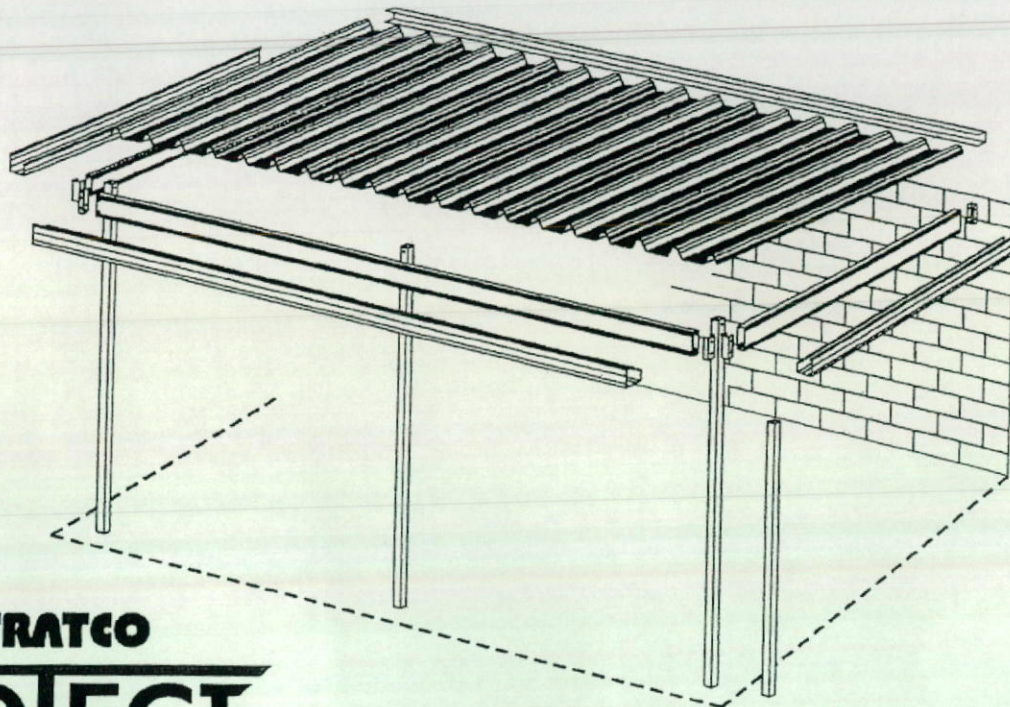
TREVOR JOHN F.I.E. Aust.  
Chartered Professional Engineer

Registration No's.

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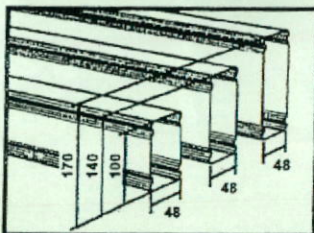
**STRATCO**

# PROJECT

VERANDAHS • PATIOS • CARPORTS

## COMPONENTS

### PRO-BEAM®

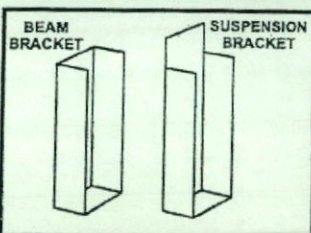


Pro-beam® supports either Pro-dek® or Spacedek®

Three sizes are available for spanning requirements:

- 100mm
- 140mm
- 170mm

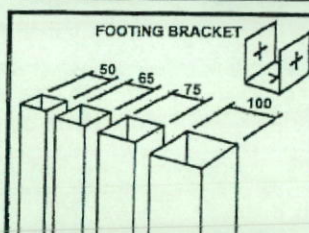
### BEAM BRACKET



This multi-purpose bracket has a number of functions:

- Beam end cap
- Beam to fascia bracket
- Beam to wall bracket
- Beam to beam bracket
- Beam to post connection

### RHS POSTS

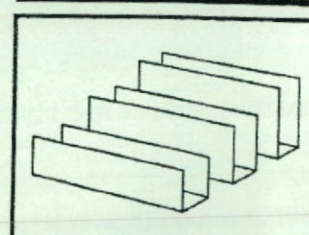


Posts support the framework and may be either cast into concrete or bolted to a slab.

Four sizes are available to cater for all freestanding and attached applications.

Footing brackets are available to suit attached verandah posts.

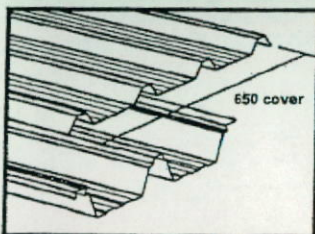
### INLINE CONNECTOR



Inline beam connectors are used to join two lengths of beam together.

\*NB This is a non structural joint and must be supported by a post.

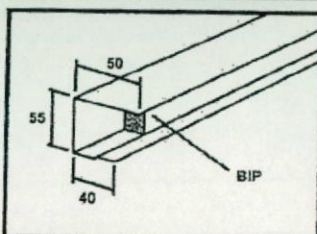
### PRODEK®/ SPACEDEK®



Available in double sided upon request.

(Spacedek® not available in all states.)

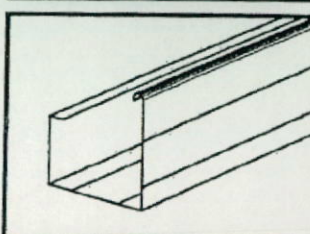
### BACK CHANNEL & BIP



Stock lengths of 3600mm and 7200mm.

Fixed at 250mm centres using 6mm coach screws for timber fascia, and self drilling screws at 250 centres for steel combined with a rafter bracket.

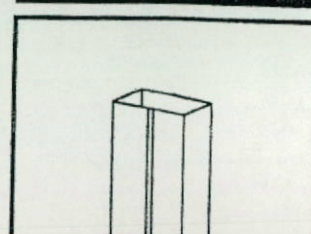
### GUTTER



Gutter is attached to the roofing to catch water run off.

Stop ends, downpipe outlets and straps are all available to suit the profile.

### DOWNPIPE

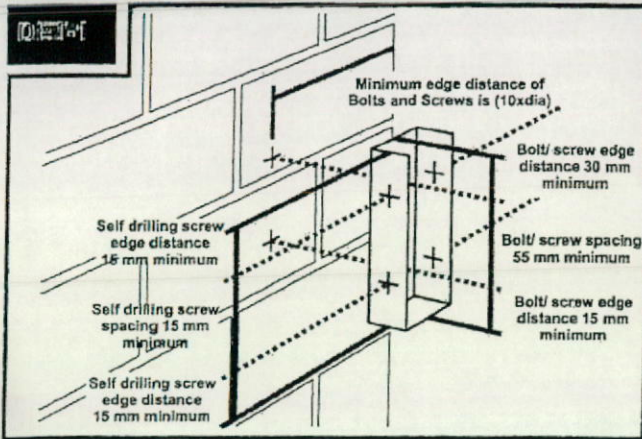


The downpipe funnels the water from the gutter to the ground via a downpipe outlet.

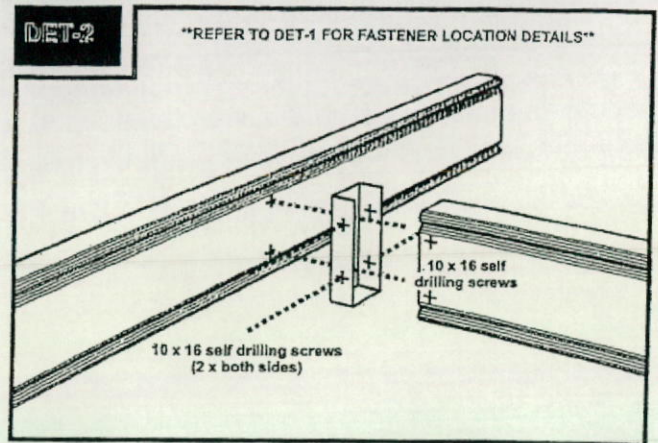
Offsets, shoes and brackets are available.

# CONNECTION DETAILS

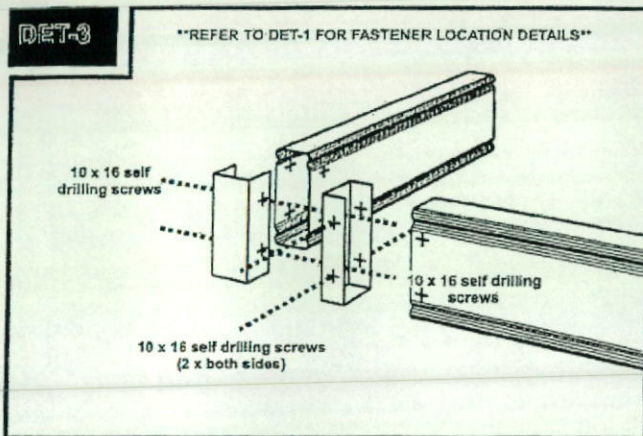
**DET-1**



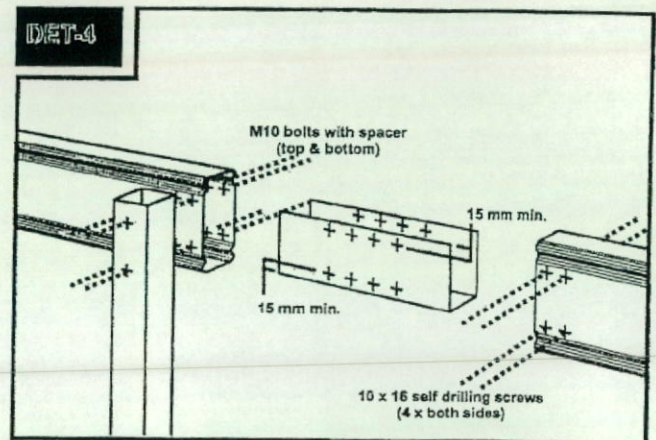
**DET-2**



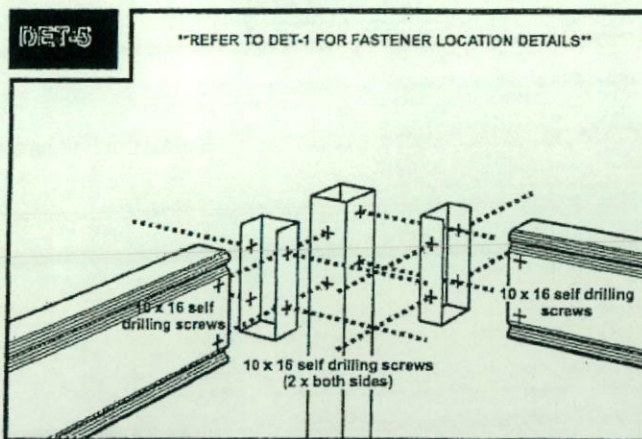
**DET-3**



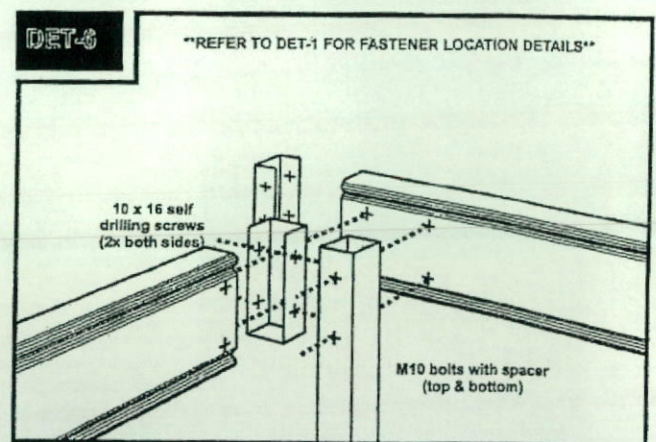
**DET-4**



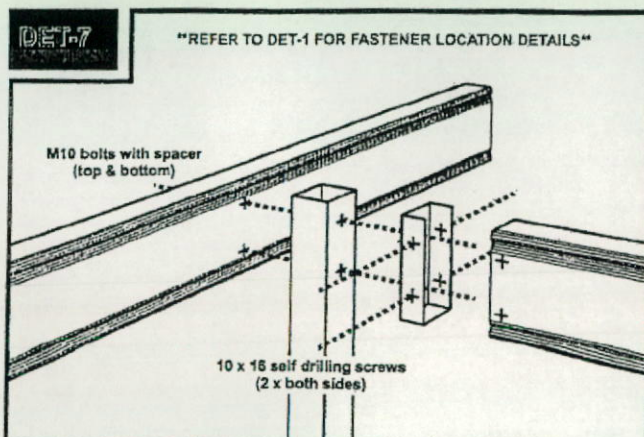
**DET-5**



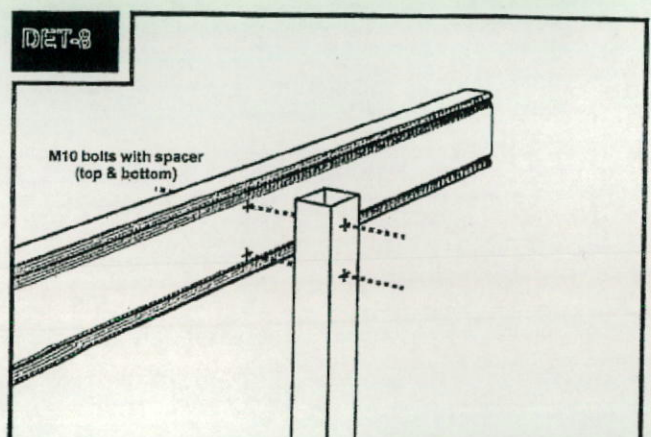
**DET-6**



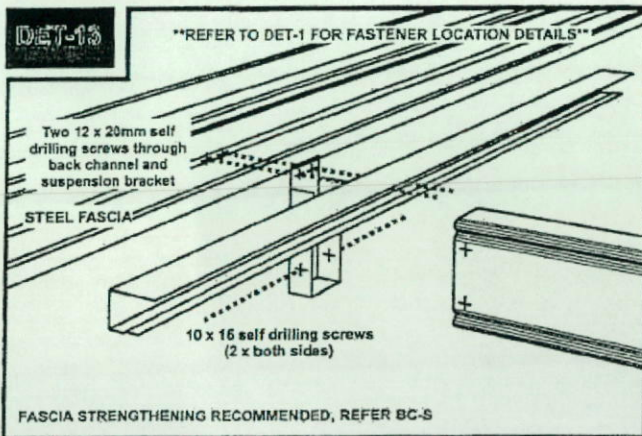
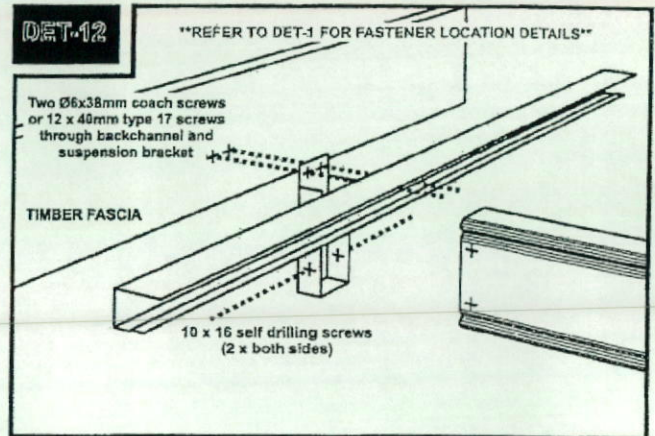
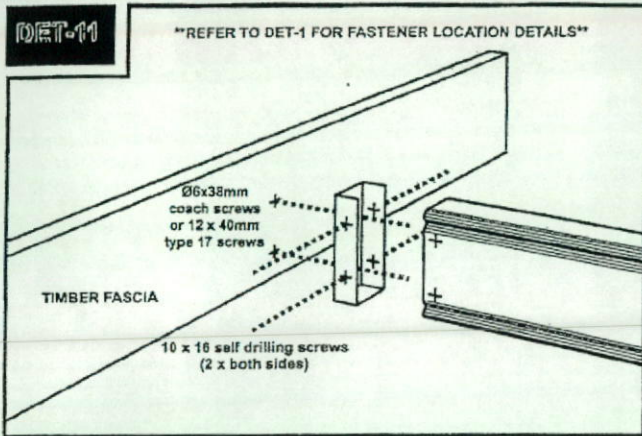
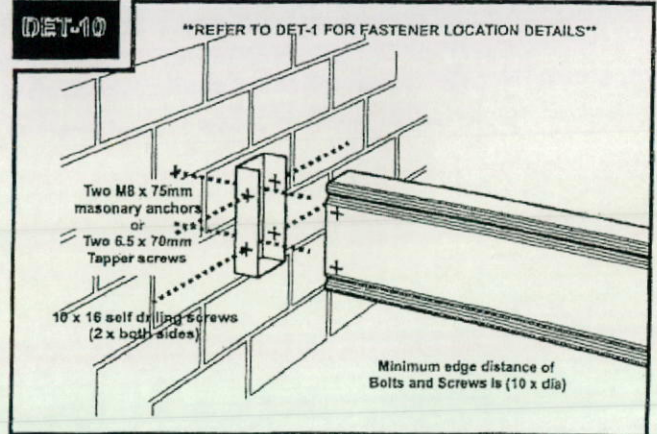
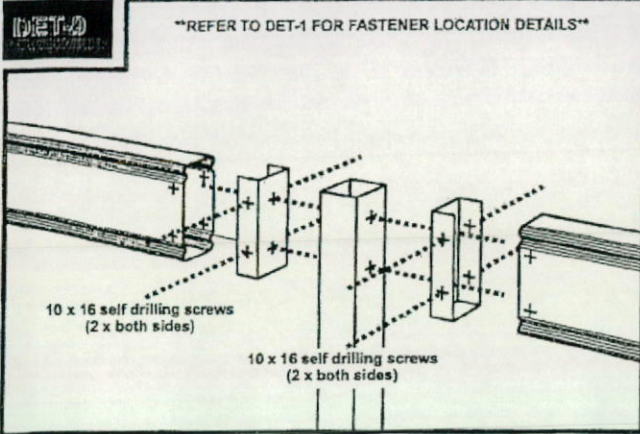
**DET-7**



**DET-8**



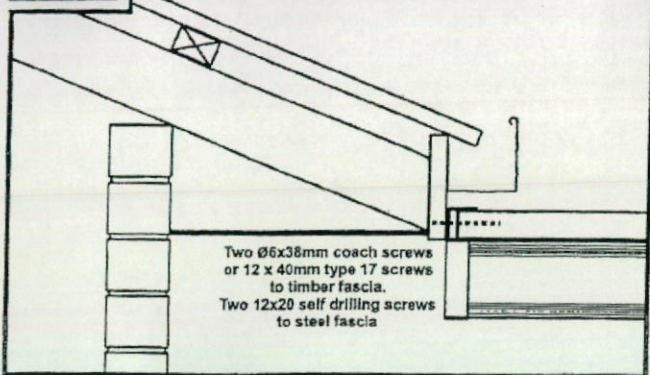
# CONNECTION DETAILS



## CONNECTION DETAILS - SECTIONS

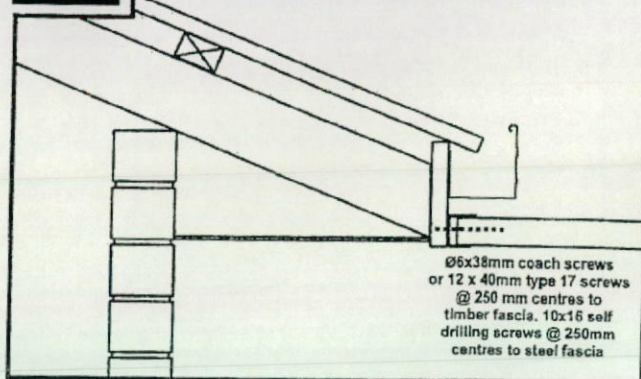
SEC-1

### BEAM SUSPENSION BRACKET



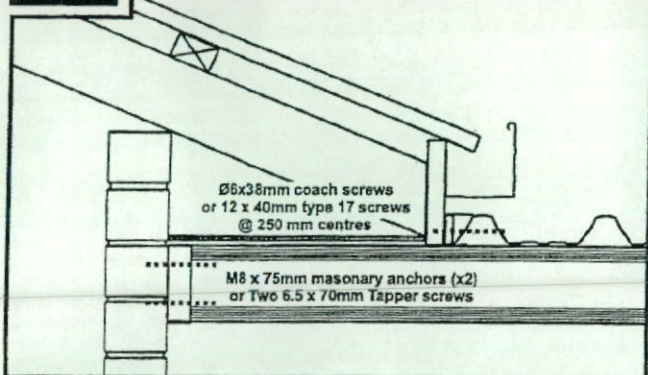
SEC-2

### BACK CHANNEL FIXING



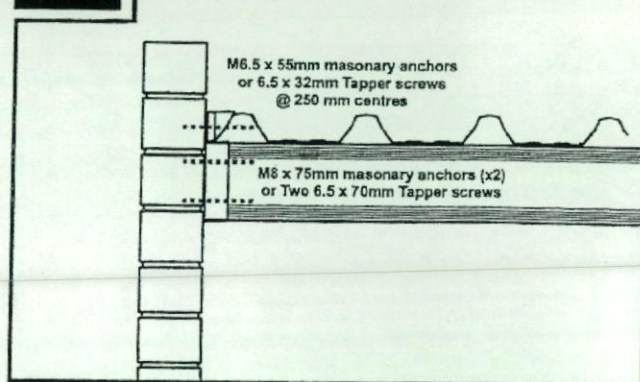
SEC-3

### EAVES CONNECTION



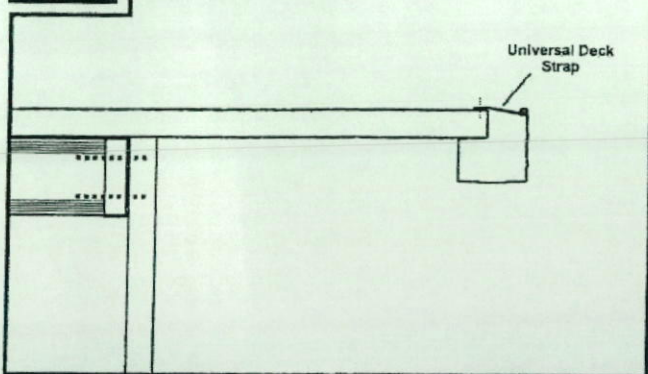
SEC-4

### WALL CONNECTION



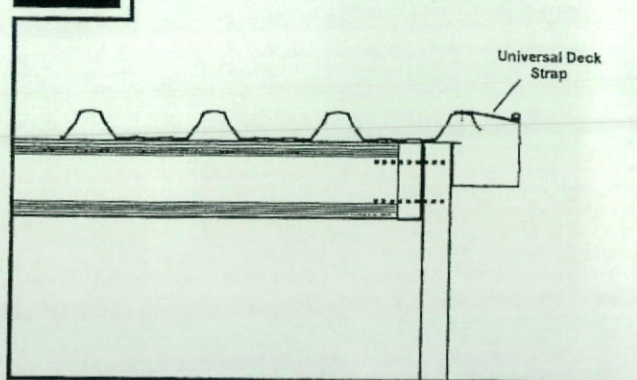
SEC-5

### DECK OVERHANG



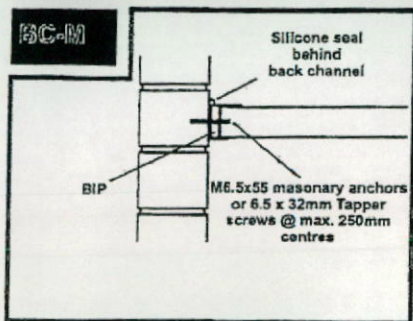
SEC-6

### FASCIA BEAM CONNECTION

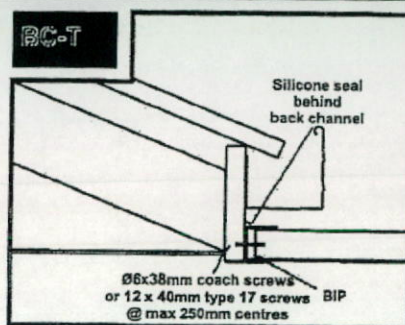


## BACK CHANNEL CONNECTION DETAILS

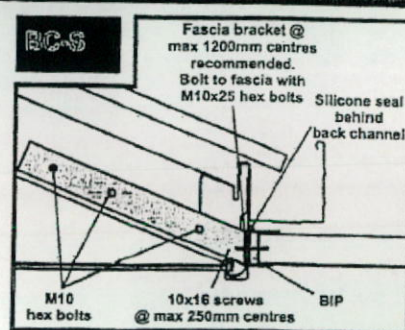
BC-M



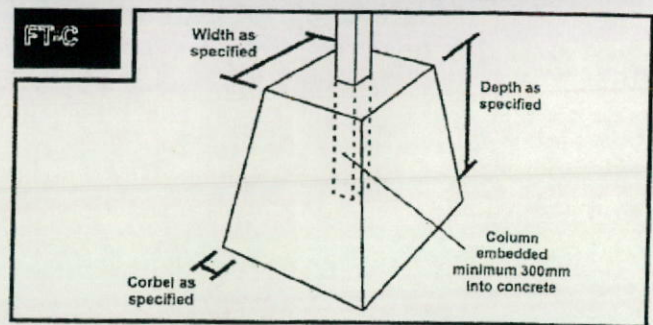
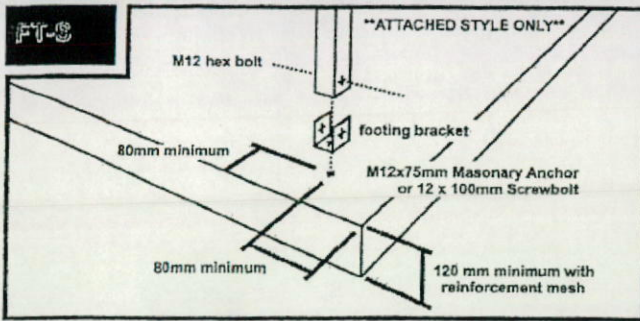
BC-T



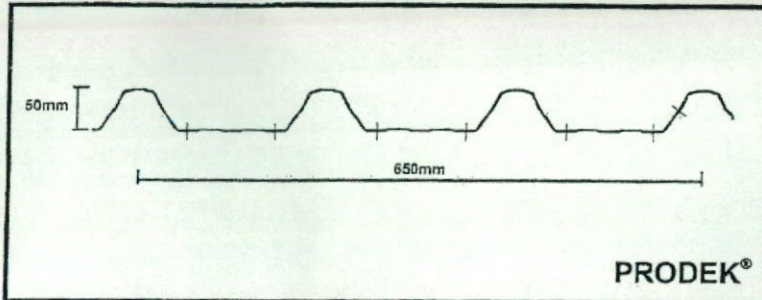
BC-S



## FOOTING DETAILS



## DECK FIXING DETAILS



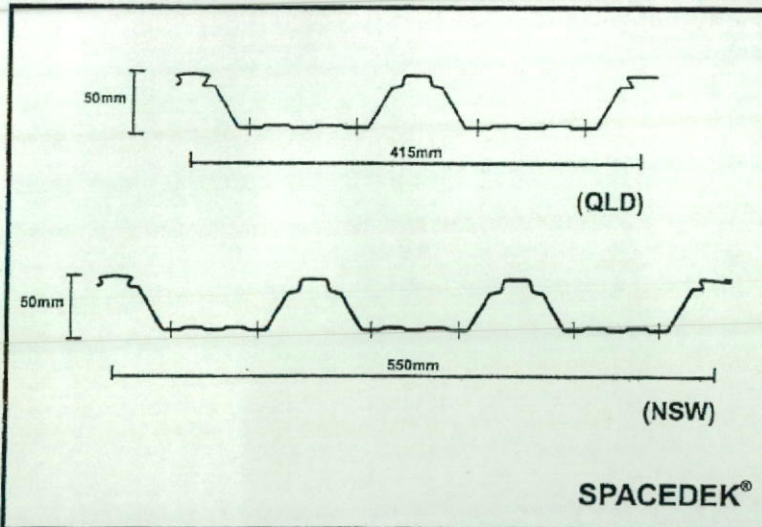
### RECOMMENDED FIXING:

#### PRODEK®

Two 10x16 self drilling screws with neoprene washers per pan at each support and two 3.2mm sealed aluminium rivets per pan at the Back Channel. For spans between 2800 and 3900mm, one 4.8mm rivet is required mid-span of the lap. For spans between 3900 and 4500mm, two 4.8mm rivets are required evenly spaced along the lap. All rivets are to be sealed.

#### SPACEDEK®

Two 10x16 self drilling screws with neoprene washers per pan at each support and two 3.2mm sealed aluminium rivets per pan at the Back Channel.



### FIBREGLASS SHEETING:

Fibreglass sheets are available to suit both the Prodek® and Spacedek® profiles up to lengths of seven and nine metres respectively. Sheeting is to be supported every 1200mm with either 3 mm steel strapping or Stratco ceiling batten otherwise ponding could occur. The strap or batten must be fastened to at least the first two ribs of the steel sheet on either side of the fibreglass. A minimum of two Prodek® or Spacedek® sheets are required either side of the fibreglass sheeting.

MAXIMUM ALLOWABLE SPAN																	
BEAM SIZE	BEAM SPAN B	W28N				W33N				W36N				W41N			
		BEAM SPACING S	COLUMN SPACING C	COL.	FOOT.	BEAM SPACING S	COLUMN SPACING C	COL.	FOOT.	BEAM SPACING S	COLUMN SPACING C	COL.	FOOT.	BEAM SPACING S	COLUMN SPACING C	COL.	FOOT.
PRO100-10	3600	5800	5800	2	1	3800	3800	2	1	3250	3250	2	2	3300	3300	3	2
	4200	4800	4800	2	1	3300	3300	2	1	2950	2950	2	2	2400	2400	3	2
	4800	3200	3200	2	1	2600	2600	2	1	2200	2200	2	1	1800	1800	3	2
	5400	1500	3000	2	1	2000	2000	2	1	1850	1850	2	1	1400	1400	3	2
	6000	1150	2300	2	1	1100	2200	2	1	1100	1100	2	1	1100	1100	3	2
PRO140-10	3600	6500	6500	2	1	5700	5700	3	2	5200	5200	3	2	4100	4100	3	2
	4200	5500	5500	2	1	4000	4000	3	2	3600	3600	3	2	2900	2900	3	2
	4800	4200	4200	2	1	2950	2950	3	2	2700	2700	3	2	2200	2200	3	2
	5400	2800	2800	2	1	2500	2500	3	2	2300	2300	3	2	1800	1800	3	2
	6000	2600	2600	2	1	2100	2100	2	1	2000	2000	3	2	1500	1500	3	2
	6600	1250	2500	2	1	1800	1800	2	1	1600	1600	2	1	1350	1350	3	2
	7200	1100	2200	2	1	1350	1350	2	1	1100	1100	2	1	1100	1100	3	2
	7500	1100	1100	2	1	1100	1100	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	PRO170-12	3600	7950	7950	3	2	6000	6000	3	2	5500	5500	3	2	4200	4200	3
4200	7750	7750	3	2	5500	5500	3	2	5000	5000	3	2	3800	3800	3	2	
4800	7550	7550	3	2	5000	5000	3	2	4500	4500	3	2	3500	3500	3	2	
5400	4800	4800	2	1	4250	4250	3	2	3950	3950	3	2	3100	3100	3	2	
6000	4500	4500	2	1	3350	3350	3	2	3100	3100	3	2	2450	2450	3	2	
6600	4100	4100	2	1	2200	2200	2	1	2000	2000	2	1	1800	1800	3	2	
7200	3150	3150	2	1	2050	2050	2	1	1850	1850	2	1	1500	1500	3	2	
7800	2100	2100	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
8400	1350	2700	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	

## NOTES

### ROOF SHEETING

Prodek® - 0.42 mm BMT      Maximum Span 4500  
 Spacedek® - 0.45 mm BMT      Maximum Span 4500

### COLUMNS

2. 65 x 65 x 2.5 mm RHS  
 3. 75 x 75 x 2.5 mm RHS  
 4. 75 x 75 x 3.0 mm RHS

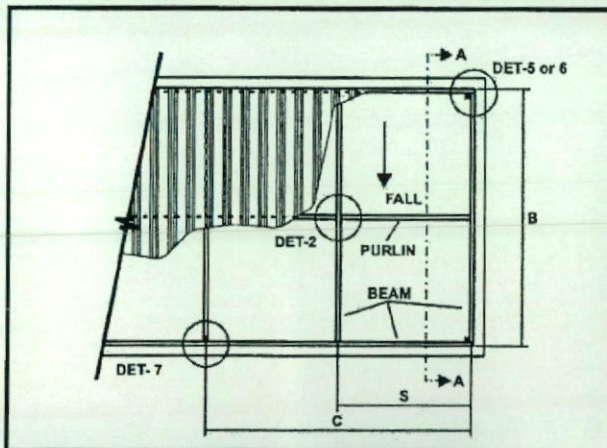
### FOOTING

1. 300 x 300 x 600 mm deep with 60 mm corbel  
 2. 450 x 450 x 750 mm deep with 75 mm corbel

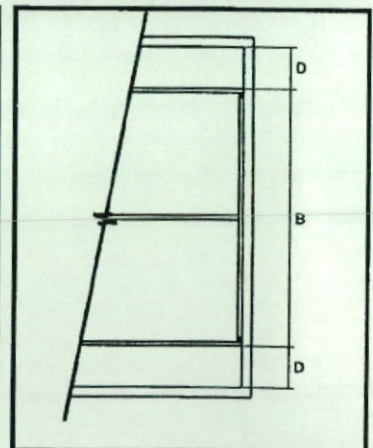
### NOTES

- These tables must be read in conjunction with General Notes on page 3 and details on pages 19 - 22.
- Beam span B is the distance between the outside faces of the fascia beams. Beam spacing S is the distance between beam centres. Column spacing C is the distance between column centres.
- Spans shown allow for a maximum 600mm deck overhang D (except W80).
- Dimensions are in millimetres.
- Columns on free-standing units may NOT be fixed to existing concrete. Columns must be embedded into the footing specified in the tables.
- The purlin must be positioned mid-span of distance B.
- Interpolation may be used for values required between those shown in the tables.

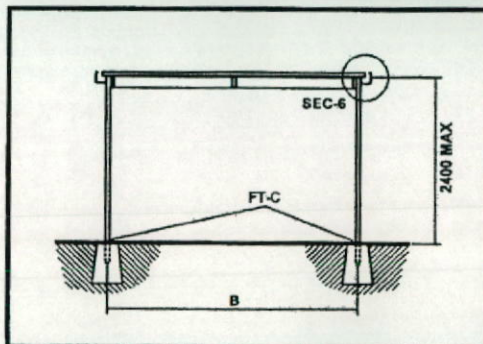
## PLAN



## OPTIONAL OVERHANG



## SECTION A-A



BEAM SIZE	DECK SPAN S	MAXIMUM ALLOWABLE SPAN																	
		W28H			W33N			W36N			W41N			W50N			W60N		
		COLUMN SPACING C	COL.	FOOT.	COLUMN SPACING C	COL.	FOOT.	COLUMN SPACING C	COL.	FOOT.	COLUMN SPACING C	COL.	FOOT.	COLUMN SPACING C	COL.	FOOT.	COLUMN SPACING C	COL.	FOOT.
PRO100-10	1200	6050	2	1	5500	2	1	5200	2	1	5050	3	2	4050	3	2	n/a	n/a	n/a
	1500	5850	2	1	5300	2	1	4900	2	1	4800	3	2	3850	3	2	n/a	n/a	n/a
	1800	5750	2	1	5000	2	1	4850	2	1	4500	3	2	3650	3	2	n/a	n/a	n/a
	2100	5550	2	1	4800	2	1	4450	2	1	4250	3	2	3500	3	2	n/a	n/a	n/a
	2400	5450	2	1	4500	2	1	4200	2	1	4000	3	2	3350	3	2	n/a	n/a	n/a
	2700	5300	2	1	4400	2	1	3950	2	1	3750	3	2	n/a	n/a	n/a	n/a	n/a	n/a
	3000	5200	2	1	4150	2	1	3750	2	1	3450	3	2	n/a	n/a	n/a	n/a	n/a	n/a
	3300	5100	2	1	3900	2	1	3500	2	1	3250	3	2	n/a	n/a	n/a	n/a	n/a	n/a
	3600	5000	2	1	3700	2	1	3350	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	3900	4900	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	4200	4800	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	4500	4700	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
		B=Max 450			B=Max 550			B=Max 500			B=Max 550			B=Max 700					
PRO140-10	1200	7100	2	1	6500	3	2	6200	3	2	5850	3	2	4450	3	2	3500*	4	2
	1500	6900	2	1	6300	3	2	6000	3	2	5300	3	2	4150	3	2	3200*	4	2
	1800	6700	2	1	6000	3	2	5700	3	2	5000	3	2	3900	3	2	3000*	4	2
	2100	6500	2	1	5750	3	2	5500	3	2	4800	3	2	3700	3	2	n/a	n/a	n/a
	2400	6350	2	1	5500	3	2	5300	3	2	4500	3	2	3500	3	2	n/a	n/a	n/a
	2700	6200	2	1	5300	3	2	5100	3	2	4200	3	2	n/a	n/a	n/a	n/a	n/a	n/a
	3000	5900	2	1	5100	3	2	4950	3	2	4000	3	2	n/a	n/a	n/a	n/a	n/a	n/a
	3300	5700	2	1	4900	3	2	4800	3	2	3800	3	2	n/a	n/a	n/a	n/a	n/a	n/a
	3600	5500	2	1	4800	3	2	4700	3	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	3900	5350	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	4200	5200	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	4500	5050	2	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
		B=Max 800			B=Max 900			B=Max 850			B=Max 950			B=Max 1250			B=Max 1350		
PRO170-12	1200	8200	2	1	7800	3	2	7500	3	2	6500	3	2	5000	4	2	3800*	4	2
	1500	8050	2	1	7550	3	2	7300	3	2	6050	3	2	4850	4	2	3550*	4	2
	1800	7950	2	1	7350	3	2	7150	3	2	5700	3	2	4400	4	2	3300*	4	2
	2100	7850	3	1	7200	3	2	6900	3	2	5400	3	2	4150	4	2	n/a	n/a	n/a
	2400	7750	3	1	7000	3	2	6650	3	2	5100	3	2	3950	4	2	n/a	n/a	n/a
	2700	7650	3	1	6800	3	2	6300	3	2	4850	3	2	n/a	n/a	n/a	n/a	n/a	n/a
	3000	7550	3	1	6550	3	2	6000	3	2	4600	3	2	n/a	n/a	n/a	n/a	n/a	n/a
	3300	7450	3	1	6250	3	2	5750	3	2	4400	3	2	n/a	n/a	n/a	n/a	n/a	n/a
	3600	7400	3	1	6000	3	2	5500	3	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	3900	7300	3	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	4200	7250	3	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	4500	7150	3	2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
		B=Max 1500			B=Max 1400			B=Max 1400			B=Max 1500			B=Max 1500			B=Max 1500		

\*600mm maximum deck overhang

## NOTES

**ROOF SHEETING**  
 Prodek\* - 0.42 mm BMT Maximum Span 4500  
 Spacedek\* - 0.45 mm BMT Maximum Span 4500

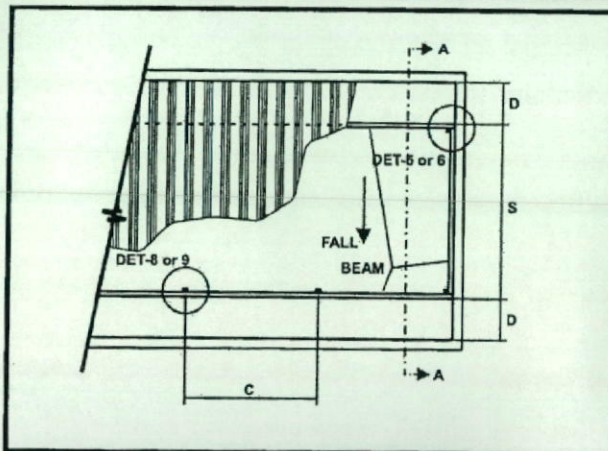
**COLUMNS**  
 2. 65 x 65 x 2.5 mm RHS  
 3. 75 x 75 x 2.5 mm RHS  
 4. 75 x 75 x 3.0 mm RHS

**FOOTING**  
 1. 300 x 300 x 600 mm deep with 60 mm corbel  
 2. 450 x 450 x 750 mm deep with 75 mm corbel

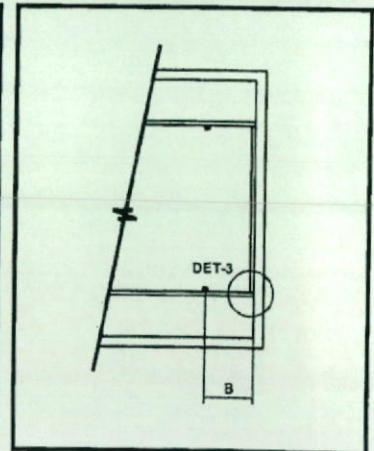
### NOTES

- These tables must be read in conjunction with General Notes on page 3 and details on pages 19 - 22.
- Deck span S is the distance between the outside faces of the fascia beams. Column spacing C is the distance between column centres. Beam overhang B is the distance between the end of the fascia beam and the column centre.
- Spans shown allow for a maximum 900mm deck overhang D (except W60).
- Dimensions are in millimetres.
- Columns on free-standing units may NOT be fixed to existing concrete. Columns must be embedded into the footing specified in the tables.
- Side fascia beams must be included on free-standing units.
- Interpolation may be used for values required between those shown in the tables.

## PLAN



## OPTIONAL OVERHANG



## SECTION A-A

