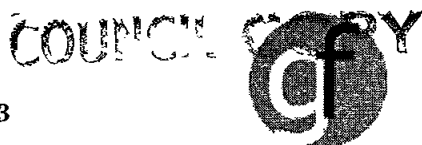


Telephone 1300 663 215
Facsimile (02) 9659 1633
PO Box 6160
Baulkham Hills BC NSW 2153



R Moy & Associates Pty Ltd
T/as Greenfield Accredited Certifiers
ACN 100 924 605
ABN 23 100 924 605

Construction Certificate

Issued in accordance with section 109C(1)(b) of the Environmental Planning & Assessment Act 1979

CONSTRUCTION CERTIFICATE NUMBER CC2008-11256

Subject Site Address	466 Barrenjoey Road, AVALON 2107
Lot No	68
DP	15295
Council Area	PITTWATER COUNCIL
Applicant Name	Bellmarch Homes
Applicant Address	PO Box 6225, PARRAMATTA BC 2150
Owner Name	Euvrard, Sharon
Owner Address	74 Mowbray Road, WILLOUGHBY
Description of Building Work	Two Storey Dwelling
BCA Class of Building Work	1a
Development Consent No	NO810/06
Development Consent Date	10/04/2008
Estimated Cost of Development	\$602,242 00

List of Documents Accompanying the Application

\$30 00 Council Submission Cheque
ABSA & Basix Certificates
PCA Form
Council Receipt - Long Service Levy & Calculation Sheet
Traffic Management Plan
Home Warranty Insurance - Vero
Access Driveway Details
Sydney Water Approval
Deed of Agreement
Landscape Plans & Design Certificate by Unique Garden Design dated 13 June, 2008
Driveway Details & Design Certificate by Patterson Britton & Partners Pty Ltd dated 26 June, 2008
Stormwater Plans & Design Certificate by Nasser Associates dated 30 May, 2008
Structural Engineers Details

List of Plan References and Specifications approved under this Certificate

Job No 05105
Dwg No 1/9, 2/9m 3/9, 4/9, 5/9, 6/9 Revision F dated 4/7/07

(Continued on Page 2)




\$30 00 Rept 241 443 14/7/08

CONSTRUCTION CERTIFICATE NUMBER CC2008-11256

The Certifying Authority (undersigned) is hereby satisfied that where the described works are completed in accordance with documentation accompanying the application for this certificate (with such modifications as shown on the documentation, if applicable) shall comply with the requirements of the Environmental Planning and Assessment Regulation 2000 as referred to in section 81A (5) of the Act

Signed
Certifying Authority
Accreditation Number
Accreditation Body



Stephen Murray
BPB0282
Building Professionals Board

Date of this Certificate 10/07/2008

INSPECTIONS INFORMATION

Site Address
CC No

[Lot68] 466 Barrenjoey Road, AVALON 2107
CC2008-11256

The following mandatory critical stage inspections apply

- Commencement/piers/footings prior to pouring
- Slab – prior to pouring
- Stormwater
- Framework
- Wet Area
- Final

Please note that you will need to arrange for a suitably qualified
STRUCTURAL ENGINEER to provide the PCA with an Engineers
Structural Certificate of Adequacy for piers and slabs during
construction

TO BOOK AN INSPECTION:

Phone 1300 663 215
Request “INSPECTION BOOKINGS”

****PLEASE BOOK INSPECTIONS BEFORE 3.00PM THE
DAY PRIOR TO THE INSPECTION****

Contact Personnel

To check the status of your job contact Linda Wotherspoon

For technical enquiries contact Stephen Murray



COUNCIL COPY
greenfield

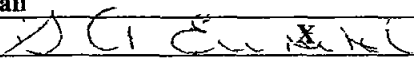
Accredited Certifiers

CONSTRUCTION CERTIFICATE APPLICATION FORM

CHECKLIST

- ☐ Complete & sign this Application form – only originals will be accepted
Legislation prohibits Greenfield from accepting fax or emailed application forms
- ☐ Owners' consent to make an application for a Construction Certificate where the applicant is not the owner of the property
- ☐ 1 x copy of Council DA approved plans
- ☐ 1 x copy of Council development consent
- ☐ 1 x copy of Basix Certificate, ABSA Assessor Certificate and ABSA stamped plans if you were required to provide one with your DA lodgment
- ☐ 3 x copies of architectural (CC) plans with amendments satisfying DA conditions, where required
- ☐ 3 x copies of building specifications
- ☐ Proof of payment of Long Service Levy if work is valued \$25 000 or over
- ☐ Attach cheque in favour of your Council for CC Registration Fee (refer to required items on quotation or advice from our Approvals Liaison Officers)
- ☐ Make arrangements to appoint a PCA before commencing building work – refer to Greenfield's "PCA Form" for details

SECTION 1 : PARTICULARS

Applicant Name	Bellmarch Developments Pty Ltd
Applicant Address	PO Box 6225 Parramatta BC NSW 2150
Applicant Contact Details	Tel 02 9633 9199 Fax 02 9633 9133 Email info@bellmarch.com.au
Owner/s Name	Sharon Euvrard
Owner/s Current Address	74 Mowbray Rd WILLOUGHBY 2068
Owner/s Contact Details	Tel 92411220(Mark) Fax Email
Owner/s Consent Signature/s	X 
Site Address of the Proposed Building Works	Lot 68 in DP 15295 (No 466) Barrenjoey Rd AVALON 2107

Local Government (Council) Area	Pittwater Council
Development Consent Date	10 April 2008
Development Consent No	N810/06
Class of Building (under BCA)	1
Detailed description of proposed building works	Construction of a two storey residential dwelling
Estimated Cost of Building Work	\$602,242 00
Number of proposed storeys	2
Gross floor area of proposed building	291 85 sqm
Gross site area of property	553 7 sqm

For proposed new residential building work only

No of existing dwellings on the property	No
No of existing dwellings to be demolished	No
No of dwellings to be included in the new building	1
Will new building be attached to any existing building ?	No
Will new building be attached to any other new building ?	No
Does the land contain a dual occupancy ?	No

Building materials

External Walls	Brick Veneer
Floors	Concrete Slab
Roof	Concrete Roof Tiles
Frame	Timber

SECTION 2 : TERMS OF APPLICATION

Engagement

The engagement of Greenfield Accredited Certifiers to provide services will not commence until the applicant successfully completes and signs this application form, provides all items in the checklist on page 1 Greenfield Accredited Certifiers will not accept any responsibility for any damages, losses or delays suffered by the Applicant as a result of omissions or errors contained within this form or failure to comply with all relevant items contained in the Checklist on this form

Scope

The scope of works covered under this application is restricted to those building works as described in the "PARTICULARS" section of the form

Terms and Conditions

- 1 All information provided by the Applicant on this form will be taken to be accurate and correct Greenfield does not accept any responsibility for any intentional or unintentional error or omission made by the Applicant on this form
- 2 The Applicant is to declare that no building works have commenced at the time of the application A false representation in this regard will invalidate the application and Applicant will indemnify Greenfield against any damages or losses suffered by it or its employees in relation to the issue of a Construction Certificate In such an event the Applicant agrees to cancel the Construction Certificate at the earliest possible time at no cost to Greenfield

Fees

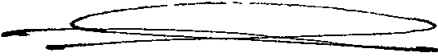
Failure to pay the quoted fee for services will generally result in a refusal to release the Construction Certificate Should a Construction Certificate be released and payment not honoured the Applicant will be liable in addition to any associated debt recovery costs plus interest incurred from the time of the application Greenfield may suspend where fees have not been paid in accordance with the provisions of the Building and Construction Industry Security of Payment Act 1999

SECTION 3 : DECLARATIONS BY THE APPLICANT

I, the aforementioned person or authorised representative of a legal entity as described as the Applicant in the PARTICULARS section hereby declare the following

- I, to the best of my knowledge, have completed all details in the PARTICULARS section in a correct and accurate manner and hereby indemnify Greenfield against any damages, losses or suffering as a result of incorrect information provided under that section
- I have obtained consent from the owner/s of the property as indicated in the PARTICULARS section to apply and obtain a Construction Certificate Such written consent will be provided with this application
- I have read, understood and hereby accept the terms and conditions outlined in Section 2 of this form
- I understand that the Application for Construction Certificate is not complete until all required documentation has been received by Greenfield
- I understand that the Application for and acquisition of Construction Certificate does not authorise Commencement of Building Work (Refer to appointment of PCA on Greenfield’s PCA Form)

APPLICANT SIGNATURE

Signature of Applicant	
Full Name of Applicant	Christopher Blott Bellmarch Developments Pty Ltd
Dated	2 May 2008

Assessor Certificate

Single Dwelling

Certificate Version 6.1 Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of
BASIX THERMAL COMFORT - Simulation Method

ABSA

Assessor					
Name	Fadi Sweis	Company	ERA services	Assr #	20390
Address	PO Box 7446 BAULKHAM HILLS BC NSW 2153				
Phone	(02) 9659 4931	Fax	(02) 9659 4631	Email	fsweis@eraservices.com.au
Declaration of Interest None					

Client					
Name	Bellmarch Homes	Company	Bellmarch Homes		
Address	PO Box 6225 PARRAMATTA BC NSW 2150				
Phone	02 9890 4555	Fax	02 9890 4566	Email	

Project					
Address	466 Barrenjoey Road AVALON NSW 2107				
Lot / DP	68 /	LGA	Pittwater Council		
Applicant Ms Sharon Edward					

Assessment					
Date	13/12/2006	Job ID	07-3082	Filename	20390PIT3082
Software	NatHERS	Version	2.32b	Climate Zone	17
Run # 1					

Referenced documents					
All details, upon which this Assessment has been based, are included in the project documentation which has been stamped and signed by the Assessor issuing this Certificate, as detailed below					
Thermal Performance Specification / Commitments attached and affixed to drawings, page 1					
Drawings Job No 05105					

Specifications Only specifications detailed on Drawings identified above have been referenced

ABSA Assessor Certificate	Assessor # 20390	Certificate # 31458624	Issued 13-Dec-06
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THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (M2)	
Net Conditioned Floor Area	134
Net Unconditioned Floor Area	16
Concessions / Ventilation Bonus	
Eligible Concessions None	
The dwelling has the required shading to qualify for BASIX cross ventilation bonus N/A	

Predicted annual energy loads	
--------------------------------------	--

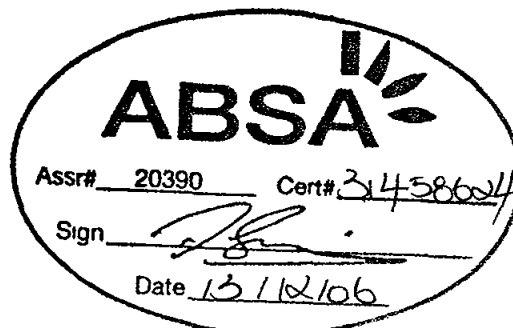
Heating: 90

Cooling: 57

(sensible + latent)

Total: 147

ABSA Assessor stamp



Thermal Performance Specifications BASIX THERMAL COMFORT Simulation Method

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents.

Windows	Product ID	Glass	Frame	U value	SHGC	Area M2	Detail
		Single clear	Aluminium	5.84	0.859		As per detail on plans

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M2
-----------	------------	-------	-------	---------	------	---------

Window and skylight U and SHGC values, if specified, are according to ANAC 2005. Alternate products or specifications may be used if their U value is lower and the SHGC value is less than 10% higher or lower than the U and SHGC values of the product specified above.

External walls	Construction	Insulation	Colour	Solar absorptancy	Detail
Brick Veneer		R2.0	Medium	SA 0.475 - 0.7	As per detail on plans

Internal walls	Construction	Insulation	Detail
Plasterboard on Studs		None	As per detail on plans

Floors	Construction	Insulation	Covering	Detail
Concrete		None	None	As per detail on plans
Concrete		None	Ceramic Tile	
Timber		None	None	

Ceilings	Construction	Insulation	Detail
Plasterboard		R4.0	As per detail on plans

Roof	Construction	Insulation	Colour	Solar absorptancy	Detail
Metal Deck		Foil + R1.0 Batts	Medium	SA 0.475 - 0.7	As per detail on plans

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Holland blinds		None

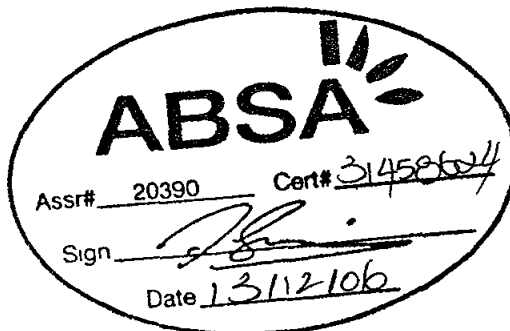
Fixed shading	Eaves (width - inc gutters, height above windows)	Verandahs, Pergolas (type, description)
0	1100	As per detail on plans

Overshadowing	Overshadowing structures	Overshadowing trees
---------------	--------------------------	---------------------

Orientation, Exposure, Ventilation and Infiltration

Orientation of nominal north elevation	321
Terrain category	Suburban
Roof ventilation	Unventilated
Cross ventilation	Standard
Subfloor ventilation	Enclosed
Living area open to entry	Yes
Living areas separated by doors	No
Stair open to heated areas	Yes
Weather seals to windows and doors	Yes
Exhaust fans without dampers	No
Ventilated skylights	No
Open fireplace or unflued gas heater	No
Vented downlights	No
Wall and ceiling vents	No

ABSA Assessor stamp



BASIX Certificate

Building Sustainability Index www.basix.nsw.gov.au

Certificate number 115755S

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 29/06/2006, published by the Department of Planning. This document is available at www.basix.nsw.gov.au

Director-General
Date of issue Tuesday, 19 December 2006



COOLING

Score

- ✓ Water 43 (Target 40)
- ✓ Thermal comfort pass (Target pass)
- ✓ Energy 41 (Target 40)

Description of project

Project address	
Project name	05105 - CAB
Street address	466 BARRENUOEY Road AVALON 2107
Local Government Area	Pittwater Council
Plan type and plan number	Deposited Plan 15295
Lot no	68
Section no	
Project type	
Project type	separate dwelling house
No. of bedrooms	4
Site details	
Site area (m ²)	554
Roof area (m ²)	103
Conditioned floor area (m2)	134
Unconditioned floor area (m2)	16
Total area of garden and lawn (m2)	226
Assessor details and thermal loads	
Assessor number	20390
Certificate number	31458624
Cooling load (MJ/m ² year)	57
Heating load (MJ/m ² year)	90
Other	
none	n/a

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		✓	✓

Energy Commitments

The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
The applicant must install a fixed outdoor clothes drying line as part of the development		✓	

04-07-03 09

Pittwater Council

LSC Payment Receipt

OFFICIAL RECEIPT

04/06/2008 Receipt No 239957

To BELLMARCH HOMES

PO BOX 6223
PARRAMATTA BUSINESS CENTRE 2150

Applic	Reference	Amount
GL Recd	GLSL Builders 1 x N081006	\$2 107 00

Total: \$2 107 00

Amounts Tendered

Cash	\$0 00
Cheque	\$2 107 00
Db/Cr Card	\$0 00
Money Order	\$0 00
Agency Rec	\$0 00
Total	\$2 107 00
Rounding	\$0 00
Change	\$0 00
Nett	\$2 107 00

Printed 04/07/2008 9 32 22 AM

Cashier RLandsa


attention
Chris

LONG SERVICE LEVY CALCULATOR - FROM 1/1/06

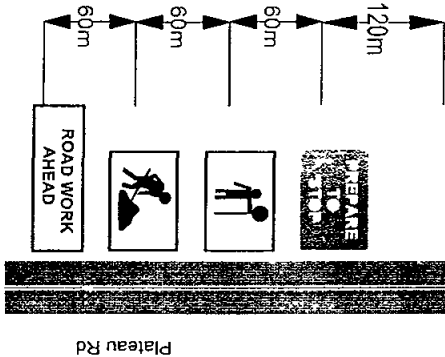
Enter building value \$ 602,242

LSL calculated 2107 00

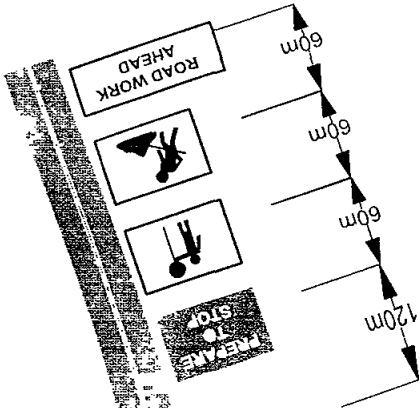
Condition C2

	CLEARWATER Services		
Client	Bellmarch Developments		
Location Of Work	466 Barrenjoey Rd Avalon		
Plan Detail	Plan No 851		
On Site Contact	Christopher 9114 8878		
Type Of Closure	Gate Entry & Exit		

*Certified Traffic controllers will provide a Stop Slow to maintain flow of traffic & ensure safety of pedestrians



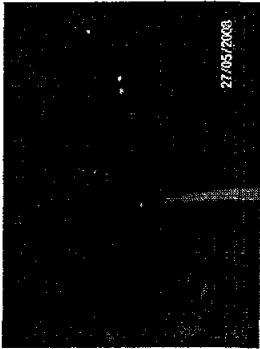
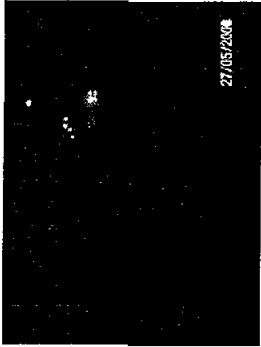
Radios are a must as tc's will not be able to see each other if radio contact is lost a 3rd Tc will be Required for communication between the 3



Date	Plan Drawn By	Red Ticket	Notes
27/05/08	ANDREW KIAUPA	2025291	This plan remains the property of Clearwater Not To Be Ilo
UBD REF		Orange Ticket	
119 B4	46207900 / 0402746408	21630005844	



Legend	Work area
--------	-----------



Certificate of Insurance

Bellmarch Developments Pty Ltd
Po Box 6225
PARRAMATTA BC NSW 2150
Australia

Builder's Copy
Policy Number RCW76075855
Date of Issue 12/05/2008
Broker Payment Reference
Builder's Job Number 05105

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	02/05/2008
Declared Building Contract Value	\$602 242 00 (Refer policy for indemnity limit)
Carried out By	Bellmarch Developments Pty Ltd
Trading As	
ABN	78 061 720 474
Licence Number	50045C
For	Sharon Euvrard
In Respect Of	Single Dwelling
At	Lot Number 68 Barrenjoey Road AVALON NSW 2107

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.

COI000303111

Generated

12/05/2008

Signed for and on behalf of the Insurer



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

**SYDNEY WATER
BUILDING PLAN APPROVED
SUBJECT TO REQUIREMENTS**

Dolphin No **D07/8 - 12916**

Quick Check Ref No **2307429**

e-Developer Case No

Property Location

Street No **466**

Lot No **68**

Street Name **BARRENJOEY ROAD**

Suburb **AVALON**

Building/Structure Description **PROPOSED RESIDENCE**

Building Plan No **Q5105 REVE 2/12** Engineers Plan No **72161-09 ISSA**
72161-10 ISSA

Proposed building/structure is **APPROVED** to construct **OVER/ADJACENT TO** a Sydney Water sewer/asset subject to the following requirements
(NB Delete non applicable requirements)

- 1 The foundations/piers are to be founded below **1 1** zone of influence, **SOIL/ROCK** strata
- 2 No part of the building/structure or its foundations to be less than a minimum **0 6** metre, horizontal distance from the centreline of the sewer
- 3 ~~No part of the swimming pool or its foundations to be less than a minimum _____ metre, horizontal distance from the centreline of the sewer to the outer edge of the pool coping~~
- 4 No part of the building/structure or swimming pool coping to be less than 1 m horizontal distance from outside edge of maintenance hole rim / maintenance shaft rim / lamphole rim / vertical rim / rodding point or edge of ventshaft
- 5 No piercing of building/structure to be less than 2 m horizontal distance from centreline of maintenance hole to edge of piers
- 6 Foundations/piers are constructed in accordance with Engineers detail plans (stated above) as submitted to Sydney Water
- 7 All foundations/piers are to be founded to below the zone of influence or to solid rock
- 8 ~~Indemnity letter to be signed by owner/s of property and returned to Water Servicing Coordinator prior to issue of building plan approval~~
- 9 Concrete encase approximately _____ metres of sewer Concrete encasement to be carried out by an Accredited Constructor of Minor Works (Sewer) / Constructor and a Minor Works Agreement signed prior to commencement of works
- 10 Concrete encasement must extend a minimum of 600 mm past the external walls of the building/structure
- 11 Minimum of _____ mm vertical clearance between top of concrete encasement to underside of concrete slab
- 12 Minimum of _____ mm of compressible membrane between top of concrete encasement to underside of concrete slab
- 13 Property connection point (junction) to be inserted under Minor Works Agreement
- 14 All works are to be completed in accordance with Case No

SYDNEY WATER CORPORATION

SPECIAL REQUIREMENTS

- (a)
- (b)
- (c)

NOTE

Above requirements must be inspected/supervised by an Accredited Supplier or Sydney Water to enable the issue of a satisfactory compliance letter

Permits are required to fill all new swimming pools with a capacity greater than 10,000 litres To arrange for a permit please contact Sydney Water on 13 20 92 during business hours Fines will apply for filling swimming pools without a permit.

APPROVED BY

WSC Company Name **BURTON AND FIELD PTY LTD**

Name of Key Personnel

Prom Chand

Signature of Key Personnel

Prom

Date **26, 6, 08**



Application Lodgement Summary

Sydney
WATER**Reference Number** 2307429**Date Requested** Wed June 4 2008**DOLFIN Number** D07/8-12916**Agent** Reece West Ryde, 922 Victoria Rd West Ryde**Applicant** bellmarch homes, p o box 6225 parramatta 2150**Property/Asset** 466 Barrenjoey Rd, Avalon 2107 (Sa Euvrard) PNum 3399832
150 mm VC Sewer Main - (3133921)**Product** Building Plan Approval Application

Charge	Product Cost	GST	Total
Building Plan Approval Application Fee	\$24 40	\$0 00	\$24 40

REFERRAL FOR BUILDING PLAN APPROVALS**Quick Check Agent**

The Quick Check Agent has lodged your application with Sydney Water and determined that your proposed building/structure may potentially impact on Sydney Water's infrastructure

The Quick Check Agent has advised you to contact a Water Servicing Coordinator for approval of your proposed building/structure. The Water Servicing Coordinator acts as your contact in dealing with Sydney Water.

Some of the activities required prior to approving your plan may include,

- Reviewing your proposed building/structure plans and discussing options
- Advise if a Service Protection Report (also known as a Pegout) is required
- Advise if structural engineering detail is required
- Arrange supervision of concrete encasement and piling
- Specify asset protection requirements and/or alternative options

Water Servicing Coordinator

Water Servicing Coordinators are located across Sydney, Illawarra and the Blue Mountains. Sydney Water recommends that you contact several Water Servicing Coordinators to ensure you choose the one that is most appropriate for you.

To assist in your selection, Sydney Water recommends you ask each Water Servicing Coordinator the following type of questions:

1. How long will it take to obtain the Building Plan Approval?
2. How much do you charge for a Building Plan Approval?
3. If I require a Service Protection Report (pegout), how much will it cost?
4. Are there any other charges that I may have to pay?

For more information and a list of Water Servicing Coordinators, visit the Building, Developing and Plumbing section of Sydney Water's website at www.sydneywater.com.au. Alternatively you may obtain a list from the Sydney Water call centre on Tel 13 20 92.

[illegible]

- Provide sediment control measures including trade waste receptacle in accordance with EPA requirements
- Provide Builders and site chemical treated sanitary service
- Provide Termite protection in accordance with Australian Standard AS 3660.1:1995
- Provide a 18 3/4kw reverse cycle air conditioning system with 7 zone, 4.3 phase metering
- Provide R1.5 insulation batts to external walls
- Provide R2.5 insulation batts to ceiling including garage

89 LOT

DP 15295

SUPPLY AND DEMAND

APPROVED DEVELOPMENT CONSENT PLANS

Enclosing walls of tw Storey Porbo
La decapad Are
331.47m 59 9864
Se Sheet 10 to detail d
No co anno analysis

Nobis
 Stampwater
 Note: **NOT THESE PLANTS**
 Owner/purchaser contractor responsible for the location, condition, and quantity of the material.

HW 1440000
 TEL 1440000
 FAX 1440000
 PC 1440000
 TEL 1440000
 FAX 1440000
 PC 1440000

w dndos window
re at top / wndw W
re at sill / wndw W

NOTES

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Accredited Supplier to SYDNEY WATER
BUILDING PLAN APPROVED
SUBJECT TO REQUIREMENTS

Ref No DM/5-12916 Date 26/4/08

BARRENJOEY

ROAD

SITE PLAN

1200

USE FIGURED DIMENSIONS ONLY
VERIFY ALL DIMENSIONS ON SITE

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Revisions		Revisions
E	Additional info to council	30 10 07
D	Amendments as per DU meeting	6 0 07
C	Amendments as per DU meeting	7 8 07
Rev	Description	Date

Design CUSTOM

Proposed Residence for
Mrs Sharon Euyard

Address
Lot 68 (No 465) Barrenjoey Road
Avalon

Revision	AREAS
	GF 113.22 IF 101.25
	PA 5.25 GA 37.04
	BA 1 119.5 BA 12 9.4
	BA 3 16.17 TOTAL 261.85m

Drawn	Checked	Project No	Date
John T	CAB	05105	4 12 06



PO Box 6225 Parramatta Business Centre NSW 2150
Ph (02) 9633 9199 Fax (02) 9633 9133
enquiry@bellmarch.com.au www.bellmarch.com.au
Level 20, 200, 220, 272, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 1136, 1138, 1140, 1142, 1144, 1146, 1148, 1150, 1152, 1154, 1156, 1158, 1160, 1162, 1164, 1166, 1168, 1170, 1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300, 1302, 1304, 1306, 1308, 1310, 1312, 1314, 1316, 1318, 1320, 1322, 1324, 1326, 1328, 1330, 1332, 1334, 1336, 1338, 1340, 1342, 1344, 1346, 1348, 1350, 1352, 1354, 1356, 1358, 1360, 1362, 1364, 1366, 1368, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388, 1390, 1392, 1394, 1396, 1398, 1400, 1402, 1404, 1406, 1408, 1410, 1412, 1414, 1416, 1418, 1420, 1422, 1424, 1426, 1428, 1430, 1432, 1434, 1436, 1438, 1440, 1442, 1444, 1446, 1448, 1450, 1452, 1454, 1456, 1458, 1460, 1462, 1464, 1466, 1468, 1470, 1472, 1474, 1476, 1478, 1480, 1482, 1484, 1486, 1488, 1490, 1492, 1494, 1496, 1498, 1500, 1502, 1504, 1506, 1508, 1510, 1512, 1514, 1516, 1518, 1520, 1522, 1524, 1526, 1528, 1530, 1532, 1534, 1536, 1538, 1540, 1542, 1544, 1546, 1548, 1550, 1552, 1554, 1556, 1558, 1560, 1562, 1564, 1566, 1568, 1570, 1572, 1574, 1576, 1578, 1580, 1582, 1584, 1586, 1588, 1590, 1592, 1594, 1596, 1598, 1600, 1602, 1604, 1606, 1608, 1610, 1612, 1614, 1616, 1618, 1620, 1622, 1624, 1626, 1628, 1630, 1632, 1634, 1636, 1638, 1640, 1642, 1644, 1646, 1648, 1650, 1652, 1654, 1656, 1658, 1660, 1662, 1664, 1666, 1668, 1670, 1672, 1674, 1676, 1678, 1680, 1682, 1684, 1686, 1688, 1690, 1692, 1694, 1696, 1698, 1700, 1702, 1704, 1706, 1708, 1710, 1712, 1714, 1716, 1718, 1720, 1722, 1724, 1726, 1728, 1730, 1732, 17

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DO NOT SCALE FROM THESE DRAWINGS
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DWG NO
2 / 12

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20-06- 08 09 55 FROM-PITTWATER COUNCIL

+612-99701397

T-961 P001/002 F-648



Pittwater Council
Information for Access Driveway Profiles
1 July 2006 – 30 June 2007

FAX 9241 1224

To Sharon Euvrard
Postal Address 74 Mowbray Road
Willoughby 2068

Date 10th May 2007

Receipt No 214688
Amount \$66 00

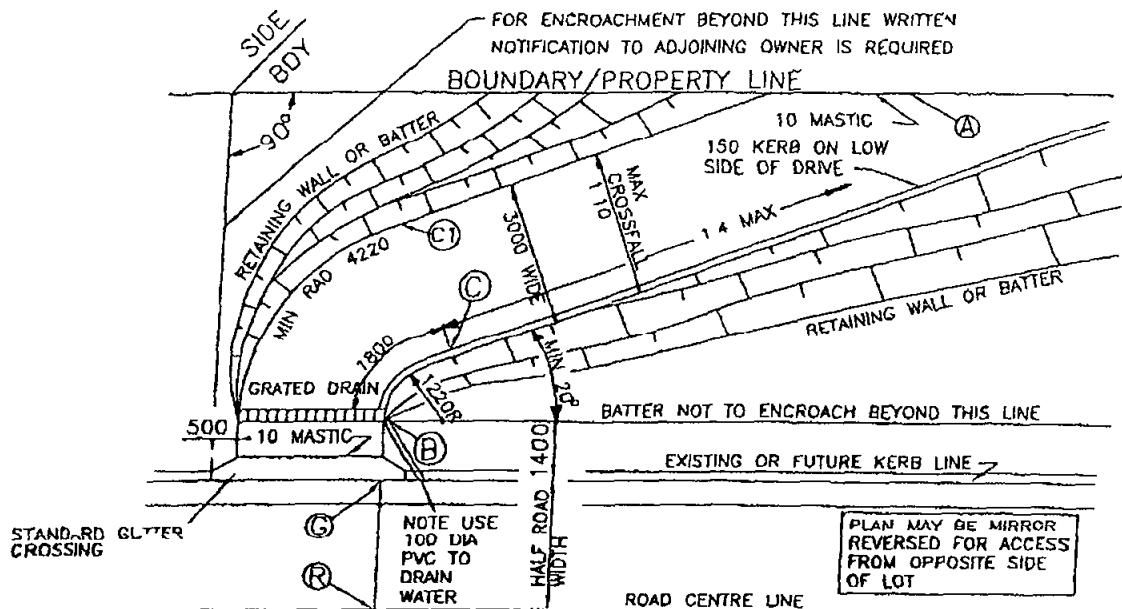
ACCESS DRIVEWAY PROFILE AT 466 Barrenjoey Road, Avalon 2107

- The proposed vehicular access driveway profile shall be as per the enclosed plan **MHLS**
- **Type of Construction** Domestic
- **Slab Construction** Vehicular access slab 8 0m long 5 0m wide at gutter crossing to 4 0m wide at the boundary
- **Note "G" (see attached diagram) 450mm from edge of road and 50mm below edge of road**
- **RTA APPROVAL REQUIRED**
- 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**

S. Melden

Sigi Meldens
ASSETS / RESTORATIONS OFFICER
Telephone 9970 1348

MAXIMUM HIGH LEVEL SKEW (MHS)FOR USE ONLY FOR DEVELOPME
OF 2 OR LESS DWELLING UNITS

POINT	REMARKS	LEVELS
R	ROAD CENTRELINE	
G	INVERT OF GUTTER	
B	1400 FROM KERB FACE	130 ABOVE 'G'
C	3200 FROM KERB FACE	NOT HIGHER THAN 440 ABOVE 'G'
C1	6900 FROM KERB FACE	MIN 440 MAX 740 ABOVE 'G'
A	BOUNDARY	EASE REQUIRED AT GRADE CHANGE

NOTES

- All construction within the road reserve to be in plain uncoloured 20MPa concrete unless otherwise approved by Council
- Single dwellings – 20Mpa concrete 130mm thick
– Dual occupancies where the crossing services both dwellings – 20Mpa concrete 150mm thick with F72 reinforcement
- The vehicular crossing and the driveway to 1200 behind the kerblines to be graded parallel with the centre line grading
- Crossfall on straight section of drive may be eitherway if towards the bank, kerb not required for drainage but desirable for safety
- Retaining walls to be designed by a structural engineer & plans must be submitted to Council for approval prior to commencing construction
- Radii shown are minimum but tangent points shall remain at or beyond B
- To ensure accurate set-out on steep difficult sites, engage a surveyor
- Driveway pavers to be laid on a 100mm concrete base
- For low traffic, narrow roads Council may consider permitting extended gutter crossings

**PITTWATER COUNCIL**

Standard Domestic Driveway Profiles

MAXIMUM HIGH LEVEL SKEW (MHS)

PLAN No

MHS-

SHEET No. 1 of 1

Cont C 3(6).

DEED OF AGREEMENT FOR COLOURED DRIVEWAY INDEMINIFYING AGAINST LIABILITY

THIS DEED made the 2nd day of JUNE 20 08

BETWEEN

Owner/s name SHARON EURNARD

Postal Address 74 MOWBRAY ROAD, WILLOUGHBY Postcode 2068

Hereinafter called the owner of the one part and THE COUNCIL OF PITTWATER (hereinafter called the Council of the other part NOW THIS DEED WITNESSETH as follows

1 The owner/s acknowledge that

No 466 Lot No 68 Street BARRENTOEY ROAD
Suburb AVALON Postcode _____

2 In consideration of the Council allowing the footpath/vehicular crossing to be constructed in coloured concrete, which is structurally in conformity with Council's standards, the owner agrees

a) To accept full responsibility for all restoration and maintenance of the crossing and to keep it in a sound and safe condition to the satisfaction of Council at all times

b) That should the crossing be damaged at any time during the course of work by any authorised person or body the restoration of the surface appearance will be the owner's responsibility

c) That the obligation of the authorised person causing damage extends only to replacing the damaged portion in normally coloured portland cement concrete to render it safe for vehicle and pedestrian movement

d) That the existence of the special surface and the conditions pertaining to it will be noted in Council's records for the advice of any intending purchaser of the property

IN WITNESS WHEREOF the parties hereto have hereunto set their hands and seals on the day and year first hereinbefore written

SIGNED SEALED AND DELIVERED

By the said owner in the presence of

Signature of Witness

Konstantin Piatkov

Name of Witness

7A Loch Maree Av

Address of Witness

SA Eurnard

Signature of Owner

Signature of Owner

Signed on behalf of THE COUNCIL OF PITTWATER
URBAN INFRASTRUCTURE MANAGER

Inspecting Officer

Date _____

Date _____

Office Use Only Form No COL0707 CODE EROP FEE \$76.00 incl GST 17 08 - 30 6 09

RECEIPT NO

ISSUED BY

DATE

Any enquiries please contact Customer Service Ph (02) 9970 1111 Fax (02) 9970 7150

REPORT 2010
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TAX INVOICE
OFFICIAL RECEIPT

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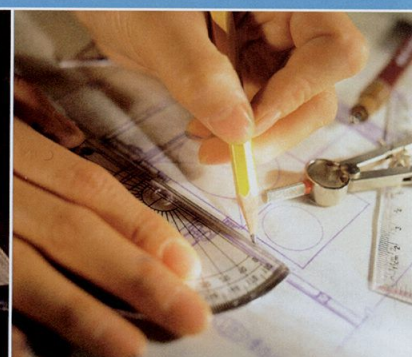
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General Housing Specifications



ADDRESS OF PROPERTY: LOT 68 (No. 466) Barrenjoey Rd AVALON

GENERAL HOUSING SPECIFICATION BETWEEN:

OWNER: Mrs Sharon Euvrard

AND

CONTRACTOR: Bellmarch Developments Pty Ltd

CONTRACTOR LICENCE No.: 50045c

This is the plan/spec referred to
in Greenfield Accredited Certifiers
Certificate

Cert No. 08/11256

Officer: Stephen Murray
Accreditation No: BPB0282

INDEX

GENERAL HOUSING SPECIFICATION

(NSW version revised August 2005)

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1 0 INTRODUCTION

1 1 General

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

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

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

1 2 Preliminary Use

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

1 3 Prevailing Documents

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

1 4 Size and Dimensions

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

1 5 Prime Cost and Provisional Sum Items

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

1 6 Definitions

In this Specification

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

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

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

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

21 The Building Works

a the regulations and in particular the Performance Requirements of the BCA Housing Provisions Volume 2

b any conditions imposed by the relevant development consent or complying development certificate

c commitments outlined in the relevant BASIX Certificate

2.2 Compliance with Requirements of Authorities

23 Electricity

26 Sanitary Accommodation

30 OWNER'S OBLIGATIONS

3.1 Engineer's Recommendations

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

3.3 Trades Persons Engaged by Owner

3 4 Items Supplied by Owner

3 5 Water Supply

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

3 6 Sanitation

Unless otherwise specified

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

4 0 PLANS, PERMITS AND APPLICATION FEES

4 1 Permits and Fees

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

4 2 Mines Subsidence

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

4 3 Setting Out

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

5 0 EXCAVATIONS

5 1 Excavations

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

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

Excavations for all footings shall be in accordance with the Engineer's Recommendations and BCA Volume 2, Housing Provisions Part 3 2 2

6 0 FOUNDATIONS AND FOOTINGS

6 1 Underfloor Fill

Underfloor fill shall be in accordance with BCA Volume 2 Housing Provisions Part 3 2 2 or Performance Requirements P2 1 P2 2 3 and Clause 1 0 10

6.2 Termite Risk Management

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

6.3 Vapour Barrier

The underfloor vapour barrier shall be 0.2 mm nominal thickness high impact resistance polyethylene film installed in accordance with BCA Volume 2 Housing Provisions Part 3.2.2 or Performance Requirements P2.1 P2.2.3 and Clause 10.10

64 Reinforcement

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

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

6 5 Concrete

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

Pre-mixed concrete shall be manufactured in accordance with AS1379 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

66 Curing

All concrete slabs shall be cured in accordance with AS3600

67 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.

69 Foundation Walls

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

6 10 Sub- Floor Ventilation

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

6 11 Sub-Floor Access

Provide access under suspended floors in position where indicated on plan

7 0 RETAINING WALLS

7 1 Retaining Walls

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

8 0 EFFLUENT DISPOSAL/DRAINAGE

8 1 Effluent Disposal/Drainage

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

8 2 Septic System

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

8 3 Storm Water Drainage

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

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

9 0 TIMBER FRAMING

9 1 Generally

All timber framework sizes, spans, spacing, notching, checking and fixing to all floor, wall and roof structures shall comply with BCA Volume 2, Housing Provisions Part 3 4 3 or Performance Requirement P2 1 and Clause 1 0 10 or AS1684. 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 AS1684.

9 3 Wall Framing

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

Studs in each panel of walling shall be stiffened by means of solid noggings or bridging pieces at not more than 1350mm centres over the height of the wall. Bottom plates shall be fixed to the floor structure in accordance with AS1684.

9 4 Heads Over Opening (Lintels)

All sizes, stress grade and bearing area shall conform to AS1684. Heads exceeding 175mm in depth shall be seasoned or a low shrinkage timber species used. Plywood web lintels conforming to the requirements of the Plywood Association of Australia may be used. Glue laminated beams conforming to AS1328 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 AS1720 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 AS1684 as appropriate for the design wind velocity for the site. Bracing shall be evenly distributed throughout the building.

9 7 Flooring

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

Strip and sheet flooring shall be installed in accordance with AS1684.

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

9 8 Roof Framing

Roofs are to be pitched to the slope shown on plan. Provide tie-down as required for the appropriate design wind speed and roof covering. Provide all rafters, ridges, hips, valleys, purlins, struts, collar ties and wind bracing as appropriate with all sizes and stress grades in accordance with AS1684.

Metal fascias shall be installed in accordance with the manufacturer's recommendations and shall meet the requirements of AS1684.

9 9 Timber Posts

Posts supporting carports verandas and porches shall be timber suitable for external use, or as otherwise specified supported on galvanised or treated metal post shoes unless otherwise specified Post shall be bolted to all adjoining beams as required by AS1684 for the wind speed classification assessed for the site

9 10 Corrosion Protection

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

9 11 Hot Water Storage Tank Platforms

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

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

10 0 STEEL FRAMING

10 1 Generally

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

11 0 ROOFING

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

11 1 Tiled Roofing

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

11 2 Metal Roofing

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

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

11 3 Gutters and Downpipes

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

11 4 Sarking

Sarking if used under roof coverings must comply and be fixed in accordance with AS/NZS4200 1 for materials and AS/NZS4200 2 for installation

11 5 Sealants

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

11 6 Flashing

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

120 MASONRY

12.1 Bricks

All clay bricks and brickwork shall comply with AS/NZS4455, AS/NZS4456 AS3700 and BCA, Volume2, Housing Provisions, Part 3 3 or Performance Requirement P2 1 and Clause 1 0 10 Clay bricks are a natural kiln fired product and as such their individual size may vary

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

12 2 Concrete Blocks

Concrete blocks are to be machine pressed, of even shape well cured and shall comply with AS3700
Concrete blockwork shall be constructed in accordance with BCA Volume 2 Housing Provisions Part 3.3 or
Performance Requirement P2.1 and Clause 10.10

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

12 3 Damp Proof Courses

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

12.4 Cavity Ventilation (Weep Holes)

Open perpendicular joints (weepholes) must be created in the course immediately above any DPC or flashing at centres not exceeding 1.2m and be in accordance with BCA Volume 2, Housing Provisions, Part 3.3.4 or Performance Requirement P2.2.2 and Clause 10.10

12 5 Mortar and Joining

Mortar shall comply with BCA Volume 2, Housing Provisions, Part 3 3 1 or Performance Requirement 2 1 and Clause 1 0 10 Joint tolerances shall be in accordance with AS3700

12 6 Masonry Accessories

Masonry accessories shall comply with BCA Volume 2 Housing Provisions, Part 3.3.3 or Performance Requirement P2.1 and Clause 10.10 and accepted building practices. Wall ties to meet corrosion resistant rating appropriate for the exposure conditions of the site. Provide appropriate ties to articulated joints in masonry.

12.7 Lintels

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

12 8 Cleaning

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

13 0 CLADDING AND LININGS

13.1 External Claddings

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

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

13 2 Internal Wall and Ceilings Linings

Provide gypsum plasterboards or other selected materials to walls and ceilings. Plasterboard sheets to have recessed edges and be a minimum of 10mm thick. Internal angles in walls from floor to ceiling to be set. Suitable cornice moulds shall be fixed at the junction of all walls and ceilings or the joint set as required. The lining of wet area walls shall be constructed in accordance with BCA, Volume 2 Housing Provisions, Part 3.8.1 or Performance Requirement P2.4.1 and Clause 10.10. Wet area lining is to be fixed in accordance with the manufacturer's recommendations.

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

13.3 Waterproofing

All internal wet areas and balconies over internal habitable rooms to be waterproofed in accordance with BCA, Volume 2, Housing Provisions, Part 3.8.1 or Performance Requirement P2.4.1 and Clause 10.10

140 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 32mm thick solid rebated 12 mm deep to receive doors Internal jamb linings shall be a minimum of 18mm thick fit with 12mm 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 AS2688 and AS2689

14 4 Window and Sliding Doors

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

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

All glazing shall comply with BCA Volume 2, Housing Provisions, Part 3 6 or Performance Requirements P2 1 P2 2 2 and Clause 1 0 10 and any commitments outlined in the relevant BASIX Certificate

14 5 Architraves and Skirting

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

14 6 Cupboards/Kitchens/Bathroom

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

14 7 Stairs, Balustrades and other Barriers

Provide stairs or ramps to any change in levels and balustrades or barriers to at least one side of ramps landings and balconies as per BCA Volume 2 Housing Provisions Part 3 9 1 or Performance Requirement P2 5 1 and Clause 1 0 10 for stair construction and Part 3 9 2 or Performance Requirements P2 1 P2 5 2 and Clause 1 0 10 for balustrades

15 0 SERVICES

15 1 Plumbing

All plumbing shall comply with the requirements of the relevant supply authority and AS3500 The work is to be carried out by a licensed plumber
Fittings as listed in the Schedule of Works shall be supplied and installed to manufacturer's recommendations
Fittings, hot water system and any rainwater harvesting facilities shall be appropriate to satisfy any commitment outlined in the relevant BASIX Certificate

15 2 Electrical

Provide all labour and materials necessary for the proper installation of electricity service by a licensed electrician in accordance with AS3000 and the requirements of the relevant supply authority Unless otherwise specified the electrical service shall be 240 volt single phase supply

15 3 Gas

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

15 4 Smoke Detectors

Provide and install smoke alarms manufactured in accordance with AS3786 as specified or as indicated on the plans and in accordance with BCA Volume 2 Housing Provisions, Part 3 7 2 or Performance Requirement P2 3 2 and Clause 1 0 10

15 5 Thermal Insulation

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

16 0 TILING

16 1 Materials

Cement mortar and other adhesives shall comply with AS3958 1 or tile manufacturer's recommendations

16 2 Installation

Installation of tiles shall be in accordance with AS3958 1 manufacturer's recommendations or accepted building practices

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

16 3 Walls

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

16 4 Floors

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

17 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.

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

Signed by the said
Owner in the
presence of

Witness

Owner's Signature

Date

Witness

Owner's Signature

/ /
Date

Signed by the said
Builder in the
presence of

Witness

Builder's Signature

Date / /

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COUNCIL COPY

Hydraulic Plans
Including Calculations,
OSD Tank Details,
Overland Flow Path Details,
Silt Arrestor Pit Details,
Belowground Rainwater Tank Details,
Excavation/Landfill Plan
and
Stormwater System
for

Proposed Single Residential Developments at

Lot 68, D.P. 15295,
(H/No. 466) Barrenjoey Road,
AVALON

30 May 2008

Pittwater Council

Council DA No. 81/06

Our Job Number: D2089

Nasseri Associates

Civil, Hydraulic and Structural Engineering
Suite 51, No. 14 Narabang Way, Belrose NSW 2085
P O Box 714 Balgowlah NSW 2093
Phone: (02) 9986 3875
Mobile: 0410 308 064
Fax: (02) 9986 3876
Email: nasseriassociates@bigpond.com

Table of Content	Sheet
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Hydraulic Details:

1. Notes, Calculations & Pit Details	1
2. Drainage Plan (1 in 200)	2
3. Detention Tank Details	3
4. Underground Rainwater Tank Details	4
5. Proposed Excavation/Landfill Plan	5
6. Erosion & Sediment Control Details	6

IMPORTANT NOTE:

The following hydraulic plans should be read in conjunction with;

1. Architectural plans from Bellmarch Homes, job no. 05105 revision E dated 30 October 2007 (Phone: (02) 9114 8878).
2. Pittwater Council's Stormwater Requirements for Residential Development (DCP 21) and BASIX Requirements.
3. Council DA No. 81/06 dated 10 April 2008 and discussion with Council's Engineer dated 29 May 2008 in regard to the OSD and RWT systems.

NASSERI ASSOCIATES

CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
Suite 51, No. 14 Narabang Way, Belrose NSW 2085
P O Box 714 Balgowlah NSW 2093
Phone: (02) 9986 3875 Fax: (02) 9986 3876

YOUR REFERENCE
Bellmarch Homes

OUR REFERENCE
D2089

DATE
30 May 2008

To Pittwater Council,

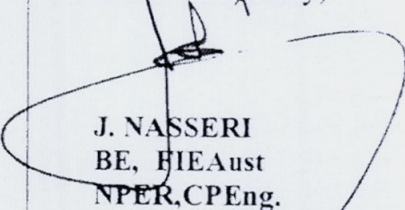
DESIGN COMPLIANCE CERTIFICATE
(DA No. NO81/06)

RE: – Lot 68 (H/No. 466) Barrenjoey Road, Avalon

This is to certify that the hydraulic design from Nasser Associates job no. D2089 dated 30 May 2008 for the above-mentioned property is in accordance with the requirements of relevant Australian Standard 3500.3.2:1998 National Plumbing and Drainage Part 3.2, Australian Rainfall and Runoff (1987), Pittwater Council's Stormwater Requirements (DCP 21) and Conditions in DA No. NO81/06 dated 10 April 2008.

If you require further information on the above matters, please contact the undersigned on the above telephone number.

Yours faithfully,


J. NASSERI
BE, FIEAust
NPER, CPEng.
Accredited Certifier

125x75x4.0 RHS HOT DIPPED GALV. TO BE CONNECTED TO BOTTOM OF CONCRETE DISH DRAIN AT 1% MIN FALL.
(THE EXACT LOCATION OF THE OUTLET TO BE DETERMINED ON SITE DURING CONSTRUCTION - MAKE GOOD)

600 SQ. SILT ARRESTOR PIT
SL. 98.40 (APPROX.)
INV. PIT 97.80
INV. OVERFLOW 98.06
(REFER TO DETAIL 2 ON SHEET No.1)

FOR DRIVEWAY DESIGN AND DETAILS REFER TO DRAWING FROM "PATERSON BRITTON & PARTNERS PTY LTD" AND DONOVAN CONSULTANTS.

100 DIA SEWER GRADE TO OSD TANK AT 1% MIN FALL

PROPOSED RETAINING WALL (REFER TO DESIGN BY DONOVAN CONSULTANTS)

100 DIA SEWER GRADE TO TAKE ROOF WATER TO TOP OF RWT

450 SQ. GRATED PIT
SL. 103.65 (APPROX.)
INV. 103.20
(REFER TO DETAIL 1 ON SHEET No.1)

100 DIA UPVC TO PIT ① AT 1% MIN FALL

CREATE A SWALE OR EARTH MOUND TO DIVERT SURFACE WATER TO PIT ① AND FRONT OF THE PROPERTY (REFER TO DETAIL 3)

These Plans have been certified

100 DIA SEWER GRADE TO TAKE ROOF WATER TO TOP OF RWT

100 DIA YARD SUMP / OR 300 SQUARE GRATED PIT (TYPICAL)

ENSURE NO WATER PONDRAGE OCCURS AROUND DWELLING - SLOPE FINISHED GROUND LEVEL TOWARDS YARD SUMPS OR PITS (AS SHOWN)

PROVIDE SILTATION FENCE TO ENSURE SEDIMENTATION & EROSION CONTROL (REFER TO SHEET No.8 FOR DETAILS)

CREATE A SWALE OR EARTH MOUND TO DIVERT SURFACE WATER TO PIT ② (REFER TO DETAIL 3)

500 OR 300mm WIDE EARTH MOUND OR DISH DRAIN

NTS

DRAINAGE PLAN

SCALE 1:200

SYMBOLS & NOTATIONS

- STORMWATER LINES
- FINISHED SURFACE LEVEL
- FINISHED FLOOR LEVEL
- FINISHED PLATFORM LEVEL
- SEWAGE CONTROL BARRIER
- PROPOSED BOUNDARY
- SEWER

HYDRAULIC DETAILS

DRAINAGE PLAN

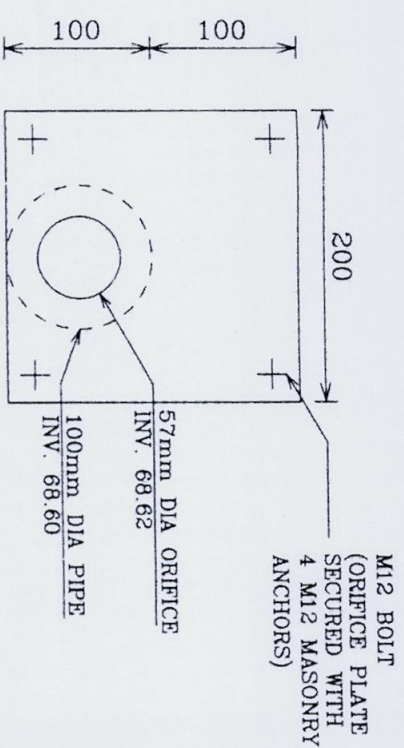
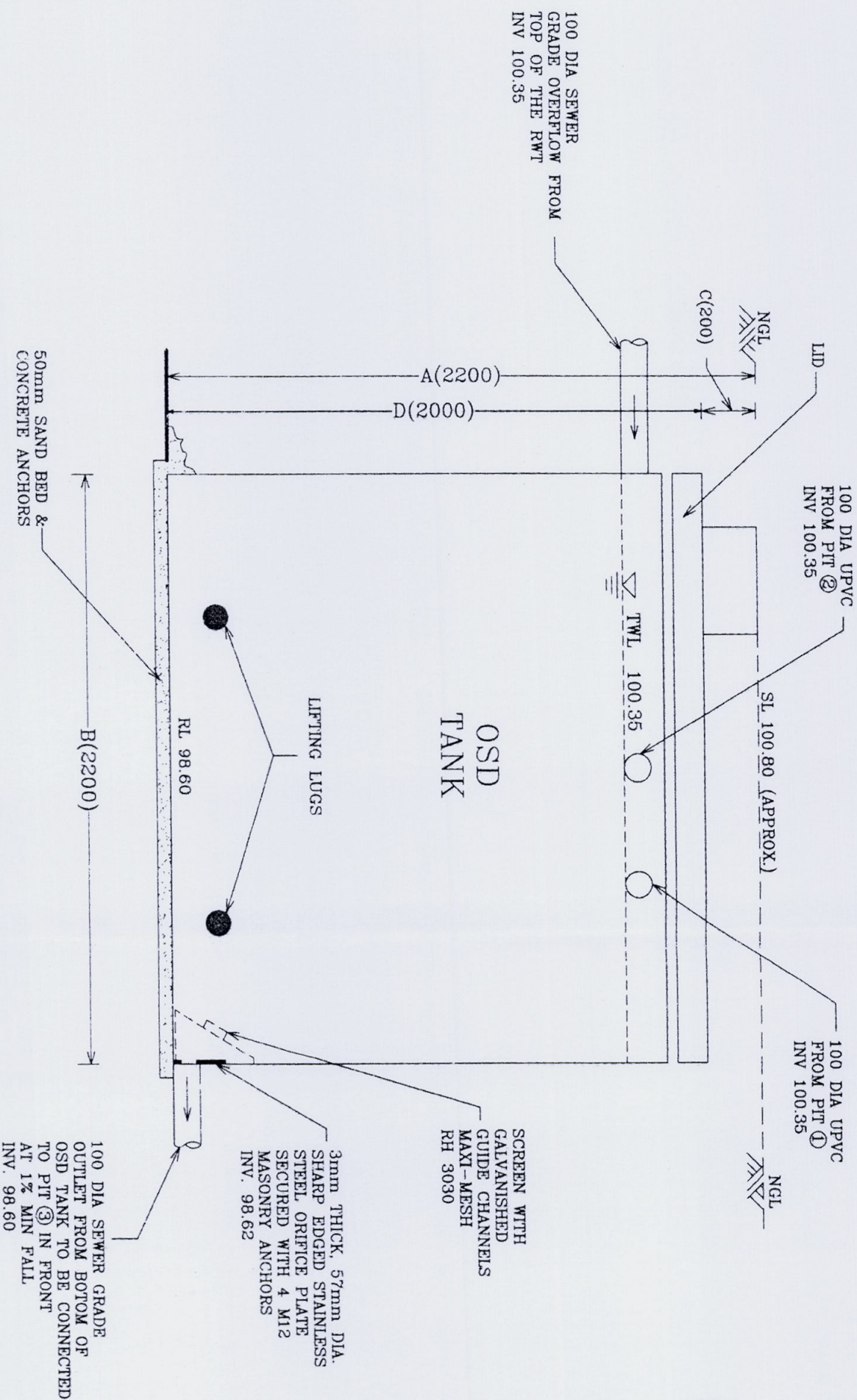
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CLIENT: BELLMARCH HOMES (Mrs SHARON EUVRARD)
LOT 68 (H/No.466) BARRENJOEY ROAD, AVALON

DESIGNED JN
DRAWN HA
CHECKED JN
SCALE AS SHOWN
CAD REF. ENG/BELMARCH
JOB No. D2089
SHEET No. 2

NASSERI ASSOCIATES
CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 51, No.14 NARABANG WAY, BELROSE 2085
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TEL. (02) 9986 3875
FAX. (02) 9986 3876
MOB. 0410 308 064
EMAIL. nasseriasociates@bigpond.com

30 May 2008.



ORIFICE DETAILS

SCALE 1 : 5

GREENFIELD ACCREDITED CERTIFIED

stormwater Details c.c. No: 08/1123

These Plans have been certified

Nasser Associates

& refer to the Complying Component

Project No: D2089

TANK SIZE & WEIGHT	A	B	C	D	E	CONCRETE ANCHOR RECOMMENDED SIZE
5,500 LTR	2200	2200	200	2000	1700	1.4m ³
3.6 TONNES						
8,500 LTR	2440	2540	200	2240	1900	2.2m ³
5.1 TONNES						
10,000 LTR	2740	2540	200	2540	2230	2.8m ³
5.3 TONNES						

5,500 LITRES DETENTION TANK (SECTION) (NTS)

NASSERI ASSOCIATES
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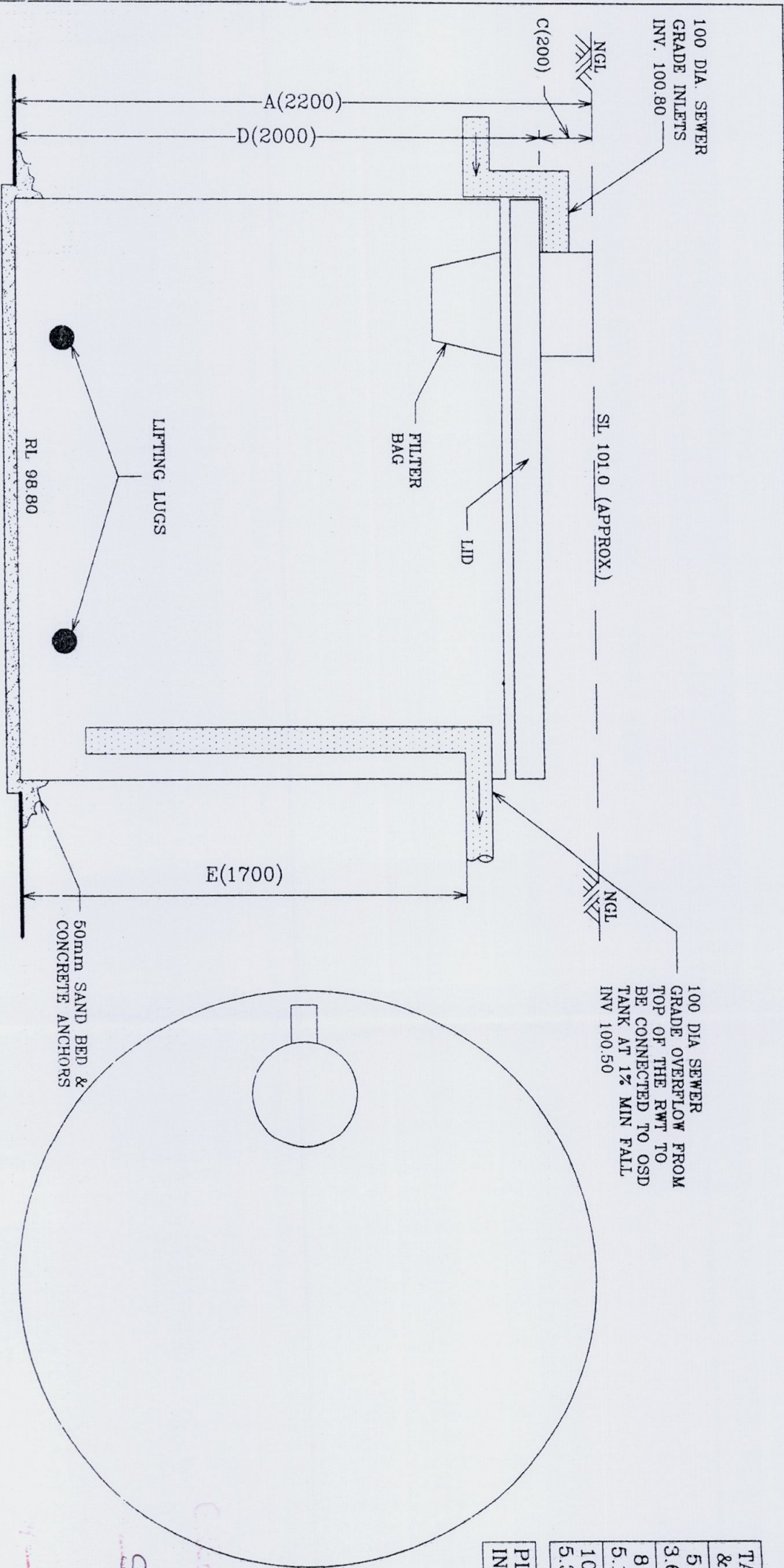
J NASSERI
BR, FIEAust.
MPER, CPDng
30 May 2008

SYMBOLS & NOTATIONS

SYMBOLS & NOTATIONS	SYMBOLS & NOTATIONS
STORMWATER LINES	SL FINISHED SURFACE LEVEL
DOWNPIPE	FPL FINISHED FLOOR LEVEL
100 DIA YARD SUMP	FPL FINISHED PLATFORM LEVEL
225x100 GRADED BOX DRAIN	X SEDIMENT CONTROL BARBER
INVERT LEVEL (PPE / RT)	PROPOSED BOUNDARY
	S SEWER

ISSUE	DATE
CLIENT: BELLMARCH HOMES (Mrs SHARON EUGARD) LOT 68 (H/No.466) BARRENJOEY ROAD, AYALON	
DESIGNED JN	DRAWN HA
CHECKED JN	SCALE AS SHOWN

HYDRAULIC DETAILS
DETENTION TANK
CAD REF. ENG/BELMARCH
JOB No. D2089
SHEET No. 3



TANK SIZE & WEIGHT	A	B	C	D	E	CONCRETE ANCHOR RECOMMENDED SIZE
5,500 LTR 3.6 TONNES	2200	2200	200	2000	1700	1.4m ³
8,500 LTR 5.1 TONNES	2440	2540	200	2240	1900	2.2m ³
10,000 LTR 5.3 TONNES	2740	2540	200	2540	2230	2.8m ³

PLEASE ALLOW 300mm ALL AROUND FOR INSTALLER TO DISCONNECT SWIFTLIFTS

CERTIFIED ACCREDITED CERTIFIERS

stormwater Details C.C. No: 08111256

These Plans have been certified
Nasser Associates

& refer to the Complying Component

D2089

PLAN VIEW

SECTION

IMPORTANT NOTES:

1. ALL DETAILS IN REGARD TO INSTALLATION & CONSTRUCTION OF RAINWATER TANK SHOULD BE REFERRED TO THE MANUFACTURER'S DETAILS. (RAINCYCLE)
2. ALL PLUMBING & ELECTRICAL (INCLUDING PUMP) TO BE COMPLETED IN ACCORDANCE TO THE RELEVANT AUSTRALIAN STANDARDS.
3. OVERALL DIAMETER IS 2200mm & OVERALL HEIGHT IS 2200mm (5,500 LTR).
4. RAINWATER CONTROL UNIT TO BE PLACED ON EXTERNAL DWELLING WALL & ELECTRICAL TO METER BOX.
5. FOR MORE INFORMATION CONTACT RAINCYCLE ON (02) 4774 1256.

5,500 LITRES REINFORCED CONCRETE
RAINWATER TANKS
(NTS)

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FAX. (02) 9986 3876
MOB. 0410 308 064
EMAIL. nasseriasociates@bigpond.com

SYMBOLS & NOTATIONS

STORMWATER LINES	SL	FINISHED SURFACE LEVEL
DOWNPIPE	FEL	FINISHED FLOOR LEVEL
100 DIA VARD SUUP	FPL	FINISHED PLATFORM LEVEL
225x100 GRADED BOX DRAIN	-X-	SEDIMENT CONTROL BARRIER
INVERT LEVEL (PPE / P/T)	-S-	PROPOSED BOUNDARY
		SEWER

HYDRAULIC DETAILS

CLIENT: BELLMARCH HOMES (MRS SHARON EUVRARD)
LOT 68 (H/No.466) BARRENJOEY ROAD, AVALON

UNDERGROUND RAINWATER TANK DETAILS

CAD REF: ENG/BELLMARCH JOB No. D2089 SHEET No. 4

30 May 2008

LOT 68
553.7 m2

COUNCIL REQUEST (CONDITION D.5)
PROVIDE 50-75mm AGGREGATE OR
SIMILAR MATERIAL AT MINIMUM
THICKNESS OF 200mm AND 15m LONG
LAID OVER GEOTECHNICAL FABRIC FROM
FRONT OF THE PROPERTY PRIOR TO
COMMENCEMENT OF WORKS AND
MAINTENANCE OVER THE WORKS PERIOD.

FOR DRIVEWAY DESIGN AND
DETAILS REFER TO DRAWING
FROM "PATTERSON BRITTON
& PARTNERS PTY LTD"

PROPOSED RETAINING
WALL (REFER TO
DESIGN BY DONOVAN
CONSULTANTS)

stormwater Details C.C. No. 0811256

These Plans have been certified

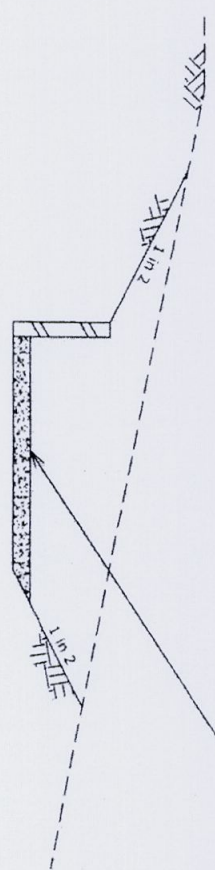
Nasseri Associates

D2089

Existing the Complying Component

Existing the Complying Component

SECTION A

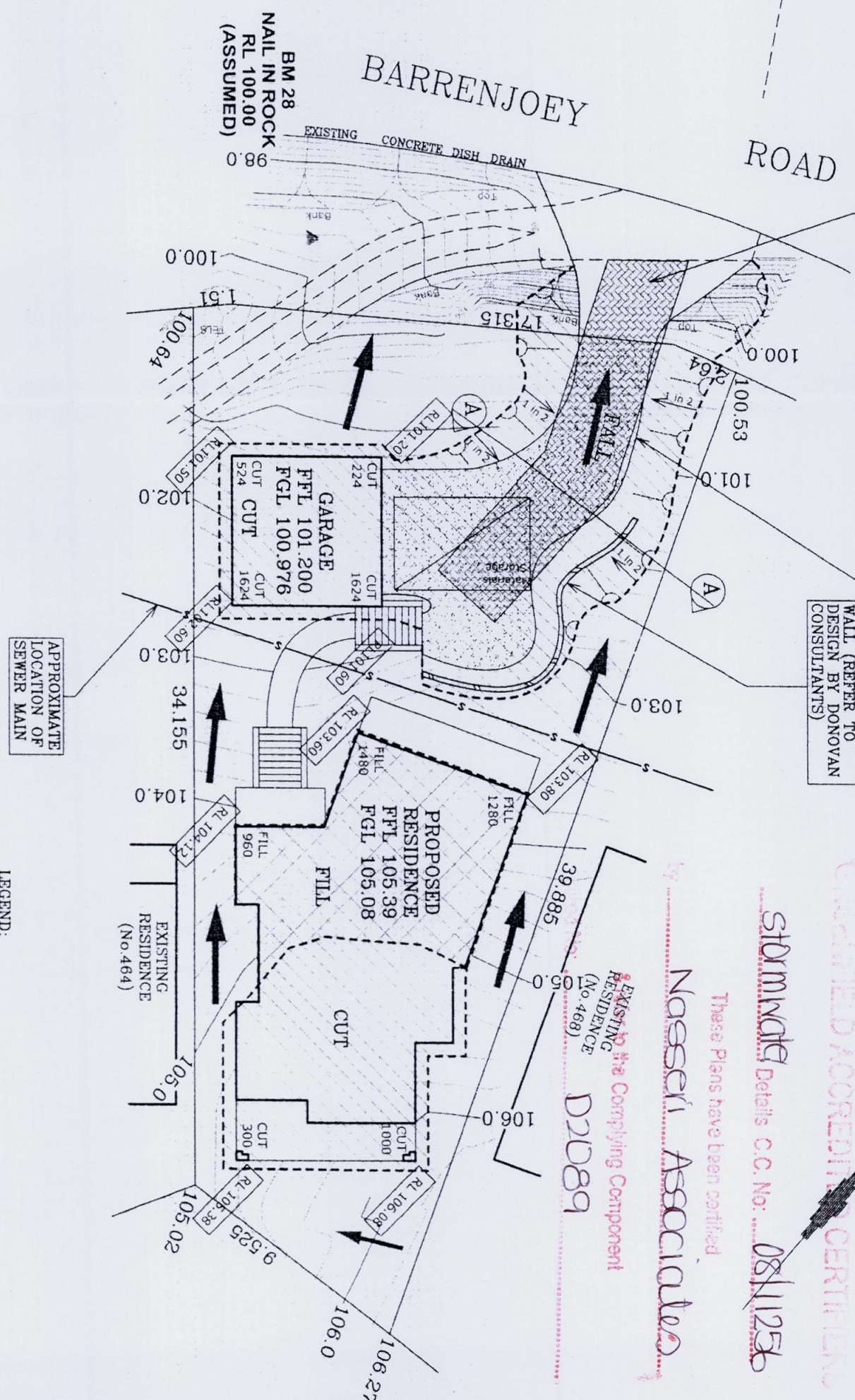


IMPORTANT NOTES:

1. AN ALL WEATHER ACCESSWAY AT THE FRONT OF THE PROPERTY IS TO BE CONSTRUCTED PRIOR TO START OF CONSTRUCTION IN ACCORDANCE WITH COUNCIL SPECIFICATIONS.
2. ADEQUATE MEASURES SHALL BE UNDERTAKEN TO REMOVE CLAY FROM VEHICLES LEAVING THE SITE SO AS TO MAINTAIN PUBLIC ROADS IN A CLEAN CONDITION.
3. DRIVEWAY CONSTRUCTION SHOULD BE IN ACCORDANCE WITH THE DESIGN FROM PATTERSON BRITTON & PARTNERS PTY LTD.
4. EXCAVATION OF DRIVEWAY INCLUDING EMBANKMENT AND RETAINING WALL MUST BE COMPLETED PRIOR TO THE CONSTRUCTION OF ALL WEATHER ACCESSWAY.
5. GREAT CARE MUST BE TAKEN FOR CUT/FILL AREA FOR THE SLAB OF THE DWELLING AND THE GARAGE.
6. LEVELS ARE CRITICAL. PRIOR TO ANY CHANGES CONTACT ENGINEER.
7. AFTER THE EXCAVATION AND PREPARATION OF GROUND FOR SLABS (CUT/FILL) THE ENGINEER MUST INSPECT THE SITE PRIOR TO START OF FORMWORK FOR CONCRETE SLABS.

PROPOSED EXCAVATION/LANDFILL PLAN

SCALE 1:200



- LEGEND:
- CUT AREA
 - FILL AREA
 - 50-75mm AGGREGATE OR SIMILAR MATERIAL
 - PAVED / CONCRETE AREA

SYMBOLS & NOTATIONS

- STORMWATER LINES
- DOWNPIPE
- 100 DIA VARD SLUP
- 225x100 GRATED BOX DRAIN
- INVERT LEVEL (PIPE / FIT)
- FINISHED SURFACE LEVEL
- FINISHED FLOOR LEVEL
- FINISHED PLATFORM LEVEL
- SEWAGE CONTROL BARRIER
- PROPOSED BOUNDARY
- SEWER

HYDRAULIC DETAILS

CLIENT: BELLMARCH HOMES (Mrs SHARON EUVRARD)
LOT 68 (H/No.466) BARRENJOEY ROAD, AVALON

PROPOSED EXCAVATION/LANDFILL PLAN

NASSERI ASSOCIATES
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TEL. (02) 9986 3875
FAX. (02) 9986 3876
MOB. 0410 308 064
EMAIL nasserlassociates@bigpond.com

30 May 2008

DESIGNED JN DRAWN HA CHECKED JN SCALE AS SHOWN

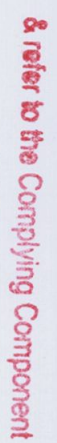
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JOB No. D2089

SHEET No. 5

Drainage area 0.6ha. max. Slope gradient 1:2 max.
Slope length 60M max.

- EROSION AND SEDIMENT CONTROL



Confidential No: D2D89

SYMBOLS & NOTATIONS

JNASSERI

30 May 2008

HYDRAULIC DETAILS

EROSION & SEDIMENTATION CONTROL

ISSUE		AMENDMENTS		DATE	
DESIGNED	JN	DRAWN	HA	CHECKED	JN
CLIENT: BELLMARCH HOMES (Mrs SHARON EUVRARD) LOT 68 (H/No.466) BARRENUJOEY ROAD, AVALON					
				SCALE AS SHOWN	

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AD REF. ENG/BELLMARCH JOB No. D2089 SHEET No. 6

G **A** **R** **D** **E** **S** **G**

Re Residential Landscaping
CERTIFICATE OF LANDSCAPING DESIGN

Dear Mr & Mrs Euvrard,

I am certifying the replenishment of the trees & shrubs specified on the Landscape Plan No 303 dated 29 04 08, which will be planted, shall be protected by Council's Tree Preservation Order

I possess Indemnity Insurance to the satisfaction of the building owner or my principal


Sue Ayad

NOTES AND SPECIFICATIONS

SUB GRADE PREPARATION

The sub grade to all landscaped areas is to be graded evenly to achieve the required falls and finished levels. Loose stones or any building debris are to be removed prior to applications of any topsoil or turf underlay. Where the subsoil is clay apply gypsum at a rate of 2.5kg/10m2 prior to cultivation.

GARDEN BED PREPARATION

All garden beds must have adequate drainage and have a minimum 300mm layer of premium garden mix placed over prepared sub grade. Premium garden mix to be mulched with hardwood chips or Eucalyptus mulch maximum depth shall be 75mm.

TURFED AREAS

All turfed areas to have adequate drainage with a minimum 100mm layer of turf underlay or clean topsoil over prepared sub grade. Turf to be soft leafed buffalo i.e. Sir Walter or as specified by a recognized licensed commercial turf farm with a certificate of authenticity supplied.

PLANTING MATERIAL PROCEDURES

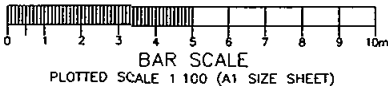
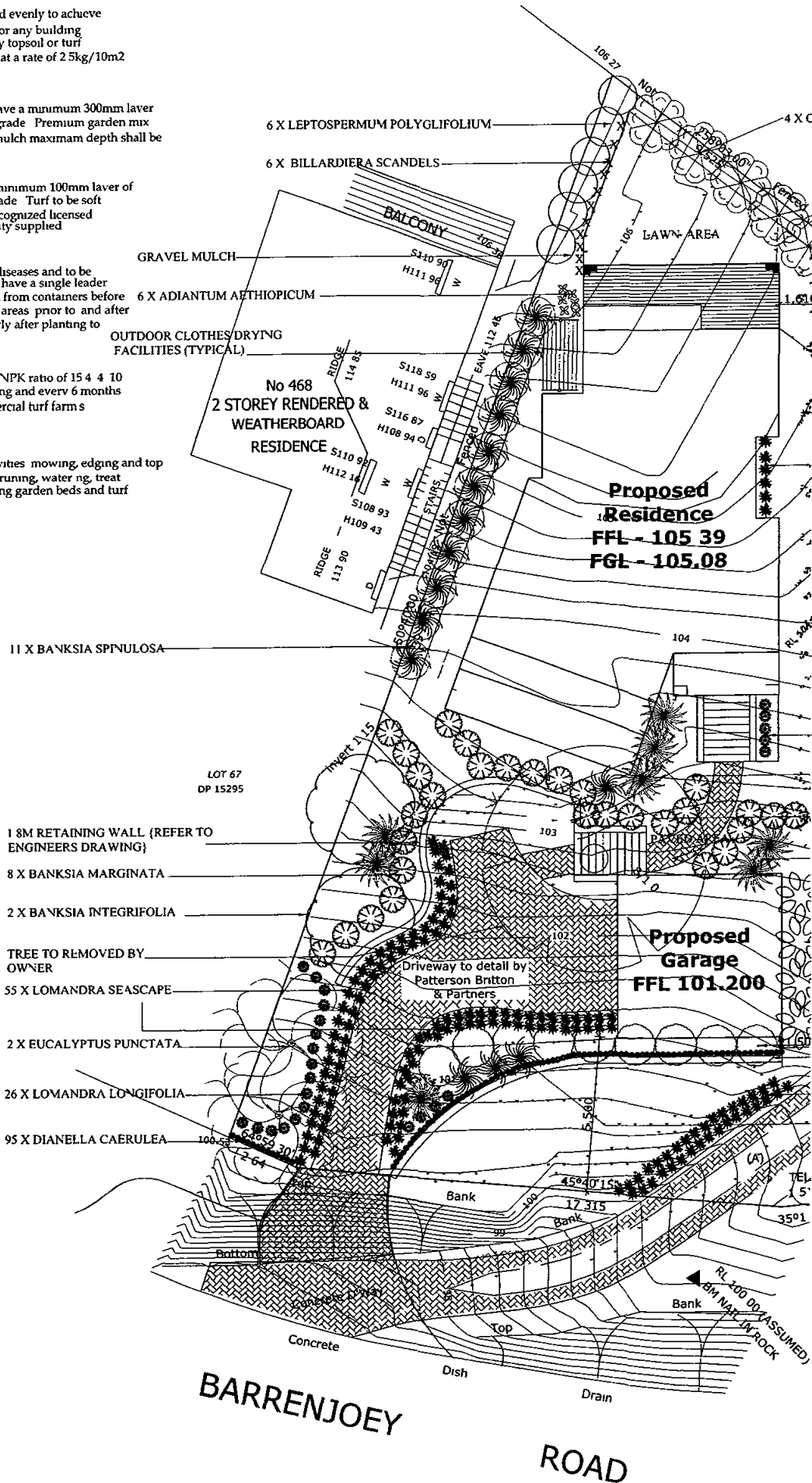
All plants are to be true to type, free from pest and diseases and to be in a vigorous, well developed condition. All trees to have a single leader in appropriate species. All plants are to be removed from containers before planting. Thoroughly water all plants and planting areas prior to and after planting operations. Plants must be watered regularly after planting to encourage health and vigor.

FERTILIZER

Fertilizer for plants to be long life (6 months) with a NPK ratio of 15:4:10 or similar to be applied after planting before mulching and every 6 months thereafter. Turf to be fertilized following the commercial turf farm's instructions.

MAINTENANCE

Maintain all landscaped areas by the following activities: mowing, edging and top dressing of turf areas; fertilizing all plant material; pruning, watering, treating pest and diseases; topping up of mulch areas; weeding garden beds and turf.



COUNCIL COPY

100 Box 638
Pittwater NSW 2112

100 Box 638
Pittwater NSW 2112

100 Box 638
Pittwater NSW 2112

**Patterson Britton
& Partners Pty Ltd**

100 Box 638
Pittwater NSW 2112

100 Box 638
Pittwater NSW 2112

100 Box 638
Pittwater NSW 2112

consulting engineers

lt6608mst_dk080626 466 barrenjoey rd driveway doc

Mr & Mrs Euvrard
c/- Bellmarch Homes
PO Box 6225
Parramatta BC NSW 2150

26 June 2008

Attention Christopher Blott

Dear Sir

RE DRIVEWAY AT 466 BARRENJOEY ROAD, AVALON

Our drawing Figure 1 dated 16 June 2008 details the plan layout and profile of the driveway to service the proposed new house at the above address. The drawing details the driveway profile in the area of the road verge as required by the Pittwater Council development consent condition C3(c).

This letter is to confirm design certification that the driveway profile as detailed on our Figure 1 complies with Council's DCP 21. This satisfies Pittwater Council's development consent condition C4.

Yours faithfully
PATTERSON BRITTON

Mark Tooker
Principal



Principals

Greg Britton BE MEngSc FIEAust Andrew Chitty BE MIEAust CPEng Peter Colman BE MEngSc MIEAust
Bruce Druery BE Dip Sc(Geol) M AppSc MIEAust Paul Harvey-Walker BE FIEAust David McConnell BSc MIEAust
Joe Marson BE MEngSc FIEAust Andrew Patterson BE FIEAust Christopher Thomas BE MEngSc MIEAust
Mark Tooker BSc(Eng) MEngSc FIEAust CPEng Michael Wright BE MEngSc MIEAust

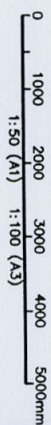
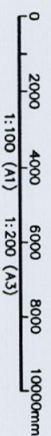
Senior Associates

Steve Barrett Simon Batt BE MIEAust Paul Macinante BE MEnvEngSc MIEAust Ben Patterson BE MIEAust
Marc Roberts BE Michael Shaw BE MIEAust CPEng

Associates

Stephen Aebi BE MIEAust Neville Boyes OMIEAust Scot Cranfield Cameron Druery BE MIEAust
Tod Hall BA (Bio) MEM (Coastal) Grad Dip (Bus-HR) Adam Knight BE MIEAust CPEng
Cameron Smith BE MEngSc MIEAust CPEng Alexandra Stone BE MIEAust Chris Yates BE MIEAust

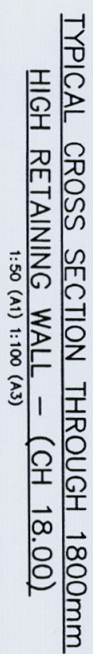




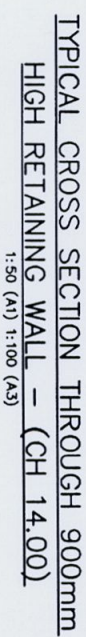
LONGITUDINAL SECTION

SCALE HORIZONTAL 1:100
SCALE VERTICAL 1:100

**No. 466 BARRENJOEY ROAD
DRIVEWAY ACCESS**



DESIGN	EXISTING	OFFSET
103.628	103.628	-7.567
103.240	103.517	-6.741
101.439	103.517	-6.741
100.75	101.62	0.000
100.75	101.32	1.500
101.16	101.16	2.320



R1 98.0		
DESIGN	EXISTING	OFFSET
102.17	102.17	-5.259
100.72	101.70	-2.354
99.82	101.70	-2.353
99.82	101.41	0.000
99.82	101.17	1.500
100.84	100.84	3.546

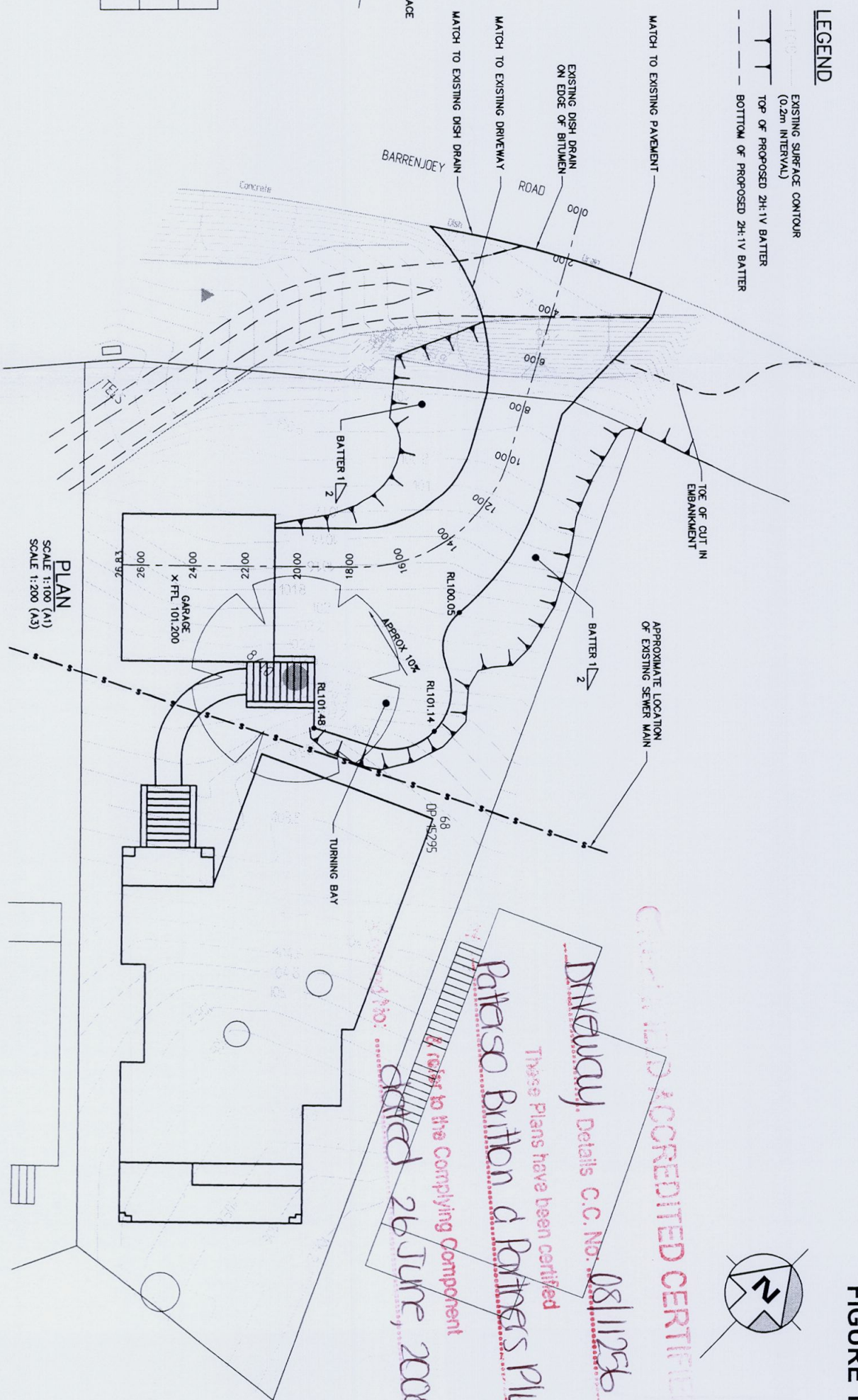
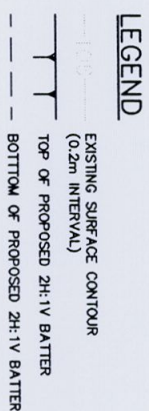
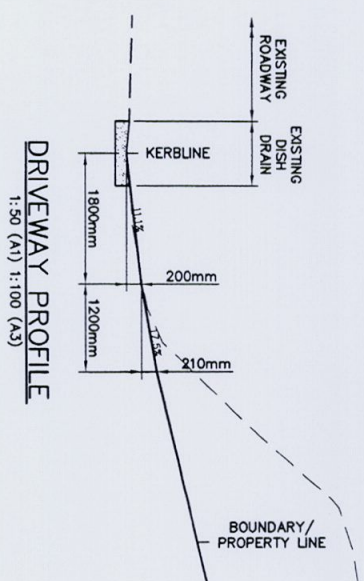
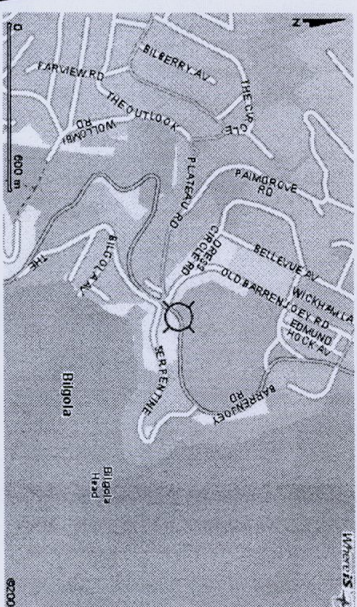


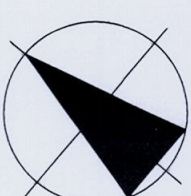
FIGURE 1

LD 31851

COUNCIL COPY



Locality Sketch
Map Ref -119 B4



LOT 68
DP 15295
SITE AREA-553.7m²
PITTWATER COUNCIL

Gas service available.
Near-side water service.
Over head power supply.

Note:1
*Stormwater disposal to street gutter.

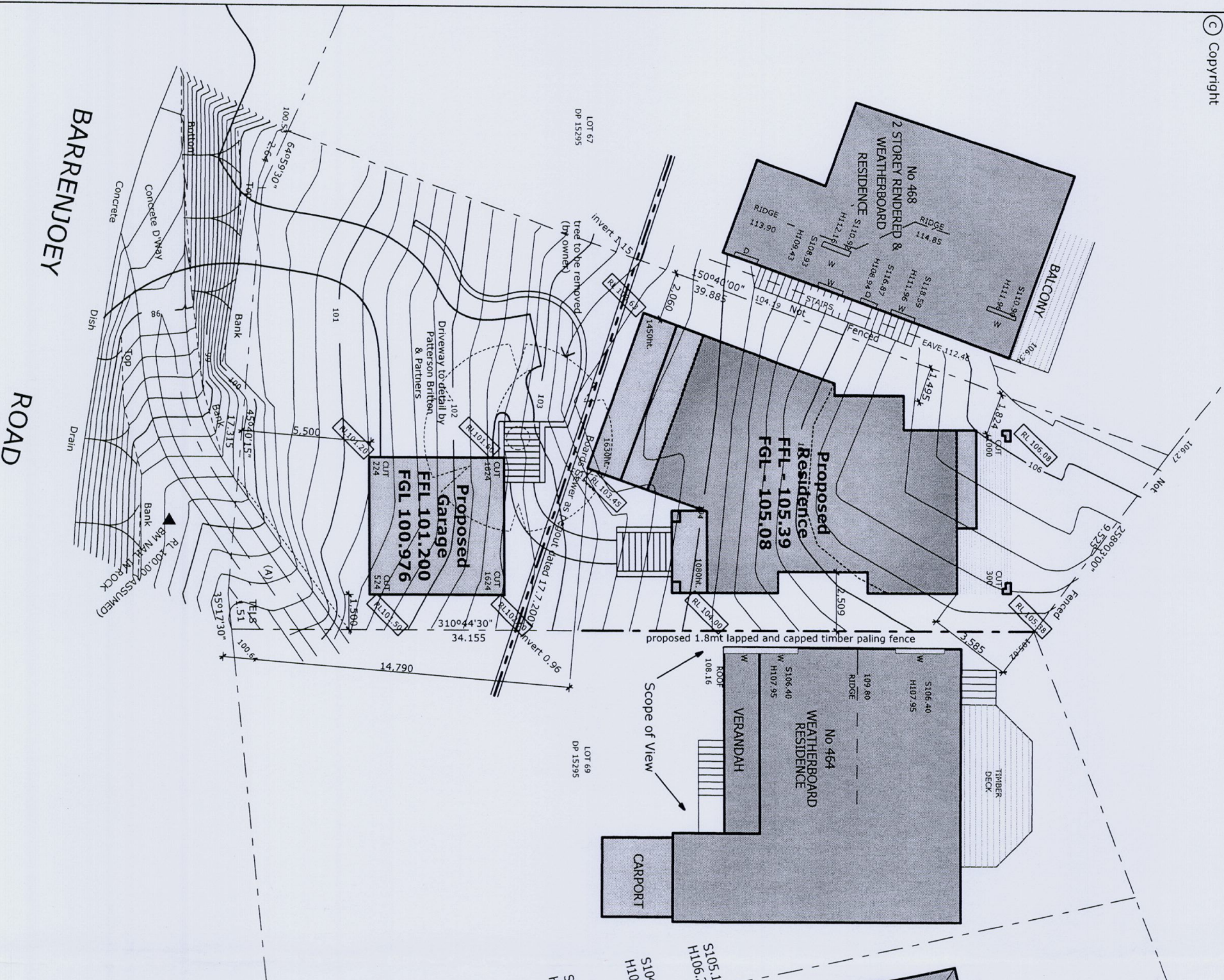
Note:
Owner/owners contractor responsible for demolishing/removing all existing structures, slabs, footings, services, trees and stumps within the building area and 3.0m surrounding prior to construction.

KEY:	
ET : Electric Turret	HW : Headwall
LP : Light Pole	LIN : Lintel
PP : Power Pole	SLH : Sewer Lamphole
GM : Gas Meter	SMH : Sewer Manhole
WM : Water Meter	TEL : Telecom Pit
SV : Stop Valve	PC : Pram Crossing
HYD : Hydrant	VC : Vehicle Crossing
SWP : Stormwater Pit	DH&W : Drillhole & Wing

w Denotes Window
RLs with suffix "T" are at top of window
RLs with suffix "S" are at sill of window

NOTES :-

- 1) Bearings & distances are by Title and / or deeds only. No boundary investigation has been carried out.
- 2) Relationship of improvements to boundaries is diagrammatic only. Where offsets are critical they should be confirmed by further survey.
- 3) Contours shown depict the topography. Except at spot levels shown they do not necessarily represent the exact level at any particular point.
- 4) Services shown hereon have been determined from visual evidence only. Prior to any design, demolition, excavation or construction on site the relevant authority should be contacted to establish detailed location and depth.
- 5) These notes form an integral part of this plan & should not be separated.
- 6) Location of sewer subject to confirmation from Sydney Water or relevant authority.
- 7) The bearings on these plan boundaries are from Land Titles Office plans. They are Magnetic Meridian. If accurate True North is required a further survey would be necessary.



SITE PLAN

1:200

Notes:

- *Waffle pod floor slab construction.
- *Provide temporary fencing to block to meet safety requirements.
- *Provide sediment control measures including trade waste receptacle in accordance with E.P.A. requirements.
- *Provide Builders on site chemical treated sanitary service.
- *Provide Termite protection in accordance with Australian standard AS 3660.1 995.
- *Provide a 18.3kw reverse cycle air conditioning system with 3 zone & 3 phase metering.
- *Provide R1.5 insulation batts to external walls.
- *Provide R2.5 insulation batts to ceiling excluding garage.
- *Provide R2.5 insulation batts to ceiling excluding garage.

Cert No. 0811256
Certificate
Accreditation No:BPB0282
Officer: Stephen Murray

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Revisions:-	
F	Cons Cert Issue
E	Additional info to council
D	Amendments as per DU meeting
Rev	Description
	Date

Design:
CUSTOM

Proposed Residence for:
Mrs Sharon Euvard

Address:
Lot 68 (No 466) Barrenjoey Road
Avalon

Revision:	
AREAS:	GF - 113.22 FF - 101.25
	Pch - 5.25 Gar - 37.06
F	Bal 1 - 10.5 Bal 2 - 8.4
	Bal 3 - 16.17 TOTAL: 291.85m ²

Drawn:	
Checked:	Project No:
C.T.G.	C.A.B
	05105
	Date:
	4.12.06

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Ph (02) 9633 9199 Fax (02) 9633 9133
enquiry@bellmarch.com.au www.bellmarch.com.au
ABN 78 061 720 474 - Builders Lic. No. 50045c

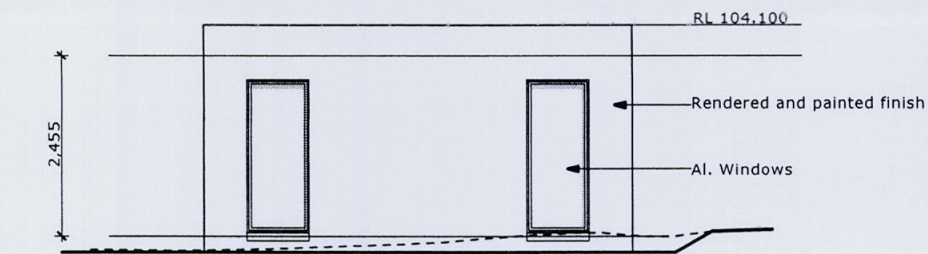
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DO NOT SCALE FROM THESE DRAWINGS
USE FIGURED DIMENSIONS ONLY
VERIFY ALL DIMENSIONS ON SITE

DWG No:
1 / 9

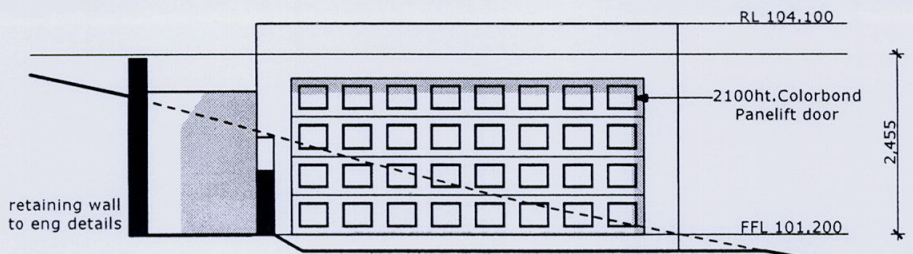
GARAGE FLOORPLAN

1:100



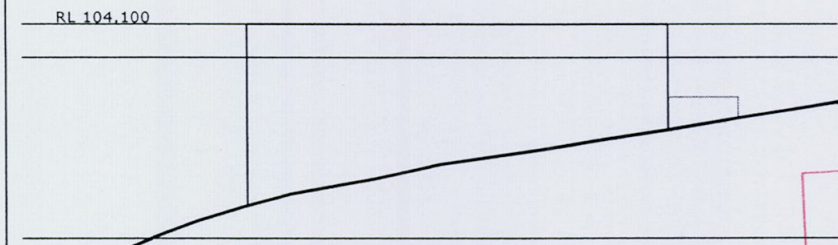
GARAGE ELEVATION 1

1:100



GARAGE ELEVATION 2

1:100



GARAGE ELEVATION 3

1:100

This is the plan/section referred to in Greenfield Accredited Certifiers' Certificate
Cert No. 0811256
Officer: Stephen Murray
Accreditation No: BPB0282

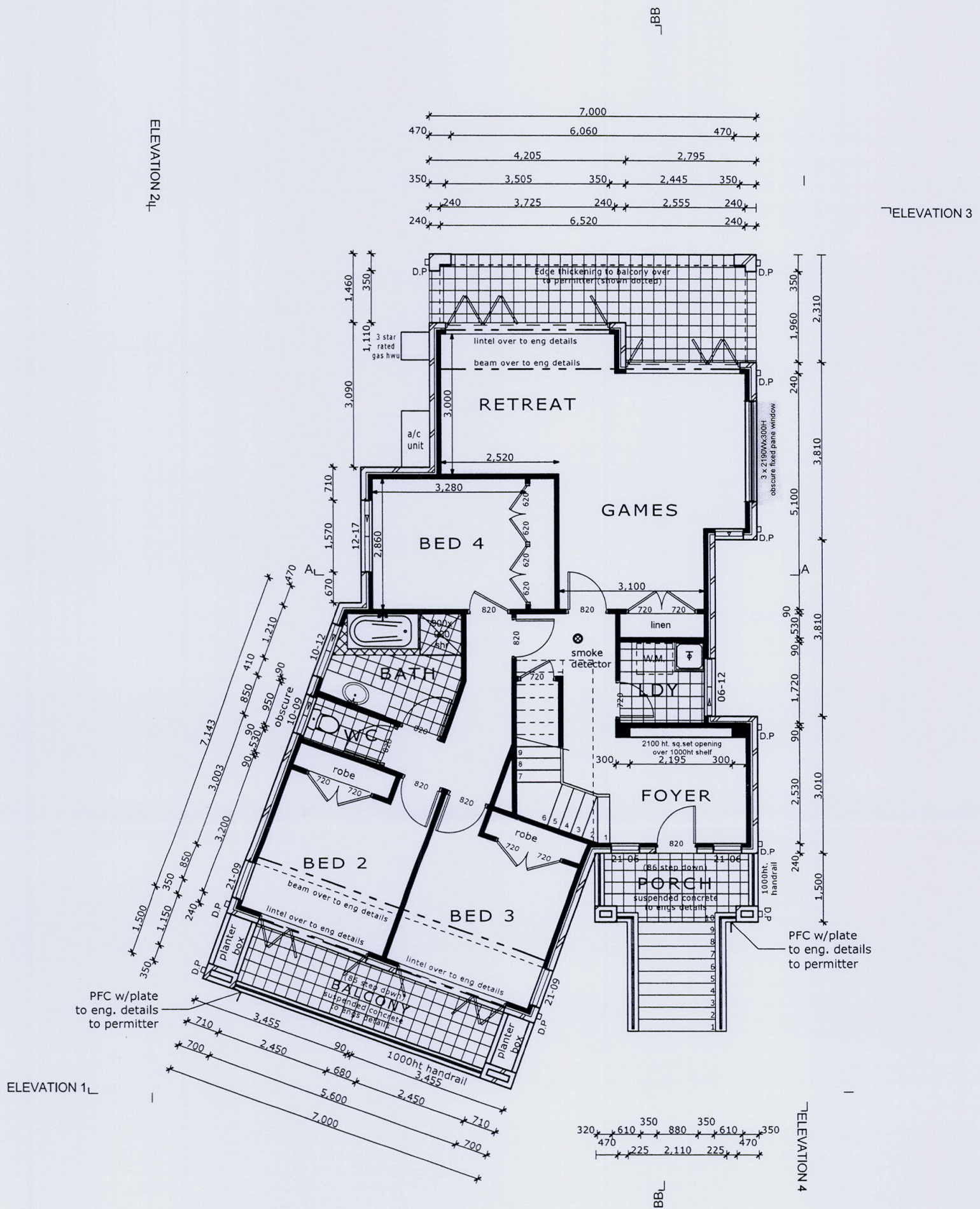


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Design:	CUSTOM
Proposed Residence for:	Mrs Sharon Euvrard
Address:	Lot 68 (No 466) Barrenjoey Road Avalon

Date:	4.12.06	AREAS:	GF - 113.22 Pch - 5.25 Bal 1 - 10.5 Bal 3 - 16.17	FF - 101.25 Gar - 37.06 Bal 2 - 8.4 TOTAL: 291.85m ²			
Drawn:	C.T.G.	Checked:	C.A.B	Project No:	05105	Revision:	F
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Certificate
Cert No: 0811256
Officer: Stephen Murray
Accreditation No: BPB0282

GROUND FLOOR PLAN

1:100

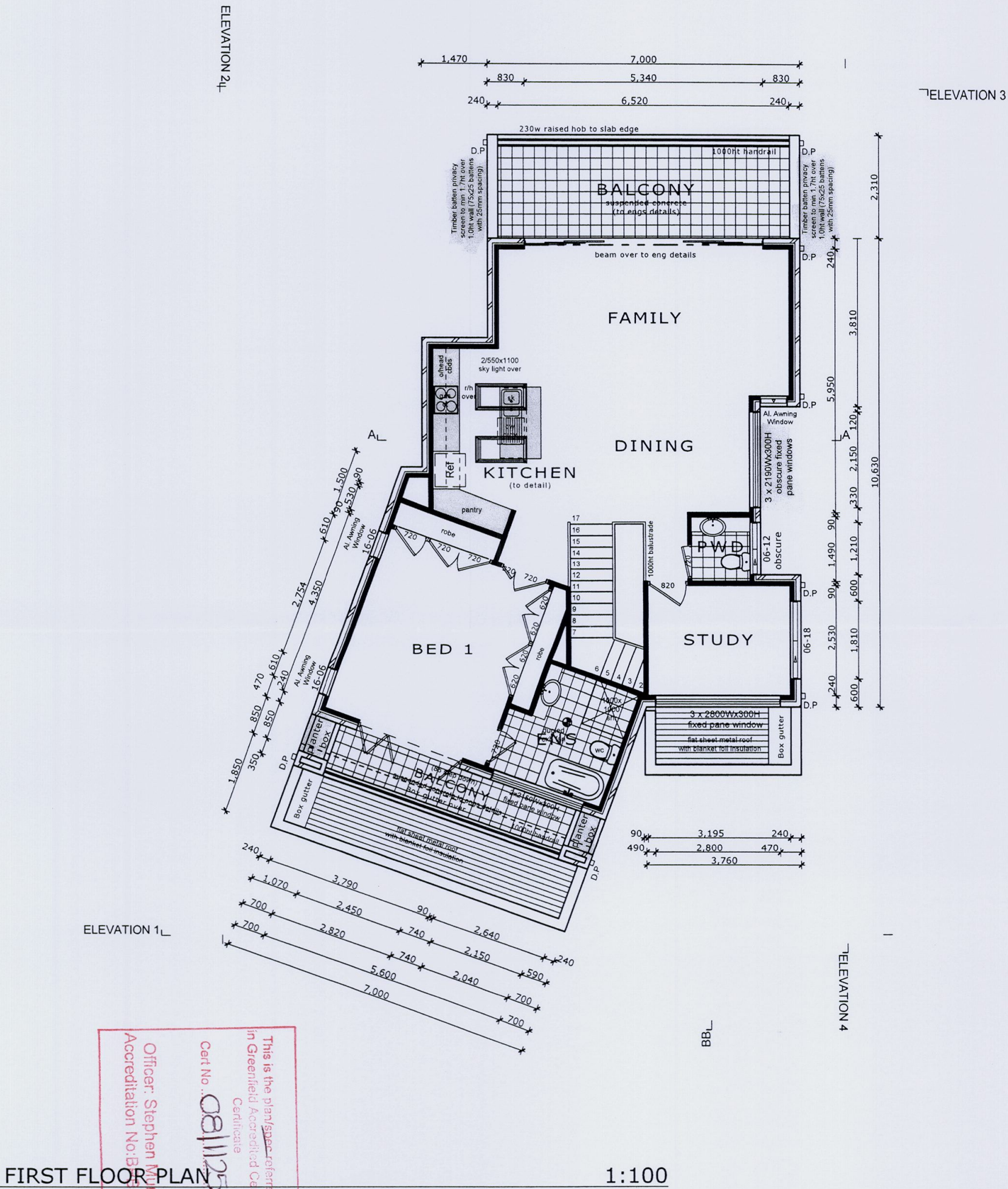
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Design:	CUSTOM
Proposed Residence for:	Mrs Sharon Euvrard
Address:	Lot 68 (No 466) Barrenjoey Road Avalon

Date:	4.12.06	AREAS:	GF - 113.22 Pch - 5.25 Bal 1 - 10.5 Bal 3 - 16.17	FF - 101.25 Gar - 37.06 Bal 2 - 8.4 TOTAL: 291.85m ²			
Drawn:	C.T.G.	Checked:	C.A.B	Project No:	05105	Revision:	F
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Accreditation No: B510282



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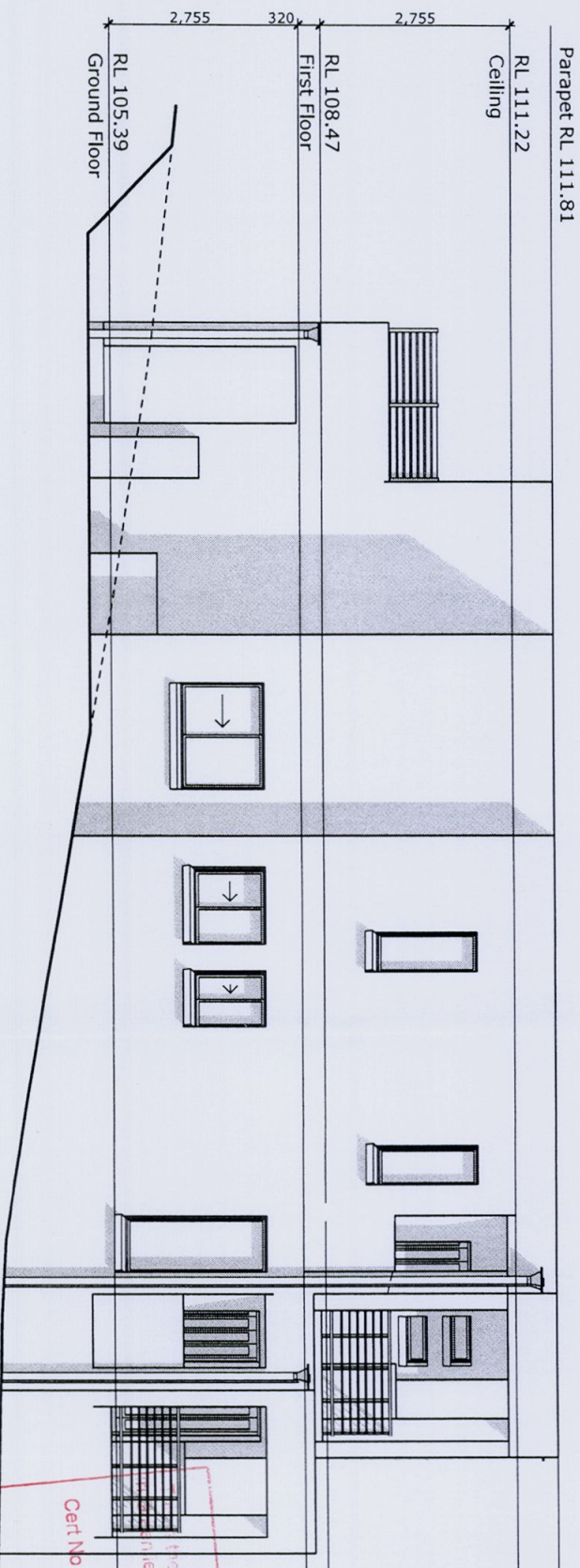
Design:	CUSTOM
Proposed Residence for:	Mrs Sharon Euvrard
Address:	Lot 68 (No 466) Barrenjoey Road Avalon

Date:	4.12.06	AREAS:	GF - 113.22 Pch - 5.25 Bal 1 - 10.5 Bal 3 - 16.17	FF - 101.25 Gar - 37.06 Bal 2 - 8.4 TOTAL: 291.85m ²			
Drawn:	C.T.G.	Checked:	C.A.B	Project No:	05105	Revision:	F
DO NOT SCALE FROM THESE DRAWINGS USE FIGURED DIMENSIONS ONLY VERIFY ALL DIMENSIONS ON SITE						DWG No:	4 / 9



ELEVATION 1 - NORTHERN

1:100



ELEVATION 2 - EASTERN

1:100

the plan/Spec referred to
is a field Accredited Certifiers
Certificate
Cert No: 0811256
Officer: Stephen Murray
Accreditation No: BPB0282

Notes:

- *Waffle pod floor slab construction.
- *Provide temporary fencing to block to meet safety requirements.
- *Provide sediment control measures including trade waste receptacle in accordance with E.P.A. requirements.
- *Provide Builders on site chemical treated sanitary service.
- *Provide Termite protection in accordance with Australian standard AS 3660.1 995.
- *Provide a 18.3kw reverse cycle air conditioning system with 3 zone & 3 phase metering.
- *Provide R1.5 insulation batts to external walls.
- *Provide R2.5 insulation batts to ceiling excluding garage.

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Revisions-	
F	Cons Cert Issue
E	Additional info to council
D	Amendments as per DU meeting
Rev	Description
	Date


Design:
CUSTOM

Proposed Residence for:
Mrs Sharon Euvard

Address:
Lot 68 (No 466) Barrenjoey Road
Avalon

Revision:	AREAS:
F	GF - 113.22 FF - 101.25 Pch - 5.25 Gaf - 37.06 Bal 1 - 10.5 Bal 2 - 8.4 Bal 3 - 16.17 TOTAL: 291.85m ²


Drawn:	Checked:	Project No:	Date:
C.T.G.	C.A.B	05105	4.12.06

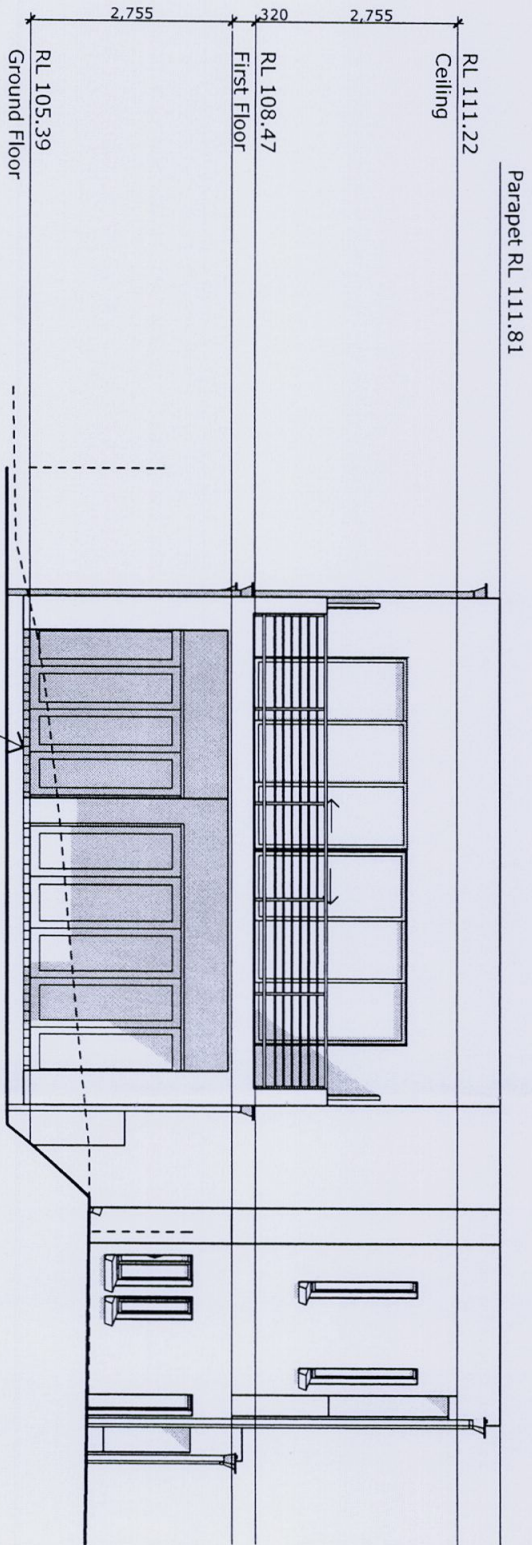


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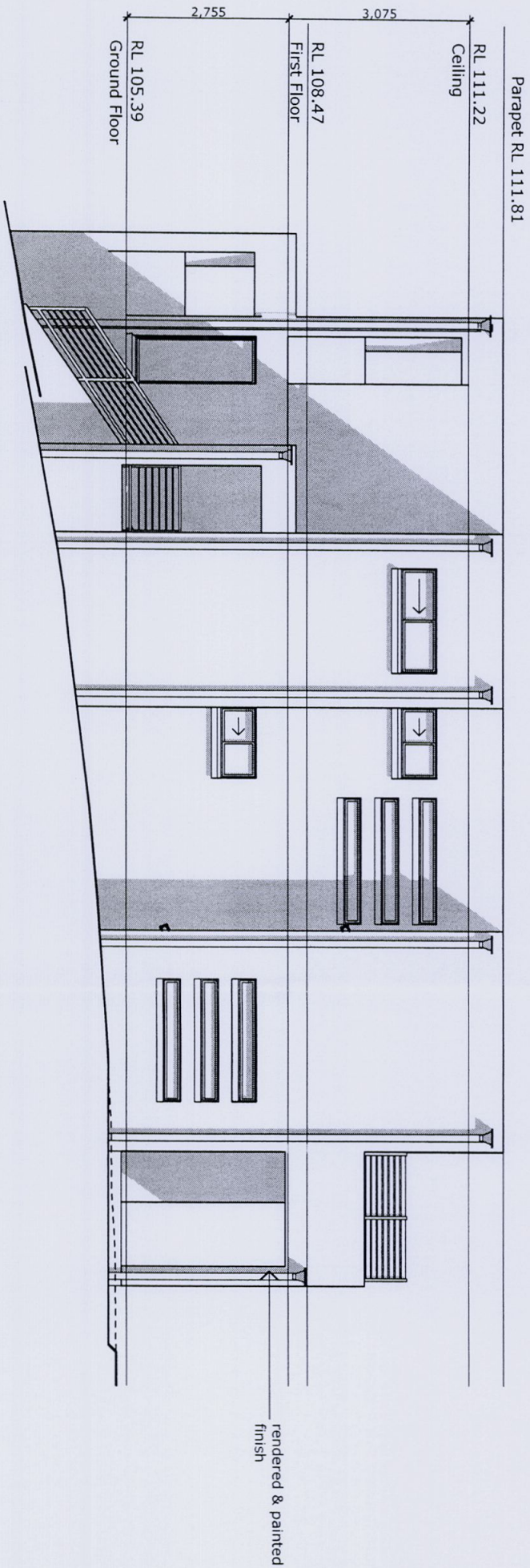
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ELEVATION 3 - SOUTHERN

1:100

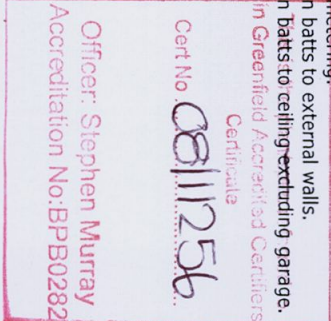


ELEVATION 4 - WESTERN

1:100

Notes:

- *Waffle pod floor slab construction.
- *Provide temporary fencing to block to meet safety requirements.
- *Provide sediment control measures including trade waste receptacle in accordance with E.P.A. requirements.
- *Provide Builders on site chemical treated sanitary service.
- *Provide Termite protection in accordance with Australian standard AS 3660.1 995.
- *Provide a 18.3Kw reverse cycle air conditioning system with 3 zone & 3 phase metering.
- *Provide R1.5 insulation batts to external walls.
- *Provide R2.5 insulation batts to ceiling extending garage.



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Revisions-		
F	Cons Cert Issue	04.07.07
E	Additional info to council	30.10.07
D	Amendments as per DU meeting	6.10.07
Rev	Description	Date


Design:
CUSTOM

Proposed Residence for:
Mrs Sharon Euvard

Address:
Lot 68 (No 466) Barrenjoey Road
Avalon


Revision:	AREAS:
F	GF - 113.22 FF - 101.25 Pch - 5.25 Gar - 37.06 Bal 1 - 10.5 Bal 2 - 8.4 Bal 3 - 16.17 TOTAL: 291.85m ²

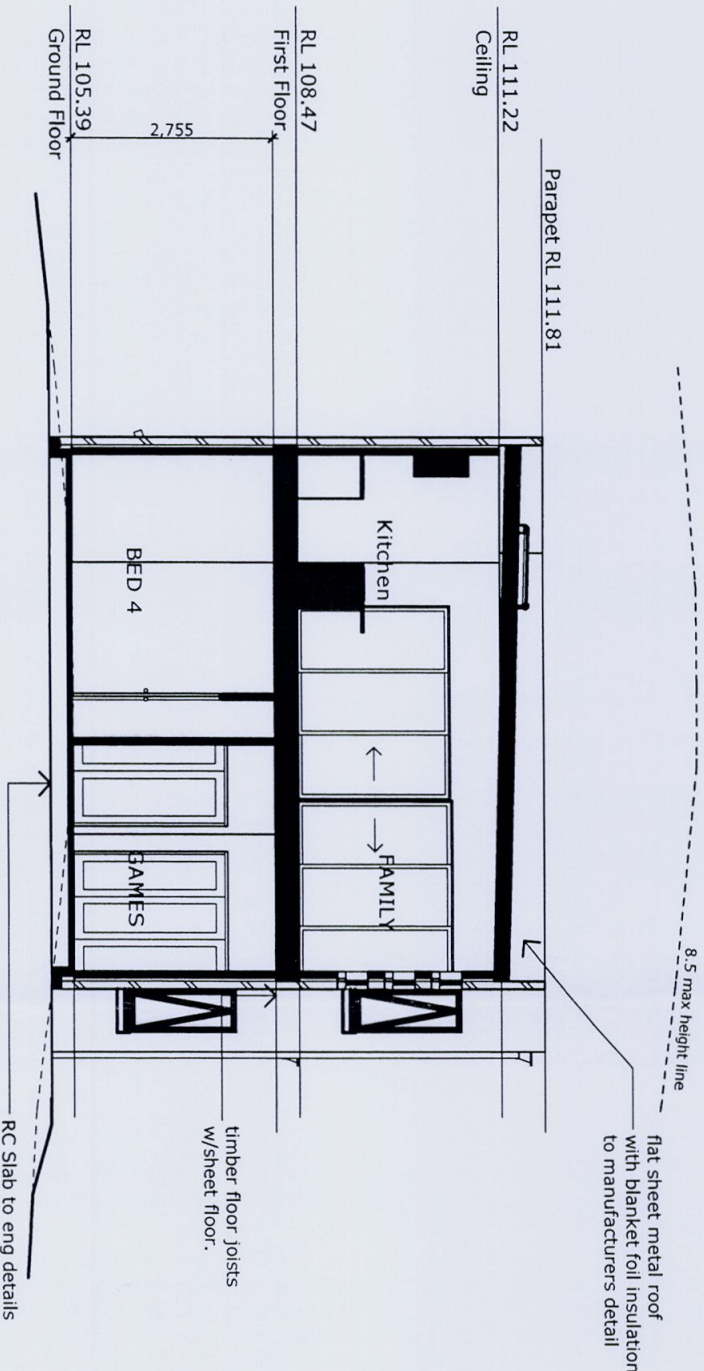
Drawn:	Checked:	Project No:	Date:
C.T.G.	C.A.B	05105	4.12.06



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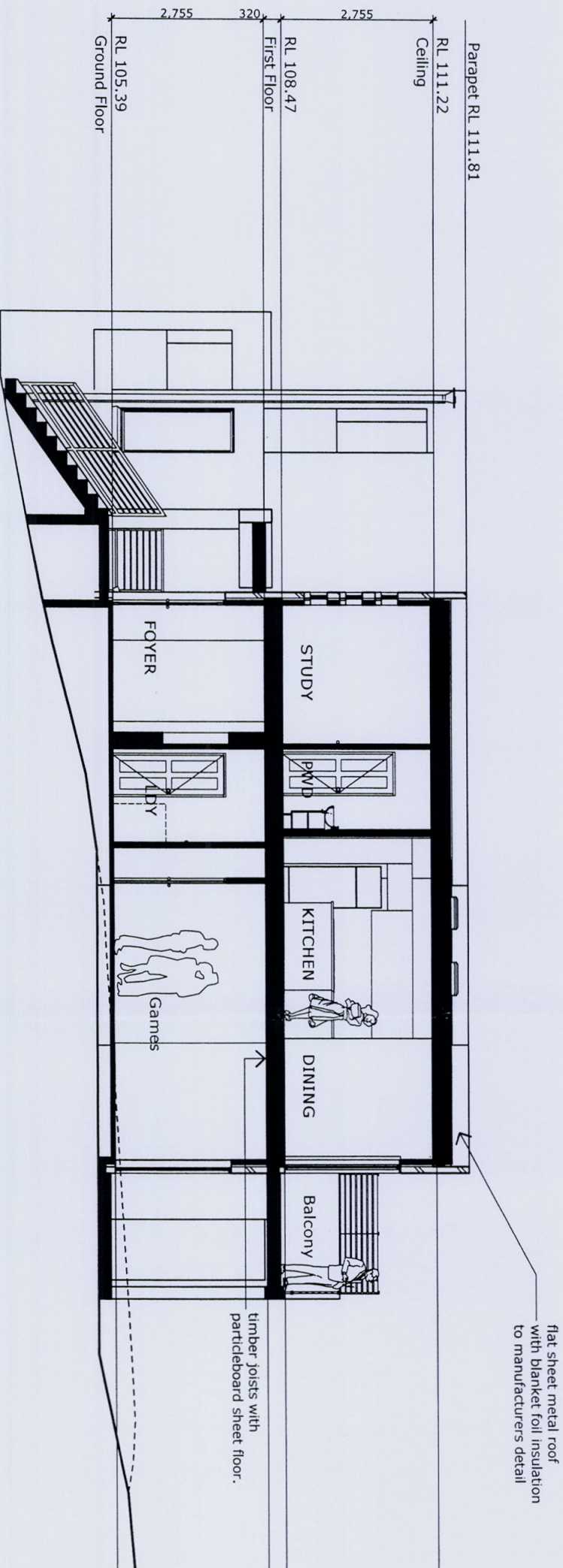
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SECTION AA

1:100



SECTION BB

1:100

Notes:

- *Waffle pod floor slab construction.
- *Provide temporary fencing to block to meet safety requirements.
- *Provide sediment control measures including trade waste receptacle in accordance with E.P.A. requirements.
- *Provide Builders on site chemical treated sanitary service.
- *Provide Termite protection in accordance with Australian standard AS 3660.1 995.
- *Provide a 18.3kw reverse cycle air conditioning system with 3 zone 8.3 phase metering.
- *Provide R1.5 insulation batts to external walls.
- *Provide R2.5 insulation batts to ceiling excluding garage.



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Revisions-	
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D	Amendments as per DU meeting
Rev	Description
	Date


Design: CUSTOM

Proposed Residence for: Mrs Sharon Euvard

Address: Lot 68 (No 466) Barrenjoey Road Avalon

Revision:	AREAS:
F	GF - 113.22 FF - 101.25 Pth - 5.25 Gar - 37.06 Bal 1 - 10.5 Bal 2 - 8.4 Bal 3 - 16.17 TOTAL: 291.85m²


Drawn:	Checked:	Project No:	Date:
C.T.G.	C.A.B	05105	4.12.06



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Assessor Certificate

Single Dwelling

Certificate Version 6.1. Prior versions not valid after 1 March 2006

Issued in accordance with the requirements of

BASIX THERMAL COMFORT Simulation Method

ABSA

Assessor Name: Fadi Swais Company: EDA services Assr #: 20390

Address: PO Box 7446, BALU-KHAM MILLS BC, NSW 2153 Email: fswais@edadesignservices.com.au

Phone: (02) 9669 4631 Fax: (02) 9669 4631

Declaration of Interest: None

Client Name: Bellmarch Homes Company: Bellmarch Homes

Address: PO Box 6225, PARRAMATTA BC, NSW 2150

Phone: 02 9890 4555 Fax: 02 9890 4566 Email:

Project Lot / DP: 66 /

Address: 468 Barrenjoey Road, AVALON, NSW 2107 LGA: Pittwater Council

Applicant: Ms Sharon Euvarad

Assessment Date: 13/2/2006 Job ID: 07 3082 Filename: 20390PR13082 Run #: 1

Software: NABERS Version: 2.320 Climate Zone: 17

Referenced documents

All details, upon which this Assessment has been based, are included in the project documentation which has Thermal Performance Specification (Commitments attached and affixed to drawings, page: 1

Drawings: Job No: 06106

Specifications: Only Specifications detailed on Drawings identified above, have been referenced

ABSA Assessor Certificate Assessor # 20390 Certificate # 31458624 Issued: 13-Dec-06

THERMAL COMFORT - Simulation Method

The details must be entered into your BASIX Assessment

Area calculations (m2)

net Conditioned Floor Area: 134 Net Unconditioned Floor Area: 16

Concessions / Ventilation Bonus

Eligible Concessions: None

The dwelling has the required shading to qualify for BASIX cross ventilation bonus: N/A

Predicted annual energy loads

ABSA Assessor Stamp

Heating: 90
Cooling: 57
Total: 147



ABSA Inc, Level 11 Elizabeth Towers, 418A Elizabeth St, Surry Hills, NSW 2010
phone: 1300 760 072 fax: (02) 9281 9514 email: support@absa.net.au www.absa.net.au

ABSA Assessor Certificate Assessor # 20390 Certificate # 31458624 Issued: 13-Dec-06

Thermal Performance Specifications - BASIX THERMAL COMFORT - Simulation Method

These are the Specifications upon which this Certified Assessment is based. It details inclusion or exclusion of specific provisions from other relevant documents, and the specific details of the assessment. The details of the assessment are detailed in a table below, and the inclusion or exclusion of specific provisions is detailed in a table below. The inclusion or exclusion of specific provisions is detailed in a table below.

Windows: Product ID Glass Single clear Aluminium U value: 5.84 SHGC: 0.655 As per detail on plans

Skylights: Product ID Glass Frame U value: 5.84 SHGC: 0.655 As per detail on plans

External walls: Construction R2.0 Colour: Solar absorptancy: 0.7 As per detail on plans

Brick veneer: Construction R2.0 Colour: Solar absorptancy: 0.7 As per detail on plans

Internal walls: Construction R2.0 Colour: Solar absorptancy: 0.7 As per detail on plans

Roof: Construction R2.0 Colour: Solar absorptancy: 0.7 As per detail on plans

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Roof: Construction R2.0 Colour: Solar absorptancy: 0.7 As per detail on plans

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Roof: Construction R2.0 Colour: Solar absorptancy: 0.7 As per detail on plans

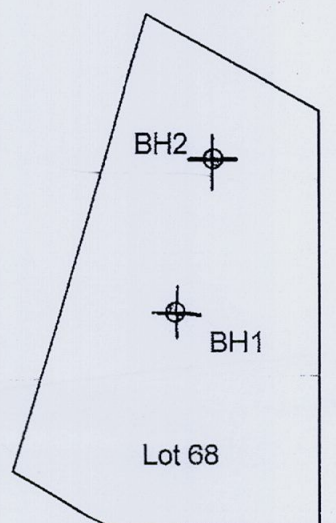
Roof: Construction R2.0 Colour: Solar absorptancy: 0.7 As per detail on plans

Roof: Construction R2.0 Colour: Solar absorptancy: 0.7 As per detail on plans

Roof: Construction R2.0 Colour: Solar absorptancy: 0.7 As per detail on plans

Email: jkdonovan@iinet.net.au

SITE SKETCH



Barrenjoey Road

AS 2870 – 1996

P

WIND CLASSIFICATION:

N3

DURABILITY CLASSIFICATION:

Severe
Marine

STRATA/SOIL TYPE:

Sandy Clay /
Rock/Floater

SOURCE OF DATA:

Auger

BORE HOLE NO. 1	DEPTH	NO FREE GROUND WATER OBSERVED
Topsoil – Sandy	0.200	
Yllw/Brwn Clayey Sand	0.300	
Yllw/Brwn Sandy Clay	0.600	
Refusal – Rock/Floater	1.000	
BORE DISCONTINUED/REFUSAL		

BORE DISCONTINUED/REFUSAL

BORE HOLE NO. 2	DEPTH	NO FREE GROUND WATER OBSERVED
Topsoil – Sandy	0.200	
Yllw / Brn Sandy Clay	0.300	
Yllw/Org/Brn Sdy Clay	0.500	
Refusal – Rock/Floater	0.700	
BORE DISCONTINUED/REFUSAL		

~~BORE DISCONTINUED/REFUSAL~~

REMARKS: Pier to Rock. The site/lot is identified by Pittwater Council as a Hazard Zone 3, (H3), on its Geo-technical Risk Management Map and requires a Geo-Technical Risk Assessment.

ENGINEER'S SIGNATURE:

NEER'S SIGNATURE

GREENFIELD ACCREDITED CERTIFIER

Structural Details C.C. No. **0811256**

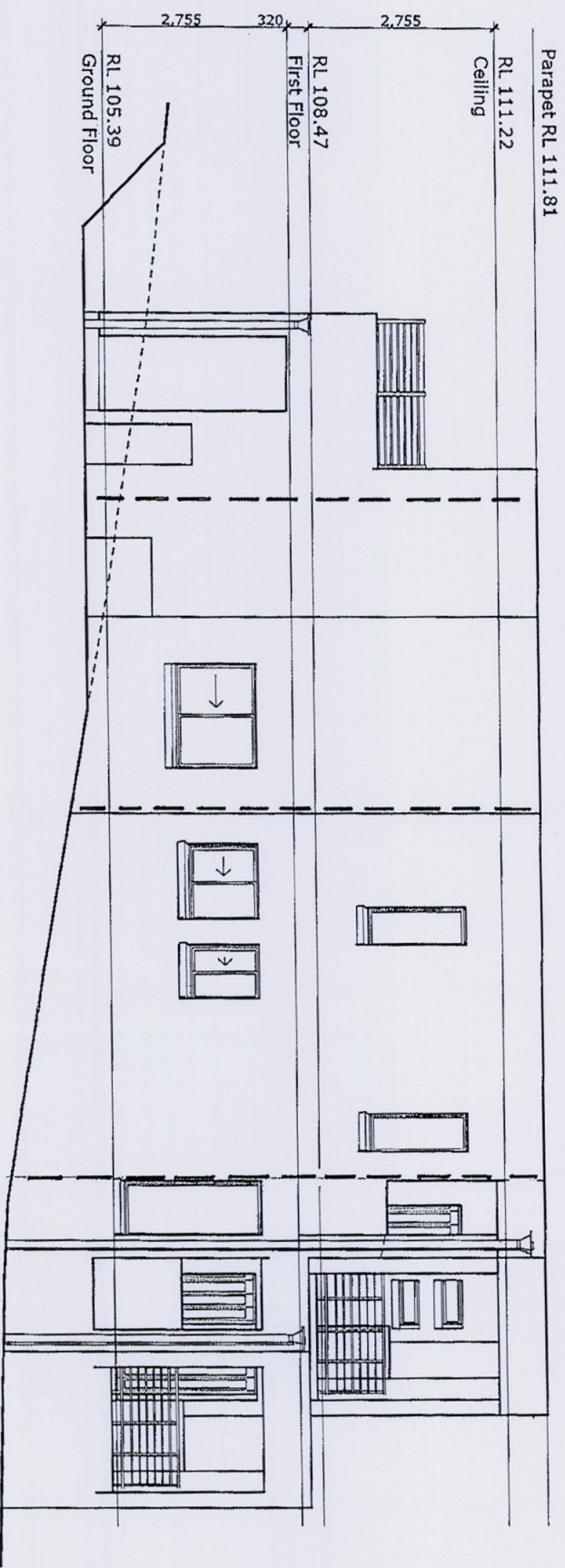
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COUNCIL COPY



ELEVATION 1 - NORTHERN

1:100



ELEVATION 2 - EASTERN

1:100

ARTICULATION JOINTS

72161-14

Notes:

- *Waffle pod floor slab construction.
- *Provide temporary fencing to block to meet safety requirements.
- *Provide sediment control measures including trade waste receptacle in accordance with E.P.A. requirements.
- *Provide Builders on site chemical treated sanitary service.
- *Provide Termite protection in accordance with Australian standard AS 3660.1 995.
- *Provide a 18.3Kw reverse cycle air conditioning system with 3 zone & 3 phase metering.
- *Provide R1.5 insulation batts to external walls.
- *Provide R2.5 insulation batts to ceiling excluding garage.

Structural Details C.C. No. 0811256

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Revisions-		
E	Additional info to council	30.10.07
D	Amendments as per DU meeting	6.10.07
C	Amendments as per DU meeting	7.8.07
Rev	Description	Date

Design:

CUSTOM

Proposed Residence for:

Mrs Sharon Euvrard

Address:

Lot 68 (No 466) Barrenjoey Road
Avalon

Revision:	AREAS:	GF - 113.22	FF - 101.25
E	Pd 5.25	Pd 5.25	Gar - 37.06
	Bd 1 - 10.5	Bd 1 - 10.5	Bd 2 - 8.4
	Bd 3 - 16.17	TOTAL: 291.85m ²	

Drawn:	Checked:	Project No:	Date:
John.T	C.A.B	05105	4.12.06

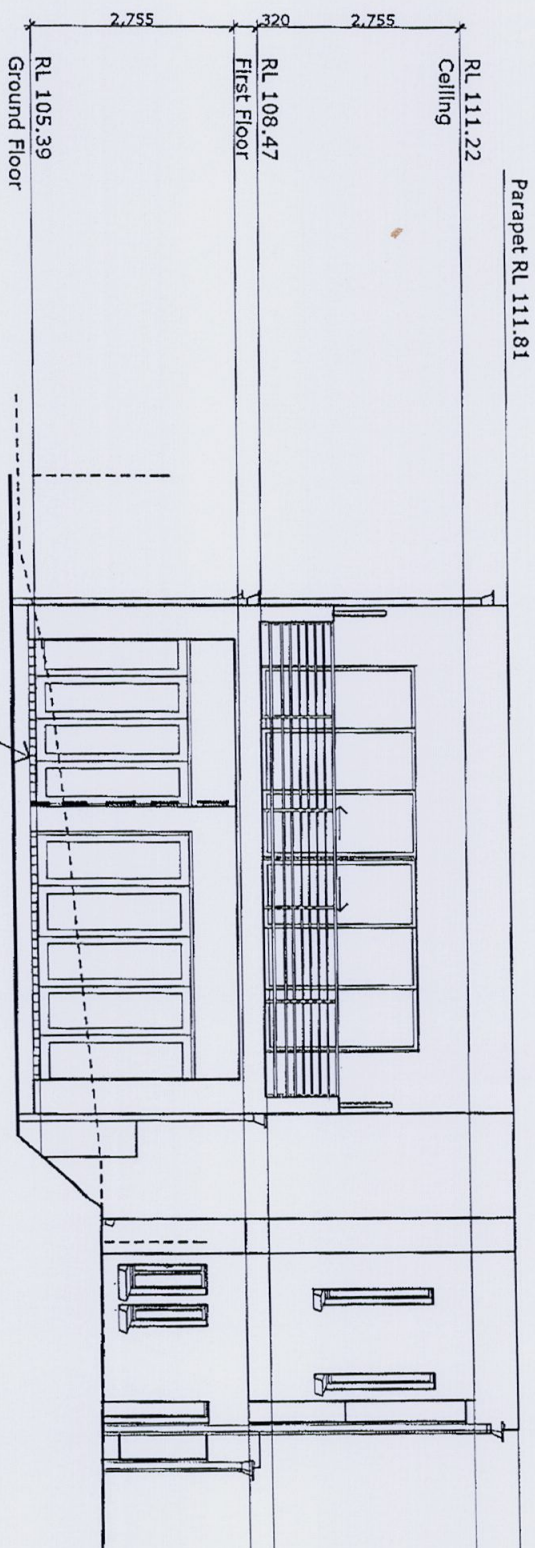


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Ph (02) 9633 9199 Fax (02) 9633 9133
enquiry@bellmarch.com.au www.bellmarch.com.au
ABN 78 061 720 474 - Builders Lic. No. 50045c

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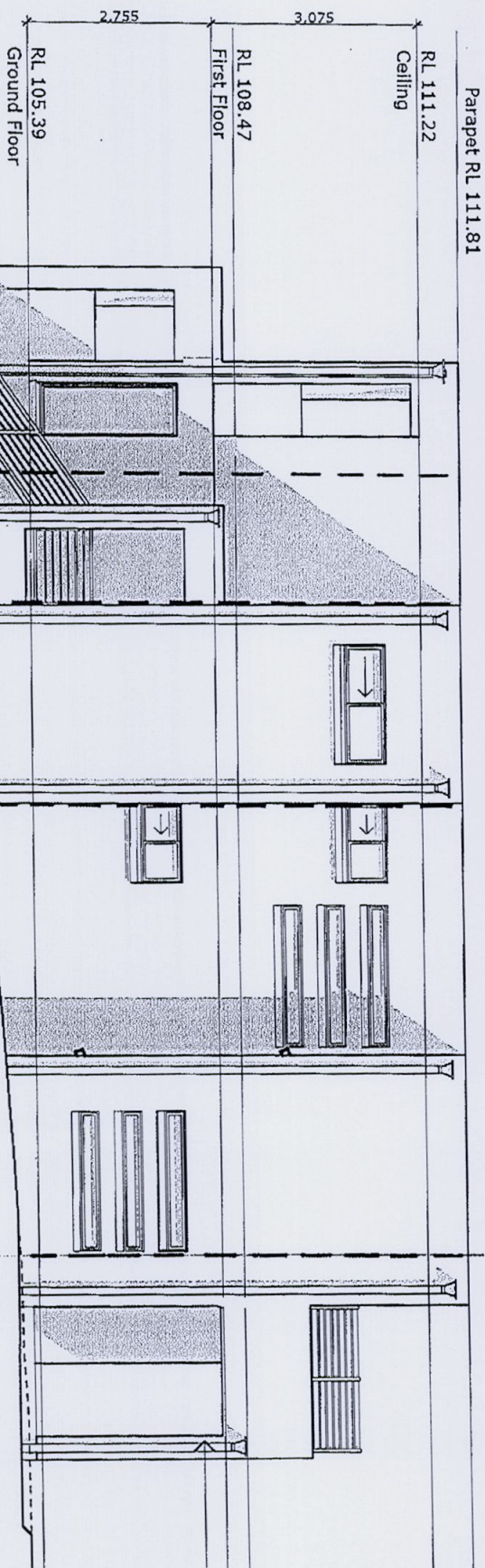
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VERIFY ALL DIMENSIONS ON SITE

DWG No:
6 / 9



ELEVATION 3 - SOUTHERN

1:100



ELEVATION 4 - WESTERN

1:100

ARTICULATION
JANTS - - - - -
72161 - 15

Notes:

- *Waffle pod floor slab construction.
- *Provide temporary fencing to block to meet safety requirements.
- *Provide sediment control measures including trade waste receptacle in accordance with E.P.A. requirements.
- *Provide Builders on site chemical treated sanitary service.
- *Provide Termite protection in accordance with Australian standard AS 3660.1 995.
- *Provide a 18.3Kw reverse cycle air conditioning system with 3 zone & 3 phase metering.
- *Provide R1.5 insulation batts to external walls.
- *Provide R2.5 insulation batts to ceiling excluding garage.

GREENFIELD ARCHITECTURAL CONSULTANTS
Structural Details C.C. No. 08111254

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Revisions-	
E	Additional info to council
D	Amendments as per DU meeting
C	Amendments as per DU meeting
Rev	Description
	Date

Design:

CUSTOM

Proposed Residence for:

Mrs Sharon Euvrard

Address:

Lot 68 (No 466) Barrenjoey Road
Avalon

Revision:	AREAS:
E	GF - 113.22 FF - 101.25 Pch - 5.25 Pch - 37.06 Bal 1 - 10.5 Bal 2 - 8.4 Bal 3 - 16.17 TOTAL: 291.85m ²

Drawn:	Checked:	Project No:	Date:
John.T	C.A.B	05105	4.12.06



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DWG No: 7 / 9

BAS DETAILS
FOR BAS DETAILS REFER TO
SHEET No. 09 & 10

WIND CLASSIFICATION
TO AS4055-2006
N2

SPECIAL CONCRETE NOTE
ALL CONCRETE IS TO BE COMPACTED
WITH A MECHANICAL VIBRATOR.

LEGEND

- * DENOTES STARTING POINT FOR VOID FORMS
- /// DENOTES 3M12 BARS 2000 LONG TIED TO UNDERSIDE OF SLAB MESH
- ⬆️ VERTICAL BRICK ARTICULATION JOINT TO AS3700
- DENOTES 450 DIA. CONCRETE PIER
- ▣ 450 SQ. (min) CONCRETE BLOCKOUT WITH PIER
- S— SYDNEY WATER SEWER
- 300 MAX. WAFLE POD EXTENSION

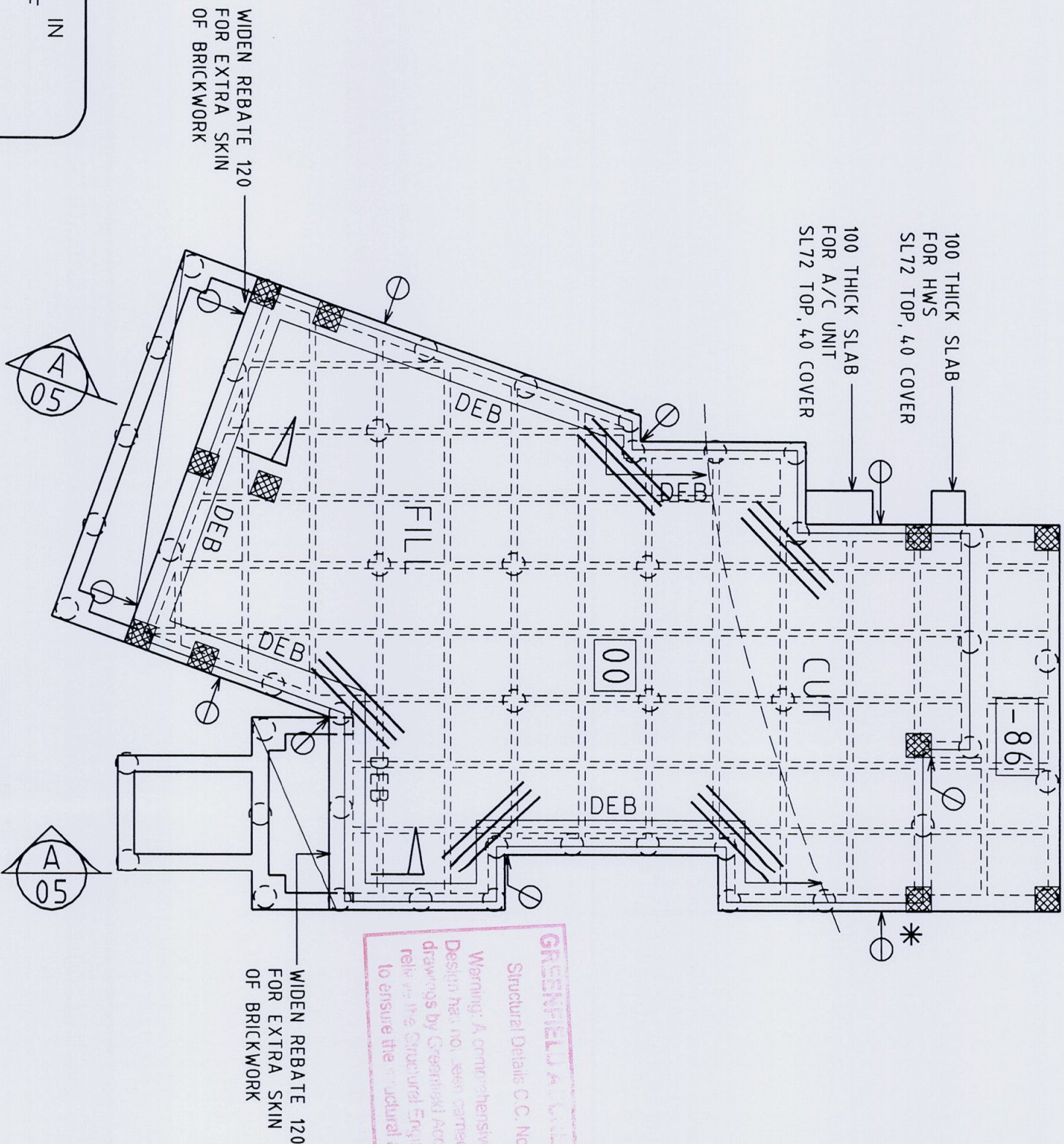
SITE CLASSIFICATION - P
TO AS2870-1996

THE FOOTING SYSTEM SPECIFIED HEREIN IS EXPECTED TO ACHIEVE ACCEPTABLE PROBABILITIES OF SERVICEABILITY & SAFETY OF THE BUILDING DURING ITS DESIGN LIFE. BUILDINGS SUPPORTED BY FOOTING SYSTEMS DESIGNED & CONSTRUCTED IN ACCORDANCE WITH AS2870-1996 ON A NORMAL SITE WHICH IS NOT SUBJECT TO ABNORMAL ENVIRONMENTAL FACTORS & WHICH IS MAINTAINED IN ACCORDANCE WITH APPENDIX B ARE EXPECTED TO EXPERIENCE USUALLY NO DAMAGE. A LOW INCIDENCE OF DAMAGE CATEGORY 1 & AN OCCASIONAL INCIDENCE OF DAMAGE CATEGORY 2 DAMAGE CATEGORIES ARE DEFINED IN APPENDIX C OF AS2870-1996

HOUSE DESIGN
MODEL CUSTOM

REV	DESCRIPTION	DATE

SCALE	1:100	DATE	30.05.08
DESIGNED	JD	DRAWN	GRA
CHECKED	JD		
JOB No.	E72161	DRAWING No.	72161-01
ISSUE	A		
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GREENFIELD 08111256
Structural Details C.O. No. 08111256
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PROPOSED DWELLING IS IN
ZONE OF INFLUENCE OF
THE SEWER MAIN.
1. EXACT LOCATION OF SEWER MUST
BE MARKED ON SITE PRIOR TO
COMMENCEMENT OF WORK.
2. PIERS WITH DEPTHS SHOWN ARE FOR
SYDNEY WATER REQUIREMENTS ONLY.

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e info@bellmarch.com.au

Kellyville Display Centre
River Oak Circuit
Kellyville NSW
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e sales@bellmarch.com.au

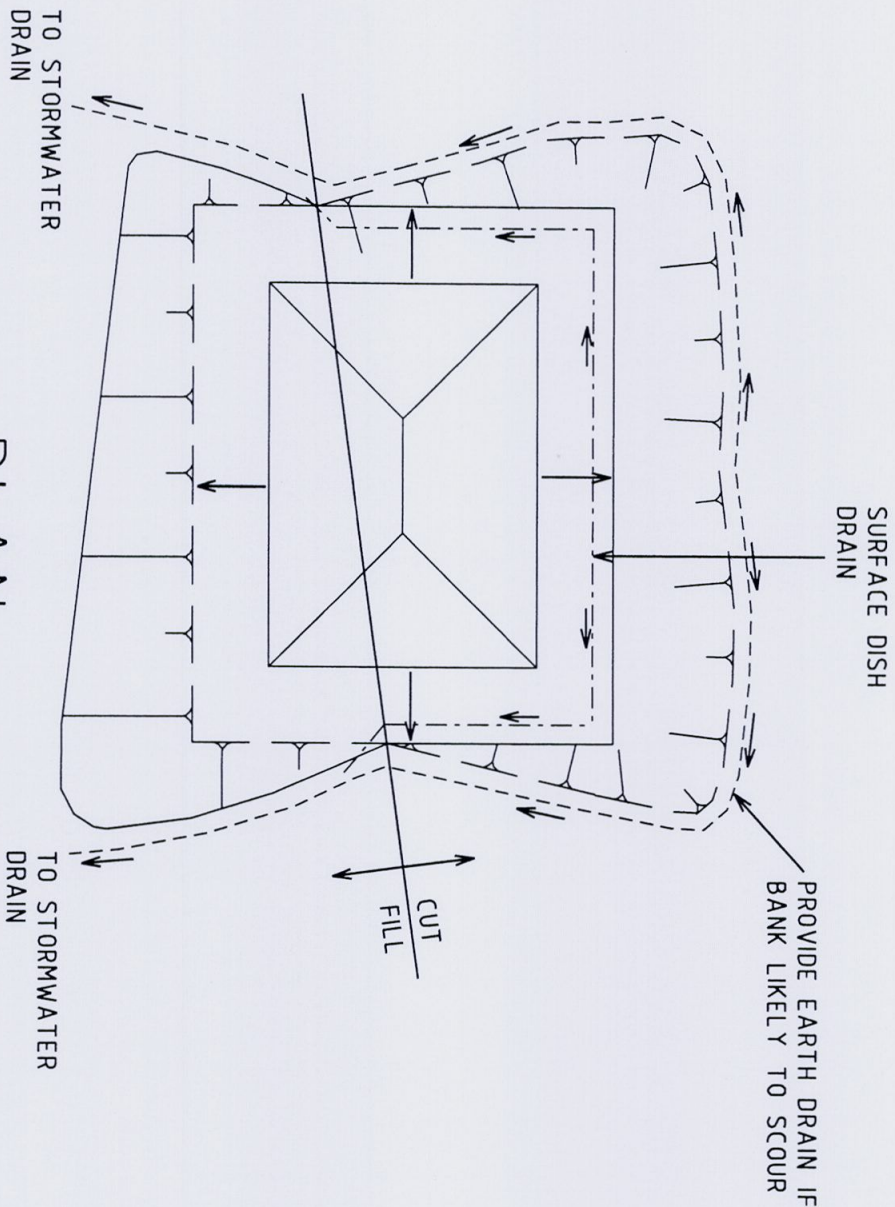
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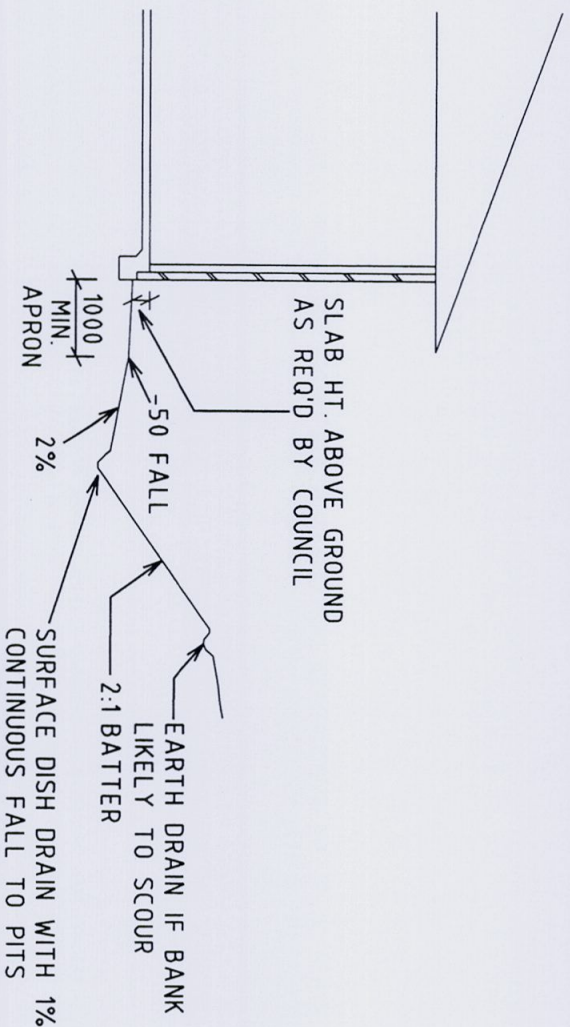
MRS EUVRARD
LOT 68
466 BARENJOEY ROAD
AVALON

SHEET TITLE
SLAB PLAN

APPROVED
B.E. MILE Aust.

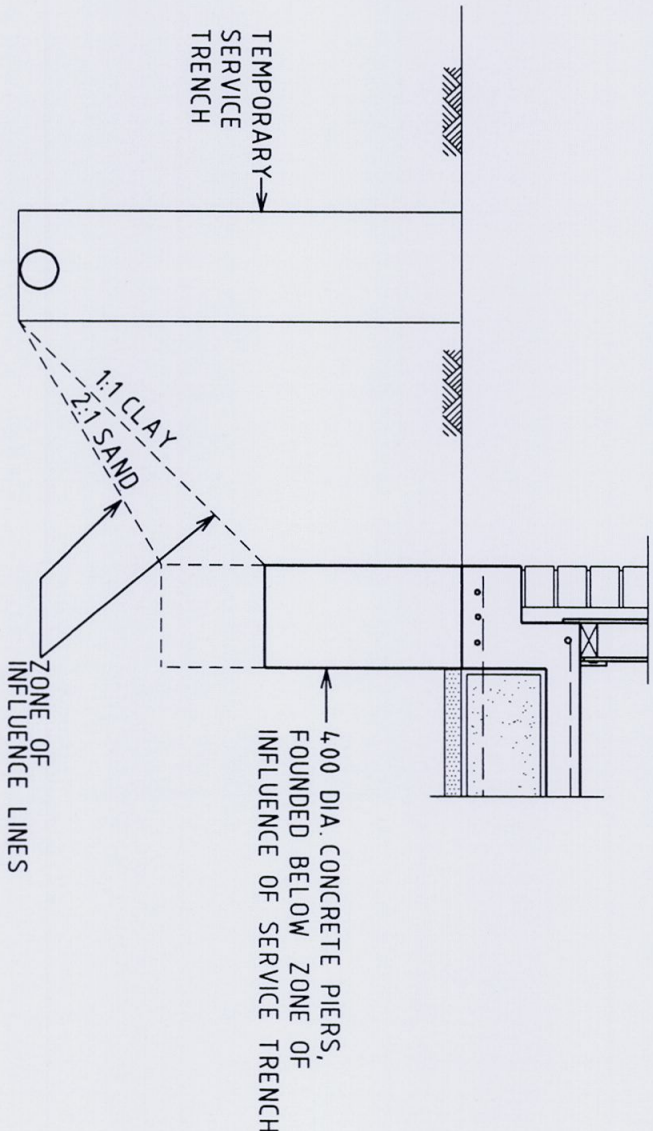


PLAN



SECTION

SERVICE TRENCH DETAIL



NOTES:

1. THIS DRAWING FORMS AN INTEGRAL PART OF THE DONOVAN ASSOCIATES STRUCTURAL DETAILS.
2. THE SITE MUST BE GRADED AND DRAINED SO THAT WATER IS SHED FROM THE BUILDING PLATFORM IN ACCORDANCE WITH THE ABOVE PRINCIPLES.
3. PROVISION OF PAVING, SURFACE GUTTERING OR UNDERGROUND PIPING WILL ALL ASSIST IN ACHIEVING GOOD DRAINAGE.
4. GOOD DRAINAGE MUST BE MAINTAINED THROUGHOUT CONSTRUCTION AS WELL AS AFTER COMPLETION.
5. DRAINAGE MUST NOT BE DIRECTED AT AN ADJACENT LOT.
6. THE OWNER'S ATTENTION SHOULD BE DRAWN TO CSIRO PUBLICATION 'GUIDE TO HOME OWNERS ON FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE

Structural Details E.C. No. 0811256

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DRAWING TITLE

MRS EUVRARD
LOT 68
466 BARRENJOEY ROAD
AVALON

SHEET TITLE

SITE DETAILS

APPROVED

B.E.M.I.E. Aust.

REV	DESCRIPTION	DATE

SCALE 1:20

DATE 30.05.08

DESIGNED JO

DRAWN GRA

CHECKED JO

CLIENT JOB No

JOB/DRAWING No

ISSUE

E72161

72161-02

A

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GENERAL

61 THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER
62 CONSULTANTS DRAWINGS AND SPECIFICATIONS.

G2 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTS FINAL DRAWINGS.

G3 BUILDER TO CHECK ALL RELEVANT DIMENSIONS ON SITE

64 ALL WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITIONS OF AUSTRALIAN STANDARDS AND THE REGULATIONS OF THE RELEVANT BUILDING AUTHORITY.

65 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION
AND NO PART SHALL BE OVER STRESSED THE BUILDER SHALL BE RESPONSIBLE FOR
ANY DAMAGE TO THE WORKS DURING CONSTRUCTION

G6 STRUCTURAL ELEMENTS HAVE BEEN DESIGNED FOR THE FOLLOWING SUPERIMPOSED LIVE LOADINGS:

RESIDENCE 1.5 kPa GARAGE 3.0 kPa

SITE PREPARATION

S1 SITE TO BE STRIPPED OF ALL ORGANIC MATTER AND ASSOCIATED TOPSOIL

S2 THE SITE IS TO BE CUT AND FILLED TO FORM A LEVEL BUILDING PLATFORM

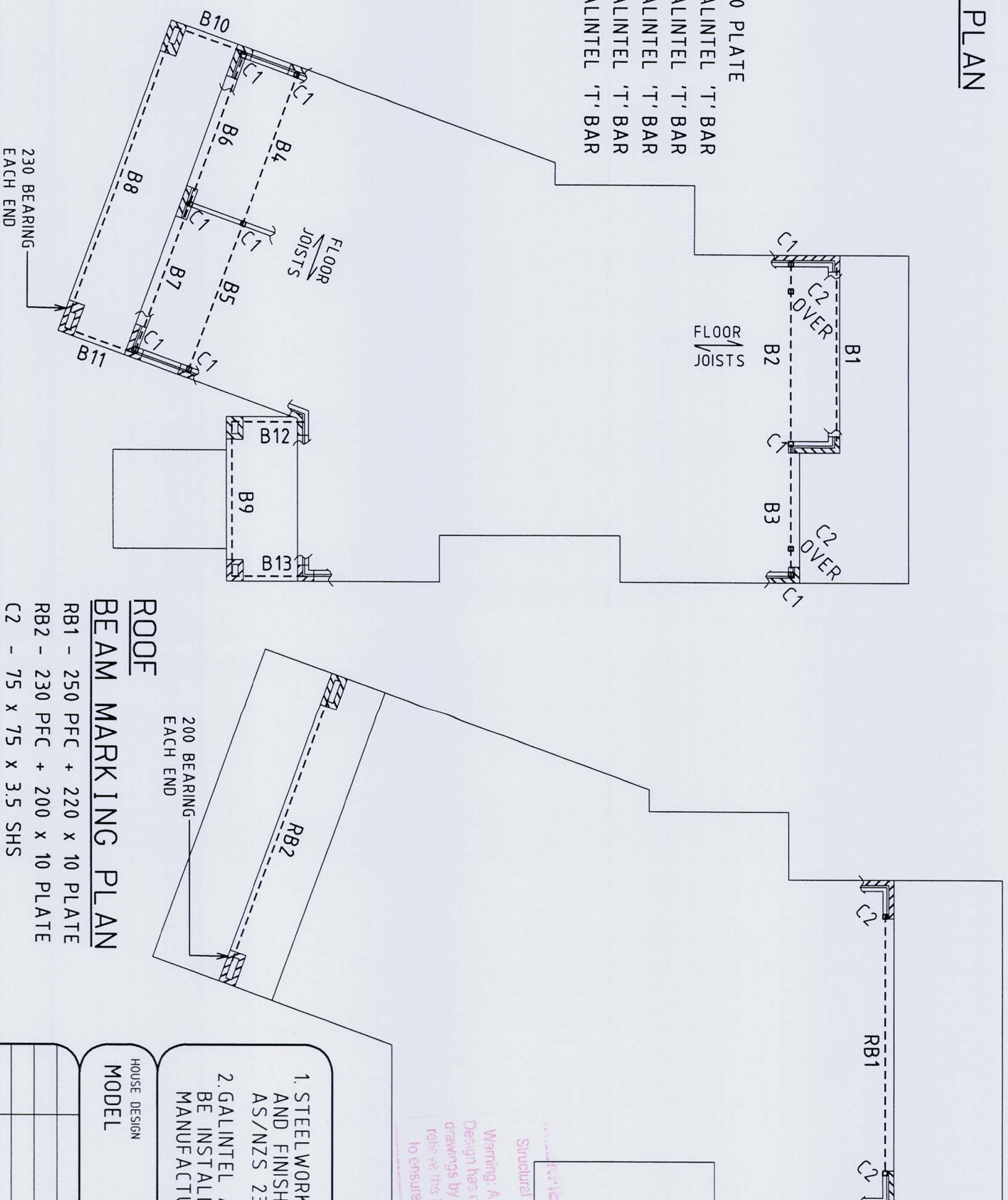
S3 A 1 METRE WIDE APRON, WITH 25 CROSS FALL AWAY FROM SLAB EDGE IS TO BE FORMED ALL AROUND THE SLAB.

S4. FILLING USED IN THE CONSTRUCTION OF THE SLAB SHALL BE COMPACTED AT OPTIMUM MOISTURE CONTENT IN 150mm MAXIMUM LAYERS BY REPEATED ROLLING WITH AN EXCAVATOR IN ORTHOGONAL DIRECTIONS AS PER AS2870-1996 CLAUSE 6.4.2 (b)

FIRST FLOOR

BEAM MARKING PLAN

- | | | | | | | | |
|-----|---|-----|-----|-----|-----|-----|------------------|
| B1 | - | 150 | x | 100 | x | 10 | UA |
| B2 | - | 250 | PFC | | | | |
| B3 | - | 250 | PFC | | | | |
| B4 | - | 250 | UB | 31 | | | |
| B5 | - | 250 | UB | 31 | | | |
| B6 | - | 200 | PFC | | | | |
| B7 | - | 200 | PFC | | | | |
| B8 | - | 230 | PFC | + | 200 | x | 10 PLATE |
| B9 | - | 200 | x | 200 | x | 7.0 | GALINTEL 'T' BAR |
| B10 | - | 200 | x | 200 | x | 7.0 | GALINTEL 'T' BAR |
| B11 | - | 200 | x | 200 | x | 7.0 | GALINTEL 'T' BAR |
| B12 | - | 200 | x | 200 | x | 7.0 | GALINTEL 'T' BAR |
| B13 | - | 200 | x | 200 | x | 7.0 | GALINTEL 'T' BAR |
| C1 | - | 75 | x | 75 | x | 3.5 | SHS |



ROOF

BEAM MARKING PLAN

- RB1 - 250 PFC + 220 x 10 PLATE
RB2 - 230 PFC + 200 x 10 PLATE
C2 - 75 x 75 x 3.5 SHS

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[illegible]

HOUSE DESIGN
MODEL
CUSTOM

1. STEELWORK SURFACE PREPARATION AND FINISH TO COMPLY WITH AS/NZS 2312 - 2002.
2. GALINTEL AND GALINTEL 'T' BAR TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS

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DRAWING TITLE

MRS EUVRARD
LOT 68
466 BARRENJOEY ROAD
AVALON

SHEET TITLE

BEAM PLAN

APPROVED

John
B.E.M.I.E. Aust.

SCALE 1:100

DATE 30.05.08

DESIGNED JD

DRAWN GRA CHECKED

10

CLIENT JOB N

JOB/DRAWING No.

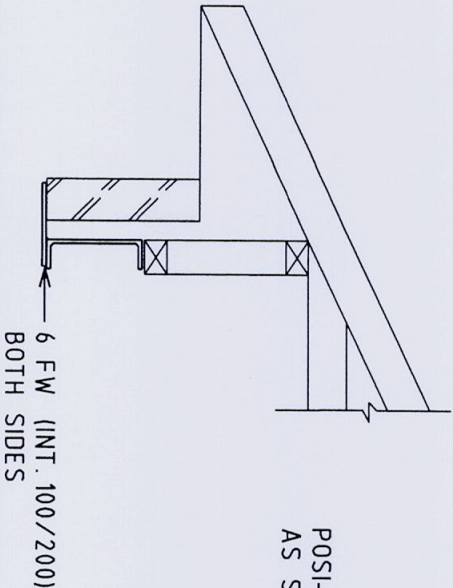
SSUE

E 12161

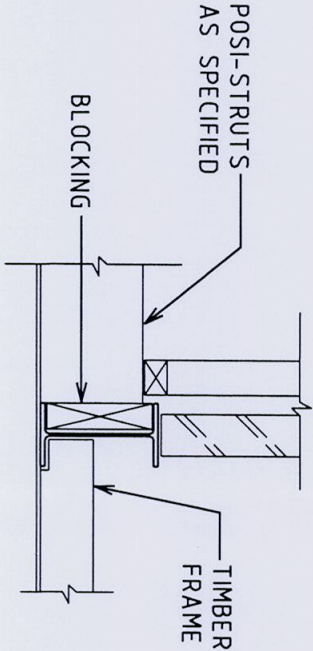
72161-06

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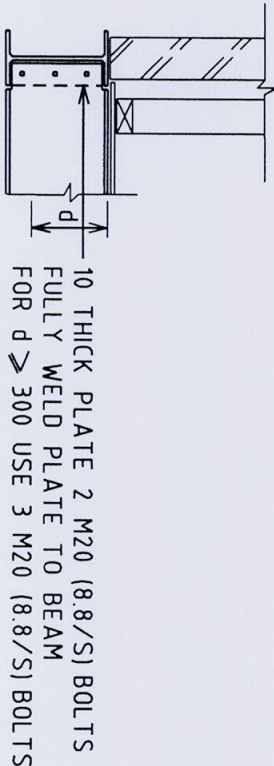
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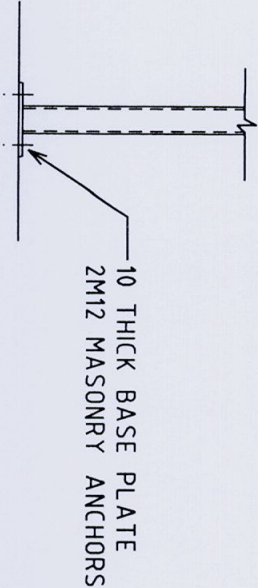
GARAGE LINTEL
DETAIL



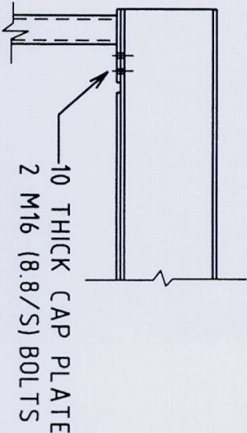
TYPICAL BEAM
DETAIL



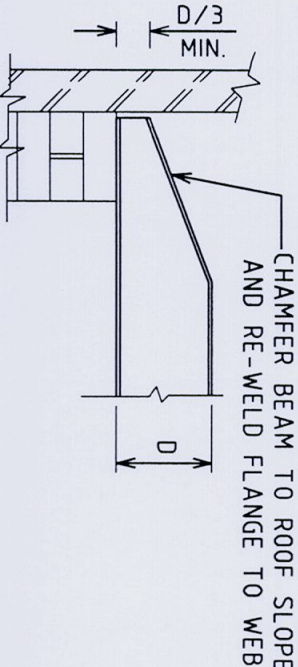
TYPICAL CONNECTION
DETAIL



COLUMN BASE
DETAIL



TYPICAL BEAM/COLUMN
CONNECTION DETAIL



TYPICAL CHAMFER
DETAIL

GREENFIELD ACCREDITED CERTIFICATE
Structural Details C.C. No.: **08111256**
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DRAWING TITLE

MRS EUVRARD
LOT 68
466 BARRENJOEY ROAD
AVALON

SHEET TITLE

BEAM DETAILS

APPROVED

B.E.M.I.E. Aust.

REV	DESCRIPTION	DATE

SCALE 1:20

DATE 30.05.08

DESIGNED JD

DRAWN GRA

CHECKED JD

CLIENT JOB No.

E72161

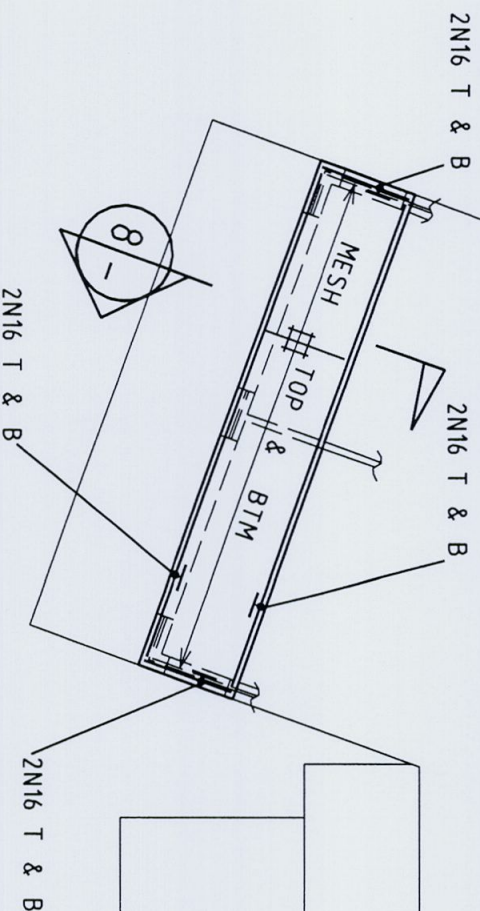
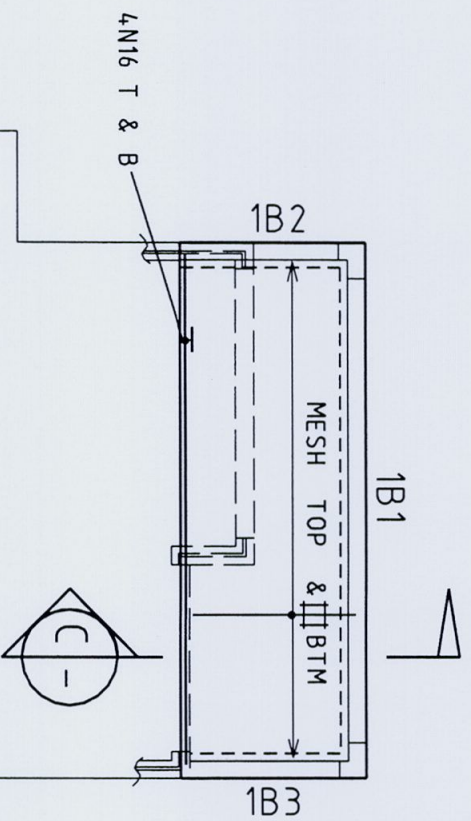
JOB/DRAWING No

72161-07

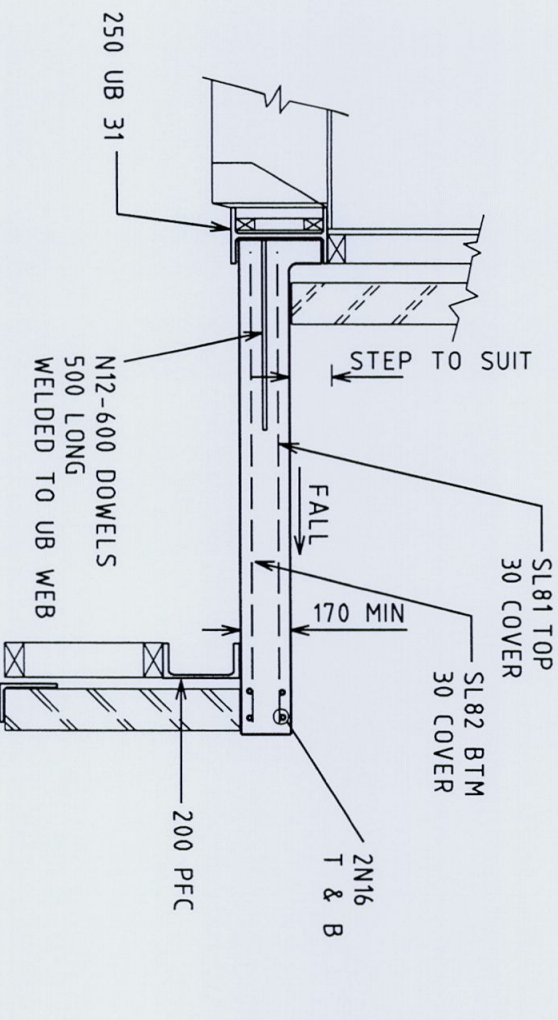
ISSUE

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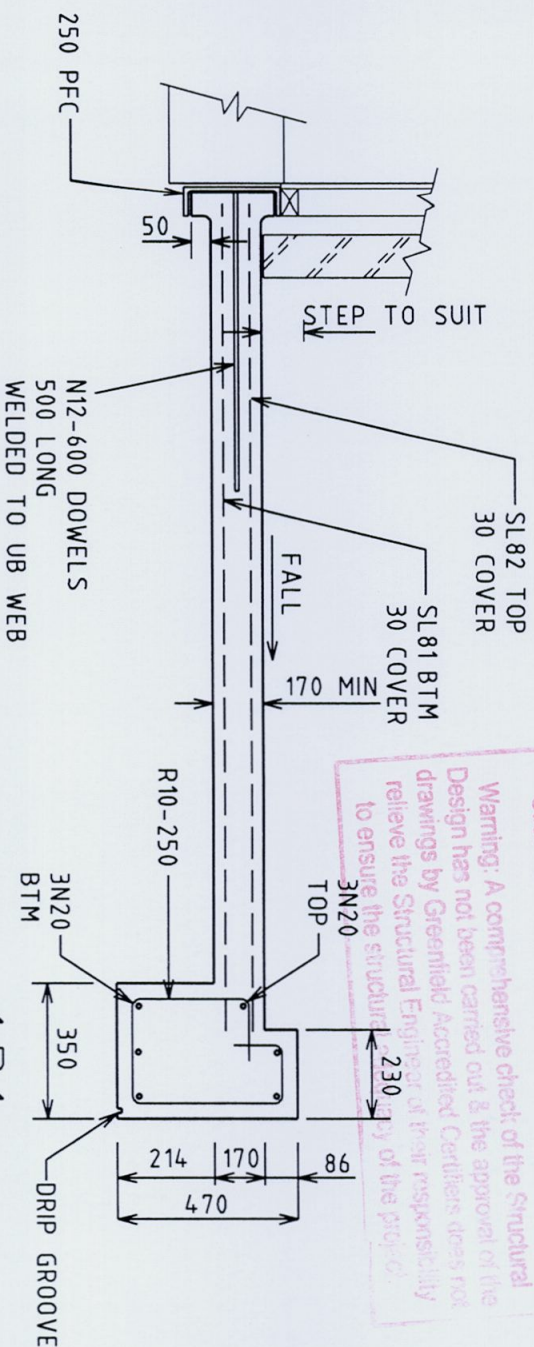
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CONCRETE GRADE N40
BALCONY SLAB PLAN
170 THICK SLAB, SL82 MESH TOP & SL81 MESH BTM
30 TOP COVER, 30 BTM COVER WITH ADDITIONAL
N BARS AS SHOWN



SECTION B
SCALE 1:20



SECTION C
SCALE 1:20
1B2, 1B3 SIMILAR

GREENFIELD ACCREDITED COMPANY
Structural Details C.C. No. 081125L
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REV	DESCRIPTION	DATE

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DRAWING TITLE

MRS EUVRARD
LOT 68
466 BARENJOEY ROAD
AVALON

SHEET TITLE

BALCONY DETAILS

APPROVED

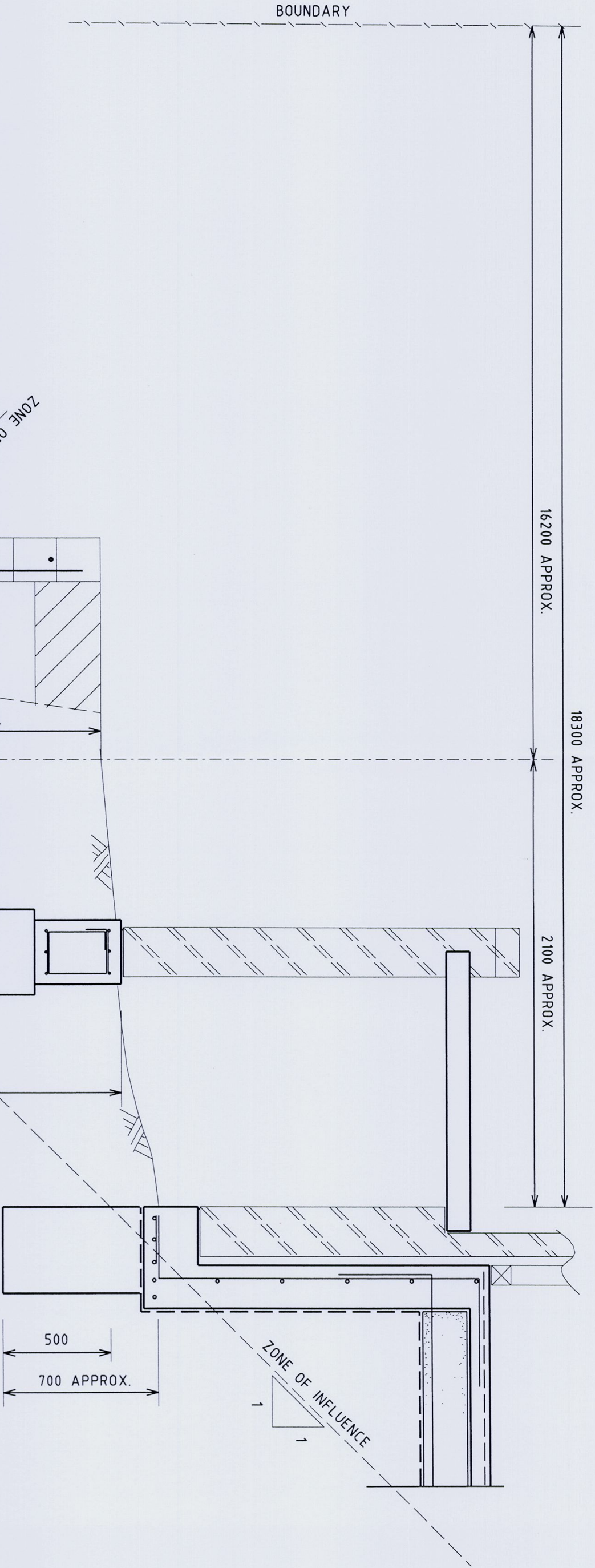
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SCALE 1:100, 1:20

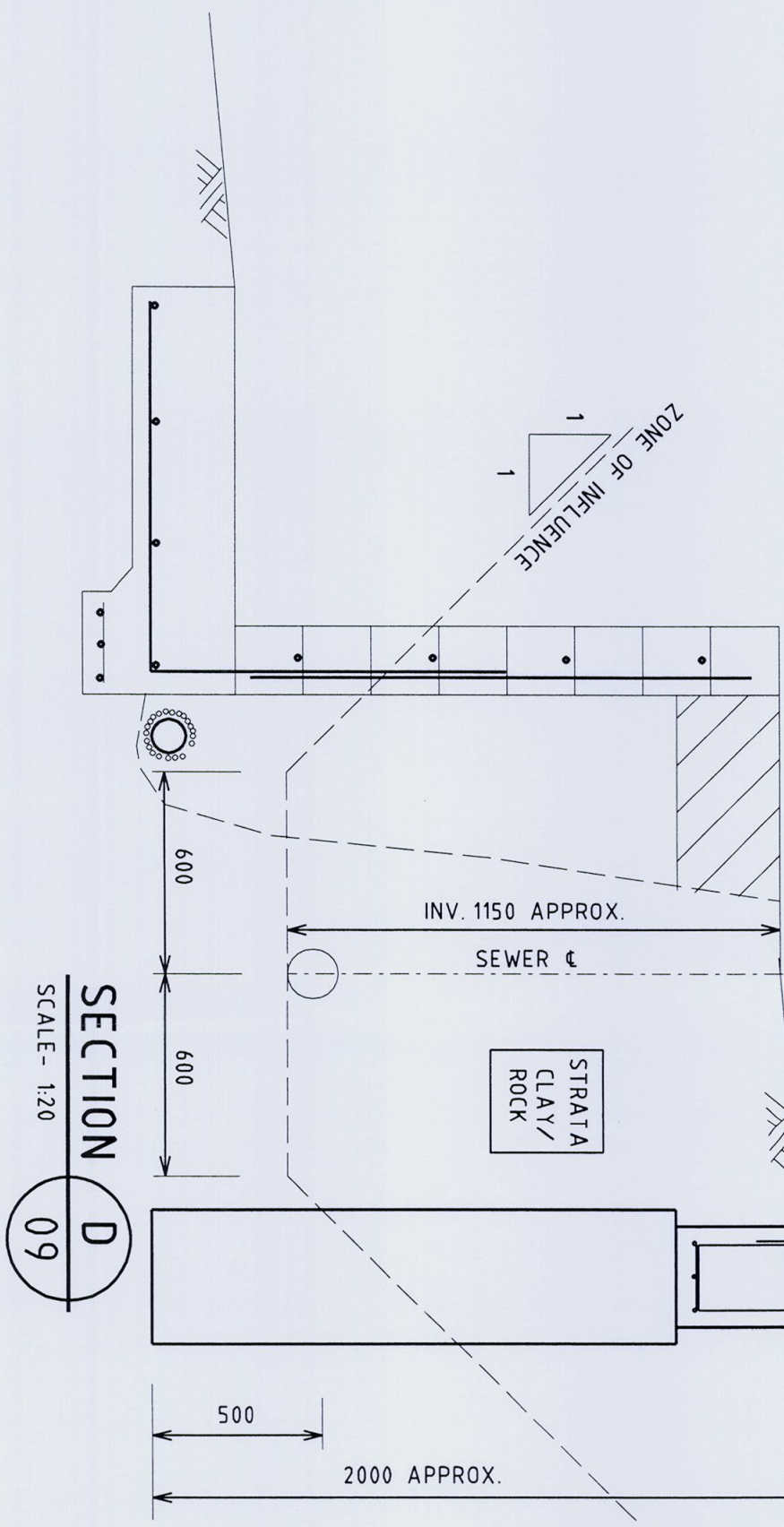
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DESIGNED	JD	DRAWN	GRA	CHECKED	JD
CLIENT JOB No.	JOB/DRAWING No.		ISSUE		
E72161	72161-08		A		

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Structural Details C.C. No: **0811256**
Warning: A comprehensive check of the Structural Design has not been carried out & the approval of the drawings by Greenfield Accredited Certifiers does not relieve the Structural Engineer of their responsibility to ensure the structural adequacy of the project.



SECTION D
SCALE - 1:20

REV	BAS SECTION AMENDED	DESCRIPTION	DATE
B			23.06.08

BELLMARCH HOMES

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DRAWING TITLE

MRS EUVRARD
LOT 68
466 BARENJOEY ROAD
AVALON

SHEET TITLE

BAS DETAILS

APPROVED

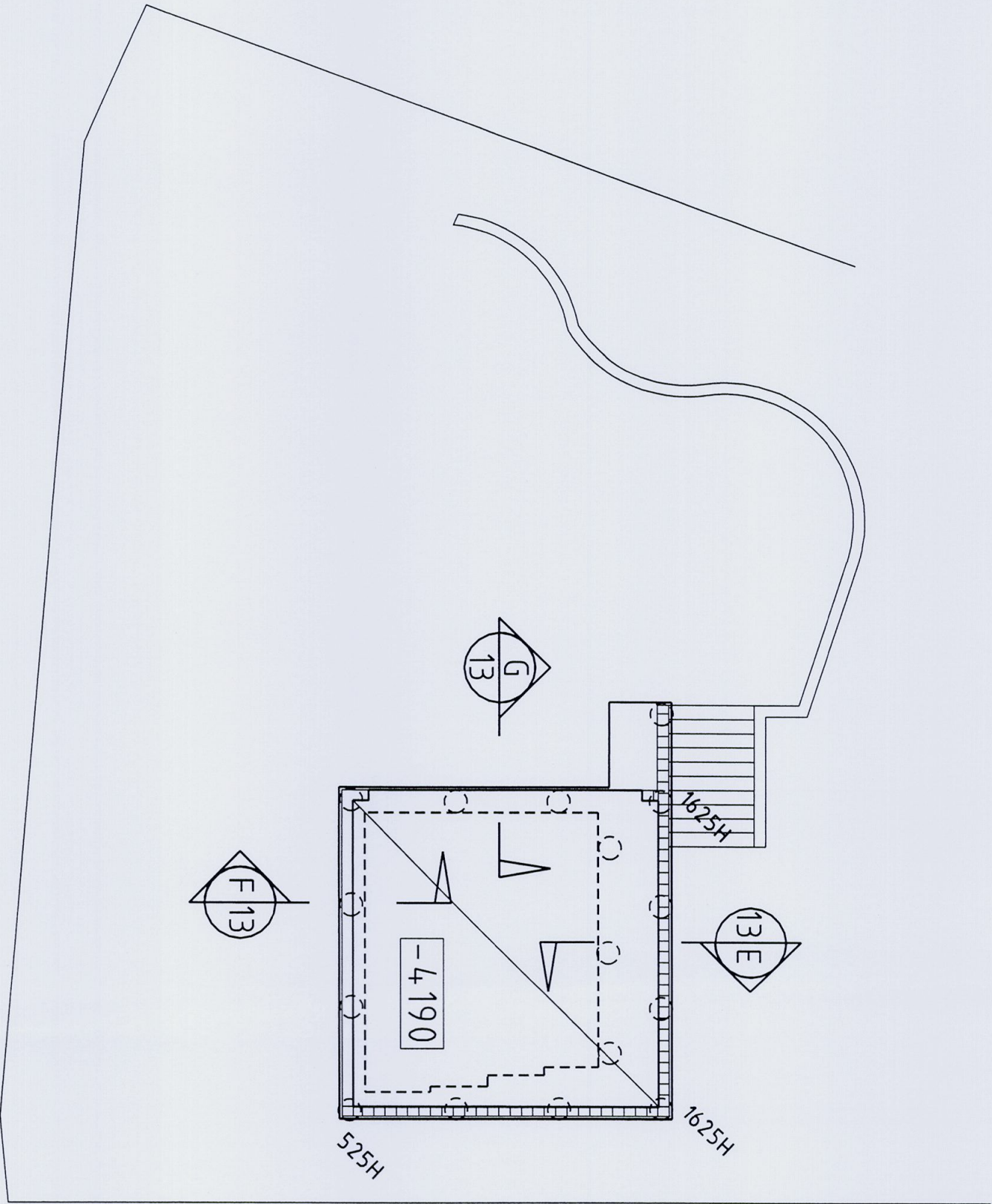
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SCALE 1:20

DESIGNED JD DRAWN GRA CHECKED JD

CLIENT JOB No 72161-10 JOB/DRAWING No B

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Structural Details C.C. No. ... **0811254**
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RETAINING WALL & GARAGE SLAB PLAN

100 THICK SLAB, ONE LAYER SL72 MESH TOP, 25 COVER

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LOT 68
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AVALON

SHEET TITLE

GARAGE PLAN

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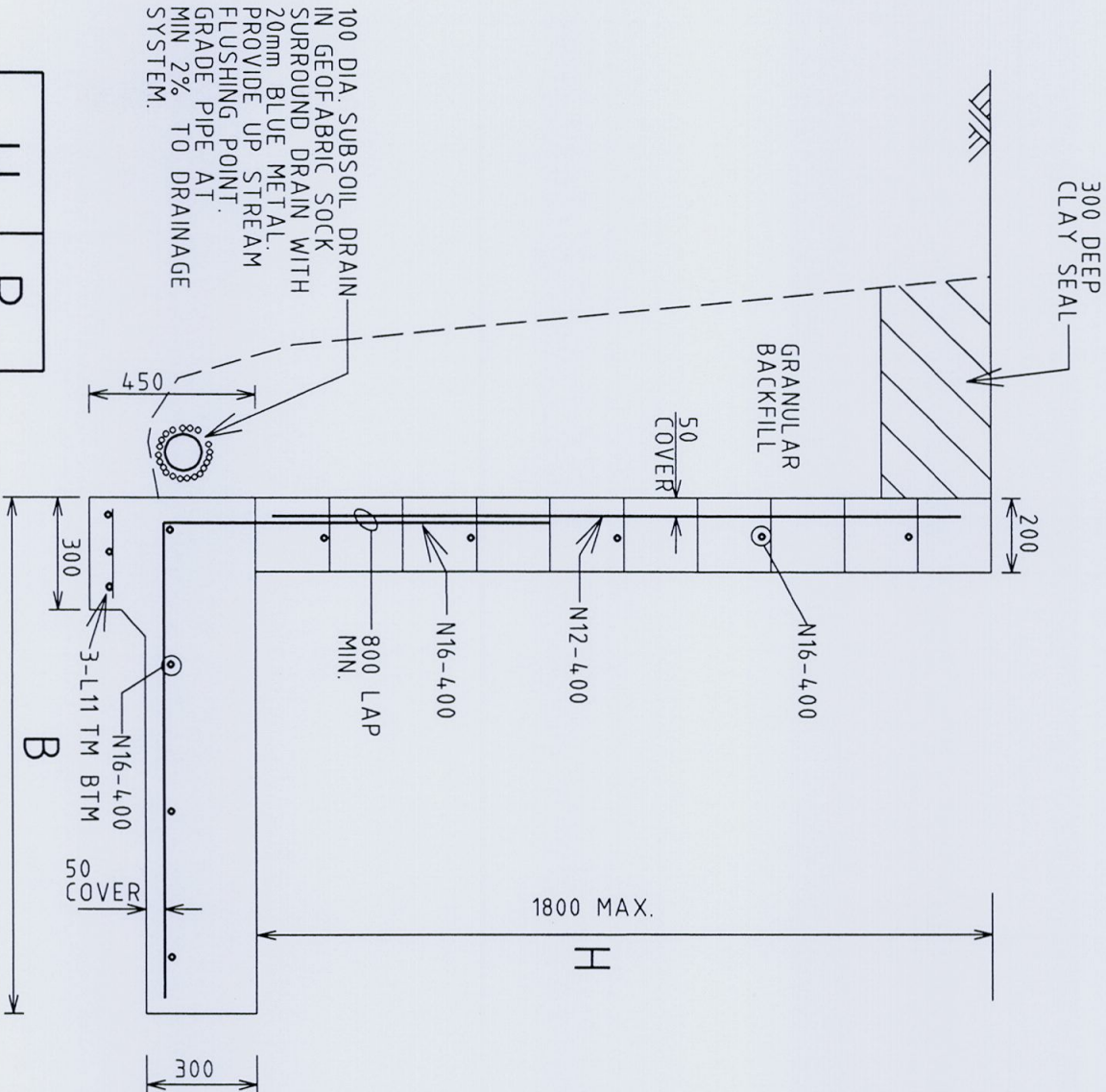
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SCALE 1:100 DATE 30.05.08

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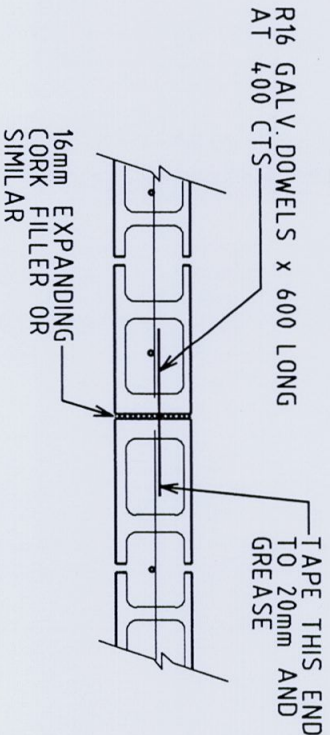
JOB No. E72161 DRAWING No. 72161-11 ISSUE A

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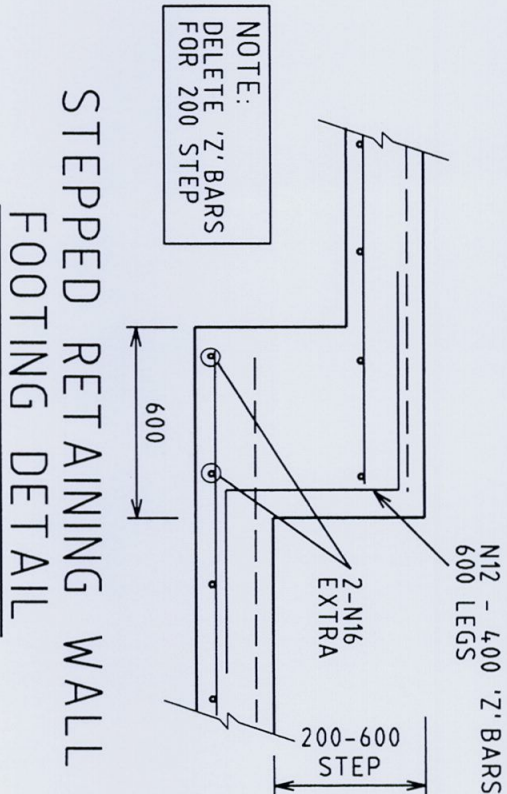


H	B
800	600
1000	800
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14.00	1100
1600	1300
1800	1500

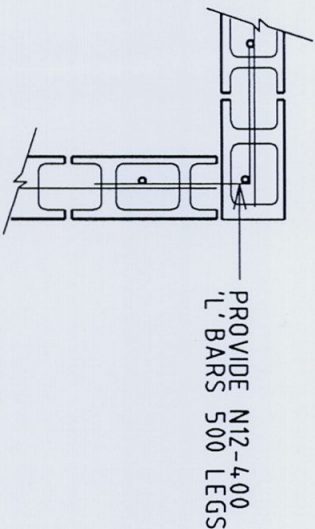
BLOCK RETAINING WALL DETAIL



VERTICAL CONTROL JOINT DETAIL



STEPPED RETAINING WALL FOOTING DETAIL



'L' INTERSECTION

WALL INTERSECTION DETAILS

- NOTES
- HOLLOW BLOCKS GRADE 12 DOUBLE "U" (AS 1500), F'c=12 MPa
 - CLEAN OUT ALL CORES.
 - MORTAR 1:4 (CEMENT:SAND)
 - GROUT ALL CORES, F'c=12 MPa, SLUMP 230mm, 10mm MAX AGG, IN 600mm MAX LIFTS.
 - CONCRETE FOOTINGS F'c=20 MPa
 - ALLOWABLE BEARING PRESSURE 150kPa
 - CONTROL JOINT AT 8m MAX.

GREENFIELD ACCREDITED CERTIFICATE
Structural Details C.C. No. 08/11/250
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REV	DESCRIPTION	DATE

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AVALON

SHEET TITLE

RETAINING WALL

APPROVED

B.E.M.E. Aust.

SCALE 1:20

DATE 30.05.08

DESIGNED JD	DRAWN GRA	CHECKED JD
CLIENT JOB No E72161	JOB/DRAWING No. 72161-12	ISSUE A

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