

SM:/GA7142.008

May 2009

TO WHOM IT MAY CONCERN**STONECLIP.COM M16 ADJUSTABLE “STONECLIP”**

This is to certify that Sheehy & Partners have checked the design of the mechanical fixing known as “M16 Adjustable StoneClip”. The M16 Adjustable StoneClip parameters and design capacities are summarised below. The limit state loading on the fixings to connect the M16 Adjustable StoneClip to the substrate are also provided on the following pages.

DESIGN ASSUMPTIONS

The design has been based on the following:

- StoneClip samples provided to this office.
- All components of the clip have been designed in accordance with AS 4673:2001- “Cold-Formed Stainless Steel Structures”, other relevant codes, and in accordance with widely accepted engineering principles.
- The load factor applied to Panel Dead Loads is 1.35 in accordance with AS1170.0:2002 “Structural Design Actions”.
- Where M16 Adjustable StoneClips are to resist lateral loads they have been designed for a strength limit state pressure of 2.53 kPa. For lateral wind loadings this is equivalent to buildings in wind region B and terrain category 2 and for a maximum cladding height of 10 m in accordance with AS1170-2:2002 “Structural Design Actions - Wind Actions”.

M16 ADJUSTABLE STONE CLIP GEOMETRY**DIRECTORS:**

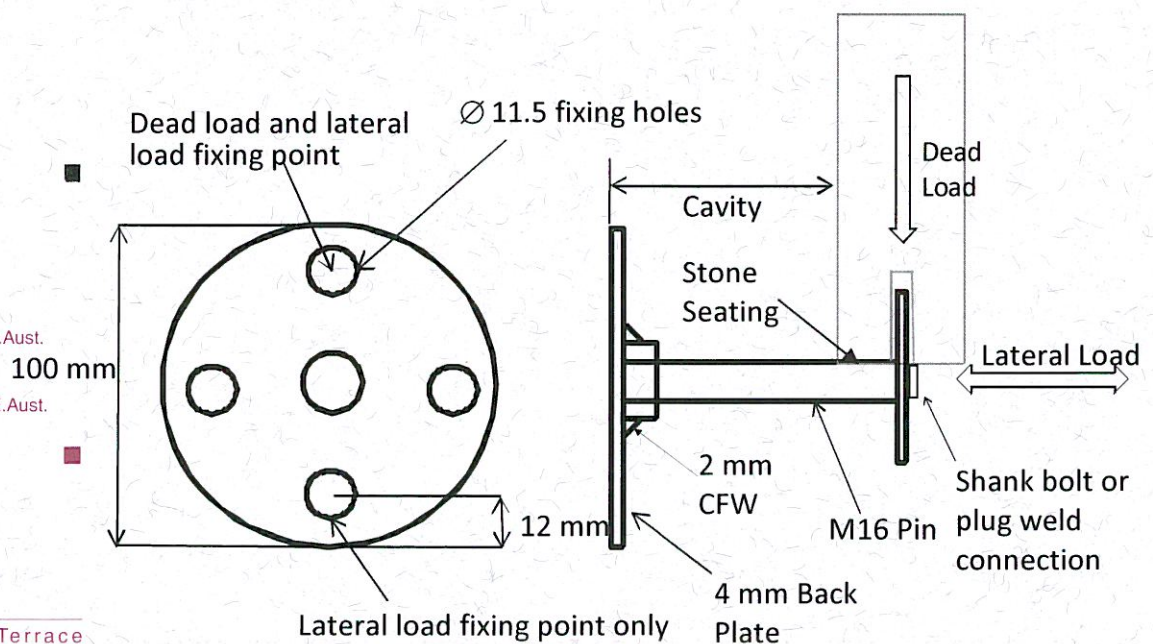
P. Cockerill,
Cert.Eng.

S. Thomas,
B.Eng.(Hons), M.I.E.Aust.

S. McDonald,
B.Eng. (Hons), M.I.E.Aust.
MBA



3 Gregory Terrace
SPRING HILL QLD 4000
Phone: (07) 3839 3644
Facsimile: (07) 3839 3655
Email: mail@sheehy.com.au



STONECLIP DESIGN CAPACITY TABLES

1.0 Vertical loading only

The following tables are for the M16 Adjustable StoneClip carrying vertical loading only (no allowance for wind loading). The Clip is fixed with one fixing only through the top hole in the back plate. Fixings are to be selected in accordance with fixing manufacturer's documentation.

Table 1.1 – Vertical Load Capacity – M16 Adjustable StoneClip

Cavity #) [mm]	Max Vertical Load per Clip [kg]	Fixing loading	
		Shear *) [kN]	Tension *) [kN]
185	23	0.31	0.86
160	26	0.35	0.86
150	28	0.38	0.86
100	40	0.54	0.86
50	74	1.00	0.86

*) Limit State Load

#) "Cavity" is the distance between the substrate and the inside face of the panel.

2.0 Lateral Loading Only

The following table is for the M16 Adjustable StoneClip carrying lateral loading only (no allowance for vertical loading).

Each clip is fixed with two fixings through holes on opposite sides of the centre. Fixings are to be selected in accordance with fixing manufacturer's documentation.

Table 2.1 – Lateral load Capacity – M16 Adjustable StoneClip

Tension Capacity [N]	Wind Area ^) [m ²]	Fixing loading Tension *) [kN]
1725	0.68	1.12

^) The wind area is the maximum area that one M16 Adjustable StoneClip can resist based on the design wind pressure of 2.53 kPa, as noted in the design assumptions. For other wind loading situations engineered solutions based on the above tension capacity may provide increased/reduced wind areas.

*) Limit State Load

CERTIFICATION

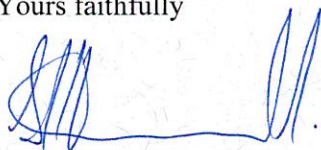
If the M16 Adjustable StoneClip installation is completed in accordance with the above design, the Stoneclip.com specifications and sound building practice, the “StoneClip” mechanical fixing is considered to be structurally adequate.

This certificate does not cover the strength of the stone panel or the transfer of load from the Stone Panel to the M16 Adjustable StoneClip.

The certificate does not cover the fixing or the substrate to which the clip is attached. Proprietary fixings to the substrate are to be selected based on the strength limit state loading given in the above tables and based on the design capacities provided by the manufacturer of the fixing.

The undersigned is a Registered Practising Engineer in Queensland (RPEQ No. 8023)

Yours faithfully



S McDonald
for and on behalf of
SHEEHY & PARTNERS PTY LTD
Consulting Engineers