



LOCAL

# Construction Certificate

CERTIFICATE NUMBER. 5002780

Pittwater

yours locally

Sydney North West  
21/5 Inglewood Place  
Baulkham Hills 2153  
PO Box 7321 Baulkham Hills BC NSW 2153  
DX 8461 Castle Hill  
p 02 9836 5711 f 02 9836 5722  
web www.localgroup.com.au

Issued under the Environmental Planning and Assessment Act, 1979

**SUBJECT LAND** HNO 7  
LOT 129  
DP/SP/CP 270385  
MELALEUCA PLACE  
WARRIEWOOD 2102

**DEVELOPMENT CONSENT** N0303/08  
**DATE OF CONSENT** 14 NOVEMBER, 2008  
**DESCRIPTION OF WORK** DWELLING (TWO STOREY)

**LIMITATIONS &/OR EXCLUSIONS**

**BUILDING CLASSIFICATION** 1A

COPY

SCANNED

17 DEC 2008

PITTWATER COUNCIL

The application for this Construction Certificate has been determined as **APPROVED** in accordance with the procedures outlined in Clause 142 of the Environmental Planning and Assessment Regulation 2000. In making this determination, I certify that the work if completed in accordance with the documentation accompanying the application for the Certificate (with such modifications verified by the certifying authority as may be shown on that documentation) will comply with the requirements of this Regulation as referred to in Section 81A(5) of the Environmental Planning and Assessment Act, 1979, as amended.

## DOCUMENTATION ACCOMPANYING THE APPLICATION

### PLANS

PLANS PREPARED BY CLARENDON RESIDENTIAL GROUP, DATED 28/08/08 REVISION B DATED 28/08/08 JOB # 29787129, SHEETS 1 12 & 2 1-2 2

### SPECIFICATIONS

GENERAL HOUSING SPECIFICATION PREPARED BY HIA

### OTHER DOCUMENTS

APPLICATION FORM  
OWNERS CONSENT  
HOW CERTIFICATE  
COUNCIL RECEIPTS  
SYDNEY WATER APPROVAL  
BASIX CERTIFICATE # 202483S, ISSUED 19/06/08  
SITE CLASSIFICATION REPORT PREPARED BY AUSWIDE GEOTECHNICAL DATED 23/10/07, REF # AW18029  
EXTERNAL COLOURS SELECTION  
RETAINING WALL TECHNICAL DESIGN GUIDE PREPARED BY KOPPERS  
WASTE MANAGEMENT PLAN, DATED 28/08/08  
ENGINEERS DETAILS PREPARED BY D AMICI COLOMBO PTY LTD, DATED 04/07/08, JOB # 20023, SHEETS 1 13

Rec 251616  
8/12/08

FIRE SAFETY SCHEDULE ATTACHED

☐ YES ☒ N/A

Sam Pratt  
BPB0732

2 December, 2008

Date of Certificate



LOCAL

**RECEIVED**  
BY LOCAL CERTIFICATION SERVICES P/L  
on 20/11/08 .. .. (date)

## APPLICATION FORM

☒ Principal Certifying Authority

☒ Construction Certificate  
☒ Complying Development Certificate  
☒ Occupation Certificate

☒ Compliance Certificate

5002780

### THE APPLICATION

**DATE OF APPLICATION:** 19.11.08

### LAND TO BE DEVELOPED

|                        |            |                |                 |
|------------------------|------------|----------------|-----------------|
| Lot No                 | 129        | Deposited Plan | 270385          |
| House No               | 7          | Street Name    | Melaleuca Place |
| Suburb                 | Warriewood | Post Code      | 2102            |
| Area (m <sup>2</sup> ) | 312 3m2    |                |                 |

28641

### THE DEVELOPMENT

|                            |                                                                                                                         |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Proposed Building Work     | Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> |
| Description of Development | 2 Storey Residential dwelling and attached Garage                                                                       |
| Value of Work              | \$355,323                                                                                                               |
| Type of work               | Erection of a Building                                                                                                  |

### CONSENTS

|                               |                               |               |          |
|-------------------------------|-------------------------------|---------------|----------|
| Consent Authority             | PITTWATER                     |               |          |
| Development Consent No        | 0303/08                       | Date of Issue | 14 11 08 |
| Builder or Owner/Builder Name | Clarendon Residential NSW P/L |               |          |
| Licence No                    | 2298C                         |               |          |

### THE APPLICANT

|              |                                                |
|--------------|------------------------------------------------|
| Surname      | CLARENDON RESIDENTIAL                          |
| First Name   |                                                |
| Street       | Clarendon Residential NSW P/L                  |
| Suburb.      | Unit 3, 21 Solent Circuit, Baulkham Hills 2153 |
| Contact No's | 8851 5379                                      |

### THE OWNER/S

|            | Owner 1               | Owner 2 | Owner 3 | Owner 4 |
|------------|-----------------------|---------|---------|---------|
| First Name | CLARENDON RESIDENTIAL |         |         |         |
| Surname    |                       |         |         |         |
| Street     |                       |         |         |         |
| Address    |                       |         |         |         |
| Contact No |                       |         |         |         |

Local South Coast  
48b Princes Highway  
Fairly Meadow NSW 2519  
P - 02 4284 4709  
F - 02 4284 4208

Local Norwest  
Suite 21 5 Inglewood Place  
Baulkham Hills NSW 2153  
P - 02 9836 5711  
F - 02 9836 5722

Local Central Coast  
Suite 2/162 The Entrance Road  
Erina NSW 2250  
P - 02 4365 6051  
F - 02 4365 4846

Local Macarthur  
PO Box 3190  
Narellan DC NSW 2567  
P - 02 4648 5666  
F - 02 4648 5755

E - info@localgroup.com.au  
Web - http://localgroup.com.au  
ABN - 30 735 366 565

# LETTER OF CONSENT

## OWNERS CONSENT

I/we the owners of the subject property hereby give consent for the lodgement all relevant applications (i.e. for Construction Certificate/s, Complying Development Certificate/s, Occupation Certificate/s, Compliance Certificate/s) and associated documentation to Local Certification Services Unit Trust for consideration

I/we also declare that all documentation presented as part of an application for a Construction Certificate has remained unaltered from that issued with any Development Consent or that any changes have been documented and Local Certification Services Unit Trust have been advised accordingly

## PRINCIPAL CERTIFYING AUTHORITY

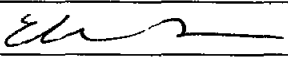
With reference to this proposed development I/we the owners of the subject property hereby advise of our decision to appoint ☐ Andrew Dean ☒ Callan Blackwell ☐ Craig Hardy ☐ Daniel Powell ☐ Michael Shanahan ☐ Paul Gearin ☐ Trent McCurley ☒ Sam Pratt (please select by ticking the box) to fulfil the role of Principal Certifying Authority (PCA) as outlined in the Environmental Planning and Assessment Act, 1979 (as amended)

I/we understand that this engagement shall be subject to the Terms and Conditions outlined in this application and the associated Schedule and I/we further understand that he will carry out all mandatory inspections required by the Act during the course of construction along with any others that he deems to be necessary and referred to the abovementioned Agreement

I/we also advise that I/we are aware of the conditions attached to any Development Consent (i.e. Local Development Consent or Complying Development Consent) and are aware of our responsibilities in relation to those conditions

## SIGNATURES

### APPLICANT

|                     |                                                                                     |               |
|---------------------|-------------------------------------------------------------------------------------|---------------|
| Signed              |  |               |
| Name (Please Print) | CLARENDON RESIDENTIAL                                                               | Date 19 11 08 |

### OWNER/S

|                     |                       |               |
|---------------------|-----------------------|---------------|
| Signed              |                       |               |
| Name (Please Print) | CLARENDON RESIDENTIAL | Date 19 11 08 |

|                     |  |      |
|---------------------|--|------|
| Signed              |  |      |
| Name (Please Print) |  | Date |

|                     |  |      |
|---------------------|--|------|
| Signed              |  |      |
| Name (Please Print) |  | Date |

|                     |  |      |
|---------------------|--|------|
| Signed              |  |      |
| Name (Please Print) |  | Date |



LOCAL

## AUSTRALIAN BUREAU OF STATISTICS

### ALL NEW BUILDINGS

(Please complete the following)

How many storeys (incl underground floors) will the proposed building consist of ?, ☐1 ☒2 ☐\_\_\_\_  
What is the gross are of the new building ? \_\_\_\_\_ 253 2m<sup>2</sup>  
What is the gross area of the site on which the proposal will be constructed ? \_\_\_\_\_ 312 3m<sup>2</sup>

### RESIDENTIAL BUILDINGS ONLY

(Please complete the following for residential buildings)

How many dwellings will be constructed ? \_\_\_\_\_ ☐0 ☒1 ☐2  
How many pre-existing dwellings are there on the site already ? \_\_\_\_\_ ☒0 ☐1 ☐2  
How many dwellings will be demolished ? \_\_\_\_\_ ☒0 ☐1 ☐2  
If the proposal includes a new dwelling/s is it be attached to another new building ? ☐Yes ☒No  
If the proposal includes a new dwelling/s is it be attached to another new building ? ☐Yes ☒No  
Does the site contain a Dual Occupancy ?  
(A dual occupancy is defined as two dwellings on the one site) \_\_\_\_\_ ☐Yes ☒No

### MATERIALS

Please indicate the materials to be used in the construction of the new building/s

#### Walls

#### Code

#### Floor

#### Code

Brick (Double) \_\_\_\_\_ ☐ 11  
Brick (Veneer) \_\_\_\_\_ ☒ 12  
Concrete or Stone \_\_\_\_\_ ☐ 20  
Fibre Cement \_\_\_\_\_ ☐ 30  
Timber \_\_\_\_\_ ☐ 40  
Curtain (Glass) \_\_\_\_\_ ☐ 50  
Steel \_\_\_\_\_ ☐ 60  
Aluminium \_\_\_\_\_ ☐ 70  
Other \_\_\_\_\_ ☐ 80  
Not Specified \_\_\_\_\_ ☐ 90

Concrete or Slate \_\_\_\_\_ ☒ 20  
Timber \_\_\_\_\_ ☐ 40  
Other \_\_\_\_\_ ☐ 80  
Not Specified \_\_\_\_\_ ☐ 90

#### Roof

#### Code

#### Frame

#### Code

Tiles \_\_\_\_\_ ☐ 10  
Concrete or Slate \_\_\_\_\_ ☒ 20  
Fibre Cement \_\_\_\_\_ ☐ 30  
Steel \_\_\_\_\_ ☐ 60  
Aluminium \_\_\_\_\_ ☐ 70  
Other \_\_\_\_\_ ☐ 80  
Not Specified \_\_\_\_\_ ☐ 90

Timber \_\_\_\_\_ ☒ 40  
Steel \_\_\_\_\_ ☐ 60  
Aluminium \_\_\_\_\_ ☐ 70  
Other \_\_\_\_\_ ☐ 80  
Not Specified \_\_\_\_\_ ☐ 90

Local South Coast  
48b Princes Highway  
Fairy Meadow NSW 2519  
P - 02 4284 4709  
F - 02 4284 4208

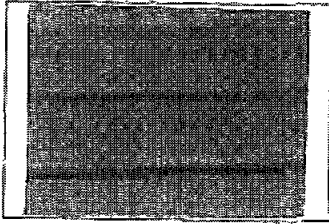
Local Norwest  
Suite 21 5 Inglewood Place  
Baulkham Hills NSW 2153  
P - 02 9836 5711  
F - 02 9836 5722

Local Central Coast  
Suite 2/162 The Entrance Road  
Erina NSW 2250  
P - 02 4365 6051  
F - 02 4365 4846

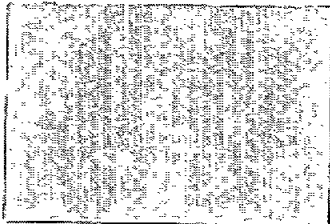
Local Macarthur  
PO Box 3190  
Narellan DC NSW 2567  
P - 02 4648 5666  
F - 02 4648 5755

E - [info@localgroup.com.au](mailto:info@localgroup.com.au)  
Web - <http://localgroup.com.au>  
ABN - 30 735 366 565

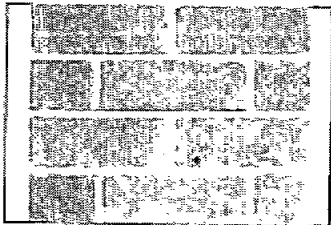
# SILVER SHADOW



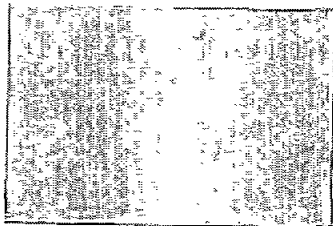
**Roof**  
Boral Strata Gunmetal  
Colorbond Dune



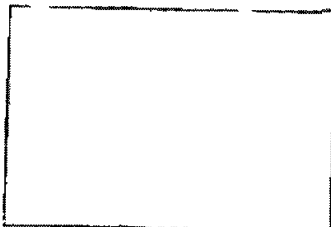
**Gutter, Fascia, Garage**  
Colorbond Dune



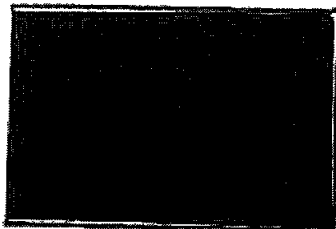
**Feature Brick**  
Boral Escura Pressed Silver Shadow



**Main Body Colour**  
Bristol Mountain Shadow P196-N5



**Accent Colour**  
Bristol Wisp-O-Smoke P196-N2



**Feature Colour**  
Taubmans Mojo T172-8B1

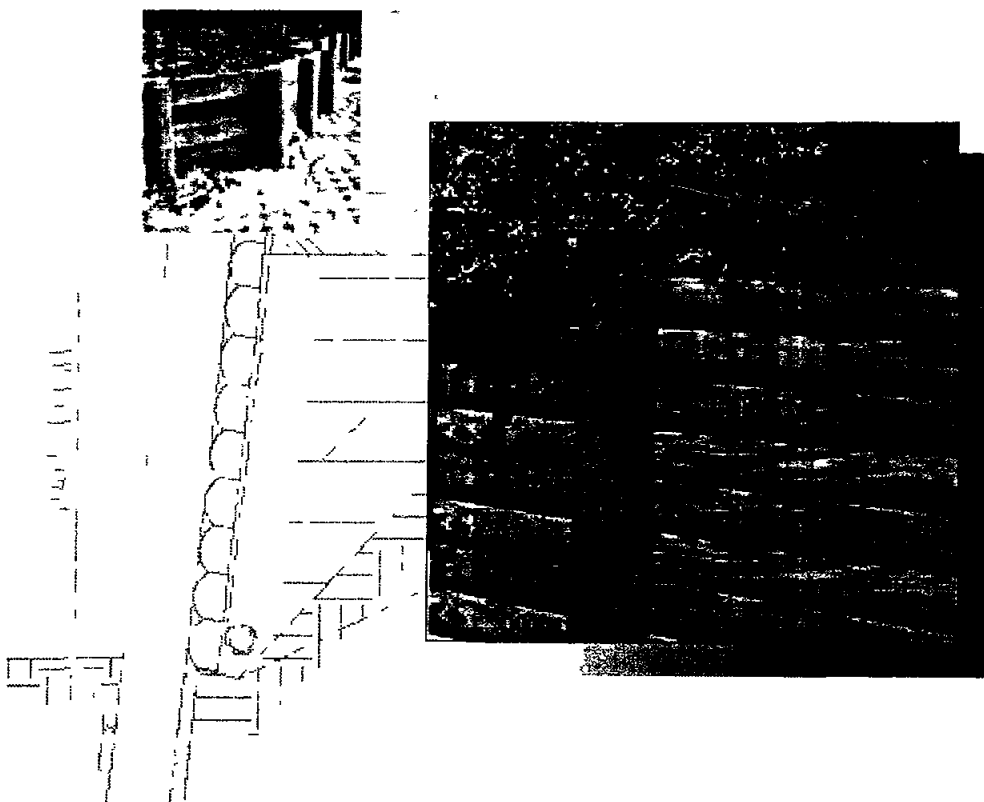
|                 |                       |
|-----------------|-----------------------|
| <b>Windows:</b> | Charcoal              |
| <b>Louvres:</b> | Interpon Excel        |
|                 | Charcoal ML180A Satin |
| <b>Eaves:</b>   | Bristol Wisp-O-Smoke  |
|                 | P196-N2               |



TDS 1

## TECHNICAL DESIGN GUIDE

### CANTILEVER RETAINING WALLS - KOPPERS ROUNDWOOD POSTS FOR WALL HEIGHTS 0.3m to 1.8m



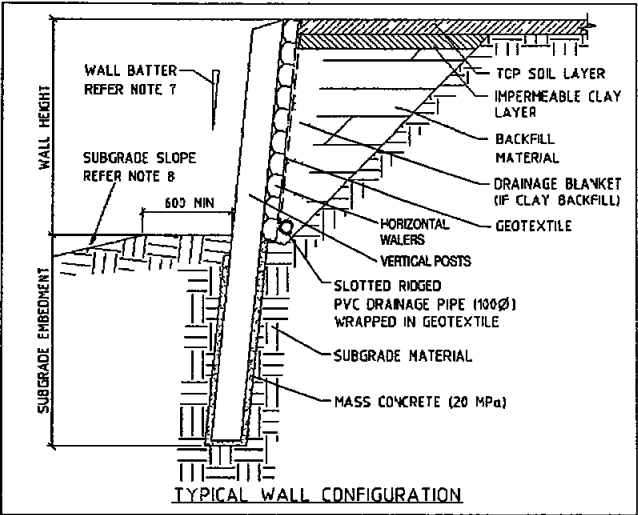
THESE TABLES ARE ENGINEERED FOR KOPPERS® SLASH/CARIBAEA HYBRID SPECIES ROUNDWOOD POSTS ONLY AND ARE NOT SUITABLE FOR OTHER SPECIES

- ◆ Koppers® treated logs carry a written **guarantee** and each is individually branded with the Koppers® name
- ◆ Koppers® products are pressure treated to **relevant Australian Standards**
- ◆ A building approval may be required from the Local Council before constructing a retaining wall
- ◆ 175mm to 250mm posts are treated to Hazard Level 5 Please see Product Information note
- ◆ New 170mm roundback sleeper option for waling available in H5

# DESIGNING THE WALL

## I WALL SELECTION CRITERIA

- Select the correct design table by identifying the backfill/subgrade type
- |                                                                                              |         |
|----------------------------------------------------------------------------------------------|---------|
| ◆ Backfill with 100% Crushed Igneous Rock or recycled concrete (+25mm to 80mm particle size) | Table 1 |
| ◆ Gravel                                                                                     | Table 2 |
| ◆ Medium Dense Sand (Medium grained)                                                         | Table 3 |
| ◆ Medium Dense Silty Sand/Fine Sand/Shales                                                   | Table 4 |
| ◆ Stiff Clay                                                                                 | Table 5 |
| ◆ Soft Clay                                                                                  | Table 6 |
- Subgrade is defined as the material into which the post is to be embedded
- Decide on the height of the wall
- Check the table you have selected to find out the range of post spacings. Choose the most suitable post spacing
- Now that you have resolved the soil type, wall height and post spacing, the remainder of the specification can be read off from the chart. Example: I plan to build a 0.9m wall in a stiff clay with crushed igneous rock or recycled concrete as backfill. After checking Table 1, I decide to use posts at 1.5m spacing. I then read off the remainder of the specification by checking the relevant column shown by the shaded figures in Table 1. Refer to the embedment depth note for embedment details. For clay subgrade, a reduction factor of 20% is allowed when using crushed igneous rock or recycled concrete backfill. Therefore, the minimum embedment depth reduces to 1.4 (20% x 1.4) = 1.12m
- The tables show minimum sizes
- The general configuration of the wall with drainage installed behind the wall should conform with the diagram adjacent



## 2 HARD SOUND IGNEOUS ROCK

Embedment depths for hard sound igneous rock (free of weather plains, joints, etc) are 2.5 times the post diameter

## 3 TWIN POST DESIGN

By using twin posts in lieu of single posts it is possible to reduce the post diameters as follows

| Single Post Diameter | Twin Pos <sup>t</sup> Diameter |
|----------------------|--------------------------------|
| 175mm                | 150mm                          |
| 200mm                | 175mm                          |
| 225mm                | 200mm                          |
| 250mm                | 225mm                          |

NOTE: 250mm posts subject to availability at time of order

4 SOIL PARAMETERS

The formulation of the cantilever log retaining wall design sheets have been undertaken based on the following soil parameters

| Soil Type    | Density (kN/m³) | Angle of Internal Friction | Cohesion (kPa) |
|--------------|-----------------|----------------------------|----------------|
| Crushed      |                 |                            |                |
| igneous rock | 18              | 40                         |                |
| Gravel       | 19              | 35                         |                |
| Sand         | 20              | 32                         |                |
| Silty sand   | 18              | 30                         |                |
| Stiff clay   | 20              | -                          | 75             |
| Soft clay    | 18              | -                          | 18             |

The sizes and dimensions shown in the design sheets have assumed that the structure classification (AS4678 2002) is Type A. This assumes failure would only result in minimal damage and loss of access. For higher structure classifications engineering advice should be obtained.

The design sheets have assumed the backfill and subgrade to be a Controlled Fill Class 1 (AS 4678 2002). For any backfill in a lower class engineering advice should be obtained.

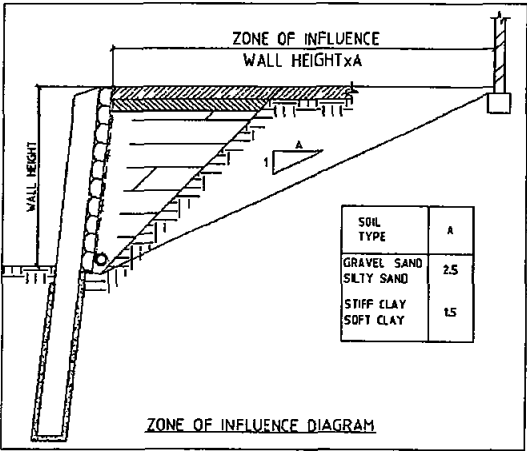
5 POST HOLE SIZES

It is assumed that the cantilever posts will be set in bored holes and encased in concrete. The following bored post hole sizes have been assumed:

| Post diameter(mm) | Post hole diameter(mm) |
|-------------------|------------------------|
| 125 150           | 300                    |
| 175 250           | 400                    |

6 SURCHARGE

The cantilever log retaining walls specified have been designed based on a 25 kPa surcharge load in accordance with AS4678-2002. For retaining walls where a higher surcharge loading is applied within the zone of influence (refer to diagram below) engineering advice should be obtained.



7 RETAINING WALL BATTERING

Retaining walls of height greater than 1000mm should be battered back from vertical in the following amounts:

| Backfill/Subgrade type | Batter  |             |
|------------------------|---------|-------------|
|                        | H V (%) | V H (ratio) |
| Gravel sand silty sand | 5.0 %   | 1:20        |
| Stiff clay soft clay   | 6.7 %   | 1:15        |

8 SUBGRADE BATTERING

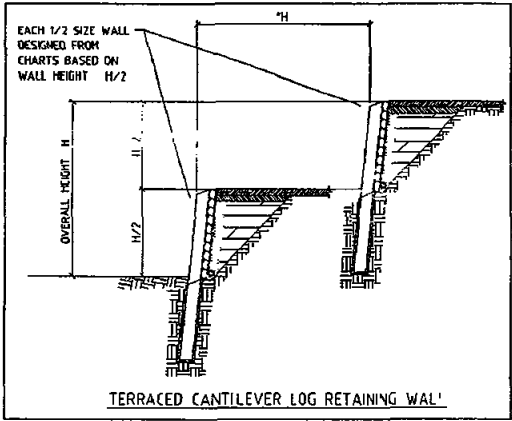
The information in the tables has been based on a maximum subgrade slope from 600mm beyond the base of the wall of 1 vertical to 6 horizontal away from the wall. If the subgrade slope is beyond this amount, engineering advice should be obtained. Refer to Typical Wall Configuration diagram.

9 BACKFILL SLOPE

The information on the tables has been based on a horizontal backfill slope only. For backfill slopes beyond this amount, engineering advice should be obtained.

10 WALL TERRACING

Utilising two terraced cantilever walls of half height instead of a single wall of full height is permitted so long as the distance between the two terraced walls conforms with the diagram below.



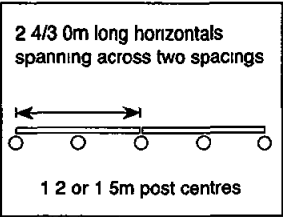
11 ATTACHMENT OF PALING FENCES

Paling fences can be installed adjacent to the retaining wall in a conventional manner (embedded within a mass concrete post hole) however the retaining wall under shall be designed so that an additional 300mm is added to the wall height (1.8 metre high fence assumed). For example, for a 900mm wall with a 1.8m paling fence attached, work from the 1200mm high retaining wall table.

12 FURTHER ASSUMPTIONS

The formulation of these design sheets has been undertaken on the following assumptions:

- a) The retaining wall is not subject to vibrations.
- b) The water table is, in all cases, below the underside of the cantilever posts.
- c) The subgrade is in a medium dense state and is undisturbed during the construction of the retaining wall.
- d) For walls with post spacings of 1.2 and 1.5 metres, it is assumed that winged split horizontals are used in a twin span continuous arrangement with staggered joints for deflection control. Where this cannot be achieved and a simple span arrangement is required, either reduce the post spacing by 150mm or use the equivalent size slab horizontal for this span.







# NOTE ON TABLE I

## EMBEDMENT DEPTH

Embedment depth for cantilever walls is critical. A small reduction in depth results in a significant increase in stress within the foundation material. Additionally, a reduction in post hole diameter causes extra soil stress and increases the likelihood of a foundation failure.

Unless noted otherwise, post embedment depths shall not be less than 300mm. For Clays the minimum embedment depth shall be 400mm.

When using crushed igneous rock or recycled concrete backfill, the embedment depth may be obtained by reference to the table appropriate for the type of soil in which the post is to be embedded (for the wall height and post spacing selected) and reducing this embedment depth by a factor as follows:

| TYPE OF SOIL                                 | EMBEDMENT REDUCTION FACTOR |
|----------------------------------------------|----------------------------|
| Medium Dense Sand (Medium grained)           | 10% Reduction              |
| Medium Dense Silty Sand / Fine Sand / Shales | 10% Reduction              |
| Clays                                        | 20% Reduction              |
| No reduction is allowed for gravel subgrade  |                            |

## ALTERNATIVE POSTS

100mm and 125mm diameter posts may be substituted by 100mm and 125mm slabs respectively.

# NOTES ON TABLES 2 to 6

The figures given in these tables assume that the same soil type is used for both backfill and embedment.

**When crushed igneous rock or recycled concrete is used as backfill, refer to Table 1**

## INSTALLATION NOTES

- ◆ Wherever possible, place uncut ends into the ground. Where this is not practical (eg. trimmed posts or horizontal walers), coat the ends well with a surface preservative, such as CN Emulsion or equivalent.
- ◆ Place horizontal walers behind posts and temporarily fasten to posts. Fasten top horizontal walers to posts from the rear with galvanised bridge spikes.
- ◆ Place geotextile to rear face of horizontal walers to prevent drainage material from flowing through small gaps. Lay slotted rigid PVC pipe to an outlet as detailed in Typical Wall Configuration diagram.
- ◆ Slope post tops to shed water as appropriate and coat with a surface preservative. Any cut ends above the ground should also be coated with a surface preservative.

# KOPPERS PRODUCT RANGE

|                                     |                         | 1 8m | 2 4m | 3 0m | 3 6m | H4 | H5 |
|-------------------------------------|-------------------------|------|------|------|------|----|----|
| Rounds                              | 75 / 90mm               | ✓    | ✓    | ✓    | -    | ✓  | -  |
|                                     | 100 / 125 / 150mm       | ✓    | ✓    | ✓    | ✓    | ✓  | -  |
|                                     | 175 / 200 / 225 / 250mm | ✓    | ✓    | ✓    | ✓    | -  | ✓  |
| Slabs & Winged Splits               | 100mm                   | ✓    | ✓    | ✓    | -    | ✓  | -  |
|                                     | 125mm                   | ✓    | ✓    | ✓    | -    | ✓  | -  |
| Half Rounds                         | 75mm                    | ✓    | ✓    | ✓    | -    | ✓  | -  |
|                                     | 100mm                   | ✓    | ✓    | ✓    | -    | ✓  | -  |
|                                     | 125mm                   | ✓    | ✓    | ✓    | -    | ✓  | -  |
|                                     | 150mm                   | ✓    | ✓    | ✓    | -    | ✓  | -  |
| Budget Slabs & Budget Winged Splits |                         | -    | ✓    | -    | -    | ✓  | -  |
| Roundback Sleepers                  |                         | -    | ✓    | ✓    | -    | -  | ✓  |

## PRODUCT INFORMATION

- 100mm slabs and winged splits are milled from 125mm rounds
- 125mm slabs and winged splits are milled from 150mm rounds
- 100mm budget slabs and winged splits are milled from 110mm rounds

**Koppers do not produce Crib and Tieback retaining wall technical design guides. These should be individually designed and engineered**

### RELEVANT STANDARDS FOR THIS TYPE OF WALL

- AS4678 - 2002 Earth-retaining structures
- AS1604 1 2005 Specification for preservative treatment - sawn and round timber
- AS1720 1 -1997 Timber structures Part 1 Design Methods
- AS1170 0 2002 Structural design actions Part 0 General Principles

## SAFETY

Koppers roundwood timber products are normally treated with Australian Pesticides & Veterinary Medicines Authority registered wood preservatives. These preservatives are fixed in the timber and is safe for normal landscaping, construction, rural and utility applications. For further information on treatment preservatives, please visit [www.kopperswood.com](http://www.kopperswood.com)

Koppers recommend that you take appropriate care when working with and handling all treated wood products. Wear suitable work gloves to avoid splinters and other minor hand injuries. Always wear eye protection when using power saws or other operations that generate flying particles. Avoid breathing wood dust when sanding or machining. Wash hands and face after working with the material and before eating, drinking or smoking.

Normal domestic or trade quantities of treated wood wastes and off-cuts can be disposed of through normal waste collection services.

**Treated timber off-cuts must not be burnt**

These tables were compiled by Cardno consulting engineers. The information is provided for guidance purposes only in the design of retaining walls. If in doubt about the interpretation of the tables or the nature of the soil combinations at the site, please seek expert advice.



Koppers Wood Products Pty Limited  
A B N 81 003 947 680

Level 10, 15 Blue Street, North Sydney NSW 2060  
PO Box 2122, North Sydney NSW 2059  
Telephone 02 9954 5411  
Fax 02 9954 5462  
[www.kopperswood.com](http://www.kopperswood.com)

DECEMBER 2005

Available from your Authorised Koppers® stockist





**geotechnical**

**Brisbane**

T [07] 3343 5092

F [07] 3343 7655

PO Box 4044

Eight Mile Plains

Queensland 4113

**Sydney**

T [02] 9723 5411

F [02] 9723 5422

contact@ausgeo.net

www.ausgeo.net

23<sup>rd</sup> October, 2007

Clarendon Homes NSW Pty Ltd  
PO Box 7106  
BAULKHAM HILLS BC NSW 2153

OUR REF AW18029

YOUR REF 242053

**Site Classification as per AS 2870-1996**  
**Wind Rating as per AS 4055-2006**

**Lot 129 Melaleuca Drive, Warriewood**

|                     |                                     |
|---------------------|-------------------------------------|
| Site Classification | <b>CLASS S</b>                      |
| Site Features       | Grasses                             |
| Ground Slope        | Slight/Virtually Flat               |
| Proposed Earthworks | Unknown (refer "about your report") |
| Ys Range (normal)   | 10-20mm (Hs = 1800mm)               |
| Ips Value           | Too sandy to warrant testing        |
| Water Table         | Not present                         |
| Wind Rating         | <b>N1</b>                           |

**Allowable Bearing Pressures**

|         |                                                             |
|---------|-------------------------------------------------------------|
| 100 kPa | At all levels in the controlled fill                        |
| 100 kPa | At all levels in the natural undisturbed strata             |
| 150 kPa | 500 mm and deeper into the natural medium dense sand strata |

The pages which form the last 2 pages of this report are an integral part of this report. The notes contain advice and recommendations for all stakeholders in this project (i.e. the structural engineer, builder, owner and future owners) and should be read and followed by everyone concerned. This report may only be copied in full. If there is any doubt whether this report is complete, please check with our office.

Please note that should additional information become available which was not supplied or known at the time of our testing, we reserve the right to revise this report without penalty.



### Site Specific Notes

The fill encountered on this site is deeper than the "deemed to comply" depths specified in AS2870-1996

We have sighted documentation by Network Geotechnical Pty Ltd (Job no G23024/1-AC) dated November 2004, which certifies this fill as controlled fill according to Clause 2.4.6 of AS 2870-1996, therefore we believe that this site can be classified as other than Class P (see above classification). The accuracy of this documentation cannot be checked within the budgeting constraints of this report (but we see no reason why this documentation should not be relied upon). The suitability of the footing system design contained in this report for this site is conditional on the accuracy of the supplied information. Auswide Geotechnical accepts no responsibility for any adverse footing performance if in the future it is discovered that this fill performs below Level 1 expectations.

All stakeholders in this project should be aware that at the time of our testing, the final building platform had not been prepared and if more fill is added during this process which does not comply to the above clause then piercing of the footing and/or slab in the filled area may be required. In designing the piers, the engineer should note the above allowable bearing pressures and should the foundation depth of the piers become excessive, an allowable bearing pressure of 150 kPa can be assumed at a depth of 1000 mm into any controlled fill. Although no water table was encountered during our testing, a perched water table or water seepage can occur during or after wet periods, generally where a porous layer overlies less porous strata. This generally results in some water seepage into excavations down to this level but a competent contractor can usually resolve this issue.

The soils on this site are clay based and therefore have a potential to change volume with changes in soil moisture. The street tree(s) identified at the moment are small, and will not adversely affect the soil moistures, but in the future they may become an adverse influence on the soils and the structure. At the moment we have not considered the influence of the street tree(s) on the site classification, but with more information, we may be able to make a more informed judgement about the street tree(s). We direct all readers of this report to our section entitled "Street Tree(s) Guidelines", and after considering if, it may be necessary for us to revise the report, if the additional information referred to in this section shows that the street tree(s) actually do have the potential to adversely affect the proposed dwelling in its final location.

Although no water table was encountered during our testing, a perched water table or water seepage can occur during or after wet periods, generally where a porous layer overlies less porous strata. This generally results in some water seepage into excavations down to this level but a competent contractor can usually resolve this issue.

Unless specifically mentioned elsewhere within this report, we make no representation about the trafficability of the site during construction, however the thicker the topsoil/estate dressing, the greater the problem with moving construction equipment during or after rain periods.

Auswide Geotechnical



Bruce L. Hargreaves

Dip App Sc (Geology), RPGeo (Geotechnical Engineering)

Affil I E (Aus), M A G S,

BSA Licence No 1058767 (Site Classifier)

TCC Accreditation No CC4047U (Engineer-Geotechnical)

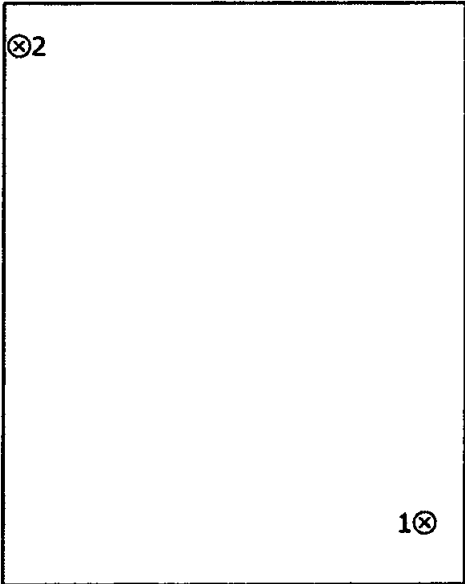
References

- AS 2870-1996 "Residential Slabs & Footings"
- AS 2870 1996 Supplement 1-1996 "Residential Slabs & Footings - Construction Commentary"
- SAA HB 28-1997 "The Design of Residential Slabs & Footings"
- CSIRO "Foundation Maintenance & Footing Performance A Home Owner's Guide" (Sheet BTF18)
- CSIRO "Plant Roots in Drains - Prevention and Cure" (Sheet BTF17)
- AS4055-2006 "Wind Loads for Housing"

Log Sections

| TEST SITE 1 |                                                                                     |                      | TEST SITE 2 |                                                                                     |                      |
|-------------|-------------------------------------------------------------------------------------|----------------------|-------------|-------------------------------------------------------------------------------------|----------------------|
| Location    |                                                                                     | refer to site sketch | Location    |                                                                                     | refer to site sketch |
| depth       | description                                                                         |                      | depth       | description                                                                         |                      |
| 100mm       | FILL - gravelly sand<br>(grey-brown)<br>damp & controlled                           |                      | 100mm       | FILL - gravelly sand<br>(grey-brown)<br>damp & controlled                           |                      |
| 200mm       |                                                                                     |                      | 200mm       |                                                                                     |                      |
| 300mm       |                                                                                     |                      | 300mm       |                                                                                     |                      |
| 400mm       |                                                                                     |                      | 400mm       |                                                                                     |                      |
| 500mm       | CLAYEY SAND<br>(dark grey-charcoal)<br>moist/very moist & medium dense              |                      | 500mm       | CLAYEY SAND<br>(dark grey charcoal)<br>Moist/very moist & medium dense              |                      |
| 600mm       |                                                                                     |                      | 600mm       |                                                                                     |                      |
| 700mm       |                                                                                     |                      | 700mm       |                                                                                     |                      |
| 800mm       |                                                                                     |                      | 800mm       |                                                                                     |                      |
| 900mm       |                                                                                     |                      | 900mm       |                                                                                     |                      |
| 1000mm      |                                                                                     |                      | 1000mm      |                                                                                     |                      |
| 1100mm      |                                                                                     |                      | 1100mm      |                                                                                     |                      |
| 1200mm      |                                                                                     |                      | 1200mm      |                                                                                     |                      |
| 1300mm      |                                                                                     |                      | 1300mm      |                                                                                     |                      |
| 1400mm      |                                                                                     |                      | 1400mm      |                                                                                     |                      |
| 1500mm      |                                                                                     |                      | 1500mm      |                                                                                     |                      |
| 1600mm      |                                                                                     |                      | 1600mm      |                                                                                     |                      |
| 1700mm      |                                                                                     |                      | 1700mm      |                                                                                     |                      |
| 1800mm      |                                                                                     |                      | 1800mm      |                                                                                     |                      |
| 1900mm      | SAND w some granite gravels<br>(pale yellow-brown)<br>very moist/wet & medium dense |                      | 1900mm      | SAND w some granite gravels<br>(pale yellow-brown)<br>very moist/wet & medium dense |                      |
| 2000mm      |                                                                                     |                      | 2000mm      |                                                                                     |                      |
| 2100mm      |                                                                                     |                      | 2100mm      |                                                                                     |                      |
| 2200mm      |                                                                                     |                      | 2200mm      |                                                                                     |                      |
| 2300mm      |                                                                                     |                      | 2300mm      |                                                                                     |                      |
| 2400mm      |                                                                                     |                      | 2400mm      |                                                                                     |                      |
| 2500mm      |                                                                                     |                      | 2500mm      |                                                                                     |                      |
| 2600mm      | END P/A                                                                             |                      | 2600mm      | END P/A                                                                             |                      |

Site Sketch (Not to scale)



Melaleuca Drive



### About Your Report

This is a site classification report generally in accordance with AS 2870-1996 and should be sufficient for a qualified person to design footings for structures which are covered under the scope of this standard

Where our proposed earthworks specification states "Unknown", AS 2870-1996 Clause 2.4.5 requires the site to be reclassified prior to footing construction if the proposed cut exceeds 500 mm and the proposed fill exceeds the limits in Clause 2.4.6 of AS 2870 1996. In these instances, the site classification is in the "as tested" may not reflect the final site classification after earthworks. Normally this reclassification is done by the design engineer but upon request, we can do this.

Where the site preparation is stated as "known", our classification is based on the data given, as we envisage the finished building footprint (which conforms to the AS 2870 1996 guidelines), therefore re-classification is only required if these guidelines change. This report may not be adequate for large complex dwellings which are generally outside the scope of AS 2870-1996.

AS 2870-1996 contains a system of classifying soils based on their ability to change volume with changes in soil moisture. These classes are Class A, Class S, Class M, Class H and Class E (the most severe). These "Normal" classes also have a minimum allowable bearing capacity as outlined in Clause 2.3.5 of AS 2870-1996.

AS 2870-1996 also has a Class P for problem sites which covers fill, soft or collapsing soils, potential slope stability problems, mining subsidence and abnormal moisture conditions.

Abnormal Moisture Conditions (AMC) is a particularly contentious area and Clause 1.3.3 of AS 2870-1996 covers many situations where this clause applies. The most common situations are sites with clay soils (normally Class M, H or E ( $y_s > 20$ )) which have either existing structures or trees or gardens within the zone of influence of the proposed footing. Some of these trees may be on adjoining properties. Where this clause is applicable, we have added further explanatory advice.

The soil shrinkage index (Ips) range quoted in this report was assigned after considering the guidelines in Section 2 of AS 2870-1996 and from this we have derived a  $y_s$  which is the "characteristic surface movement" under NORMAL moisture conditions.

Footings designed in accordance with AS 2870-1996 have a long-term performance criteria and it should be noted that this does not offer a crack or distress free performance. It offers a performance criteria which ensures a low probability of foundation failure, provided abnormal moisture conditions, such as over-watering, bad drainage, leaking pipes or nearby trees are not allowed to exist or develop.

This performance criteria is outlined in Appendix C of AS 2870-1996 and under normal conditions a low incidence of Category 1 damage and an occasional incidence of Category 2 damage is

expected. This appendix is available from our office upon request.

Where Abnormal Moisture Conditions exist and/or are allowed to continue or develop, then not only will the above probabilities increase, but the damage will be greater. The ultimate responsibility falls on the design engineer to negate the effects of these conditions when they are known and for the owner/occupier to ensure that they do not develop. Our responsibility is limited to identifying these conditions.

If any potential owner is not satisfied with the performance criteria in AS 2870 (which has been applied Australia wide since 1986) then prior to footing design he/she should consult with the design engineer and have a specially designed footing more suited to their needs.

### Classification Limitations

The content of this report is based on the expertise and experience of the author representing this company. Our commission didn't extend to assessing instability due to previous or existing sub surface mining, landslip or earthquakes, nor did it extend to testing to comply with the relevant contaminated land act or for acid sulfate soils (see note below). If, however any of these exclusions was obvious or where the allotment is within an area where we are aware of a past history of these exclusions, we have made comment and given further advice.

This report is based on the assumption that the test results are representative of the true site conditions. Even under optimum circumstances, actual conditions may differ from those reported to exist. Although our investigation exceeds the minimum requirements of AS 2870-1996, economic constraints necessarily limit the practical extent of any investigation. We therefore cannot accept responsibility for conditions encountered on this site outside the areas tested which are different to those reported. The positions of these test sites has not been surveyed and should be regarded as approximate. We have followed AS 2870-1996 soil descriptions contained in Clause C2.1 rather than AS 1289 because where there is a conflict between referenced codes, AS 2870-1996 takes precedence.

### Underslab Termiticide Irrigation Systems

These are becoming popular and besides serving their obvious purpose, they also inject extra moisture beneath the slab at various times (measured in years). This creates long term "abnormal" moisture conditions which needs to be addressed at the design stage, therefore if one of these is proposed for this project, the design engineer must be informed prior to preparing the slab.

As a general rule, to cope with these systems, the  $y_s$  must be increased by about 50%, which will generally result in a slab one category higher than would normally be used (refer P12, Supplement to AS 2870-1996). Upon request we can supply more specific advice.



### Acid Sulfate Soils (ASS)

Unless specifically stated, we have not considered the possibility of ASS which occur around the coastline, generally below AHD 5.0 and occasionally on broad river flood plains at higher levels. Most councils maintain maps of these areas. In new estates the ASS problem has normally been assessed and neutralised, but it is worthwhile confirming this at land sales, if ASS are suspected. In older areas, the council is normally the best source of advice. ASS, if present, do have the potential to dramatically shorten the life of footings, slabs, reinforcement and bricks. This advice is also relevant for saline soils.

### Filled Ground

**Controlled Fill** - Material that has been placed and compacted in layers by compaction equipment within a defined moisture range to a defined density requirement in accordance with AS 3798-1996 and clause 6.4.2 of AS 2870-1996 is controlled fill.

**Uncontrolled Fill** - Fill which does not have sufficient documentation to be classified as controlled is by exclusion, uncontrolled. Where found we have offered further advice within this report.

### Topsoil/Estate Dressing

In our soil log section, where we have logged "Topsoil" or "Estate Dressing" it is defined as per clause 1.3.12 of AS 3798-1996 thus:

"A poorly compacted superficial soil containing some organic matter, usually darker than the underlying soils."

Good building practice dictates that all heavy organic strata be scraped clear of the building envelope during the early stages of site preparation and we have assumed that this will be done.

### Short Term Site Management

This is the responsibility of the builder, and besides ensuring that the site is handed over to the owner at completion in accordance with accepted practice, the following should also be done:

- Ensure all service trenches are back filled as soon as possible in accordance with Clause 6.6 of AS 2870-1996, including the clay plug where a service pipe trench exits the building footprint.
- Ensure guttering is connected to the stormwater (via temporary pipes if necessary) as soon as the roof is on.
- Ensure that during construction and at the time of hand-over that the site is maintained as per Clause 5.2.1 of AS 2870-1996.

If any of these practices are not carried out, the site may develop "abnormal" moisture conditions which increases the risk of damage above the AS 2870-1996 criteria.

### Other Construction Issues

The builder must also ensure that other sub-trades such as plumbers, drainers and swimming

pool contractors don't establish excavations within the critical zone of influence of the footing system unless the footing is pierced below the influence of these excavations. This critical zone varies from 20° (1V 2H) to 45° (1V 1H), depending on the nature of the strata. If this situation is considered possible, then once the proposal is known we can offer further advice. These excavations include inground tanks. Unless we have specifically given written approval, no inground tanks should be sited within 8 metres of any structural footing.

Where the proposed earthworks involve the establishment of cut/fill batters, advice concerning safe angles is beyond the scope of commission in this report. AS 2870-1996, Clause 6.4.4 offer guidelines.

### Long Term Site Management

It is the owner's responsibility to ensure both tenants and future owners are aware of these responsibilities. The referenced CSIRO sheets outline these responsibilities and if the builder does not give the owner a copy, they can be sourced from either the CSIRO (1800645051) or our office.

The major danger to dwellings is allowing site conditions to deteriorate to "abnormal" in the long term.

Where abnormal moisture conditions are allowed to continue or to develop, then not only will the above probabilities increase, but the damage will be greater.

The CSIRO sheets define both "normal" and "abnormal" conditions.

The significant (not necessarily in order) abnormal conditions which adversely affect the performance of AS 2870-1996 type footings are:

- Trees growing or allowed to grow within the critical zone of influence of the footings.
- Poor site drainage.
- Saturated service trenches (poor site drainage).
- Leaking service pipes.

The builder, owner/occupier and engineer should take note that management of trees is the most difficult part of the site management procedures and trees present the greatest risk to the future poor performance of the footing system. Trees (existing or proposed) must not be allowed to grow without taking action to negate their effects within the critical zone of the footing system.

| Class   | Normal vs | Critical Zone          |
|---------|-----------|------------------------|
| Class M | < 40mm    | 75 times mature height |
| Class H | 40-70mm   | 10 times mature height |
| Class E | 70-100mm  | 15 times mature height |
| Class E | >100mm    | 2 times mature height  |

These spacings must be increased for groups or rows of trees.

These distances are only a "rule of thumb" as the tree species and their root systems play an equally important role. The distances from drains explained in the referenced document BTF 17 applies equally to structural footings.



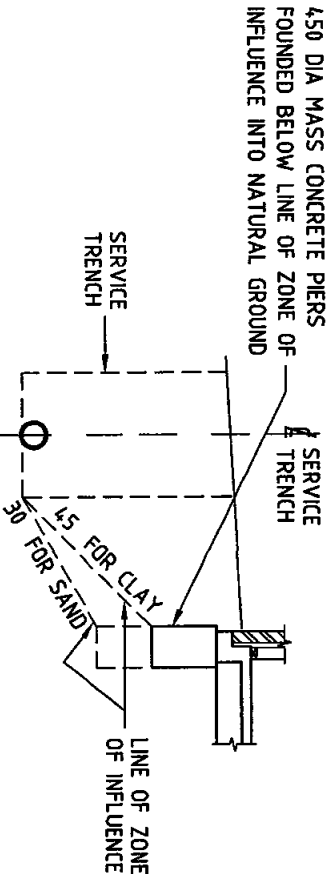
GENERAL NOTES

- G 1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT/ENGINEER FOR DECISION BEFORE PROCEEDING WITH THE WORK
- G 2 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS
- G 3 SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE BUILDER
- G 4 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED
- G 5 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITIONS OF THE SA CODES AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITY
- G 6 THE STRUCTURAL ELEMENTS SHOWN ON THE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES      CONCRETE - AS 3600  
FOOTING - AS 2870

FOUNDATIONS AND FOOTINGS

- F 1 FOOTINGS HAVE BEEN DESIGNED FOR A UNIFORM BEARING PRESSURE OF 100 kPa FOUNDATION MATERIAL SHALL BE APPROVED FOR THIS PRESSURE BEFORE PLACING CONCRETE FOOTINGS
- F 2 THE SITE IS CLASSIFIED AS S IN ACCORDANCE WITH GEOTECH REPORT No. 18029 WE DISCLOSE THAT WE HAVE NOT VERIFIED THIS REPORT AND THAT WE RELY ON ITS FINDINGS
- F 3 FOOTINGS SHALL BE PLACED CENTRALLY UNDER WALLS AND COLUMNS UNLESS OTHERWISE NOTED
- F 4 ALL WORKMANSHIP & MATERIALS SHALL BE IN ACCORDANCE WITH AS 2870
- F 5 THE FOOTING DETAILS SHOWN ARE FOR THE SITE CLASSIFICATION STIPULATED WHILST EVERY CARE HAS BEEN TAKEN TO VERIFY THAT THE INFORMATION SHOWN IS CORRECT D'AMICI COLOMBO PTY LTD TAKE NO RESPONSIBILITY FOR VARIATIONS WHICH MAY OCCUR DUE TO VARIATIONS IN SITE CONDITIONS
- F 6 FILL USED IN THE CONSTRUCTION OF A SLAB EXCEPT WHERE THE SLAB IS SUSPENDED SHALL CONSIST OF A CONTROLLED FILL OR ROLLED FILL IN ACCORDANCE WITH AS 2870  
A) ROLLED FILL CONSISTS OF MATERIAL COMPACTED IN LAYERS BY REPEATED ROLLING WITH AN EXCAVATOR ROLLED FILL SHALL NOT EXCEED 600mm COMPACTED IN LAYERS NOT MORE THAN 300mm FOR SAND MATERIAL OR 400mm COMPACTED IN LAYERS NOT MORE THAN 150mm FOR OTHER MATERIAL

- B) CONTROLLED FILL CONSISTS OF WELL GRADED SAND FILL UP TO 800mm DEEP WELL COMPACTED IN NOT MORE THAN 300mm LAYERS BY VIBRATING PLATE OR VIBRATING ROLLER NO SAND FILL UP TO 400mm DEEP WELL COMPACTED IN NOT MORE THAN 150 LAYERS BY A MECHANICAL ROLLER CLAY FILL SHOULD BE MOIST DURING COMPACTION THE DEPTHS OF FILL GIVEN ABOVE ARE DEPTHS MEASURED AFTER COMPACTION FOR COMPACTED DEPTHS GREATER THAN THAT GIVEN ABOVE THE FILL SHALL BE SUBJECT TO CONTROL AND TESTING IF TEST FAILS THEN PIERS ARE REQUIRED CONTACT THIS OFFICE PRIOR TO FURTHER CONSTRUCTION
- F 7 TOP SOIL CONTAINING GRASS ROOTS OR OTHER ORGANIC MATERIAL SHALL BE REMOVED FROM THE AREA ON WHICH THE SLAB IS TO REST
- F 8 IF ANY FOOTING IS LOCATED SUCH THAT A LINE DRAWN AT 45 DEGREES (FOR CLAY AND 30 DEGREES FOR SAND) FROM ITS BASE INTERSECTS A SERVICE TRENCH THEN PIERS ARE REQUIRED REFER TO DETAIL BELOW



SERVICE TRENCH DETAIL

N T S

CONCRETE WORK

- C 1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 & AS 2870
- C 2 CONCRETE QUALITY SHALL BE AS TABULATED AND SHALL BE VERIFIED BY TESTS

| ELEMENT         | SLUMP | MAX SIZE AGG | CEMENT TYPE | EXPOSURE CLASSIFIC | CONCRETE GRADE | COVER                                         |
|-----------------|-------|--------------|-------------|--------------------|----------------|-----------------------------------------------|
| SLABS ON GROUND | 80mm  | 20mm         | A           | A1                 | 20N            | 20 TOP<br>30 BOT & SIDES<br>40 EXTERNAL U N O |
| FOOTINGS        |       |              | A           | A1                 | 20N            | 40 U N O                                      |
| SUSPENDED SLAB  |       |              | A           | A1                 | 32N            | 30 TOP & SIDES U N O<br>20 BOT U N O          |

**NOTE**

© Copyright 1/7/1992 D'Amici Colombo Pty Ltd This design and plan is the property of D'Amici Colombo Pty Ltd. Apart from any use permitted under the Copyright Act it must not be used reproduced or copied wholly or in part without the written permission of the D'Amici Colombo Pty Ltd

**GENERAL NOTES**

**D'AMICI COLOMBO PTY LTD**

Consulting Structural Engineers

A/C N 055 912 733

Unit 1 Second Floor 42 Birnie Ave Lidcombe 2141

Tel (02) 9646 5811 • Fax (02) 9646 2311

**APPROVED BY**

*[Signature]*

**JOB No**

**20023**

**SCALE**

**N T S**

**SHEET No**

**2**

(CONT PAGE 3)

- C 3 ALL CONCRETE SHALL BE PLACED AND CURED IN ACCORDANCE WITH AS3600 WHERE CURING COMPOUNDS ARE USED IT MUST BE APPLIED AS FOLLOWS  
A) ONTO SLAB WITHIN 2HRS OF FINISHING OPERATION  
B) ONTO WALLS AND COLUMNS IMMEDIATELY AFTER REMOVAL OF FORMWORK
- C 4 SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES
- C 5 CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE TO THE APPROVAL OF THE ENGINEER
- C 6 BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS IF ANY
- C 7 HORIZONTAL FORMWORK SHALL BE STRIPPED WHEN APPROVED BY THE ENGINEER
- C 8 UNLESS NOTED OTHERWISE NO ALLOWANCE HAS BEEN MADE FOR STACKED MATERIALS OR MACHINERY ON THE CONCRETE STRUCTURE
- C 9 NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE ELEMENTS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER
- C 10 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION
- C 11 SPLICES IN REINFORCEMENT MADE IN POSITIONS OTHER THAN SHOWN SHALL BE TO THE APPROVAL OF THE ENGINEER WHERE THE LAP LENGTH IS NOT SHOWN IT SHALL BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE REINFORCEMENT
- C 12 WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS
- C 13 PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE CONCRETE COVER TO REINFORCEMENT WITHOUT THE APPROVAL OF THE ENGINEER
- C 14 ALL REINFORCING BARS SHALL COMPLY WITH AS 4671 ALL FABRIC SHALL COMPLY WITH AS 4671 AND SHALL BE SUPPLIED IN FLAT SHEETS
- C 15 REINFORCING SYMBOLS  
N - DENOTES GRADE D500 HIGH STRENGTH DEFORMED BARS TO AS4671  
R - DENOTES GRADE R250 HOT ROLLED PLAIN BARS TO AS4671

- SL - DENOTES HARD-DRAWN WIRE SQUARE REINFORCING FABRIC TO AS4671  
RL - DENOTES HARD-DRAWN WIRE RECTANGULAR REINFORCING FABRIC TO AS4671  
L - DENOTES HARD-DRAWN WIRE TRENCH MESH TO AS4671  
THE NUMBER IMMEDIATELY FOLLOWING THESE SYMBOLS IS THE BAR DIAMETER IN MILLIMETRES
- C 16 FABRIC REINFORCEMENT TO BE LAPPED ONE MESH PLUS 30mm LAPS IN POSITIONS OF MAXIMUM MOMENT ARE NOT PERMITTED
- C 17 ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON INSULATED STEEL PLASTIC OR CONCRETE CHAIRS GENERALLY AT NOT GREATER THAN 800 CENTRES BOTH WAYS RODS SHALL BE TIED AT ALTERNATE INTERSECTIONS
- C 18 ALL TENSILE REINFORCEMENT TO BE LAPPED AS SHOWN -

|            |     |     |     |     |
|------------|-----|-----|-----|-----|
| REINF BAR  | N12 | N16 | N20 | N24 |
| LAP LENGTH | 500 | 600 | 700 | 800 |

DRAINAGE NOTES

- D 1 ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS 2870
- D 2 DRAINAGE SHALL BE CONSTRUCTED TO AVOID WATER PONDING AGAINST OR NEAR THE FOOTING THE GROUND IN THE IMMEDIATE VICINITY OF THE PERIMETER FOOTING INCLUDING THE GROUND UPHILL FROM THE SLAB ON CUT-AND-FILL SITES SHALL BE GRADED TO FALL 50mm MINIMUM AWAY FROM THE FOOTING OVER A DISTANCE OF 1m SURFACE OR SUBSURFACE DRAINS SHALL BE USED TO CHANNEL WATER AWAY AND CONNECTED TO STORMWATER SYSTEM ANY PAVING SHALL ALSO BE SUITABLY SLOPED
- D 3 EXCAVATIONS NEAR THE EDGE OF THE FOOTING SYSTEM SHALL BE BACKFILLED IN SUCH A WAY AS TO PREVENT ACCESS OF WATER TO THE FOUNDATION FOR EXAMPLE EXCAVATIONS SHOULD BE BACKFILLED ABOVE OR ADJACENT TO THE FOOTING WITH MOIST CLAY COMPACTED BY HAND-RODDING OR -TAMPING POROUS MATERIAL SUCH AS SAND GRAVEL OR BUILDING RUBBLE SHOULD NOT BE USED

NOTE  
© Copyright 1/77/1992 D Amici Colombo Pty Ltd This design and plan is the property of D Amici Colombo Pty Ltd Apart from any use permitted under the Copyright Act it must not be used reproduced or copied wholly or in part without the written permission of the D Amici Colombo Pty Ltd

GENERAL NOTES



D AMICI COLOMBO PTY LTD  
Consulting Structural Engineers  
A/C N 035 912 733  
Unit 1 Second Floor 42 Birnie Ave Lindcombe 2141  
Tel (02) 9646 5811 • Fax (02) 9646 2311

APPROVED BY

JOB No

20023

SCALE

N T S

SHEET No

3

SLAB DETAILS

|                                      |                           |
|--------------------------------------|---------------------------|
| BOX HEIGHT                           | 220 & 150 PODS U.N.O      |
| SLAB THICKNESS                       | 85                        |
| OVERALL DEPTH                        | 305 U.N.O                 |
| BOX SIZE                             | 1100x1100                 |
| SLAB REINFORCEMENT                   | SL82                      |
| 100 INTERNAL RIB REINFORCEMENT       | 1M12 BOTTOM OR EQUIVALENT |
| 270 INTERNAL BEAM REINFORCEMENT      | 3M12 BOTTOM OR EQUIVALENT |
| 100 EXTERNAL EDGE BEAM REINFORCEMENT | 1M12 BOTTOM OR EQUIVALENT |
| 270 EXTERNAL EDGE BEAM REINFORCEMENT | 3M12 BOTTOM OR EQUIVALENT |

|                                                   |               |               |
|---------------------------------------------------|---------------|---------------|
| REINFORCEMENT FOR BEAMS WHERE WIDTH EXCEEDS 270mm |               |               |
| WIDTH                                             | TOP STEEL     | BOTTOM STEEL  |
| 271-370                                           | 1M12 OR EQUIV | 3M12 OR EQUIV |
| 371-480                                           | 2M12 OR EQUIV | 4M12 OR EQUIV |
| 481-600                                           | 3M12 OR EQUIV | 5M12 OR EQUIV |

PIERING NOTES

| ELEMENT               | PIER SPACING         | EXTRA TOP STEEL | EXTRA BOTTOM STEEL |
|-----------------------|----------------------|-----------------|--------------------|
| EDGE BEAMS            | 3500 U.N.O           | 1M12 OR EQUIV   |                    |
| INTERNAL & STEP BEAMS | 2400x2400 GRID U.N.O |                 |                    |
| INTERNAL RIB          | 2400x2400 GRID U.N.O |                 |                    |

PIER DIAMETER - CLAY = 450mm SOCKET MIN 300mm INTO STIFF CLAY  
SHALE- 400mm SOCKET MIN 200 INTO SHALE  
ROCK 300mm SOCKET MIN 100 INTO ROCK

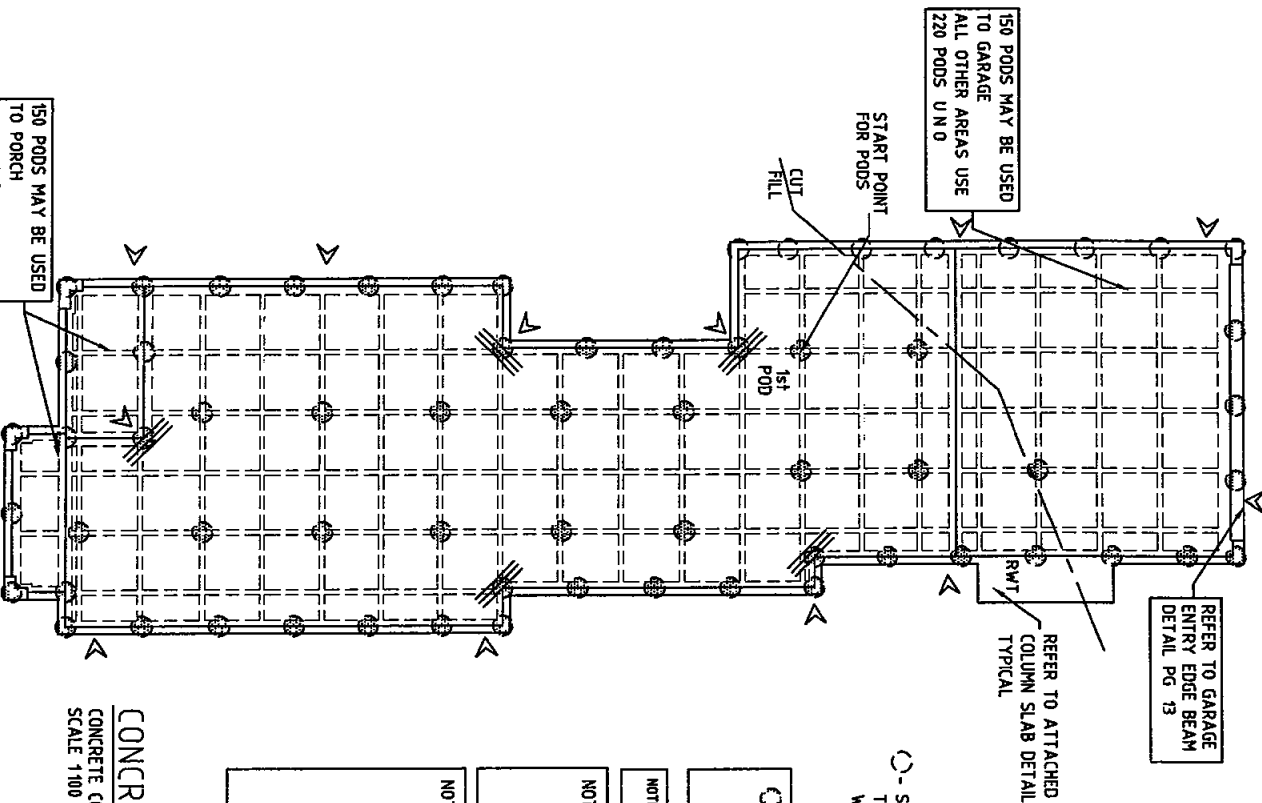
LEGEND

- /// DENOTES 3M12 OR EQUIV (OR 3 L11TH) CRACK CONTROL BARS 2000mm LONG TIED TO UNDERSIDE OF SLAB TOP MESH
- /// DENOTES 2M12 OR EQUIV (OR 2-L11TH) CRACK CONTROL BARS 1200mm LONG TIED TO UNDERSIDE OF SLAB TOP MESH
- ▽ DENOTES APPROX LOCATION OF ARTICULATION JOINTS IN THE MASONRY WALLS (DO NOT SCALE) EXACT LOCATION OF ARTICULATION JOINTS SHOULD BE READ OFF ARCHITECTURAL DRAWINGS. ALL ARTICULATION JOINTS SHALL BE CONSTRUCTED FOR THE FULL HEIGHT OF THE WALL. REFER TO DETAILS
- ☑ DENOTES WET AREA SETDOWN
- ▨ SHADED AREA DENOTES PODS SET DOWN

NOTE

© Copyright 1/7/1992 D Amici Colombo Pty Ltd This design and plan is the property of D Amici Colombo Pty Ltd Apart from any use permitted under the Copyright Act it must not be used reproduced or copied wholly or in part without the written permission of the D Amici Colombo Pty Ltd

\* OWNER The owner is responsible for maintenance of building and site (follow link on our website www.damico.com.au for the CSIRO Guide to Home Owners on Foundation Maintenance and Performance)



SLAB PLAN  
CHANGE THIS  
DONT FORGET



**D'AMICI COLOMBO PTY LTD**  
Consulting Structural Engineers  
A.C.N 055 912 733  
Unit 1 Second Floor 42 Birnie Ave Uloombe 2141  
Tel (02) 9646 5811 Fax (02) 9646 2311

**CONCRETE SLAB PLAN**  
CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS - 20MPa  
SCALE 1:100

**NOTE**  
These drawings are signed subject to a certificate of inspection being issued by this office. All reinforcement shall be inspected by this office prior to placing concrete.

APPROVED BY

Robert Colombo MIEAustrian OPENING WPER  
R.P.E.C. 8879 EC-2226 Structural Engineer

JOB No

20023

SCALE 1:100  
A3 SIZE

SHEET No  
4

SW220

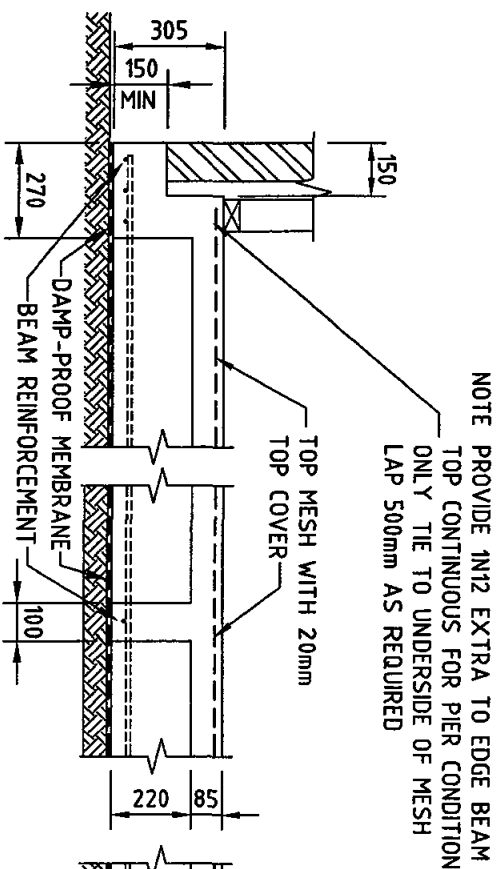
○ SERVICE TRENCH PIERS MIN 100mm DEEP U.N.O IN ACCORDANCE TO SERVICE TRENCH DETAIL ON SHIT 2 REQUIRED FOR SLAB EDGE WHERE SERVICE TRENCH IS CLOSER THEN 1200mm U.N.O

○ DENOTES 450mm DIA CONC PIERS IN FILLED AREAS (FOR FILL WHICH DOES NOT COMPLY WITH NOTE F6 SHIT 2) TO 150kPa BEARING CAPACITY IE MIN 500mm SOCKET INTO NATURAL FIRM/DENSE STRATA

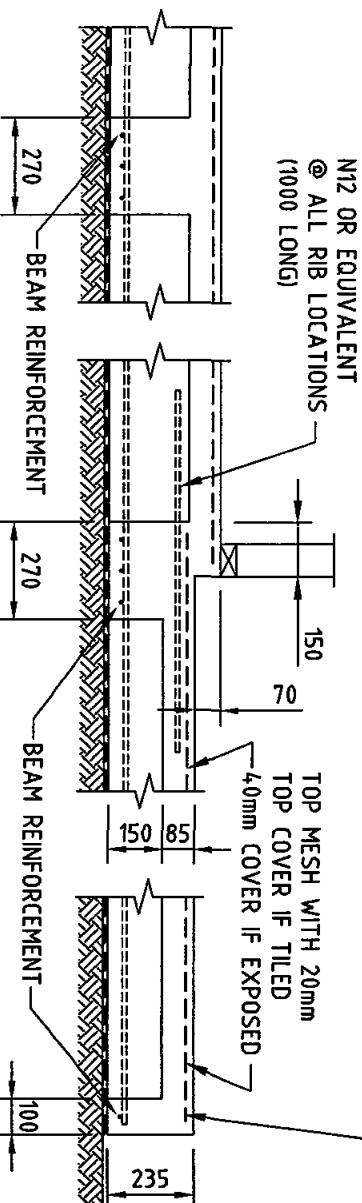
NOTE ALTERNATIVELY TO CONC PIERS PROVIDE SCREW PIERS TO A S.W.L OF 70 kN REFER TO DETAILS.

NOTE THE LONG TERM SITE MANAGEMENT & MAINTENANCE OF THIS PROPERTY MUST BE IN ACCORDANCE WITH APPENDIX B OF AS2870-1996 THIS MAINTENANCE IS THE RESPONSIBILITY OF THE HOME OWNER (REFER TO CSIRO BROCHURE - FOUNDATION MAINTENANCE & FOOTING PERFORMANCE A HOMEOWNER S GUIDE)

NOTE IN ORDER TO MAINTAIN NORMAL MOISTURE CONDITIONS FOR THE LONG TERM SUSTAINABILITY OF THE DWELLING WE SUGGEST THAT ANY TREES/ROOT SYSTEMS BE REMOVED FROM THE SITE IF THEY ARE WITHIN THE ZONE OF INFLUENCE OR IN CLOSE PROXIMITY TO PROPOSED DWELLING BACKFILL & COMPACT ROOT SYSTEM AREAS TO COMPLY WITH NOTE F6 SHIT 2 DURING THE REMOVAL PROCESS IF THIS CANNOT BE ACHIEVED CONTACT THIS OFFICE PRIOR TO COMMENCING WORK ON SITE AS FURTHER ENGINEERING MAY BE REQUIRED THIS MAY INCLUDE BUT IS NOT LIMITED TO ADDITIONAL PIERING AND/OR ISOLATION TRENCHES TO ACT AS ROOT BARRIERS



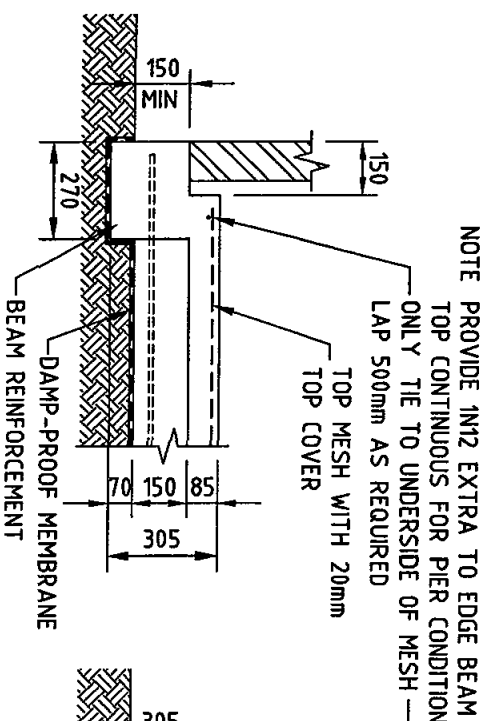
TYPICAL EDGE BEAM DETAIL INTERNAL RIB



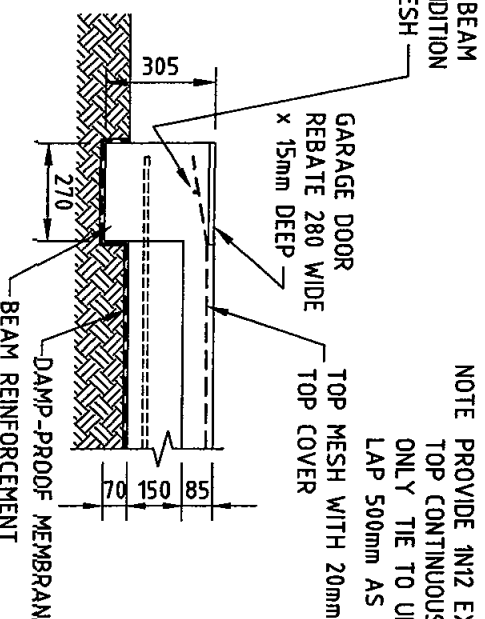
INTERNAL BEAM

STEP BEAM 70mm (GARAGE & VERANDAH STEP)

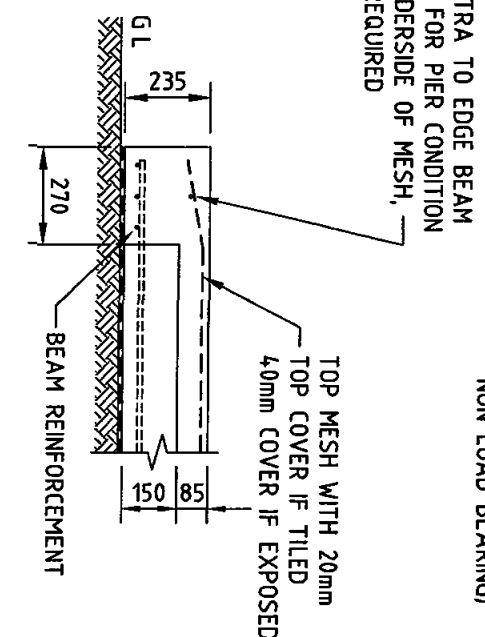
EDGE BEAM (VERANDAH DETAIL NON LOAD BEARING)



GARAGE EDGE BEAM 150 POD



GARAGE EDGE BEAM 150 POD



VERANDAH EDGE BEAM 150 POD (LOAD BEARING)

NOTE

© Copyright 1/7/1992 D Amici Colombo Pty Ltd This design and plan is the property of D Amici Colombo Pty Ltd. Any use, reproduction or copying of this design without the written permission of the D Amici Colombo Pty Ltd is prohibited.

STIFFENED RAFT DETAILS



**D AMICI COLOMBO PTY LTD**

Consulting Structural Engineers  
ACN 055 912 733  
Unit 1 Second Floor 42 Birnie Ave Lidcombe 2141  
Tel (02) 9646 5811 • Fax (02) 9646 2311

APPROVED BY



JOB No

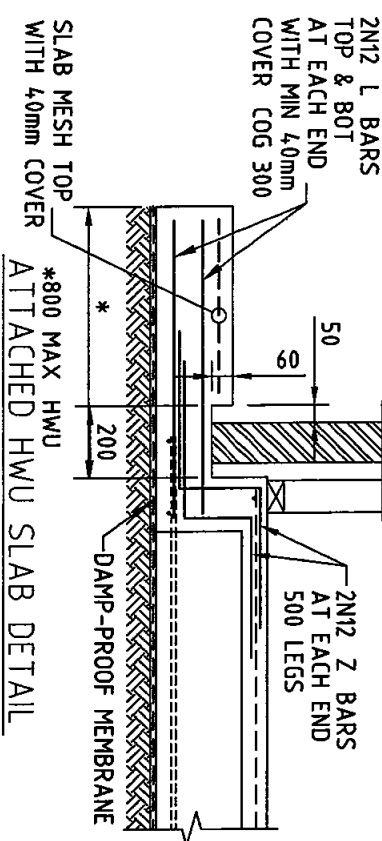
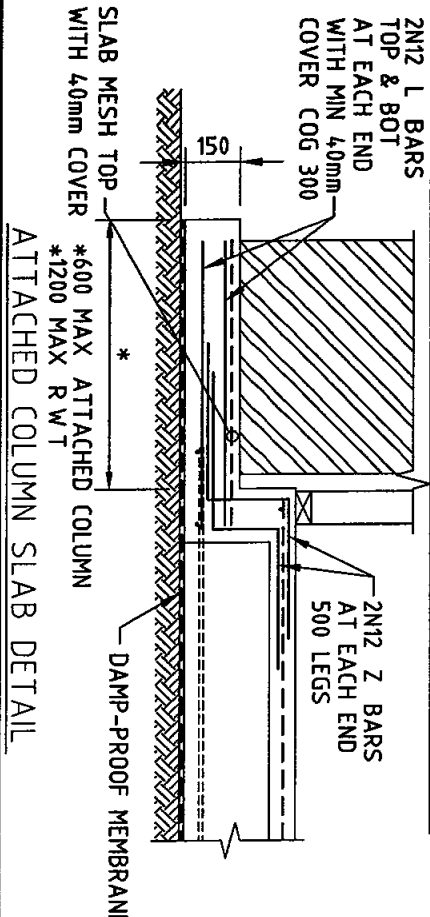
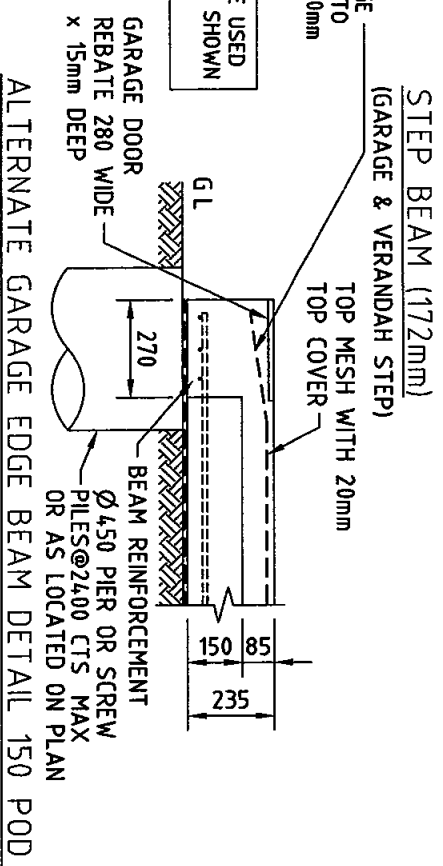
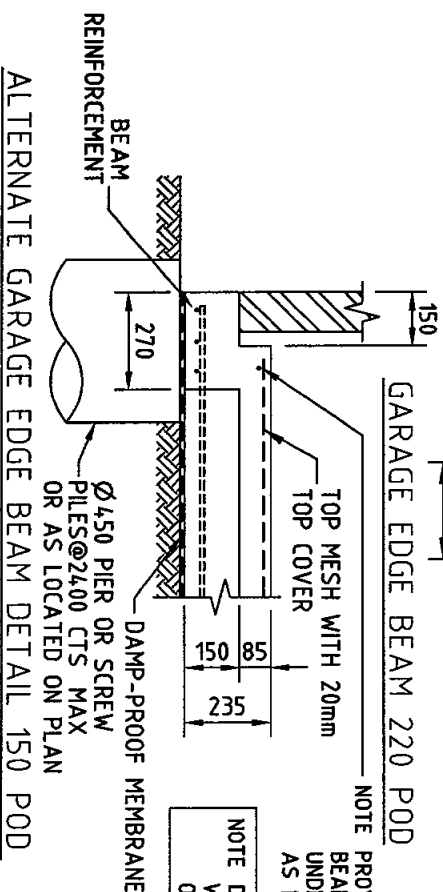
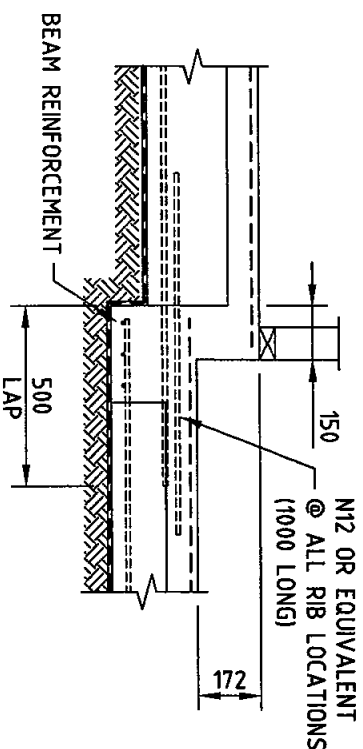
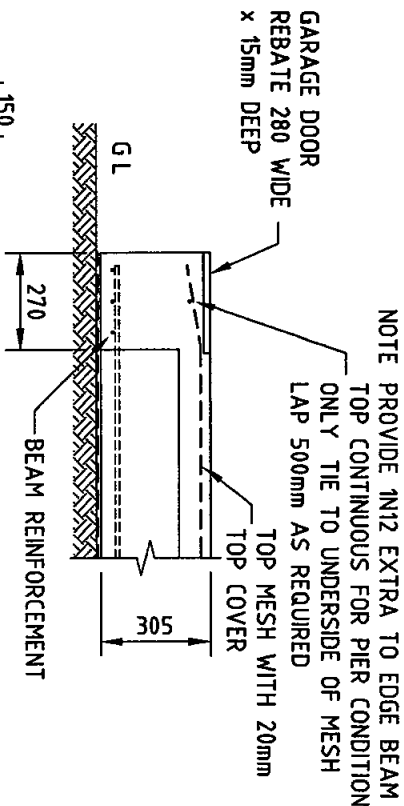
**20023**

SCALE

**1:20**

SHEET No

**5**



NOTE  
© Copyright 1/7/1992 D Amici Colombo Pty Ltd. This design and plan is the property of D Amici Colombo Pty Ltd. All rights reserved. No part of this publication may be reproduced or copied in any form or by any means electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, without written permission of the D Amici Colombo Pty Ltd.

STIFFENED RAFT  
DETAILS

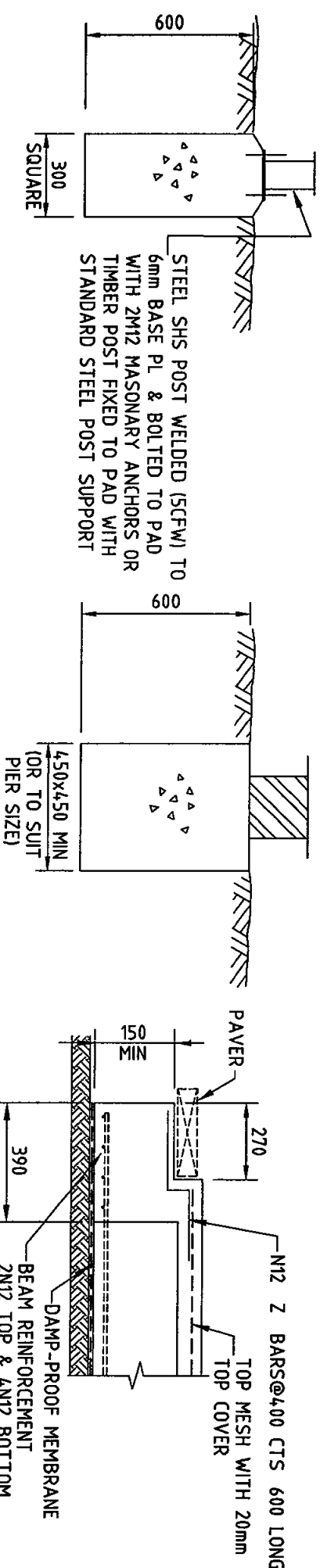
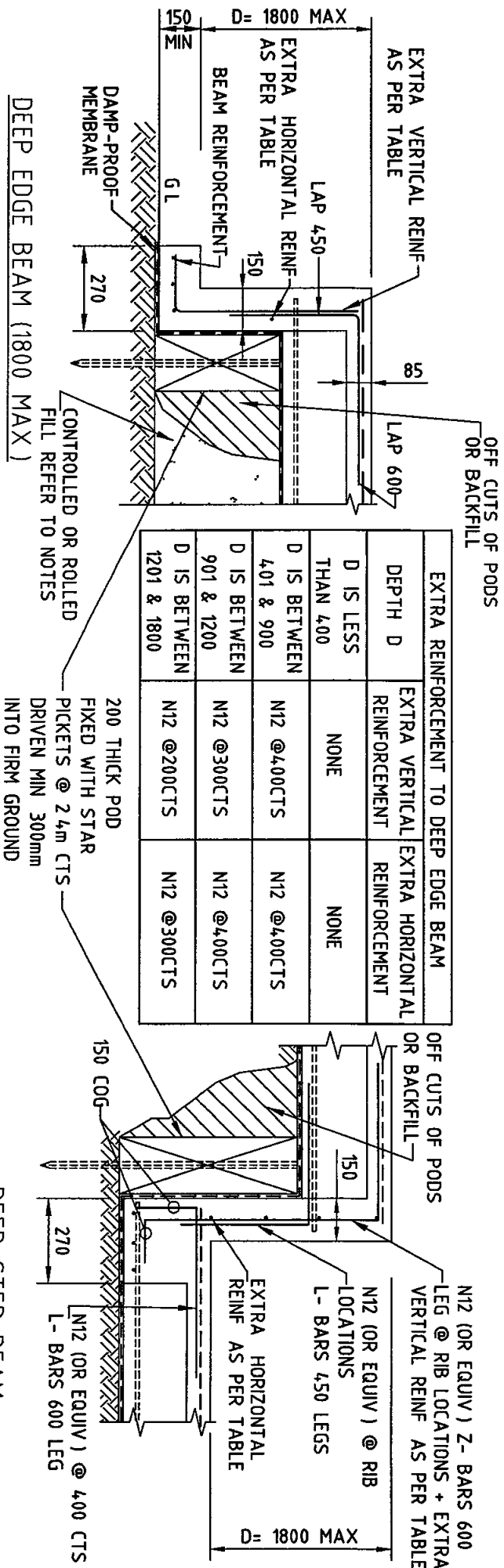
**D AMICI COLOMBO PTY LTD**  
Consulting Structural Engineers  
ACN 055 912 733  
Unit 1 Second Floor 42 Birnie Ave Ludcombe 2141  
Tel (02) 9646 5811 • Fax (02) 9646 2311

APPROVED BY

JOB No  
**20023**  
SCALE  
**1:20**  
SHEET No  
**6**

\* OWNER The owner is responsible for maintenance of building and site (follow link on our website [www.damici.com.au](http://www.damici.com.au) for the CSIRO Guide to Home Owners on Foundation Maintenance and Performance)

SMBZN



VERANDAH PAD DETAIL (VP)

ISOLATED PAD DETAIL (P1)

FOR PAVERS

NOTE

© Copyright 1/7/1992 D'Amici Colombo Pty Ltd This design and plan is the property of D'Amici Colombo Pty Ltd. All rights reserved. No part of this publication may be reproduced or copied in any form or by any means electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, without the written permission of the D'Amici Colombo Pty Ltd

STIFFENED RAFT DETAILS



**D'AMICI COLOMBO PTY LTD**

Consulting Structural Engineers

ACN 055 912 733

Unit 1 Second Floor 42 Birnie Ave Ludcombe 2141

Tel (02) 9646 5811 • Fax (02) 9646 2311

APPROVED BY

*[Signature]*

JOB No-

**20023**

SCALE

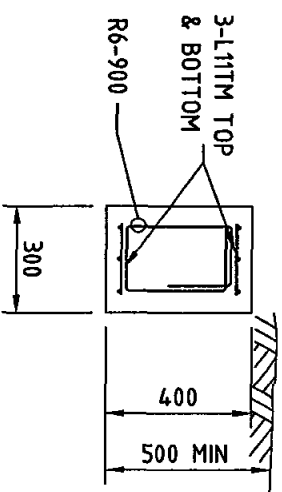
1:20

SHEET No

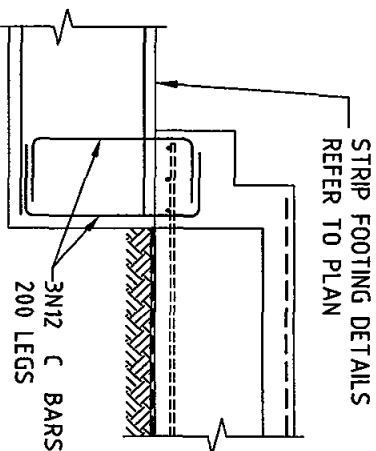
7

\* OWNER The owner is responsible for maintenance of building and site (follow link on our website [www.damici.com.au](http://www.damici.com.au) for the CSIRO Guide to Home Owners on Foundation Maintenance and Performance)

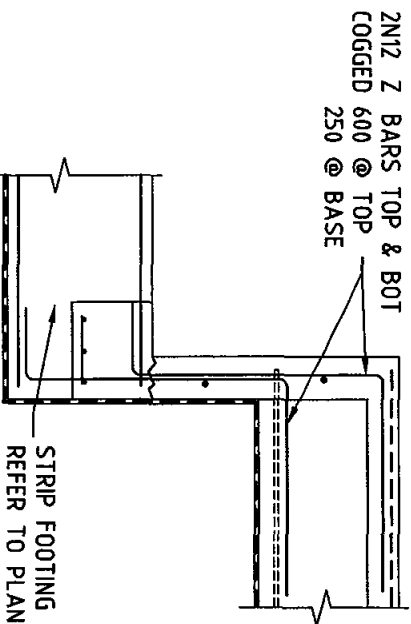
SWB2N



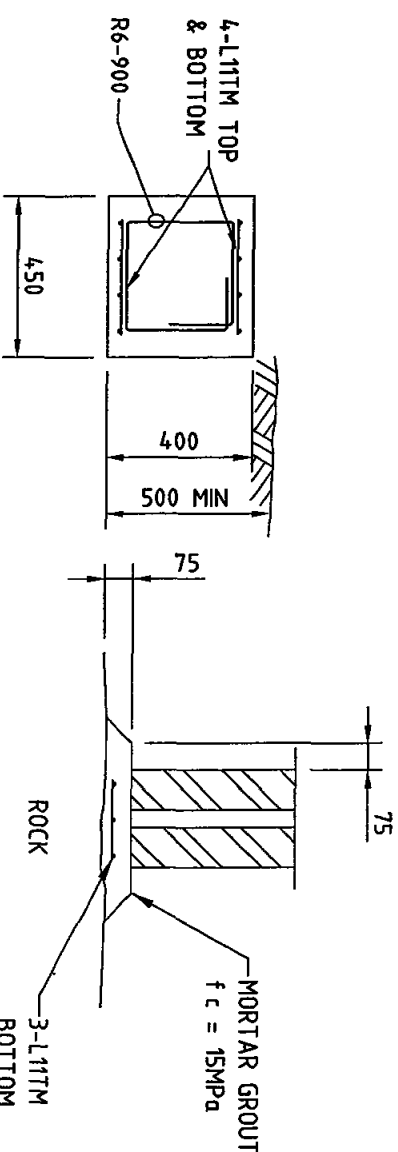
TYPE 'A' FOOTING



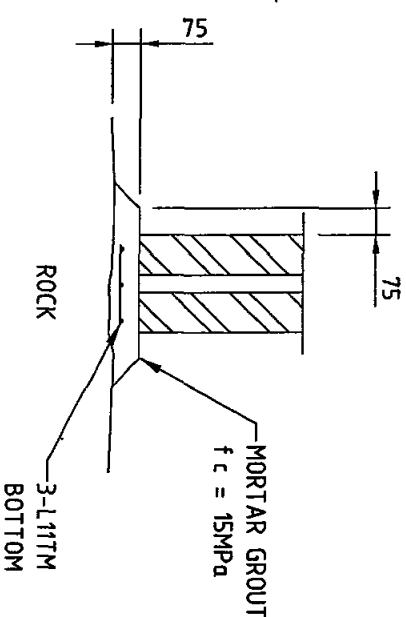
STRIP FOOTING/POD CONNECTION



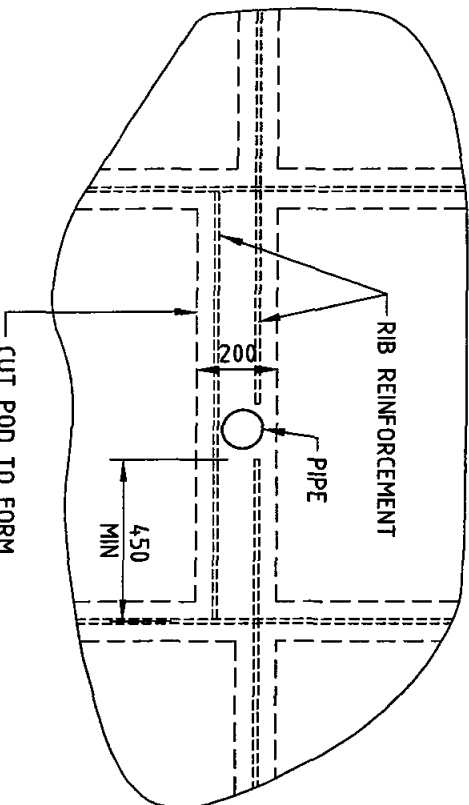
STRIP FOOTING/DEEP EDGE BEAM CONNECTION



TYPE 'B' FOOTING



FOOTING ON ROCK DETAIL



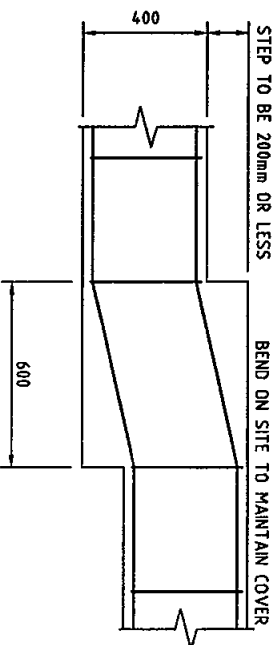
PIPE PENETRATION DETAIL (PLAN)  
NTS

|                                                                                                                                                                                                                                 |                       |                                                                                                                                                                                                           |                                                     |                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <p><b>NOTE</b></p> <p>© Copyright 1/7/1992 D Amici Colombo Pty Ltd. This design and plan is the property of D Amici Colombo Pty Ltd. Any reproduction or use without the written permission of the D Amici Colombo Pty Ltd.</p> | <p><b>DETAILS</b></p> | <p><b>D AMICI COLOMBO PTY LTD</b></p> <p>Consulting Structural Engineers</p> <p>ACN 055 912 733</p> <p>Unit 1 Second Floor 42 Birnie Ave Lidcombe 2141</p> <p>Tel (02) 9646 5811 • Fax (02) 9646 2311</p> | <p><b>APPROVED BY</b></p> <p><i>[Signature]</i></p> | <p><b>JOB No</b></p> <p><b>20023</b></p> <p><b>SCALE</b></p> <p><b>1:20</b></p> <p><b>SHEET No</b></p> <p><b>8</b></p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|

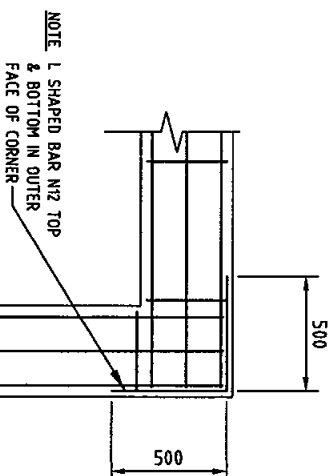
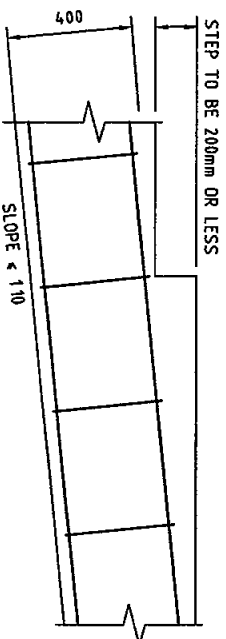
\* OWNER: The owner is responsible for maintenance of building and site (follow link on our website [www.damici.com.au](http://www.damici.com.au) for the CSIRO Guide to Home Owners on Foundation Maintenance and Performance)

SWB2N

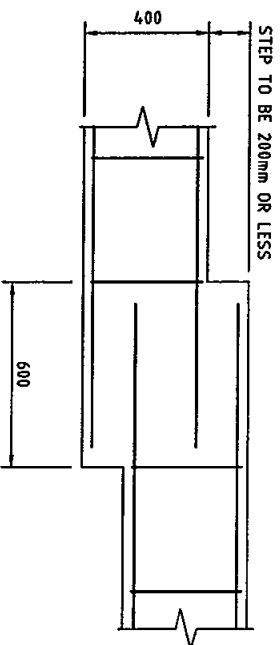
METHOD A



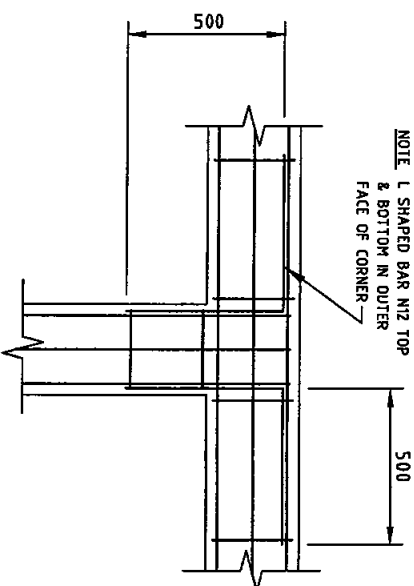
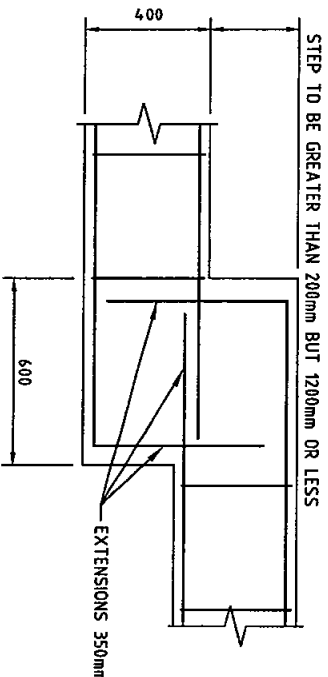
METHOD C



METHOD B



METHOD D



FOOTING STEP & LAP DETAILS  
NTS

NOTE

© Copyright 1/7/1992 D Amici Colombo Pty Ltd. This design and plan is the property of D Amici Colombo Pty Ltd. Apart from any use permitted under the Copyright Act, it must not be used, reproduced or copied wholly or in part without the written permission of the D Amici Colombo Pty Ltd.

STRIP FOOTING  
DETAILS



D AMICI COLOMBO PTY LTD

Consulting Structural Engineers

ACN 055 912 733

Unit 1 Second Floor 42 Birnie Ave Ludcombe 2141

Tel (02) 9646 5811 • Fax (02) 9646 2311

APPROVED BY



JOB No

20023

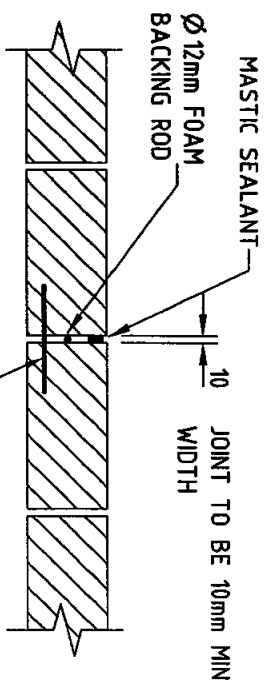
SCALE

NTS

SHEET No

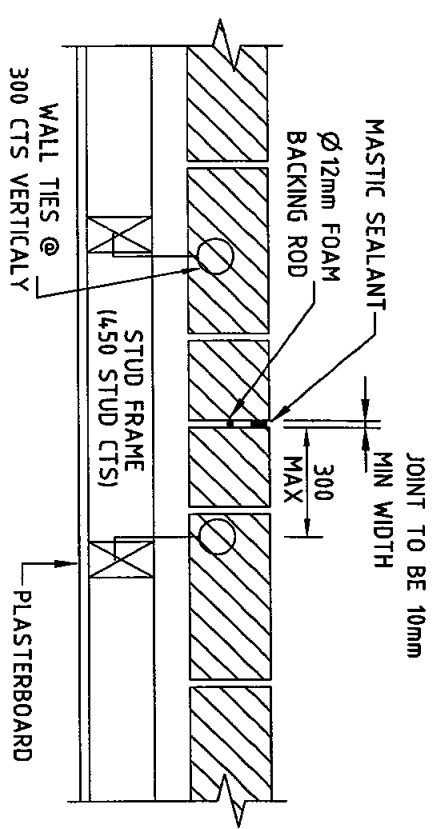
9

\* OWNER The owner is responsible for maintenance of building and site (follow link on our website [www.damico.com.au](http://www.damico.com.au) for the CSIRO Guide to Home Owners on Foundation Maintenance and Performance ) SWB2N

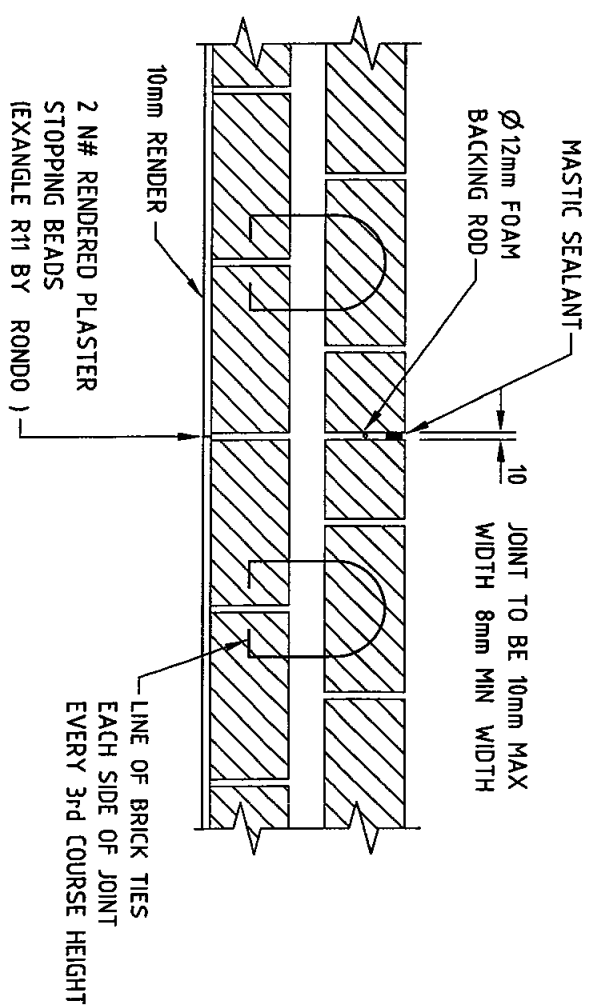


PROVIDE DIA 2.6mm x150 LG GALVANISED PINS PLACED CENTRALLY ACROSS JOINT EVERY THIRD BRICK COURSE OR USE MEAS ANCHOR (TJ INDUSTRIES) OR SIMILAR ACROSS EVERY SIXTH COURSE

SINGLE SKINNED WALL JOINT DETAIL 110  
REFER TO PLAN FOR LOCATIONS



BRICK VENEER WALL JOINT DETAIL 110  
REFER TO PLAN FOR LOCATIONS



CAVITY BRICK WALL JOINT DETAIL 110  
REFER TO PLAN FOR LOCATIONS

|                                                                                                                                                                                                                                                                                                                             |                       |                                                                                                                                                                                                  |                                                                                                               |                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p><b>NOTE.</b></p> <p>© Copyright 1/7/1992 D Amici Colombo Pty Ltd. This design and plan is the property of D Amici Colombo Pty Ltd. Approval from any use permitted under the Copyright Act. It must not be used reproduced or copied wholly or in part without the written permission of the D Amici Colombo Pty Ltd</p> | <p><b>DETAILS</b></p> | <p><b>D AMICI COLOMBO PTY LTD</b></p> <p>Consulting Structural Engineers<br/>ACN 055 912 733<br/>Unit 1 Second Floor 42 Birnie Ave Ludcombe 2141<br/>Tel (02) 9646 5811 • Fax (02) 9646 2311</p> | <p><b>APPROVED BY</b></p>  | <p><b>JOB No</b> 20023</p> <p><b>SCALE</b> 1:10</p> <p><b>SHEET No</b> 10</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

STRUCTURAL STEEL NOTES

- S 1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS
- S 2 UNLESS OTHERWISE NOTED ALL STEEL SHALL BE IN ACCORDANCE WITH  
AS 3679 1 GRADE 300 FOR ROLLED SECTIONS  
AS 1163 GRADE 350 FOR RHS SECTIONS  
AS 1163 GRADE 350 FOR CHS SECTIONS  
AS 3378 GRADE 350 FOR ALL PLATE  
AS 3679 1 GRADE 350 FOR ALL PLATE  
AS 1397 GRADE 450 FOR 15 19 24 AND 30 BMT OF COLD-FORMED STEEL SECTIONS
- S 3 UNLESS NOTED OTHERWISE ALL WELDS SHALL BE 6mm CONTINUOUS FILLET WELDS AND ALL GUSSET PLATES SHALL BE 10mm THICK
- S 4 BUTT WELDS WHERE INDICATED IN THE DRAWINGS ARE TO BE COMPLETE PENETRATION BUTT WELDS AS DEFINED IN AS 1554
- S 5 UNLESS OTHERWISE SHOWN ALL BOLTS SHALL BE 16 DIA HIGH STRENGTH (H.S.) BOLTS SHALL CONFORM TO AS 1252 AND SHALL BE INSTALLED IN ACCORDANCE WITH AS 4100 AS DIRECTED BY THE ENGINEER
- S 6 UNLESS NOTED OTHERWISE ALL BEAMS TO BE SUPPORTED ON BRICKWORK/ ENGAGED BRICK PIERS (110mm BRICK BEARING REQUIRED)  
UNLESS INCOMPRESSIBLE PACKING AS REQUIRED UNDER THE ENDS OF THE BEAM TO ENSURE EVEN BEARING ON BRICKWORK
- UNLESS NOTED OTHERWISE PROTECTIVE COATINGS FOR STEELWORK SHALL BE AS TABULATED BELOW AND IN ACCORDANCE WITH VOL 2 PART 3 4 4 OF THE BCA

| ENVIRONMENT                                                                                | LOCATION | MINIMUM PROTECTIVE COATING            |                                                                  |
|--------------------------------------------------------------------------------------------|----------|---------------------------------------|------------------------------------------------------------------|
|                                                                                            |          | GENERAL STRUCTURAL STEEL MEMBERS      | LINTELS IN MASONRY                                               |
|  MODERATE | INTERNAL | NO PROTECTION REQUIRED                | NO PROTECTION REQUIRED                                           |
|                                                                                            | EXTERNAL | 2 COATS ALKYD PRIMER                  | 2 COATS ALKYD PRIMER OR<br>HOT DIP GALVANISE 300g/m <sup>2</sup> |
|  SEVERE   | INTERNAL | 2 COATS ALKYD PRIMER                  | 2 COATS ALKYD PRIMER                                             |
|                                                                                            | EXTERNAL | HOT DIP GALVANISE 300g/m <sup>2</sup> | HOT DIP GALVANISE 600g/m <sup>2</sup>                            |

NOTE

© Copyright 1/7/1992 D Amici Colombo Pty Ltd This design and plan is the property of D Amici Colombo Pty Ltd. Apart from any use permitted under the Copyright Act it must not be used reproduced or copied wholly or in part without the written permission of the D Amici Colombo Pty Ltd

STRUCTURAL STEEL NOTES



D AMICI COLOMBO PTY LTD

Consulting Structural Engineers

A/C N 055 912 733

Unit 1 Second Floor 42 Birnie Ave Lidcombe 2141

Tel (02) 9646 5811 • Fax (02) 9646 2311

APPROVED BY



JOB No

20023

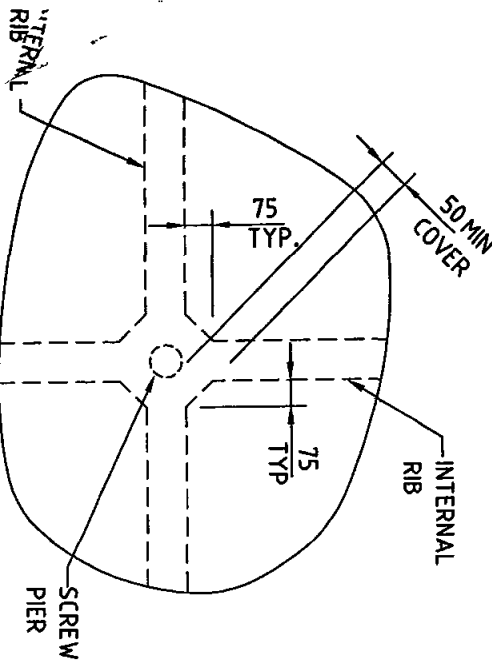
SCALE

NTS

SHEET No

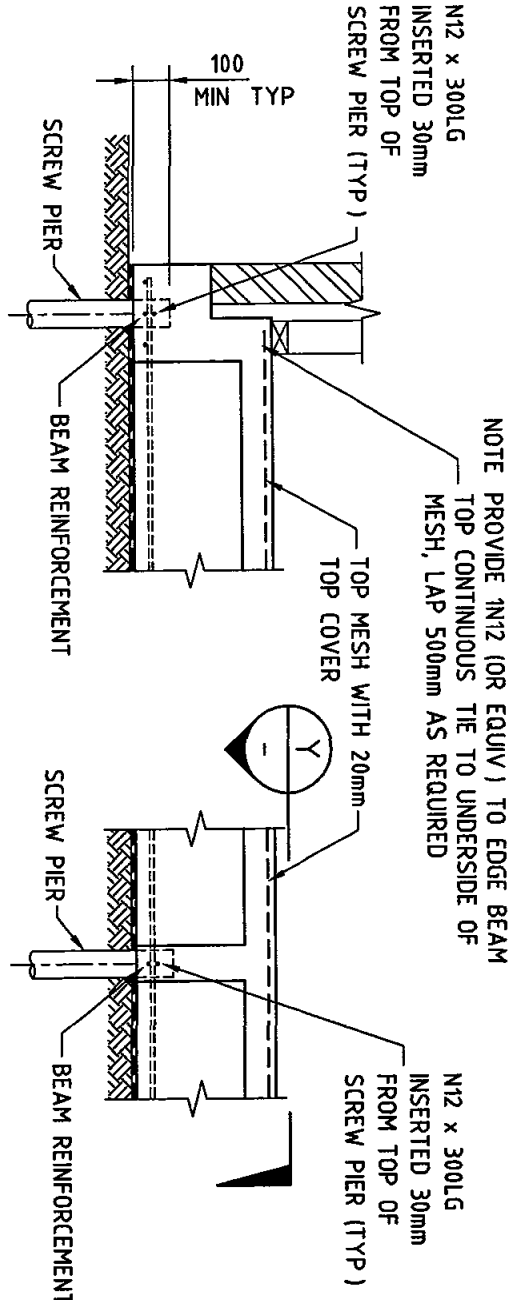
11

\* OWNER The owner is responsible for maintenance of building and site (follow link on our website [www.damici.com.au](http://www.damici.com.au) for the CSIRO Guide to Home Owners on Foundation Maintenance and Performance)



SECTION Y-Y

TYPICAL LOCAL THICKENING AT  
INTERNAL PILE LOCATIONS



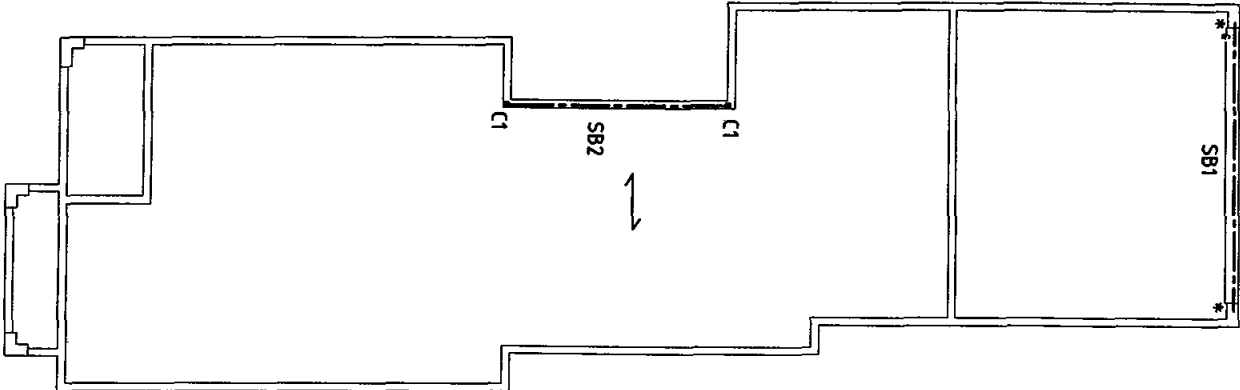
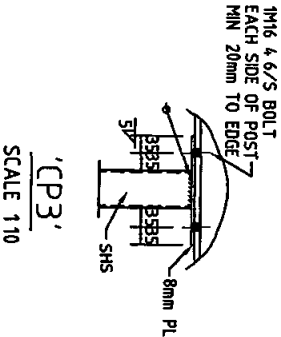
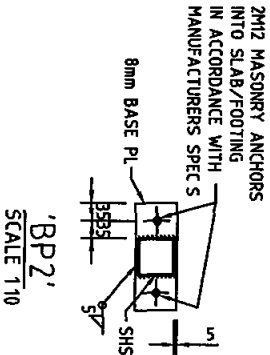
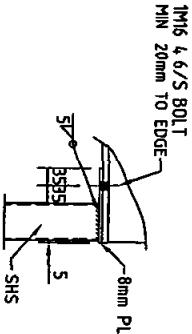
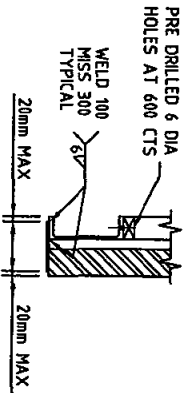
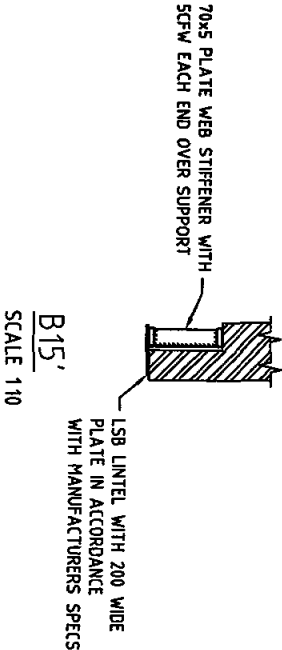
TYPICAL SLAB/PIER CONNECTION DETAIL

|                                                                                                                                                                                                                                                                                                                         |  |  |                                  |  |  |                                                                                                                                                                                    |  |  |                                                     |  |  |                                          |  |  |                                         |  |  |                                         |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------|--|--|------------------------------------------|--|--|-----------------------------------------|--|--|-----------------------------------------|--|--|
| <p><b>NOTE</b></p> <p>© Copyright 1/7/1992 D Amici Colombo Pty Ltd. This design and plan is the property of D Amici Colombo Pty Ltd. Report from any use permitted under the Copyright Act it must not be used reproduced or copied wholly or in part without the written permission of the D Amici Colombo Pty Ltd</p> |  |  | <p><b>SCREW PIER DETAILS</b></p> |  |  | <p><b>D AMICI COLOMBO PTY LTD</b></p> <p>Consulting Structural Engineers</p> <p>Unit 1 Second Floor 42 Birnie Ave Lidcombe 2141</p> <p>Tel (02) 9646 5811 • Fax (02) 9646 2311</p> |  |  | <p><b>APPROVED BY</b></p> <p><i>[Signature]</i></p> |  |  | <p><b>JOB No</b></p> <p><b>20023</b></p> |  |  | <p><b>SCALE</b></p> <p><b>N T S</b></p> |  |  | <p><b>SHEET No</b></p> <p><b>12</b></p> |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------|--|--|------------------------------------------|--|--|-----------------------------------------|--|--|-----------------------------------------|--|--|

\* OWNER The owner is responsible for maintenance of building and site (follow link on our website [www.damici.com.au](http://www.damici.com.au) for the CSIRO Guide to Home Owners on Foundation Maintenance and Performance)

← ASSUMED DIRECTION OF FIRST  
FLOOR JOISTS CONTACT THIS  
OFFICE IF OTHERWISE

| MEMBER SCHEDULE |                           |                            |  |
|-----------------|---------------------------|----------------------------|--|
| MEMBER          | SIZE                      | COMMENTS                   |  |
| BEAMS           |                           |                            |  |
| SB1             | 250x75x3 0 LSB + 200x8 PL | DETAIL B15                 |  |
|                 |                           | * MIN 110 mm BRICK BEARING |  |
| SB2             | 150 PFC + (200X8) PL      | DETAIL B7                  |  |
| POSTS           |                           |                            |  |
| C1              | 75x75x3 SHS               | CAP PLATE CP1              |  |
|                 |                           | BASE PLATE BP2             |  |
| C2              | 75x75x3 SHS               | CAP PLATE CP3              |  |
|                 |                           | BASE PLATE BP2             |  |



NOTE

© Copyright 1/7/1992 D'Amici Colombo Pty Ltd This design and plan is the property of D'Amici Colombo Pty Ltd. Apport from any use permitted under the Copyright Act it must not be used reproduced or copied wholly or in part without the written permission of the D'Amici Colombo Pty Ltd

\* OWNER The owner is responsible for maintenance of building and site (follow link on our website [www.damiciol.com.au](http://www.damiciol.com.au) for the CSIRO Guide to Home Owners on Foundation Maintenance and Performance)

STEEL BEAM LAYOUT



D'AMICI COLOMBO PTY LTD

Consulting Structural Engineers  
A.C.N. 055 912 733  
Unit 1 Second Floor 42 Birnie Ave Lidcombe 2141  
Tel (02) 9646 5811 • Fax (02) 9646 2311

NOTE

These drawings are signed subject to a certificate of inspection being issued by this office. All reinforcement shall be inspected by this office prior to placing concrete

APPROVED BY

Robert Colombo MEng Australia CPEng NPER  
RPE Q 5879 EC-228 Structural Engineer

JOB No

20023

SCALE 1100

A3 SIZE

SHEET No

13



## HOME WARRANTY INSURANCE

Local Authority Copy

**CGU POLICY CERTIFICATE NUMBER • 02.HWI 0071487 02**

Home Building Regulation 2004 Clause 66(1)

Schedule 1 - Forms, Form 1

HOME BUILDING ACT 1989 Section 92

### CERTIFICATE IN RESPECT OF INSURANCE RESIDENTIAL BUILDING WORK BY CONTRACTORS

A contract of insurance complying with section 92 of the Home Building Act 1989  
has been issued by CGU Insurance Ltd ABN 27 004 478 371

in respect of

Construction of new residential dwelling

at

129 Melaleuca Place, Warriewood, NSW 2102

Builder Job Number

29787129

carried out by

Clarendon Homes (NSW) Pty Ltd ACN 003892706 ABN 18003892706

for

CLARENDON RESIDENTIAL GROUP

Subject to the Act and the Home Building Regulation 2004 and the conditions of  
the insurance contract, cover will be provided to a beneficiary described in the  
contract and successors in title to the beneficiary

Date 24th June 2008

Signed for and on behalf of the Insurers

This Certificate in respect of Insurance is issued for the building contract

dated 24/06/2008

for the contract sum of \$355,323

CGU ELIGIBILITY NUMBER 0002458

CGU Home Warranty Insurance

A Division of CGU Insurance Limited ABN 27 004 478 371

An IAG Company

UNCIL

Pittwater Council

ABN 61340837871

Thursday

TAX INVOICE  
OFFICIAL RECEIPT

02/07/2008 Receipt No 241007

PTY LTD

To CLARENDON RESIDENTIAL GROUP

D: 9952  
BALHAM HILLS

1303/08 for a new st

Qty/  
Applic Reference Amount

TDEV-DA F \$1,407.09  
GL Rec 1 Y D/A N0303/08

1 TDEV-T, F1 \$56.18  
GL Rec 1 Y D/A N0303/08

1 GST \$5.82  
GL Rec

1 PMIC-Scrs \$54.55  
GL Rec 1 Y D/A N0303/08

1 GST \$4.15  
GL Rec

1 OLGL-Bull \$1,243.00  
GL Rec 1 Y D/A N0303/08

1 HREF-RR A \$193.64  
GL Rec 1 Y D/A N0303/08

1 GST \$15.36  
GL Rec

1 NODP-Notc \$31.87  
GL Rec 1 Y D/A N0303/08

1 GST \$3.18  
GL Rec

To GL Receipt

Total Amount \$3,033.09

Includes GST of \$34.81

Amounts Tendered

Cheque \$3,033.09

Total \$3,033.09

Roundings \$0.00

Change \$0.00

Nett \$3,033.09

Printed 02/07/2008 9:19:33 AM

Cashier CDick

your application lodge

ted to Council's Planne  
terview by appointment  
your allocated officer

w be carried out and s  
ossible

as been placed on pub  
on Council's website  
site [www.pittwater.nsw.gov.au](http://www.pittwater.nsw.gov.au)

parency please note  
sons on request and  
transparent Develop  
eighbours, to discus

, notification policy, cor  
a plastic sleeve on th  
ild fill in a contact phor  
to contact you to enqui

in 1 metre of the adjo  
requirement on the att  
day notification perio

vidence within three  
and management of  
in place for the 14 d

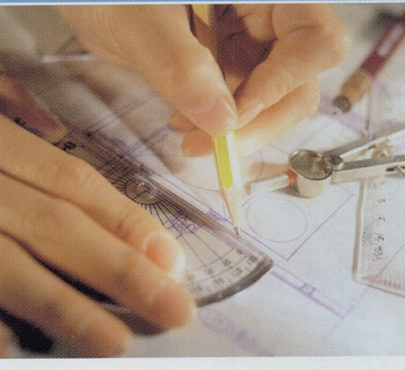
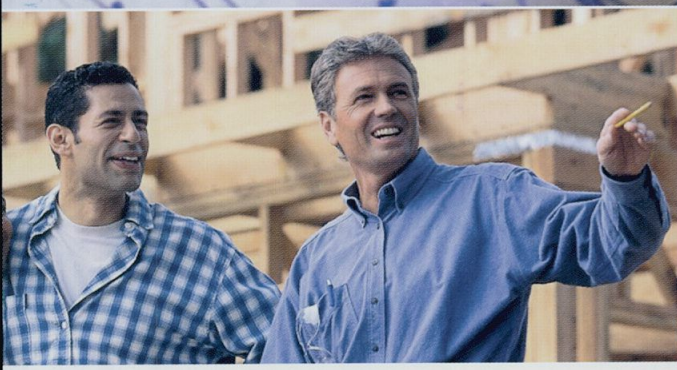
water.nsw.gov.au

tomter Service Centre S  
arrenjoey Road Avalon U

**HIA** members  
the best in the business



# General Housing Specifications



|                                          |                                            |
|------------------------------------------|--------------------------------------------|
| ADDRESS OF PROPERTY :                    | Lot 129 Melaleuca Place<br>Warriewood 2102 |
| GENERAL HOUSING SPECIFICATIONS BETWEEN : |                                            |
| OWNER:                                   | Clarendon Homes (NSW) Pty Ltd              |
| AND                                      | Unit 3, 21 Solent Circuit                  |
| CONTRACTOR:                              | BAULKHAM HILLS NSW 2153                    |
|                                          | DX 9952 BAULKHAM HILLS                     |
| CONTRACTOR LICENCE NO:                   | 2298 C                                     |

**INDEX**  
**GENERAL HOUSING SPECIFICATION**  
**(NSW version revised June 2008)**

| <b>PART NO.</b> | <b>PART HEADINGS</b>                | <b>PAGE NO.</b> |
|-----------------|-------------------------------------|-----------------|
| 1.0             | Introduction                        | 2               |
| 2.0             | Statutory Requirements              | 3               |
| 3.0             | Owner's Obligations                 | 3               |
| 4.0             | Plans, Permits and Application Fees | 4               |
| 5.0             | Excavations                         | 4               |
| 6.0             | Foundations and Footings            | 4               |
| 7.0             | Retaining Walls                     | 6               |
| 8.0             | Effluent Disposal/Drainage          | 6               |
| 9.0             | Timber Framing                      | 6               |
| 10.0            | Steel Framing                       | 8               |
| 11.0            | Roofing                             | 8               |
| 12.0            | Masonry                             | 9               |
| 13.0            | Cladding and Linings                | 10              |
| 14.0            | Joinery                             | 10              |
| 15.0            | Services                            | 11              |
| 16.0            | Tiling                              | 12              |
| 17.0            | Painting                            | 13              |
| 18.0            | Signatures                          | 13              |

1 0 INTRODUCTION

1 1 General

This Specification details the works to be executed and the materials to be used in carrying out those works at the site

This Specification shall be read as a general specification only The extent of the works shall be governed by the approved plans and other requirements under the contract

Any works not fully detailed shall, where appropriate, be sufficiently performed if carried out in accordance with the relevant manufacturer's recommendations or Engineer's Recommendations, and the Building Code of Australia (BCA)

1 2 Preliminary Use

This Specification forms part of the contract and should be read in conjunction with the other contract documents

1 3 Prevailing Documents

Where there is a difference between the plans and this specification, the plans will take precedence The Contractor must at all times maintain a legible copy of the plans and this Specification bearing the approval of the relevant Local Authority

1 4 Size and Dimensions

All sizes and dimensions given in this Specification are in millimetres unless otherwise stated and are nominal only

1 5 Prime Cost and Provisional Sum Items

Prime cost items and provisional sum items are listed in the Schedule of Works

1 6 Definitions

In this Specification

"Engineer's Recommendations" includes any soil classification report, preliminary footing report, construction footing report and any other report, recommendation, site or other instruction, calculations or plans prepared by an engineer in respect of the works

Where the words "Local Authority" are mentioned they shall mean the local council, or other governing authority or private certifier with statutory responsibility for the compliance of the work performed

Where referred to in this Specification, regulations' shall mean the building regulations and codes (including the BCA, as amended) statutorily enforceable at the time application is made for a construction certificate or other permits, consents or approvals relating to the contract

Unless the context suggests otherwise, terms used in this Specification shall have the same meaning as in the HIA NSW Residential Building Contract between the Owner and the Builder ('contract')

This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

## **2 0 STATUTORY REQUIREMENTS**

### **2 1 The Building Works**

The building works shall be constructed in accordance with

- a the regulations and in particular the Performance Requirements of the BCA, Housing Provisions, Volume 2,
- b any conditions imposed by the relevant development consent or complying development certificate,
- c commitments outlined in the relevant BASIX Certificate,

in so far as the Builder is required in accordance with the Schedule of Works addended to this Specification

### **2 2 Compliance with Requirements of Authorities**

The Builder is to comply with the requirements of all legally constituted authorities having jurisdiction over the building works and the provisions of the Home Building Act

### **2 3 Electricity**

Where there is no existing building, the Builder is to make arrangements for any electrical power to be used in the construction of the building works and is to pay fees and costs incurred therein. The cost of providing and installing any additional poles, wiring, service risers or underground wiring etc, as may be required by the electricity supply authority, shall be borne by the Owner

### **2 6 Sanitary Accommodation**

Prior to the commencement of the building works, unless toilet facilities exist on the site, the Builder shall provide temporary toilet accommodation for the use of subcontractors. Where the Local Authority requires the temporary toilet to be connected to sewer mains, the additional cost of this work shall be borne by the Owner. On completion the Builder shall remove the convenience

## **3 0 OWNER'S OBLIGATIONS**

### **3 1 Engineer's Recommendations**

If the contract so indicates, the Owner shall, at the Owner's expense, provide the Builder with reports and recommendations (including soil classification) as to the foundations or footings requirements for the building works prepared by an engineer

In these circumstances, if the Builder instructs any party to provide such recommendations, the Builder does so only as agent for the Owner

### **3 3 Trades Persons Engaged by Owner**

The Owner shall not engage or employ any tradesperson, trade-contractor or any other person to work on the site without the consent of the Builder whose consent may be subject to such terms and conditions as the Builder may stipulate

### **3 4 Items Supplied by Owner**

For all items referred to in this Specification to be supplied by the Owner, it is the responsibility of the Owner to arrange payment for delivery of and protection against damage and theft of all these items

### **3 5 Water Supply**

Where there is no existing building on the site, the Owner shall, at the Owner's expense, supply adequate water to the site for construction purposes. Unless otherwise specified, the Builder shall pay the standard water meter connection fee to the water supply authority provided this service is pre-laid to the site ready for use. The Owner shall be responsible for any fee to be paid in excess of the standard water meter connection fee.

### **3 6 Sanitation**

Unless otherwise specified

- (a) the Owner shall, at the Owner's expense, supply sewerage connection riser or common effluent drainage connection riser on the site,
- (b) the Builder shall pay the standard sewer connection fee to the sewerage supply authority provided this service is pre-laid to the site and ready for use, and
- (c) the Owner shall be responsible for any fee to be paid in excess of the standard sewer connection fee

## **4 0 PLANS, PERMITS AND APPLICATION FEES**

### **4 1 Permits and Fees**

Subject to a contrary requirement under the contract, the Builder shall lodge all necessary application notices, plans and details with the Local Authority for approval prior to commencement of construction.

### **4 2 Mines Subsidence**

In areas affected by mines subsidence the appropriate authority is to be consulted and any work carried out in accordance with the authority's requirements.

### **4 3 Setting Out**

The Builder shall accurately set out the building works in accordance with the site plan and within the boundaries of the site.

## **5 0 EXCAVATIONS**

### **5 1 Excavations**

The part of the site to be covered by the proposed building or buildings and an area at least 1000mm wide around that part of the site or to the boundaries of the site, whichever is the lesser, shall be cleared or graded as indicated on the site works plan.

Top soil shall be cut to a depth sufficient to remove all vegetation.

Excavations for all footings shall be in accordance with the Engineer's Recommendations and BCA Volume 2, Housing Provisions, Part 3.2.2.

## **6 0 FOUNDATIONS AND FOOTINGS**

### **6 1 Underfloor Fill**

Underfloor fill shall be in accordance with BCA Volume 2 Housing Provisions, Part 3.2.2 or Performance Requirements P2.1, P2.2.3 and Clause 1.0.10.

Termite treatment shall be carried out in accordance with BCA Volume 2, Housing Provisions, Part 3 1 3 or Performance Requirement P2 1 and Clause 1 0 10

### **6 3 Vapour Barrier**

The underfloor vapour barrier shall be 0 2 mm nominal thickness, high impact resistance polyethylene film installed in accordance with BCA Volume 2, Housing Provisions, Part 3 2 2 or Performance Requirements P2 1, P2 2 3 and Clause 1 0 10

### **6 4 Reinforcement**

Reinforcement shall conform and be placed in accordance with the Engineer's Recommendations and BCA Volume 2, Housing Provisions, Part 3 2 3 or Performance Requirements P2 1 and Clause 1 0 10

Support to all reinforcement shall be used to correctly position and avoid any undue displacement of reinforcement during the concrete pour

### **6 5 Concrete**

Structural concrete shall not be less than Grade N20 except where otherwise approved by the engineer and in accordance with BCA Volume 2, Housing Provisions, Part 3 2 3 or Performance Requirements P2 1 and Clause 1 0 10

Pre-mixed concrete shall be manufactured in accordance with AS 1379 with delivery dockets kept on site and available for inspection by the engineer

Concrete shall be placed and compacted in accordance with good building practice

### **6 6 Curing**

All concrete slabs shall be cured in accordance with AS 3600

### **6 7 Footings and Slabs on Ground**

Concrete slabs and footings shall not be poured until approval to pour concrete is given by the engineer or the Local Authority

NOTE Bench levels and floor levels on the site works plan shall be regarded as nominal, unless specified otherwise

### **6 8 Suspended Slabs**

All concrete slabs, other than those supported on solid ground or properly compacted filling, shall be constructed as suspended slabs These slabs shall be constructed in accordance with the Engineer's Recommendations

### **6 9 Foundation Walls**

On footings as previously specified build brick walls to the thickness shown on plan to level underside of floor bearers or plates

## **6 10 Sub- Floor Ventilation**

Provide adequate cross ventilation to the space under suspended ground floor. No section of the under floor area wall to be constructed in such a manner that will hold pockets of still air and to meet with the requirements of BCA, Volume 2, Housing Provisions, Part 3 4 1 or Performance Requirement P2 2 3 and Clause 1 0 10

## **6 11 Sub-Floor Access**

Provide access under suspended floors in position where indicated on plan

## **7 0 RETAINING WALLS**

### **7 1 Retaining Walls**

Where the Builder is required by the Schedule of Works addended to this Specification, the Builder shall construct retaining walls as shown on the approved plans. Where a retaining wall is not included in the Schedule of Works, the construction of the retaining wall shall be the responsibility of the Owner.

## **8 0 EFFLUENT DISPOSAL/DRAINAGE**

### **8 1 Effluent Disposal/Drainage**

In both sewered and unsewered areas, fit bath, wash basin, kitchen, wash tubs, pedestal pan and floor grate to shower recess in positions shown on plan (refer to Schedule of Works). Provide waste pipes with traps to the above fittings and connect to the drainage system. The whole of the work to be performed in accordance with the rules and requirements of the sewerage authority concerned.

### **8 2 Septic System**

Provide and install a septic system where applicable to the requirements of the Local Authority and in accordance with the manufacturer's recommendations.

### **8 3 Storm Water Drainage**

Stormwater drainage shall be carried out in accordance with BCA, Volume 2, Housing Provisions, Part 3 1 2 or Performance Requirement P2 2 1 and Clause 1 0 10.

Allow for the supplying and laying of stormwater drains where shown on the site plan.

## **9 0 TIMBER FRAMING**

### **9 1 Generally**

All timber framework sizes, spans, spacing, notching, checking and fixing to all floor, wall and roof structures shall comply with BCA, Volume 2, Housing Provisions, Part 3 4 3 or Performance Requirement P2 1 and Clause 1 0 10 or AS 1684. Alternative structural framing shall be to structural engineer's details and certification.

The work shall be carried out in a proper and tradesperson like manner and shall be in accordance with recognised and accepted building practices.

## **9 2 Floor Framing**

All floors not specified to be concrete are to be framed at the level shown. Span and spacing of bearers is to conform to the requirements of the span tables for the appropriate member size. Deep joists to upper floors, where shown, are to be fitted with solid blocking or herringbone strutting as required. All sizes and stress grades of timber members and tie down methods are to be in accordance with AS 1684.

## **9 3 Wall Framing**

Plates may be trenched to provide uniform thickness where studs occur. Where plates are machine gauged to a uniform thickness, trenching may be omitted. Wall framing is to be erected plumb and straight and securely fastened to floor framing. Provide a clear space of 40mm between outer face of wall frame and inner face of brick veneer walls. Tie brickwork to studs with approved veneer ties. Ties are to slope downwards towards the veneer wall.

Studs in each panel of walling shall be stiffened by means of solid noggings or bridging pieces at not more than 1350 mm centres over the height of the wall. Bottom plates shall be fixed to the floor structure in accordance with AS 1684.

## **9 4 Heads Over Opening (Lintels)**

All sizes, stress grade and bearing area shall conform to AS 1684. Heads exceeding 175 mm in depth shall be seasoned or a low shrinkage timber species used. Plywood web lintels conforming to the requirements of the Plywood Association of Australia may be used. Glue laminated beams conforming to AS 1328 or laminated veneer lumber beams to manufacturer's specification and data sheets may be used.

## **9 5 Roof Trusses**

Where roof truss construction is used, trusses shall be designed in accordance with AS 1720 and fabricated in a properly equipped factory and erected, fixed and braced in accordance with the fabricator's written instructions.

## **9 6 Bracing**

Bracing units shall be determined and installed in accordance with AS 1684 as appropriate for the design wind velocity for the site. Bracing shall be evenly distributed throughout the building.

## **9 7 Flooring**

Cover floor joists with strip or sheet flooring as shown on plan with particular regard to ground clearance and installation in wet areas as required by the BCA. Thickness of flooring to be appropriate for the floor joist spacing.

Strip and sheet flooring shall be installed in accordance with AS 1684.

When listed in Schedule of Works, floors shall be sanded to provide an even surface and shall be left clean throughout.

## **9 8 Roof Framing**

Roofs are to be pitched to the slope shown on plan. Provide tie-down as required for the appropriate design wind speed and roof covering. Provide all rafters, ridges, hips, valleys, purlins, struts, collar ties and wind bracing as appropriate with all sizes and stress grades in accordance with AS 1684.

Metal fascias shall be installed in accordance with the manufacturer's recommendations and shall meet the requirements of AS 1684.

## **9 9 Timber Posts**

Posts supporting carports, verandas and porches shall be timber suitable for external use, or as otherwise specified, supported on galvanised or treated metal post shoes, unless otherwise specified. Post shall be bolted to all adjoining beams as required by AS 1684 for the wind speed classification assessed for the site.

## **9 10 Corrosion Protection**

All metal brackets, facing plates and other associated fixings used in structural timber joints and bracing must have appropriate corrosion protection.

## **9 11 Hot Water Storage Tank Platforms**

Where a hot water storage tank is to be installed in the roof space, the tank platform shall be supported directly off the wall plates and must not be supported on ceiling joists. Where installed in the roof space the storage tank shall be fitted with an appropriate spill tray and overflow drain pipe.

Where a hot water storage tank is supported by the roof structure the structure shall be specifically designed to support all imposed loads.

## **10 0 STEEL FRAMING**

### **10 1 Generally**

Steel floor, wall or roof framing shall be installed in accordance with the manufacturer's recommendations and BCA, Volume 2, Housing Provisions, Part 3 4 2 or Performance Requirement P2 1 and Clause 1 0 10.

## **11 0 ROOFING**

All roof cladding to comply with the relevant structural performance and weathering requirements of BCA, Volume 2 Housing Provisions, Part 3 5 1 or Performance Requirements P2 1, P2 2 2 and Clause 1 0 10 and be installed as per the manufacturer's recommendations.

### **11 1 Tiled Roofing**

Cover the roof of the dwelling with approved tiles as selected. The tiles are to be fixed as required for the appropriate design wind speed to battens of sizes appropriate to the spacing of rafters/trusses in accordance with manufacturer's recommendations. Cover hips and ridges with capping and all necessary accessories including starters and apex caps. Capping and verge tiles are to be well bedded and neatly pointed. Roofing adjacent to valleys should be fixed so as to minimise water penetration as far as practicable. As roof tiles are made of natural products slight variation in colour is acceptable.

### **11 2 Metal Roofing**

Provide and install a metal roof together with accessories all in accordance with the manufacturer's recommendations.

Except where design prohibits, sheet shall be in single lengths from fascia to ridge. Fixings of sheet shall be strictly in accordance with the manufacturer's recommendations as required for the appropriate design wind speed. Incompatible materials shall not be used for flashings, fasteners or downpipes.

### **11 3 Gutters and Downpipes**

Gutters and downpipes shall be manufactured and installed in accordance with BCA, Volume 2, Housing Provisions, Part 3 5 2 or Performance Requirement P2 2 1 and Clause 1 0 10. Gutters and downpipes are to be compatible with other materials used.

#### **11 4 Sarking**

Sarking under roof coverings must comply and be fixed in accordance with AS/NZS 4200 1 for materials and AS/NZS 4200 2 for installation

#### **11 5 Sealants**

Appropriate sealants shall be used where necessary and in accordance with manufacturer's recommendations

#### **11 6 Flashing**

Flashings shall comply with, and be installed in accordance with BCA, Volume 2, Housing Provisions, Part 3 3 4 or Performance Requirement P2 2 2 and Clause 1 0 10

### **12 0 MASONRY**

#### **12 1 Bricks**

All clay bricks and brickwork shall comply with AS 3700 and BCA, Volume2, Housing Provisions, Part 3 3 or Performance Requirement P2 1 and Clause 1 0 10 Clay bricks are a natural kiln fired product and as such their individual size may vary

Tolerances shall only be applied to the total measurements over 20 units, not to the individual units

#### **12 2 Concrete Blocks**

Concrete blocks are to be machine pressed, of even shape, well cured and shall comply with AS 3700 Concrete blockwork shall be constructed in accordance with BCA, Volume 2, Housing Provisions, Part 3 3 or Performance Requirement P2 1 and Clause 1 0 10

Autoclaved aerated concrete blocks shall be in accordance with the manufacturer's product specification at the time the work is being carried out

#### **12 3 Damp Proof Courses**

All damp proof courses shall comply with BCA, Volume 2, Housing Provisions, Part 3 3 4 or Performance Requirement P2 2 2 and Clause 1 0 10 The damp proof membrane shall be visible in the external face of the masonry member in which it is placed and shall not be bridged by any applied coatings, render or the like

#### **12 4 Cavity Ventilation (Weep Holes)**

Open perpendicular joints (weepholes) must be created in the course immediately above any DPC or flashing at centres not exceeding 1 2m and be in accordance with BCA, Volume 2, Housing Provisions, Part 3 3 4 or Performance Requirement P2 2 2 and Clause 1 0 10

#### **12 5 Mortar and Joining**

Mortar shall comply with BCA, Volume 2, Housing Provisions, Part 3 3 1 or Performance Requirement 2 1 and Clause 1 0 10 Joint tolerances shall be in accordance with AS 3700

---

## **12 6 Masonry Accessories**

Masonry accessories shall comply with BCA, Volume 2, Housing Provisions, Part 3 3 3 or Performance Requirement P2 1 and Clause 1 0 10 and accepted building practices. Wall ties to meet corrosion resistant rating appropriate for the exposure conditions of the site. Provide appropriate ties to articulated joints in masonry.

## **12 7 Lintels**

Lintels used to support brickwork opening in walls must be suitable for the purpose as required by BCA, Volume 2, Housing Provisions, Part 3 3 3 or Performance Requirement P2 1 and Clause 1 0 10. Provide one lintel to each wall leaf. Provide corrosion protection in accordance with BCA Part 3 4 4 as appropriate for the site environment and location of the lintels in the structure.

## **12 8 Cleaning**

Clean all exposed brickwork with an approved cleaning system. Care should be taken not to damage brickwork or joints and other fittings.

## **13 0 CLADDING AND LININGS**

### **13 1 External Claddings**

Sheet materials or other external cladding shall be fixed in accordance with the manufacturer's recommendations and any applicable special details.

Where required in open verandas, porches and eaves soffits, material indicated on the plans shall be installed.

### **13 2 Internal Wall and Ceilings Linings**

Provide gypsum plasterboards or other selected materials to walls and ceilings. Plasterboard sheets to have recessed edges and be a minimum of 10mm thick. Internal angles in walls from floor to ceiling to be set. Suitable cornice moulds shall be fixed at the junction of all walls and ceilings or the joint set as required. The lining of wet area walls shall be constructed in accordance with BCA, Volume 2, Housing Provisions, Part 3 8 1 or Performance Requirement P2 4 1 and Clause 1 0 10. Wet area lining is to be fixed in accordance with the manufacturer's recommendations.

The ceiling access hole shall be of similar material to the adjacent ceiling.

### **13 3 Waterproofing**

All internal wet areas and balconies over internal habitable rooms to be waterproofed in accordance with BCA, Volume 2, Housing Provisions, Part 3 8 1 or Performance Requirement P2 4 1 and Clause 1 0 10.

## **14 0 JOINERY**

### **14 1 General**

All joinery work (metal and timber) shall be manufactured and installed according to accepted building practices.

## **14 2 Door Frames**

External door frames shall be a minimum of 32 mm thick solid rebated 12 mm deep to receive doors. Internal jamb linings shall be a minimum of 18 mm thick fit with 12 mm thick door stops. Metal door frames shall be installed where indicated on drawings in accordance with the manufacturer's recommendations.

## **14 3 Doors and Doorsets**

All internal and external timber door and door sets shall be installed in accordance with accepted building practices. Unless listed otherwise in the Schedule of Works, doors and door sets shall be manufactured in accordance with AS 2688 and AS 2689.

## **14 4 Window and Sliding Doors**

Sliding and other timber windows and doors shall be manufactured and installed in accordance with AS2047.

Sliding and other aluminium windows and doors shall be installed in accordance with manufacturer's recommendations and AS2047.

All glazing shall comply with BCA, Volume 2, Housing Provisions, Part 3.6 or Performance Requirements P2.1, P2.2.2 and Clause 10.10 and any commitments outlined in the relevant BASIX Certificate.

## **14 5 Architraves and Skirting**

Provide architraves and skirting as nominated on the plans or listed in the Schedule of Works.

## **14 6 Cupboards/Kitchens/Bathroom**

Units shall be installed to manufacturer's recommendations. Bench tops shall be of a water resistant material.

## **14 7 Stairs, Balustrades and other Barriers**

Provide stairs or ramps to any change in levels, and balustrades or barriers to at least one side of ramps, landings and balconies as per BCA, Volume 2, Housing Provisions, Part 3.9.1 or Performance Requirement P2.5.1 and Clause 10.10 for stair construction and Part 3.9.2 or Performance Requirements P2.1, P2.5.2 and Clause 10.10 for balustrades.

# **15 0 SERVICES**

## **15 1 Plumbing**

All plumbing shall comply with the requirements of the relevant supply authority and AS 3500. The work is to be carried out by a licensed plumber.

Fittings as listed in the Schedule of Works shall be supplied and installed to manufacturer's recommendations. Fittings, hot water system and any rainwater harvesting facilities shall be appropriate to satisfy any commitment outlined in the relevant BASIX Certificate.

## **15 2 Electrical**

Provide all labour and materials necessary for the proper installation of electricity service by a licensed electrician in accordance with AS/NZS 3000 and the requirements of the relevant supply authority. Unless otherwise specified, the electrical service shall be 240 volt, single phase supply.

### **15 3 Gas**

All installation (including LPG) shall be carried out in accordance with the rules and requirements of the relevant supply authority

### **15 4 Smoke Detectors**

Provide and install smoke alarms manufactured in accordance with AS 3786 as specified or as indicated on the plans and in accordance with BCA, Volume 2, Housing Provisions, Part 3 7 2 or Performance Requirement P2 3 2 and Clause 1 0 10

### **15 5 Thermal Insulation**

Where thermal insulation is used in the building fabric or services, such as air conditioning ducting or hot water systems, it shall be installed in accordance with manufacturer's recommendations to achieve the R-Values required by BCA Part 3 12 1 to meet Performance Requirement NSW P2 6 1 (a) or as outlined in the relevant BASIX Certificate

## **16 0 TILING**

### **16 1 Materials**

Cement mortar and other adhesives shall comply with AS 3958 1 or tile manufacturer's recommendations

### **16 2 Installation**

Installation of tiles shall be in accordance with AS 3958 1, manufacturer's recommendations or accepted building practices

Where practicable, spacing between tiles should be even and regular. Provide expansion joints where necessary. All vertical and horizontal joints between walls and fixtures e.g. bench top, bath, etc. and wall/floor junctions to be filled with flexible mould resistant sealant. All joints in the body of tiled surfaces shall be neatly filled with appropriate grout material as specified by the tile manufacturer or accepted building practice. As tiles are made of natural products a slight variation in colour is acceptable.

### **16 3 Walls**

Cover wall surfaces where indicated on the drawings with selected tiles. Tiles are to be fixed to the wall substrate with adhesives compatible with the substrate material. Provide all required strips, vent tiles and recess fittings.

### **16 4 Floors**

Lay selected floor tiles in sand and cement mortar, or adhesive compatible with the substrate material, to areas indicated on the drawings. Where required, fit approved edge strips or metal angle to exposed edges in doorways or hobless showers in wet areas in accordance with BCA, Volume 2, Housing Provisions, Part 3 8 1 or Performance Requirement P2 4 1 and Clause 1 0 10. Provide adequate and even fall to wastes where required.

## 17 0 PAINTING

## 17 1 General

All paint used shall be of a quality suitable for the purpose intended and the application shall be as per the manufacturer's recommendations. The colours used shall be as listed in the Schedule of Works or other relevant contract document. All surfaces to be painted shall be properly prepared to manufacturer's recommendations.

## 18 0 SIGNATURES

|                                                       |    |      |
|-------------------------------------------------------|----|------|
| This is the Specification referred to in the contract | No | Date |
|-------------------------------------------------------|----|------|

Signed by the said  
Owner in the  
presence of

**Witness**

Owner's Signature

Date / /

**Witness**

Owner s Signature

/ /  
Date

Signed by the said  
Builder in the  
presence of

**Witness**

**Builder's Signature**

Date / /

OT 129  
DP 270385  
LGA PITTWATER

AREAS

P O S 67.2 Sq m  
TURF 144.8 Sq m  
DRIVE & PATH 9.8 Sq m  
XOVER 4.1 Sq m

SHEARWATER LANE

KEY

- RET WALL - TIMBER
- RET WALL - MASONARY
- BUILDING PLATFORM/ BATTER LINE
- MAX FALL - BATTER 1.7
- FALL - BATTER 1.5
- CUT / FILL LINE

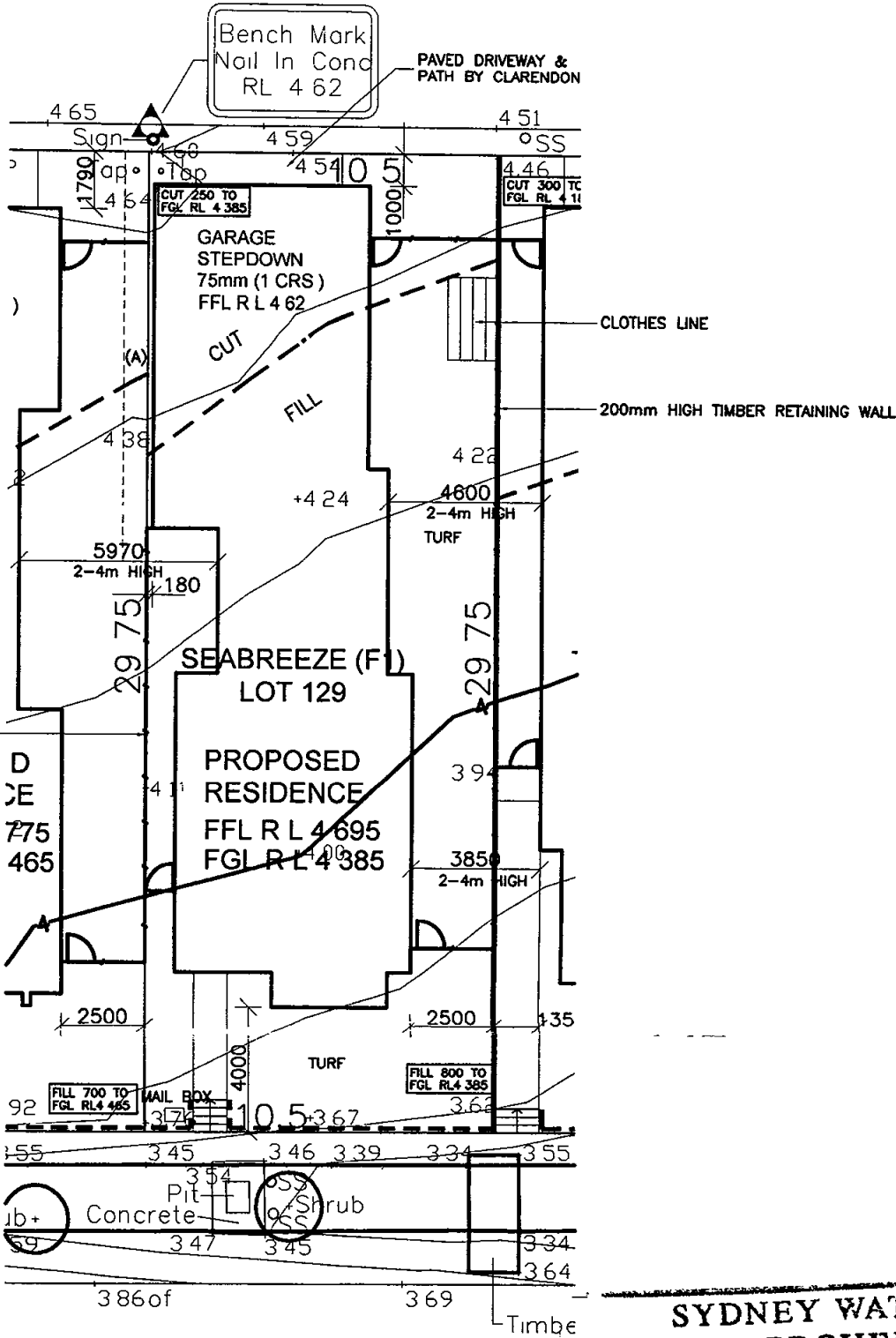
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED

- NOTES
- 1) THESE LEVELS ARE APPROXIMATES ONLY & ARE TO BE CONFIRMED ON SITE WITH SUPERVISOR PRIOR TO COMMENCEMENT OF ANY EXCAVATIONS
  - 2) SILTATION CONTROL TO COUNCIL REQUIREMENTS
  - 3) EXISTING VEGETATION ON SITE TO BE REMOVED
  - 4) NO WATERWAY OR WATERCOURSES ON SITE
  - 5) TERMITE PROTECTION TO AS3660

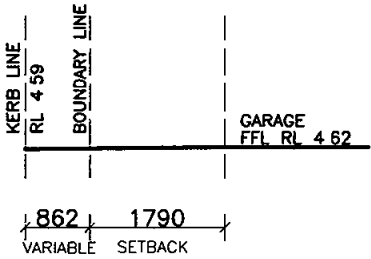
STORMWATER LINES  
TO EASEMENT VIA TANK

SITE PLAN

SAFETY WARNING  
RING 1100 'DIAL BEFORE YOU DIG  
PRIOR TO ANY EXCAVATIONS  
ANY REGISTERED EASEMENT WITHIN THE LOT  
IS SHOWN ON THIS SITE PLAN



MELALEUCA PLACE



DRIVEWAY PROFILE  
SCALE 1:50

SYDNEY WATER  
APPROVED

Position of structure in relation to Sydney Water's assets is satisfactory. Connections to Sydney Water sewer/water services may only be made following the issue of a permit to a licensed plumber/drafter. It is the owner's responsibility to ensure that all proposed fittings will drain to Sydney Water's sewer. Any Plumbing and/or Drainage Work to be carried out in accordance with the Sydney Water Act 1994 AS 3500 and the NSW Code of Practice. Cables, Inspection Shafts and Boundary Trans shall not be placed under any Roof Balcony, Verandah Floor or other cover unless otherwise approved by Sydney Water.

Property No 5333152  
Reece Castle Hill  
Quick Check Agent on behalf of  
SYDNEY WATER

Beaumont 17.7.08

|                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                      |                                                                                                               |                                                                                                |                                       |                                    |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------|----------------|
| <div><br/><b>Clarendon</b><br/>Residential Group</div> <div>CL No 2299C<br/>A B N 18003892706</div> <div>Clarendon Homes (NSW) P/L<br/>21 Solent Circuit Baulkham Hills NSW 2153<br/>T (02) 8850 9000 F (02) 9841 0285</div> | <div>© ALL RIGHTS RESERVED<br/>This plan is the property of<br/>CLARENDON HOMES (NSW) PTY LTD<br/>Any copying or altering<br/>of the drawing shall not be<br/>undertaken without written<br/>permission from<br/>CLARENDON HOMES (NSW) PTY LTD</div> <div># DIMENSIONS TO BE READ IN<br/>PREFERENCE TO SCALING</div> | <div>PRODUCT</div> <div>SEABREEZE<br/>Facade 1<br/>Rear Loaded Garage<br/>Shearwater Inclusions Package</div> | <div>CLIENT</div> <div>Clarendon Residential</div>                                             | DA PLANS                              |                                    |                |
|                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                      |                                                                                                               | <div>SITE ADDRESS</div> <div>Lot 129 (DP 270385)<br/>Melaleuca Place<br/>Warriewood 2102</div> | <div>DRAWN<br/>ES</div>               | <div>DATE</div> <div>25 6 08</div> | <div>Rev</div> |
|                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                      |                                                                                                               |                                                                                                | <div>RATIO @ A3<br/>1 200</div>       | <div>CHECKED</div>                 | <div>A</div>   |
|                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                      |                                                                                                               | <div>SHEET</div> <div>2</div>                                                                  | <div>JOB No</div> <div>29787129</div> |                                    |                |

## PROPOSED AREAS

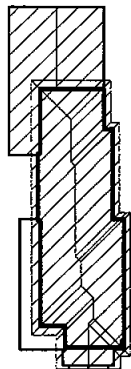
|                     |                      |
|---------------------|----------------------|
| SITE                | 312 3 m <sup>2</sup> |
| BUILDING FOOTPRINT  | 157 7 m <sup>2</sup> |
| DRIVEWAY & PATHWAYS | 9 8 m <sup>2</sup>   |
| SWIMMING POOL AREA  | N/A m <sup>2</sup>   |
| ENTERTAINMENT AREA  | N/A m <sup>2</sup>   |
| TOTAL               | 167 5 m <sup>2</sup> |

|              |                      |
|--------------|----------------------|
| No of Beds   | 4                    |
| GROUND FLOOR | 112 8 m <sup>2</sup> |
| FIRST FLOOR  | 91 3 m <sup>2</sup>  |
| GARAGE       | 37 0 m <sup>2</sup>  |
| PATIO        | 3 7 m <sup>2</sup>   |
| BALCONY      | 4 2 m <sup>2</sup>   |
| PORCH        | 4 2 m <sup>2</sup>   |
| Spare 2      | N/A m <sup>2</sup>   |
| TOTAL        | 253 2 m <sup>2</sup> |

|                                               |                                |
|-----------------------------------------------|--------------------------------|
| TOTAL LIVING AREA<br>(Excl Garage/Patio etc ) | 204 1 m <sup>2</sup>           |
| FLOOR SPACE RATIO                             | 0 653 1<br>65 3 %              |
| SITE COVERAGE                                 | 53 6 %                         |
| LANDSCAPED AREA                               | 144 8 m <sup>2</sup><br>46 3 % |
| BUILDING PLATFORM                             | 7 m <sup>2</sup>               |

|                          |                      |
|--------------------------|----------------------|
| NETT CONDIT FLOOR AREA   | 166 5 m <sup>2</sup> |
| UNCONDITIONED FLOOR AREA | 16 1 m <sup>2</sup>  |

|                     |                      |
|---------------------|----------------------|
| TOTAL ROOF AREA     | 172 3 m <sup>2</sup> |
| HARVESTED ROOF AREA | 172 3 m <sup>2</sup> |

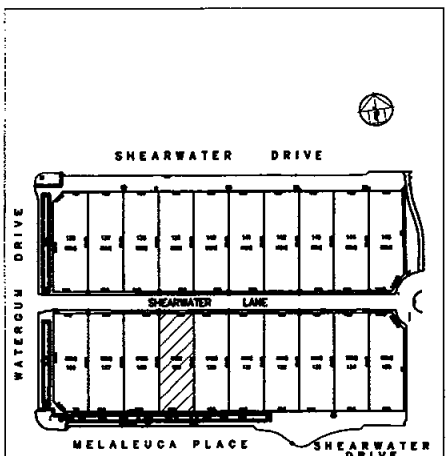


HARVESTED ROOF AREA NTS

## WINDOW/DOOR REQUIREMENTS

| UNIT CODE | AREA (m2) | TYPE                                                             |
|-----------|-----------|------------------------------------------------------------------|
| W1        | 5.46      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44 SHGC 0.75           |
| W2        | 1.20      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44 SHGC 0.75           |
| W3        | 1.60      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44, SHGC 0.75          |
| W4        | 5.46      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44 SHGC 0.75           |
| W5        | 4.29      | IMPROVED ALUMINIUM, SINGLE CLEAR U VALUE 6.44, SHGC 0.75         |
| W6        | 5.72      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44 SHGC 0.75           |
| W7        | 3.20      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44 SHGC 0.75           |
| W8        | 8.40      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44 SHGC 0.75           |
| W9        | 5.46      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44 SHGC 0.75           |
| W10       | 1.60      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44 SHGC 0.75           |
| W11       | 1.26      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44, SHGC 0.75          |
| W12       | 1.20      | IMPROVED ALUMINIUM SINGLE CLEAR U VALUE 6.44 SHGC 0.75           |
| W13       | 2.73      | IMPROVED ALUMINIUM, SINGLE CLEAR U VALUE 6.44 SHGC 0.75          |
| W14       | 7.98      | IMPROVED ALUMINIUM SINGLE PYROLYTIC LOW-E U VALUE 4.48 SHGC 0.46 |

|                                                       |
|-------------------------------------------------------|
|                                                       |
|                                                       |
|                                                       |
| 2000 LITRE RAINWATER TANK                             |
| FLUORESCENT LIGHTING AS PER BASIX                     |
| AC DUCTING ONLY TO DWELLING                           |
| OUTDOOR CLOTHES LINE (LOCATION TO BE DETERMINED)      |
| 5 STAR INSTANTANEOUS GAS HOT WATER UNIT               |
| GAS COOKTOP & ELECTRIC OVEN                           |
| SARKING TO UNDERSIDE OF ROOF TILES                    |
| R2 5 CEILING INSULATION (EXCLUDES GARAGE)             |
| R1 5 WALL INSULATION (EXCLUDES GARAGE)                |
| 3 STAR BATH TAP SETS                                  |
| 3 STAR SHOWER HEADS TOILETS KITCHEN & VANITY TAP SETS |
| SCHEDULE OF BASIX COMMITMENTS                         |

LOCALITY SKETCH  
UBD REF

|  |  |  |  |  |       |                         |
|--|--|--|--|--|-------|-------------------------|
|  |  |  |  |  | 2 2   | SHADOW DIAGRAM          |
|  |  |  |  |  | 2 1   | SITE ANALYSIS           |
|  |  |  |  |  |       |                         |
|  |  |  |  |  | 12    | STEEL PLAN              |
|  |  |  |  |  | 11    | WET AREA DETAILS        |
|  |  |  |  |  | 10    | SLAB PLAN               |
|  |  |  |  |  | 9     | FIRST FLOOR ELECTRICAL  |
|  |  |  |  |  | 8     | GROUND FLOOR ELECTRICAL |
|  |  |  |  |  | 7     | SECTION                 |
|  |  |  |  |  | 6     | ELEVATIONS              |
|  |  |  |  |  | 5     | ELEVATIONS              |
|  |  |  |  |  | 4     | FIRST FLOOR PLAN        |
|  |  |  |  |  | 3     | GROUND FLOOR PLAN       |
|  |  |  |  |  | 2     | SITE PLAN               |
|  |  |  |  |  | 1     | COVER SHEET             |
|  |  |  |  |  | SHEET | DESCRIPTION             |

This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph: (02) 9836 5711  
Building Professionals Board (0732)

|     |         |               |    |
|-----|---------|---------------|----|
| B   | 28 8 08 | ISSUED FOR CC | ES |
| A   | 25 6 08 | DA PLANS      | ES |
| REV | DATE    | AMENDMENTS    | BY |

CLIENT'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_



Clarendon Homes (NSW) P/L  
21 Solent Circuit Baulkham Hills NSW 2153  
T (02) 8850 9000 F (02) 9841 0285

**(C)**  
ALL RIGHTS RESERVED  
This plan is the property of  
CLARENDON HOMES (NSW) PTY LTD  
Any copying or altering  
of the drawing shall not be  
undertaken without written  
permission from  
CLARENDON HOMES (NSW) PTY LTD

**# DIMENSIONS TO BE READ IN  
PREFERENCE TO SCALING**

PRODUCT

**SEABREEZE**

Facade 1

Rear Loaded Garage

Shearwater Inclusions Package

CLIENT  
Clarendon Residential

---

SITE ADDRESS  
Lot 129 (DP 270385)  
Melaleuca Place  
Warriewood 2102

## CC PLANS

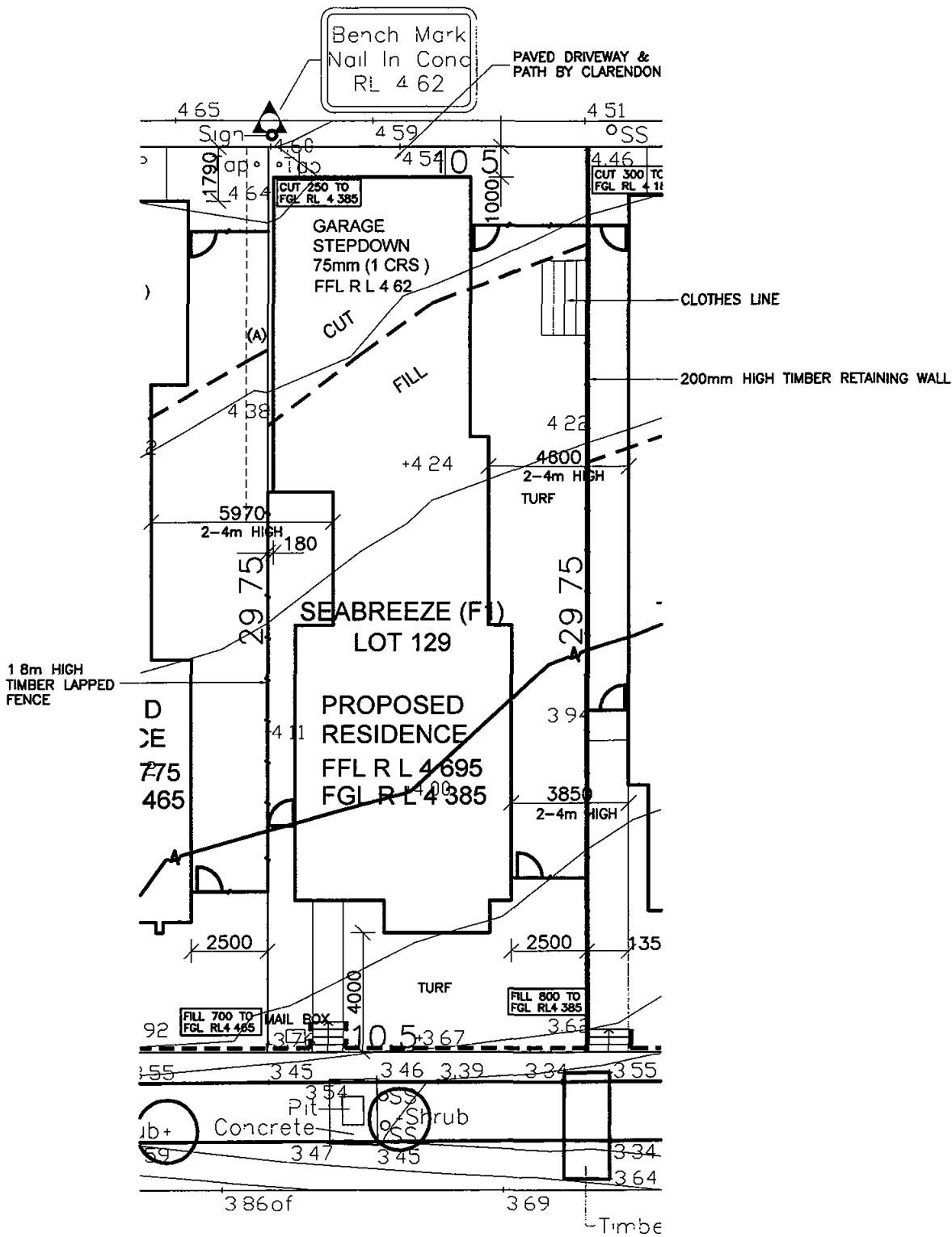
|                   |                    |
|-------------------|--------------------|
| DRAWN<br>ES       | DATE<br>28 8 08    |
| RATIO @ A3<br>N/A | CHECKED            |
| SHEET<br>1        | JOB No<br>29787129 |

LOT 129  
DP 270385  
LGA PITTWATER

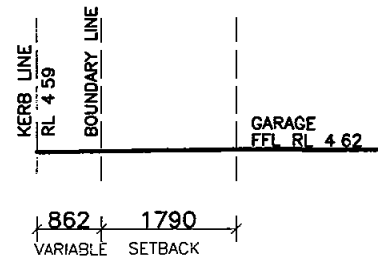
AREAS

P O S 67 2 Sq m  
TURF 144 8 Sq m  
DRIVE & PATH 9 8 Sq m  
XOVER 4 1 Sq m

SHEARWATER LANE



MELALEUCA PLACE



DRIVEWAY PROFILE  
SCALE 1 50

STORMWATER LINES  
TO EASEMENT VIA TANK

SITE PLAN

**SAFETY WARNING**  
RING 1100 'DIAL BEFORE YOU DIG  
PRIOR TO ANY EXCAVATIONS  
ANY REGISTERED EASEMENT WITHIN THE LOT  
IS SHOWN ON THIS SITE PLAN

This information relates to  
Construction/Complying Development Certificate  
  
5 0 0 2 7 8 0  
  
Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

|                                                                                                             |  |      |                                                                                     |  |                                                                           |                     |                    |     |
|-------------------------------------------------------------------------------------------------------------|--|------|-------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------|---------------------|--------------------|-----|
| CLIENT'S SIGNATURE                                                                                          |  | DATE | PRODUCT                                                                             |  | CLIENT                                                                    | CC PLANS            |                    |     |
| <b>Clarendon</b><br>Residential Group                                                                       |  |      | <b>SEABREEZE</b><br>Facade 1<br>Rear Loaded Garage<br>Shearwater Inclusions Package |  | Clarendon Residential                                                     | DRAWN<br>ES         | DATE<br>28 8 08    | Rev |
| Clarendon Homes (NSW) P/L<br>21 Solent Circuit Baulkham Hills NSW 2153<br>T (02) 8850 9000 F (02) 9841 0285 |  |      | # DIMENSIONS TO BE READ IN<br>PREFERENCE TO SCALING                                 |  | SITE ADDRESS<br>Lot 129 (DP 270385)<br>Melaleuca Place<br>Warriewood 2102 | RATIO @ A3<br>1 200 | CHECKED            | B   |
|                                                                                                             |  |      |                                                                                     |  |                                                                           | SHEET<br>2          | JOB No<br>29787129 |     |





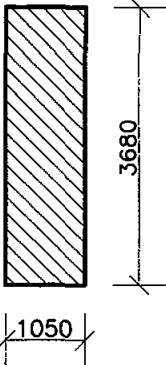
DP ° DOWN PIPE LOCATION

TAP X GARDEN TAP LOCATION

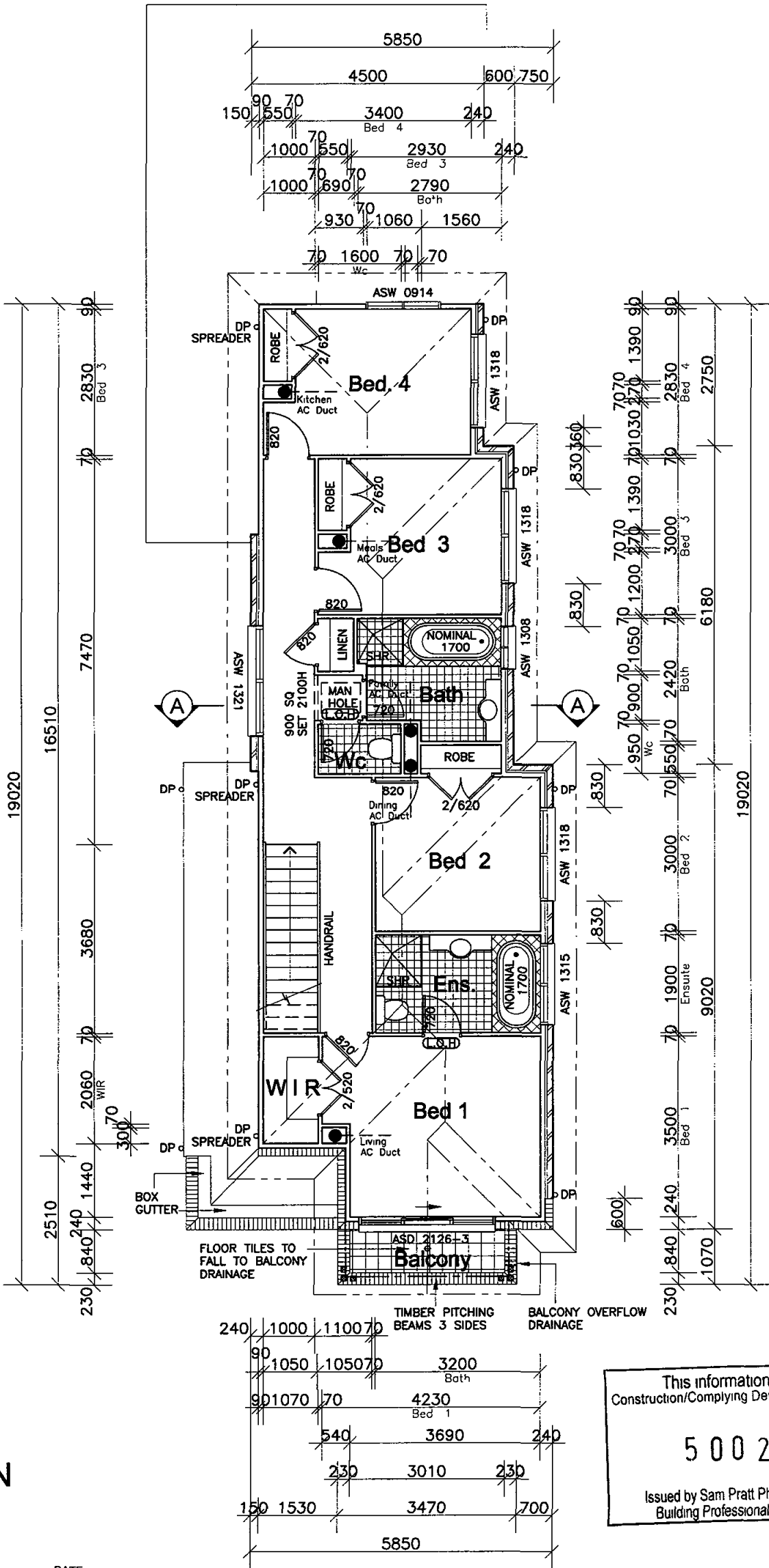
LOH LIFT OFF HINGES

SP STEEL POST

ARTICULATION JOINTS TO ENGINEERS DETAILS



STAIR CUTOUT  
SCALE 1 100

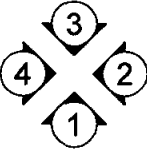


FIRST FLOOR PLAN

This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)



CLIENT'S SIGNATURE

DATE

**Clarendon**  
Residential Group

Clarendon Homes (NSW) P/L  
21 Solent Circuit Baulkham Hills NSW 2153  
T (02) 8850 9000 F (02) 9841 0285

© ALL RIGHTS RESERVED  
This plan is the property of  
CLARENDON HOMES (NSW) PTY LTD  
Any copying or altering  
of the drawing shall not be  
undertaken without written  
permission from  
CLARENDON HOMES (NSW) PTY LTD  
# DIMENSIONS TO BE READ IN  
PREFERENCE TO SCALING

PRODUCT  
**SEABREEZE**  
Facade 1  
Rear Loaded Garage  
Shearwater Inclusions Package

CLIENT  
Clarendon Residential

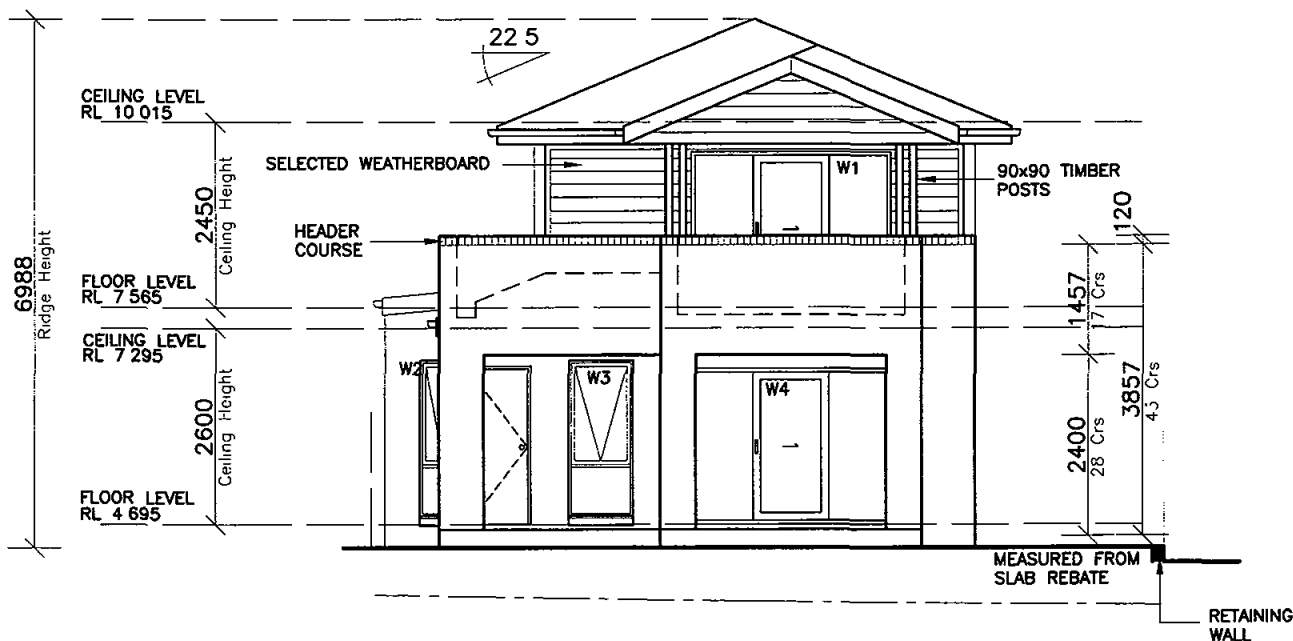
SITE ADDRESS  
Lot 129 (DP 270385)  
Melaleuca Place  
Warriewood 2102

CC PLANS

|                     |                    |     |
|---------------------|--------------------|-----|
| DRAWN<br>ES         | DATE<br>28 8 08    | Rev |
| RATIO @ A3<br>1 100 | CHECKED            | B   |
| SHEET<br>4          | JOB No<br>29787129 |     |

WIND CLASSIFICATION "N1"

SLAB CLASSIFICATION "S"



ELEVATION 1  
SOUTH

PROVIDE APPLIED PAINT  
FINISH TO BRICKWORK

DOWNPIPES PAINTED TO  
MATCH WALL



ELEVATION 2  
EAST

This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

CLIENT'S SIGNATURE

DATE

**Clarendon**  
Residential Group

Clarendon Homes (NSW) P/L  
21 Solent Circuit Baulkham Hills NSW 2153  
T (02) 8850 9000 F (02) 9841 0285

BL No 2298C  
ABN 18003892706

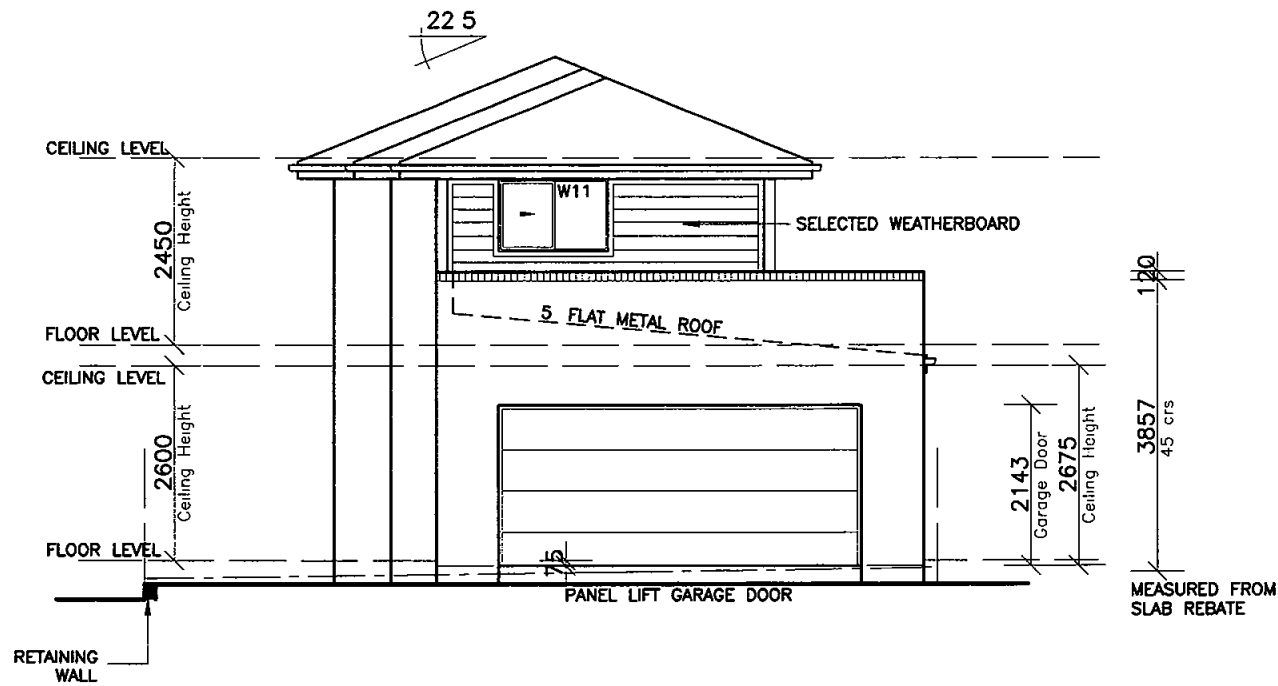
© ALL RIGHTS RESERVED  
This plan is the property of  
CLARENDON HOMES (NSW) PTY LTD  
Any copying or altering  
of the drawing shall not be  
undertaken without written  
permission from  
CLARENDON HOMES (NSW) PTY LTD  
# DIMENSIONS TO BE READ IN  
PREFERENCE TO SCALING

PRODUCT  
**SEABREEZE**  
Facade 1  
Rear Loaded Garage  
Shearwater Inclusions Package

CLIENT  
Clarendon Residential  
SITE ADDRESS  
Lot 129 (DP 270385)  
Melaleuca Place  
Warriewood 2102

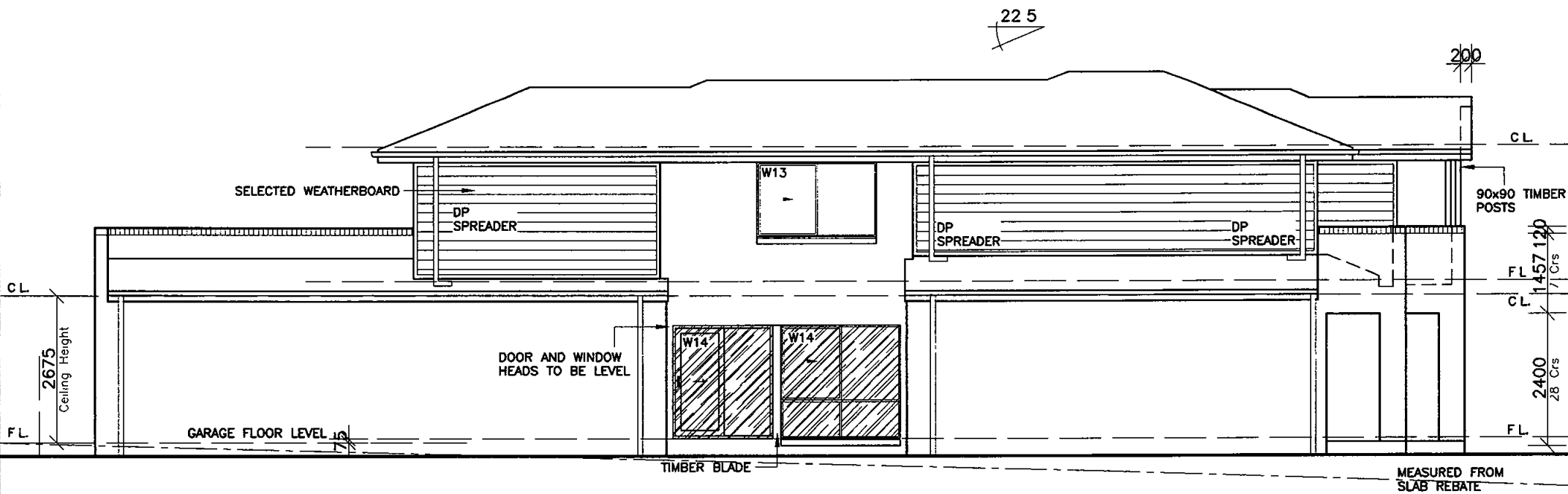
CC PLANS

|                     |                    |     |
|---------------------|--------------------|-----|
| DRAWN<br>ES         | DATE<br>28 8 08    | Rev |
| RATIO @ A3<br>1 100 | CHECKED            | B   |
| SHEET<br>5          | JOB No<br>29787129 |     |



ELEVATION 3  
NORTH

WINDOW NOTE  
6 38mm COMFORTPLUS GLAZING  
(CPA3)



ELEVATION 4  
WEST

This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

CLIENT'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**Clarendon**  
Residential Group

Clarendon Homes (NSW) P/L  
21 Solent Circuit Baulkham Hills NSW 2153  
T (02) 8850 9000 F (02) 9841 0285

© ALL RIGHTS RESERVED  
This plan is the property of  
CLARENDON HOMES (NSW) PTY LTD  
Any copying or altering  
of the drawing shall not be  
undertaken without written  
permission from  
CLARENDON HOMES (NSW) PTY LTD  
# DIMENSIONS TO BE READ IN  
PREFERENCE TO SCALING

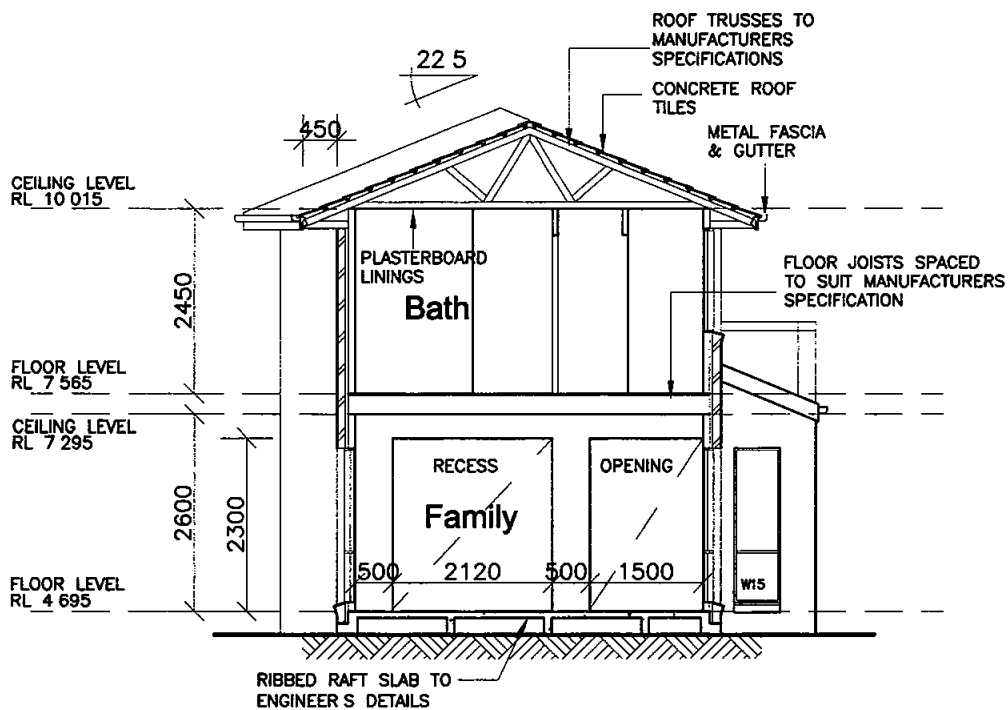
PRODUCT  
**SEABREEZE**  
Facade 1  
Rear Loaded Garage  
Shearwater Inclusions Package

CLIENT  
Clarendon Residential

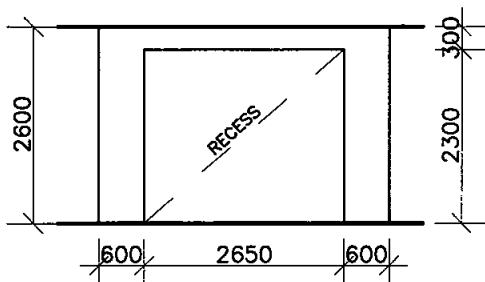
SITE ADDRESS  
Lot 129 (DP 270385)  
Melaleuca Place  
Warriewood 2102

CC PLANS

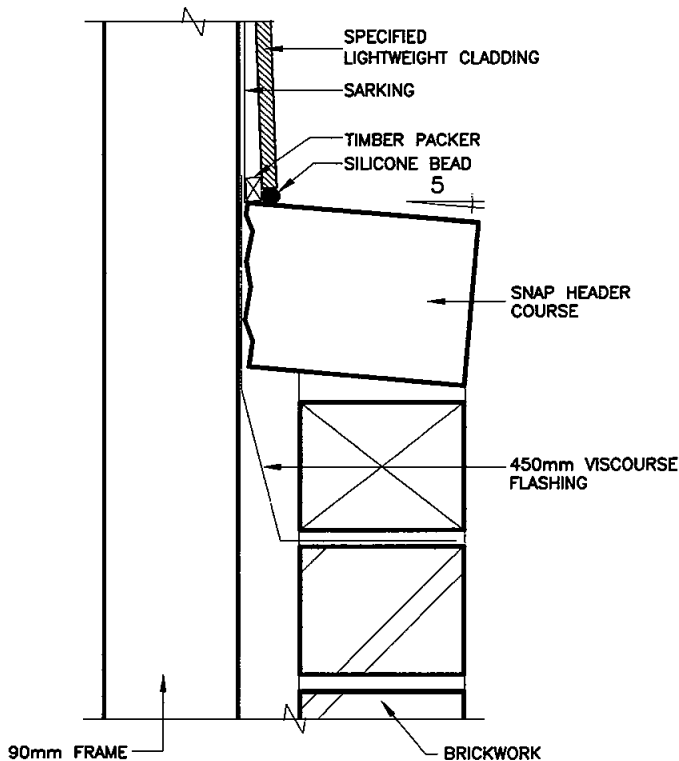
|                     |                    |     |
|---------------------|--------------------|-----|
| DRAWN<br>ES         | DATE<br>28 8 08    | Rev |
| RATIO @ A3<br>1 100 | CHECKED            | B   |
| SHEET<br>6          | JOB No<br>29787129 |     |



SECTION A-A



DINING / LIVING  
SCALE 1 100



DETAIL "A"  
SCALE 1 5

This information relates to  
Construction/Complying Development Certificate

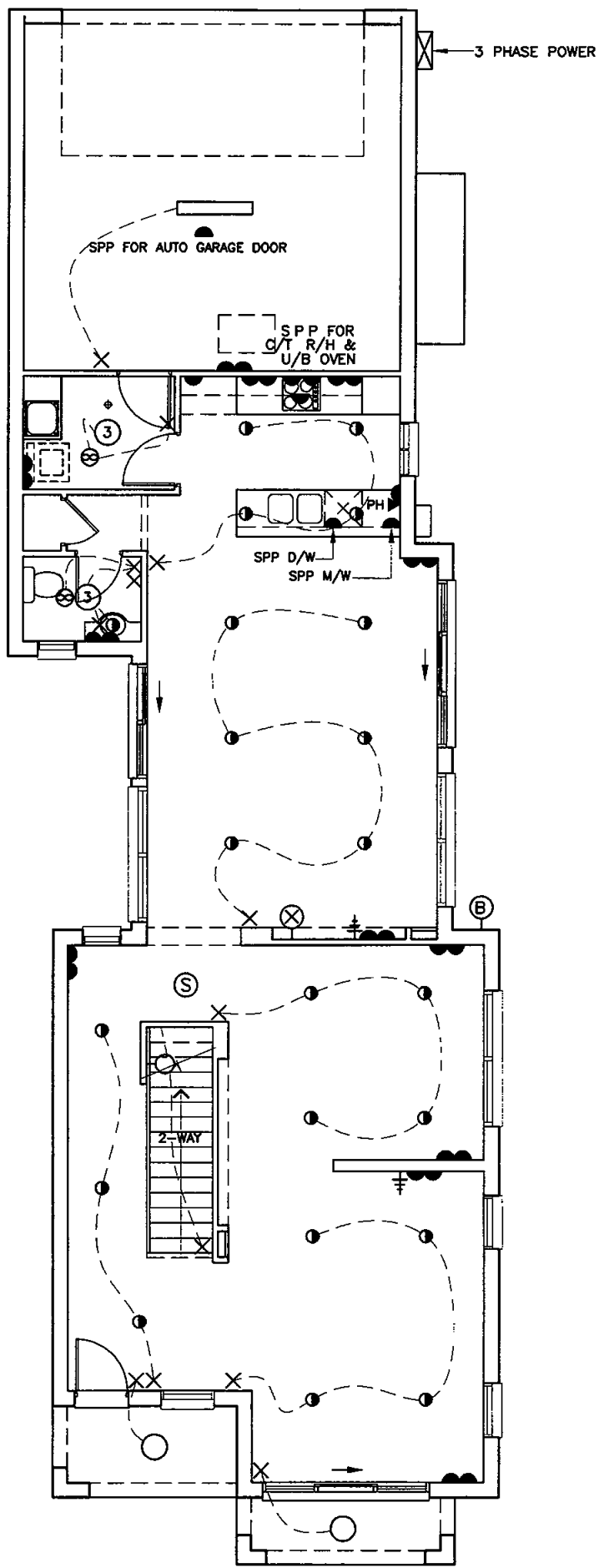
**5 0 0 2 7 8 0**

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

|                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                        |                                                                              |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----|
| CLIENT'S SIGNATURE _____                                                                                                                                                                                                                                  |  | DATE _____                                                                                                                                                                                                                                                                                                             |                                                                              |     |
| <div><p>Clarendon Homes (NSW) P/L<br/>21 Solent Circuit Baulkham Hills NSW 2153<br/>T (02) 8850 9000 F (02) 9841 0285</p><p>BL No 2298C<br/>A B N 18003892706</p></div> |  | <div><p>© ALL RIGHTS RESERVED<br/>This plan is the property of<br/>CLARENDON HOMES (NSW) PTY LTD<br/>Any copying or altering<br/>of the drawing shall not be<br/>undertaken without written<br/>permission from<br/>CLARENDON HOMES (NSW) PTY LTD</p><p># DIMENSIONS TO BE READ IN<br/>PREFERENCE TO SCALING</p></div> | PRODUCT                                                                      |     |
|                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                        | SEABREEZE<br>Facade 1<br>Rear Loaded Garage<br>Shearwater Inclusions Package |     |
|                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                        | CLIENT<br>Clarendon Residential                                              |     |
|                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                                                                                                                                        | SITE ADDRESS<br>Lot 129 (DP 270385)<br>Melaleuca Place<br>Warriewood 2102    |     |
|                                                                                                                                                                                                                                                           |  | CC PLANS                                                                                                                                                                                                                                                                                                               |                                                                              |     |
|                                                                                                                                                                                                                                                           |  | DRAWN<br>ES                                                                                                                                                                                                                                                                                                            | DATE<br>28 8 08                                                              | Rev |
|                                                                                                                                                                                                                                                           |  | RATIO @ A3<br>1 100                                                                                                                                                                                                                                                                                                    | CHECKED                                                                      | B   |
|                                                                                                                                                                                                                                                           |  | SHEET<br>7                                                                                                                                                                                                                                                                                                             | JOB No<br>29787129                                                           |     |

Ⓢ SMOKE DETECTOR

⊗ SELF CLOSING EXHAUST FAN



| FLUORESCENT LIGHT |                         |
|-------------------|-------------------------|
| ●                 | DOWNLIGHT               |
| ○                 | BATTEN HOLDER - CEILING |
| ⊖                 | BATTEN HOLDER - WALL    |
| ×                 | SWITCH POSITION         |
| ⊗                 | PERMANENT POWER         |
| ●                 | SINGLE POWER POINT      |
| ●●                | DOUBLE POWER POINT      |
| ⊗-H               | GAS HEATING POINT       |
| ⊗                 | EXHAUST FAN             |
| Ⓢ                 | SMOKE DETECTOR          |
| ▲<br>PH           | PHONE POINT             |
| ⊕                 | TV POINT                |
| Ⓟ-H               | GAS BBQ POINT           |
| Ⓢ-H               | COMPUTER POINT          |

GROUND FLOOR  
ELECTRICAL LAYOUT

This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

CLIENT'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

BL No 2238C  
A B N 19003852706

Clarendon Homes (NSW) P/L  
21 Solent Circuit Baukham Hills NSW 2153  
T (02) 8850 9000 F (02) 9841 0285

© ALL RIGHTS RESERVED  
This plan is the property of  
CLARENDON HOMES (NSW) PTY LTD  
Any copying or altering  
of the drawing shall not be  
undertaken without written  
permission from  
CLARENDON HOMES (NSW) PTY LTD

# DIMENSIONS TO BE READ IN  
PREFERENCE TO SCALING

PRODUCT

SEABREEZE  
Facade 1  
Rear Loaded Garage  
Shearwater Inclusions Package

CLIENT  
Clarendon Residential

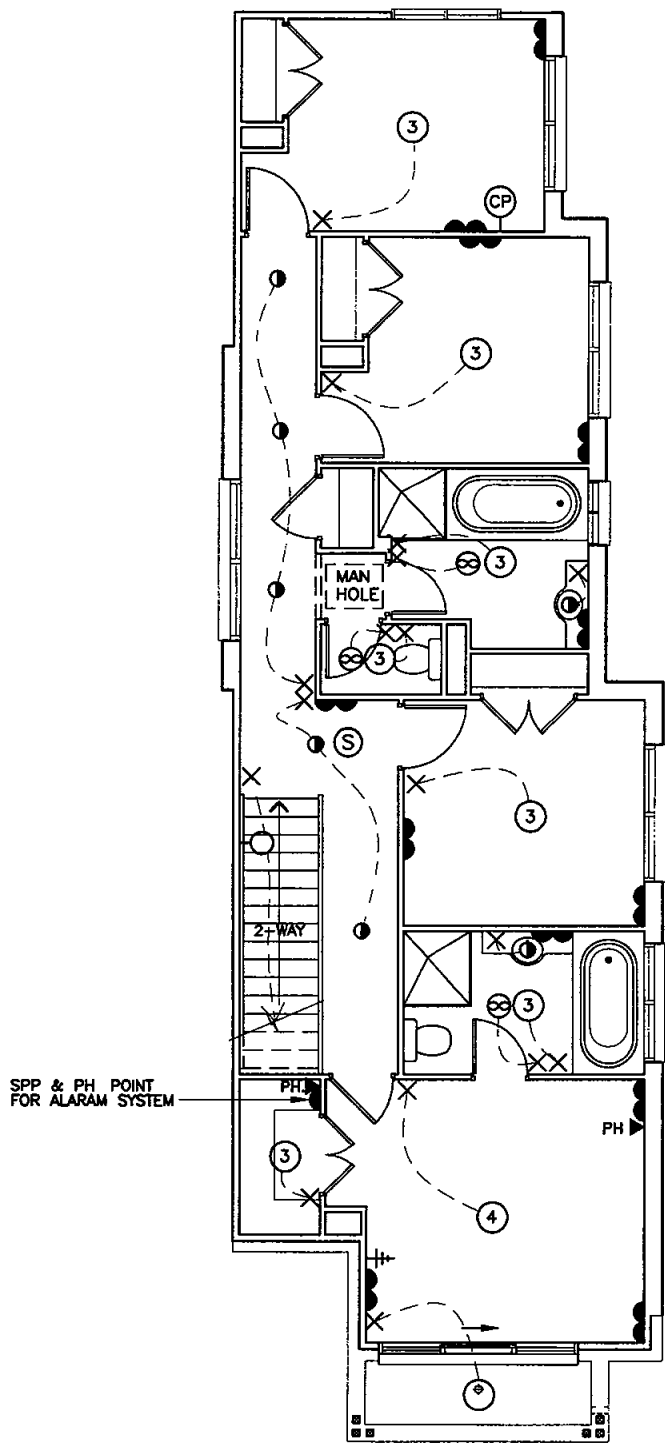
SITE ADDRESS  
Lot 129 (DP 270385)  
Melaleuca Place  
Warnewood 2102

CC PLANS

|                     |                    |          |
|---------------------|--------------------|----------|
| DRAWN<br>ES         | DATE<br>28 8 08    | Rev<br>B |
| RATIO @ A3<br>1 100 | CHECKED            |          |
| SHEET<br>8          | JOB No<br>29787129 |          |

Ⓢ SMOKE DETECTOR

⊗ SELF CLOSING EXHAUST FAN



|                                                  |                         |
|--------------------------------------------------|-------------------------|
| ●                                                | DOWNLIGHT               |
| ○                                                | BATTEN HOLDER – CEILING |
| ⊖                                                | BATTEN HOLDER – WALL    |
| ×                                                | SWITCH POSITION         |
| ⊘                                                | PERMANENT POWER         |
| ●                                                | SINGLE POWER POINT      |
| ●●                                               | DOUBLE POWER POINT      |
| ⊗                                                | GAS HEATING POINT       |
| ⊗                                                | EXHAUST FAN             |
| Ⓢ                                                | SMOKE DETECTOR          |
| ▲<br>PH                                          | PHONE POINT             |
| ⚡                                                | T V POINT               |
| ⊗                                                | GAS BBQ POINT           |
| Ⓢ                                                | COMPUTER POINT          |
| PROVIDE SPP TO ROOF SPACE FOR TV ANTENNA BOOSTER |                         |

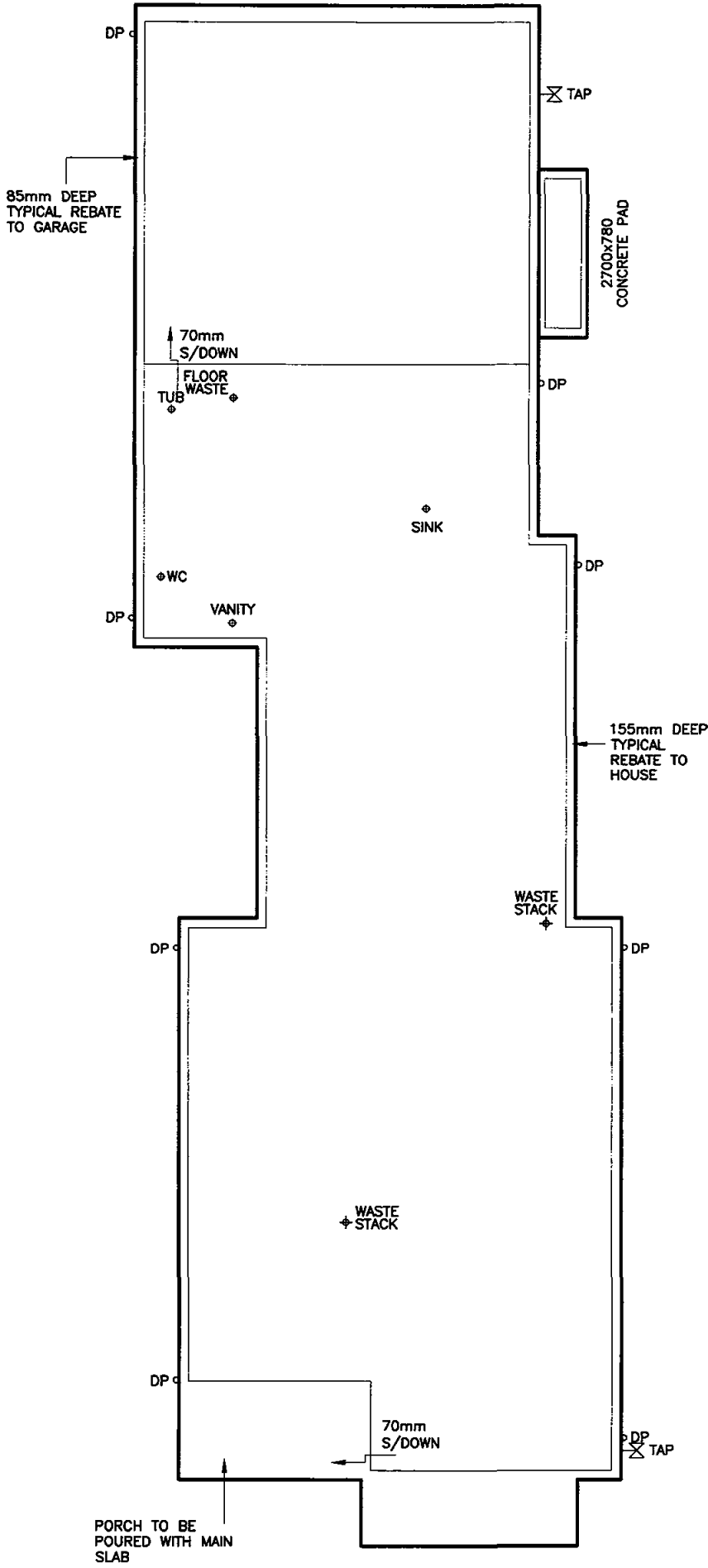
FIRST FLOOR  
ELECTRICAL LAYOUT

This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

DP ° DOWN PIPE LOCATION  
TAP X GARDEN TAP LOCATION



SLAB PLAN

This information relates to  
Construction/Complying Development Certificate

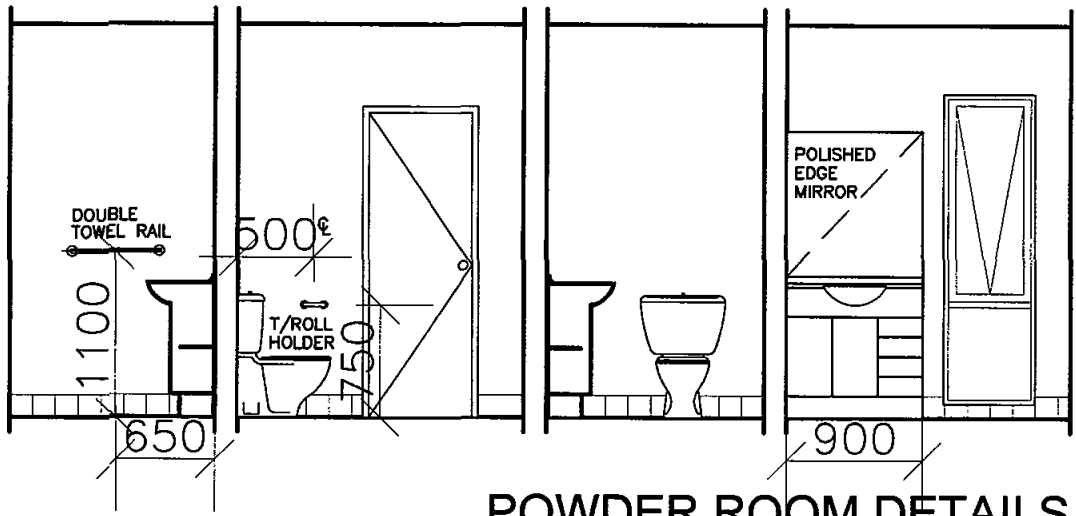
5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

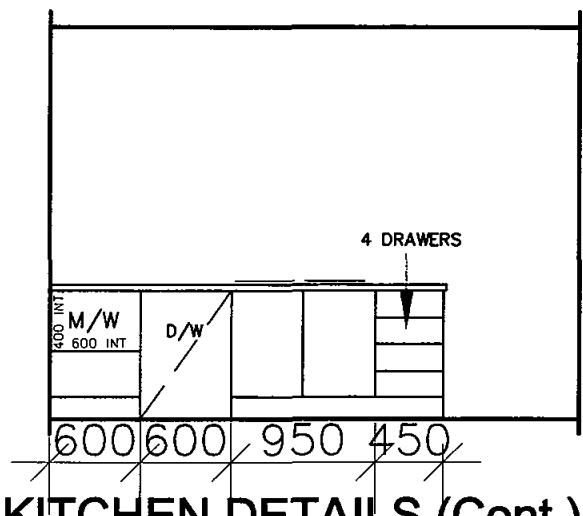
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |            |                                                                           |  |                     |                    |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------|--|---------------------|--------------------|-----------------|
| CLIENT'S SIGNATURE _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                | DATE _____ |                                                                           |  |                     |                    |                 |
| <div><div><div>Clarendon</div><div>Residential Group</div></div><div>BL No 2298C<br/>A B N 18003892706</div><div>Clarendon Homes (NSW) P/L<br/>21 Solent Circuit Baulkham Hills NSW 2153<br/>T (02) 8850 9000 F (02) 9841 0285</div></div> <div>© ALL RIGHTS RESERVED<br/>This plan is the property of<br/>CLARENDON HOMES (NSW) PTY LTD<br/>Any copying or altering<br/>of the drawing shall not be<br/>undertaken without written<br/>permission from<br/>CLARENDON HOMES (NSW) PTY LTD<br/># DIMENSIONS TO BE READ IN<br/>PREFERENCE TO SCALING</div> | PRODUCT<br><b>SEABREEZE</b><br>Facade 1<br>Rear Loaded Garage<br>Shearwater Inclusions Package |            | CLIENT<br>Clarendon Residential                                           |  | CC PLANS            |                    |                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |            | SITE ADDRESS<br>Lot 129 (DP 270385)<br>Melaleuca Place<br>Warriewood 2102 |  | DRAWN<br>ES         | DATE<br>28 8 08    | Rev<br><b>B</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |            |                                                                           |  | RATIO @ A3<br>1 100 | CHECKED            |                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |            |                                                                           |  | SHEET<br>10         | JOB No<br>29787129 |                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |            |                                                                           |  |                     |                    |                 |



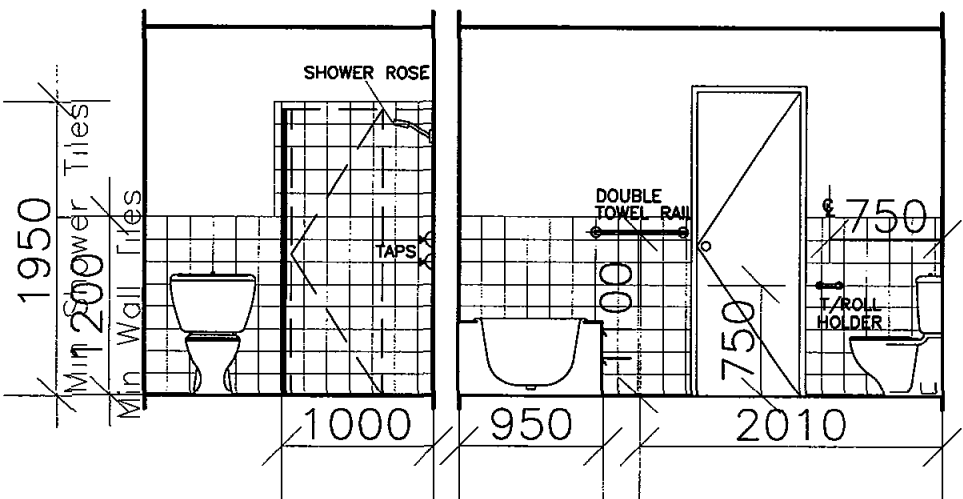
KITCHEN DETAILS



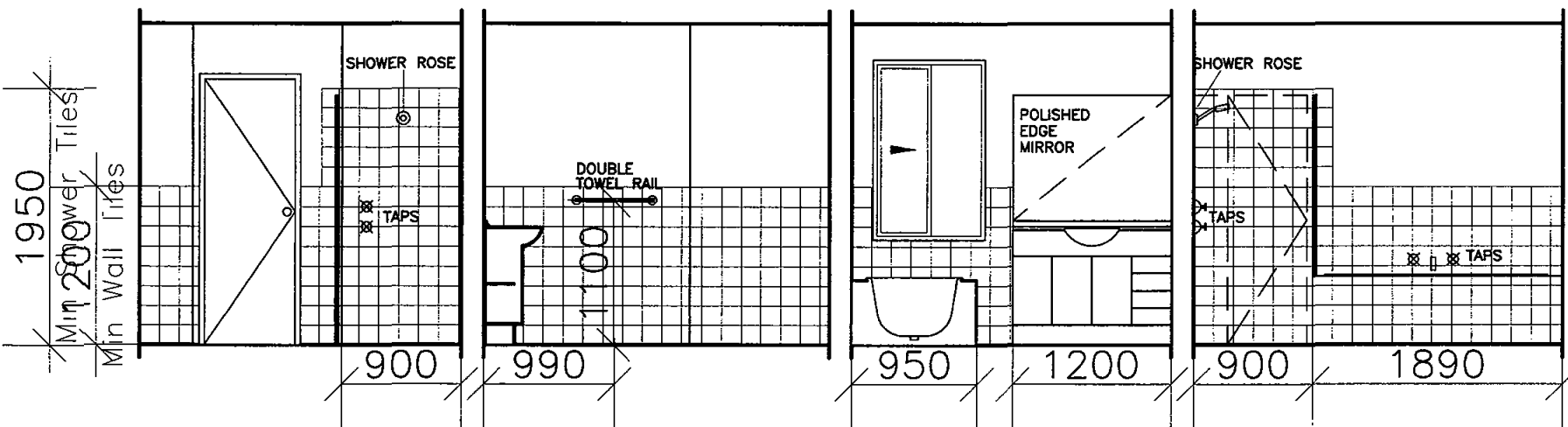
POWDER ROOM DETAILS



KITCHEN DETAILS (Cont )



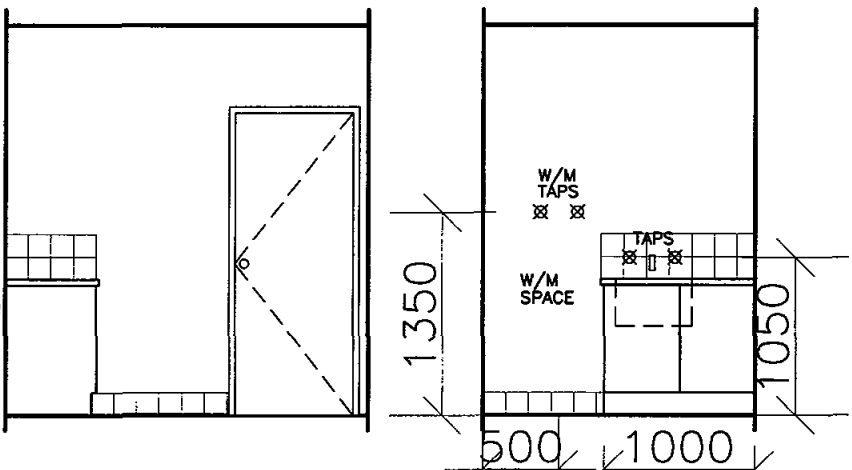
ENSUITE DETAILS



BATHROOM DETAILS

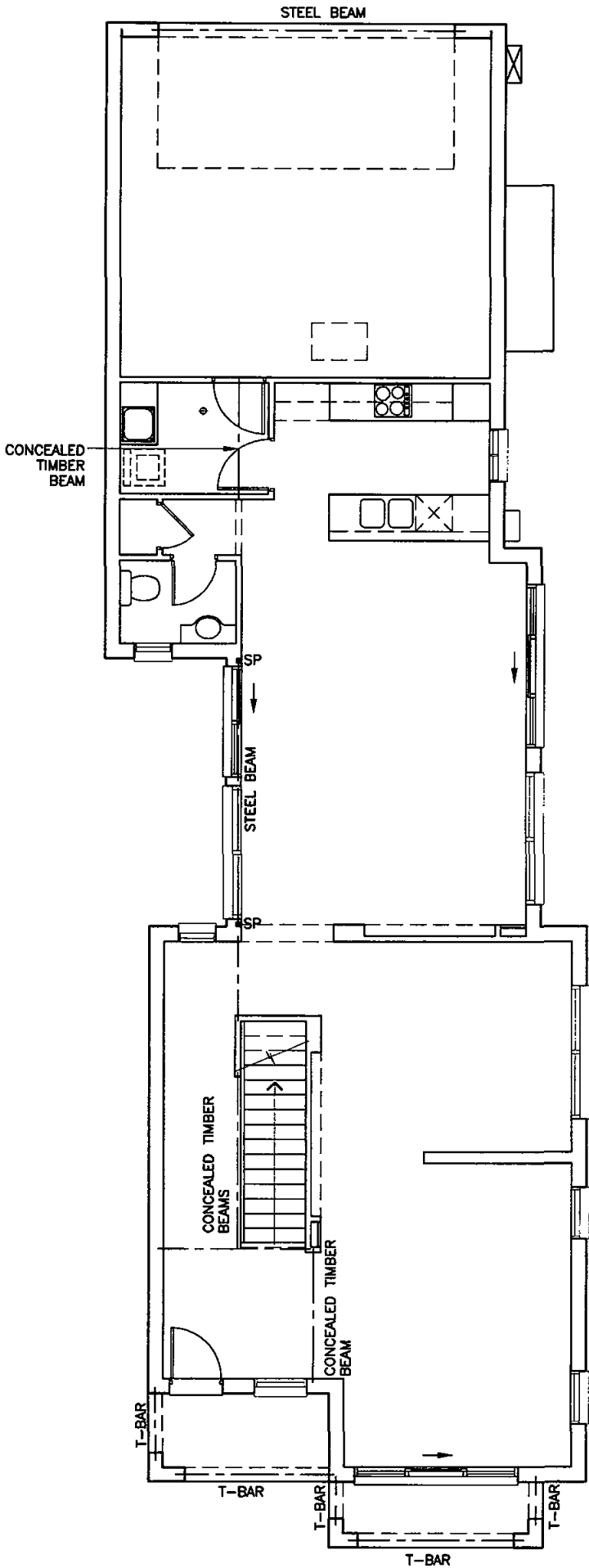
GENERAL TILING NOTE  
LAUNDRY - 1 ROW SKIRT TILE  
2 ROW SPLASHBACK  
AROUND TOP OF TUB

This information relates to  
Construction/Complying Development Certificate  
  
5 0 0 2 7 8 0  
  
Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)



LAUNDRY DETAILS

SP<sub>s</sub> STEEL POST



STEEL PLAN

This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

CLIENT'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_



Clarendon Homes (NSW) P/L  
21 Solent Circuit Baulkham Hills NSW 2153  
T (02) 8850 9000 F (02) 9841 0285

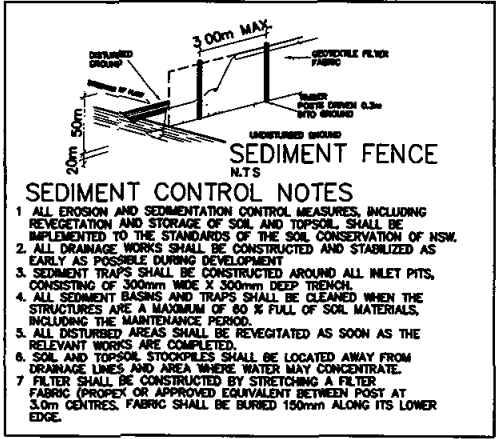
© ALL RIGHTS RESERVED  
This plan is the property of  
CLARENDON HOMES (NSW) PTY LTD  
Any copying or altering  
of the drawing shall not be  
undertaken without written  
permission from  
CLARENDON HOMES (NSW) PTY LTD  
# DIMENSIONS TO BE READ IN  
PREFERENCE TO SCALING

PRODUCT  
**SEABREEZE**  
Facade 1  
Rear Loaded Garage  
Shearwater Inclusions Package

CLIENT  
Clarendon Residential

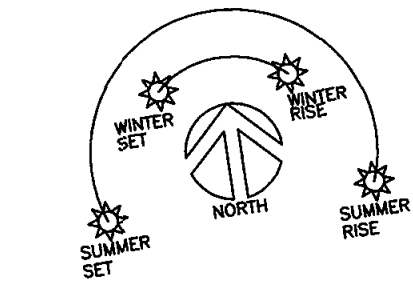
SITE ADDRESS  
Lot 129 (DP 270385)  
Melaleuca Place  
Warriewood 2102

| CC PLANS            |                           |                 |
|---------------------|---------------------------|-----------------|
| DRAWN<br>ES         | DATE<br>28 8 08           | Rev<br><b>B</b> |
| RATIO @ A3<br>1 100 | CHECKED                   |                 |
| SHEET<br><b>12</b>  | JOB No<br><b>29787129</b> |                 |



**NOTE**  
TEMPORARY SECURITY FENCING TO THE PERIMETER OF BOUNDARY WHERE REQUIRED TO PREVENT PUBLIC ACCESS ONTO SITE

**NOTE** ALL GROUND LINES ARE APPROXIMATE EXTENT OF FILL & BATTER WILL BE DETERMINED ON SITE SEDIMENT BARRIERS ARE TO BE CUSTOMISED SITE SPECIFIC



#### LEGEND

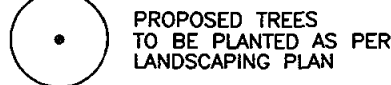
--- TEMPORARY SECURITY FENCE

--- CONTOURE LINES

--- SEDIMENT CONTROL



EXISTING TREE TO BE REMOVED



PROPOSED TREES TO BE PLANTED AS PER LANDSCAPING PLAN



NOISE IMPACT FROM ROAD



ONGOING WASTE MANAGEMENT



MAIN VIEWS



PREVAILING BREEZE

SHEARWATER LANE



PAVED DRIVEWAY & PATH BY CLARENDON

LOT 128

LOT 130

LOT 129

PROPOSED RESIDENCE  
FFL R L 4 695  
FGL R L 4 385

GARAGE  
STEPPDOWN  
75mm  
FFL R L 4 62

APPROX LOCATION OF 2000L SLIMLINE RAIN WATER TANK

TEMPORARY SECURITY FENCE

PORTABLE TOILET

SEDIMENT FENCE AROUND WASTE MATERIALS

APPROX LOCATION OF MATERIAL STORAGE

MELALEUCA PLACE

This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

## SITE ANALYSIS AND CONSTRUCTION MANAGEMENT PLAN

CLIENT'S SIGNATURE

DATE

**Clarendon**  
Residential Group

Clarendon Homes (NSW) P/L  
21 Solent Circuit Baulkham Hills NSW 2153  
T (02) 8850 9000 F (02) 9841 0285

© ALL RIGHTS RESERVED  
This plan is the property of  
CLARENDON HOMES (NSW) PTY LTD  
Any copying or altering  
of the drawing shall not be  
undertaken without written  
permission from  
CLARENDON HOMES (NSW) PTY LTD  
# DIMENSIONS TO BE READ IN  
PREFERENCE TO SCALING

PRODUCT  
**SEABREEZE**  
Facade 1  
Rear Loaded Garage  
Shearwater Inclusions Package

CLIENT  
Clarendon Residential

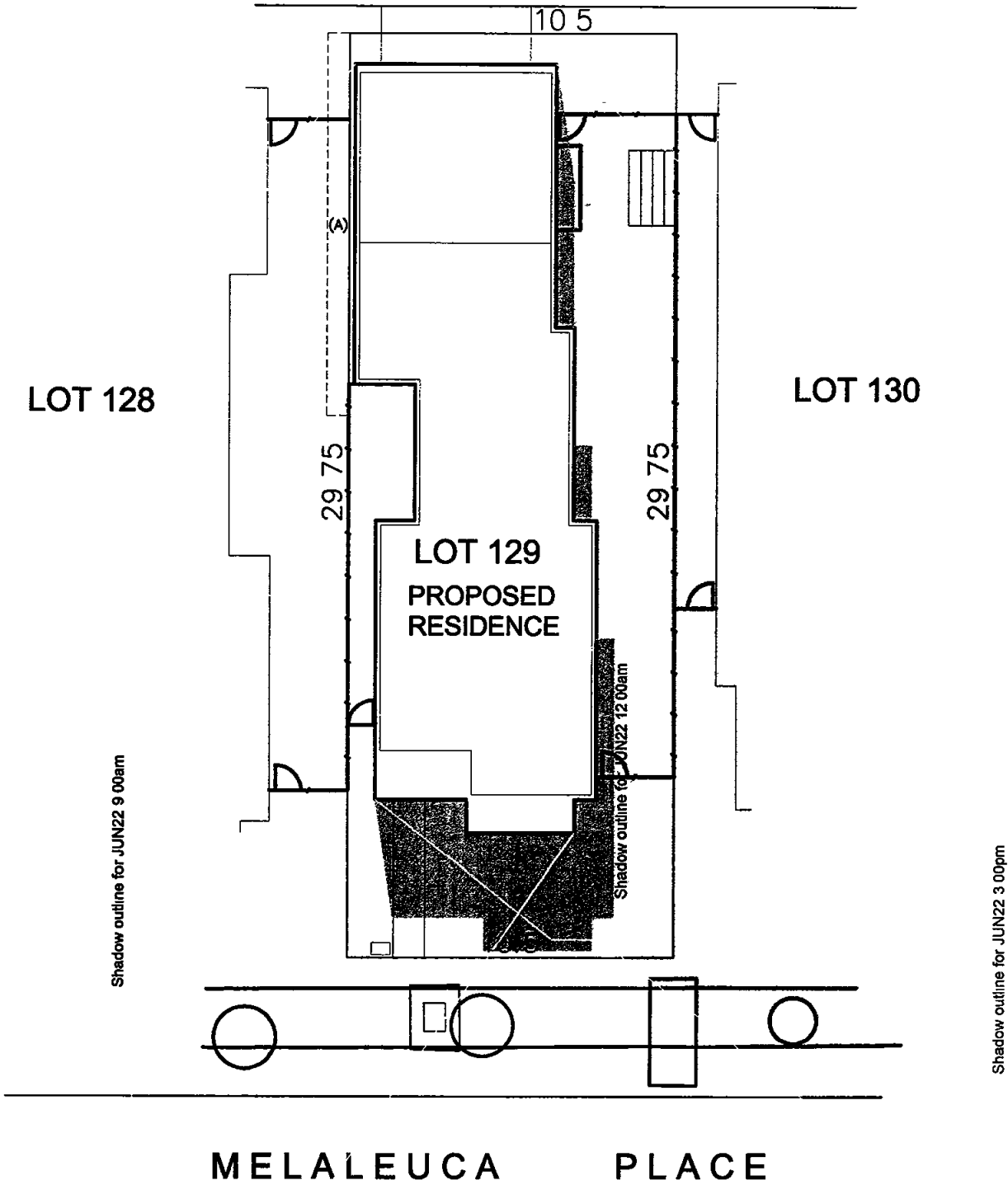
SITE ADDRESS  
Lot 129 (DP 270385)  
Melaleuca Place  
Warriewood 2102

CC PLANS

|                     |                    |     |
|---------------------|--------------------|-----|
| DRAWN<br>ES         | DATE<br>28 8 08    | Rev |
| RATIO @ A3<br>1 200 | CHECKED            | B   |
| SHEET<br>2 1        | JOB No<br>29787129 |     |



SHEARWATER LANE



This information relates to  
Construction/Complying Development Certificate

5 0 0 2 7 8 0

Issued by Sam Pratt Ph (02) 9836 5711  
Building Professionals Board (0732)

S H A D O W   D I A G R A M  
J U N E   21st

CLIENT'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**Clarendon**  
Residential Group

Clarendon Homes (NSW) P/L  
21 Solent Circuit, Baulkham Hills NSW 2153  
T (02) 8850 0000 F (02) 9841 0285

BL No 2298C  
A.B.N. 18003892706

©  
ALL RIGHTS RESERVED  
This plan is the property of  
CLARENDON HOMES (NSW) PTY LTD  
Any copying or altering  
of the drawing shall not be  
undertaken without written  
permission from  
CLARENDON HOMES (NSW) PTY LTD  
# DIMENSIONS TO BE READ IN  
PREFERENCE TO SCALING

PRODUCT  
**SEABREEZE**  
Facade 1  
Rear Loaded Garage  
Shearwater Inclusions Package

CLIENT  
Clarendon Residential

SITE ADDRESS  
Lot 129 (DP 270385)  
Melaleuca Place  
Warnewood 2102

| CC PLANS            |                    |     |
|---------------------|--------------------|-----|
| DRAWN<br>ES         | DATE<br>28 8 08    | Rev |
| RATIO @ A3<br>1 200 | CHECKED            | B   |
| SHEET<br>2 2        | JOB No<br>29787129 |     |