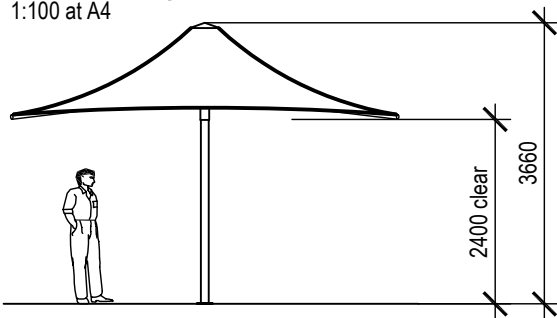


Plan

1:100 at A4



Elevation

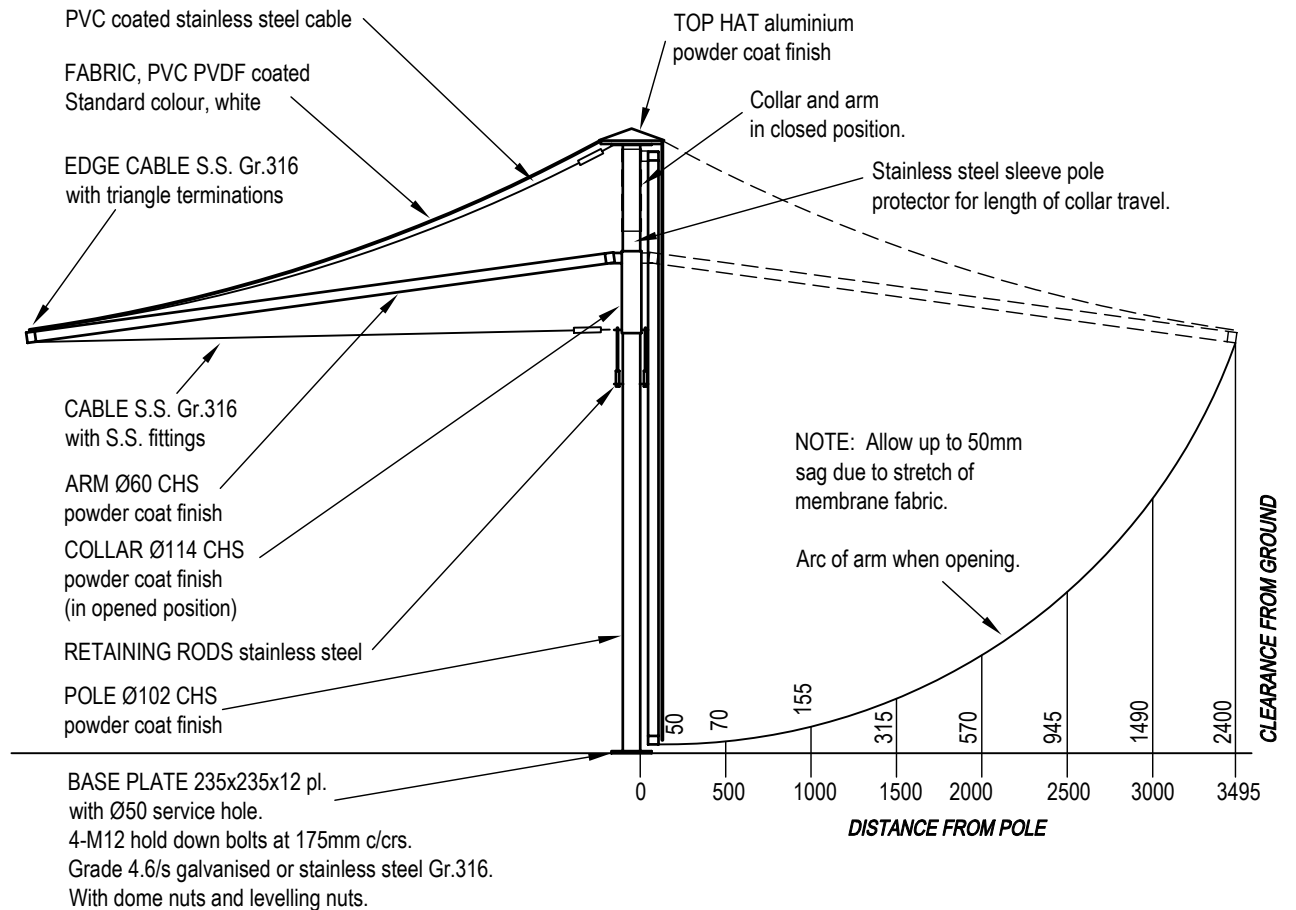
1:100 at A4

Centre Support SQUARE 5m

Wind Rating: 33m/sec (120km/h)
 Rated when umbrella is fully erected.
 Umbrella weight: 145kg

Overall dimensions represent clearance dimensions for the complete umbrella.
 Membrane dimensions differ, depending on variations in tensioning and fabrication.

Dimensions are in millimetres.



OPENED POSITION

CLOSED POSITION

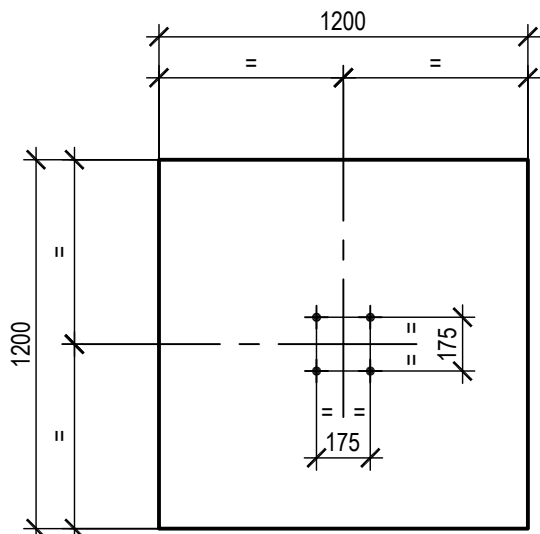
**5m Centre Support Square Umbrella
 Model SUA-CS50**



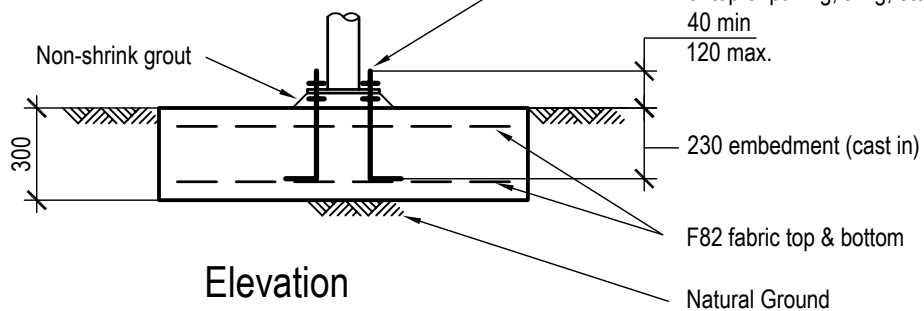
Centre Support Square Umbrella
 Model: SUA-SC50



Engineering Framing

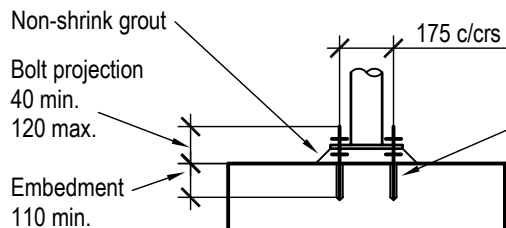


Plan



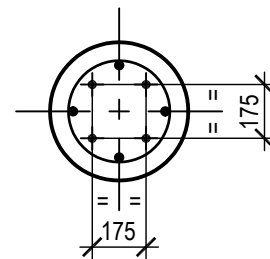
Elevation

SUA-CS50 - Pad Footing

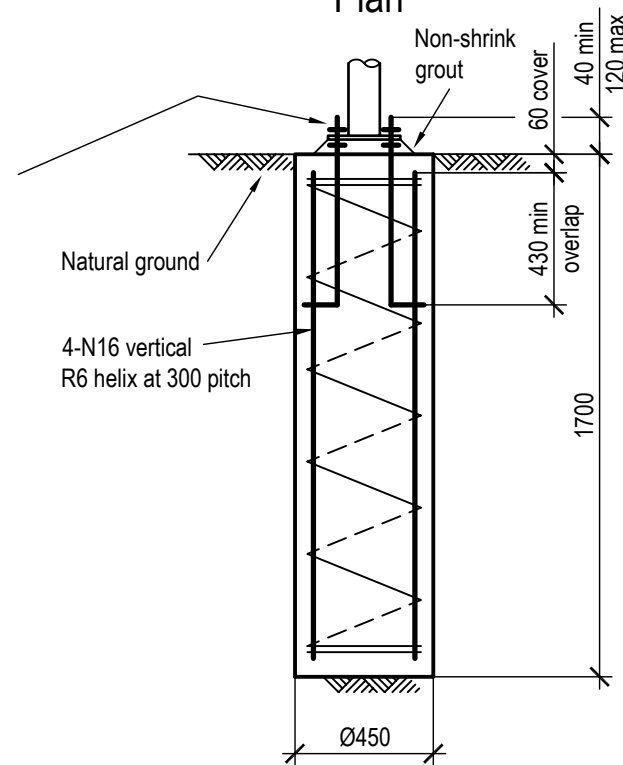


4-M12 H.D. bolts to be threaded rod grade 4.6/s hot dipped galvanised, or stainless steel Gr.316. Supplied with nuts, washers and levelling nuts. Chemical anchors, at 175 x 175 centres to be 'Hilti HVU', or engineer approved equivalent, and to be installed in accordance with the manufacturer's instructions. Hole to be clean and dry at time of installation.

Chemical Anchor Detail



Plan



Elevation

SUA-CS50 - Pier Footing

Notes:

Design wind speed 33m/sec (W33)

Assumed soil conditions:

Pad - bearing capacity 100kPa

Pier - $c_u=50$ kPa (stiff clay)

Minimum 60mm cover to all reinforcement

Concrete grade to be N25

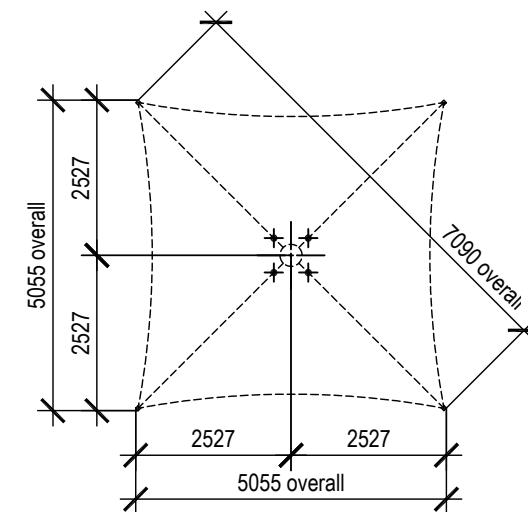
20mm aggregate size

Slump 65mm

Anchor bolt location tolerances per

Australian Standard AS 4100-1990

- 3mm for anchor bolt centres within an anchor bolt group.
- 6mm for adjacent anchor bolt group centres.
- Maximum accumulation of 6mm per 30m not to exceed a total of 25mm.
- 6mm from anchor bolt group centre to column line centre.



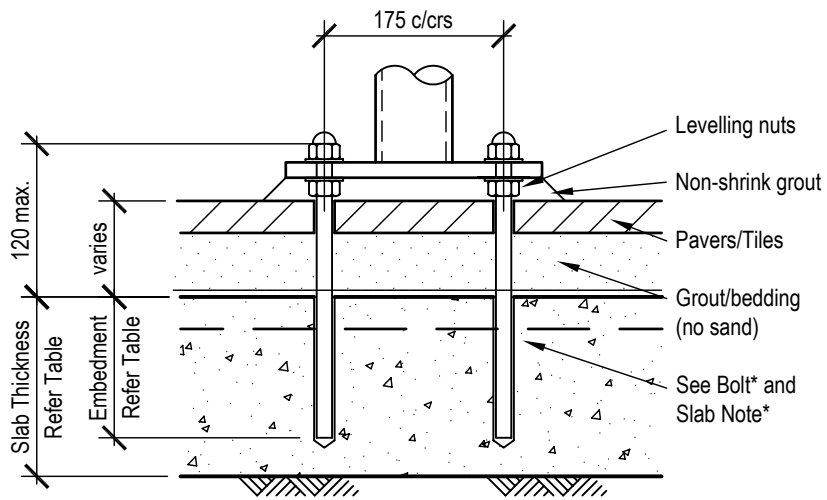
H.D. Bolt Layout Plan

Not to scale

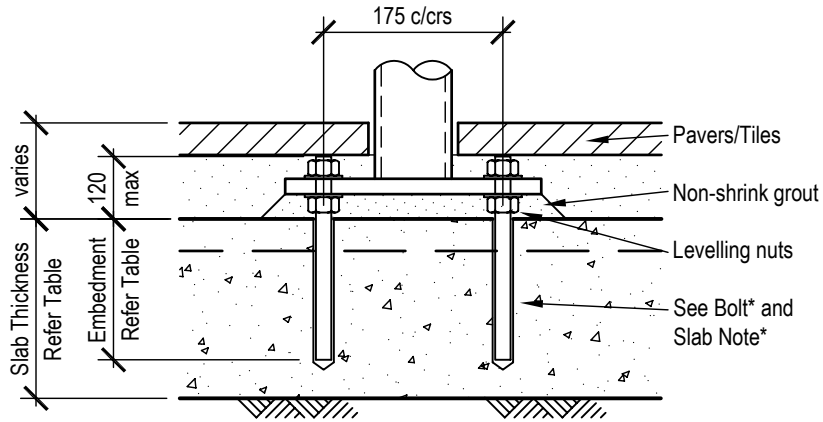
Centre Support Square Umbrella
Model:SUA-CS50

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Australia

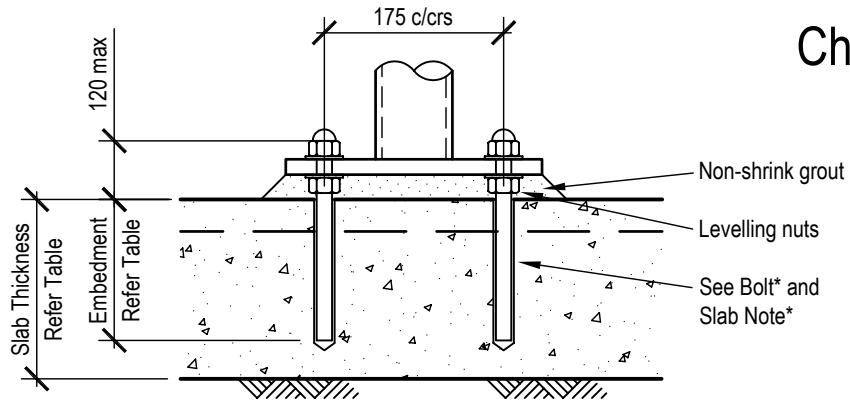
Footings Detail



Over Pavers



Under Pavers



On Slab

Chemical Anchor Fixing to Slab on Ground

* H.D. BOLT NOTE

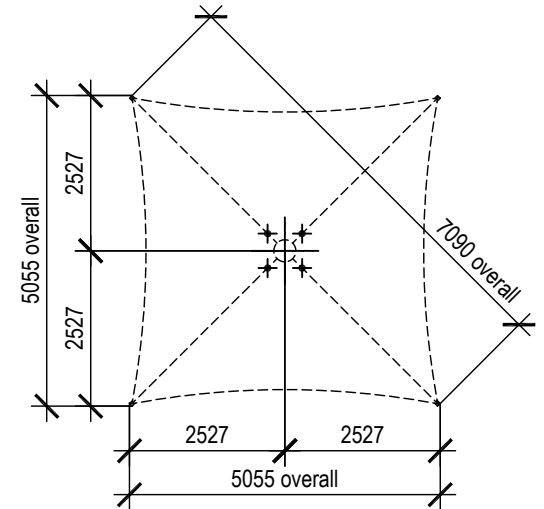
Structure pole has 235 x 235 x 12 base plate.
4-M12 H.D. bolts to be threaded rod grade 4.6/s hot dipped galvanised, or stainless steel Gr.316. at 175 x 175 centres.

* SLAB ON GROUND NOTE

The existing reinforced concrete slab on ground is to be approved for adequacy by a Structural Engineer before installation. Concrete strength - f_c 25MPa.

Installation requires **1 sq m** of continuous reinforced slab with the pole centre 400mm minimum from a slab edge or control joint.

Contact a SUA Dealer if the slab does not meet any of the requirements.



H.D. Bolt Layout Plan

Not to scale

Slab Thickness	Chemical Anchor	Min. Embedment	H.D. Bolts*	Min. Slab Edge Distance*
100	Ramset Reo 502 (or Hilti HIT-RE 500)	80	4-M12 at 175 c/crs	400
110	Ramset Reo 502 (or Hilti HIT-RE 500)	90	4-M12 at 175 c/crs	400
120	Ramset Reo 502 (or Hilti HIT-RE 500)	100	4-M12 at 175 c/crs	400
130	Hilti HVU	110	4-M12 at 175 c/crs	400
140 plus	Hilti HVU	110	4-M12 at 175 c/crs	400

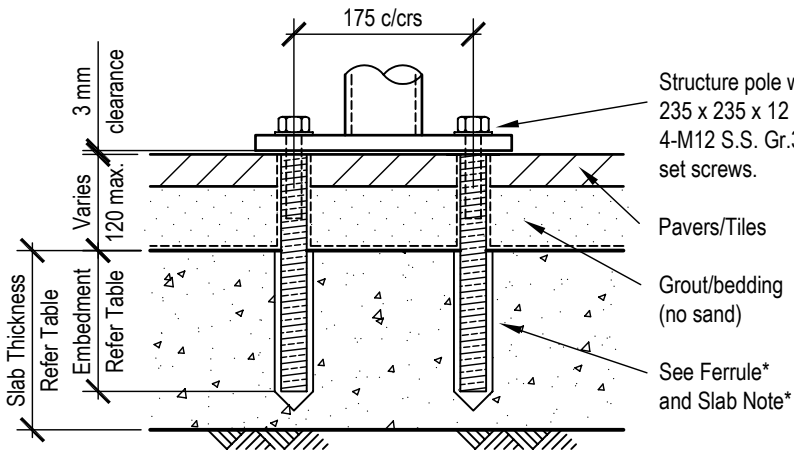
Chemical anchor to be as above or Engineer approved equivalent, and to be installed in accordance with the manufacturer's instructions.

Installation Detail - Model SUA-CS50

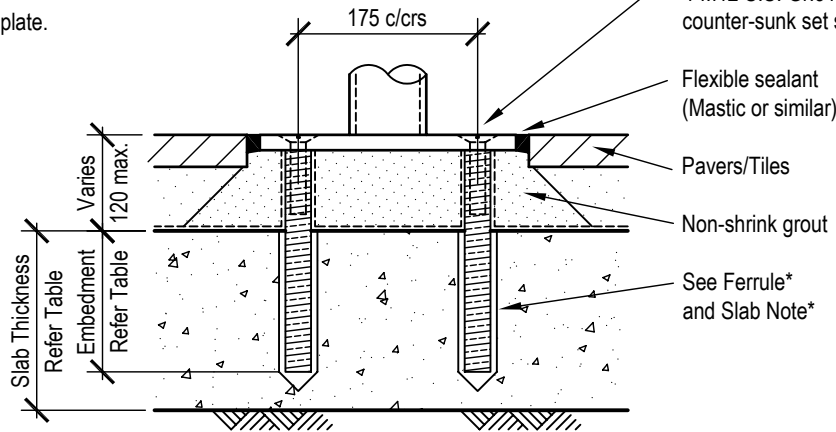
Centre Support Square Umbrella
Model:SUA-CS50

Existing Slab on Ground

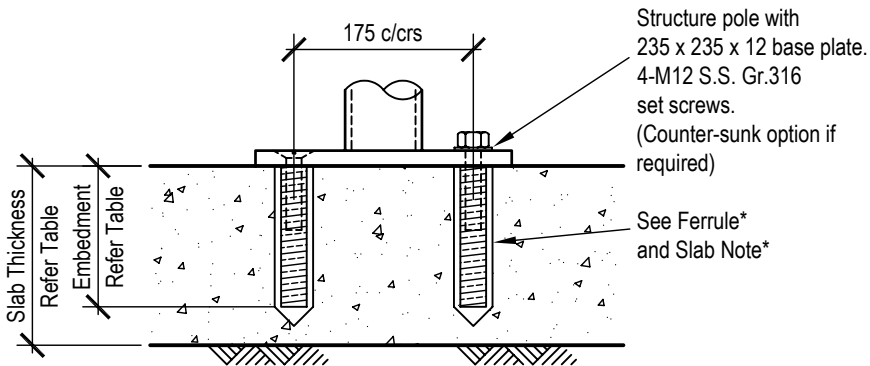
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umbrellas
Australia



Over Pavers

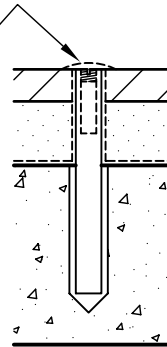


At Pavers



On Slab

Rubber grommets, stainless steel grub screws with hex socket or brass flat dome head screws, screw into ferrule flush with paving to keep ferrule thread clean.



Ferrule Fixing with Umbrella Removed

Structure pole with 235 x 235 x 12 base plate. 4-M12 S.S. Gr.316 counter-sunk set screws.

*** FERRULE NOTE**
Ferrules at 175 x 175 centres are M20 stainless steel Gr.316 threaded rods tapped for M12.

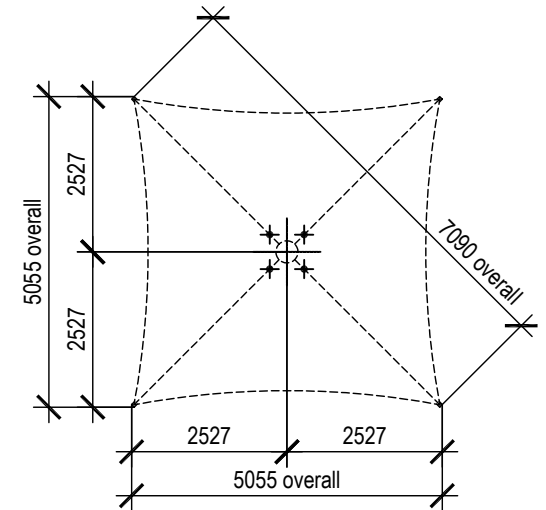
*** SLAB ON GROUND NOTE**
The existing reinforced concrete slab on ground is to be approved for adequacy by a Structural Engineer before installation. Concrete strength - f_c 25MPa. Installation requires **1 sq m** of continuous reinforced slab with the pole centre 400mm minimum from a slab edge or control joint.

Contact a SUA Dealer if the slab does not meet any of the requirements.

Chemical Anchor Fixing to Slab on Ground

Slab Thickness	Chemical Anchor	Min. Embedment	Ferrules*	Min. Slab Edge Distance*
100	Ramset Reo 502 (or Hilti HIT-RE 500)	80	4-M12 at 175 c/crs	400
110	Ramset Reo 502 (or Hilti HIT-RE 500)	90	4-M12 at 175 c/crs	400
120	Ramset Reo 502 (or Hilti HIT-RE 500)	100	4-M12 at 175 c/crs	400
130	Hilti HVU	110	4-M12 at 175 c/crs	400
140 plus	Hilti HVU	110	4-M12 at 175 c/crs	400

Chemical anchor to be as above or Engineer approved equivalent, and to be installed in accordance with the manufacturer's instructions.



H.D. Bolt Layout Plan

Not to scale

Ferrule Detail - Model SUA-CS50

Centre Support Square
Umbrella Model SUA-CS50

Ferrule Fixing

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