

LOCAL

Construction Certificate

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

CERTIFICATE NUMBER: 8000581

web www.localgroup.com.au

Issued under the Environmental Planning and Assessment Act 1979

SUBJECT LAND:

LOT: 103
DP: 270385
37 WATERGUM DRIVE
WARRIEWOOD
NSW 2102

COPY

DEVELOPMENT CONSENT:

N0129/10

DATE OF CONSENT:

26 MAY, 2010

DESCRIPTION OF WORK:

TWO STOREY DWELLING

LIMITATIONS &/OR EXCLUSIONS:

BUILDING CLASSIFICATION:

1a, 10a

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 the Environmental Planning and Assessment Regulation 2000 as referred to in Section 81A(5) of the Environmental Planning and Assessment Act, 1979, as amended.

DOCUMENTS ACCOMPANYING THE APPLICATION:

PLANS:

PLANS PREPARED BY METRICON, DATED 08/01/10, REVISION A DATED 20/01/10, JOB # 621303, SHEETS 1-10, 1A-1D & 1F.

SPECIFICATIONS:

GENERAL HOUSING SPECIFICATIONS PREPARED BY HIA.

OTHER DOCUMENTS:

APPLICATION FORM
OWNERS CONSENT
HOW CERTIFICATE
COUNCIL RECEIPTS
SYDNEY WATER APPROVAL
BASIX CERTIFICATE # 296955S_02, ISSUED 10/03/10.
ABSA CERTIFICATE # 62306256, ISSUED 17/02/10.
EXTERNAL COLOUR CHART;
STATEMENT OF ENVIRONMENTAL EFFECTS DATED FEBRUARY 2010;
WASTE MANAGEMENT PLAN DATED 09/03/10;
LANDSCAPE PLAN PREPARED BY DANIELL, DAGGER DESIGN
LANDSCAPES, JOB # 10-621303, SHEETS LP1-2 & LP2-2..
METRICON SITE INVESTIGATION SUMMARY, DATED 30/11/03.
STORMWATER LAYOUT PREPARED BY IBRAHIM STORMWATER CONSULTANTS, REVISION 1 DATED 02/03/10, JOB #

M2462-621303, SHEETS 1-2.
ENGINEERS DETAILS PREPARED BY RAFELETEOS ZANUTTINI,
ISSUE B DATED 07/06/10, JOB # 34026 MT, SHEETS 1-4.

FIRE SAFETY SCHEDULE ATTACHED:

YES ☐

N/A ☒

Andrew Dean
BPB0087

RECEIVED MONA VALE

15 JUN 2010

CUSTOMER SERVICE

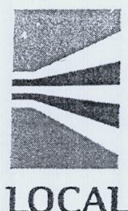
10 June 2010

Date of Certificate

Doc ID: 4C4CAB3

R.281619

PRVC \$30



RECEIVED
BY LOCAL CERTIFICATION SERVICES P/L
on 2/6/10 (date)

APPLICATION FORM

☒ Principal Certifying Authority

☒ Construction Certificate
☒ Occupation Certificate

☐ Compliance Certificate

THE APPLICATION

DATE OF APPLICATION: 02/6/10

LAND TO BE DEVELOPED

Lot No.: 103 Deposited Plan: 270385
House No.: 37 Street Name: Watergum Dr
Suburb: Warriewood Post Code: 2102
Area (m²): 450 Section/Folio:

THE DEVELOPMENT

Proposed Building Work: Residential ☒ Commercial ☐ Industrial ☐
Description of Development: NEW DOUBLE-STOREY DWELLING
Value of Work: \$ 358,667
Type of work: ERECT NEW DWELLING
Building Classification: 1a

CONSENTS

Consent Authority: PITTWATER
Development Consent No.: 129/10 Date of Issue: 26/5/10

BUILDER / OWNER BUILDER

Name: METRICON HOMES
Postal Address: PO BOX 7510, NORWEST BUSINESS PARK, NSW, 2153
Licence No.: 174699C
Contact No.: 8887 9000 Fax / E-mail:

THE APPLICANT/OWNERS

	Owner 1 / Applicant	Owner 2	Owner 3	Owner 4
First Name:	JEFFREY	KAYLEEN		
Surname:	WILKINSON	WILKINSON		
Street:	10 ELMSTREE ST	SAME AS		
Suburb:	STANHOPE GARDENS	OWNER 1		
Contact No.:	9629 8719	0417450879		
E-mail:	wilcom@bigpond.net.au			

BILLING DETAILS

☒ Applicant

Company Name: METRICON

☒ Builder

Address: 32 LEXINGTON DR, BAULKHAM HILLS, 2153

☐ Other (Please provide details)

Phone: 8887-9000

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 NSW 2567
P - 02 4655 5811
F - 02 4655 2411

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

Revision 4 Date: January 2010

LETTER OF CONSENT

OWNERS CONSENT

I/we the owners of the subject property hereby give consent for the lodgement of 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.

In the event that the nominated Principal Certifying Authority resigns from his employment position with Local Certification Services Unit Trust my signature provided below will also serve as the authorisation for the transfer of the role and responsibilities of the Principal Certifying Authority from the nominated person to Mr Andrew Dean.

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 ☐ Danial Powell ☐ Michael Shanahan ☐ Paul Gearin ☒ Sam Pratt ☐ Paul Morgan ☐ John Parkinson ☐ Michael Hardy ☐ _____ 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

THE APPLICANT/OWNERS

Owner 1 / Applicant

Signed:

Di. (on behalf of Metricon)

Name (Please Print):

Marseilles Dixon

Date:

02/06/10

Owner 2

Signed:

SEE ATTACHED AUTHORITY

Name (Please Print):

Date:

Owner 3

Signed:

Name (Please Print):

Date:

Owner 4

Signed:

Name (Please Print):

Date:

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Fairfield NSW 2519
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E - info@localgroup.com.au
Web - <http://localgroup.com.au>
ABN - 30 735 366 565

Revision 2 Date: August 2009



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 ☐ 3

What is the gross area of the new building ? 247.7 m²

What is the gross area of the site on which the proposal will be constructed ? 450 m²

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 will it be attached to another new building ? ☐ Yes ☒ No

Does the site contain a Dual Occupancy ? ☐ Yes ☒ No
(A dual occupancy is defined as two dwellings on the one site)

MATERIALS

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

Walls

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

Floor

Code

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

Roof

Code

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

Frame

Code

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

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Web - <http://localgroup.com.au>
ABN - 30 735 366 565

Revision 1 Date: August 2009

Metricon Homes
PO Box 7501
Baulkham Hills BC NSW 2153

**Re: Authority to proceed to lodge plans for approval and appoint Principal
Certifying Authority (PCA)**
Lot 103 Watergum Drive, Warriewood

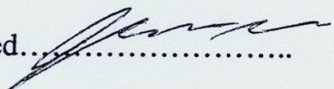
I/We request Metricon Homes to proceed to lodge the relevant plans, specifications, engineering details, hydraulic details and any other documents required by council along with payment of fees to council for lodgement and any other authority to obtain approval of these plans for construction.

I/We also authorise you to appoint the PCA and make all the necessary enquiries of council and the principal certifier for the purpose of any matter arising from the development consent and construction certificate approval.

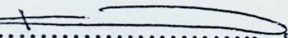
Yours faithfully

Signed by the Owner

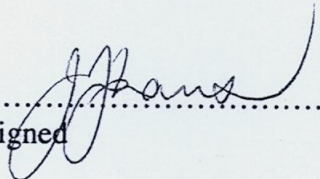
Mr Jeffrey Wilkinson

Signed.....

Ms Kayleen Wilkinson

Signed.....

Representative:
Metricon Homes

Signed.....

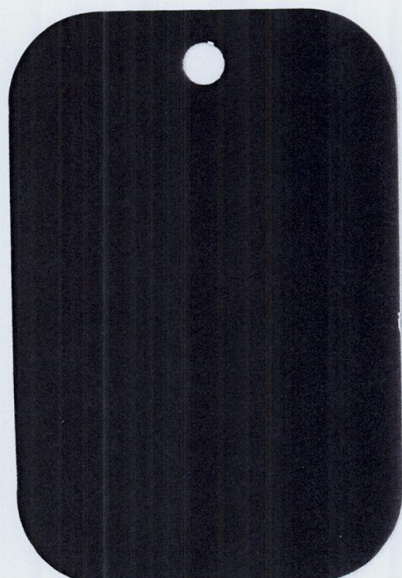


metricon

EXTERIOR

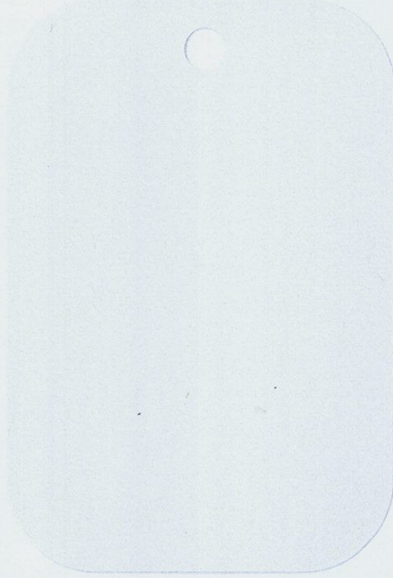
(WILKINSON N621303)

GUTTER



COLORBOND MONUMENT

FASCIA/GARAGE



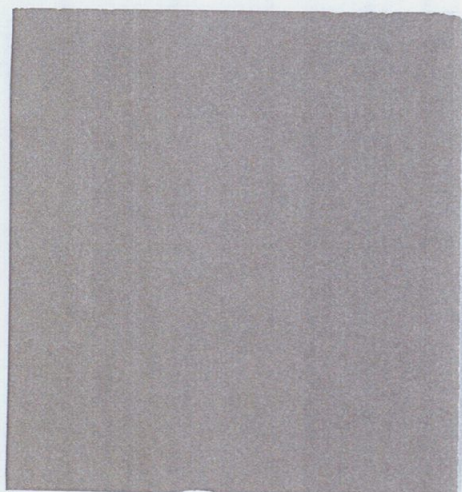
COLORBOND SURFTMIST

EAVES/ LINING / GABLE
TIMBER POSTS

White On White W

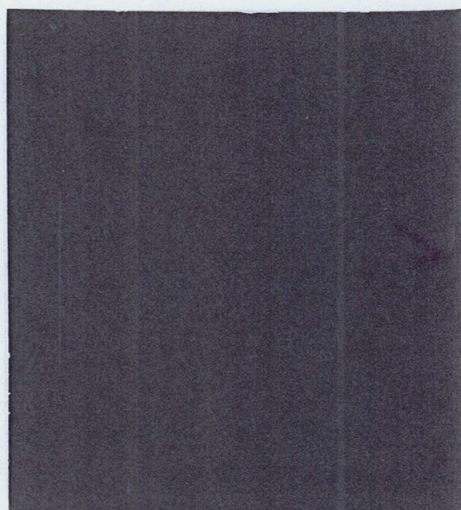
DULUX WHITE ON WHITE

BAGGING



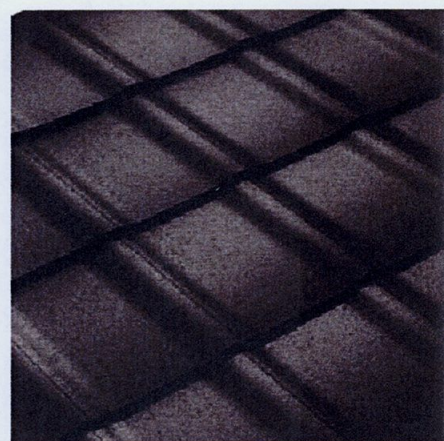
DULUX CHAMPIGNON

CLADDING



DULUX DEEP WALNUT

ROOF TILES

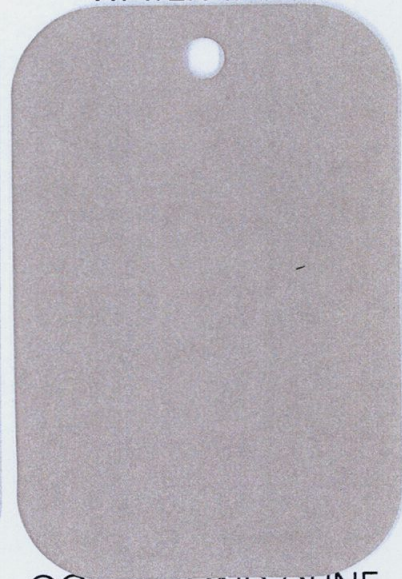


CLASSIC COAL

ENTRY DOOR

ALU WINDOWS

WATER TANK



INTERGRAIN CHARCOAL

PEARL WHITE

COLORBOND DUNE

RECEIVED
BY LOCAL CERTIFICATION SERVICES P/L
on 10/6/10 (date)



BSA No. 1119450

RECEIVED
BY LOCAL CERTIFICATION SERVICES P/L
on 10/6/10 (date)

Metricon Site Investigation Summary

Contract: 621303 Heltech Job No: 27214-HBS

Date: 30-Nov-03

Site Location: Lot 103, Watergum Drive, Warriewood

1.1	Soil Classification	H
1.2	Site Classification	P
	Extremely reactive soil	
1.3	Wind Classification	N2 (W33)
1.4	Vehicle access	Good
1.5	Rock on site which may effect excavation	No
1.6	Existing masonry buildings which may affect excavation	No

Screw Pier Operations Pty Ltd
ABN: 15 132 337 190

14 Cooper Street, Smithfield NSW 2164
Email: hbss@heltech.com.au www.heltech.com.au Tel: (02) 9725 5522
Fax: (02) 9756 5724

4.0 SITE ANALYSIS

Is there current evidence of the following that would likely effect this site?

4.1 Extremely reactive soil

☒ Yes	☐ No
--------------------------------------	--------------------------

4.2 Fill containing wood, metal, plastic or other deleterious materials
Previous land use – BANANA FARMING *Concrete + brick*

☒ Yes	☐ No
--------------------------------------	--------------------------

4.3 Deep fill (>400mm of fill)

☒ Yes	☐ No
--------------------------------------	--------------------------

4.4 Soft or collapsing soils

☐ Yes	☒ No
---------------------------	-------------------------------------

4.5 Floating boulders

☒ Yes	☐ No
--------------------------------------	--------------------------

4.6 Rock (difficult excavation)

☐ Yes	☒ No
---------------------------	-------------------------------------

4.7 Residential allotment (<1000m²) with over 1.6m fill

☒ Yes	☐ No
--------------------------------------	--------------------------

4.8 Rural allotment (>1000m²) with over 2.4m fill

☒ Yes	☐ No
--------------------------------------	--------------------------

4.9 Underground flowing water and /or seepage evidence

☒ Yes	☐ No
--------------------------------------	--------------------------

4.10 Erosion

☐ Yes	☒ No
---------------------------	-------------------------------------

4.11 Large / mature trees on site and /or on adjoining sites

☐ Yes	☒ No
---------------------------	-------------------------------------

4.12 Marine environment or other risk of corrosion

☒ Yes	☐ No
--------------------------------------	--------------------------

Heltech Building Systems Pty Ltd Pty Ltd – Site Investigation Report

Heltech Job No: 27214-HBS

5.0 FIELD RECORDS OF TEST BORING AND / OR IN SITU TESTING

Borehole 1			Borehole 2			Borehole 3 (DCP only)		
Depth (m)	DCP	Soil Profile	Depth (m)	DCP	Soil Profile	Depth (m)	DCP	Soil Profile
0.0	3	Silty sandy clay (ci-cl) dark brown mat with gravel fine moist hard	0.0	1	Silty sandy clay (ci-cl) dark brown mat with gravel moist hard	0.0	3	
	3			4			8	
	20+			12			11	
	40+			20+			20+	
0.5			0.5	20+		0.5	20+	
	40+						20+	
1.0	20+		1.0	20+		1.0		
	20+			20+				
1.5			1.5			1.5		
2.0	20+		2.0	20+		2.0		
	20+			20+				
2.5		NAT Sand (SP) pale grey moist - wet med dense	2.5		NAT Sand (SP) pale grey moist - wet med dense	2.5		
				3				
	3			4				
	3			4				
3.0	4		3.0	4		3.0		

Note: DCP = Dynamic Cone Penetrometer blow counts (blows/100mm). UTP = Unable to penetrate

TABLE 5.1 For SAND correlation between Density Index and Penetrometer results

DENSITY Term	Density Index (%)	Approximate DCP Blow Count (blows/ 100mm)
Very Loose	< 15	< 1
Loose	15 - 35	1 - 3
Medium Dense	35 - 65	3 - 9
Dense	65 - 85	9 - 15
Very Dense	> 85	> 15

TABLE 5.2 For SILTS and CLAYS correlation between Cu and Penetrometer results

CONSISTENCY Term	Undrained Shear Strength (kPa)	Approximate DCP Blow Count (blows/ 100mm)
Very Soft	0 - 12	< 1
Soft	12 - 25	1 - 2
Firm	25 - 50	2 - 3
Stiff	50 - 100	3 - 5
Very Stiff	100 - 200	5 - 8
Hard	> 200	> 8

Lot 103

5.0 FIELD RECORDS OF TEST BORING AND / OR IN SITU TESTING

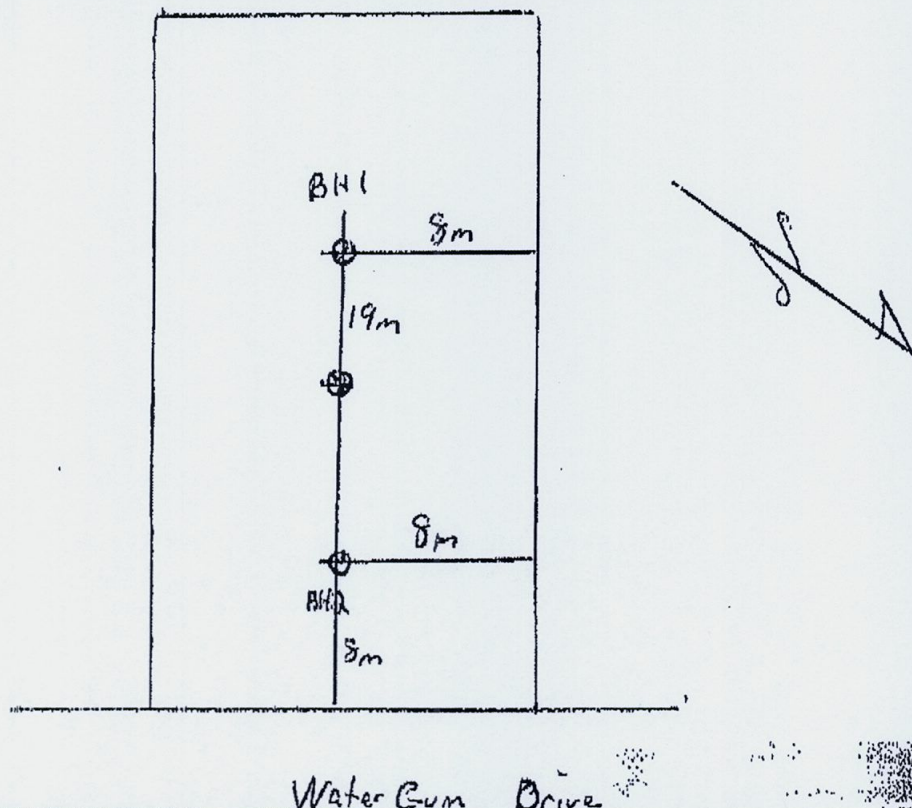
Borehole 1			Borehole 2			Borehole 3 (DCP only)		
Depth (m)	DCP	Soil Profile	Depth (m)	DCP	Soil Profile	Depth (m)	DCP	Soil Profile
0.0	4		0.0	4		0.0		
	6			5				
	5			4				
	6			5				
0.5	6		0.5	5		0.5		
	6			6				
	7			6				
	7			8				
	8			8				
1.0	8		1.0	10		1.0		
	9			9				
	10			10				
	9			10				
1.5	9		1.5	10		1.5		
	9			10				
	9			10				
2.0		END BORE 5.0m	2.0		END BORE 5.0m	2.0		
2.5			2.5			2.5		
3.0			3.0			3.0		

Note: DCP = Dynamic Cone Penetrometer blow counts (blows/100mm). UTP = Unable to penetrate

TABLE 5.1 For SAND correlation between Density Index and Penetrometer results			TABLE 5.2 For SILTS and CLAYS correlation between Cu and Penetrometer results		
DENSITY Term	Density Index (%)	Approximate DCP Blow Count (blows/ 100mm)	CONSISTENCY Term	Undrained Shear Strength (kPa)	Approximate DCP Blow Count (blows/ 100mm)
Very Loose	< 15	< 1	Very Soft	0 – 12	< 1
Loose	15 - 35	1 - 3	Soft	12 - 25	1 - 2
Medium Dense	35 - 65	3 - 9	Firm	25 - 50	2 - 3
Dense	65 - 85	9 - 15	Stiff	50 - 100	3 - 5
Very Dense	> 85	> 15	Very Stiff	100 - 200	5 - 8
			Hard	>0	> 8

6.0 LOCATION OF BOREHOLES

The location of boreholes and DCP's are marked and numbered as set out on the following site sketch.
(Not to Scale)



7.0 COMMENTS AND RECOMMENDATIONS

- 7.1 Excavation within 3000mm of slab edge without Engineering approval is not permitted.
- 7.2 All Retaining Walls to be a minimum of 1500mm from slab edge (in both top of fill and bottom of cut situations) unless otherwise noted on the drawings.
- 7.3 The Building platform is to be self draining.
- 7.4 Site Notes: _____

Proposed BP Piers Depths are: _____ m.

8.0 CERTIFICATION

The attachment of the signature below is to certify that this report has been compiled in accordance with Australian Standards AS2870-1996; AS1726-1993; and AS3798-1996.

Signed: _____

Mario Gregorovic (RPEQ No 7018 – Supervising Engineer Employed by Heltech Industries Pty Ltd)

Heltech Form 3

Heltech Building Systems Pty Ltd – Site Investigation Report

Heltech Building Systems Pty Ltd - Site Investigation Procedure Manual - SI Report - Heltech Format
Eleventh Edition August 2008 ACN 124 429 894



Insurance services

YOUR INSURANCE PARTNER



Certificate of Insurance

Metricon Homes Pty Ltd
PO Box 857
MOUNT WAVERLEY VIC 3149
Australia

Builder's Copy
Policy Number: RCW77706535
Date of Issue: 08/02/2010
Broker Payment Reference:
Builder's Job Number: 621303

Form 1
Section 92
Home Building Act 1989

CERTIFICATE IN RESPECT OF INSURANCE

Contract of Insurance Complies With: Section 92
Of The: Home Building Act 1989
Issued By: Vero Insurance Limited
ABN 48 005 297 807

Building Contract Details

Contract Date: 02/02/2010
Declared Building Contract Value: \$359,667.00
(Refer policy for indemnity limit)
Carried out By: Metricon Homes Pty Ltd
Trading As:
ABN: 55 201 276 124
Licence Number: 174699C
For: Jeffrey and Kayleen Wilkinson
In Respect Of: Single Dwelling
At: Lot Number 103
Watergum Drive
WARRIEWOOD NSW 2102
Permit Authority: Pittwater Council

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 the title to the beneficiary. Please note when the Insurer has issued this certificate, the Insurer is not entitled to refuse to pay a claim or to cancel the insurance contract, on the grounds that the premium was not paid. This certificate is to be read in conjunction with the policy wording.

COI000690585

Generated: 08/02/2010

Signed for and on behalf of the Insurer:

B — D —

Insurer: Vero Insurance Limited ABN 48 005 297 807
Vero Warranty is a division of Vero Insurance Limited

RECEIVED
BY LOCAL CERTIFICATION SERVICES P/L
on 10/6/10 (date)

This Waste Management Plan proposal is to be submitted when required by Council's "Site Waste Management and Minimisation" Development Control Plan

WASTE MANAGEMENT PLAN

Proposed Development NEW DOUBLE STOREY DWELLING

Site Address: LOT 103 No. 37 WATERGUM DRIVE,

WARRIEWOOD

Applicant's Name and Address: METRICON

LEVEL 4, 32 LEXINGTON DRIVE . BAULKHAM HILLS 2153

Telephone: 8887 2000 Facsimile: 8079 5901

Mobile:

Buildings and other structures currently on site:

VACANT SITE

Brief description of proposal:

PROPOSED NEW DOUBLE STOREY

BRICK VENEER DWELLING

The details on this form are intentions for managing waste related to this project.

Privacy Note: Personal information provided on this form will be used by Council officers only for processing purposes.

Signature of Applicant: [Signature] Date: 09/03/10



PITTWATER COUNCIL

Information for Access Driveway Profiles 1 July 2009 – 30 June 2010

To: Jeff Wilkinson
Postal Address: 13 Helston St
Stanhope Gardens 2768

Date: 4th June 2010

Receipt No: 281211
Amount: \$80.00

N0129/10

ACCESS DRIVEWAY PROFILE AT: 37 Watergum Drive, Warriewood

- The proposed vehicular access driveway profile shall be as per the enclosed plan N
- **Type of Construction:** Domestic
 - **For Residential single & dual occupancy** - 20MPa Concrete, 150mm thick
 - **For Other** - 20MPa Concrete, 180mm thick with F72 mesh
- **Slab Construction:** Vehicular access slab 4.5m long, 3.5m wide at gutter crossing to 3.5m wide at the boundary.
- Council will only permit an absolute maximum gradient of 25% (1 in 4) measured at any point on the driveway and that an ease may be required for access into the car stand area, carport or garage. Refer to relevant attached profile.
- All work within the road reserve (including excavation) in connection with the above, is to be carried out by authorised Contractors only;
- Quotations for the work specified above should be obtained from any of the contractors on Council's list and should be for the whole of the work stated;
- Construction of vehicular access will be strictly in accordance with the profile supplied; and
- A formwork inspection by Council is required prior to construction. (Provide minimum 24 hours notice)

1. **NOTE THAT THIS INFORMATION SHEET DOES NOT CONSTITUTE AN APPROVAL TO COMMENCE OR PROCEED WITH ANY WORK ON SITE.**
2. **A SECTION 139 CONSENT UNDER THE ROADS ACT – 1993 IS REQUIRED (FORM UI203).**
3. **FAILURE TO OBTAIN SUCH CONSENT PRIOR TO COMMENCING WORK WILL INCUR A PENALTY.**

R. McWhirter

Ross McWhirter
PROJECT LEADER – URBAN INFRASTRUCTURE
Telephone: 9970 1207



PITTWATER COUNCIL

Form No UI 203

Consent by Road Authority for Work in Road Reserve - DRIVEWAY
Section 139 – Roads Act 1993
1 July 2009 - 30 June 2010

PLEASE PRINT

Applicant: JEFF WILKINSON

Postal Address: 13 HELSTON ST STANHOPE GARDENS Postcode: 2768

Phone (W): 0417 450 879 (M): 0417 450 879

Property Address: 37 WATERGUM DRIVE WARRIAWOOD

Subject to the payment of the appropriate fee, the Applicant is hereby permitted to construct the driveway (and/or associated work) as detailed below, in strict accordance with the **CONDITIONS** overleaf.

I/We the undersigned agree to abide by the said conditions.

Applicant's Signature: [Signature] Date: 9/6/10

FEES (includes GST)

Consent for access driveway construction only (includes 2 site inspections) per allotment for RESIDENTIAL SINGLE/ DUAL OCCUPANCY .	\$155.00
Consent for access driveway construction only (includes 2 site inspections) per allotment for RESIDENTIAL SINGLE/ DUAL OCCUPANCY which <i>includes any of: major retaining structures, stairs or special landscape treatment</i> .	\$385.00
Consent for access driveway construction only (includes 2 site inspections) per allotment for OTHER THAN RESIDENTIAL SINGLE/DUAL OCCUPANCY .	\$180.00
Consent for access driveway construction only (includes 2 site inspections) per allotment for OTHER THAN RESIDENTIAL SINGLE/DUAL OCCUPANCY which <i>includes any of: retaining structures, stairs or special landscape treatment</i> .	\$510.00
Fee per additional site inspection as required	\$140.00

Office Use Only:

Inspected by: _____ Date: _____

Approved: _____

Not approved: _____

Comment: _____

CODE: ESTR 1.7.09 - 30.6.10 Late Fee: \$650 when work commenced prior to issue of Consent Form No: UI 203

FEE PAID: \$

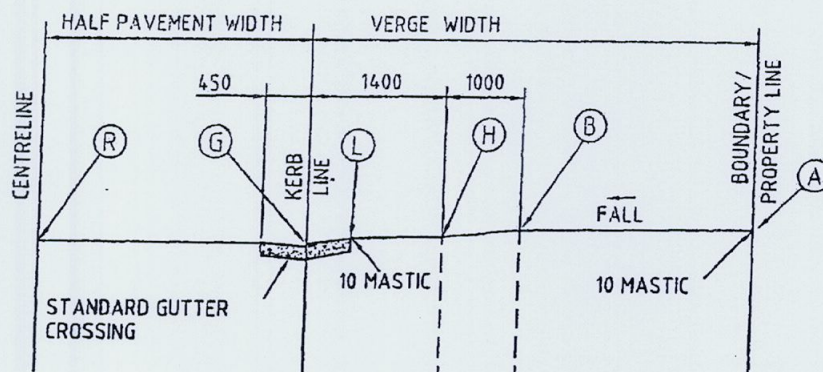
RECEIPT NO:

ISSUED BY:

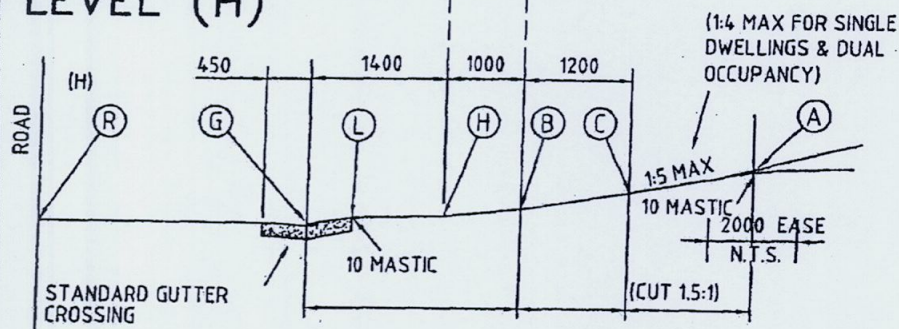
DATE:

NOTE TO CUSTOMER SERVICE: PHOTOCOPY APPLICATION FORM AND STAPLE WITH RECEIPT FOR CUSTOMER'S RECORD

NORMAL (N)



HIGH LEVEL (H)



(MAX BATTER FROM EDGE OF DRIVEWAY TO FINAL G.L.)
(WHERE THERE IS NO CONSTRUCTED FOOTPATH)
(1:6) (1:6 — 1:2) (FILL 1:2)

POINT	REMARKS	LEVELS
R	ROAD CENTRELINE	
G	INVERT OF GUTTER	
L	BACK OF LAYBACK	100 ABOVE "G"
H	1000 FROM BACK OF LAYBACK	130 ABOVE "G"
B	2400 FROM KERB LINE	MAX 200 ABOVE "G"
C	3600 FROM KERB LINE	MAX 400 ABOVE "G"
A	BOUNDARY	EASE REQUIRED AT GRADE CHANGE

NOTE

- To be read in conjunction with Pittwater 21 Development Controls.

PITTWATER

Standard Driveway Profile
NORMAL TO HIGH

PLAN No.
PWC-DW01
REV No. B
DATE 17/08/07

**List of Council Authorised Concrete Contractors for Vehicle Footpath Crossings and Associated Works**

- The following Contractors are authorised to carry out the above construction within the road reserve in the Pittwater Council area. No other persons are permitted to carry out excavation or any other part of this work.
- Please note that the Contractors are specifically authorised as vehicle footpath crossing Contractors only and in some instances the Contractors may not hold a Builder's Licence or a Restricted Builder's Licence.

Company Name	Address1	Address2	Phone	Mobile
A-Grade Concrete	PO Box 6142	Narraweena	9982 2616	0410 565 777
Action Concreting & Construction Pty Ltd	PO Box 521	Collaroy 2097	9982 2135	0414 355 772
AK Concrete Solutions Pty Ltd	164 Madagascar Dr	Kings Park 2148	9837 8322	0412 392 355
Alliance Landscape Group	1A Garden square	Faulconbridge 2776	4751 8256	0414 284 707
Anton Constructions Pty Ltd	730 Ourimbah Creek Rd	Palmgrove 2258	4362 9605	0418 236 651
Antonio Tomaino	97 Wyadra Ave	North Manly 2099	9938 3841	0422 994 938
Attunga Landscapes Central Coast	PO Box 6176	Kincumber 2251	43822886	0415 432 433
Barrie Bree Concreting	29 Seaview Ave	Newport 2106	9997 8840	0415 183 146
S & E Cavalieri Pty Ltd	29 Quinlan Pde	Manly Vale 2093	9948 5442	0412 285 301
Capano Concrete	40 Rowley Street	Smithfield	9604 8715	0409 838 238
Coastline Concreting	53 Parkes Rd	Collaroy Plateau 2097	9982 5796	
Construct ByDesign Pty Ltd	10/16 Clearview Place	Brookvale 2100	9938 9199	0411 174 856
C-Side Concreting Pty Ltd	43 Wesley St	Elanora Heights	9913 1653	0404 872 111
D & M Excavations & Asphaltting Pty Ltd	PO Box 133	South Hurstville 2220	9759 1642	0412 052 427
Diorio Brothers Construction	3 Lees Ave	Croydon Park 2133	9642 8172	0407 468419
Eleveneen Pty Ltd	50 The Esplanade	Drummoyne 2047	9819 7547	0412 255 413
Entire Landscapes	12 Zebra Place	Quakers Hill	9837 6696	0425 287 722
Equip Concrete Pty Ltd	75 Bellevue St	Blacktown	9920 1479	0410 310 671
Frank's Concrete	PO Box 983	Mona Vale 1680		0418 225 871
Freshwater Environmental Constructions	3/72 Harbord Rd	Harbord 2096	9905 3770	0414 543 957
G C Concrete	50 Dryden Ave	Carlingford 2118		0418 651 432
G & D Concrete Pty Ltd	58 Parkes Rd	Collaroy 2097	9982 4780	0418 644 887
Gillett Concreting Services	5 Chilaw Avenue	St Marys 2760	9833 8006	0416 237 065
GJS Landscapes Pty Ltd	13/43 College Street	Gladesville 2111	9817 7715	0434 537 323
Gubler & Associates Pty Ltd	49 Careel Head Rd	North Avalon 2107		
H J Bellamy & Sons Pty Ltd	PO Box 541	Collaroy 2097	9981 4137	0418 280 904
I J Ranson Pty Ltd	PO Box 73	St Ives		0404 095 196
Ingleside Landscapes	145 Wireanda Road	Ingleside 2101	9450 2404	0408 296 359
Kakoda Concrete Pty Ltd	31 Palm Valley	Tumbi Umbi 2261	4389 8111	0421 342 177
Kelpie Concrete Pty Ltd	20 Spring Rd	Curl Curl 2098	9905 8398	0418 164 604
KMD Landscaped & Stone P/L	183 Rainbow Street	Randwick	9664 6600	0418 688 324
L & G Horvath	22 Kanimbla Cres	Bilgola Plateau	9918 4538	0418 202518
L & MC Constructions P/L	PO Box 748	Brookvale 2100	9939 4435	0411 416 777
Lamrock Builders	PO Box 76	Avalon 2107	9918 7037	
L Morlin & Co Pty Ltd	133 Desborough Rd	St Marys 2760		0418 285 015
Luch's Concrete Pty Ltd	15 Milperra Pl	Cromer 2099	9982 8739	0411 879 257
Lloyd Drilling & Underpinning Constructions Pty Ltd	17 Ilya Ave	Bayview 2104		0418 232 523
Martin Wren Formwork	286 Cullamine Rd	Duffys Forest	94502796	0415 282 426
Master Form Pty Ltd	150 Alfred St	Narraweena 2099	9971 6309	0409 244 056
New Edge Concreting Pty Ltd	21 Langland St	Wetherill Park 2164	9604 0774	0414 407 454
Newport Concreting	PO Box 108	Newport 2106	9997 5686	0407 068 716
Nick Johnston Landscapes Pty Ltd	14/1-3 Jubilee Ave	Warriewood 2102	9979 8885	0414 645 334
Northern Beaches Homes	9 Bilberry Avenue	Bilgola Plateau		0414 209 282
Northside Concreting Services P/L	PO Box 168	Mona Vale 2103	9997 6363	0411 529 004
Northshore Formwork & Concreting P/L	30 Nimbey Ave	Narraweena 2099	9981 4390	0418 169 365
North Shore Paving Co Pty Ltd	16 Moore Ave	Lindfield West 2070	9416 8455	0418 269 697
Ocean Concrete Pty Ltd	7 Nursery Pl	Belrose 2085	9452 1473	0412 449 297
Outback Paving	38 Greensborough Ave	Rouse Hill 2155	9629 8951	0408 238 032
Paradise Landscapes Pty Ltd	PO Box 403	Newport Beach 2106	9918 0539	0414 229 722
Paton Concrete Works	PO Box 1149	Newport 2106	9979 2791	0407 011 907

SECTION 139 – ROADS ACT 1993

CONDITIONS OF CONSENT

1. The Applicant shall, at all times, keep indemnified Council from and against all actions, suits, proceedings, losses, costs, damages, changes, claims and demands in any way arising out of or by reason of anything done or omitted to be done by the Applicant in respect of the work in question.
2. The Applicant, at all times for the duration of this Consent, will not interrupt or otherwise disturb the traffic flow on the road without first obtaining the consent of Council.
3. The applicant shall make good any damage caused to the property of any person or any property of Council by reason of the carrying out of any work by the Applicant under the Conditions of this Consent.
4. Should the Applicant fail to comply with any of these conditions or any requirement of Council as provided then this Consent shall permanently lapse and any part of the work remaining within the road at that time shall be deemed to be an obstruction or encroachment under Section 107 of the Roads Act 1993.
5. This Permit/Consent receipt must be held on the job and produced to any officer of Council when called upon.
6. ***All work within the Road Reserve (including excavation) is to be carried out by Council Authorised Contractors only.***
7. Construction of the vehicular access is to be strictly in accordance with the profile supplied.
8. A formwork inspection and approval by Council is required prior to construction of the driveway.
24 HOURS NOTICE IS REQUIRED.
9. **THIS CONSENT AND (PREVIOUSLY ISSUED) APPROVED PROFILE MUST BE RETAINED ON SITE FOR THE INSPECTING COUNCIL OFFICER'S APPROVAL**
10. Type of Construction:
 - **For residential single & dual occupancy – 20MPa Concrete, 150mm thick**
 - **For other – 20MPa Concrete, 180mm thick with F72 mesh**

Pittwater Council

OFFICIAL RECEIPT

3/06/2010 Receipt No 281211

To Jeff Wilkinson

13 Hleston St
Stanhope Gardens 2768

Applic Reference	Amount
GL Re CCGST-CCa	\$0.80
1	
GL Re ESTR-Eng	\$80.00
1 x 37 watergum dve warri	

Total: \$80.80

Amounts Tendered

Cash	\$0.00
Cheque	\$0.00
Db/Cr Card	\$80.80
Money Order	\$0.00
Agency Rec	\$0.00
Total	\$80.80
Rounding	\$0.00
Change	\$0.00
Nett	\$80.80

Printed 3/06/2010 11:27:34

Cashier JRiche

Pittwater Council
ABN: 61340837871

John - Wilkinson - 621303

TAX INVOICE

OFFICIAL RECEIPT

18/03/2010 Receipt No: 277365

To METRICON
PO BOX 7150
NORWEST BUS PARK 2153

Qty/ Applic	Reference	Amount
GL Receipt		
TDEV-DA Fees		\$1,414.28
1 X 37	WATERGUM DR	
Qty 1,	TADV-DA Adv/Notify	\$181.82
1 X 37	WATERGUM DR	
GST		\$18.18
Qty 1,	NODP-DA Sign	\$34.55
1 X 37	WATERGUM DR	
GST		\$3.45
Qty 1,	RMIC-Rcrds Scanning	\$54.55
1 X 37	WATERGUM DR	
GST		\$5.45
QLSL-Builders LSL		\$1,255.00
1 X 37	WATERGUM DR	
Qty	UKER-RR Assur Fee	\$209.09
1 X 37	WATERGUM DR	
GST		\$20.91
Total Amount:		\$3,197.28
Includes GST of:		\$47.99
Amounts Tendered		
Cheque		\$3,197.28
Total		\$3,197.28
Rounding		\$0.00
Change		\$0.00
Nett		\$3,197.28

Printed 18/03/2010 11:26:56 AM
Cashier: Lallison

621303



Application Lodgement Summary

Sydney
WATER

Reference Number 2804908

Date Requested: Tue March 2 2010

Agent Cooks Castle Hill, 2 Victoria Avenue Castle Hill
Applicant Metricon, Po Box 7510 Norwest Bussiness Baulkham Hills 2153
Property/Asset Lot 103 Watergum Dr, Warriewood 2102 (Kj Wilkinson Jr Wilkinson) PNum: 5333124
Product Building Plan Approval Application

Charge	Product Cost	GST	Total
Building Plan Approval Application Fee	\$25.95	\$0.00	\$25.95

Property Special Conditions

Boundary Trap Required	No
Watercharged/Tidal area	Unknown
Partial Drainage area	No
Aggressive Soil area	No
Cast Iron Pipe area	No
Sewer Surcharge area	Unknown
Minimum Gully Height area	Unknown
Sewer Available	No
Connection Type	Unknown

You must contact Sydney Water's Plumbing Inspection and Assurance Services on Ph: 1300 889 099 to clarify the property special conditions where the property special conditions are not shown (yes or no), are shown as "unset", "unknown" or "not available" or if the proposed development is being built over more than one existing property.

Please note that boundary traps must be fitted for all commercial and industrial properties and you must ensure that all plumbing/drainage and building works are carried out in accordance with the relevant codes and standards.

A water meter is required to be fitted to the property during construction. You will need to ensure that your licensed plumber carries out this work in accordance to the relevant codes and standards.



Application Lodgement Summary

Sydney
WATER

Reference Number

2804909

Date Requested: Tue March 2 2010

Agent

Cooks Castle Hill, 2 Victoria Avenue Castle Hill

Applicant

Meticon, Po Box 7510 Norwest Bussiness Baulkham Hills 2153

Property/Asset

Lot 103 Watergum Dr, Warriewood 2102 (Kj Wilkinson Jr Wilkinson) PNum: 5333124

Product

Plumbing and Drainage Quality Assurance Application

Charge

Product Cost

GST

Total

Plumbing and Drainage Inspection Application Fee

\$170.35

\$0.00

\$170.35

Your application has been sent to **PIAS, Liverpool** for action.

Enquiries can be directed to **1300 889 099**, fax **9616 2650** or DX : **DX2554W**.

The anticipated turnaround time is **365 days**

Property Special Conditions

Boundary Trap Required

No

Watercharged/Tidal area

Unknown

Partial Drainage area

No

Aggressive Soil area

No

Cast Iron Pipe area

No

Sewer Surcharge area

Unknown

Minimum Gully Height area

Unknown

Sewer Available

No

Connection Type

Unknown

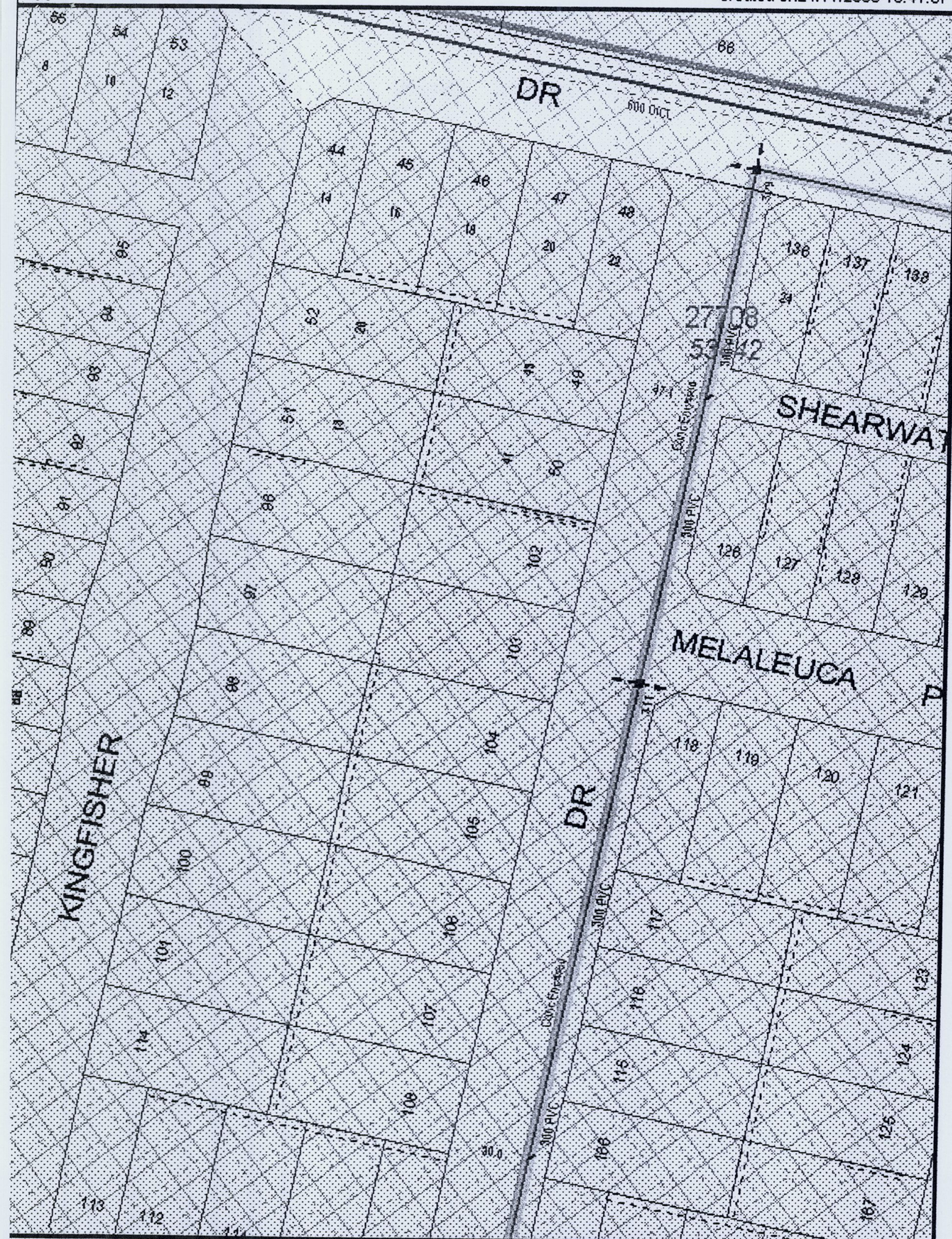
You must contact Sydney Water's Plumbing Inspection and Assurance Services on Ph: 1300 889 099 to clarify the property special conditions where the property special conditions are not shown (yes or no), are shown as "unset", "unknown" or "not available" or if the proposed development is being built over more than one existing property.

Please note that boundary traps must be fitted for all commercial and industrial properties and you must ensure that all plumbing/drainage and building works are carried out in accordance with the relevant codes and standards.

Properties in recycled water areas are required to pay twice the number of inspection fees as additional inspections are required to be carried out on the potable and recycled water services. These fees will generally be charged upon payment of the Plumbing and Drainage Inspection application, or as directed by Sydney Water's Plumbing and Drainage inspector.

You must contact the Sydney Water Plumbing & Drainage Inspector on 1300 889 099 at least 2 working days prior to the inspection time to arrange for inspection of the works.

Re-use of greywater (eg washing machine) or blackwater (eg treated sewage) requires the installation/s to be fully inspected by Sydney Water's Plumbing and Inspection Assurance Services, and a testable backflow prevention device fitted to the water service at the meter installation. The application must be supported by written approval from the local council and also include details of the changes to the house drainage/sanitary plumbing.



DTE Title diagram only indicates availability of a sewer and any sewerage service shown as existing in Sydney Water's records. The existence and extent of Sydney Water's sewers, stormwater channels, pipes, mains and structures should be ascertained by inspection of maps available at any of Sydney Water's Customer Centres. Position of structures, boundaries, sewers and sewerage services shown hereon are approximately only.

LOT: 103
DP: 270385
LGA: PITTWATER

SITE AREA: 450 SQM
BUILDING AREA: 247.7 SQM
SITE COVERAGE: 55 %
PERMEABILITY: 45 %
WIND SPEED: N2 M/S

EXCAVATION NOTES:
SCAPE BUILDING PLATFORM TO RL5.000.
EXCAVATIONS TO START MIN. 1000MM FROM EDGE OF BUILDING AND TO BE BATTERED BACK TO SUIT.
IT IS THE OWNERS RESPONSIBILITY TO PROVIDE A GRATED DRAIN ACROSS GARAGE OPENINGS, IF REQUIRED DUE TO CONSTRUCTION OF DRIVEWAY.

IMPORTANT NOTE:
SITE CUTS ARE SUBJECT TO COUNCIL APPROVAL & NOT TO BE USED BY ANY OTHER CONTRACTORS OTHER THAN METRICON HOMES P/L

STORMWATER TO DRAIN TO STORMWATER PIT IN FOOTPATH
ALL STORMWATER TO RUN VIA RAINWATER TANK AS PER BASIX REQUIREMENTS

TEMPORARY FENCING:
BUILDER TO PROVIDE FENCING TO ANY UNFENCED BOUNDARIES (LOCAL AUTH. BYLAW)

ALL WEATHER ACCESS:
METRICON TO SUPPLY UP TO 5M SUITABLE ALL WEATHER ACCESS TO BUILDING PLATFORM DURING CONSTRUCTION

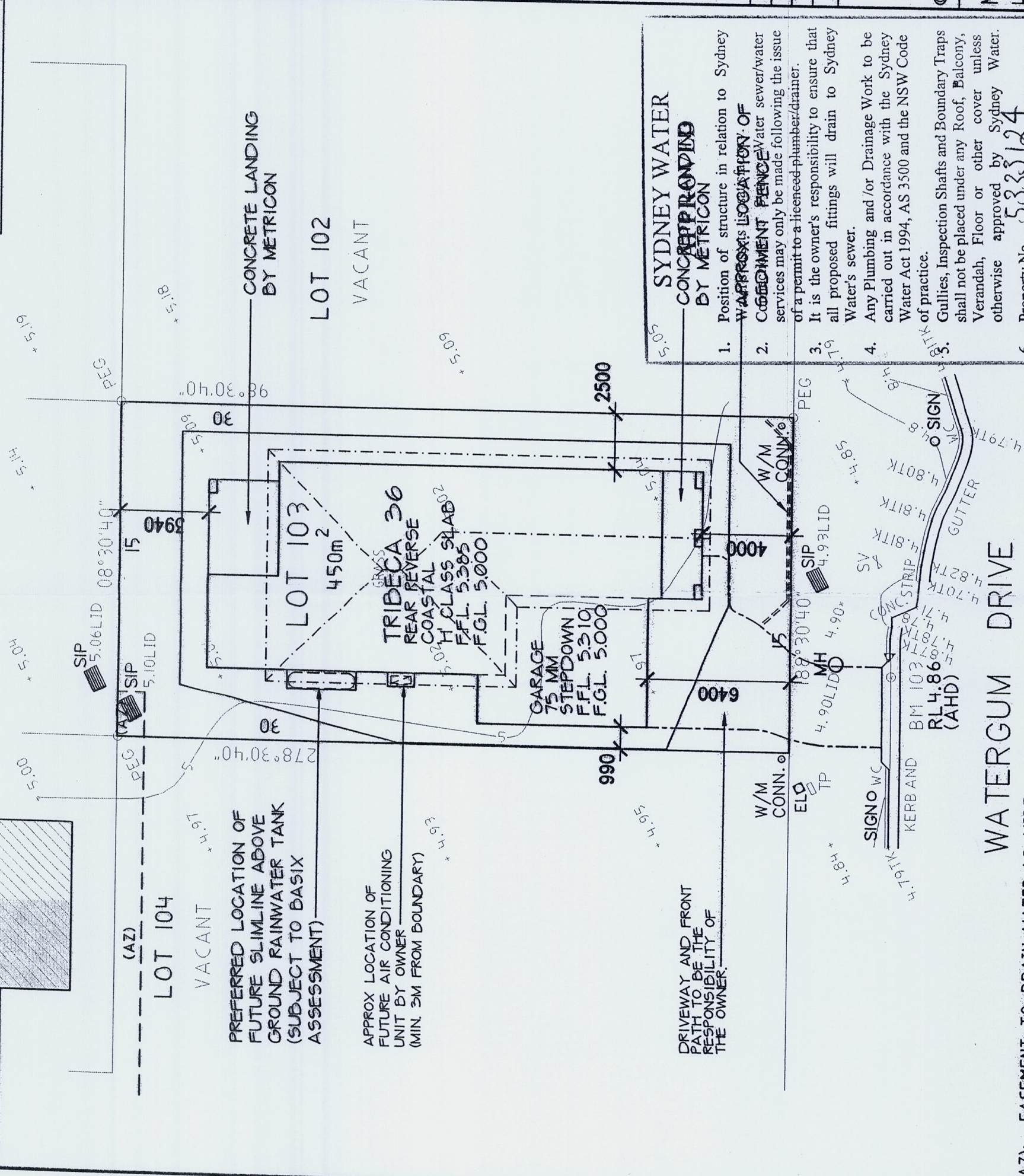
SEWER LINE	GULLY PIT
VEHICLE CROSSING	HYD. HYDRANT
STOP VALVE	SIP SURFACE INLET PIT
DROP EDGE BEAM	SEWER INSPECTION COVER
GAS METER	SEWER MANHOLE
LIGHT POLE	W/M WATER METER
INVERT	E/L ELECTRICITY BOX
TOP OF KERB	SHH STORMWATER MANHOLE
K/O KERB OUTLET	TP TELECOM PIT

ASPECT SURVEY DATE: 25.11.01
CONTOUR INTERVALS: 200MM
LEVELS TO: AHD. DATUM
SITE PLAN

metricon
Bldg. E. Level 4, 32 Lexington Dr. Baulkham Hills NSW 2153
P.O. Box 7510, Norwest Business Park NSW 2153
Telephone 02 8887 9000 Fax 02 8079 3501
© COPYRIGHT 2008 REPRODUCTION FORBIDDEN

MR & MRS WILKINSON
LOT 103 NO.37 WATERGUM DRIVE,
WARRIEWOOD

JOB: 621303
DATE: 06.01.10
SCALE: 1:200
DRAWN: DG
SHEET: 1 OF 10
UDO REF: 37D 136 G11



SYDNEY WATER
CONCRETE APPROVED BY METRICON
1. Position of structure in relation to Sydney Water sewer.
2. Water sewer/water services may only be made following the issue of a permit to a licensed plumber/drafter.
3. It is the owner's responsibility to ensure that all proposed fittings will drain to Sydney Water's sewer.
4. 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.
5. Gullies, Inspection Shafts and Boundary Traps shall not be placed under any Roof, Balcony, Verandah, Floor or other cover unless otherwise approved by Sydney Water.
6. Property No. 5333124

WATERGUM DRIVE
EASEMENT TO DRAIN WATER 1.2 WIDE

ATTENTION IS DIRECTED TO THE MANAGEMENT STATEMENT AND DEVELOPMENT CONTRACT OF THE COMMUNITY SCHEME FILED WITH THE COMMUNITY PLAN

Quick Check Agent on behalf of SYDNEY WATER
Cooks, Castle Hill.
Per: 02/03/10

☒ PRIVATE OPEN SPACE	450 SQM
☐ PRINCIPAL PRIVATE SPACE	82.7 SQM
SITE AREA	450 SQM
PRIVATE OPEN SPACE	82.7 SQM
PRINCIPAL PRIVATE OPEN SPACE	16 SQM
PROPOSED ROOF COVERAGE	237.9 SQM
ROOF COVERAGE AREA	237.9 SQM
PROPOSED SITE COVERAGE	55.0 %
SITE AREA	450 SQM
HOUSE FOOTPRINT	211.4 SQM
ESTIMATED DRIVEWAY & PATHS	36.3 SQM
TOTAL SITE COVERAGE	247.7 SQM
MAXIMUM ALLOWABLE BY COUNCIL	55 %
BUILDING HEIGHT RESTRICTION	MAXIMUM 8.5 M RIDGE HEIGHT (F.F.L. MUST BE ACCURATE TO COMPLY)
MAXIMUM 1000MM CUT	MAXIMUM 1000MM FILL
TERMITE PROTECTION	PROVIDE TERMITE PROTECTION IN ACCORDANCE WITH A.S.3660.1
GENERAL NOTES	A) THIS SURVEY IS SPECIFICALLY FOR CONTOUR PURPOSES ONLY. THE BOUNDARIES OF THE SUBJECT PROPERTY HAVE NOT BEEN INVESTIGATED AND THE POSITION SHOWN IS APPROXIMATE ONLY. B) AREAS AND DIMENSIONS ARE SUBJECT TO SURVEY. C) SERVICES SHOWN HAVE BEEN DERIVED FROM VISUAL EVIDENCE APPARENT AT THE TIME OF SURVEY. THE RELEVANT SERVICE AUTHORITY SHALL BE CONTACTED TO VERIFY THE EXISTENCE AND POSITION OF ALL SERVICES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. D) CONTOURS ARE INDICATIVE OF SURFACE TOPOGRAPHY ONLY. SURVEYED SPOT LEVELS ARE THE ONLY VALUES TO BE RELIED ON FOR REDUCED LEVELS ON PARTICULAR FEATURES.
DRAWINGS AMENDMENTS	
A 20.01.10	CHANGE TO REAR REVERSE
-	-
-	-

SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES INCLUDING VEGETATION AND STABILIZATION SHALL BE IMPLEMENTED TO THE STANDARDS OF THE SOIL CONSERVATION OF NSW AND INSPECTED REGULARLY BY THE SITE MANAGER.

2. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILIZED AS EARLY AS POSSIBLE DURING DEVELOPMENT.

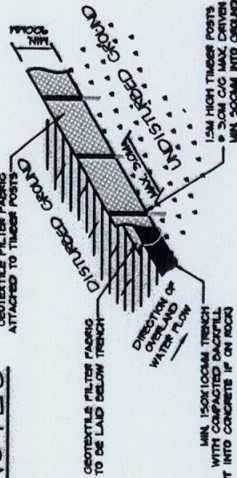
3. SEDIMENT TRAPS SHALL BE CONSTRUCTED AROUND ALL INLET FITS, CONSISTING OF 300MM WIDE X 300MM DEEP TRENCH.

4. ALL SEDIMENT BASINS AND TRAPS SHALL BE CLEANED WHEN THE STRUCTURES ARE A MAXIMUM OF 60% FULL OF SOIL MATERIALS, INCLUDING THE MAINTENANCE PERIOD.

5. SOIL AND TOPSOIL STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREA WHERE WATER MAY CONCENTRATE. ALL ROADS AND FOOTPATHS TO BE SWEEP DAILY.

6. FILTER SHALL BE CONSTRUCTED BY STRETCHING A FILTER FABRIC (PROPEX OR APPROVED EQUIVALENT) BETWEEN POST AT 50M CENTRES. FABRIC SHALL BE BURIED 150MM ALONG ITS LOWER EDGE.

7. DUST PREVENTION MEASURES TO BE MAINTAINED AT ALL TIMES.



SEDIMENT FENCE

NOT TO SCALE

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 CUT AND FILL BATTERS WILL BE DETERMINED ON SITE. SEDIMENT BARRIERS ARE TO BE CUSTOMISED SITE SPECIFIC

(AZ): EASEMENT TO DRAIN WATER 1.2 WIDE

ATTENTION IS DIRECTED TO THE MANAGEMENT STATEMENT AND DEVELOPMENT CONTRACT OF THE COMMUNITY SCHEME FILED WITH THE COMMUNITY PLAN

LOT: 103
DP: 270385
LGA: PITTWATER



MGA

LOT 102
VACANT

LOT 104
VACANT

LOT 103
450m²
TRIBECA 36
REAR REVERSE
COASTAL
H' CLASS SLAB
F.F.L. 5.385
F.G.L. 5.000

GARAGE
75 MM
STEPCDOWN
F.F.L. 5.310
F.G.L. 5.000

MATERIAL STORAGE
AREA
WASTE STORAGE
AREA
SEDIMENT FENCE
AROUND WASTE
MATERIALS

PORTABLE TOILET
ALL WEATHER
ACCESS POSITION

APPROX. LOCATION OF
SEDIMENT FENCE

WATERGUM DRIVE

metricon

Build. E. Level 4, 32 Lexington Dr. Baulkham Hills NSW 2153
P.O. Box 7510, Norwest Business Park NSW 2153
Telephone 02 8887 9000 Fax 02 8079 5901

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MR & MRS WILKINSON
LOT 103 NO.37 WATERGUM DRIVE,
WARRIEWOOD

JOB: 621303

DATE: 10/03/10

SCALE: 1:200

DRAWN: BOMC

SHEET: 1A OF 10

UDO REF: SYD 130 C11

SITE AREA:
450 SQM

BUILDING AREA:
2417 SQM

SITE COVERAGE:
55 %

PERMEABILITY:
45 %

WIND SPEED:
N2 M/S

This information relates to
Construction/Complying Development Certificate

8000581

Issued by Andrew Dean (02) 9836 5711
Building Professionals Board (BFB0087)

WASTE MANAGEMENT
PLAN

EROSION CONTROL
PLAN

CONSTRUCTION PLAN

TEMPORARY FENCING:
BUILDER TO PROVIDE FENCING TO ANY
UNFENCED BOUNDARIES (LOCAL AUTH.
BY-LAW)

ALL WEATHER ACCESS:
METRICON TO SUPPLY UP TO 5M SUITABLE
ALL WEATHER ACCESS TO BUILDING
PLATFORM DURING CONSTRUCTION

ASPECT SURVEY DATE: 25.11.09

CONTOUR INTERVALS: 200MM

LEVELS TO: AHD, DATUM

LEGEND



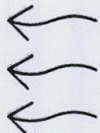
MAIN VIEWS



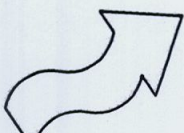
PRIVATE OPEN SPACE



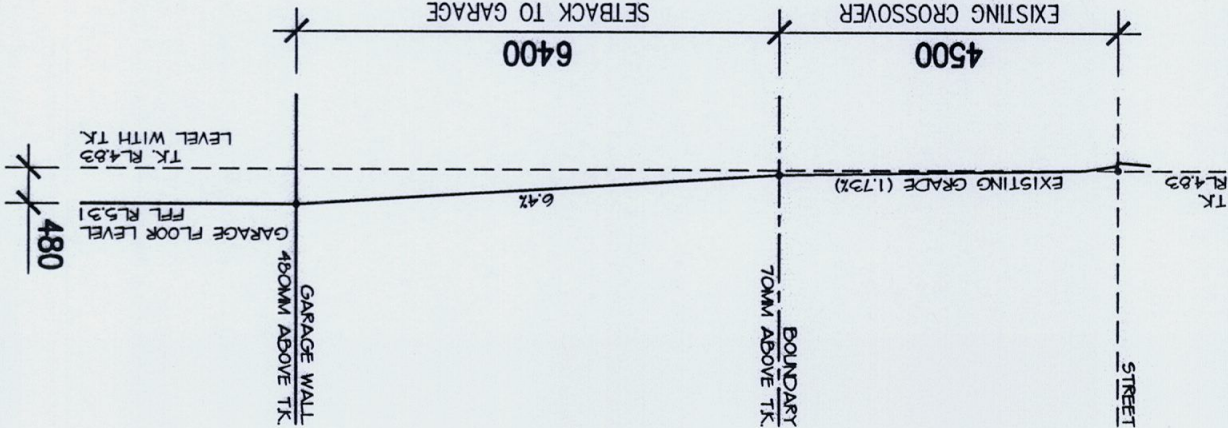
NUMBER OF STOREYS



NOISE SOURCE



PREVAILING WINDS
FROM SOUTH-WEST



DRIVEWAY GRADIENT PROFILE

SCALE-1:100

LOT: 103
DP: 270385
LGA: PITTWATER



LOT 104
VACANT

LOT 102
VACANT

TRIBECA 36
REAR REVERSE
COASTAL
H CLASS SLAB
F.F.L. 5.385
F.G.L. 5.000

GARAGE
75 MM
STEPDOWN
F.F.L. 5.310
F.G.L. 5.000

WATERGUM DRIVE

ATTENTION IS DIRECTED TO THE
MANAGEMENT STATEMENT AND
DEVELOPMENT CONTRACT OF THE
COMMUNITY SCHEME FILED WITH
THE COMMUNITY PLAN

(AZ): EASEMENT TO DRAIN WATER 1.2 WIDE

SITE AREA
450 SQM

BUILDING AREA
2477 SQM

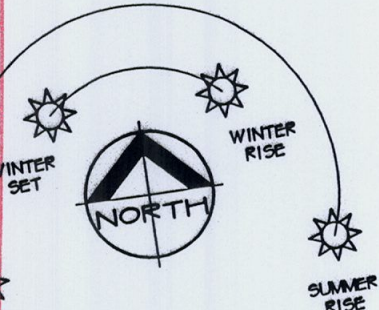
SITE COVERAGE
55 %

PERMEABILITY
45 %

WIND SPEED
12 M/S TO
15 M/S TO
Construction/Complying with relevant Certificate

8000581

Issued by Andrew Dean (02) 9836 5711
Building Professionals Board (BPB0087)



SITE ANALYSIS PLAN

DRIVEWAY PROFILE

TEMPORARY FENCING
BUILDER TO PROVIDE FENCING TO ANY
UNFENCED BOUNDARIES (LOCAL AUTH
BYLAW)

ALL WEATHER ACCESS
METRICON TO SUPPLY UP TO 5M SUITABLE
ALL WEATHER ACCESS TO BUILDING
PLATFORM DURING CONSTRUCTION

ASPECT SURVEY DATE: 25.11.09

CONTOUR INTERVALS: 200MM

LEVELS TO: AHD. DATUM

metricon

Build. E. Level 4, 32 Lexington Dr. Bulkhurst Hills NSW 2153
P.O. Box 7510, Norwest Business Park NSW 2153
Telephone 02 8887 9000 Fax 02 8079 5901

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MR & MRS WILKINSON
LOT 103 NO.37 WATERGUM DRIVE,
WARRIEWOOD

JOB: 621303

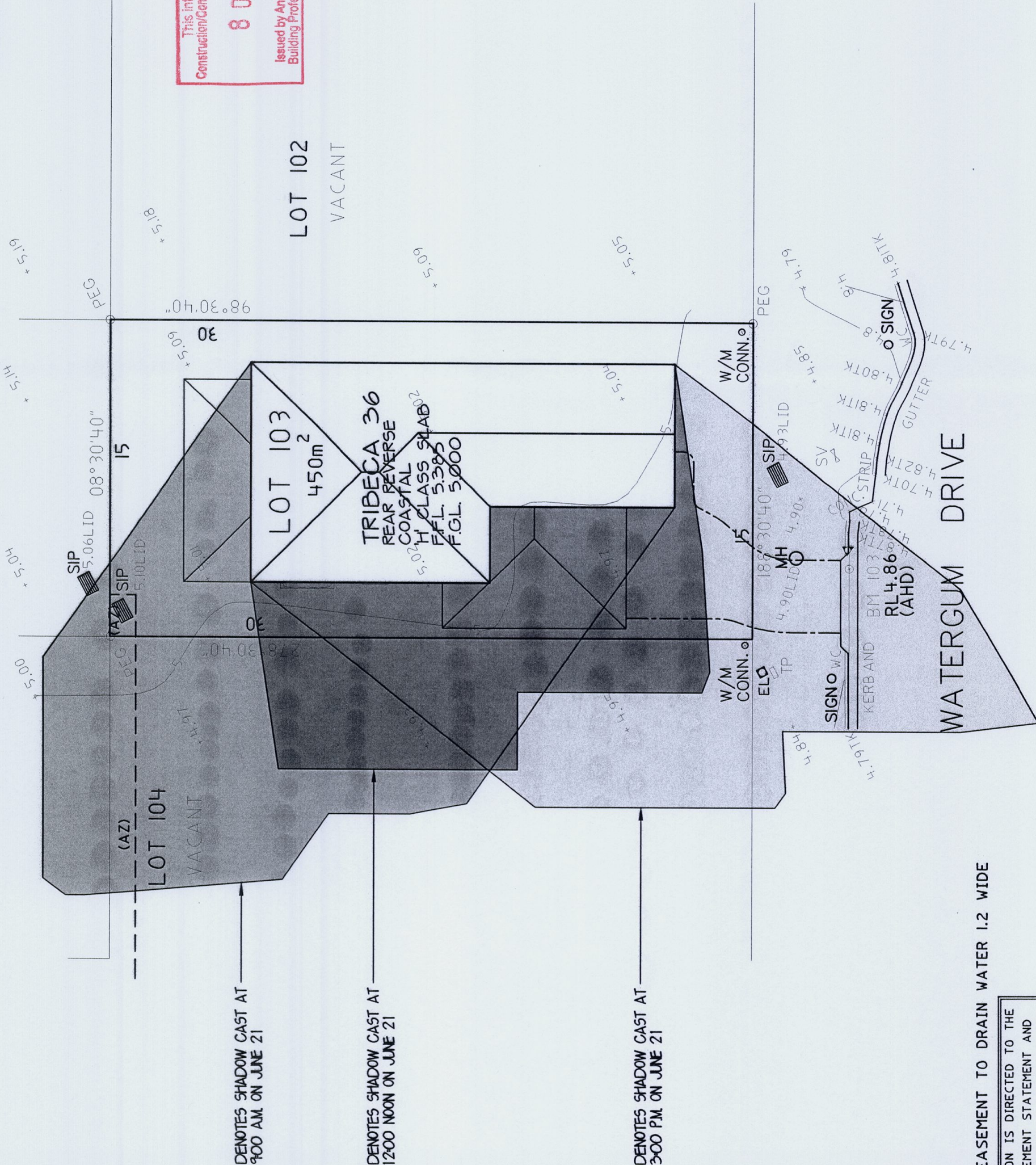
DATE: 10.03.10 DRAWN: BG/MC

SCALE: 1:200 SHEET: 1B OF 10

UBD REF: STD 130 C11

LOT: 103
DP: 270385
LGA: PITTWATER

This information relates to
Construction/Complying Development Certificate
8000581
Issued by Andrew Dean (02) 9838 5711
Building Professionals Board (BPB0087)



DENOTES SHADOW CAST AT
9:00 AM ON JUNE 21

DENOTES SHADOW CAST AT
12:00 NOON ON JUNE 21

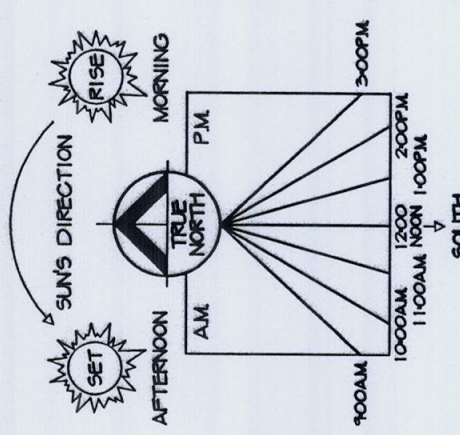
DENOTES SHADOW CAST AT
3:00 PM ON JUNE 21

(AZ): EASEMENT TO DRAIN WATER 1.2 WIDE

ATTENTION IS DIRECTED TO THE
MANAGEMENT STATEMENT AND
DEVELOPMENT CONTRACT OF THE
COMMUNITY SCHEME FILED WITH
THE COMMUNITY PLAN



SITE AREA 450 SQM
BUILDING AREA 2417 SQM
SITE COVERAGE 55 %
PERMEABILITY 45 %
WIND SPEED N2 M/S



NOTE: PICTORIAL REPRESENTATION ONLY, NOT TO
BE USED AS TRUE NORTH POINT FOR THIS JOB

SHADOW LOCATION	TIME OF DAY
	9:00 AM. JUNE 21
	12:00 NOON JUNE 21
	3:00 PM. JUNE 21

JUNE 21		
TIME	SHADOW LENGTH PER METRE HIGH	AZIMUTH DEGREES
9:00 AM	2.91 METRES	18.5 DEG.
10:00 AM	2.05 METRES	26 DEG.
11:00 AM	1.66 METRES	31 DEG.
12:00 NOON	1.56 METRES	32.7 DEG.
1:00 PM	1.66 METRES	31 DEG.
2:00 PM	2.05 METRES	26 DEG.
3:00 PM	2.91 METRES	18.5 DEG.

ASPECT SURVEY DATE: 25.11.09
CONTOUR INTERVALS: 200MM
LEVELS TO: AHD. DATUM

SHADOW DIAGRAM @ JUNE 21

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MR & MRS WILKINSON
LOT 103 NO.37 WATERGUM DRIVE,
WARRIEWOOD

JOB: 621303

DATE: 10/03/10	DRAWN: BGMC
SCALE: 1/200	SHEET: 1C OF 10
UBD REF: STD 136 C11	

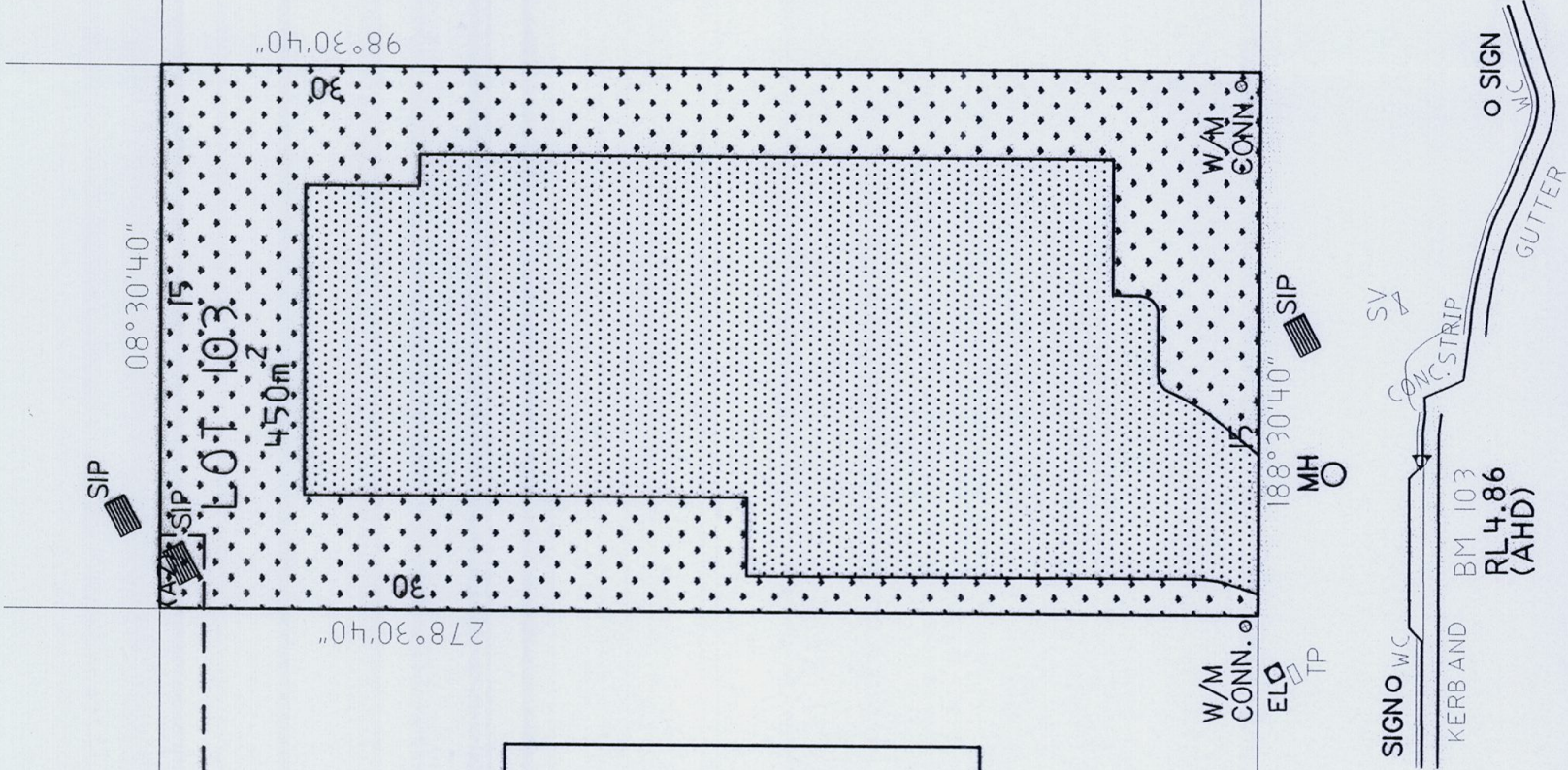
LOT: 103
DP: 270385
LGA: PITTWATER

(AZ)
LOT 104
VACANT

AREA TABLE

SITE AREA	-	450 SQM
HARD SURFACE AREA	-	2417 SQM
HARD SURFACE AREA %	-	55%
LANDSCAPE AREA	-	2023 SQM
LANDSCAPE AREA %	-	45%

LOT 102
VACANT



(AZ): EASEMENT TO DRAIN WATER 1.2 WIDE

ATTENTION IS DIRECTED TO THE
MANAGEMENT STATEMENT AND
DEVELOPMENT CONTRACT OF THE
COMMUNITY SCHEME FILED WITH
THE COMMUNITY PLAN

	SITE AREA 450 SQM
	BUILDING AREA 2417 SQM
	SITE COVERAGE 55 %
	PERMEABILITY 45 %
	WIND SPEED NZ M/S
MGA	

This information relates to
Construction/Complying Development Certificate

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Building Professionals Board (BPB0087)

HARD SURFACE/
LANDSCAPE AREA PLAN

ASPECT SURVEY DATE: 25.11.04
CONTOUR INTERVALS: 200MM
LEVELS TO: AHD, DATUM

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MR & MRS WILKINSON
LOT 103 NO.37 WATERGUM DRIVE,
WARRIEWOOD

JOB: 621303

DATE: 10.03.10	DRAWN: BGMC
SCALE: 1:200	SHEET: 10 OF 10
USD REF: 510 130 C11	

LOT: 103
DP: 270385
LGA: PITTWATER

SITE AREA: 450 SQM
BUILDING AREA: 2417 SQM
SITE COVERAGE: 55 %
PERMEABILITY: 45 %
WIND SPEED: N2 M/S

This information relates to
Construction/Complying Development Certificate

8 0 0 0 5 8 1

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Building Professionals Board (BPP0087)

Thermal Comfort Commitments				
Simulation Method				
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.				
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.				
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.				
The applicant must show on the plans accompanying the development application for the proposed development all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.				
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.				
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.				
Show on DA plans	Show on CC/DDC plans & specs	Certifier check		

Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments		Show on CC/DDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 3 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 3 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 3 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 1600 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 237.9 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to:			
• all toilets in the development		✓	✓
• the cold water tap that supplies each clothes washer in the development		✓	✓
• at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.)		✓	✓

Energy Commitments		Show on DA plans	Show on CC/DDC plans & specs	Certifier check
Hot water				
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 3 stars.				
	✓	✓	✓	✓
Cooling system				
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: air conditioning ducting only. Energy rating: n/a				
			✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: air conditioning ducting only. Energy rating: n/a				
			✓	✓
Heating system				
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: aircond heating ducting only. Energy rating: n/a				
			✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: air conditioning ducting only. Energy rating: n/a				
			✓	✓
Ventilation				
The applicant must install the following exhaust systems in the development:				
At least 1 Bathroom: individual fan, ducted to facade or roof. Operation control: manual switch on/off				
			✓	✓
Kitchen: individual fan, ducted to facade or roof. Operation control: manual switch on/off				
			✓	✓
Laundry: natural ventilation only, or no laundry. Operation control: n/a				
			✓	✓
Natural lighting				
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.				
✓	✓	✓	✓	✓
The applicant must install a window and/or skylight in 3 bathroom(s)/toilet(s) in the development for natural lighting.				
✓	✓	✓	✓	✓
Other				
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.				
			✓	✓
The applicant must install a fixed outdoor clothes drying line as part of the development.				
			✓	✓

ASPECT SURVEY DATE: 25.11.09
CONTOUR INTERVALS: 200MM
LEVELS TO: AHD: DATUM

BASIX COMMITMENTS

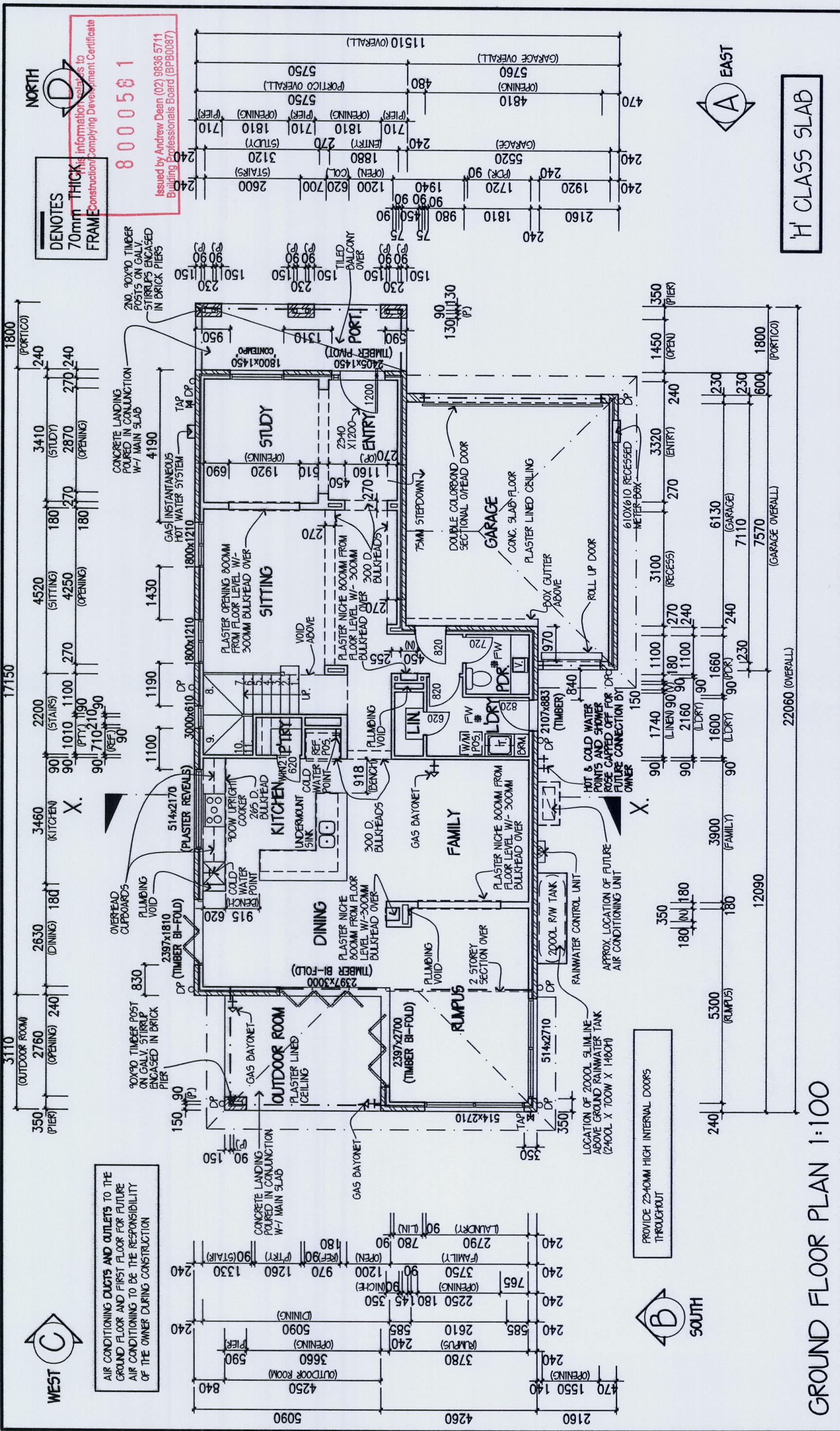
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MR & MRS WILKINSON
LOT 103 NO.37 WATERGUM DRIVE,
WARRIEWOOD

JOB: 621303

DATE: 10/03/10	DRAWN: BG/MC
SCALE: -	SHEET: 1F OF 10
LDD REF: SYD 130 C11	



OWNER: MR & MRS WILKINSON
LOT 103 NO.37 WATERGUM DRIVE
WARRIEWOOD

JOB NO: 621303
DATE: 24.01.10

F.C. DATE:
MST VER: P 17 JUL 2007

PERMIT NO:
DRAWN: CAD/CRAFT
CHECKED: SA

SHEET: 2 of 10

DESIGNER
collection

metricon

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DESIGN: TRIECA 36-REAR REVERSE

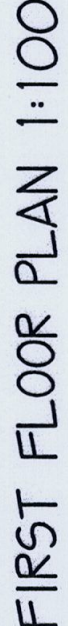
FACADE: COASTAL
GARAGE: DOUBLE
CEILING: 25, R
LOCATION: F

FLOOR PLAN

VARIATIONS(V), RE-PREPS(R), AMENDMENTS(A):		AREAS:	
No:	Date:	Drawn/Checked/Comment:	GRD FLR:
V01	15.02.10	SA YD CONTRACT VARIATION 1	146.55 SQM
V0X	--/--/--	XX XX COM	134.05 SQM
V0X	--/--/--	XX XX COM	10.35 SQM
V0X	--/--/--	XX XX COM	13.21 SQM
V0X	--/--/--	XX XX COM	9.37 SQM
V0X	--/--/--	XX XX COM	354.71 SQM
V0X	--/--/--	XX XX COM	36.2 SQM
SUBTOTAL:		202.60 SQM	30.41 SQM
TOTAL:		202.60 SQM	30.41 SQM

NOTES:
WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE. FLOOR PLAN DIMENSIONS ARE TO FRAME SIZE ONLY.
WINDOW SIZES SHOWN ARE SUPPLIERS FRAME SIZES.
ALL GLAZING TO COMPLY WITH A.S. 1288-2006 GLASS IN BUILDINGS, & WITH A.S. 4055-1992 FOR WINDLOADING.
WINDOW SUPPLIER TO PROVIDE COVER BOARDS TO ALL CORNER WINDOWS U.N.O.
GARAGE ROOF TO BE TIED DOWN MIN. 1200 INTO BRICKWORK WITH HOOP IRON STRAPS.
ALL WATER CLOSET DOORS TO BE REMOVABLE IN ACCORDANCE WITH B.C.A.3.8.3.

GROUND FLOOR PLAN 1:100



* NOTES: WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE. FLOOR PLAN DIMENSIONS ARE TO FRAME SIZE ONLY. * WINDOW SIZES SHOWN ARE SUPPLIERS FRAME SIZES. * ALL GLAZING TO COMPLY WITH A.S. 1288-2006 GLASS IN BUILDINGS, & WITH A.S. 4055-1992 FOR WINDLOADING. * WINDOW SUPPLIER TO PROVIDE COVER BOARDS TO ALL CORNER WINDOWS U.N.O. * GARAGE ROOF TO BE TIED DOWN MIN. 1200 INTO BRICKWORK WITH HOOP IRON STRAPS. * ALL WATER CLOSET DOORS TO BE REMOVABLE IN ACCORDANCE WITH B.C.A.3.8.3.	DESIGNER				OWNER: MR & MRS WILKINSON	
	collection				LOT 103 NO.37 WATERGUM DRIVE	
	metricon				WARRIEWOOD	
	Build: E, Level 4, 32 Lexington Dr, Baulkham Hills NSW 2153				JOB NO: 621303 DATE: 24.01.10	
	P.O. Box 7510, Norwest Business Park NSW 2153				F.C.DATE: MST VER: P 17 JUL 2007	
Telephone 02 8887 9000 Fax 02 8079 5901				PERMIT No:		
Contractor Licence No. 174699 A.C.N. 005 108 752				DRAWN: CADORRAFT		
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SHEET: 3 of 10						

DESIGN: TRIBECA 36-REAR REVERSE	CEILING: 25. R	
FACADE: COASTAL	LOCATION: F	
GARAGE: DOUBLE		
FLOOR PLAN		
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VARIATIONS(V), RE--PREPS(R), AMENDMENTS(A):	
No:	Date:
VOX	--/--/--
VOX	--/--/--
VOX	--/--/--
VOX	--/--/--
VOX	--/--/--
VOX	--/--/--

VARIATIONS(V), RE--PREPS(R), AMENDMENTS(A):	
No:	Date:
VOX	--/--/--
VOX	--/--/--
VOX	--/--/--
VOX	--/--/--
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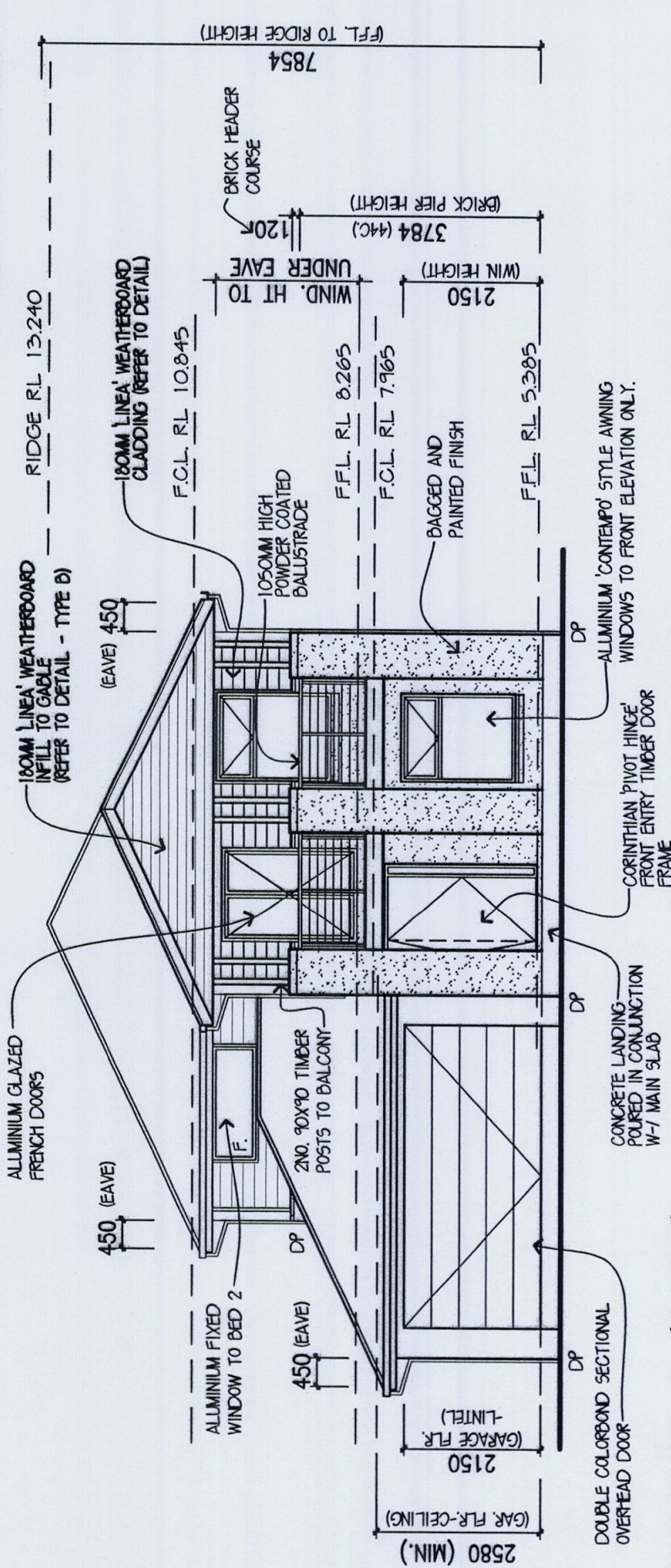
VARIATIONS(V), RE--PREPS(R), AMENDMENTS(A):	
No:	Date:
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VOX	--/--/--
VOX	--/--/--
VOX	--/--/--
VOX	--/--/--
VOX	--/--/--

VARIATIONS(V), RE--PREPS(R), AMENDMENTS(A):	
No:	Date:
VOX	--/--/--
VOX	--/--/--
VOX	--/--/--
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VOX	--/--/--

IMPORTANT NOTE:
REFER TO FACADE DETAIL
REF. NO. 5-TYP-COAS-05

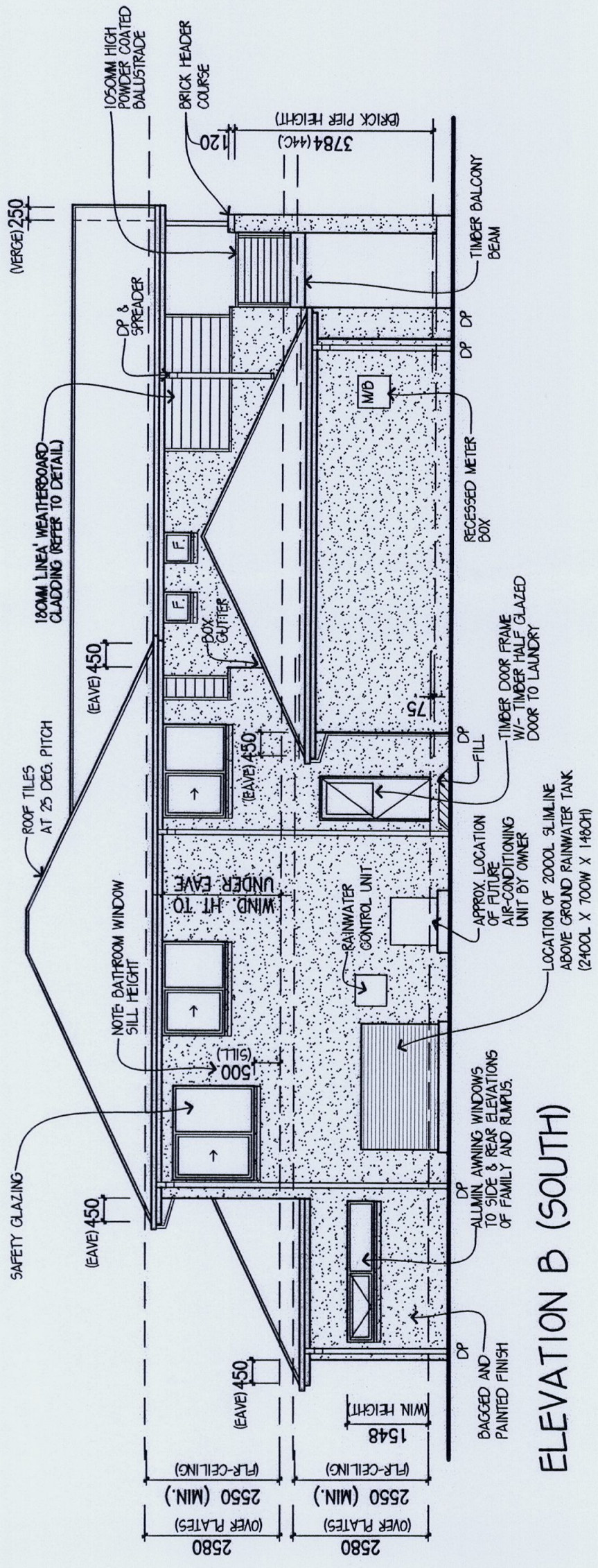
IMPORTANT NOTE:
REFER TO ENGINEERS PLANS FOR
ARTICULATION JOINT LOCATIONS

NOTES:
* WINDOW SUPPLIER TO SUPPLY COVER BOARDS
TO ALL CORNER WINDOWS U.N.O.
* ALL GLAZING TO COMPLY WITH A.S. 1288 -
2006 GLASS IN BUILDINGS, & WITH A.S. 4055
- 1992 FOR WINDLOADING.
* WINDOW HEAD HEIGHT DIMENSIONS TO BE
TAKEN TO THE NEAREST CORRESPONDING
BRICK COURSE.



ELEVATION A (EAST)

'H' CLASS SLAB



ELEVATION B (SOUTH)

ELEVATIONS 1:100

DESIGN: TRIBECA 36-REAR REVERSE	CEILING: 23, R
FACADE: COASTAL	LOCATION: F
GARAGE: DOUBLE	
ELEVATIONS	
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OWNER: MR & MRS WILKINSON LOT 103 NO37 WATERCUM DRIVE WARRIEWOOD	
JOB NO: 621303	DATE: 24.01.10
F.C. DATE:	MST VER: P 17 JUL 2007
PERMIT No:	
DRAWN: CADDRAFT	CHKD: SA SHEET: 4 of 10

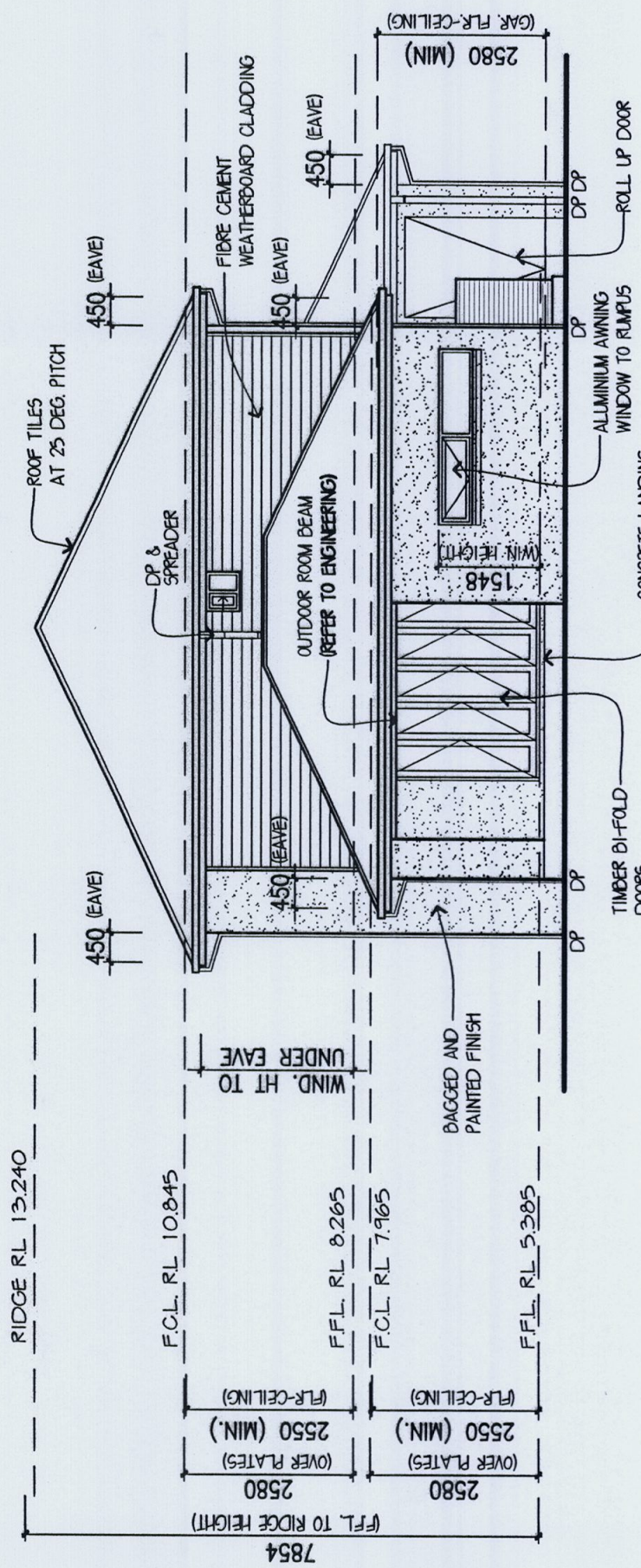
IMPORTANT NOTE:
REFER TO ENGINEERS PLANS FOR
ARTICULATION JOINT LOCATIONS

NOTES:
* WINDOW SUPPLIER TO SUPPLY COVER BOARDS
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2006 GLASS IN BUILDINGS, & WITH A.S. 4055
- 1992 FOR WINDLOADING.
* WINDOW HEAD HEIGHT DIMENSIONS TO BE
TAKEN TO THE NEAREST CORRESPONDING
BRICK COURSE.

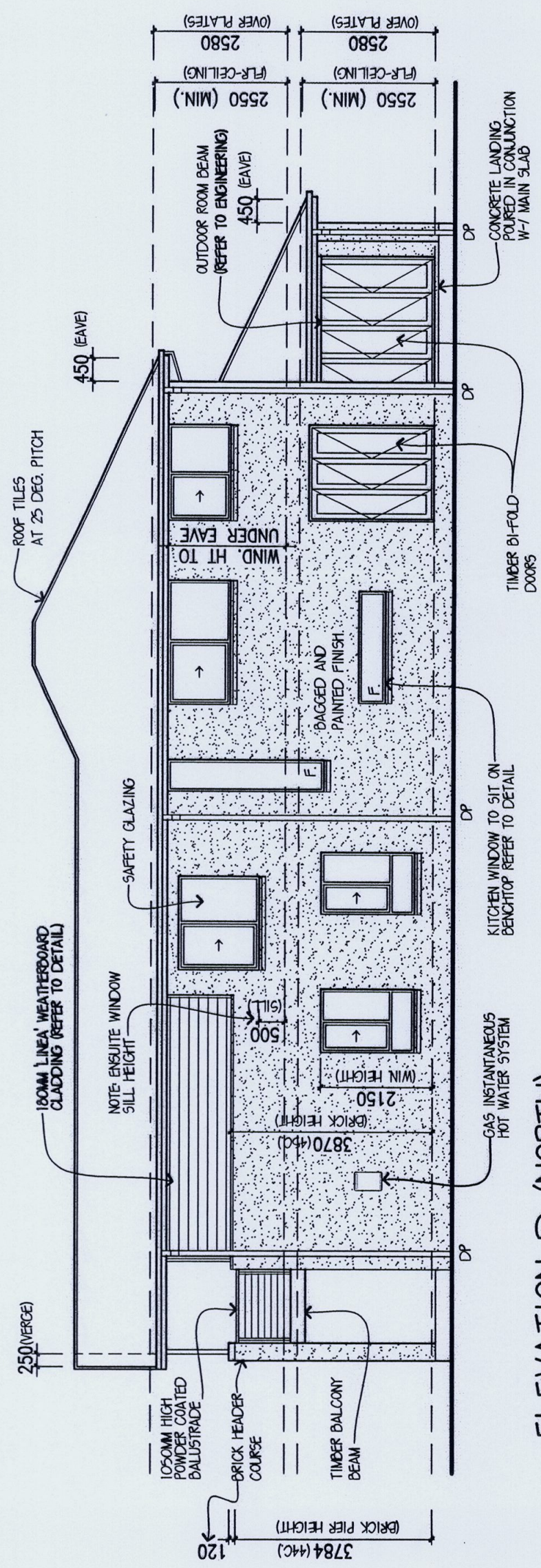
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Building Professionals Board (BPB0087)



'H' CLASS SLAB
ELEVATION C (WEST)



ELEVATION D (NORTH)

ELEVATIONS 1:100

DESIGN: **TRIBECA 36-REAR REVERSE**
FACADE: **COASTAL** CEILING: **23, R**
GARAGE: **DOUBLE** LOCATION: **F**

ELEVATIONS

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OWNER: **MR & MRS WILKINSON**
LOT 103 NO.37 WATERGUM DRIVE
WARRIEWOOD

JOB NO: **621303** DATE: **24.01.10**

F.C.DATE: **17 JUL 2007** MST VER: **P**

PERMIT No:
DRAWN: **CAD/CRAFT** CHKD: **SA** SHEET: **5** of **10**

GENERAL NOTES:
* ALL STEPS & STAIRS TO HAVE A 240mm MIN. & 355mm MAX. TREAD WIDTH, 115mm MIN. & 190mm MAX. RISER HEIGHT & MUST COMPLY WITH B.C.A. 3.9.1.
* BALUSTRADE IN ACCORDANCE WITH B.C.A. 3.9.2. TO BE INSTALLED WHERE INTERNAL & EXTERNAL LANDINGS EXCEED 1000mm ABOVE FINISHED GROUND LEVEL.
* PROVIDE CAVITY FLASHING & WEEP HOLES ABOVE LOWER STOREY OPENINGS.
* WATERPROOFING OF WET AREAS TO COMPLY WITH A.S. 3740 &/OR B.C.A. 3.8.1.0

This information relates to
Construction/Complying Development Certificate

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Building Professionals Board (BPB0057)

* ALL STRUCTURAL TIMBER FRAMING SIZES TO BE IN ACCORDANCE WITH A.S. 1684 – 2006
NATIONAL TIMBER FRAMING CODE & OR ENGINEERS STRUCTURAL COMPUTATIONS.

DESIGN: **TRIBECA 36-REAR REVERSE**
FACADE: **COASTAL** CEILING: **23, R**

SECTION

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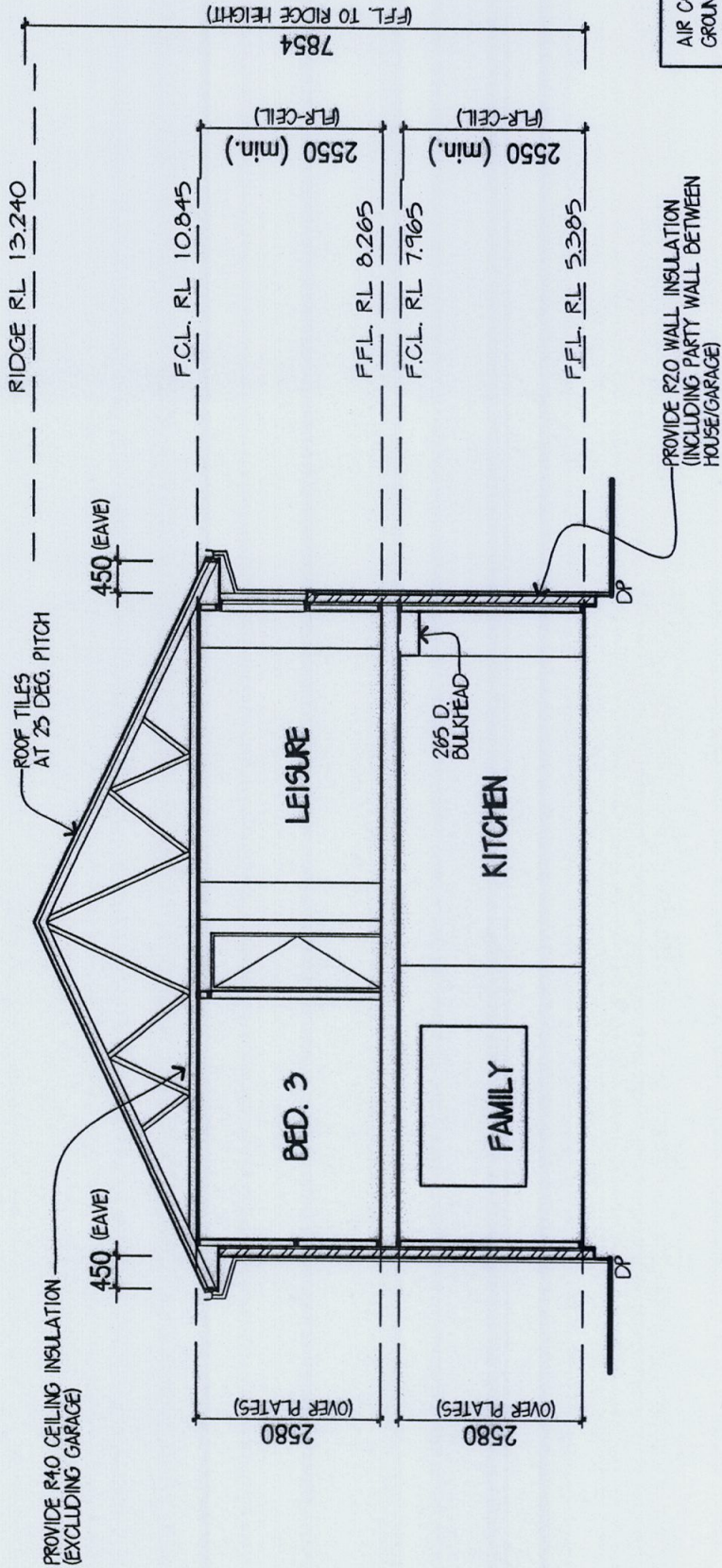
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LOT 103 NO.37 WATERGUM DRIVE
WARRIEWOOD

JOB NO: **621303** DATE: **24.01.10**

F.C.DATE: MST VER: **P 17 JUL 2007**

PERMIT No: DRAWN: **CADOCRAFT** CHKED: **SA** SHEET: **6** of **10**



AIR CONDITIONING DUCTS AND OUTLETS TO THE GROUND FLOOR AND FIRST FLOOR FOR FUTURE AIR CONDITIONING TO BE THE RESPONSIBILITY OF THE OWNER DURING CONSTRUCTION

PROVIDE 2340MM HIGH INTERNAL DOORS THROUGHOUT

'H' CLASS SLAB

NOTE: REFER ENGINEER'S FOOTING DESIGN.

SECTION X-X

PROVIDE THE FOLLOWING BASIX REQUIREMENTS:

- 3 STAR RATED SHOWER HEADS.
- 3 STAR RATED TAP FITTINGS TO BASINS AND KITCHEN TAPS
- 3 STAR TOILET FLUSHING SYSTEM
- R40 CEILING INSULATION
- R20 EXTERNAL WALL INSULATION
- KITCHEN RANGEHOOD DUCTED DIRECTLY THROUGH EXTERNAL WALL

AIR CONDITIONING

COOLING SYSTEM:

- TO AT LEAST ONE LIVING AREA AND ONE BEDROOM. AIR CONDITIONING DUCTING ONLY

HEATING SYSTEM:

- TO AT LEAST ONE LIVING AREA AND ONE BEDROOM. AIR CONDITIONING DUCTING ONLY

HOT WATER SYSTEM:

- GAS INSTANTANEOUS, WITH PERFORMANCE OF 5 STARS

COOKING:

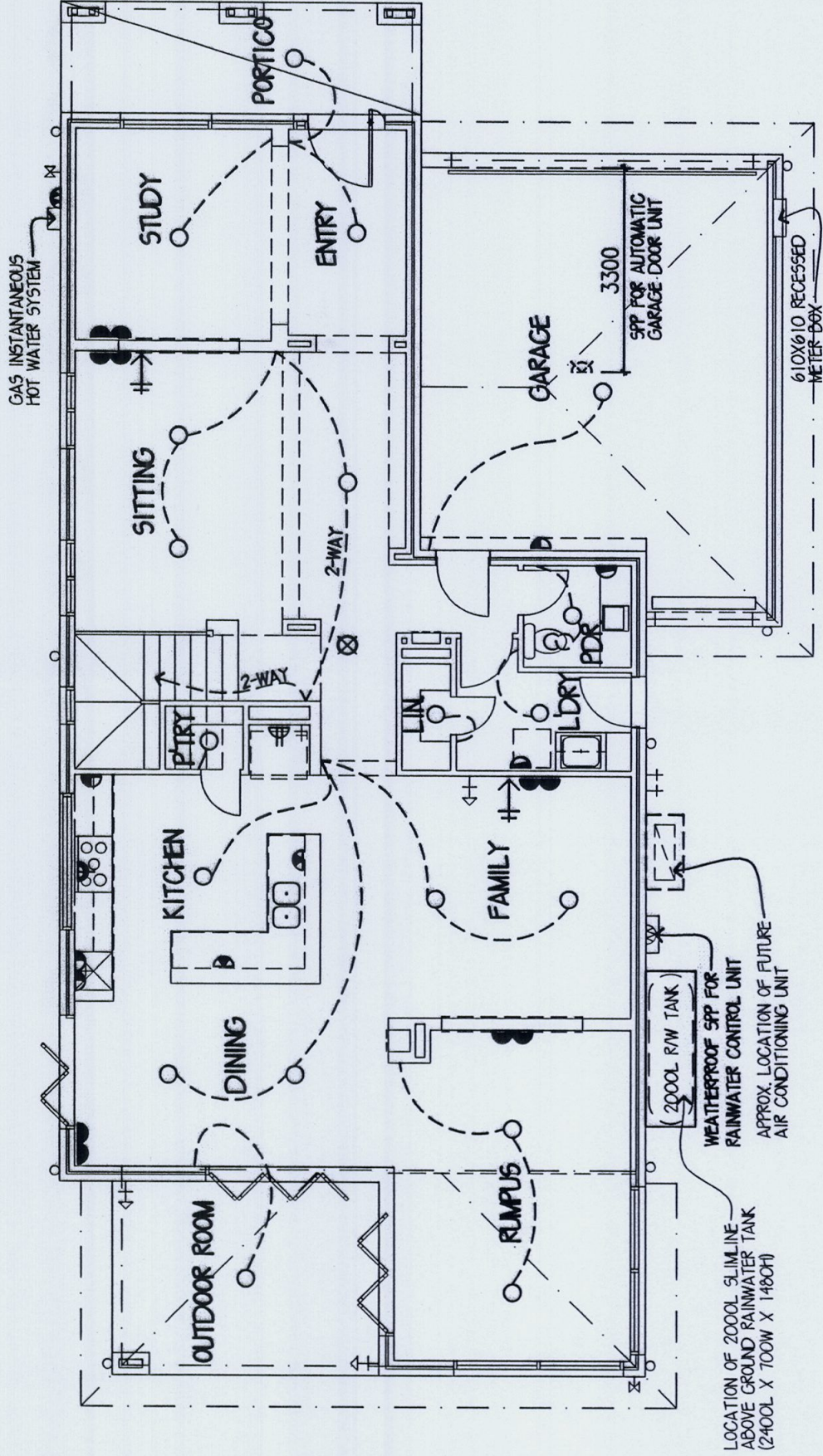
- GAS COOKTOP WITH ELECTRIC OVEN

MEDIUM EXTERNAL WALL COLOUR
DARK EXTERNAL ROOF COLOUR

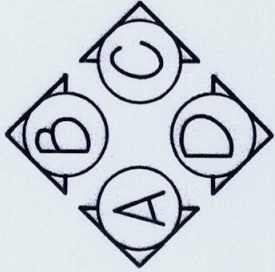
RAINWATER TANK MUST CONNECT TO ALL TOILETS IN THE DEVELOPMENT. WATER TAP THAT SUPPLIES WASHING MACHINE AND ONE GARDEN TAP.

OWNER TO PROVIDE THE FOLLOWING BASIX REQUIREMENTS:

- WEATHER SEALS/STRIPS TO EXTERNAL HINGED DOORS
- EXTERNAL CLOTHES DRYING LINE



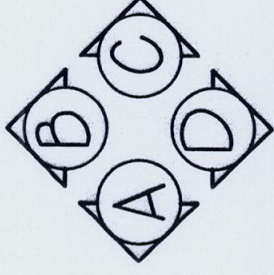
This information relates to
Construction/Complying Development Certificate
8000581
Issued by Andrew Dean (02) 9836 5711
Building Professionals Board (BPB0087)



GROUND FLOOR ELECTRICAL PLAN 1:100

- LEGEND:
- SINGLE POWER POINT @ 200MM.
 - DOUBLE POWER POINT @ 200MM.
 - RECESSED DOUBLE POWER POINT @ 1200MM.
 - SINGLE P.POINT @ 650MM FOR COOKTOP ELECTRONIC IGNITION
 - SINGLE POWER POINT @ 750MM.
 - DOUBLE POWER POINT @ 750MM.
 - SINGLE POWER POINT @ 1050MM.
 - DOUBLE POWER POINT @ 1050MM.
 - DOUBLE POWER POINT @ 1400MM.
 - SINGLE POWER POINT @ 1650MM.
 - SINGLE POWER POINT @ 2000MM.
 - DOUBLE POWER POINT @ 2000MM.
 - SGL WEATHER PROOF P.POINT @ 1050MM.
 - DOUBLE WEATHER PROOF P.POINT @ 1050MM.
 - SGL P.POINT @ 600MM ON SEP. CIRCUIT.
 - DOUBLE P.POINT @ 600MM ON SEP. CIRCUIT.
 - SGL P.POINT TO CEIL-REMOTE CONT. UNIT
 - SGL POWER POINT HARD WIRED.
 - ISOLATING SWITCH FOR ELECTRIC COOKTOP @ 1050MM
 - ISOLATING SWITCH FOR ELECTRIC OVEN @ 1050MM
 - WEATHER PROTECTED LIGHT SWITCH
 - LIGHT OUTLET & SNG. P.POINT TO ROOF
 - CEILING LIGHT OUTLET.
 - WALL LIGHT @ 1750MM.
 - PARAFLOOD LIGHT @ 2150MM.
 - LOW VOLTAGE DOWNLIGHT.
 - 100mm RECESSED DOWNLIGHT
 - EXHAUST FAN. TO COMPLY WITH A.S.378.2. & INSTALLED AS PER B.C.A. 3.8.5. &
 - IXL TASTIC LIGHT/FAN/HEATER COMBINATION.
 - APPROX. POSITION INSTALLED AS PER SMOKE DETECTOR. B.C.A. 3.7.2. & TO COMPLY WITH A.S.3786.
 - RECESSED WALL LIGHT @ 300MM.
 - SGL P.POINT TO CEIL-REMOTE CONT. UNIT
 - SGL POWER POINT HARD WIRED.
 - ISOLATING SWITCH FOR ELECTRIC COOKTOP @ 1050MM
 - ISOLATING SWITCH FOR ELECTRIC OVEN @ 1050MM
 - WEATHER PROTECTED LIGHT SWITCH
 - LIGHT OUTLET & SNG. P.POINT TO ROOF
 - CEILING LIGHT OUTLET.
 - WALL LIGHT @ 1750MM.
 - PARAFLOOD LIGHT @ 2150MM.
 - LOW VOLTAGE DOWNLIGHT.
 - 100mm RECESSED DOWNLIGHT
 - EXHAUST FAN. TO COMPLY WITH A.S.378.2. & INSTALLED AS PER B.C.A. 3.8.5. &
 - IXL TASTIC LIGHT/FAN/HEATER COMBINATION.
 - APPROX. POSITION INSTALLED AS PER SMOKE DETECTOR. B.C.A. 3.7.2. & TO COMPLY WITH A.S.3786.
 - RECESSED WALL LIGHT @ 300MM.
 - METER BOX.
 - H.W.U. POSITION.
 - T.V. POINTS.
 - RECESSED T.V. POINTS. @ 1200 HIGH
 - TELEPHONE POINTS.
 - JUNCTION BOX.
 - PENDANT LIGHT.
 - CEILING FAN
 - FLOOR TILING

DESIGN: TRIBECA 36-REAR REVERSE	DESIGNER	OWNER: MR & MRS WILKINSON
FACADE: COASTAL	collection	LOT 103 NO.37 WATERGUM DRIVE
GARAGE: DOUBLE		WARRIEWOOD
ELECTRICAL PLAN		JOB NO: 6213003 DATE: 24.01.10
		F.C.DATE: MST VER: P 17 JUL 2007
		PERMIT No:
		DRAWN: CAD/CRAFT CHKED: SA SHEET: 7 of 10
METRICON HOMES OWNS COPYRIGHT IN THIS DRAWING. UNAUTHORISED USE, REPRODUCTION OR ADAPTION IS FORBIDDEN AND WILL BE PROSECUTED.		Build E, Level 4, 32 Lexington Dr, Baulkham Hills NSW 2153 P.O. Box 7510, Norwest Business Park NSW 2153 Telephone 02 8887 9000 Fax 02 8079 5901 Contractor Licence No. 174699 A.C.N. 005 108 752 © COPYRIGHT 2008 REPRODUCTION FORBIDDEN



185008

Issued by Andrew Dean (02) 9836 5711
Building Professionals Board (BPB0087)

DESIGN: TRIBECA 36-REAR REVERSE	OWNER: MR & MRS WILKINSON	
FACADE: COASTAL	CEILING: 25, R	LOT 103 NO.37 WATERGUM DRIVE
GARAGE: DOUBLE	LOCATION: F	WARRIEWOOD
ELECTRICAL PLAN		JOB NO: 621303 DATE: 24.01.10
METRICON HOMES OWNS COPYRIGHT IN THIS DRAWING. UNAUTHORISED USE, REPRODUCTION OR ADAPTION IS FORBIDDEN AND WILL BE PROSECUTED.		F.C.DATE:
		PERMIT No:
		DRAWN: CADRAFT CHECKED: SA SHEET: 3 of 10

- | | | | | | |
|---|---|---|---|---|-----------------------------------|
|  | SINGLE POWER POINT @ 200MM. |  | SGL P.POINT TO CEIL-REMOTE CONT. UNIT |  | METER BOX. |
|  | DOUBLE POWER POINT @ 200MM. |  | SGL POWER POINT HARD WIRED. |  | H.W.U. POSITION. |
|  | RECESSED DOUBLE POWER POINT @ 1200MM. |  | ISOLATING SWITCH FOR ELECTRIC COOKTOP @ 1050MM |  | T.V. POINTS. |
|  | SINGLE P.POINT @ 650MM FOR COOKTOP |  | ISOLATING SWITCH FOR ELECTRIC OVEN @ 1050MM |  | RECESSED T.V. POINTS. @ 1200 HIGH |
|  | SINGLE POWER POINT @ 750MM. |  | WEATHER PROTECTED LIGHT SWITCH |  | TELEPHONE POINTS. |
|  | DOUBLE POWER POINT @ 750MM. |  | LIGHT OUTLET & SNG. P.POINT TO ROOF |  | JUNCTION BOX. |
|  | SINGLE POWER POINT @ 1050MM. |  | CEILING LIGHT OUTLET. |  | PENDANT LIGHT. |
|  | DOUBLE POWER POINT @ 1050MM. |  | WALL LIGHT @ 1750MM. |  | CEILING FAN |
|  | DOUBLE POWER POINT @ 1400MM. |  | PARAFLOOD LIGHT @ 2150MM. |  | FLOOR TILING |
|  | SINGLE POWER POINT @ 1650MM. |  | LOW VOLTAGE DOWNLIGHT. | | |
|  | SINGLE POWER POINT @ 2000MM. |  | 100mm RECESSED DOWNLIGHT | | |
|  | DOUBLE POWER POINT @ 2000MM. |  | EXHAUST FAN. TO COMPLY WITH A.S.1668.2 | | |
|  | SGL WEATHER PROOF P.POINT @ 1050MM. |  | IXL TASTIC LIGHT/FAN/HEATER COMBINATION. | | |
|  | DOUBLE WEATHER PROOF P.POINT @ 1050MM. |  | SMOKE DETECTOR. B.C.A. 37.2. & TO COMPLY WITH A.S.3786. | | |
|  | SGL P.POINT @ 600MM ON SEP. CIRCUIT. |  | RECESSED WALL LIGHT @ 300MM. | | |
|  | DOUBLE P.POINT @ 600MM ON SEP. CIRCUIT. | | | | |

NOTES:
* TILE & CUPBOARD DIMENSIONS ARE APPROXIMATE ONLY & MAY BE ALTERED TO SUIT MODULAR SIZES.
* INTERNAL DIMENSIONS INDICATED ARE TAKEN FROM PLASTER.

This information relates to
Construction/Complying Development Certificate
8000581
Issued by Andrew Dean (C29836 5711)
Building Professionals Board (BFB0087)

DESIGN: **TRIBECA 36-REAR REVERSE**
CEILING: **25, R**

INTERNAL ELEVATIONS

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DESIGNER
collection

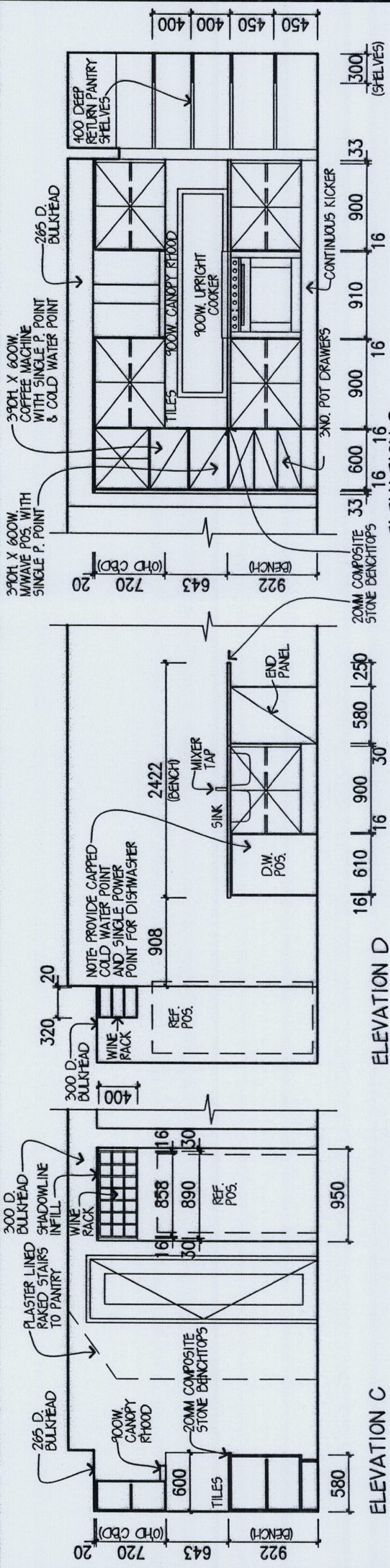
metricon
Build: E, Level 4, 32 Lexington Dr, Baulkham Hills NSW 2153
P.O. Box 7510, Norwest Business Park NSW 2153
Telephone 02 8887 9000 Fax 02 8079 5901
Contractor Licence No. 174699 A.C.N. 005 108 752
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OWNER: **MR & MRS WILKINSON**
LOT 103 NO.37 WATERGUM DRIVE
WARRIEWOOD

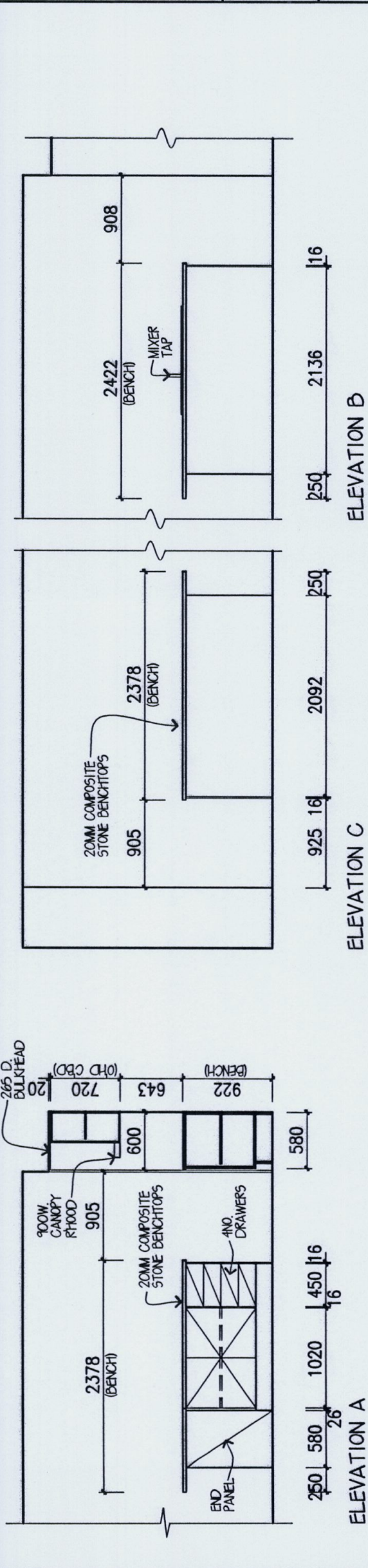
JOB NO: **621303** DATE: **24.01.10**

F.C.DATE: MST VER: **P 17 JUL 2007**

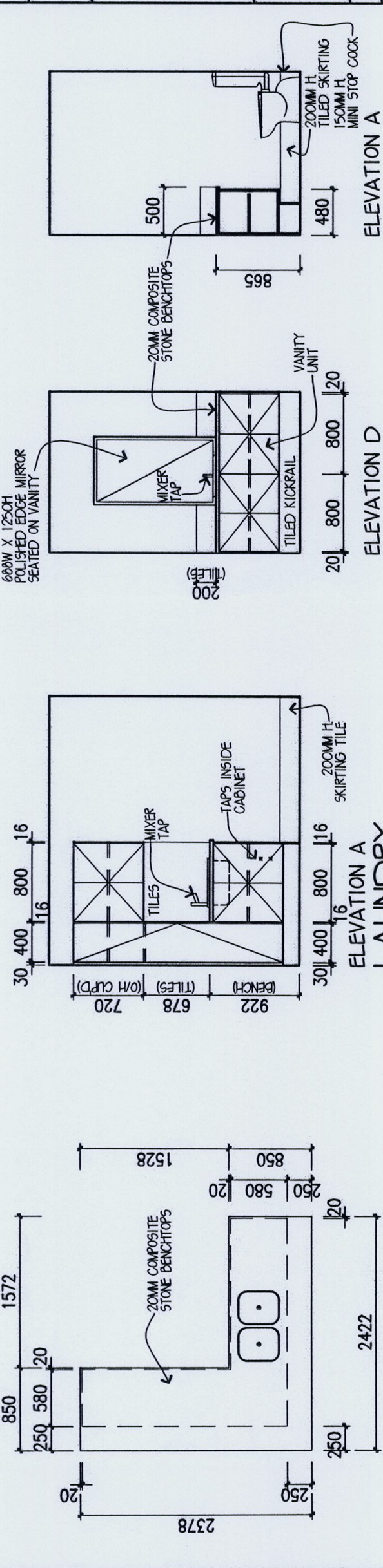
PERMIT No:
DRAWN: **CAD/CRAFT** CHKED: **SA** SHEET: **9** of **10**



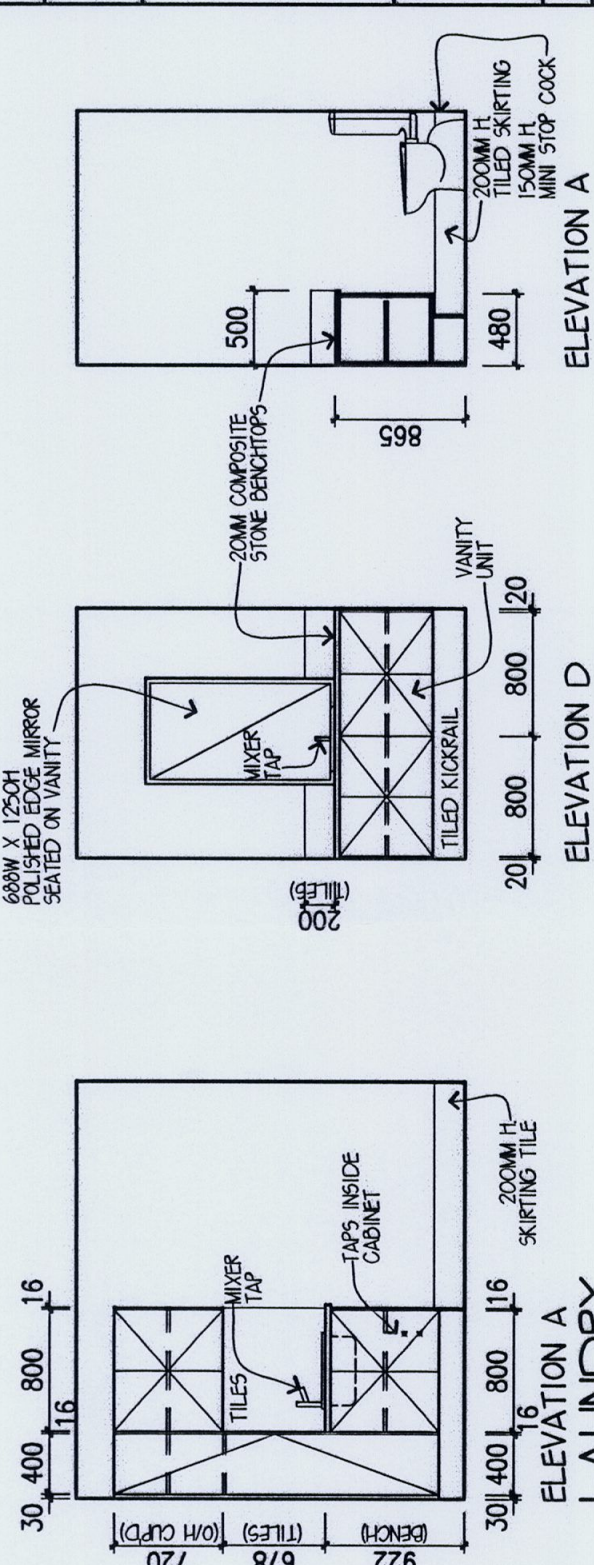
ELEVATION A
KITCHEN



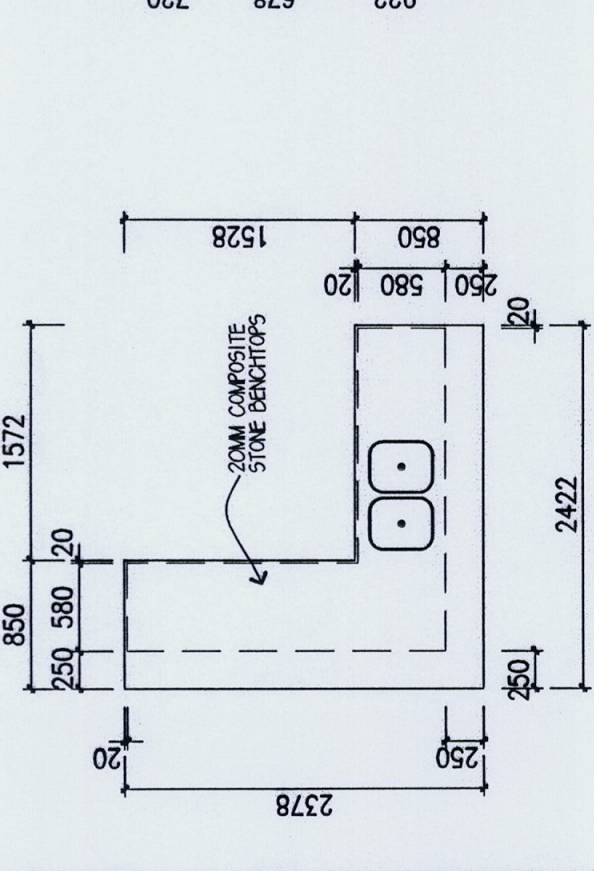
ELEVATION C
KITCHEN



ELEVATION A
LAUNDRY



ELEVATION C
PDR ROOM



ELEVATION A
KITCHEN BENCH
DETAIL

INTERNALS 1:50

1550W X 1250H POLISHED
EDGE MIRROR ON 16MM
FMR BACKING BOARD
SEATED ON VANITY

450 (RAIL)

300 (WALL ELBOW)

265 D BULKHEAD

265 D BULKHEAD

ADJUSTABLE
SHOWER RAIL

ENSUITE

265 D BULKHEAD

20MM COMPOSITE STONE BENCHTOPS

1072W X 1250H POLISHED EDGE MIRROR SEATED ON VANITY

ADJUSTABLE SHOWER RAIL

ADJUSTABLE SHOWER RAIL

350 (WALL ELBOW)

300 (RAIL)

TILES

[illegible]

Diagram showing the elevation of a line segment. The segment is divided into three parts: ELEVATION C (left), ELEVATION A (middle), and ELEVATION B (right). The total length is labeled (H03). The segments are labeled 16, 16, and 16 respectively.

Technical drawing of a bookshelf section. The drawing shows a side view of a shelf unit with two shelves. The shelves are labeled "450 DEEP RETURN SHELVES". The distance between the shelves is marked as "450". The total height of the unit is marked as "450". The unit is supported by "PLASTIC SUPPORT BRACKETS REQUIRED WHERE SPAN EXCEEDS 1200MM". The drawing is labeled "DASH" and "ENSUIIE".

Technical drawing of a bookcase showing front and side elevations with dimensions and labels.

Front Elevation (Left):

- Overall width: 400
- Overall height: 400
- Labels: SHELVES, HANGING RAIL, SHELF
- Dimensions: 50 (height of hanging rail), 300 (depth of return shelves), 370 (width of hanging rail)

Side Elevation (Right):

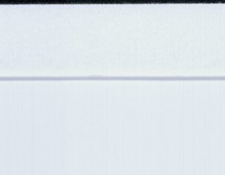
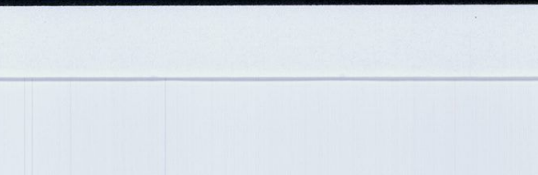
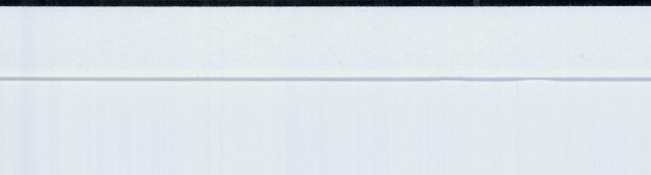
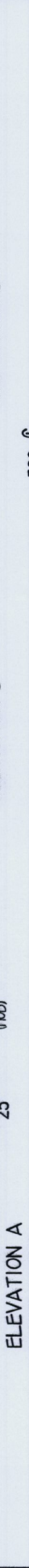
- Overall width: 400
- Overall height: 400
- Labels: SHELVES, HANGING RAIL, SHELF
- Dimensions: 50 (height of hanging rail), 300 (depth of return shelves), 370 (width of hanging rail)
- Note: PLASTIC SUPPORT BRACKETS REQUIRED WHERE SPAN EXCEEDS 1200MM

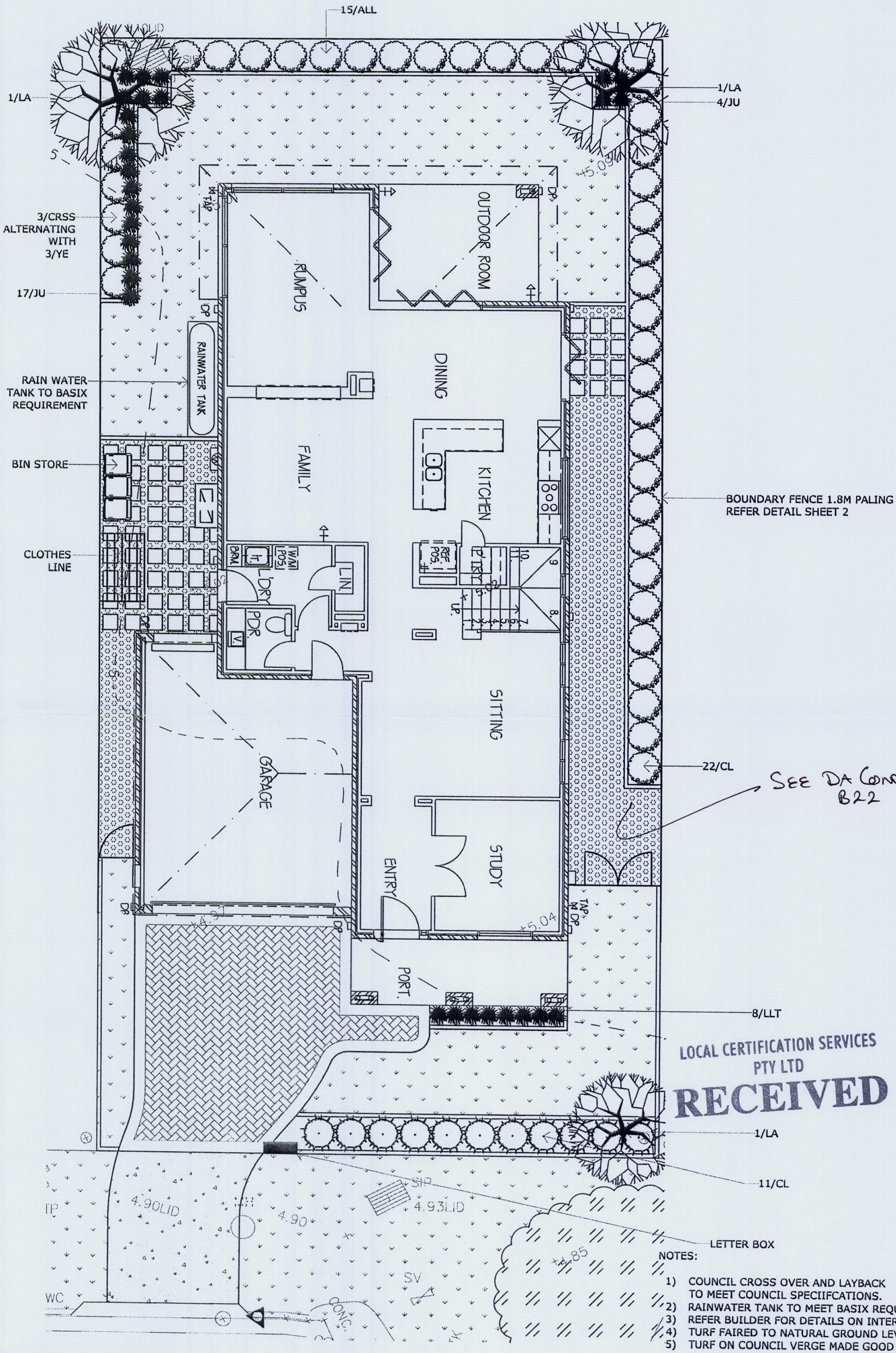
Technical drawing of a rectangular object. The drawing shows a front view (top) and a side view (bottom). The front view is a rectangle with a width of 450 and a height of 450. The side view is a rectangle with a width of 450 and a height of 135. A section line is drawn through the side view, indicating a cross-section.

ELEVATION B
BEDS 2, 3 & 4
ELEVATION A
ELEVATION C
ELEVATION B

W.I.K. (BED. 1)
LINEN
RUDE (TYPICAL)

INTERNALS 1:50 (GROUND FLOOR) (FIRST FLOOR)





SYMBOLS LEGEND

BIN	
TILED	
STENCILLED CONCRETE	
30MM NEPEAN RIVER GRAVEL	
SWING UP CLOTHESLINE	
400x400 PAVERS 150 GAP	
PAVER GARDEN EDGE	

General Notes :

Drawings shall not be used for construction purposes until issued by Landscape Designer for construction. Prior to use for building construction the Builder must ensure that they are in possession of a Construction Certificate and all other required Council approvals.

Contractors must verify all dimensions on site before commencing fabrication or preparation of workshop drawings, and verify all errors and omissions with the Architect. Use figured dimensions only. Do not scale from drawings.

Scale: 1:100@A3

Print Date:

Copyright:

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Project:

NEW RESIDENCE

Client:

Mr & Mrs Wilkinson

Project Address:

Lot 103, 37 Watergum Drive Warriewood NSW

Drawing Title:

LANDSCAPE PLAN

Drawing No:

10-621303/LP1-2

Issue:

DA

Drawn:

ECD

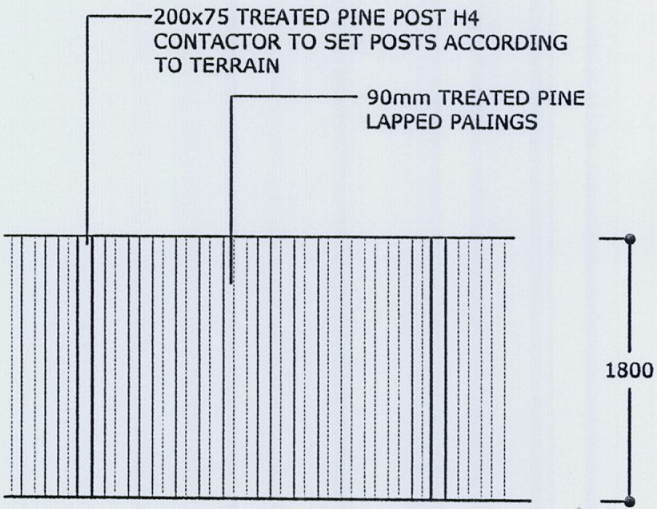
Approved:

CMD

Daniell, Dagger Design Landscapes Horticulturalists & Landscape Designers

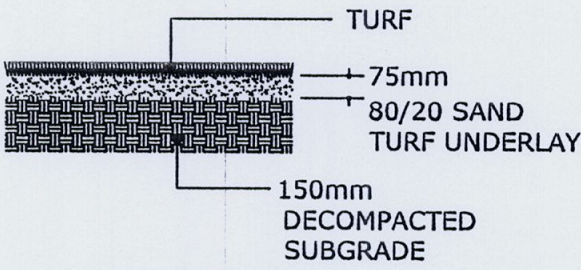
tel: +61 2 9439 9037

COLIN@3DL.COM.AU
Studio, 32 Wisdom Rd. Greenwich NSW 2065
Structural Landscape Licence #119873C

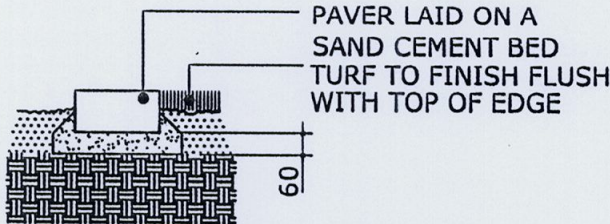


NOTE:
GATES TO BE MADE FROM SAME MATERIAL AS FENCE
ALL FIXINGS TO BE GALVANISED
ALL GATES TO HAVE GALVANISED TRIP LATCHES
FITTED

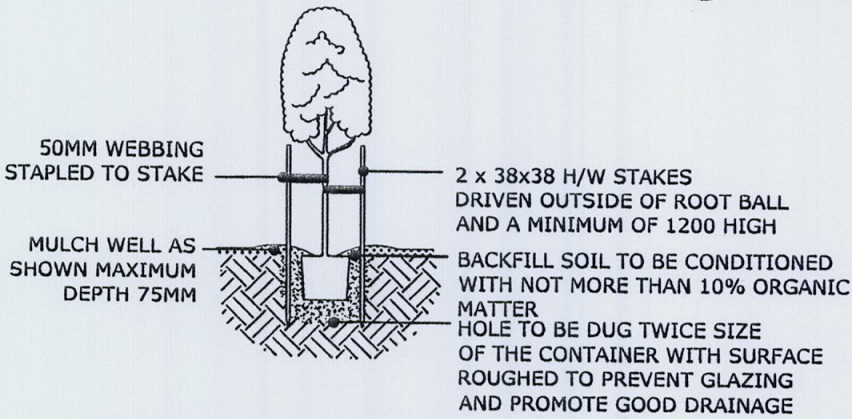
FENCE TYPE "B"
Scale: N.T.S.



TURF DETAIL
Scale: N.T.S.



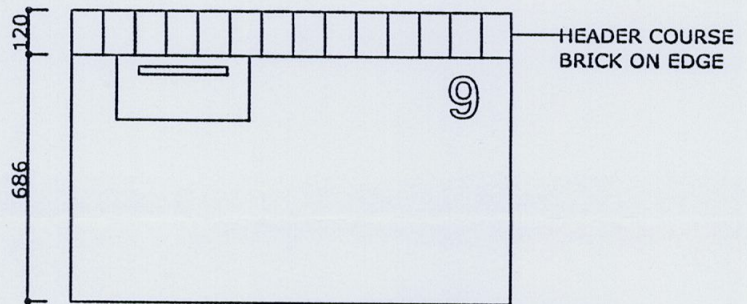
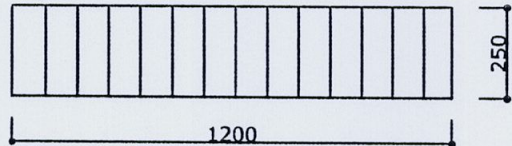
GARDEN EDGE DETAIL
SCALE: N.T.S.



TYPICAL PLANTING DETAIL
Scale: N.T.S.

AFTER PLANTING WATER IN PLANT WELL USING 4 TIMES THE
PLANT CONTAINER CAPACITY OF WATER.

FOR TREES 50lt AND ABOVE INSERT A 60MM DIA AG PIPE
UNDER PLANT IN BACKFILL TO PROMOTE GOOD AERATION IN
SOIL.



BLADE STYLE LETTERBOX DETAIL
SCALE: N.T.S.

Notes:

1. The contractor shall be responsible for all sub-grade excavation and preparation to allow for topsoil and mulch depth requirements.
2. All trees and shrubs are to be planted in accordance with Planting Schedule.
3. Before Landscape work is commenced, Contractor is to establish the position of all service lines. Service lids, vents and hydrants shall be left exposed and not covered by any landscape finishes (turfing, paving, mulch, garden beds, etc.,)
4. "No levels taken" therefore any walls, steps etc., to be constructed must have levels taken on site by contractor to ascertain height and/or slope. All contours shown in A.H.D.
5. On-structure garden bed soils to be conditioned with a 50mm cover of pasteurised Cow Manure.
6. All imported soil to be of premium garden mix standard containing 40% Soil, 20% coarse sand, 10% graded ash, 10% coco peat, 20% composted saw dusts. Profile depths not to exceed 200mm.
7. Turf to be 'Sir Walter' grass. Turf to be laid on a 75mm minimum base of 80% sand 20% soil mix. All sub grade clays to be judiciously cultivated 150mm deep.
8. All beds to be covered with a minimum of 50mm of Horticultural grade composted pine bark mulch.
9. All garden bed edges to be brick laid on a sand cement bed.
10. Surface drains to be 250mm wide and connected to storm water unless otherwise noted.

Planting Schedule

Symbol	Botanic Name	Common Name	Origin	Number	Pot Size	Mature Height	Spacing
Trees							
LA	Livistona australis	Cabbage Tree Palm	IN	3	45LT	-	
Shrubs							
CL	Callistemon linearis	Narrow-leaved Bottlebrush	IN	33	200mm	3.0m	1m
CRSS	Cordyline "Red Sensation"	Cordyline	N	3	200mm	3.0M	1m
YE	Yucca elephantipes	Yucca	E	3	200mm	1.0M	1m
ALL	Acacia longifolia var. longifolia	Sydney Golden Wattle	IN	15	200mm	5.0m	1m
Ground Covers							
LLT	Lomandra longifolia "Tanika"	Lomandra	IN	8	150mm	0.5M	0.5m
JU	Juncus spp.	Common Rush	IN	21	150mm	0.5M	0.5m
				86			
	(IN) Indigenous Native Species =			80			
	(N) Native Species =			3			
	(E) Exotic Species =			3			
	Total			86			
	(%) Percentage of Indigenous Native Species =			94			

General Notes :

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Contractors must verify all dimensions on site before commencing fabrication or preparation of workshop drawings, and verify all errors and omissions with the Architect. Use figured dimensions only. Do not scale from drawings.

Scale: 1:100@A3

Print Date:

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Project:

NEW RESIDENCE

Client:

Mr & Mrs Wilkinson

Project Address:

Lot 103, 37 Watergum Drive
Warriewood NSW

Drawing Title:

LANDSCAPE PLAN

Drawing No:

10-621303/LP2-2

Issue:

DA

Drawn:

ECD

Approved:

CMD

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Horticulturalists & Landscape Designers

tel: +61 2 9439 9037

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Studio, 32 Wisdom Rd. Greenwich NSW 2065

Structural Landscape Licence #119873C

CONSTRUCTION NOTES

- GENERAL: UNLESS NOTED OTHERWISE
- THE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER WORKING DRAWINGS AND SPECIFICATIONS AND ANY OTHER WRITTEN INSTRUCTIONS ISSUED DURING CONSTRUCTION. ALL DISCREPANCIES AND VARIATIONS SHALL BE REFERRED TO THE ENGINEER, BEFORE PROCEEDING WITH THE WORK.
- DURING CONSTRUCTION THE STRUCTURE AND ANY ADJACENT STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.
- DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWING. ALL LEVELS AND SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS.
- THE CONTRACTOR IS RESPONSIBLE TO ESTABLISH THE LOCATION, SIZE AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS.
- ALL WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF RELEVANT AUSTRALIAN STANDARD CODES AND THE REGULATIONS OF THE RELEVANT BUILDING AUTHORITY.
- UNLESS REQUESTED AND PRODUCED ON THE PLANS, THE BUILDER IS TO ENSURE THAT ARTICULATION JOINTS ARE SHOWN ON THEIR ARCHITECTURAL DRAWINGS AND BE SATISFIED THAT THEY ARE IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS AND BUILDING CODES.
- ALL SITE SAFETY MEASURES AND WORK METHOD STATEMENTS PREPARED BY BUILDER/SUB-CONTRACTORS ARE TO BE IMPLEMENTED DURING CONSTRUCTION. NO WORK IS TO COMMENCE UNTIL SUPERVISOR/BUILDER HAS IDENTIFIED AND APPROPRIATELY ACTED ON ANY POTENTIAL HAZARDS.
- BUILDER TO ADHERE TO ANY GEOTECHNICAL REPORT RECOMMENDATIONS PREPARED FOR THE SITE.
- REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF RAINWATER TANK AC, HWS AND LPG UNITS.
- CONCRETE
 - CONCRETE SPECIFICATION (F_c 28 DAYS) TO BE AS FOLLOWS: ADOPT TYPE 'A' CEMENT WITH MAX AGGREGATE SIZE OF 20mm AND 80mm SLUMP
- CLEAR COVER TO REINFORCEMENT TO BE AS FOLLOWS:

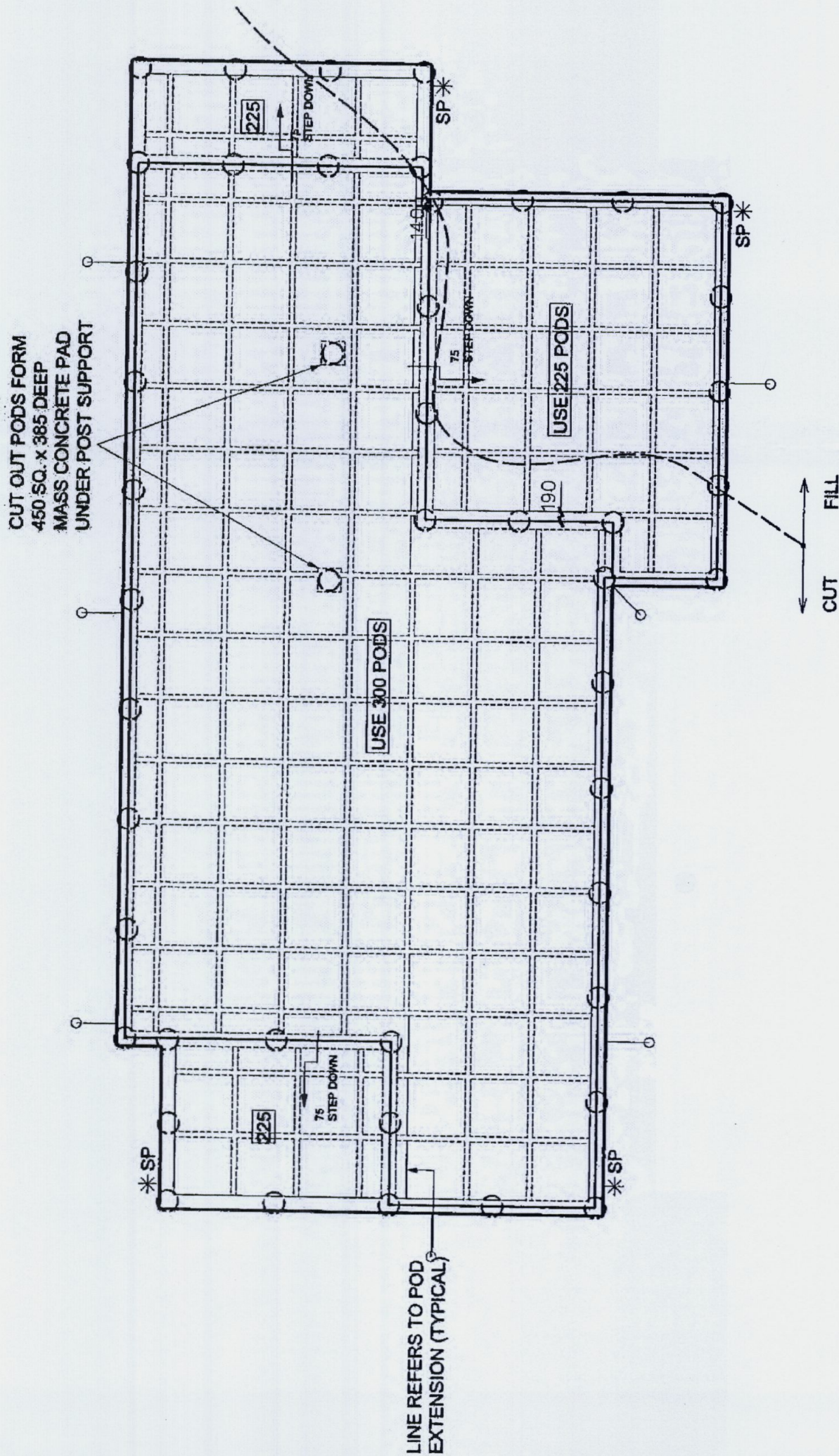
LOCATION	NORMAL F _c	SALINE AFFECTED F _c
PIERS	15 MPa	32 MPa
SLAB	20 MPa	32 MPa
STRIP FOOTINGS	25 MPa	32 MPa

LOCATION	FORMED & SHELTERED	FORMED & EXPOSED	POURED ON GROUND
SLABS & WALLS	20	30	65
BEAMS	25	40	65
COLUMNS	40	50	—
STRIP FOOTING	—	—	65

- REINFORCEMENT SYMBOLS ARE FOLLOWS:
 - (N) - HOT ROLLED DEFORMED BARS (400 N)
 - (SL) - HARD-DRAWN WIRE REINFORCING FABRIC (450 N)
 - (S) - STRUCTURAL GRADE DEFORMED BARS
- NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS ARE TO BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR ENGINEERS APPROVAL.
- CONSTRUCTION JOINTS THAT ARE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.
- ALL REINFORCEMENT TO BE ADEQUATELY SUPPORTED IN ITS REQUIRED POSITION AND COVER DURING PLACEMENT OF CONCRETE.
- PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE CONCRETE COVER TO REINFORCEMENT WITHOUT THE APPROVAL OF THE ENGINEER.
- ALL CONCRETE TO BE MECHANICALLY VIBRATED AND SHALL BE CAREFULLY WORKED AROUND THE REINFORCEMENT AND INTO THE CORNERS OF FORMWORK EARTHWORKS.
- FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 100kPa.
- PIER HOLES ARE DESIGNED FOR ALLOWABLE BEARING PRESSURE OF 200kPa.
- FOUNDATION MATERIAL SHALL BE APPROVED PRIOR TO CONSTRUCTION.
- ADDITIONAL CONCRETE PIERS MAY BE REQUIRED UNDER SLAB TO EVEN BEARING IN SOIL AS RECOMMENDED BY AUSTRALIAN STANDARD AS 2870.
- ADDITIONAL PIERS IN THE CUT SECTION OF BUILDING PLATFORM MAY ALSO BE REQUIRED TO ACHIEVE THE SAME BEARING AS PIERS IN THE FILL SECTION.
- ALL SITE FILLING PLACED BENEATH SLAB TO BE TREATED IN ACCORDANCE WITH CLAUSE 6.4 OF AS 2870.2 - 1996.
- A 1 METRE WIDE APRON, WITH 25 CROSS FALL AWAY FROM SLAB EDGE IS TO BE FORMED ALL AROUND THE RAFT SLAB WHERE APPLICABLE.
- IF THE LOCATION OF THE SLAB IS NEXT TO AN ABOVE OR BELOW ON SITE DETENTION SYSTEM OR BELOW GROUND RAINWATER TANK, THE BUILDER IS TO ADVISE ENGINEER IN ORDER TO ENSURE THAT CONCRETE PIERS ARE TAKEN 500mm BELOW THE INVERT LEVEL OF TANK OR THE FOOTING OF THE SUPPORTING WALL FOR AN ABOVE GROUND DETENTION SYSTEM.

- REINFORCED CONC. PIER
- SEWER AFFECTED PIER
- SCREW PIER
- UNREINFORCED CONC. PIER
- ARTICULATION JOINT
- STARTING POINT

DESIGNED TO AS 2870 - 1996 SLAB AND FOOTING CODE



THIS IS TO CERTIFY THAT THE SLAB HAS BEEN DESIGNED FOR SALINE AFFECTED SOILS. REFER TO PAGES 1 & 2 FOR SALINITY REQUIREMENTS.

CONCRETOR IS TO ENSURE 32 MPa CONCRETE IS USED IN THE PIERS AND SLAB.

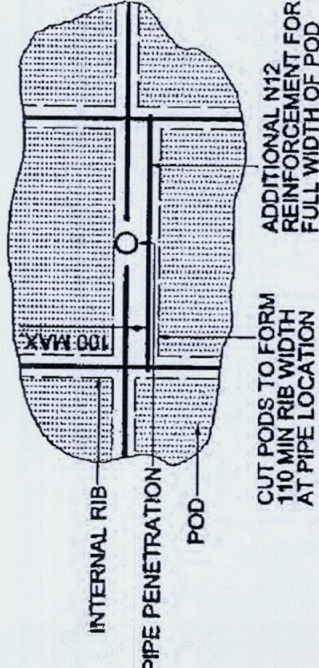
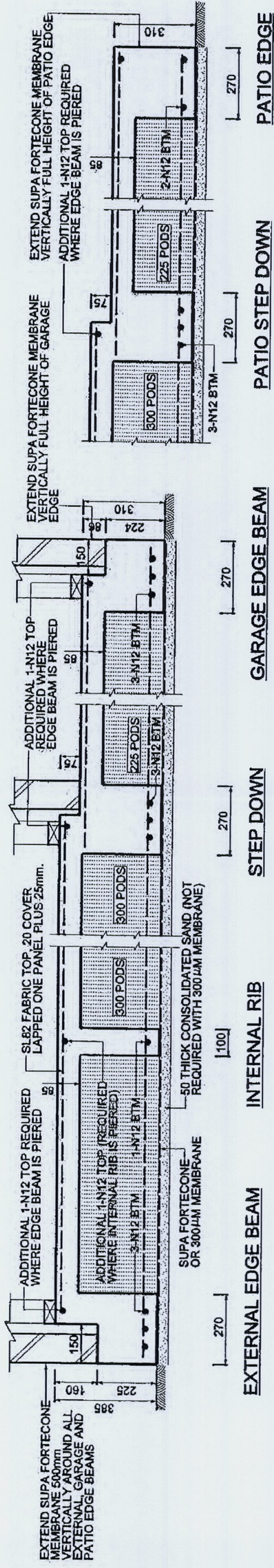
LOCAL CERTIFICATION SERVICES
PTY LTD
RECEIVED

RAFLETOS
ABN: 35 079 047 466
LEVEL 2, 103 VANESSA STREET
KINGSGROVE NSW 2208
PO BOX 161 KINGSGROVE NSW 2208

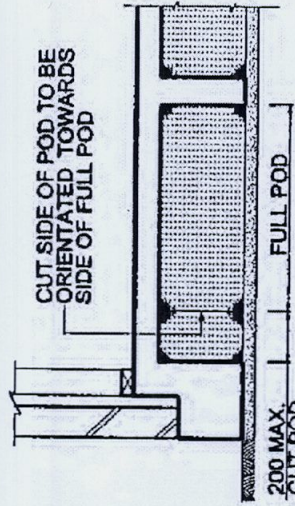
ZANUTTINI
Pty Ltd
FACSIMILE: (02) 9554 8764
TELEPHONE: (02) 9554 9311
EMAIL: admin@zan.com.au

STRUCTURAL SLAB DETAIL PLAN			
metricon	CLIENT	WILKINSON	
	LOCATION	LOT 103 (NO. 37) WATERGUM DR, WARRIEWOOD	
	CLASSIFICATION	H	
REFERENCE	621303	DRAWN	J.O
		ISSUE	B
		SCALE	1:100
		SHEET No.	1
		DATE	07.06.10
		JOB No.	34026 MT

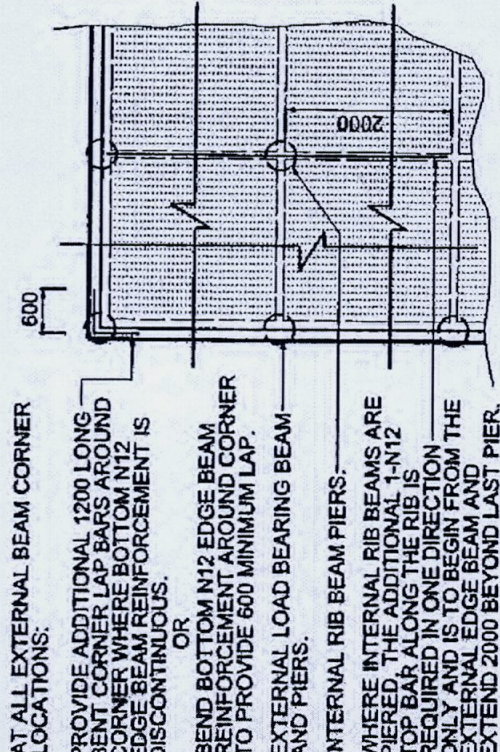
B.E.M.I.E. AUST.



PIPE PENETRATION THROUGH RIB



POD EXTENSION DETAIL



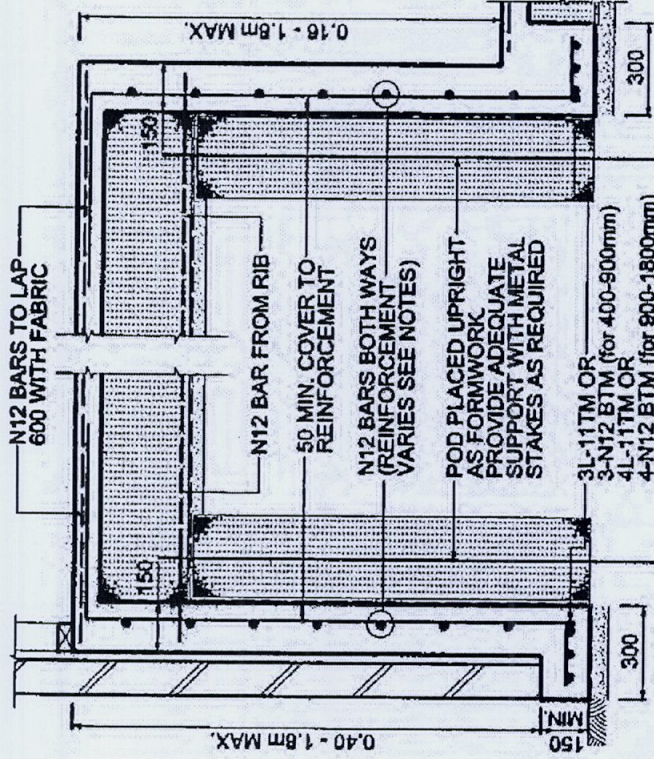
PROVIDE 400 DIA. CONCRETE PIERS TO CLAY AND SAND, OR 300 DIA. TO ROCK OR SHALE.

SPACE PIERS AT 2400 CTS AS SHOWN ALONG EXTERNAL EDGE BEAM, UNLESS NOTED OTHERWISE

PIERS REQUIRED UNDER INTERNAL RIB BEAMS WHEN CONSTRUCTED ON MORE THAN 300mm OF UNCONTROLLED NON-COMPACTED MATERIAL, OR AS SHOWN.

N12 BARS CAN BE REPLACED WITH 10.65mm HDW (450MPa STRESS GRADE)

REINFORCEMENT FOR RIBS AND BEAMS		
WIDTH	TOP STEEL	BTM STEEL
271-330	1-N12	3-N12
331-440	2-N12	4-N12
441-550	3-N12	5-N12
551-660	4-N12	6-N12

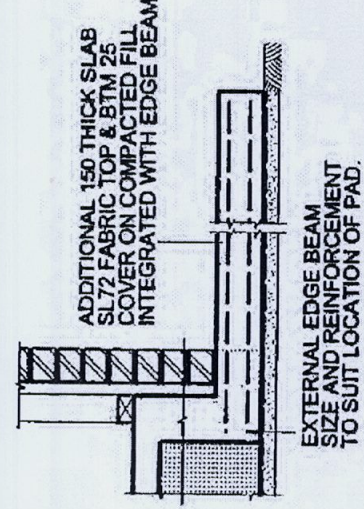


EXTERNAL DEEP BEAM

DEEP BEAM DEPTH	BEAM REINFORCEMENT
160 - 400mm	N12 BARS AT 1200 CENTRES & 1-N12 HORIZONTAL
400 - 900mm	N12 BARS AT 600 CENTRES & 1-N12 CENTRALLY
900 - 1500mm	N12 BARS AT 300 CENTRES BOTH WAYS
1500 - 1800mm	N12 BARS AT 200 CENTRES BOTH WAYS

INTERNAL DEEP BEAM

DEEP BEAM DEPTH	BEAM REINFORCEMENT
160 - 400mm	N12 BARS AT 1200 CENTRES & 1-N12 HORIZONTAL
400 - 900mm	N12 BARS AT 600 CENTRES & 1-N12 CENTRALLY
900 - 1500mm	N12 BARS AT 300 CENTRES BOTH WAYS
1500 - 1800mm	N12 BARS AT 200 CENTRES BOTH WAYS

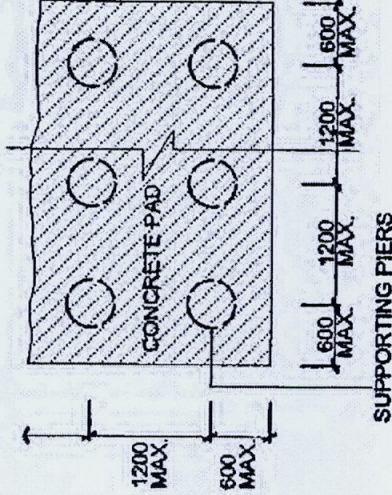


PAD DETAIL

FOR RAINWATER TANK, LPG & AC UNITS ETC. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS.

SPACE PIERS AS REQUIRED TO SUIT PAD SIZE: -500 MAXIMUM TO EDGE OF SLAB FOR PERIMETER PIERS.

-1000 MAXIMUM CENTRES IF ADDITIONAL INTERNAL PIERS ARE REQUIRED FOR PAD SIZE.



RAFFLETTOS

ACN 079047466

LEVEL 2, 103 VANESSA STREET
KINGSGROVE NSW 2208
PO BOX 161 KINGSGROVE NSW 2208

ZANUTTINI

Pty Ltd

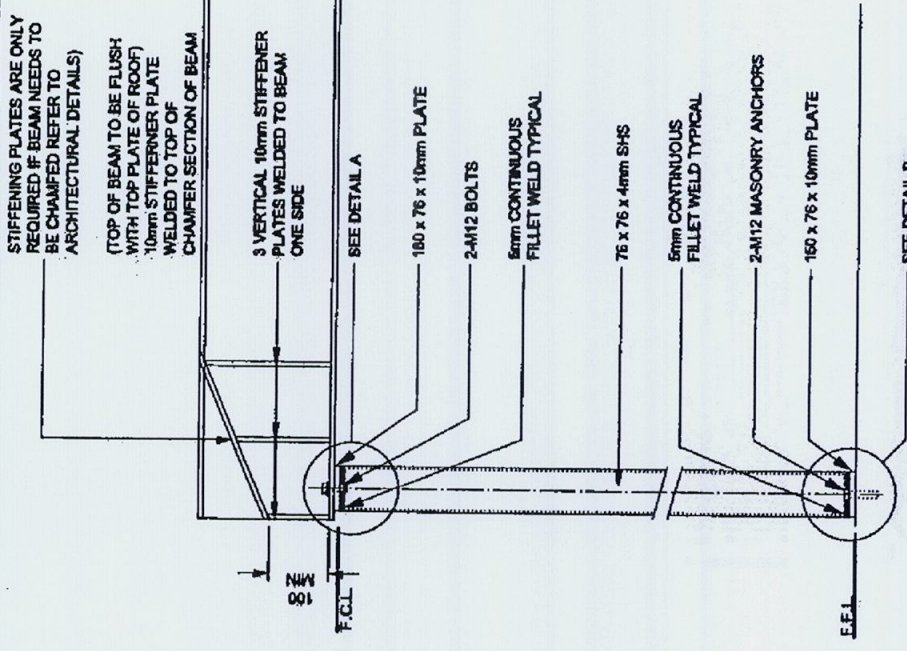
FASCILIMILE: (02) 9554 8764
TELEPHONE: (02) 9554 9311
EMAIL: admin@zanuttini.com.au

[Signature]

B.E. M.I.E. AUSTRALIA

metricon

STRUCTURAL DETAIL PLAN			
CLIENT	WILKINSON		
LOCATION	LOT 103 (NO. 37) WATERGUM DR, WARRIEWOOD		
CLASSIFICATION	H	SCALE	NTS.
ISSUE	B	DATE	07.06.10
		SHEET No.	2
		JOB No.	34026 MT



150 x 76 x 10mm
PLATE

2-M12 MASONRY
ANCHORS

5mm CONTINUOUS
FILLET WELD
TYPICAL

STUD

STUD

180 x 76 x 10mm
PLATE

2-M12 BOLTS

STUD

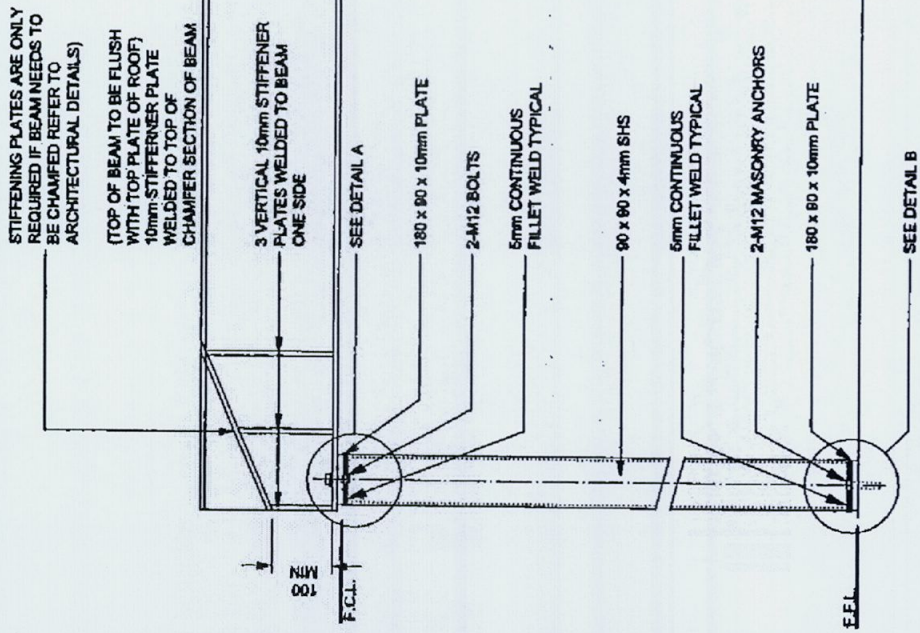
STUD

NOTE:

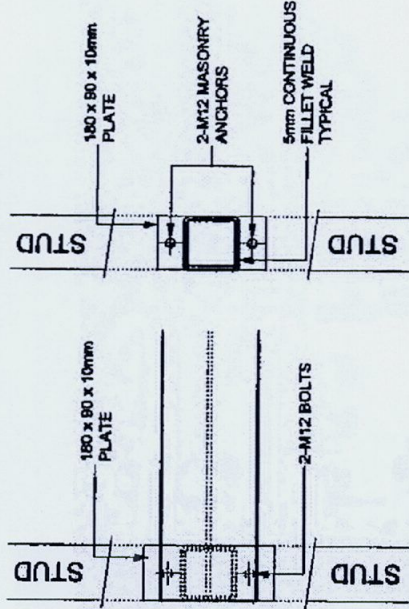
- ALL STEELWORK TO BE PAINTED WITH AN APPROVED CORROSIVE RESISTANT PRIMER.
- NOTE: IF BUILDING IS LOCATED WITHIN 1.0 KM OF THE COAST, ENGINEER IS TO BE NOTIFIED AND STEEL BEAMS ARE TO BE GALVANISED.
- SHS: DENOTES SQUARE HOLLOW SECTION OR STEEL POST, ALL POST TO BE 76 x 76 x 4mm SHS, BUILD POST INTO STUD FRAMEWORK
- DS: DENOTES 160 x 90 HARDWOOD STUDS OR 280 x 45 HARDWOOD STUDS.
- ASHS: DENOTES ADJUSTABLE SQUARE HOLLOW SECTION STEEL POSTS.

 RAFELETOS ABN: 35 078 047 468 LEVEL 2, 103 VANESSA STREET KINGSGROVE NSW 2208 PO BOX 161 KINGSGROVE NSW 2208		 ZANUTTINI Pty Ltd FACSIMILE: (02) 8554 9784 TELEPHONE : (02) 8554 9311 EMAIL: admin@rafzan.com.au		 B.E./M.E. AUST.		metricon		STRUCTURAL STEEL DETAIL PLAN			
						CLIENT	WILKINSON				
						LOCATION	LOT 103 (NO. 37) WATERGUM DR, WARRIEWOOD				
						DRAWN	J.O	SCALE	1:100	SHEET No.	3
						ISSUE	B	DATE	07.06.10	JOB No.	34026 MT
						REFERENCE	621303				

34026 MT.dgn



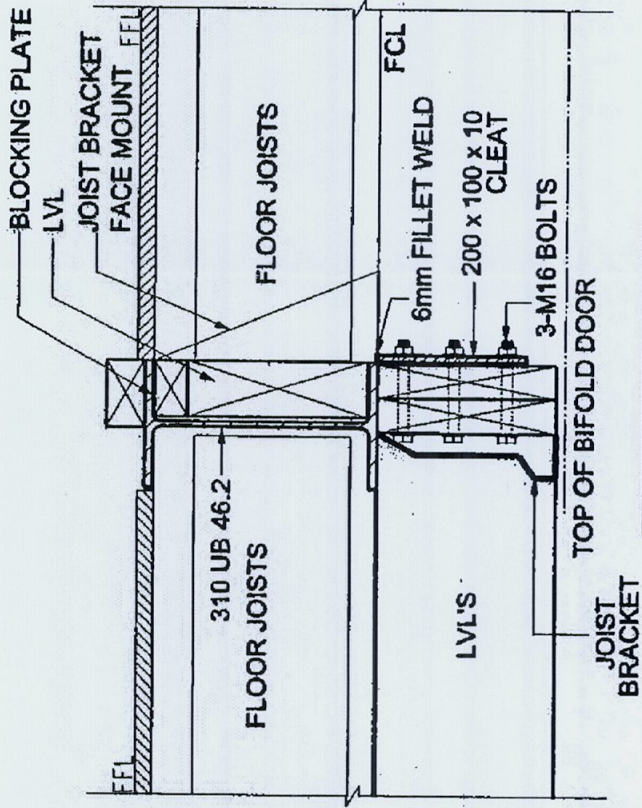
**TYPICAL SECTION
FOR 90 x 90 x 4 SHS**



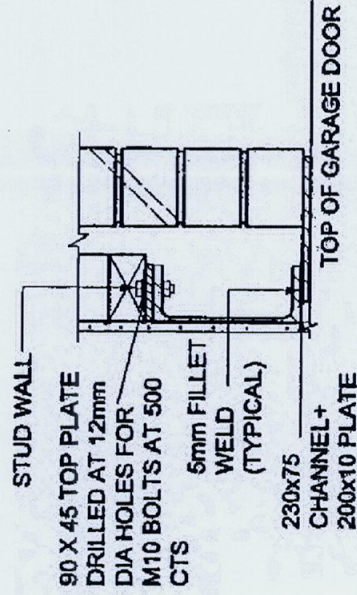
DETAIL A DETAIL B

NOTE:

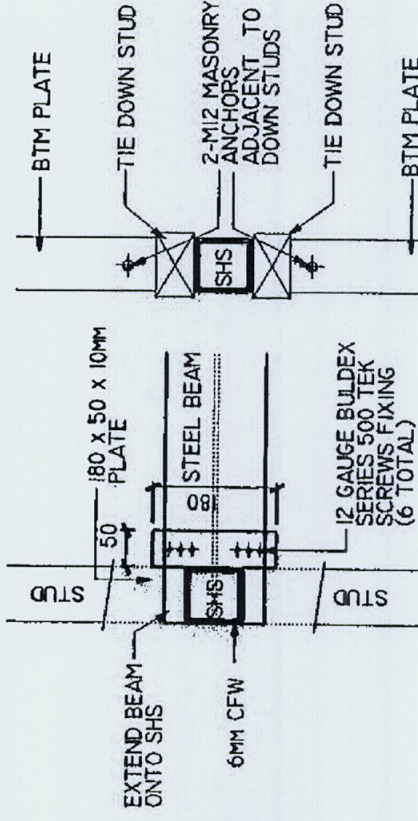
- ALL STEELWORK TO BE PAINTED WITH AN APPROVED CORROSIVE RESISTANT PRIMER.
- NOTE: IF BUILDING IS LOCATED WITHIN 1.0 KM OF THE COAST, ENGINEER IS BE NOTIFIED AND STEEL BEAMS ARE TO BE GALVANISED.
- SHS: DENOTES SQUARE HOLLOW SECTION OR STEEL POST. ALL POST TO BE 76 x 76 x 4mm SHS. BUILD POST INTO STUD FRAMEWORK
- DS: DENOTES DOUBLE 80 x 80 HARDWOOD STUDS.



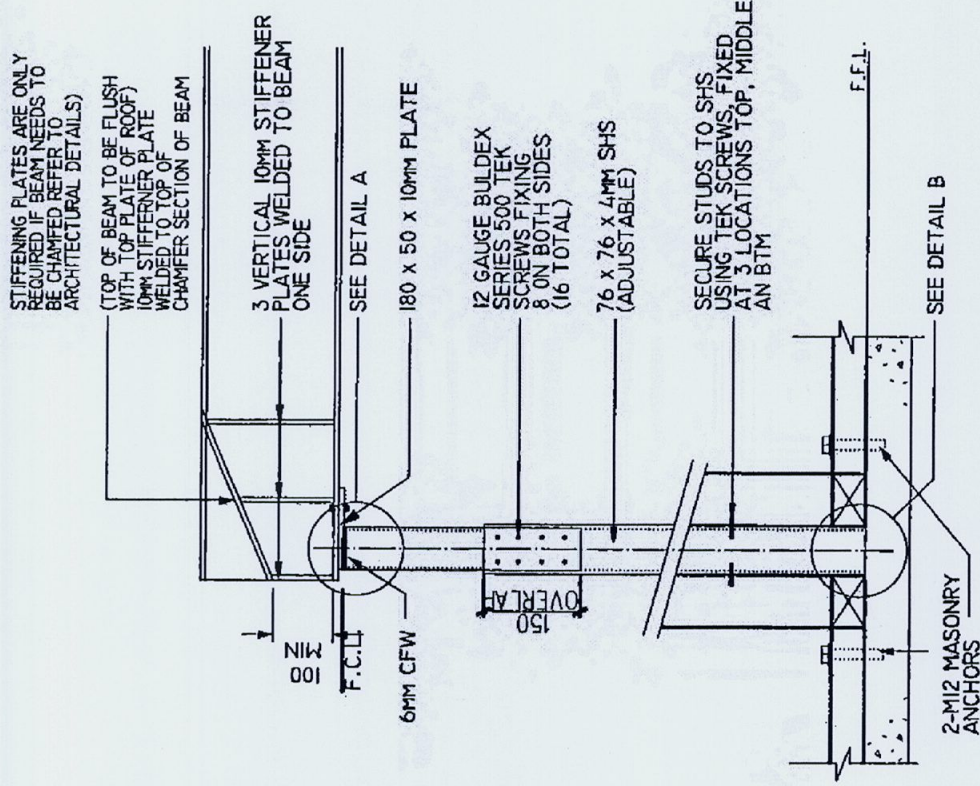
SECTION 1-1
SCALE 1:10



SECTION 2-2
SCALE 1:10



DETAIL A DETAIL B



TYPICAL SECTION FOR ADJUSTABLE STEEL POSTS

Rafaelitos
ABN: 35 079 047 466
LEVEL 2, 103 VAHNESSA STREET
KINGSGROVE NSW 2208
PO BOX 161 KINGSGROVE NSW 2208

Zanuttini
Pty Ltd
FACSIMILE: (02) 8554 8764
TELEPHONE: (02) 8554 9311
EMAIL: admin@zanuttini.com.au

[Signature]
B.E., M.I.E. AUST.

metricon

STRUCTURAL STEEL DETAIL PLAN

CLIENT	WILKINSON	LOCATION	LOT 103 (NO. 37) WATERGUM DR, WARRIEWOOD
DRAWN	J.O	SCALE	1:100
ISSUE	B	DATE	07.06.10
REFERENCE	621303	JOB No.	34026 MT
		SHEET No.	4

CONNECT TO EXISTING PIT-
IN ACCORDANCE WITH
LOCAL COUNCILS
STANDARDS. PCA/PLUMBER
TO VERIFY EXISTING PIPE
IN SATISFACTORY CONDITION.

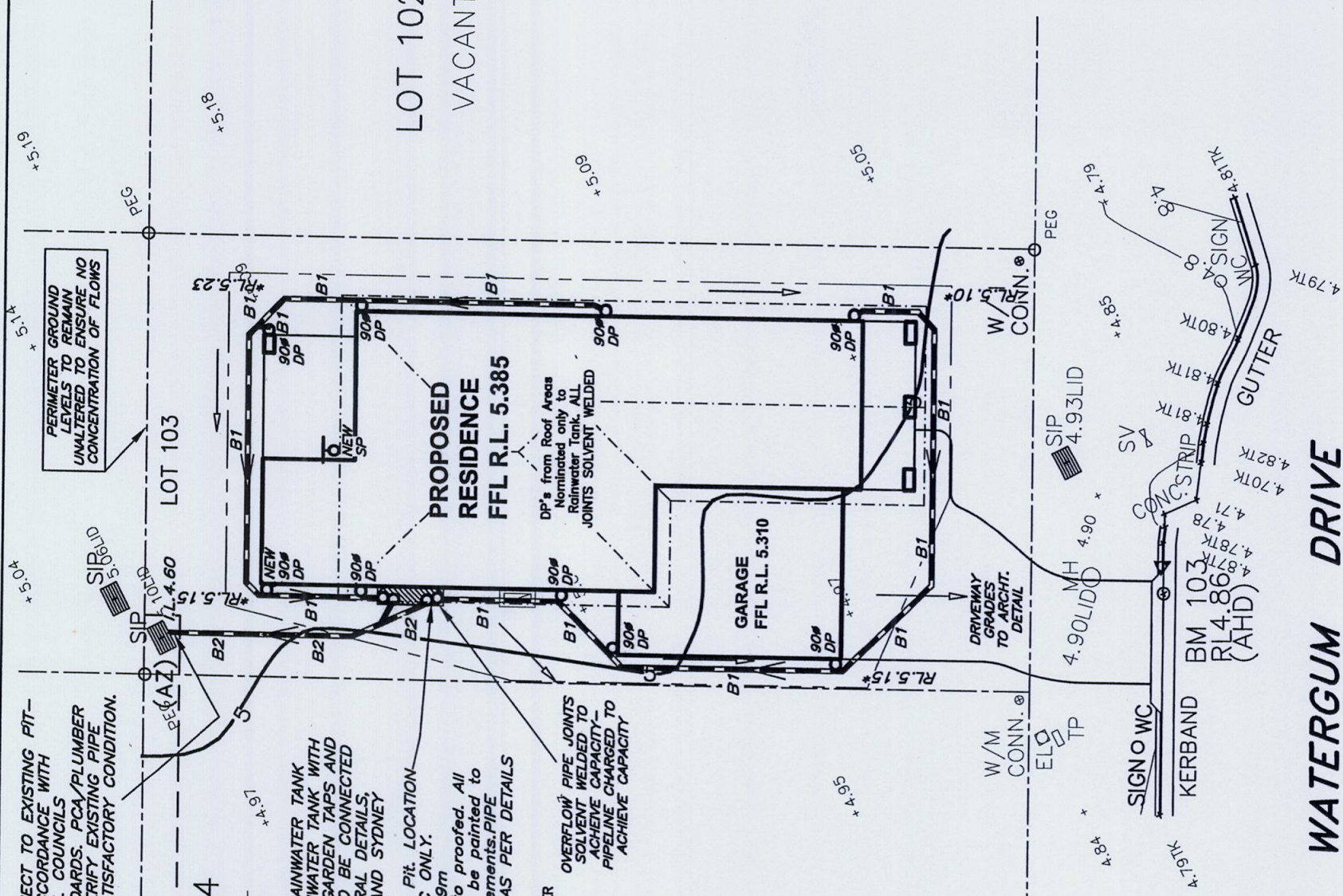
LOT 104
VACANT

MIN. 2000 LITRE- RAINWATER TANK
PROVIDE 2000L RAINWATER TANK WITH
PUMPS TO SUPPLY GARDEN TAPS AND
INTERNAL RE-USE TO BE CONNECTED
AS PER ARCHITECTURAL DETAILS
BASIX ASSESSMENT AND SYDNEY
WATER GUIDELINES.

Overflow pipe to EX. PIT. LOCATION
SHOWN DIAGRAMMATIC ONLY.
Max. Overflow RL.6.69m
Outlet to be mosquito proofed. All
exposed pipework to be painted to
withstand external elements. PIPE
INLETS AND OUTLES AS PER DETAILS
ON SHEET 2.

2000L LITRE SLIMLINE WATER
TANKS x 2400mm (l)
700mm(w) x 1480mm (h)

OVERFLOW PIPE JOINTS
SOLVENT WELDED TO
ACHIEVE CAPACITY
PIPELINE CHARGED TO
ACHIEVE CAPACITY



GROUND FLOOR LAYOUT

REFER TO SHEET 2 FOR RAINWATER TANK DETAILS.
LEAF GUTTER GUARDS OR SIMILAR SCREENING
RECOMMENDED TO ALL GUTTERS.
(A2): EASEMENT TO DRAIN WATER 1.2 WIDE

LOT 102
VACANT

STORMWATER LAYOUT NOTES

- PITS UP TO 600 DEEP TO BE 450 x 450 U.N.O., PITS UP TO 900 DEEP TO BE 600 x 600 U.N.O., PITS UP TO 1200 DEEP TO BE 900 x 600 U.N.O. PITS EXCEEDING 1200 DEEP TO BE 900 SQ. U.N.O. PITS TO BE PRECAST CONCRETE OR RENDERED BRICK WITH CONCRETE HEAVY DUTY GRATES. U.N.O. LIGHT DUTY PITS AND GRATES MAY BE USED ONLY IN LIGHT/FOOT TRAFFICABLE AREAS. U.N.O. ALL PITS TO BE BENCH TO DISCHARGE PIPES U.N.O. GAL. STEP IRONS TO ALL PITS EXCEEDING 900 DEPTH. -COVER AND SUMP GRATES SHALL COMPLY WITH AS2733 & AS4198.
- DOWNPIPES TO BE 90 DIA IF CHARGED AND 100 x 50 BOX IF GRAVITY. U.N.O. DP'S SHALL BE INSTALLED IN ACCORDANCE WITH AS3500.3.2-4.11 & AS4198. MAX. ROOF AREA PER DOWNPIPE IS 30SQM WITH A QUAD 115 HI-FRONT GUTTER U.N.O.
- PIPES TO HAVE 1% MIN.GRADE U.N.O. BY PIT INVERTS. PIPES TO BE V.C. CLASS 'X' OR U.P.V.C. CLASS STORMWATER PIPE TO AS1254,1260,1273,1477,2179.2 AND WHERE EXPOSED TO DIRECT SUNLIGHT TO HAVE ADEQUATE PROTECTION TO U.V. RADIATION IN ACCORDANCE WITH AS2032. SEWER GRADE/GAL. PIPES TO BE USED WHERE COUNCIL POLICY OR CONSENT REQUIRE SUCH.
- GUTTER OUTLETS SHALL BE FITTED VERTICALLY TO THE SOLE OF THE EAVE GUTTERS. RAINHEADS TO HAVE AN OVERFLOW DUCT OR WEIR 50mm BELOW THEIR CREST.
- PROVIDE OVERFLOW SPITTERS TO ALL COVERED BALCONIES/TERRACES. NOT TO BE DIRECTED ON TO ROOF SURFACES
- RISING MAINS (PRESSURE PIPE) TO BE IN ACCORDANCE WITH AS3500.1:2.
- SUBSOIL DRAINS TO BE IN ACCORDANCE WITH AS2439.1 CLASS 100 TO BE USED ONLY IN SINGLE DWELLINGS.
- ALL PIPE JOINTS TO BE IN ACCORDANCE WITH AS3500.3.2:2.7
- ALL VALVES TO BE IN ACCORDANCE WITH AS3500.3.2
- EXPANSION JOINTS SHALL COMPLY WITH AS3500.3.2:TABLE 4.1 PVC JOINTS AND ACCESSORIES TO COMPLY WITH AS2179.2 & AS4198.
- ALL TRENCHES TO BE IN ACCORDANCE WITH AS3500.3.2:7.2.8-14. EMBEDMENT MATERIAL AND TRENCH FILL TO ALL PIPES & SUBSOIL DRAINS TO BE IN ACCORDANCE WITH AS3500.3.2:7. ALL WORKS TO BE IN ACCORDANCE WITH AS1254, 1741, 2032, 2733, 2865, 3996, 1260, 1477, 2179.1 & 2,2566, 6367, 8301, ARR97 & BCA.
- IT IS THE BUILDER'S RESPONSIBILITY TO CONFIRM THAT LEVELS AND SURVEYS ARE IN ACCORDANCE WITH LEVELS ON SITE & ARE APPROVED BY COUNCIL & ARCHITECT BEFORE COMMENCING WORK.
- NO SEWER VENTS, GULLY PITS OR SIMILAR TO BE LOCATED BELOW THE MAXIMUM WATER SURFACE LEVEL IN DETENTION BASINS. ALL BASIN WALLS TO BE WATERTIGHT & STRUCTURALLY DESIGNED BY A STRUCTURAL ENGINEER.
- ALL FENCES WHICH MAY DIVERT FLOW FROM PROPOSED DIRECTION TO BE RAISED 100mm.
- BUILDER TO ENSURE ALL DRAINAGE AREAS INCLUDING EXPOSED BALCONIES TO HAVE OVERFLOW MECHANISM IN PLACE IN THE EVENT OF BLOCKAGE WITH ADEQUATE OVERFLOW SECTION THROUGH PLANTERS, PARAPETS ETC.
- ALL EXTERIOR FINISHED GROUND LEVELS TO BE SLOPING AWAY FROM PERIMETER WALLS IN ALL CASES.
- ALL HEADROOM CLEARANCES TO BE COORDINATED BETWEEN BUILDER & ARCHITECT. NOTIFY ENGINEER FOR APPROVAL IF ANY CHANGES OCCUR.
- ALL GULLY POSITIONS ARE DIAGRAMMATIC ONLY- BUILDER SHOULD CONSULT ARCHITECTURALS FOR DIMENSIONS TO LOCATE STORMWATER ELEMENTS U.N.O.
- FIRE RATING TO ARCHITECT'S SPECIFICATION.
- ALL FINISHED FLOOR LEVELS ARE NOMINATED BY ARCHITECT. PREPARED BY BUILDER/SUB-CONTRACTORS ARE TO BE COMMENCE IMPLEMENTED DURING CONSTRUCTION. NO WORK IS TO COMMENCE UNTIL ALL WORKERS CARRY OUT SITE INDUCTION, PREPARED AND CARRIED OUT BY BUILDER. ANY HAZARD IDENTIFICATION TO BE REPORTED IMMEDIATELY TO SITE SUPERVISOR TO CARRY OUT NECESSARY PROCEDURES TO ELIMINATE HAZARD, PRIOR TO PROCEEDING WITH WORK. STRUCTURAL AND GEOTECHNICAL ADVICE SHOULD BE SOUGHT IN ALL CASES.
- UNCONFINED SPACES SIGNAGE TO BE INSTALLED IN ACCESSIBLE UNDERGROUND TANKS TO WORK COVER SPECIFICATIONS. ALL PITS EXCEEDING 600mm DEPTH TO HAVE 'J' BOLTS INSTALLED TO GRATES.
- MAINTENANCE DEVICES REQ'D BY AUTHORITIES ARE NOT TO BE ASSUMED SHOWN ON DRAWINGS.
- EARTH MOUNDING SHOWN AS TEMPORARY MEASURE UNTIL LANDSCAPING COMPLETED TO DIRECT FLOWS AS SHOWN.



REVISIONS

NO.	DESCRIPTION

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PIPE SCHEDULE			
REFER TO NOTES FOR PIPE CLASS			
TAG	PIPE DIA.	MIN.GRADE	CHARGED
B1	100		
B2	100		2%

LEGEND			
R.L. 0.00	NEW REDUCED LEVEL		
(NEW FINISHED GROUND LEVEL)			
S.L. 0.00	EXISTING LEVEL		
I.L. 0.00	SURFACE LEVEL		
I.L. 0.00	INVERT LEVEL		
T.O.W.	TOP OF WALL LEVEL		
G.F.L. 0.00	GARAGE FLOOR LEVEL		
F.F.L. 0.00	FINISHED FLOOR LEVEL		
A.B.C. etc.	SEE PIPE SCHEDULE		
PIT P1	SURFACE INLET PIT		
PIT OPI	OVERLAND FLOW PIT		
ODP	DOWNPIPE-SIZE		
REFER TO NOTES FOR DP SIZE			
GP	GULLY PIT		
GP	GARDEN GULLY PIT		
O/F	OVERFLOW-200x100		
R/W	RAIN WATER HEAD		
DP	DP WITH SPREADER		
BG	BALCONY GULLY PIT		
CE	CLEANING EYE		
	GROUND FALL		
	100 HIGH EARTH MOUNDING		

ALL OTHER SURFACE WATERS
TO BE STRICTLY CONNECTED
TO A SEPARATE SYSTEM BY
OWNER IN ACCORDANCE WITH
AS 3500.3:2003 AND BCA
PART 3.1.2.3.

RAINWATER TANKS WITH PUMPS
TO SUPPLY GARDEN TAPS AND
INTERNAL RE-USE AS PER
BASIX ASSESSMENT

LOCAL CERTIFICATION SERVICES
PTY LTD

RECEIVED

SCALE(A3) 1:200,100 U.N.O.
SCALE BAR - 1m INTERVALS
DATE MARCH, 2009
DRAWN M.L.
DESIGNED M.L.
APPROVED

ISSUE	PRINTS	ISSUED TO	DATE
1	EMAIL	BUILDER/CLIENT	2-3-10



IBRAHIM STORMWATER CONSULTANTS
CONSULTING CIVIL ENGINEERS

P.O. BOX 400 CHERRYBROOK NSW 2126
TELEPHONE: (02) 9980 5515 FAX: (02) 9980 6114
www.stormwater.net.au

PROJECT
PROPOSED RESIDENCE
AT 37 WATERGUM DRIVE
WARRIEWOOD, FOR
MR & MRS WILKINSON.

THIS DRAWING

STORMWATER
LAYOUT SH.1

BUILDER

METRICON HOMES

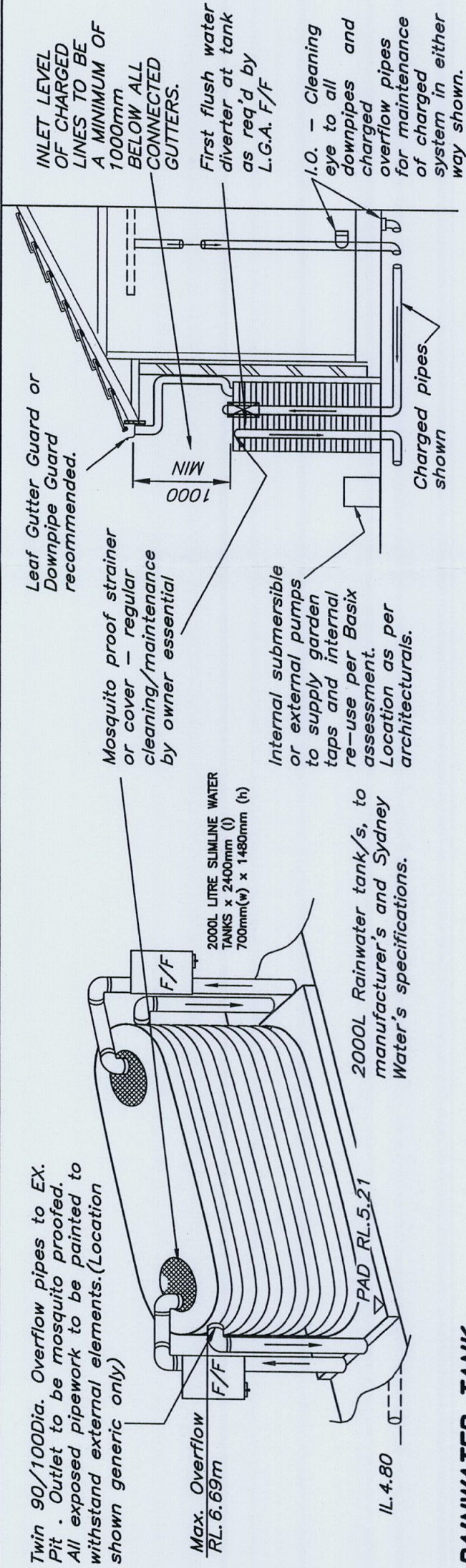
JOB NUMBER

M2462-621303

REVISION

SHEET No.

1 of 2



RAINWATER TANK

TANK DETAILS SHOWN ARE A SUGGESTED CONFIGURATION ONLY. ANY MODIFICATIONS TO TANK VOLUME OR INLET AND OUTLET LEVELS MUST BE APPROVED BY ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. TANK SHAPE, & DEVICES SHOWN ARE DIAGRAMMATIC ONLY. MINIMUM OF 450 CLEARANCE (UNLESS L.G.A. REQUIRES LARGER SETBACK) TO SIDE BOUNDARIES MUST BE MAINTAINED. CLIENT IS RESPONSIBLE TO ENSURE COMPLIANCE WITH THIS IN THE INSTALLED STATE.

Charged stormwater lines from Roof Areas ONLY to rainwater tank.

All joints to be solvent welded. All exposed pipework to be painted to withstand external elements.

First flush water diverter at tank to comply with Sydney Water and council DCP's. An approved switch system similar to 'Rainbank' to be used via mains. Pumps to manuf. specs.

Rain Tank to be installed and maintained to manufacturers specifications and to comply with all Sydney Water Guidelines.

Client to be responsible for maintenance system of charged pipelines. Debris accumulation significantly affects systems performance. Maintenance program essential.

Structural details for tank base by manufacturer or others.

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REVISIONS	

BUILDER/CLIENT TO ENSURE THAT ALL SAFETY MEASURES ARE TAKEN DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, SAFETY FENCING, SIGNAGE, OBTAINING STRUCTURAL AND GEOTECHNICAL ADVICE WHERE EXCAVATIONS ARE NEAR STRUCTURES OR SERVICES. SAFETY MEASURES RECOMMENDED BY PRODUCT SUPPLIERS ETC.

IBRAHIM STORMWATER CONSULTANTS

CONSULTING CIVIL ENGINEERS

SCALE(A3) 1:200,100 u.n.s.

SCALE BAR – 1m INTERVALS

DATE MARCH, 2009

DRAWN M.L.

DESIGNED M.L.

APPROVED

PROJECT

PROPOSED RESIDENCE AT 37 WATERGUM DRIVE WARRIEWOOD. FOR MR & MRS WILKINSON.

THIS DRAWING

STORMWATER DETAILS SH.1

BUILDER

METRICON HOMES

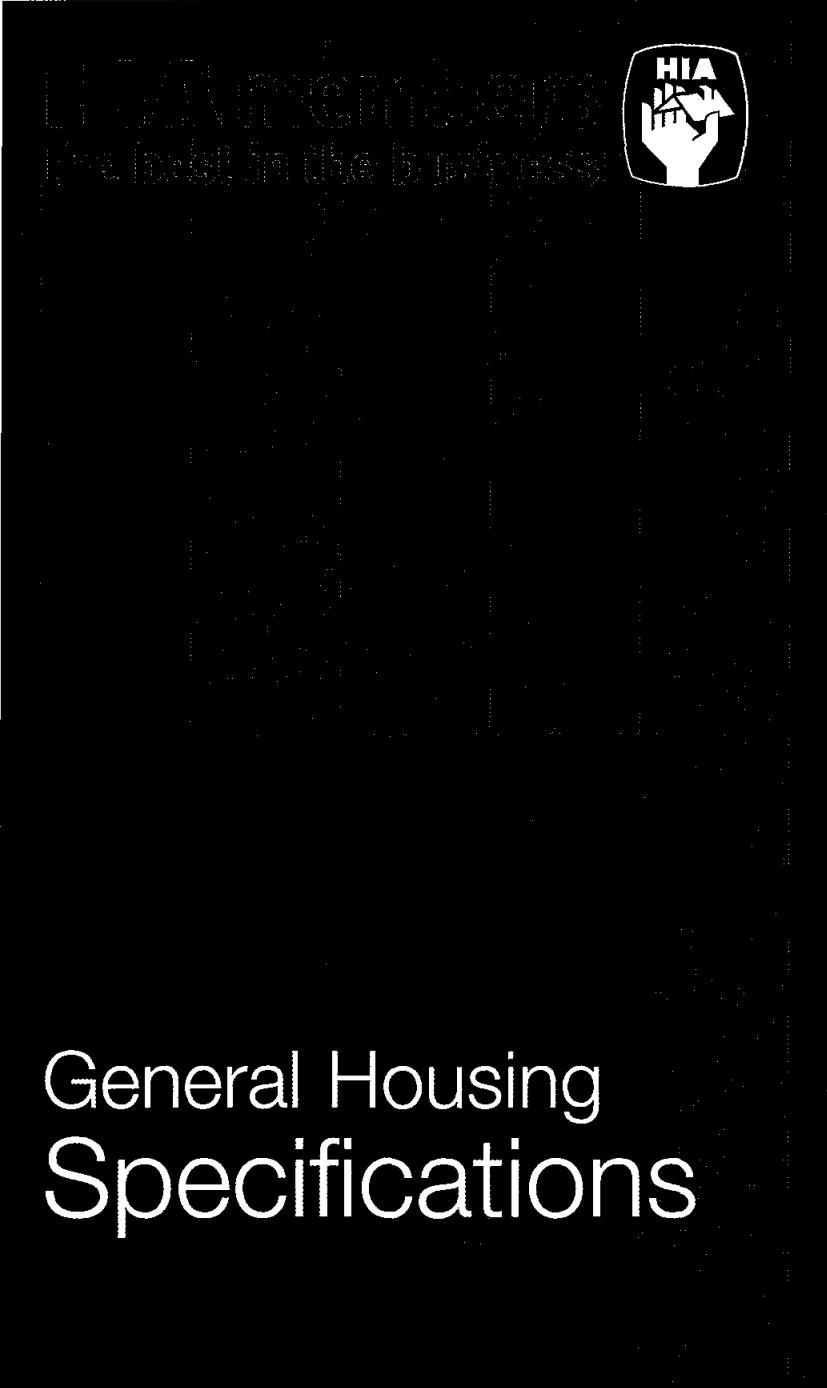
JOB NUMBER

M2462-621303

SHEET No.

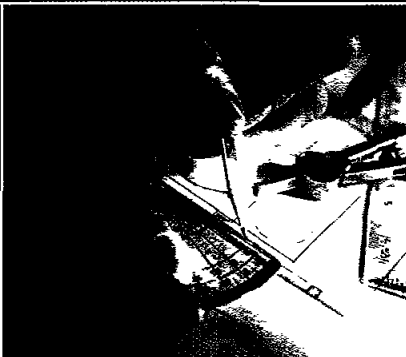
2 of 2

REVISION



THE BEST IN THE BUSINESS

General Housing Specifications



ADDRESS OF PROPERTY Lot 103 No 37 Watergum Dr
Warriewood

GENERAL HOUSING SPECIFICATIONS BETWEEN

OWNER Mr & Mrs Wilkinson

AND

CONTRACTOR Metricon

CONTRACTOR LICENCE NO 174699C

**HIA GENERAL HOUSING SPECIFICATIONS - NSW
(INCORPORATING THE HIA GUIDE TO MATERIALS & WORKMANSHIP)
REVISED MARCH 2010**

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17	PAINTING	9
18	WORKMANSHIP STANDARDS AND TOLERANCES	9
	ANNEXURE	10

This is the Specification referred to in the <i>Contract</i>	No	Date
--	----	------

Owner 1

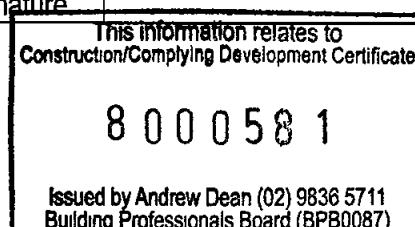
Name			
Owner's Signature		Date	
Witness's name		Witness's signature	

Owner 2

Name			
Owner's Signature		Date	
Witness's name		Witness's signature	

Builder

Name			
Builder's Signature		Date	
Witness's name		Witness's signature	



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**HIA GENERAL HOUSING SPECIFICATIONS - NSW
(INCORPORATING THE HIA GUIDE TO MATERIALS & WORKMANSHIP)
REVISED MARCH 2010**

1 INTRODUCTION

1.1 General

This Specification forms part of the *Contract* documents referred to in the building *Contract* and 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 *Building Code of Australia (BCA)*, the relevant manufacturer's recommendations or *Engineer's Recommendations*.

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, this Specification will take precedence. The *Builder* must at all times maintain a legible copy of the plans and this Specification bearing the approval of the relevant *Local Authority*.

Otherwise to the extent of any conflict between documents, the order of precedence set out in the building contract shall apply.

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:

- *BCA* refers to the publication entitled *Building Code of Australia Class 1 and Class 10 Buildings, Housing Provisions Volume 2* published by the Australian Building Codes Board.
- "*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*.
- The *HIA Guide* means the *HIA Guide to Materials & Workmanship for Residential Building Work*.

Unless the context suggests otherwise, terms used in this Specification shall have the same meaning as in the *HIA Plain Language Building Contract* between the *Owner* and the *Builder* (*Contract*).

2 STATUTORY REQUIREMENTS

2.1 The Building Works

The building works shall be constructed in accordance with

- the *Regulations* and in particular the Performance Requirements referred to in the *BCA*, Housing Provisions, Volume 2
- any conditions imposed by the relevant development consent or complying development certificate, and
- commitments outlined in the relevant BASIX Certificate

in so far as the *Builder* is required in accordance with the Schedule of Works annexed 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 1989*

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*.

2.4 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 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*.

3.2 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.

3.3 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.

3.4 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.

3.5 Sanitation

Unless otherwise specified

- the *Owner* shall, at the *Owner's* expense, supply sewerage connection riser or common effluent drainage connection riser on the site,
- 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

- the *Owner* shall be responsible for any fee to be paid in excess of the standard sewer connection fee

4 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 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* or the *BCA* requirements

6 FOUNDATIONS AND FOOTINGS

6.1 Underfloor Fill

Underfloor fill shall be in accordance with the *BCA*

6.2 Termite Risk Management

Termite treatment shall be carried out in accordance with the *BCA*

6.3 Vapour Barrier

The vapour barrier installed under slab-on-ground construction shall be 0.2 mm nominal thickness, medium impact resistance polyethylene film installed in accordance with the *BCA*

6.4 Reinforcement

Reinforcement shall conform and be placed in accordance with the *Engineer's Recommendations* and the *BCA*

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 the *BCA*

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 and referenced standards in the *BCA*

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, brick walls are to be built to the thickness shown on plan to level underside of floor bearers or plates.

6 10 Sub-Floor Ventilation

Where required, adequate cross ventilation will be provided to the space under suspended ground floor. Construction is to meet the requirements of the *BCA*. No section of the under floor area wall is to be constructed in such a manner that will hold pockets of still air and

6 11 Sub-Floor Access

If required, access will be provided under suspended floors in position where indicated on plan.

7 RETAINING WALLS

7 1 Retaining Walls

Where the *Builder* is required by the Schedule of Works annexed 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 EFFLUENT DISPOSAL/DRAINAGE

8 1 Effluent Disposal/Drainage

In both sewered and unsewered areas

- (a) bath, wash basin, kitchen wash tubs, pedestal pan and floor grate shall be fitted to shower recess in positions shown on plan (refer to Schedule of Works), and
- (b) waste pipes with traps shall be provided to the above fittings and connected to the drainage system.

The whole of the work is to be performed in accordance with the rules and requirements of the sewerage authority concerned.

8 2 Septic System

The *Builder* will 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 the *BCA*.

The *Builder* will allow for the supplying and laying of stormwater drains where shown on the site plan.

9 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 the *BCA* 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. The width of the wall cavity shall comply with the BCA. The *Builder* will provide a clear space of 40mm between outer face of wall frame and inner face of brick veneer walls. The *Builder* will 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 grades and bearing areas shall conform to AS 1684. Heads exceeding 175 mm in depth shall be seasoned or a low shrinkage timber species will be 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

Floor joists will be covered 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 the flooring is 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. The *Builder* will provide tie-down as required for the appropriate design wind speed and roof covering. The *Builder* will 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. Posts 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 STEEL FRAMING

10 1 Generally

Steel floor wall or roof framing shall be installed in accordance with the manufacturer's recommendations and the *BCA*

11 ROOFING

All roof cladding is to comply with the relevant structural performance and weathering requirements of the *BCA* and be installed as per the manufacturer's recommendations

11 1 Tiled Roofing

The *Builder* will cover the roof of the dwelling with approved tiles as selected. The tiles are to be fixed (as required for the appropriate design and wind speed) to battens of sizes appropriate to the spacing of rafters/trusses in accordance with manufacturer's recommendations. The *Builder* will 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

The *Builder* will provide and install a metal roof together with accessories all in accordance with the manufacturer's recommendations.

Except where design prohibits, sheets shall be in single lengths from fascia to ridge. Fixing of sheets shall be strictly in accordance with the manufacturer's recommendations as required for the appropriate design and 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 the *BCA*. Gutters and downpipes are to be compatible with other materials used.

11 4 Sarking

Sarking under roof coverings must comply with 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 the *BCA*.

12 MASONRY

12 1 Bricks

All clay bricks and brickwork shall comply with AS 3700 and the *BCA*. 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 the *BCA*.

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 the *BCA* and Clause 10 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 (Weepholes)

Open vertical joints (weepholes) must be created in the course immediately above any DPC or flashing at centres not exceeding 1 2m and must be in accordance with the *BCA*

12 5 Mortar and Joining

Mortar shall comply with the *BCA* Joint tolerances shall be in accordance with AS 3700

12 6 Masonry Accessories

Masonry accessories shall comply with the *BCA* and accepted building practices Wall ties are to meet the corrosion resistant rating appropriate for the exposure conditions of the site The *Builder* will 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 the *BCA* The *Builder* will provide one lintel to each wall leaf The *Builder* will provide corrosion protection in accordance with the *BCA* Part 3 4 4 as appropriate for the site environment and location of the lintels in the structure

12 8 Cleaning

The *Builder* will clean all exposed brickwork with an approved cleaning system Care should be taken not to damage brickwork or joints and other fittings

13 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

The *Builder* will provide gypsum plasterboards or other selected materials to walls and ceilings Plasterboard sheets are to have recessed edges and will be a minimum of 10mm thick Internal angles in walls from floor to ceiling are 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 the *BCA* 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 are to be waterproofed in accordance with the *BCA*

14 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 the *BCA* and any commitments outlined in the relevant BASIX Certificate

14 5 Architraves and Skirting

The *Builder* will 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

The *Builder* will 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 the *BCA*

15 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 systems and any rainwater harvesting facilities shall be appropriate to satisfy any commitment outlined in the relevant BASIX Certificate

15 2 Electrical

The *Builder* will provide all labour and materials necessary for the proper installation of the 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

The *Builder* will provide and install smoke alarms manufactured in accordance with AS 3786 as specified or as indicated on the plans and in accordance with the *BCA*

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 the *BCA* or as outlined in the relevant BASIX Certificate

16 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 The *Builder* will 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

The *Builder* will 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. The *Builder* will provide all required strips, vent tiles and recess fittings.

16.4 Floors

The *Builder* will lay selected floor tiles in sand and cement mortar, or adhesive compatible with the substrate material, to areas indicated on the drawings. Where required, the *Builder* will fit approved edge strips or metal angle to exposed edges in doorways or hobless showers in wet areas in accordance with the *BCA*. The *Builder* will provide adequate and even fall to wastes where required.

17 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 WORKMANSHIP STANDARDS AND TOLERANCES

18.1 General

These general specifications incorporate the *HIA Guide*. By agreeing to these specifications, the *Owner* agrees that he/she has been provided a copy and has had the opportunity to read the *HIA Guide*.

The *HIA Guide* is to be used by the *Builder* and *Owner* as a point of reference for information on workmanship standards and tolerances, and amongst things, in deciding whether an alleged defect exists and/or whether the materials used and/or workmanship are in accordance with the plans and specifications.

The parties agree to use the *HIA Guide* in precedence over any other non-legislated guide to standards and tolerances.

ANNEXURE
Schedule of Works