

PROJECT: COMMONWEALTH BANK REBRAND
PENDANT SIGN WALL FIXING ARRANGEMENT

ADDRESS: REGION A AND B

REFERENCE: SCF:085:A

DATE: 19/MAY/09

SCOPE:

For Pendant Wall Mounted sign - engineering specifications for:

1. Wall plate.
2. Wall anchors.

These documents have been prepared in accordance with the following:

REGULATIONS:

BCA 2009 Building Code of Australia

CODES & STANDARDS

AS/NZS	1170		Structural design actions
AS/NZS	1170 .0	2002	Part 0: General principles
AS/NZS	1170 .1	2002	Part 1: Permanent, imposed and other actions
AS/NZS	1170 .2	2002	Part 2: Wind actions
AS/NZS	1554		Structural steel welding
AS/NZS	1554 .1	2000	Part 1: Welding of steel structures
AS	3600	2001	Concrete structures
AS	4100	1998	Steel structures
AS/NZS	4600	2005	Cold-formed steel structures

MATERIALS:

Wall plate: 75x40x4.0 PFC

Wall Anchors: M10 Dynabolt EMB = 40mm

COMMENTS:

To be installed strictly in accordance with manufacturers instructions.

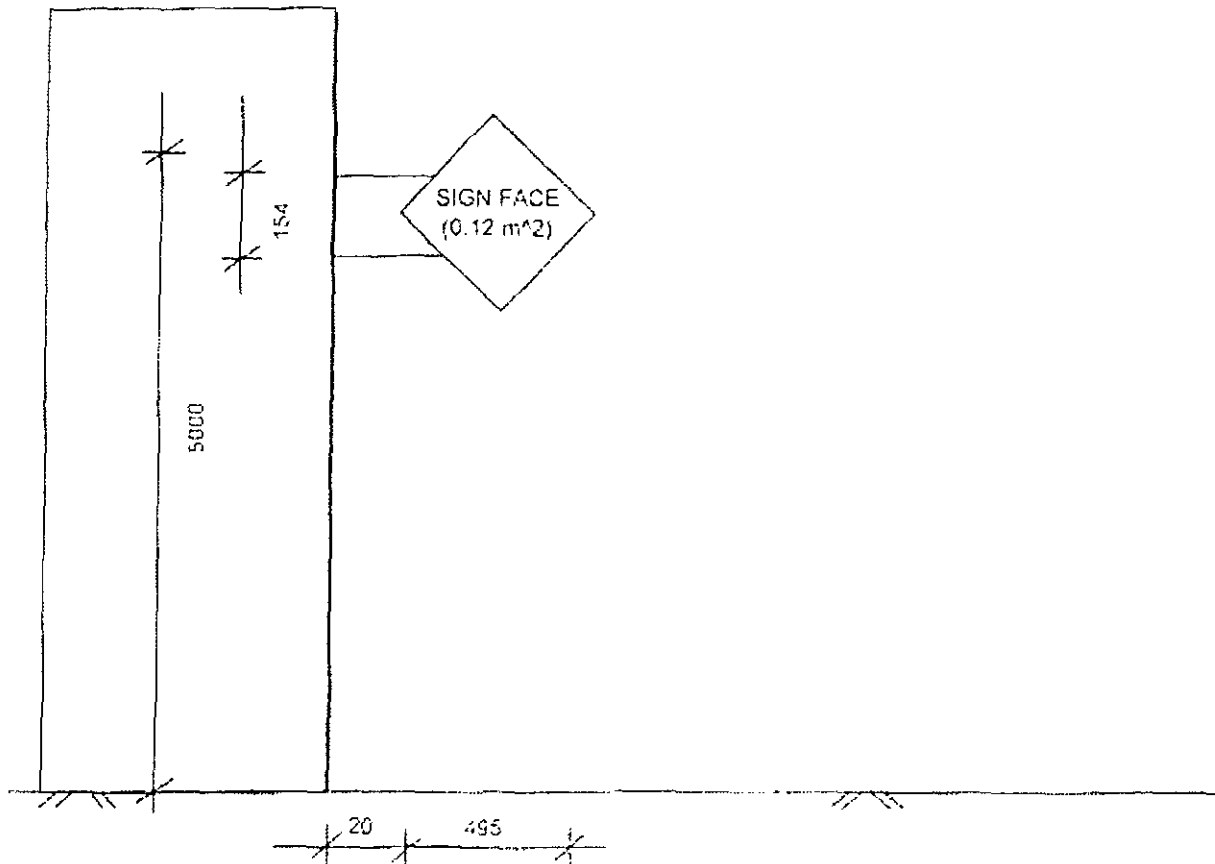
Substrates covered by these calculations:

Concrete, Precast Concrete, Solid Brick and 3 Hole Brick NOT 10 Hole Brick and Concrete Block.

NOTE:

1. For connections to existing steel structural members use M10(8.8/S). Conditional on engineer's approval for final arrangement.
2. Not suitable for 10 hole brick or Concrete Block. Engineer's approval required for all arrangement.

DESIGN ARRANGEMENT:



WIND LOAD:

Region = B

TC = 3

Rec. Int = 50 years

V50 = 44 m/s

H = 5.00 m

[illegible]

WIND LOADS:

Param.	Formula	Value	Units
Reg	Region.	B	--
TC	Terrain Category.	3.0	--
hz	Height top of sign above NGL.	5.00	m
ho	Height to datum	0.00	m
h	Height: top of sign above datum = $h_z - h_o$	5.00	m
R	Recurrence Interval	50	--
VR	Regional wind speed.	44	m/s
pz	Wind pressure at height $z = h_z$	0.67	kPa
c	Height of sign face (vertical)	0.35	m
b	Length of sign face (horizontal)	0.50	m
b/c	Ratio: length to height.	1.41	--
c/h	Ratio: height to total height.	0.07	--
Cp	Wind pressure coefficient.	1.44	--
pd	Design wind pressure	0.96	kPa
As	Area sign face	0.12	m ²
hcoa	Horiz disn to centre of area	0.35	m
ea	Horiz disn CL to CoA	0.00	m
e	Design eccentricity = $0.2 \cdot b$	0.10	m
et	$ea + e$	0.10	m
Ws	Wind shear (Region B)	0.12	kN
Ms	Wind moment (Region B)	0.04	kNm
Comments:			

PROJECT	PENDANT SIGN				CS	
NUMBER		DATE		TIME		
LOCATION						
ATTEND						

CENTRAL CASE

IN TENSION ON TOP BOLT

$$DL = 0.36 \text{ kN}$$

$$W/L = M_{\text{nom}} / l \quad l = 15 \text{ mm}$$

(To PLCE OF
PTC)

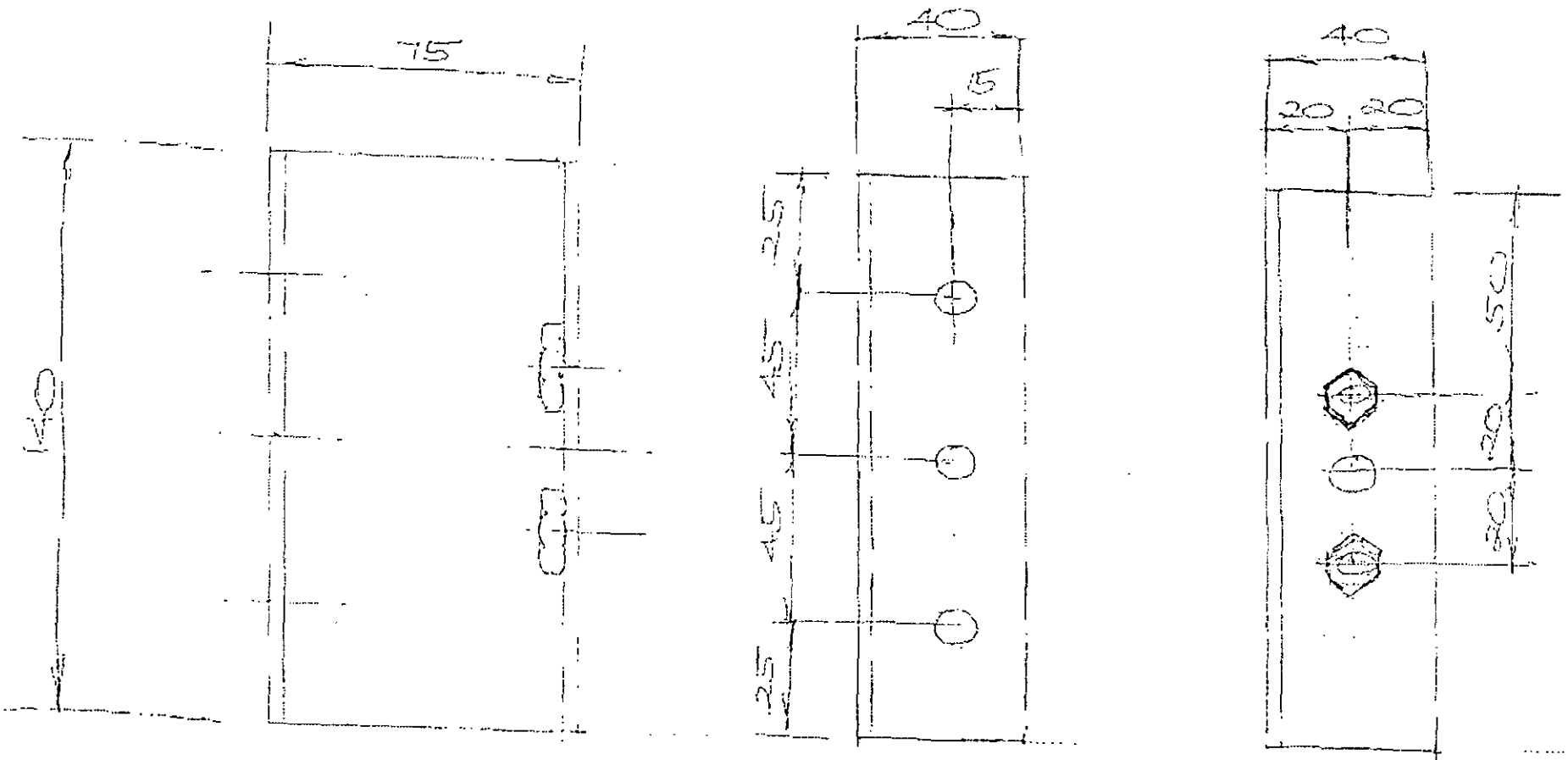
$$\Rightarrow 0.64 / 0.015$$

$$= 2.7 \text{ kN} \Rightarrow (W/L) 1.8 \text{ kN}$$

$$M_{\text{nom}} = 2.2 \text{ kN} \cdot \text{m} \text{ (On Top Bolt)}$$

$$V_{\text{act}} = 0.18 \text{ kN}$$

M10 DYNABOLT SUITABLE FOR ALL
 SUBSTRATE (E.G. CONCRETE BLOCK)



MATERIAL 75x40 L
HDC

5-HOLES 12 Ø
WELD 2-OFF M10
NUTS.

PENDANT 27/10/04
CASH LEVER EXD
C-P-04

(W) 27/10/04