

# Uni-Pier

## Selection Guide

2009



### Product Selection Guide

Uni-Piers are a smart but simple piercing system and designed to replace brick piers, concrete or timber stumps that in the past have been traditionally used as sub-floor supports.

Uni-Piers are a two part system each being prefabricated units comprising:-

- a "head" that has a built-in ant cap and a cleat for securing either timber or steel bearers, and
- a square tubular steel (SHS) post to which is welded a base plate that is anchored to the concrete footing or pad

The final stage of the manufacturing process is hot dip galvanising of the units for life-long durability making them suitable to be used in coastal environments.

When assembled, the piers are adjustable to the desired height, so eliminating inaccuracies that are often evident in concrete footings or pads.

Once positioned and the height determined, the Uni-Pier head and post are normally secured with a number of 14-20x22 to AS 3566 Class 4 self drilling and tapping screws in accordance with the design requirement.

Uni-Piers are non-combustible and will not rot, warp, shrink or harbour termites.

Uni-Piers are designed to suit any normal domestic floor design and are able to support most roof and wall loads in all wind areas and are suitable for up to 5m fall in terrain.

Uni-Piers comply with BCA and relevant Australian Building codes.

### To Determine the Pier Height

Uni-Piers are supplied in incremental lengths of 200mm.

For Builders Grade piers (65 x 65) the length range is 200mm to 4000mm.

For Heavy duty piers (75 x 75) the length range is 200mm to 5000mm.

### Base Plate to Top of Footing Detail

To determine the height of the piers required; establish the distance from the top of each footing to the underside of each bearer then select the post to the nearest 200mm below the dimension.

#### Example

Measured height – 675mm = 600mm Uni-Pier

Measured height – 725mm = 600mm Uni-Pier

Measured height – 1730mm = 1600mm Uni-Pier

### Base Plate Cast into Footing Detail

To determine the height of Uni Piers required in this application, the depth of footing needs to be taken into account, allowing a MINIMUM of 150mm cover UNDERNEATH the bottom of the Uni-Pier baseplate. Actual embedment of the pier into concrete should be a MINIMUM of 300mm.

Such footings must be designed by a suitably qualified engineer.

For both applications, see diagrams on page 15.

### Steps for Selecting Piers

- 1** Determine wind classification from Wind Region Map of Australia on page 3, or use recommended wind classification provided by a registered engineer.
- 2** Refer to Wind Classification System table on page 3 and apply selected region (eg A), then select the Topographic Category that best fits the topographic description (eg T1), then choose the terrain category (TC) as indicated in the legend, then determine the amount of shielding to the site, then finally select the wind classification (eg N2).
- 3** Determine pier height and bracing requirement on pages 4 and 5.  
  
Note. Bracing may not be required where the base of a building is built with masonry walls.
- 4** Proceed to relevant page for Uni-Pier Load Capacity tables (ie Builders Grade piers or Heavy Grade piers for wind classifications.  
  
Builders Grade for N1, N2 & N3 - pages 6&7  
Heavy Grade for N1, N2 & N3 - pages 8&9  
Builders Grade for C1 & C2 - pages 10&11  
Heavy Grade for C1 & C2 - pages 12&13  
  
Follow instructions under "USING THIS SPECIFICATION" of each section to determine pier locations and ensure correct types are chosen.
- 5** For details of fixing heads to posts and securing posts to footings, refer to Connection Tables and Details on pages 14 and 15.

The intent of building construction, particularly in high wind areas, is to ensure the structure can transfer wind forces to the ground with an adequate margin of safety and to prevent the building from (a) collapsing, (b) being lifted, or, (c) sliding off its foundations.

To resist these forces, the following is necessary:

- An effective anchorage system, where the roof is connected by the walls to the footings by a series of connections; and
- A bracing system to prevent horizontal collapse due to wind forces; and
- Continuity of the system where each structural element is interlocked to its adjoining structural element.

**Wind Region Map of Australia**



Notes.

Regions are marked A, B, C and D. Coastal region boundaries are smooth lines set to form a smoothed coastline by 50, 100, 150 and 200km.

Islands within 50km of the coast are the same region as the adjacent coast. High wind areas also exist outside the wind regions indicated on the above map. Uni-Pier Australia Pty Ltd advise that verification be sought from a structural engineer or local council.

**Wind Classification System - from wind region map and site conditions**

**Legend**

- FS = full shielding
- PS = partial shielding
- NS = no shielding
- N = non-cyclonic
- C = cyclonic
- N/A = not applicable - beyond the scope of Uni-Pier design
- TC = terrain category

Terrain Category (this a guide only of category classification that surrounds or is likely to surround the site with 5 years)

- 3 Level wooded country, suburban buildings
- 2.5 Lightly wooded, long grass (600mm), some buildings
- 2 Rough, open water surfaces, isolated trees
- 1 Flat natural surface

Notes describing Topographic Class are a guide only. Site specific advice should be sought from a structural engineer.

		Wind class														
Wind region (from map)	TC	Topographic class														
		T1			T2			T3			T4			T5		
		Flat areas, slopes less than 1:10, lower third of any hill, middle third of hill less than 1:5														
		FS	PS	NS	FS	PS	NS	FS	PS	NS	FS	PS	NS	FS	PS	NS
A	3	N1	N1	N1	N2	N2	N2	N2	N3	N3	N2	N3	N3	N3	N3	N4
	2.5	N1	N1	N2	N2	N2	N3	N3	N3	N3	N3	N3	N3	N4	N4	N4
	2	N1	N2	N2	N2	N2	N3	N3	N3	N3	N3	N3	N4	N4	N4	N4
B	3	N2	N2	N3	N3	N3	N4	N3	N4	N4	N4	N4	N4	N4	N5	N5
	2.5	N2	N3	N3	N3	N4	N4	N3	N4	N4	N4	N4	N5	N4	N5	N5
	2	N2	N3	N3	N3	N4	N4	N4	N4	N5	N4	N5	N5	N5	N5	N6
C	3	C1	C1	C2	C2	C2	C3	C2	C3	C3	C3	C3	C3	C3	C4	C4
	2.5	C1	C2	C2	C2	C2	C3	C3	C3	C3	C3	C3	C4	C4	C4	N/A
	1,2	C2	C2	C2	C2	C2	C3	C3	C3	C3	C4	C3	C4	C4	C4	N/A
D	3	C2	C3	C3	C3	C4	C4	C3	C4	C4	C4	N/A	N/A	N/A	N/A	N/A
	2.5	C2	C3	C3	C3	C4	C4	C4	N/A	N/A	C4	N/A	N/A	N/A	N/A	N/A
	1,2	C3	C3	C4	C4	N/A	N/A	C4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**Important Note. Uni-Pier products are designed for general construction (ie residential). Uni-Pier Australia Pty Ltd recommend that advice be sought from a structural engineer especially when wind zones would typically include N6, C3 and C4.**

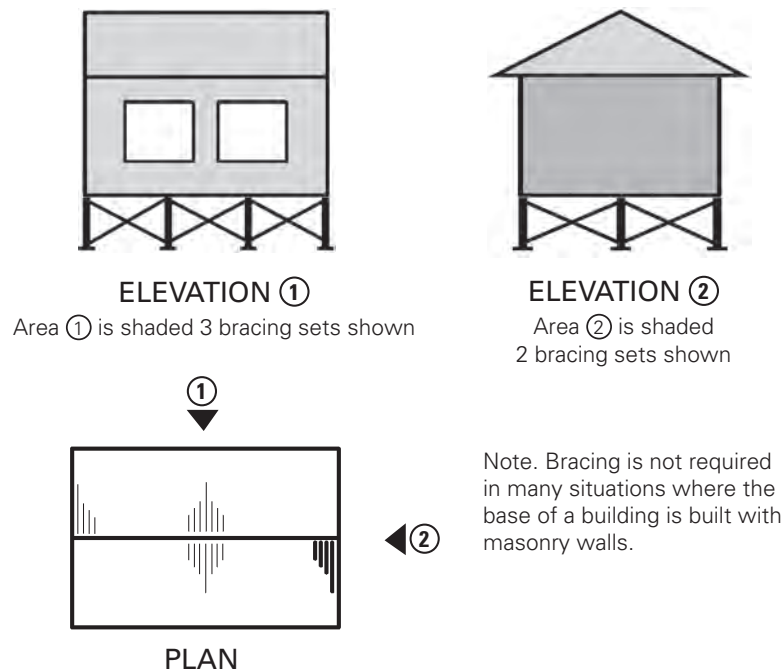
# Bracing

Bracing must be used for design in both directions 1 and 2 (diagrams below), with each being designed separately.

Angle bracing (50 x 50 x 2.5mm DURAGAL or equivalent) is recommended.

Bracing is typically connected to Uni-Piers with two screws at each end and located no more than 20mm from the top or bottom of the Uni-Pier. See diagram on Page 5. At the intersection of the braces, fix together with one screw.

It is important that bracing shown on Elevation 1 (below) resists wind loads from Direction 2 and Elevation 2 resists wind loads from Direction 1.



## Steps for Selection

### 1 Find Areas

Calculate Area ① and Area ② (as indicated by drawings).

If a house is L shaped, divide it into two separate blocks and calculate the wind loading on each block.

### 2 Calculate the Total Bracing Capacity required

For Area ①, and then for Area ②, use the formulas appropriate to the wind regions shown in tables ① and ② below.

N.B. 'Ka' is a reduction factor that is determined in Table 2.

### 3 Determine the Capacity of Bracing Sets that match the height and spacing of Uni-Piers

For Area ①, and then for Area ②, get the values from the Capacity Table on Page 5.

If the pier heights or pier spacings are not the same throughout the job, you will need to determine more capacities.

### 4 Determine the Number of Bracing Sets required

For Area ① and then for Area ②, divide the capacities obtained in Step 3 into the total bracing required (from Step 2). Always round a fractional answer up to the nearest whole value.

### Formulas to calculate total bracing capacity required (in kN)

Table ①

Wind regions	Formulas
<b>N1</b>	Area ① x Ka x 1.2 Area ② x Ka x 0.858
<b>N2</b>	Area ① x Ka x 1.63 Area ② x Ka x 1.17
<b>N3</b>	Area ① x Ka x 2.56 Area ② x Ka x 1.83
<b>N4 &amp; C1</b>	Area ① x Ka x 3.81 Area ② x Ka x 2.72
<b>N5 &amp; C2</b>	Area ① x Ka x 5.61 Area ② x Ka x 4.01

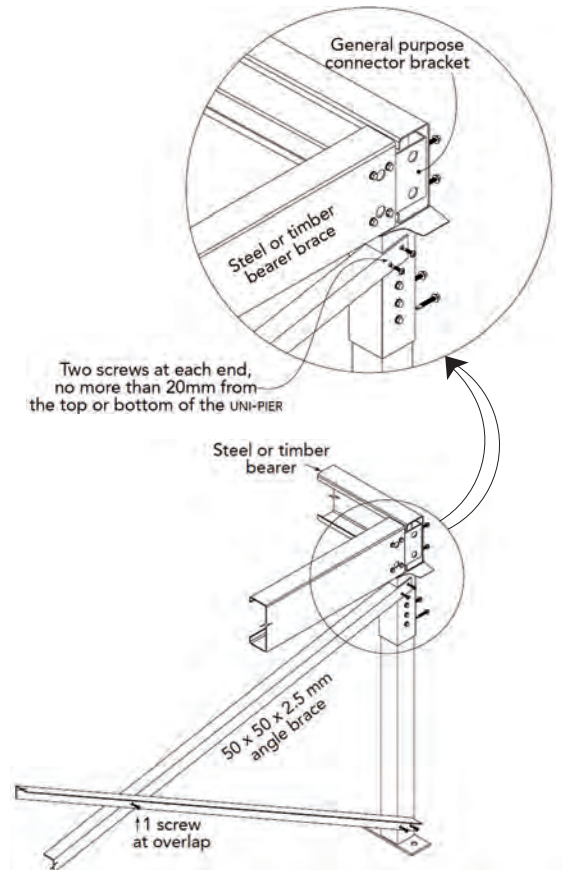
Table ②

Reduction factors (Ka)

Area ① or ②	Ka	Area ① or ②	Ka
10m <sup>2</sup>	1.0	60m <sup>2</sup>	0.853
15m <sup>2</sup>	0.966	65m <sup>2</sup>	0.84
20m <sup>2</sup>	0.933	70m <sup>2</sup>	0.84
25m <sup>2</sup>	0.913	75m <sup>2</sup>	0.833
30m <sup>2</sup>	0.893	80m <sup>2</sup>	0.827
35m <sup>2</sup>	0.887	85m <sup>2</sup>	0.82
40m <sup>2</sup>	0.88	90m <sup>2</sup>	0.813
45m <sup>2</sup>	0.874	95m <sup>2</sup>	0.807
50m <sup>2</sup>	0.867	100m <sup>2</sup>	0.8
55m <sup>2</sup>	0.86	200m <sup>2</sup>	0.8

Angle braces											
Pier spacing (mm)	Pier heights (mm)										
	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
900	27.4	23.4	19.8	17	14.8	13	11.6	10.4	9.4	8.6	8
1200	28.4	26.4	23.4	20.6	18.4	16.4	14.8	13.4	12.2	11.2	10.4
1500	30.6	28.2	25.8	23.4	21.2	19.2	17.4	16	14.8	13.6	12.8
1800	31.4	29.4	27.4	25.4	23.4	21.4	19.8	18.2	17	15.8	14.8
2100	31.8	30.2	28.6	26.8	25	23.4	21.8	20.2	18.8	17.8	16.6
2400	32	30.8	29.4	28	26.4	24.8	23.4	21.8	20.6	19.4	18.2
2700	32.2	31.2	30.2	28.8	27.4	26	24.6	23.4	22	20.8	19.8
3000	32.4	31.6	30.6	29.4	28.2	27	25.8	24.4	23.4	22.2	21
3300	32.4	31.8	31	30	29	27.8	26.6	25.4	24.4	23.4	22.2
3600	32.4	32	31.2	30.4	29.4	28.4	27.4	26.4	26.2	24.2	23.4
3900	32.6	32.2	31.4	30.8	30	29	28	27	26	25.2	24.2
4200	32.6	32.2	31.6	31	30.2	29.4	28.6	27.8	26.8	26	25
4500	32.6	32.4	31.8	31.2	30.6	29.8	29	28.2	27.4	26.6	25.8
4800	32.6	32.4	32	31.4	30.8	30.2	29	28.6	28	27.2	26.4
5100	32.8	32.4	32	31.6	31	30.4	29.8	29.2	28.4	27.6	26.8
5400	32.8	32.4	32	31.8	31.2	30.6	30	29.4	28.8	28	27.4
5700	32.8	32.6	32.2	32	31.4	30.8	30.4	29.8	29.2	28.6	28
6000	32.8	32.6	32.4	32	31.6	31	30.6	30	29.4	28.8	28.2

## Bracing details



All screws on this page are Self Drilling, Self Tapping Screws 14-20 x 22 to AS 3566 Class 4

## Bracing Examples

### Example for Area 1 with all piers the same

**Job specifications**  
 Dimensions for Area 1 are 25m x 4m  
 Wind region = N2  
 All piers are at 2700 spacing and 1200mm high

#### 1. Find area

Area 1 = 25 x 4 = 100m<sup>2</sup>

#### 2. Calculate the total bracing requirement

From Tables 1 and 2 on previous page

Total bracing capacity required = Area 1 x Ka x 1.63  
 = 100 x 0.8 x 1.63  
 = 130.4 kN

#### 3. Determine the capacity of bracing sets that match the height and spacing of the piers

From the table above, find piers at 2700 spacing and 1200mm high have a capacity of 30.2 kN.

#### 4. Determine the number of bracing sets required

Provide 5 sets of bracing.  
 Total capacity of 5 sets of bracing:  
 30.2 x 5 = 151 kN is safe

### Example for Area 2 with piers in 3 sets

**Job specifications** - same as the other example except:  
 2 sets of piers 2700 spacing and 600mm high  
 1 set of piers 2700 spacing and 1200mm high  
 2 sets of piers 2700 spacing and 1800mm high

#### 1. Find area

Area 1 = 25 x 4 = 100m<sup>2</sup>

#### 2. Calculate the total bracing requirement

From Tables 1 and 2 on previous page

Total bracing capacity required = Area 1 x Ka x 1.63  
 = 100 x 0.8 x 1.63  
 = 130.4 kN

#### 3. Determine the capacity of bracing sets that match the height and spacing of the piers

From the table above:  
 Sets of piers

2 off 2700 spacing and 600mm high	2 x 32.2 = 64.4 kN
1 off 2700 spacing and 1200mm high	1 x 30.2 = 30.2 kN
2 off 2700 spacing and 1800mm high	2 x 27.4 = 54.8 kN

TOTAL CAPACITY = 149.4 kN

Step 2 requires 130.4 kN, so the total capacity of all 5 sets (149.4 kN) is safe, and no other combination of these sets will do.

## UNI-PIER LOAD CAPACITY SPECIFICATION

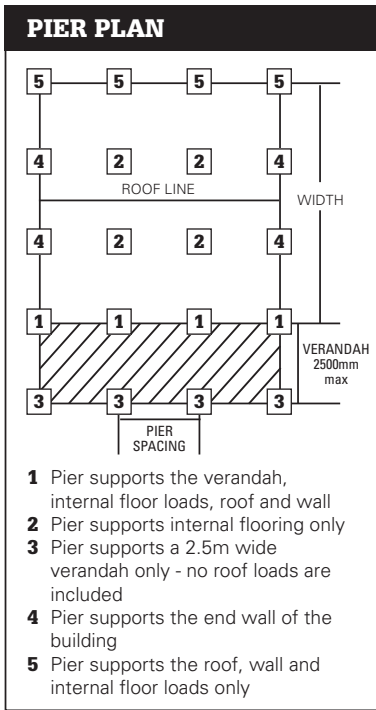
### Builder's Grade Uni-Piers (65 x 65 x 2) - FOR WIND CLASSIFICATION N1, N2, N3

#### USING THIS SPECIFICATION

Uni-Piers are to be set in a square grid pattern, except for the verandah. To obtain your maximum pier centres, follow the steps below.

- Choose the pier condition in question from the pier plan below.
- Using the number indicated by the pier condition, refer to the corresponding table set on the right.
- Determine whether the job has *timber* or *closed steel* section bearers:
 

or C-section steel bearers:
- Select a *roof* width in metres
- Choose your *maximum pier height* in metres
- Finally, determine if the job has a sheet or tile roof, with or without bracing.
- All brickwork is to be supported on concrete footings only.
- Capacity tables are based on assumption that piers are spaced the same in both directions. (ie X=Y in Pier Location Diagram)



Pier Location	Bearer Type	Roof Width	Max. Pier Height	N1 & N2				N3			
				Pier Grid Spacing (m) (MAXIMUM)				Pier Grid Spacing (m) (MAXIMUM)			
				Sheet		Tile		Sheet		Tile	
				No Brace	Brace	No Brace	Brace	No Brace	Brace	No Brace	Brace
<b>1</b>		<b>9.0</b>	0.6	5.4	5.4	4.9	4.9	5.4	4.7	4.9	4.2
			1.3	4.9	5.2	4.4	4.4	4.9	4.1	4.4	3.7
			2.0	4.0	4.1	3.5	3.5	4.0	3.2	3.5	2.9
			2.8	3.0	2.9	2.6	2.5	3.0	2.2	2.6	2.0
			3.6	2.2	2.0	1.8	1.7	2.2	1.6	1.8	1.4
		3.6	2.0	1.8	1.6	1.4	2.0	1.4	1.6	1.2	
		<b>12.6</b>	0.6	5.1	5.4	4.4	4.5	5.1	4.3	4.4	3.7
			1.3	4.6	4.7	4.0	4.0	4.6	3.7	4.0	3.2
			2.0	3.7	3.7	3.1	3.1	3.7	2.9	3.1	2.5
			2.8	2.7	2.6	2.3	2.1	2.7	2.0	2.3	1.7
			3.6	2.0	1.8	1.6	1.4	2.0	1.4	1.6	1.2
		3.6	2.0	1.8	1.6	1.4	2.0	1.4	1.6	1.2	
<b>2</b>		<b>9.0</b>	0.6	3.7	3.7	3.2	3.2	3.7	3.0	3.2	2.6
			1.3	3.4	3.4	3.0	2.9	3.4	2.7	3.0	2.3
			2.0	2.9	2.8	2.5	2.4	2.9	2.2	2.5	1.9
			2.8	2.2	2.1	1.9	1.8	2.2	1.7	1.9	1.4
			3.6	1.7	1.6	1.5	1.4	1.7	1.2	1.5	1.0
		3.6	1.7	1.6	1.5	1.4	1.7	1.2	1.5	1.0	
		<b>12.6</b>	0.6	3.4	3.4	2.9	2.8	3.4	2.6	2.9	2.3
			1.3	3.1	3.0	2.6	2.5	3.1	2.3	2.6	2.0
			2.0	2.7	2.5	2.2	2.1	2.7	2.0	2.2	1.7
			2.8	2.0	1.9	1.7	1.5	2.0	1.4	1.7	1.2
			3.6	1.6	1.4	1.3	1.1	1.6	1.1	1.3	0.9
		3.6	1.6	1.4	1.3	1.1	1.6	1.1	1.3	0.9	
<b>3</b>		<b>16.2</b>	0.6	4.8	4.9	4.0	4.0	4.8	3.9	4.0	3.3
			1.3	4.3	4.3	3.6	3.5	4.3	3.4	3.6	2.9
			2.0	3.5	3.4	2.9	2.7	3.5	2.6	2.9	2.2
			2.8	2.5	2.3	2.0	1.9	2.5	1.8	2.0	1.5
			3.6	1.8	1.6	1.4	1.3	1.8	1.2	1.4	1.0
		3.6	1.8	1.6	1.4	1.3	1.8	1.2	1.4	1.0	
		<b>9.0</b>	0.6	3.7	3.7	3.2	3.2	3.7	3.0	3.2	2.6
			1.3	3.4	3.4	3.0	2.9	3.4	2.7	3.0	2.3
			2.0	2.9	2.8	2.5	2.4	2.9	2.2	2.5	1.9
			2.8	2.2	2.1	1.9	1.8	2.2	1.7	1.9	1.4
			3.6	1.7	1.6	1.5	1.4	1.7	1.2	1.5	1.0
		3.6	1.7	1.6	1.5	1.4	1.7	1.2	1.5	1.0	
<b>4</b>		<b>N/A</b>	0.6	5.9	5.6	5.9	5.6	5.9	5.5	5.9	5.5
			1.3	5.5	5.2	5.5	5.2	5.5	5.0	5.5	5.0
			2.0	4.8	4.4	4.8	4.4	4.8	4.2	4.8	4.2
			2.8	4.0	3.5	4.0	3.5	4.0	3.2	4.0	3.2
			3.6	3.2	2.7	3.2	2.7	3.2	2.4	3.2	2.4
		3.6	3.2	2.7	3.2	2.7	3.2	2.4	3.2	2.4	
		<b>N/A</b>	0.6	4.6	4.2	4.6	4.2	4.6	4.0	4.6	4.0
			1.3	4.3	3.9	4.3	3.9	4.3	3.6	4.3	3.6
			2.0	3.9	3.5	3.9	3.5	3.9	3.2	3.9	3.2
			2.8	3.3	2.8	3.3	2.8	3.3	2.5	3.3	2.5
			3.6	2.8	2.2	2.8	2.2	2.8	1.8	2.8	1.8
		3.6	2.8	2.2	2.8	2.2	2.8	1.8	2.8	1.8	
<b>5</b>		<b>2.5</b>	0.6	4.1		3.9		4.1		3.9	
			1.3	3.8		3.6		3.8		3.6	
			2.0	3.3		3.2		3.3		3.2	
			2.8	2.7		2.6		2.7		2.6	
			3.6	2.2		2.1		2.2		2.1	
		3.6	2.2		2.1		2.2		2.1		
		<b>2.5</b>	0.6	3.2		3.0		3.2		3.0	
			1.3	2.9		2.8		2.9		2.8	
			2.0	2.7		2.5		2.7		2.5	
			2.8	2.2		2.2		2.2		2.2	
			3.6	1.9		1.9		1.9		1.9	
		3.6	1.9		1.9		1.9		1.9		
<b>6</b>		<b>N/A</b>	0.6	4.4				4.4			
			1.3	4.1				4.1			
			2.0	3.6				3.6			
			2.8	2.9				2.9			
			3.6	2.4				2.4			
		3.6	2.4				2.4				
		<b>N/A</b>	0.6	3.4				3.4			
			1.3	3.2				3.2			
			2.0	2.9				2.9			
			2.8	2.5				2.5			
			3.6	2.1				2.1			
		3.6	2.1				2.1				

# UNI-PIER LOAD CAPACITY SPECIFICATION

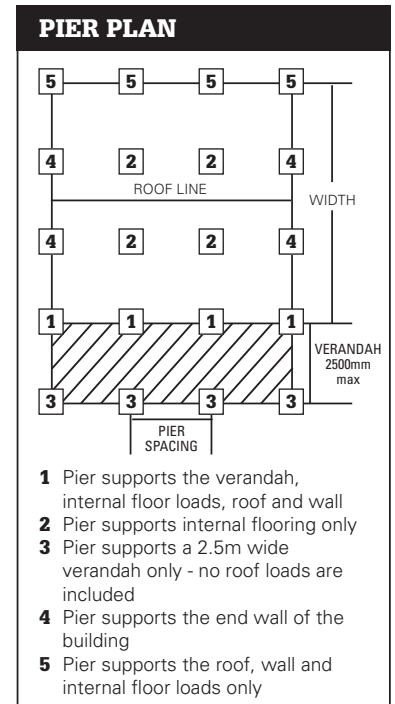
## Builder's Grade Uni-Piers (65 x 65 x 2) - FOR WIND CLASSIFICATION N1, N2, N3

Pier Location	Bearer Type	Roof Width	Max. Pier Height	N1 & N2				N3			
				Pier Grid Spacing (m) (MAXIMUM)				Pier Grid Spacing (m) (MAXIMUM)			
				Sheet		Tile		Sheet		Tile	
				No Brace	Brace	No Brace	Brace	No Brace	Brace	No Brace	Brace
PIER LOCATION <b>4</b>		9.0	0.6	8.0	8.0	8.0	8.0	8.0	6.3	8.0	6.3
			1.3	7.3	7.2	7.3	7.2	7.3	5.6	7.3	5.6
			2.0	6.3	5.9	6.3	5.9	6.3	4.5	6.3	4.5
			2.8	5.1	4.3	5.1	4.3	5.1	3.2	5.1	3.2
		3.6	4.1	3.1	4.1	3.1	4.1	2.2	4.1	2.2	
		12.6	0.6	7.9	7.6	7.9	7.6	7.9	5.9	7.9	5.9
			1.3	7.2	6.8	7.2	6.8	7.2	5.2	7.2	5.2
			2.0	6.2	5.5	6.2	5.5	6.2	4.1	6.2	4.1
			2.8	5.0	4.0	5.0	4.0	5.0	2.9	5.0	2.9
		3.6	4.0	2.9	4.0	2.9	4.0	2.1	4.0	2.1	
		16.2	0.6	7.8	7.4	7.8	7.4	7.8	5.7	7.8	5.7
			1.3	7.1	6.6	7.1	6.6	7.1	5.0	7.1	5.0
2.0	6.1		5.3	6.1	5.3	6.1	4.0	6.1	4.0		
2.8	5.0		3.8	5.0	3.8	5.0	2.8	5.0	2.8		
3.6	4.0	2.8	4.0	2.8	4.0	2.0	4.0	2.0			
PIER LOCATION <b>5</b>		9.0	0.6	6.0	5.4	6.0	5.4	6.0	4.1	6.0	4.1
			1.3	5.6	4.9	5.6	4.9	5.6	3.7	5.6	3.7
			2.0	5.0	4.2	5.0	4.2	5.0	3.1	5.0	3.1
			2.8	4.2	3.2	4.2	3.2	4.2	2.3	4.2	2.3
		3.6	3.6	2.5	3.6	2.5	3.6	1.7	3.6	1.7	
		12.6	0.6	5.9	5.1	5.9	5.1	5.9	3.8	5.9	3.8
			1.3	5.5	4.6	5.5	4.6	5.5	3.4	5.5	3.4
			2.0	5.0	3.9	5.0	3.9	5.0	2.8	5.0	2.8
			2.8	4.1	3.0	4.1	3.0	4.1	2.1	4.1	2.1
		3.6	3.4	2.3	3.4	2.3	3.4	1.6	3.4	1.6	
		16.2	0.6	5.8	4.9	5.8	4.9	5.8	3.6	5.8	3.6
			1.3	5.4	4.4	5.4	4.4	5.4	3.2	5.4	3.2
2.0	4.9		3.7	4.9	3.7	4.9	2.7	4.9	2.7		
2.8	4.1		2.9	4.1	2.9	4.1	2.0	4.1	2.0		
3.6	3.4	2.2	3.4	2.2	3.4	1.5	3.4	1.5			
PIER LOCATION <b>5</b>		9.0	0.6	7.0	6.3	6.2	5.5	7.0	5.1	6.2	4.5
			1.3	6.4	5.6	5.7	4.9	6.5	4.4	5.6	4.0
			2.0	5.4	4.5	4.7	3.9	5.3	3.5	4.5	3.1
			2.8	4.2	3.2	3.6	2.7	3.9	2.5	3.3	2.2
		3.6	3.3	2.3	2.7	1.9	2.9	1.7	2.3	1.5	
		12.6	0.6	6.6	5.7	5.6	4.8	6.4	4.5	5.3	4.0
			1.3	6.0	5.1	5.1	4.2	5.7	4.0	4.7	3.4
			2.0	5.0	4.0	4.1	3.3	4.6	3.1	3.7	2.7
			2.8	3.9	2.9	3.1	2.3	3.3	2.2	2.6	1.8
		3.6	3.0	2.0	2.2	1.6	2.4	1.5	1.9	1.3	
		16.2	0.6	6.1	5.2	5.1	4.3	5.7	4.1	4.6	3.5
			1.3	5.6	4.6	4.6	3.7	5.0	3.6	4.0	3.0
2.0	4.6		3.7	3.6	2.9	4.0	2.8	3.1	2.3		
2.8	3.5		2.6	2.6	2.0	2.9	2.0	2.2	1.6		
3.6	2.5	1.8	1.8	1.4	2.0	1.3	1.5	1.1			
PIER LOCATION <b>5</b>		9.0	0.6	5.1	4.1	4.4	3.5	4.9	3.2	4.0	2.8
			1.3	4.7	3.7	4.0	3.2	4.5	2.9	3.7	2.5
			2.0	4.2	3.1	3.5	2.7	3.8	2.4	3.2	2.1
			2.8	3.4	2.4	2.8	2.0	3.0	1.8	2.4	1.6
		3.6	2.8	1.8	2.2	1.5	2.3	1.4	1.8	1.2	
		12.6	0.6	4.7	3.7	3.9	3.0	4.2	2.9	3.4	2.4
			1.3	4.3	3.3	3.5	2.7	3.8	2.5	3.1	2.2
			2.0	3.8	2.8	3.0	2.3	3.2	2.1	2.6	1.8
			2.8	3.0	2.1	2.3	1.7	2.5	1.6	2.0	1.4
		3.6	2.3	1.6	1.7	1.3	1.9	1.2	1.5	1.0	
		16.2	0.6	4.4	3.3	3.3	2.7	3.6	2.6	2.9	2.1
			1.3	4.0	3.0	3.0	2.4	3.3	2.3	2.6	1.9
2.0	3.4		2.5	2.5	2.0	2.7	1.9	2.2	1.6		
2.8	2.6		1.9	1.9	1.5	2.1	1.4	1.6	1.1		
3.6	2.0	1.4	1.4	1.1	1.6	1.0	1.2	0.9			

### USING THIS SPECIFICATION

Uni-Piers are to be set in a square grid pattern, except for the verandah. To obtain your maximum pier centres, follow the steps below.

1. Choose the pier condition in question from the pier plan below.
2. Using the number indicated by the pier condition, refer to the corresponding table set on the left.
3. Determine whether the job has *timber* or *closed steel* section bearers:
  - 
  -
 or C-section steel bearers:
  -
4. Select a *roof width* in metres
5. Choose your *maximum pier height* in metres
6. Finally, determine if the job has a sheet or tile roof, with or without bracing.
7. All brickwork is to be supported on concrete footings only.
8. Capacity tables are based on assumption that piers are spaced the same in both directions. (ie X=Y in Pier Location Diagram)



# UNI-PIER LOAD CAPACITY SPECIFICATION

## Heavy Grade Uni-Piers (75 x 75 x 2.5) - FOR WIND CLASSIFICATION N1, N2, N3

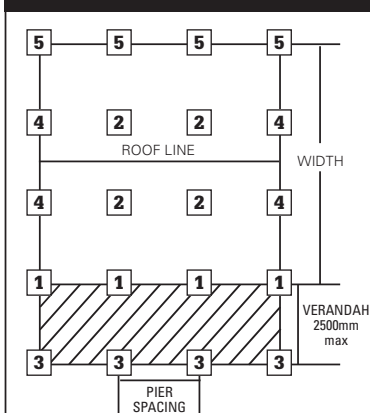
### USING THIS SPECIFICATION

Uni-Piers are to be set in a square grid pattern, except for the verandah. To obtain your maximum pier centres, follow the steps below.

1. Choose the pier condition in question from the pier plan below.
2. Using the number indicated by the pier condition, refer to the corresponding table set on the right.
3. Determine whether the job has *timber* or *closed steel* section bearers:
  - or C-section steel bearers:
4. Select a *roof* width in metres
5. Choose your *maximum pier height* in metres
6. Finally, determine if the job has a sheet or tile roof, with or without bracing.
7. All brickwork is to be supported on concrete footings only.
8. Capacity tables are based on assumption that piers are spaced the same in both directions. (ie X=Y in Pier Location Diagram)



### PIER PLAN



- 1 Pier supports the verandah, internal floor loads, roof and wall
- 2 Pier supports internal flooring only
- 3 Pier supports a 2.5m wide verandah only - no roof loads are included
- 4 Pier supports the end wall of the building
- 5 Pier supports the roof, wall and internal floor loads only

Pier Location	Bearer Type	Roof Width	Max. Pier Height	N1 & N2				N3			
				Pier Grid Spacing (m) (MAXIMUM)				Pier Grid Spacing (m) (MAXIMUM)			
				Sheet		Tile		Sheet		Tile	
				No Brace	Brace	No Brace	Brace	No Brace	Brace	No Brace	Brace
<b>1</b>		9.0	0.6	7.3	7.3	6.7	6.7	7.3	6.9	6.7	6.2
			1.3	6.8	6.8	6.2	6.2	6.8	6.3	6.2	5.7
			2.0	5.9	5.9	5.3	5.2	5.9	5.2	5.3	4.7
			2.8	4.7	4.5	4.2	4.0	4.7	4.0	4.2	3.5
		3.6	3.5	3.2	3.0	2.8	3.5	2.8	3.0	1.5	
		12.6	0.6	7.0	7.0	6.2	6.1	7.0	6.3	6.2	5.5
	1.3		6.4	6.4	5.7	5.5	6.4	5.7	5.7	5.0	
	2.0		5.6	5.3	4.9	4.6	5.5	4.7	4.9	4.1	
	2.8		4.3	4.0	3.8	3.4	4.4	3.5	3.8	3.1	
	3.6	3.0	2.8	2.8	2.4	3.3	2.5	2.8	2.2		
	16.2	0.6	6.7	6.4	5.8	5.4	6.7	5.8	5.7	4.9	
		1.3	6.2	5.8	5.3	4.9	6.1	5.2	5.2	4.5	
2.0		5.3	4.8	4.4	4.0	5.3	4.3	4.4	3.7		
2.8		4.2	3.6	3.4	3.0	4.1	3.3	3.4	2.7		
3.6	3.1	2.5	2.5	2.1	3.1	2.2	2.5	1.9			
<b>2</b>		9.0	0.6	4.9	4.8	4.4	4.2	5.0	4.2	4.4	3.8
			1.3	4.6	4.4	4.1	3.9	4.6	3.9	4.1	3.5
			2.0	4.1	3.9	3.7	3.4	4.2	3.4	3.7	3.0
			2.8	3.4	3.1	3.0	2.7	3.4	2.7	3.0	2.4
		3.6	2.7	2.3	2.3	2.0	2.7	2.0	2.3	1.8	
		12.6	0.6	4.6	4.3	4.0	3.6	4.6	3.4	4.0	3.3
	1.3		4.3	3.9	3.7	3.3	4.3	3.5	3.7	3.0	
	2.0		3.9	3.4	3.3	2.9	3.9	3.0	3.3	2.7	
	2.8		3.2	2.7	2.7	2.3	3.2	2.4	2.7	2.1	
	3.6	2.5	2.1	2.1	1.7	2.5	1.8	2.1	1.6		
	16.2	0.6	4.4	3.8	3.6	3.2	4.4	3.5	3.7	2.9	
		1.3	4.0	3.5	3.4	2.9	4.0	3.2	3.4	2.8	
2.0		3.6	3.1	3.0	2.5	3.6	2.8	3.0	2.3		
2.8		3.0	2.4	2.4	2.0	3.0	2.2	2.4	1.8		
3.6	2.3	1.8	1.9	1.5	2.3	1.6	1.8	1.4			
<b>3</b>		N/A	0.6	7.2	7.1	7.2	7.1	7.2	7.0	7.2	7.0
			1.3	6.8	6.7	6.8	6.7	6.8	6.6	6.8	6.6
			2.0	6.1	6.0	6.1	6.0	6.1	5.9	6.1	5.9
			2.8	5.1	5.0	5.1	5.0	5.1	4.9	5.1	4.9
		3.6	4.1	4.0	4.1	4.0	4.1	3.8	4.1	3.8	
		2.5	0.6	5.1	4.9			5.1	4.9		
	1.3		4.8	4.6			4.8	4.6			
	2.0		4.4	4.1			4.4	4.1			
	2.8		3.7	3.5			3.7	3.5			
	3.6	3.1	2.9			3.1	2.9				
		2.5	0.6	3.9	3.7		3.9	3.7			
			1.3	3.7	3.5		3.7	3.5			
2.0			3.4	3.2		3.4	3.2				
2.8			3.0	2.8		3.0	2.8				
3.6		2.6	2.5		2.6	2.5					
N/A		0.6	5.5				5.5				
	1.3	5.2				5.2					
	2.0	4.7				4.7					
	2.8	4.0				4.0					
3.6	3.3				3.3						
<b>3</b>		N/A	0.6	4.2					4.2		
			1.3	4.0					4.0		
			2.0	3.7					3.7		
			2.8	3.2					3.2		
3.6	2.8					2.8					

# UNI-PIER LOAD CAPACITY SPECIFICATION

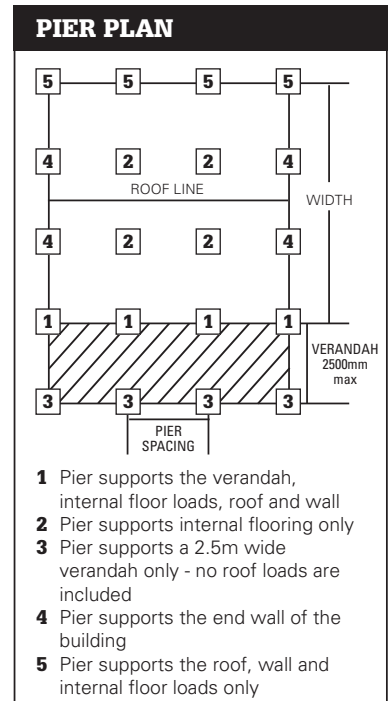
## Heavy Grade Uni-Piers (75 x 75 x 2.5) - FOR WIND CLASSIFICATION N1, N2, N3

Pier Location	Bearer Type	Roof Width	Max. Pier Height	N1 & N2				N3			
				Pier Grid Spacing (m) (MAXIMUM)				Pier Grid Spacing (m) (MAXIMUM)			
				Sheet		Tile		Sheet		Tile	
				No Brace	Brace	No Brace	Brace	No Brace	Brace	No Brace	Brace
PIER LOCATION <b>4</b>		9.0	0.6	10.0	10.0	10.0	10.0	10.0	8.9	10.0	8.9
			1.3	9.4	9.4	9.4	9.4	9.4	8.2	9.4	8.2
			2.0	8.4	8.4	8.4	8.4	8.4	6.9	8.4	6.9
			2.8	7.1	6.9	7.1	6.9	7.1	5.4	7.1	5.4
		3.6	5.8	5.2	5.8	5.2	5.8	3.9	5.8	3.9	
		12.6	0.6	9.9	9.9	9.9	9.9	9.9	8.4	9.9	8.4
			1.3	9.3	9.3	9.3	9.3	9.3	7.7	9.3	7.7
			2.0	8.3	8.3	8.3	8.3	8.3	6.5	8.3	6.5
			2.8	7.0	6.5	7.0	6.5	7.0	5.0	7.0	5.0
		3.6	5.7	4.8	5.7	4.8	5.7	3.6	5.7	3.6	
		16.2	0.6	9.8	9.8	9.8	9.8	9.8	8.1	9.8	8.1
			1.3	9.2	9.2	9.2	9.2	9.2	7.4	9.2	7.4
2.0	8.2		8.0	8.2	8.0	8.2	6.2	8.2	6.2		
2.8	6.9		6.3	6.9	6.3	6.9	4.8	6.9	4.8		
3.6	5.6	4.6	5.6	4.6	5.6	3.4	5.6	3.4			
PIER LOCATION <b>5</b>		9.0	0.6	7.4	7.3	7.4	7.3	7.4	5.7	7.4	5.7
			1.3	7.0	6.8	7.0	6.8	7.0	5.2	7.0	5.2
			2.0	6.5	6.1	6.5	6.1	6.5	4.7	6.5	4.7
			2.8	5.6	5.0	5.6	5.0	5.6	3.7	5.6	3.7
		3.6	4.7	3.9	4.7	3.9	4.7	2.9	4.7	2.9	
		12.6	0.6	7.3	6.9	7.3	6.9	7.3	5.3	7.3	5.3
			1.3	6.9	6.4	6.9	6.4	6.9	4.9	6.9	4.9
			2.0	6.4	5.7	6.4	5.7	6.4	4.3	6.4	4.3
			2.8	5.6	4.7	5.6	4.7	5.6	3.4	5.6	3.4
		3.6	4.7	3.7	4.7	3.7	4.7	2.6	4.7	2.6	
		16.2	0.6	7.2	6.6	7.2	6.6	7.2	5.1	7.2	5.1
			1.3	6.8	6.2	6.8	6.2	6.8	4.7	6.8	4.7
2.0	6.3		5.5	6.3	5.5	6.3	4.1	6.3	4.1		
2.8	5.5		4.5	5.5	4.5	5.5	3.3	5.5	3.3		
3.6	4.6	3.5	4.6	3.5	4.6	2.5	4.6	2.5			
PIER LOCATION <b>5</b>		9.0	0.6	9.0	8.7	8.2	7.8	9.0	7.2	8.2	6.5
			1.3	8.4	8.0	7.7	7.2	8.5	6.6	7.7	6.0
			2.0	7.5	6.9	6.7	6.1	7.5	5.6	6.9	5.0
			2.8	6.2	5.4	5.5	4.7	6.2	4.2	5.4	3.8
		3.6	4.9	4.0	4.3	3.4	4.7	3.0	4.0	2.7	
		12.6	0.6	8.6	8.1	7.5	7.0	8.6	6.6	7.5	5.8
			1.3	8.0	7.4	7.0	6.4	8.0	6.0	7.0	5.3
			2.0	7.0	6.3	6.1	5.3	7.0	5.0	5.9	4.4
			2.8	5.8	4.9	4.9	4.1	5.5	3.8	4.5	3.3
		3.6	4.5	3.5	3.7	2.9	4.0	2.7	3.3	2.3	
		16.2	0.6	8.1	7.5	7.0	6.2	8.0	6.1	6.6	5.2
			1.3	7.6	6.8	6.4	5.7	7.3	5.5	6.0	4.7
2.0	6.6		5.8	5.5	4.7	6.2	4.6	5.1	3.8		
2.8	5.4		4.4	4.4	3.6	4.8	3.4	3.8	2.9		
3.6	4.2	3.2	3.2	2.5	3.5	2.4	2.7	2.0			
PIER LOCATION <b>5</b>		9.0	0.6	6.4	5.7	5.7	5.0	6.4	4.5	5.7	4.0
			1.3	6.1	5.2	5.4	4.6	6.0	4.1	5.3	3.7
			2.0	5.6	4.7	4.9	4.0	5.5	3.6	4.7	3.2
			2.8	4.8	3.8	4.1	3.2	4.5	2.9	3.8	2.6
		3.6	4.0	3.0	3.3	2.5	3.6	2.2	3.0	2.0	
		12.6	0.6	6.0	5.1	5.1	4.3	5.8	4.0	4.8	3.5
			1.3	5.7	4.8	4.8	4.0	5.4	3.7	4.4	3.2
			2.0	5.2	4.2	4.3	3.5	4.8	3.3	3.9	2.8
			2.8	4.4	3.4	3.6	2.8	3.9	2.6	3.1	2.2
		3.6	3.6	2.6	2.8	2.1	3.0	2.0	2.4	1.7	
		16.2	0.6	5.7	4.7	4.6	3.8	5.1	3.7	4.1	3.1
			1.3	5.3	4.3	4.3	3.5	4.7	3.4	3.7	2.8
2.0	4.8		3.8	3.8	3.0	4.2	3.0	3.3	2.5		
2.8	4.0		3.0	3.1	2.4	3.4	2.3	2.6	1.9		
3.6	3.3	2.3	2.3	1.8	2.6	1.8	2.0	1.4			

### USING THIS SPECIFICATION

Uni-Piers are to be set in a square grid pattern, except for the verandah. To obtain your maximum pier centres, follow the steps below.

1. Choose the pier condition in question from the pier plan below.
2. Using the number indicated by the pier condition, refer to the corresponding table set on the left.
3. Determine whether the job has *timber* or *closed steel* section bearers:
  -
- or C-section steel bearers:
  -
4. Select a *roof width* in metres
5. Choose your *maximum pier height* in metres
6. Finally, determine if the job has a sheet or tile roof, with or without bracing.
7. All brickwork is to be supported on concrete footings only.
8. Capacity tables are based on assumption that piers are spaced the same in both directions. (ie X=Y in Pier Location Diagram)



# UNI-PIER LOAD CAPACITY SPECIFICATION

## Builder's Grade Uni-Piers (65 x 65 x 2) - FOR WIND CLASSIFICATION C1, C2, N4, N5

### USING THIS SPECIFICATION

Uni-Piers are to be set in a square grid pattern, except for the verandah. To obtain your maximum pier centres, follow the steps below.

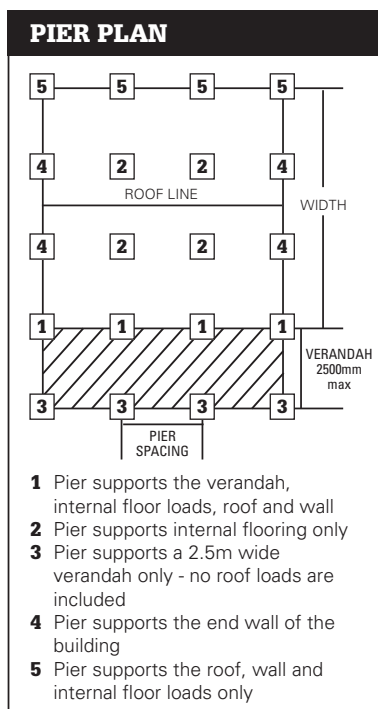
1. Choose the pier condition in question from the pier plan below.
2. Using the number indicated by the pier condition, refer to the corresponding table set on the right.

3. Determine whether the job has *timber* or *closed steel* section bearers:

or C-section steel bearers:



4. Select a *roof* width in metres
5. Choose your *maximum pier height* in metres
6. Finally, determine if the job has a sheet or tile roof, with or without bracing.
7. All brickwork is to be supported on concrete footings only.
8. Capacity tables are based on assumption that piers are spaced the same in both directions. (ie X=Y in Pier Location Diagram)



Pier Location	Bearer Type	Roof Width	Max. Pier Height	N4 & C1				N5 & C2			
				Pier Grid Spacing (m) (MAXIMUM)				Pier Grid Spacing (m) (MAXIMUM)			
				Sheet		Tile		Sheet		Tile	
				No Brace	Brace	No Brace	Brace	No Brace	Brace	No Brace	Brace
<b>1</b>		9.0	0.6	5.4	3.7	4.9	3.4	4.9	2.9	4.4	2.7
			1.3	4.9	3.2	4.3	2.9	4.3	2.5	3.8	2.3
			2.0	4.0	2.5	3.6	2.2	3.4	1.9	3.0	1.8
			2.8	2.9	1.7	2.5	1.5	2.3	1.3	2.1	1.2
		3.6	2.0	1.2	1.7	1.0	1.6	0.9	1.4	0.8	
		12.6	0.6	4.5	3.0	4.3	3.0	4.1	2.6	3.6	2.3
	1.3		3.9	2.6	3.8	2.6	3.6	2.2	3.1	2.0	
	2.0		3.1	2.0	3.0	2.0	2.8	1.7	2.4	1.5	
	2.8		2.1	1.4	2.0	1.3	1.9	1.2	1.6	1.0	
	3.6	1.4	0.9	1.4	0.9	1.3	0.8	1.1	0.7		
		9.0	0.6	3.8	2.2	3.3	2.0	3.1	1.7	2.7	1.6
			1.3	3.4	2.0	2.9	1.8	2.7	1.5	2.4	1.4
2.0			2.8	1.6	2.4	1.5	2.3	1.3	2.0	1.2	
2.8			2.1	1.2	1.8	1.1	1.7	0.9	1.5	0.8	
3.6		1.6	0.9	1.3	0.8	1.2	0.7	1.1	0.5		
12.6		0.6	2.8	1.8	2.7	1.8	2.5	1.5	2.2	1.4	
	1.3	2.5	1.6	2.4	1.6	2.2	1.4	1.9	1.2		
	2.0	2.0	1.3	2.0	1.3	1.9	1.1	1.6	1.0		
	2.8	1.5	1.0	1.4	1.0	1.4	0.8	1.2	0.7		
3.6	1.1	0.7	1.1	0.7	1.0	0.5	0.8	0.5			
<b>2</b>		N/A	0.6	5.9	5.7	5.9	5.7	5.9	5.6	5.9	5.6
			1.3	5.5	5.3	5.5	5.3	5.5	5.2	5.5	5.2
			2.0	4.8	4.6	4.8	4.6	4.8	4.4	4.8	4.4
			2.8	4.0	3.6	4.0	3.6	4.0	3.5	4.0	3.5
		3.6	3.2	2.9	3.2	2.9	3.2	2.7	3.2	2.7	
			N/A	0.6	4.6	4.3	4.6	4.3	4.6	4.2	4.6
	1.3			4.3	4.0	4.3	4.0	4.3	3.9	4.3	3.9
	2.0			3.9	3.6	3.9	3.6	3.9	3.5	3.9	3.5
	2.8			3.3	3.0	3.3	3.0	3.3	2.8	3.3	2.8
	3.6		2.8	2.4	2.8	2.4	2.8	2.2	2.8	2.2	
	<b>3</b>			2.5	0.6	4.1		3.9		4.1	
		1.3			3.8		3.6		3.8		3.6
2.0		3.3				3.2		3.3		3.2	
2.8		2.7				2.6		2.7		2.6	
3.6		2.2			2.1		2.2		2.1		
		2.5		0.6	3.2		3.0		3.2		3.0
			1.3	2.9		2.8		2.9		2.8	
			2.0	2.7		2.5		2.7		2.5	
			2.8	2.2		2.2		2.2		2.2	
		3.6	1.9		1.9		1.9		1.9		
			N/A	0.6	4.4				4.4		
1.3				4.1				4.1			
2.0	3.6						3.6				
2.8	2.9						2.9				
3.6	2.4					2.4					
	N/A		0.6	3.4				3.4			
		1.3	3.2				3.2				
		2.0	2.9				2.9				
		2.8	2.5				2.5				
	3.6	2.1				2.1					

# UNI-PIER LOAD CAPACITY SPECIFICATION

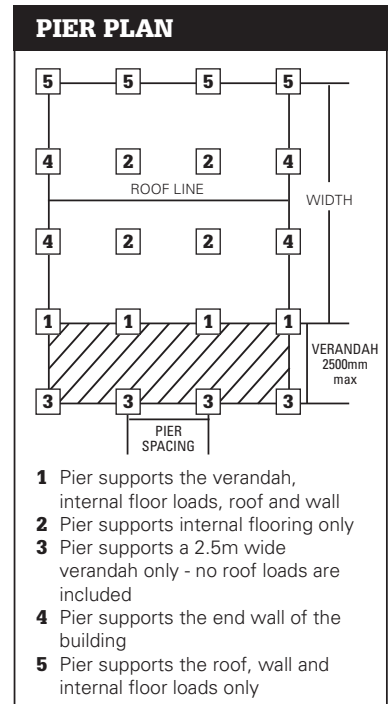
## Builder's Grade Uni-Piers (65 x 65 x 2) - FOR WIND CLASSIFICATION C1, C2, N4, N5

Pier Location	Bearer Type	Roof Width	Max. Pier Height	N4 & C1				N5 & C2			
				Pier Grid Spacing (m) (MAXIMUM)				Pier Grid Spacing (m) (MAXIMUM)			
				Sheet		Tile		Sheet		Tile	
				No Brace	Brace	No Brace	Brace	No Brace	Brace	No Brace	Brace
PIER LOCATION <b>4</b>		9.0	0.6	8.0	5.6	8.0	5.6	8.0	4.5	8.0	4.5
			1.3	7.3	4.9	7.3	4.9	7.3	3.9	7.3	3.9
			2.0	6.3	3.9	6.3	3.9	6.3	3.0	6.3	3.0
			2.8	5.1	2.7	5.1	2.7	5.1	2.1	5.1	2.1
		3.6	4.1	1.9	4.1	1.9	4.1	1.4	4.1	1.4	
		12.6	0.6	7.9	5.2	7.9	5.2	7.9	4.1	7.9	4.1
			1.3	7.2	4.6	7.2	4.6	7.2	3.6	7.2	3.6
			2.0	6.2	3.6	6.2	3.6	6.2	2.8	6.2	2.8
			2.8	5.0	2.5	5.0	2.5	5.0	1.9	5.0	1.9
		3.6	4.0	1.7	4.0	1.7	4.0	1.3	4.0	1.3	
		16.2	0.6	7.8	4.9	7.8	4.9	7.8	3.9	7.8	3.9
			1.3	7.1	4.3	7.1	4.3	7.1	3.4	7.1	3.4
2.0	6.1		3.4	6.1	3.4	6.1	2.6	6.1	2.6		
2.8	5.0		2.3	5.0	2.3	5.0	1.8	5.0	1.8		
3.6	4.0	1.6	4.0	1.6	4.0	1.2	4.0	1.2			
PIER LOCATION <b>5</b>		9.0	0.6	6.0	3.6	6.0	3.6	6.0	2.8	6.0	2.8
			1.3	5.6	3.2	5.6	3.2	5.6	2.5	5.6	2.5
			2.0	5.0	2.6	5.0	2.6	5.0	2.0	5.0	2.0
			2.8	4.2	2.0	4.2	2.0	4.2	1.5	4.2	1.5
		3.6	3.6	1.5	3.6	1.5	3.6	1.1	3.6	1.1	
		12.6	0.6	5.9	3.2	5.9	3.2	5.9	2.5	5.9	2.5
			1.3	5.5	2.9	5.5	2.9	5.5	2.2	5.5	2.2
			2.0	5.0	2.4	5.0	2.4	5.0	1.8	5.0	1.8
			2.8	4.1	1.8	4.1	1.8	4.1	1.4	4.1	1.4
		3.6	3.4	1.4	3.4	1.4	3.4	1.0	3.4	1.0	
		16.2	0.6	5.8	3.1	5.8	3.1	5.8	2.3	5.8	2.3
			1.3	5.4	2.7	5.4	2.7	5.4	2.1	5.4	2.1
2.0	4.9		2.3	4.9	2.3	4.9	1.7	4.9	1.7		
2.8	4.1		1.7	4.1	1.7	4.1	1.3	4.1	1.3		
3.6	3.4	1.2	3.4	1.2	3.4	0.9	3.4	0.9			
PIER LOCATION <b>5</b>		9.0	0.6	6.4	4.0	5.6	3.6	5.3	3.5	4.7	3.2
			1.3	5.7	3.4	5.0	3.1	4.6	3.0	4.1	2.8
			2.0	4.6	2.7	4.0	2.4	3.7	2.3	3.2	2.1
			2.8	3.3	1.8	2.8	1.7	2.6	1.6	2.3	1.4
		3.6	2.4	1.3	2.0	1.1	1.8	1.1	1.6	1.0	
		12.6	0.6	5.5	3.5	4.6	3.1	4.4	3.1	3.8	2.8
			1.3	4.9	3.1	4.1	2.7	3.9	2.7	3.3	2.4
			2.0	3.8	2.4	3.2	2.1	3.0	2.1	2.6	1.9
			2.8	2.7	1.6	2.2	1.4	2.1	1.4	1.8	1.3
		3.6	1.9	1.1	1.6	1.0	1.4	1.0	1.2	0.9	
		16.2	0.6	4.7	3.2	3.9	2.7	3.7	2.8	3.1	2.5
			1.3	4.1	2.8	3.4	2.4	3.2	2.5	2.7	2.1
2.0	3.3		2.1	2.6	1.8	2.5	1.9	2.1	1.6		
2.8	2.3		1.4	1.8	1.2	1.7	1.3	1.4	1.1		
3.6	1.6	1.0	1.3	0.8	1.2	0.9	1.0	0.8			
PIER LOCATION <b>5</b>		9.0	0.6	4.3	2.5	3.7	2.2	3.4	2.1	3.0	1.9
			1.3	3.9	2.2	3.3	2.0	3.0	1.9	2.7	1.7
			2.0	3.3	1.8	2.8	1.6	2.5	1.5	2.2	1.4
			2.8	2.5	1.4	2.1	1.2	1.9	1.1	1.6	1.0
		3.6	1.9	1.0	1.6	0.9	1.4	0.8	1.2	0.7	
		12.6	0.6	3.6	2.2	2.9	1.9	2.8	1.9	2.3	1.7
			1.3	3.2	1.9	2.6	1.7	2.4	1.7	2.1	1.5
			2.0	2.7	1.6	2.2	1.4	2.0	1.4	1.7	1.2
			2.8	2.0	1.2	1.6	1.0	1.5	1.0	1.3	0.9
		3.6	1.5	0.9	1.2	0.8	1.1	0.7	0.9	0.5	
		16.2	0.6	3.0	1.9	2.4	1.7	2.3	1.7	1.9	1.5
			1.3	2.7	1.7	2.2	1.5	2.0	1.5	1.7	1.3
2.0	2.2		1.4	1.8	1.2	1.7	1.2	1.4	1.1		
2.8	1.7		1.0	1.3	0.9	1.2	0.9	1.0	0.8		
3.6	1.2	0.8	1.0	0.7	0.9	0.7	0.7	0.5			

### USING THIS SPECIFICATION

Uni-Piers are to be set in a square grid pattern, except for the verandah. To obtain your maximum pier centres, follow the steps below.

1. Choose the pier condition in question from the pier plan below.
2. Using the number indicated by the pier condition, refer to the corresponding table set on the left.
3. Determine whether the job has *timber* or *closed steel* section bearers:
  - 
  -
 or C-section steel bearers:
  -
4. Select a *roof width* in metres
5. Choose your *maximum pier height* in metres
6. Finally, determine if the job has a sheet or tile roof, with or without bracing.
7. All brickwork is to be supported on concrete footings only.
8. Capacity tables are based on assumption that piers are spaced the same in both directions. (ie X=Y in Pier Location Diagram)



# UNI-PIER LOAD CAPACITY SPECIFICATION

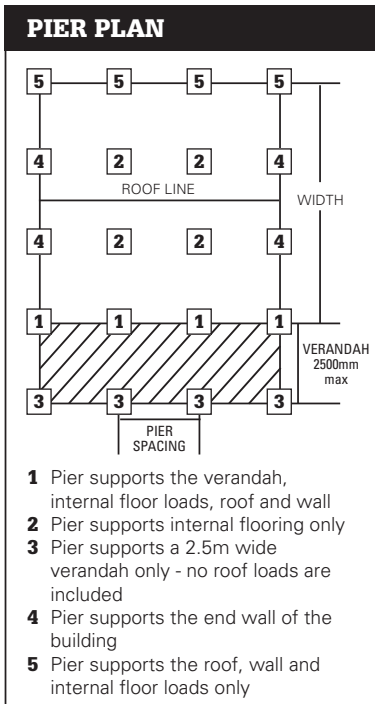
## Heavy Grade Uni-Piers (75 x 75 x 2.5) - FOR WIND CLASSIFICATION C1, C2, N4, N5

### USING THIS SPECIFICATION

Uni-Piers are to be set in a square grid pattern, except for the verandah. To obtain your maximum pier centres, follow the steps below.

- Choose the pier condition in question from the pier plan below.
- Using the number indicated by the pier condition, refer to the corresponding table set on the right.
- Determine whether the job has *timber* or *closed steel* section bearers:
 

or C-section steel bearers:
- Select a *roof* width in metres
- Choose your *maximum pier height* in metres
- Finally, determine if the job has a sheet or tile roof, with or without bracing.
- All brickwork is to be supported on concrete footings only.
- Capacity tables are based on assumption that piers are spaced the same in both directions. (ie X=Y in Pier Location Diagram)



Pier Location	Bearer Type	Roof Width	Max. Pier Height	N4 & C1				N5 & C2			
				Pier Grid Spacing (m) (MAXIMUM)				Pier Grid Spacing (m) (MAXIMUM)			
				Sheet		Tile		Sheet		Tile	
				No Brace	Brace	No Brace	Brace	No Brace	Brace	No Brace	Brace
<b>1</b>		9.0	0.6	7.3	5.5	6.7	5.1	7.2	4.4	6.5	4.1
			1.3	6.8	5.0	6.2	4.6	6.5	4.0	5.9	3.7
			2.0	5.9	4.1	5.3	3.8	5.5	3.2	4.9	3.0
			2.8	4.7	3.1	4.2	2.8	4.1	2.4	3.7	2.2
		3.6	3.5	2.1	3.0	1.9	2.9	1.6	2.6	1.5	
		12.6	0.6	6.6	4.6	6.2	4.5	6.1	4.0	5.4	3.6
	1.3		6.0	4.1	5.7	4.0	5.5	3.5	4.8	3.2	
	2.0		5.0	3.4	4.8	3.3	4.6	2.9	4.0	2.6	
	2.8		3.7	2.5	3.6	2.4	3.4	2.1	3.0	1.9	
	3.6	2.6	1.7	2.5	1.7	2.4	1.5	2.1	1.3		
	16.2	0.6	6.5	4.5	5.5	4.0	5.2	3.5	4.5	3.2	
		1.3	5.9	4.1	4.9	3.6	4.7	3.1	4.1	2.8	
2.0		4.9	3.3	4.1	2.9	3.9	2.5	3.3	2.3		
2.8		3.7	2.5	3.0	2.1	2.9	1.9	2.5	1.7		
3.6	2.6	1.7	2.1	1.5	2.0	1.3	1.7	1.1			
<b>2</b>		9.0	0.6	4.9	3.3	4.6	3.0	4.4	2.5	3.9	2.3
			1.3	4.6	3.0	4.3	2.7	4.0	2.3	3.6	2.1
			2.0	4.1	2.6	3.7	2.4	3.5	2.0	3.1	1.9
			2.8	3.4	2.0	3.0	1.8	2.8	1.6	2.5	1.4
		3.6	2.7	1.5	2.3	1.4	2.1	1.2	1.9	1.1	
		12.6	0.6	4.0	2.7	3.8	2.6	3.7	2.3	3.2	2.0
	1.3		3.7	2.4	3.5	2.4	3.3	2.1	2.9	1.9	
	2.0		3.2	2.1	3.1	2.1	2.9	1.8	2.5	1.6	
	2.8		2.5	1.6	2.4	1.6	2.3	1.4	2.0	1.2	
	3.6	1.9	1.2	1.8	1.2	1.7	1.0	1.5	0.9		
	16.2	0.6	3.9	2.6	3.2	2.3	3.1	2.0	2.7	1.8	
		1.3	3.6	2.4	3.0	2.1	2.8	1.8	2.4	1.6	
2.0		3.1	2.1	2.6	1.8	2.4	1.6	2.1	1.4		
2.8		2.5	1.6	2.0	1.4	1.9	1.2	1.6	1.1		
3.6	1.9	1.2	1.5	1.1	1.4	0.9	1.2	0.8			
<b>3</b>		N/A	0.6	7.2	6.8	7.2	6.8	7.2	6.6	7.2	6.6
			1.3	6.8	6.4	6.8	6.4	6.8	6.1	6.8	6.1
			2.0	6.1	5.6	6.1	5.6	6.1	5.3	6.1	5.3
			2.8	5.1	4.6	5.1	4.6	5.1	4.2	5.1	4.2
		3.6	4.1	3.5	4.1	3.5	4.1	2.9	4.1	2.9	
		2.5	0.6	5.1	4.9	5.1	4.9	5.1	4.9	5.1	4.9
	1.3		4.8	4.6	4.8	4.6	4.8	4.6	4.8	4.6	
	2.0		4.4	4.1	4.4	4.1	4.4	4.1	4.4	4.1	
	2.8		3.7	3.5	3.7	3.5	3.7	3.5	3.7	3.5	
	3.6	3.1	2.9	3.1	2.9	3.1	2.9	3.1	2.9		
	2.5	0.6	3.9	3.7	3.9	3.7	3.9	3.7	3.9	3.7	
		1.3	3.7	3.5	3.7	3.5	3.7	3.5	3.7	3.5	
2.0		3.4	3.2	3.4	3.2	3.4	3.2	3.4	3.2		
2.8		3.0	2.8	3.0	2.8	3.0	2.8	3.0	2.8		
3.6	2.6	2.5	2.6	2.5	2.6	2.5	2.6	2.5			
	N/A	0.6	5.5	5.5	5.5	5.5	5.5	5.5	5.5		
		1.3	5.2	5.2	5.2	5.2	5.2	5.2	5.2		
		2.0	4.7	4.7	4.7	4.7	4.7	4.7	4.7		
		2.8	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
	3.6	3.3	3.3	3.3	3.3	3.3	3.3	3.3			
	N/A	0.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2		
1.3		4.0	4.0	4.0	4.0	4.0	4.0	4.0			
2.0		3.7	3.7	3.7	3.7	3.7	3.7	3.7			
2.8		3.2	3.2	3.2	3.2	3.2	3.2	3.2			
3.6	2.8	2.8	2.8	2.8	2.8	2.8	2.8				

# UNI-PIER LOAD CAPACITY SPECIFICATION

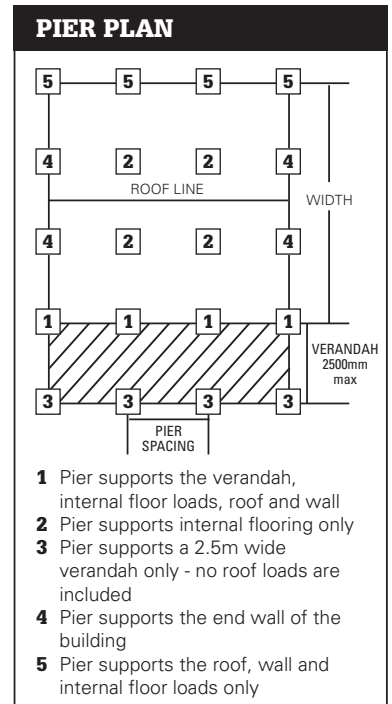
## Heavy Grade Uni-Piers (75 x 75 x 2.5) - FOR WIND CLASSIFICATION C1, C2, N4, N5

Pier Location	Bearer Type	Roof Width	Max. Pier Height	N4 & C1				N5 & C2			
				Pier Grid Spacing (m) (MAXIMUM)				Pier Grid Spacing (m) (MAXIMUM)			
				Sheet		Tile		Sheet		Tile	
				No Brace	Brace	No Brace	Brace	No Brace	Brace	No Brace	Brace
PIER LOCATION <b>4</b>		9.0	0.6	10.0	8.0	10.0	8.0	10.0	6.6	10.0	6.6
			1.3	9.4	7.3	9.4	7.3	9.4	5.8	9.4	5.8
			2.0	8.4	6.1	8.4	6.1	8.4	4.9	8.4	4.9
			2.8	7.1	4.7	7.1	4.7	7.1	3.7	7.1	3.7
		3.6	5.8	3.3	5.8	3.3	5.8	2.6	5.8	2.6	
		12.6	0.6	9.9	7.5	9.9	7.5	9.9	6.1	9.9	6.1
			1.3	9.3	6.7	9.3	6.7	9.3	5.5	9.3	5.5
			2.0	8.3	5.7	8.3	5.7	8.3	4.5	8.3	4.5
			2.8	7.0	4.3	7.0	4.3	7.0	3.4	7.0	3.4
		3.6	5.7	3.1	5.7	3.1	5.7	2.4	5.7	2.4	
		16.2	0.6	9.8	7.1	9.8	7.1	9.8	5.7	9.8	5.7
			1.3	9.2	6.5	9.2	6.5	9.2	5.2	9.2	5.2
2.0	8.2		5.4	8.2	5.4	8.2	4.3	8.2	4.3		
2.8	6.9		4.1	6.9	4.1	6.9	3.2	6.9	3.2		
3.6	5.6	2.9	5.6	2.9	5.6	2.2	5.6	2.2			
PIER LOCATION <b>5</b>		9.0	0.6	7.4	5.0	7.4	5.0	7.4	4.0	7.4	4.0
			1.3	7.0	4.6	7.0	4.6	7.0	3.6	7.0	3.6
			2.0	6.5	4.0	6.5	4.0	6.5	3.2	6.5	3.2
			2.8	5.6	3.2	5.6	3.2	5.6	2.5	5.6	2.5
		3.6	4.7	2.4	4.7	2.4	4.7	1.9	4.7	1.9	
		12.6	0.6	7.3	4.6	7.3	4.6	7.3	3.6	7.3	3.6
			1.3	6.9	4.2	6.9	4.2	6.9	3.3	6.9	3.3
			2.0	6.4	3.7	6.4	3.7	6.4	2.9	6.4	2.9
			2.8	5.6	2.9	5.6	2.9	5.6	2.3	5.6	2.3
		3.6	4.7	2.1	4.7	2.1	4.7	1.7	4.7	1.7	
		16.2	0.6	7.2	4.3	7.2	4.3	7.2	3.4	7.2	3.4
			1.3	6.8	4.0	6.8	4.0	6.8	3.1	6.8	3.1
2.0	6.3		3.5	6.3	3.5	6.3	2.7	6.3	2.7		
2.8	5.5		2.8	5.5	2.8	5.5	2.1	5.5	2.1		
3.6	4.6	2.1	4.6	2.1	4.6	1.6	4.6	1.6			
PIER LOCATION <b>5</b>		9.0	0.6	8.9	5.8	8.0	5.3	7.5	5.2	6.8	4.8
			1.3	8.2	5.3	7.3	4.8	6.9	4.7	6.2	4.3
			2.0	7.0	4.4	6.2	4.0	5.8	3.8	5.2	3.5
			2.8	5.5	3.3	4.8	3.0	4.5	2.9	4.0	2.6
		3.6	4.0	2.3	3.4	2.1	3.2	2.0	2.8	1.8	
		12.6	0.6	7.8	5.2	6.7	4.7	6.4	4.7	5.6	4.2
			1.3	7.1	4.7	6.1	4.2	5.8	4.2	5.1	3.8
			2.0	6.0	3.9	5.1	3.5	4.9	3.5	4.2	3.1
			2.8	4.6	2.9	3.9	2.6	3.7	2.6	3.2	2.3
		3.6	3.3	2.0	2.8	1.8	2.6	1.8	2.2	1.6	
		16.2	0.6	6.8	4.7	5.7	4.1	5.5	4.3	4.7	3.8
			1.3	6.2	4.3	5.2	3.7	5.0	3.9	4.3	3.4
2.0	5.2		3.5	4.3	3.1	4.1	3.2	3.5	2.8		
2.8	4.0		2.6	3.2	2.3	3.1	2.3	2.6	2.0		
3.6	2.8	1.8	2.3	1.6	2.1	1.6	1.8	1.4			
PIER LOCATION <b>5</b>		9.0	0.6	5.8	3.5	5.1	3.2	4.7	3.1	4.2	2.8
			1.3	5.4	3.2	4.7	2.9	4.4	2.8	3.8	2.6
			2.0	4.8	2.8	4.2	2.6	3.9	2.4	3.4	2.2
			2.8	3.9	2.2	3.4	2.0	3.1	1.9	2.7	1.7
		3.6	3.1	1.7	2.6	1.5	2.4	1.4	2.0	1.3	
		12.6	0.6	5.0	3.1	4.2	2.8	3.9	2.8	3.4	2.5
			1.3	4.6	2.9	3.8	2.5	3.6	2.5	3.1	2.3
			2.0	4.1	2.5	3.4	2.2	3.2	2.2	2.7	2.0
			2.8	3.3	2.0	2.7	1.7	2.5	1.7	2.1	1.5
		3.6	2.5	1.5	2.1	1.3	1.9	1.3	1.6	1.1	
		16.2	0.6	4.2	2.8	3.5	2.4	3.3	2.5	2.8	2.2
			1.3	3.9	2.6	3.2	2.2	3.0	2.3	2.5	2.0
2.0	3.4		2.2	2.8	1.9	2.6	2.0	2.2	1.7		
2.8	2.7		1.8	2.2	1.5	2.1	1.5	1.7	1.3		
3.6	2.1	1.3	1.7	1.1	1.5	1.2	1.3	1.0			

### USING THIS SPECIFICATION

Uni-Piers are to be set in a square grid pattern, except for the verandah. To obtain your maximum pier centres, follow the steps below.

1. Choose the pier condition in question from the pier plan below.
2. Using the number indicated by the pier condition, refer to the corresponding table set on the left.
3. Determine whether the job has *timber* or *closed steel* section bearers:
  - 
  -
 or C-section steel bearers:
  -
4. Select a *roof width* in metres
5. Choose your *maximum pier height* in metres
6. Finally, determine if the job has a sheet or tile roof, with or without bracing.
7. All brickwork is to be supported on concrete footings only.
8. Capacity tables are based on assumption that piers are spaced the same in both directions. (ie X=Y in Pier Location Diagram)

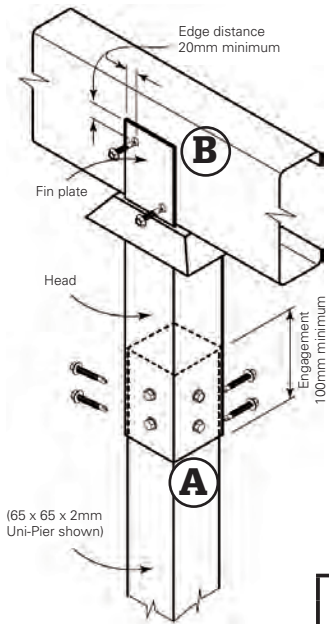


# Connection details

## for Builder's Grade and Heavy Grade Uni-Piers

Head to post connections. See diagrams on page 15

S = Screws B = Bolts	Roof width (m)	Grid Spacings (max)	Number of fasteners Wind region N1 & N2				Number of fasteners Wind region N3				Number of fasteners Wind region N4 & C1				Number of fasteners Wind region N5 & C2			
			Sheet		Tile		Sheet		Tile		Sheet		Tile		Sheet		Tile	
			No brace	Brace	No brace	Brace	No brace	Brace	No brace	Brace	No brace	Brace	No brace	Brace	No brace	Brace	No brace	Brace
			S B	S B	S B	S B	S B	S B	S B	S B	S B	S B	S B	S B	S B	S B	S B	S B
PIER LOCATION 1	9	1.5x1.5	4	2	4	2	6	2	6	2	4	2	6	2	6	2	6	2
		2.5x2.5	8	2	8	2	8	2	8	2	8	2	10	2	10	2	10	2
		3.5x3.5	10	2	10	2	12	3	12	3	10	2	18	4	12	3	20	4
		4.5x4.5	14	3	14	3	16	3	16	3	14	3	-	5	16	3	-	5
		5.5x5.5	18	4	18	4	-	4	-	4	-	18	4	-	6	4	-	6
	12.6	1.5x1.5	4	2	6	2	6	2	6	2	6	2	8	2	6	2	10	2
		2.5x2.5	8	2	8	2	10	2	10	2	10	2	12	3	10	2	16	3
		3.5x3.5	12	3	12	3	14	3	14	3	12	3	-	4	14	3	-	4
		4.5x4.5	16	3	16	3	18	4	18	4	16	3	-	5	18	4	-	5
		5.5x5.5	20	4	20	4	-	6	-	6	-	20	4	-	6	-	6	-
	16.2	1.5x1.5	6	2	6	2	6	2	8	2	6	2	8	2	6	2	10	2
		2.5x2.5	8	2	10	2	10	2	12	3	8	2	12	3	10	2	14	3
		3.5x3.5	12	3	12	3	16	3	16	3	12	3	-	4	16	3	-	4
		4.5x4.5	16	4	16	4	20	4	20	4	16	4	-	5	20	4	-	5
		5.5x5.5	-	4	-	4	6	6	6	6	-	4	-	5	-	6	-	6
PIER LOCATION 2	NA	1.5x1.5	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
		2.5x2.5	4	2	4	2	4	2	4	2	4	2	6	2	4	2	6	2
		3.5x3.5	8	2	8	2	8	2	8	2	8	2	8	2	8	2	8	2
		4.5x4.5	12	2	12	2	12	2	12	2	12	2	12	2	12	2	12	2
		5.5x5.5	16	2	16	2	16	2	16	2	16	2	16	2	16	2	16	2
PIER LOCATION 3	NA	1.5x1.5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		2.5x2.5	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
		3.5x3.5	4	2	4	2	4	2	4	2	4	2	4	2	4	2	4	2
		4.5x4.5	6	2	6	2	6	2	6	2	6	2	6	2	6	2	6	2
		5.5x5.5	8	2	8	2	8	2	8	2	8	2	8	2	8	2	8	2
PIER LOCATION 4	NA	1.5x1.5	2	2	4	2	2	2	4	2	2	2	4	2	2	2	4	2
		2.5x2.5	4	2	6	2	4	2	6	2	4	2	8	2	4	2	10	2
		3.5x3.5	4	2	8	2	4	2	8	2	4	2	10	2	4	2	12	3
		4.5x4.5	8	2	10	2	8	2	10	2	8	2	14	3	8	2	14	3
		5.5x5.5	10	2	12	2	10	2	12	2	10	2	18	3	10	2	18	3
PIER LOCATION 5	9	1.5x1.5	4	2	4	2	4	2	6	2	4	2	6	2	6	2	6	2
		2.5x2.5	4	2	6	2	6	2	8	2	4	2	10	2	4	2	12	3
		3.5x3.5	6	2	10	2	8	2	12	2	6	2	16	3	8	2	18	4
		4.5x4.5	10	2	12	3	12	3	14	3	10	2	20	4	12	3	20	4
		5.5x5.5	12	3	16	3	16	3	18	4	12	3	-	4	16	3	-	4
	12.6	1.5x1.5	4	2	4	2	4	2	6	2	4	2	6	2	4	2	6	2
		2.5x2.5	6	2	8	2	8	2	10	2	4	2	12	2	4	2	14	2
		3.5x3.5	8	2	10	2	10	2	12	3	6	2	16	3	8	2	16	3
		4.5x4.5	10	2	14	3	14	3	16	4	8	2	20	4	10	2	20	4
		5.5x5.5	14	3	18	4	18	3	-	4	10	2	-	6	12	3	-	6
	16.2	1.5x1.5	4	2	6	2	6	2	6	2	4	2	8	2	4	2	10	2
		2.5x2.5	6	2	8	2	8	2	10	2	4	2	12	2	4	2	14	2
		3.5x3.5	8	2	12	3	12	3	14	3	6	2	16	3	8	2	16	3
		4.5x4.5	12	3	16	3	16	3	20	4	8	2	20	4	10	2	20	4
		5.5x5.5	16	3	20	4	20	4	-	5	12	3	-	5	14	3	-	5



**A**

**Head to post fasteners**  
 Screws: Self Drilling, Self Tapping Screws  
 14–20 x 22 to AS 3566 Class 4  
 Bolts: M12 x 100mm galvanised mild steel.

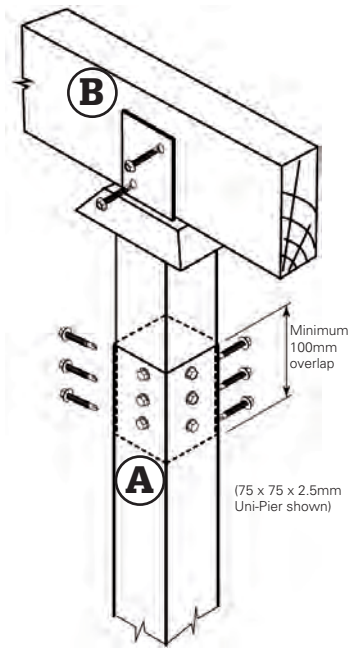
**B**

**Fin plate to bearer fasteners**  
 Screws for timber bearers: Type 17, 14–10 x 65 to AS 3566 Class 4  
 Screws for steel bearers: Self Drilling, Self Tapping Screws,  
 14-20 x 22 to AS 3566 Class 4  
 Bolts: M12 galvanised mild steel

For pier locations **1** and **5**, in wind regions N3, N4, N5, C1 and C2 the number of fasteners is specified.

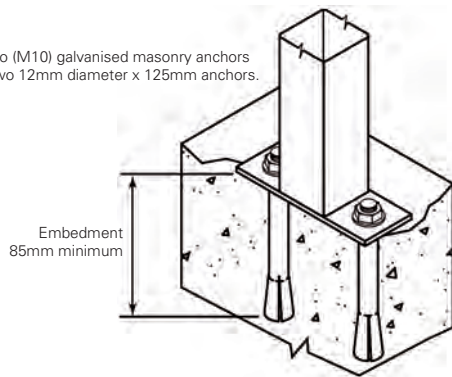
For all other situations use 2 screws or 2 bolts.

Sheet	Roof width (m)	Pier centres (mxm)	Number of fasteners Fin plate to bearer Sheet roof		Number of fasteners Fin plate to bearer Sheet roof		Number of fasteners Fin plate to bearer Sheet roof	
			Wind region N3		Wind region N4 & C1		Wind region N5 & C2	
			Screws	Bolts	Screws	Bolts	Screws	Bolts
<b>PIER LOCATIONS 1 &amp; 5</b>	9	1.5x1.5	2	2	2	2	3	2
		2.5x2.5	2	2	3	2	5	3
		3.5x3.5	2	2	4	2	7	4
		4.5x4.5	3	2	5	3	9	5
		5.5x5.5	3	2	6	3	10	6
	12.6	1.5x1.5	2	2	3	2	4	3
		2.5x2.5	3	2	4	3	7	4
		3.5x3.5	3	2	6	3	9	5
		4.5x4.5	4	2	7	4	12	7
		5.5x5.5	5	3	8	5	14	8
	16.2	1.5x1.5	2	2	3	2	5	3
		2.5x2.5	3	2	5	3	9	5
		3.5x3.5	4	3	7	4	12	7
		4.5x4.5	5	3	9	5	15	8
		5.5x5.5	6	3	11	6	18	10



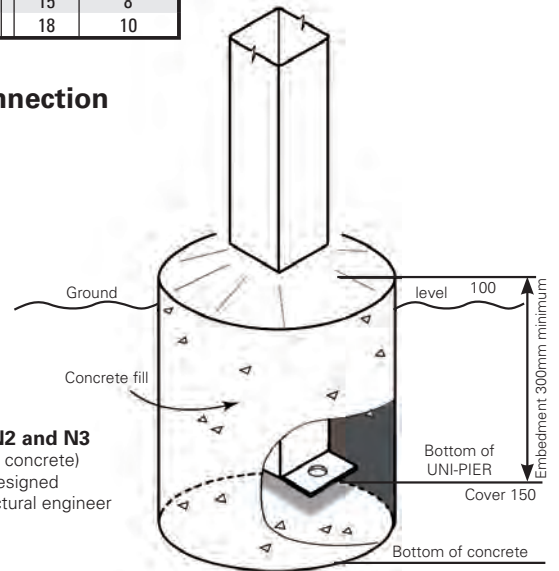
**Base Plate to footing connection**

Two (M10) galvanised masonry anchors or two 12mm diameter x 125mm anchors.

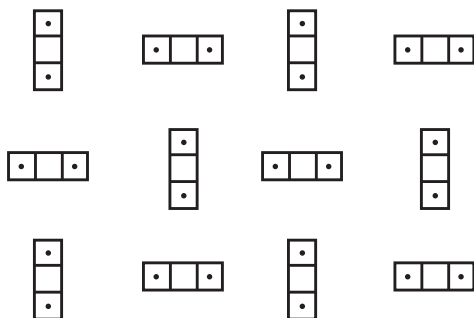


Wind regions N1, N2 and N3

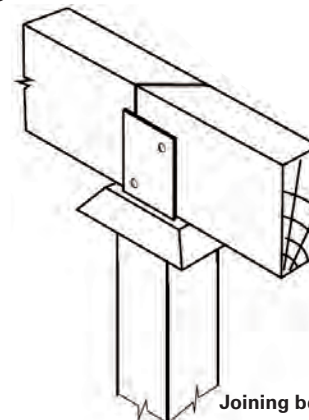
**Wind regions N1, N2 and N3**  
 (Uni-Pier to be cast in concrete)  
 Footing must be designed by a geotechnical or structural engineer



**Additional Guidelines**



**Recommended Pier Orientation**  
 alternate base plate direction for maximum pier stability



Joining bearers on Pier

# Design Assumptions

- 1 Data is provided for seven wind regions in five groups according to AS 4055-1992 as follows:

AS4055	Equivalent to:
N1	W28N permissible W34N limit state
N2	W33N permissible W33N limit state
N3	W41N permissible W50N limit state
N4 & C1	W50N & W41C permissible W61N & W50 limit state
N5 & C2	W60N & W50C permissible W74N & W61C limit state

- 2 All brickwork supported on concrete footings.
- 3 Maximum height of wall is 3.0m.
- 4 Height from ground floor level to highest point on roof should not exceed 5.5m.
- 5 No bracing implies masonry veneer type of construction. Bracing implies cladding type of construction.

- 6 Allowed Design Loads

Dead load of floor      0.5 kPa  
 Live load of floor      1.5 kPa (for internal areas)  
 Live load of floor      3.0 kPa (for external areas eg verandahs)  
                                          Tile and Sheet roofs are considered  
 Live load on roof      0.25 kPa  
 Allowance made for stud walls lined with plasterboard

- 7 Maximum roof pitch is 35 degrees.

- 8 Capacity tables are based on assumption that piers are spaced the same in both directions. (ie X=Y in Pier Location Diagram).

I hereby certify that the Uni-Pier Selection Guide 2009 including its design tables, bracing details and connection details as well as other information contained therein, has been prepared in accordance with the relevant Australian Standards and the Building Code of Australia. The Uni-Pier Selection Guide can only be applied for the use and installation of actual Uni-Pier products or for other products specified within that document.



W.L. Ryan BE MEngSc MIEAust CPEng NPER  
Director SRIV Engineering Pty Ltd

## Caution

Uni-piers are generally designed for residential applications, including roof and floor loads.

Where buildings have large "point loads" or where buildings are of an unusual structural design, Uni-Pier Australia Pty Ltd recommend that advice be sought from a registered practising structural engineer.

If in doubt, always consult a registered practising structural engineer.

This manual was prepared to comply with the relevant Australian Standards and contains technical information for the design for flooring of residential structures and to be applied by a registered practising engineer. Uni-Pier Australia Pty Ltd reserves the right to revise or amend this manual without notice.



**Uni-Pier**  
TELESCOPIC POST & HEAD

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