

A.C.N. 007 208 228

Project:

3 Pearly Lane  
K = CATE

Engineer:

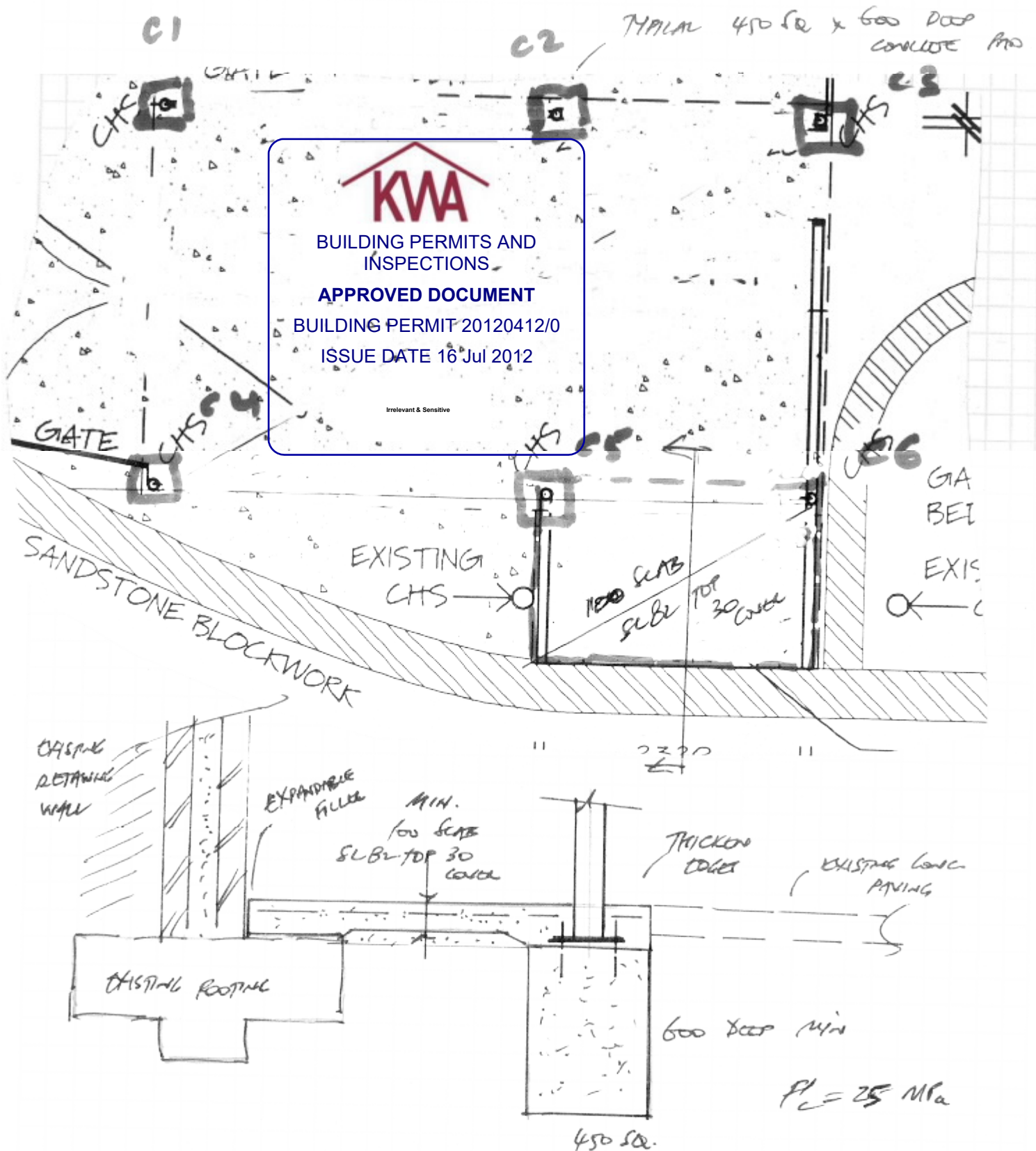
JOHN JARKOVIC

Job No.: 12167

Date: June 2012

Page: .....

PHOBIC CARROT





**J.V. CONSULTING ENGINEERS Pty. Ltd.**

A.C.N. 007 208 228

364 Main Street

Mornington, 3931

Phone (03) 5975 9333

Fax (03) 5975 9444

Email eng@jvconeng.com.au

Project: .....

Engineer: .....

BUILDING PERMITS AND  
INSPECTIONS

APPROVED DOCUMENT

BUILDING PERMIT 20120412/0

ISSUE DATE 16 Jul 2012

CARPORT BEAMS

MAX SLAT = 3800

Effective Low WIND = 2.0  $\begin{matrix} 0.4 = 0.8 \\ 0.2 = 0.5 \\ \hline 1.3 \text{ k/m} \end{matrix}$

MAX WIND UPLIFT: — TOLERANCE CM 2

$$V_z = 45 \times 0.91 \times 0.9 \times 1.0 = 36.8 \text{ m/sec}$$

$$\therefore p_z = 0.6(36.8)^2 \times 10^{-3} = 0.81 \text{ kPa}$$

$$\text{MAX WIND UPLIFT} = 0.81 \times 1.0 = 0.81 \text{ k/m}^2 \times 2.0 = 1.6 \text{ k/m}^2$$

$$\therefore \text{DL} + \text{W} = 1.3 \text{ k/m} \downarrow$$

$$\text{DL} + \text{W} = 0.8 \text{ k/m} \uparrow$$

$$M_{\text{max}} = 2.3 \text{ kNm}$$

$$240 \times 45 \text{ TP} \rightarrow f_z = 3.7 \text{ MPa} \text{ OK. } (240 \times 45 \text{ TP } f_z = 5.3)$$

$$L_{ss} = 4.9 \leq 3.0 \times 2 = 6.0 \text{ OK.}$$

$$(240 \times 45 \text{ TP}) \rightarrow A = 8.7 \leq 5.3 \times 2 = 10.6$$

ie MIN. 240 x 45 TP. BEAMS OK.

TOTAL WIND FORCE ALONG CARPORT CHANG

$$= 6 \text{ kPa } (0.81 \times 9) \times 1.0 = 4.5 \text{ kPa}$$

TOTAL 6 POSTS + FORCE 4

$$\therefore \text{LOAD/POST} = 1.1 \text{ kPa}$$



**J.V. CONSULTING ENGINEERS Pty. Ltd.**

A.C.N. 007 208 228

364 Main Street

Mornington, 3931

Phone (03) 5975 9333

Fax (03) 5975 9444

Email eng@jvconeng.com.au

Project: .....

Engineer: .....



BUILDING PERMITS AND  
INSPECTIONS

APPROVED DOCUMENT

BUILDING PERMIT 20120412/0

ISSUE DATE 16 Jul 2012

COMPUTATIONS

Job No. 12167

Date: .....

Page: 3

Irrelevant & Sensitive

$$\text{for HEAVY} = 2400$$

$$\therefore M_{HE} = 2.64 \text{ kNm}$$

$$101.6 \phi \times 3.2 \text{ CHS}$$

$$Z = 23.6 \times 10^3$$

$$F = 1.20 \times 10^6$$

$$f_b = 111.9 \text{ MPa} (= 0.32 f_y)$$

OK

$$\checkmark \leq \frac{1.1 \times 2 \times 10^3 \times 10^{12} \times 10^3}{3 \times 2 \times 10^8 \times 1.2 \times 10^6}$$

$$= 4.2 \times 0.86 = 18.2 \text{ mm}$$

Acceptable for CHS.  $\therefore$  OK.

101.6  $\phi$  x 3.2 CHS OK for RAILS

$$\text{FORM MAX. UPLIFT OF CHAIRS:} = 0.8 \times 6.1 \times 3.5 = 17.1 \text{ k}$$

$$6 \text{ FORMS} \rightarrow 2.85 \text{ kN} = 0.119 \text{ m}^3$$

1E 600 x 450 OK. OK.

$$\text{BORN AT 130 MPa} \therefore \text{long base} = \frac{2.64}{0.13} = 20.3/2 = 10.2 \text{ k}$$

1E MIN. 4 - 112  $\phi$  "CHAIRS" 10 BASE PLATE



**J.V. CONSULTING ENGINEERS Pty. Ltd.**

A.C.N. 007 208 228

364 Main Street

Mornington, 3931

Phone (03) 5975 9333

Fax (03) 5975 9444

Email eng@jvconeng.com.au

Project: .....

Engineer: .....



**BUILDING PERMITS AND  
INSPECTIONS**

**APPROVED DOCUMENT**

**BUILDING PERMIT 20120412/0**

**ISSUE DATE 16 Jul 2012**

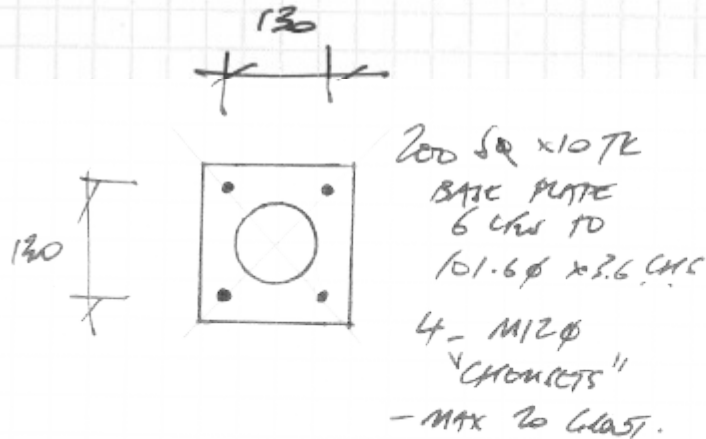
**COMPUTATIONS**

Job No.: 12167

Date: .....

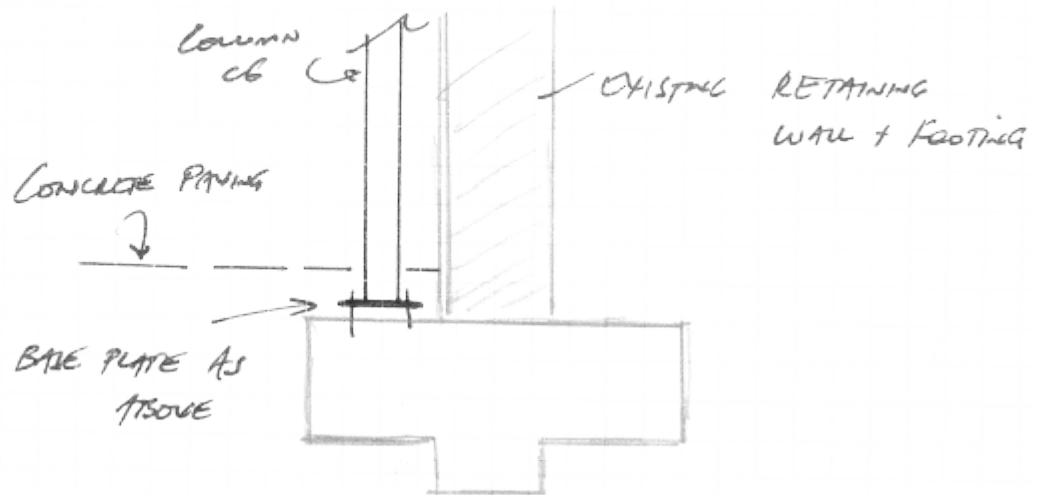
Page: 4

Irrelevant & Sensitive



TYPICAL BASE PLATE C1 - C5

C6 Column Fixing — TO RETAINING WALL FOOTING







**J.V. CONSULTING ENGINEERS Pty. Ltd.**

A.C.N. 007 208 228

364 Main Street

Mornington, 3931

Phone (03) 5975 9333

Fax (03) 5975 9444

Email eng@jvconeng.com.au

Project: .....

Engineer: .....



**BUILDING PERMITS AND  
INSPECTIONS**

**APPROVED DOCUMENT**

BUILDING PERMIT 2012041210

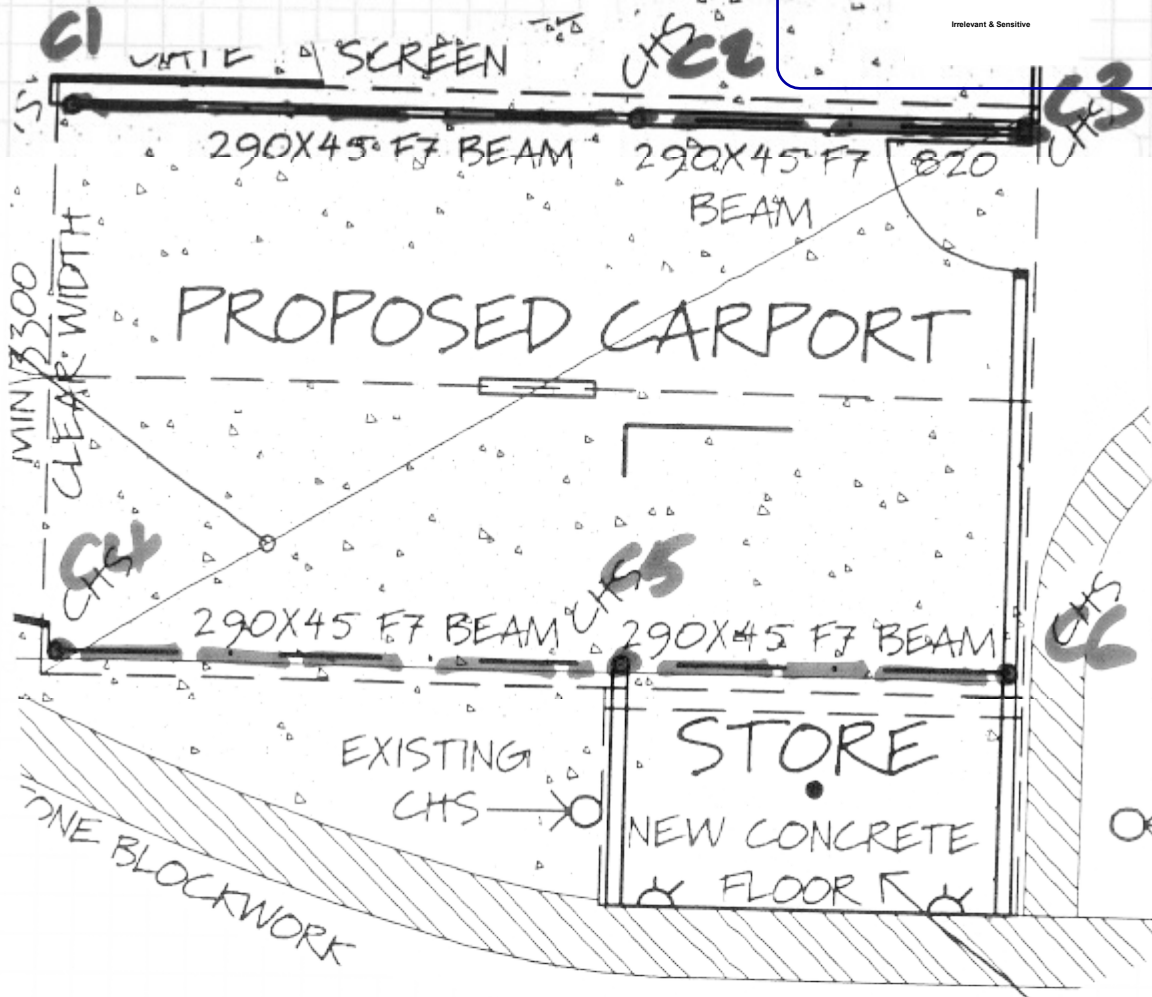
ISSUE DATE 16 Jul 2012

**COMPUTATIONS**

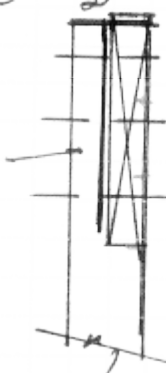
Job No: 12167

Date: .....

Page: 5



CAP PLATE  
4 bolts  
Weld



TYPICAL PIPING  
BEAM TO  
CHS.

8 CLEAR  
PLATE  
4 CHS TO  
CHS  
3. M12  
BOLTS TO  
290x45 F7

NOTE ALL FREEWALK

4 FITTINGS TO  
BE HOT DIP  
 GALVANIZED

OR EQUIVALENT  
CORROSION PROTECTION