BUILDING CERTIFIERS

form

30 August 13

Pittwater Council
1 Park Street
Mona Vale NSW 2103

Dear Sir /Madam

Re: Lodgement of CC2013-181 for DA No. N0071/12
Site address: No. 69 Marine Parade, Avalon Beach NSW 2107

Please find attached all required documentation relied upon to issue Construction Certificate and Notice of Commencement for the above development:

- Part 4A Lodgement Fee $36.00 payable to Council.
- Copy of Home Owner's Warranty Insurance/Owner Builder Permit.
- Sydney Water approval
- 1 full set of Council approved stamped' plans.
- 1 full set of Construction Certificate plans & specifications.
- 1 Structural Engineer's Plans.
- Receipt for payment of Long Service Levy.
- Bushfire Consultant Assessment Report
- Form 2 of the Geotechnical Risk Management Policy for Pittwater
- Schedule of external finishes.
- 1 Basix Certificate
- Landscape Plan

RECEIVED
06 SEP 2013
PITTWATER COUNCIL

Yours faithfully

Craig Formosa

$36 REC:347732. 6/9/13.

FORM Building Certifiers Pty Ltd ABN 76 134 030 710 | PO Box 1824, Dee Why NSW 2099 | T/F +61 2 8021 9313 | info@formbc.com | www.formbc.com

POSTED 03/09/13

BUILDING CERTIFIERS form

CONSTRUCTION CERTIFICATE #2013-181

Approved 30/08/13

Issued in accordance with the provisions of the Environmental & Assessment Act 1979 under Sections 109C(1)(b) and 109F

Date Application Received	25/07/13		
Council	Pittwater Council		
Development Consent No.	N0071/12	Date Approved	20/08/12
Certifying Authority	Craig Formosa	Accredited Certifier	Craig Formosa - BPB0124
Accreditation Body	Building Professionals Board	BCA in Force	BCA2013
APPLICANT DETAILS			
Name	M & A Baylis	Ph No.	0431 496 996
Address	c/- J. Willmore 11 Hudson Parade, AVALON NSW 2107		
OWNER DETAILS			
Name	M & A Baylis		
Address	69 Marine Road, AVALON NSW 2107		
DEVELOPMENT DETAILS			
Subject Land	69 Marine Road, AVALON NSW 2107	Lot No. 112	DP 8394
Description of Development	Stage 1: Alterations and additions to an existing dwelling only (excluding swimming pool.)		
Class of Building	1a	Value of Work	$340,000.00
BUILDER DETAILS			
Name	Darryl Raymond Huggins		
Address	819 Pittwater Road, DEE WHY NSW 2099		
Contact Number	0407 215 093	License No.	124096C
APPROVED PLANS & DOCUMENTS			
Plans Prepared By	Jo Willmore Designs		
Drawing Numbers	DA1A-DA9A	Dated	February 2012
Engineer Details Prepared By	Barrenjoey Consulting engineers		
Drawing Numbers	2013-181 S1.00, S2.00-S2.01, S3.00-S3.08, S4.00, S5.00, S5.01, S5.02, S6.00, S6.01	Dated	September 2012
Basix Certificate No.	A130432	Dated	06/02/2013

CERTIFICATION

I, Craig Formosa, as the certifying authority am satisfied that;

(a) The requirements of the regulations referred to in s81A (5) have been complied with. That is, work completed in accordance with the documentation accompanying the application for this certificate (with such modifications verified by the certifying authority as may be shown on that documentation) will comply with the requirements of the Regulation as referred to in section 81A (5) of the Act, and

(b) Long Service Levy has been paid where required under s34 of the Building & Construction Industry Long Service Payments Act 1986.

Signed: C Formosa Date: 30/08/13

BUILDING CERTIFIERS

form

IMPORTANT ADVICE

Due to changes in planning laws, (Sect. S81A (2)C of the Act),**the critical stage inspections are mandatory and must** be inspected by the P.C.A or the final certificate (Occupation Certificate) may not be able to be issued (causing complications and delays when selling/refinancing etc). **The critical stage inspections are listed on the Notice of Commencement part of this document.**

Also, **NO CHANGES** to the building, as detailed in the plans, can be made without notification to your PCA (**some changes will need council consent**). **Please take note of any changes made in red to your plans, the builder will have to be provided with a copy of the approved construction certificate plans so that compliance with the Building Code of Australia and Council's DA conditions is achieved first time.**

Unauthorised changes may lead to fines and orders being issued by Council's Compliance Officers and prevent an Occupation Certificate being issued.

To arrange the mandatory inspections please give 48 hours notice by contacting Form Building Certifiers by telephone.

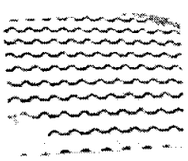
Please do not hesitate to ring me if there are any enquiries in respect of these matters.

Kind regards

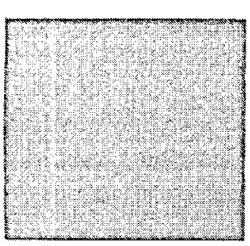
Craig Formosa
Director
Form Building Certifiers

COLOURS FOR BAYLIS HOUSE
69 MARINE PARADE, AVALON

ROOF: Tiled to match existing



WALLS: rendered & weatherboard clad walls-painted similar to Dulux "Bogle"



WINDOWS: timber framed - stained cedar

PAVING: sandstone

QUICK CHECK

Application Lodgement Summary

Sydney WATER

Reference Number 8495427 **Date Requested:** Fri July 26 2013

Agent	Reece Mona Vale, 10 Taronga Pl Mona Vale
Applicant	jo willmore, 11 hudson pde avalon 2107
Property/Asset	69 Marine Pde, Avalon Beach 2107 (Md Baylis Ak Plowman) PNum: 3433709 150 mm VC Sewer Main - (3144994) (WasteWater)
Product	Building Plan Approval Application

Charge	**Product Cost**	**GST**	**Total**
Building Plan Approval Application	$17.01	$0.00	$17.01

Property Special Conditions for Plumbers

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

You must contact Sydney Water to clarify the property special conditions where the property special conditions are not shown (yes or no), are shown as "unset", "unknown" or "not available" or if the proposed development is being built over more than one existing property.

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

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

Home Warranty Insurance Certificate of Insurance

Home Warranty Insurance Fund

QBE Insurance (Australia) Ltd
Level 3, 85 Harrington St
SYDNEY NSW 2000
Phone: 1300 790 723
Fax: 02 8275 9330
ABN: 78 003 191 035
AFS License No: 239545

QBE

Policy Number BN0032816BWI-5

MARK BAYLISS AND
69 MARINE PARADE
AVALON 2107

Name of Intermediary
AON HIA (NSW/ACT)
GPO BOX 2188
CANBERRA ACT 2601

Account Number
BN0006684
Date Issued
27/08/2013

Policy Schedule Details

Certificate in Respect of Insurance

Residential Building Work by Contractors

A contract of insurance complying with sections 92 and 96 of the Home Building Act 1989 has been issued by QBE Insurance (Australia) Limited as agent for and on behalf of the NSW Self Insurance Corporation (SICorp) (ABN 97 369 689 650) who is responsible for management of the Home Warranty Insurance Fund.

In Respect of	ALTERATIONS AND ADDITIONS STRUCTURAL
At	LOT 112,69 MARINE PARADE AVALON BEACH NSW 2107
Carried Out By	BUILDER DARRYL RAYMOND HUGGINS ABN: 80 112 399 105
Declared Contract Price	$340,000.00
Contract Date	14/08/2013
Builders Registration No.	U 124096C
Building Owner / Beneficiary	MARK BAYLISS AND ANNA PLOWMAN

Subject to the Act and the Home Building Regulation 2004 and the conditions of the insurance contract, cover will be provided to the Building Owner/Beneficiary named in the domestic building contract and to the successors in title to the Building Owner/Beneficiary or the immediate successor in title to the contractor or developer who did the work and subsequent successors in title.

Signed for and on behalf of NSW Self Insurance Corporation (SICorp)

Ty Ayscough

THIS PLAN / DOCUMENT FORMS
PART OF FORM BUILDING
CERTIFIERS CC / CDC

IMPORTANT NOTICE:
In addition to this certificate of insurance, a policy wording which outlines the terms and conditions of the cover provided is available from the HWIF website. To access that policy wording visit www.homewarranty.nsw.gov.au

QM1824-1207

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 2 – PART B - To be submitted with detailed design for construction certificate

PART B Declaration made by Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer (where applicable) in relation to the incorporation of the Geotechnical issues into the project design

I, BEN WHITE (insert name) on behalf of Jack Hodgson Consultants Pty Ltd (trading or company name)

on this the 28TH JUEN, 2013 (date)

certify that I am a Geotechnical Engineer or Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk Management Policy for Pittwater – 2009 and I am authorised by the above organization/company to issue this document and to certify that the organization/company has a current professional indemnity policy of at least $2million. I also certify that I have reviewed the design plans and structural design plans in accordance for the Construction Certificate Stage and that I am satisfied that:

Please mark appropriate box

☒ the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto
☒ the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy

Geotechnical Report Details :

Report Title: RISK ANALYSIS & MANAGEMEMENT FOR PROPOSED ADDITIONS & ALTERATIONS PLUS POOL AT 69 MARINE PARADE, AVALON – MN 27962 Report Date: 19TH JANUARY, 2012 Author: BEN WHITE

Documentation which relates to or is relied upon in report preparation:

ARCHITECTURAL PLANS PREPARED BY JO WILLMORE DESIGNS DWG NO: DA-01 TO DA-08 DATED DECEMBER, 2011
STRUCTURAL PLANS PREPARED BY BARRENJOEY CONSULTING ENGINEERS P/L JOB NO: 120712 DWG NO S1.00, S2.00, S2.01, S2.02, S2.03, S2.04, S3.00, S3.01, S3.02, S3.03, S3.04, S3.05, S3.06, S3.07, S3.08, S4.00, S5.00, S5.01, S5.02, S6.00 &S6.01

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified.

BEN WHITE (name) (signature)

I am also aware that Pittwater Council relies on the processes covered by the Geotechnical Risk Management Policy, including this certification as the basis for ensuring that the geotechnical risk management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk

Signature

Name Ben White

Chartered Professional Status M.Sc Geol AusIMM CP Geol

Membership No. 222757

Company Jack Hodgson Consultants Pty Ltd

Levy Online Payment Receipt

Building and Construction

MARK BAYLIS
69 MARINE PARADE
AVALON NSW 2107

Long Service CORPORATION

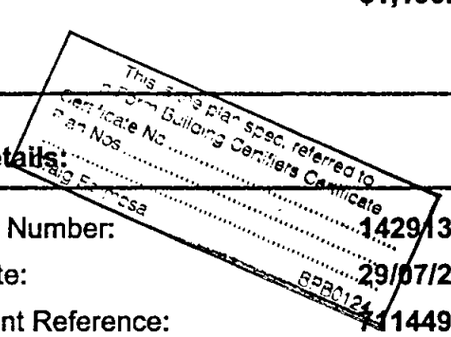
Long Service Corporation
Level 1
19-21 Watt Street
Gosford NSW 2250
Locked Bag 3000
Central Coast MC NSW 2252
Tel: 13 14 41
Fax: (02) 9287 5685
Email: info@longservice.nsw.gov.au
www.longservice.nsw.gov.au
ABN 93 646 090 808

Application Details:

Applicant Name:	**MARK BAYLIS**
Levy Number:	**5047978**
Application Type:	**CC**
Application Number:	**N0071/12**
Approving Authority:	**PITTWATER COUNCIL**

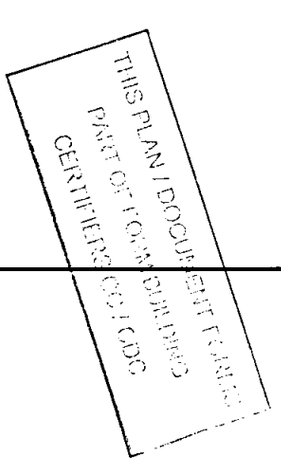
Work Details:

Site Address:	**69 MARINE PARADE** **AVALON NSW 2107**
Value of work:	**$340,000**
Levy Due:	**$1,190.00**



Payment Details:

LSC Receipt Number:	**142913**
Payment Date:	**29/07/2013 1:13:30 PM**
Bank Payment Reference:	**411449927**
Levy Paid:	**$1,190.00**
Credit card surcharge:	**$4.76**
Total Payment Received:	**$1,194.76**



BASIX Certificate

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

Alterations and Additions

Certificate number: A130432

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 Alterations and Additions Definitions" dated 29/9/2006 published by Department of Planning. This document is available at www.basix.nsw.gov.au

Director-General
Date of issue: Monday, 06, February 2012
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW Government | Planning & Infrastructure

Description of project

Project address	
Project name	Baylis House
Street address	69 Marine parade Avalon 2107
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 8394
Lot number	112
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at $50,000 or more, and includes a pool (and/or spa).

THIS PLAN / DOCUMENT FORMS PART OF FORM BUILDING CERTIFIERS CC / CDC

Certificate Prepared by (please complete before submitting to Council or PCA)
Name / Company Name: Jo Willmore Designs
ABN (if applicable): 27370370713

Pool and Spa	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Rainwater tank			
The applicant must install a rainwater tank of at least 1181 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rainwater runoff from at least 130 square metres of roof area.		✓	✓
The applicant must connect the rainwater tank to a tap located within 10 metres of the edge of the pool.		✓	✓
Outdoor swimming pool			
The swimming pool must be outdoors.	✓	✓	✓
The swimming pool must not have a capacity greater than 50 kilolitres.	✓	✓	✓
The swimming pool must have a pool cover.		✓	✓
The applicant must install a pool pump timer for the swimming pool.		✓	✓
The applicant must install the following heating system for the swimming pool that is part of this development: gas.		✓	✓

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Hot water			
The applicant must install the following hot water system in the development: gas instantaneous.	✓	✓	✓
Lighting			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
Fixtures			
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.		✓	✓
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.		✓	✓
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.		✓	

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R-value)	Other specifications
suspended floor above garage: framed (R0.7).	nil	
floor above existing dwelling or building.	nil	
external wall: brick veneer	R1.16 (or R1.70 including construction)	
external wall: cavity brick	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
flat ceiling, pitched roof	ceiling: R2.50 (up), roof: foil/sarking	medium (solar absorptance 0.475 - 0.70)

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓
Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions.		✓	✓
Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.		✓	✓
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.		✓	✓
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door, as specified in the 'overshadowing' column in the table below.	✓	✓	✓

Windows and glazed doors glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type
			Height (m)	Distance (m)		
W1	W	8.625	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W2	N	7.36	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)

Glazing requirements

Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

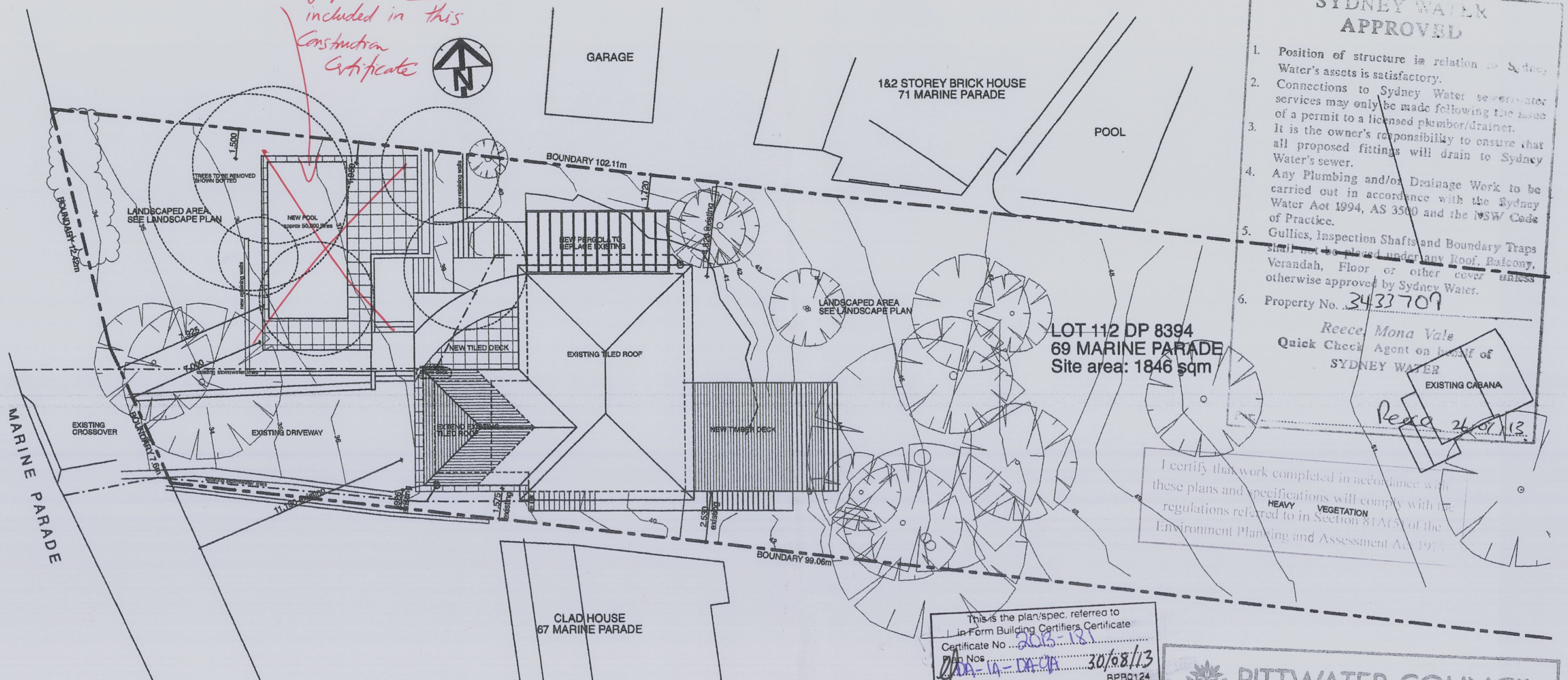
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type
W3	N	5.67	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W5	E	2.25	5.6	2	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W7	S	1.06	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W9	S	2.55	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W10	S	2.55	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W11	W	13	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W12	N	8.25	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W13	W	8.62	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)
W14	W	2.875	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)
W18	E	2.25	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)
W19	E	6.3	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)
W20	S	6	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W21	W	6.6	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)

Glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
W22	S	6.5	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W23	W	10	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W24	N	10	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			

Legend
In these commitments, "applicant" means the person carrying out the development.
Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
Commitments identified with a "✓" in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued.

Swimming pool not included in this Construction Certificate



SYDNEY WATER
APPROVED

1. Position of structure in relation to Sydney Water's assets is satisfactory.
2. Connections to Sydney Water sewer/water services may only be made following the issue of a permit to a licensed plumber/drainer.
3. It is the owner's responsibility to ensure that all proposed fittings will drain to Sydney Water's sewer.
4. Any Plumbing and/or Drainage Work to be carried out in accordance with the Sydney Water Act 1994, AS 3500 and the WSW Code of Practice.
5. Gullies, Inspection Shafts and Boundary Traps shall not be located under any Roof, Balcony, Verandah, Floor or other cover unless otherwise approved by Sydney Water.
6. Property No. 3433709

Reece, Mona Vale
Quick Check Agent on behalf of
SYDNEY WATER

Rexo 26/07/13

I certify that work completed in accordance with these plans and specifications will comply with the regulations referred to in Section 81A(5) of the Environment Planning and Assessment Act 1979

This is the plan/spec. referred to in Form Building Certifiers Certificate
Certificate No ... 2013-181
Plan Nos DA-1A - DA-1A
30/08/13
Craig Formosa BPB0124

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS
THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT
SCALE 1:1000 (A3)
THIS APPROVAL DOES NOT AUTHORISE ANY WORKS ON THE ADJACENT ROAD RESERVE OR ANY COUNCIL RESERVE.

SOFT LANDSCAPE AREA	
front & north- 165 sqm	
rear - 1200 sqm	
TOTAL 1365 sqm (73.94%) (does not include areas less than 2 m in width)	

SITE COVERAGE Site Area : 1846 sqm	
EXISTING	PROPOSED
House & decks - 126.5 sqm	House & decks - 188.0 sqm
driveway - 57.5 sqm	driveway - 57.5 sqm
cabana - 26.0 sqm	cabana - 26.0 sqm
pool - 0 sqm	pool - 66.0 sqm
paved area - 90 sqm	paved area - 80 sqm
TOTAL 300 sqm (16.25%)	TOTAL 417.5 sqm (22.61%)

Bushfire Protection Requirements:
(i) Compliance Level BAL 12.5
(ii) Existing dwelling openings to be protected to improve ember protection
Refer to Bushfire Consultants Report
Ref: 612
Dated 13/1/12

AMENDMENTS
2/7/12 -'A' - gable roof over dining room changed to hipped roof, W22 increased in size

JO WILLMORE DESIGNS
11 Hudson Parade
Clareville NSW 2107
9918 2479
ABN 27 370 370 173

PROPOSED ALTERATIONS & ADDITIONS

for: A. & M. Baylis
at: Lot 112 DP 8394, 69 Marine Parade
AVALON 2107

drawing title: **SITE PLAN**

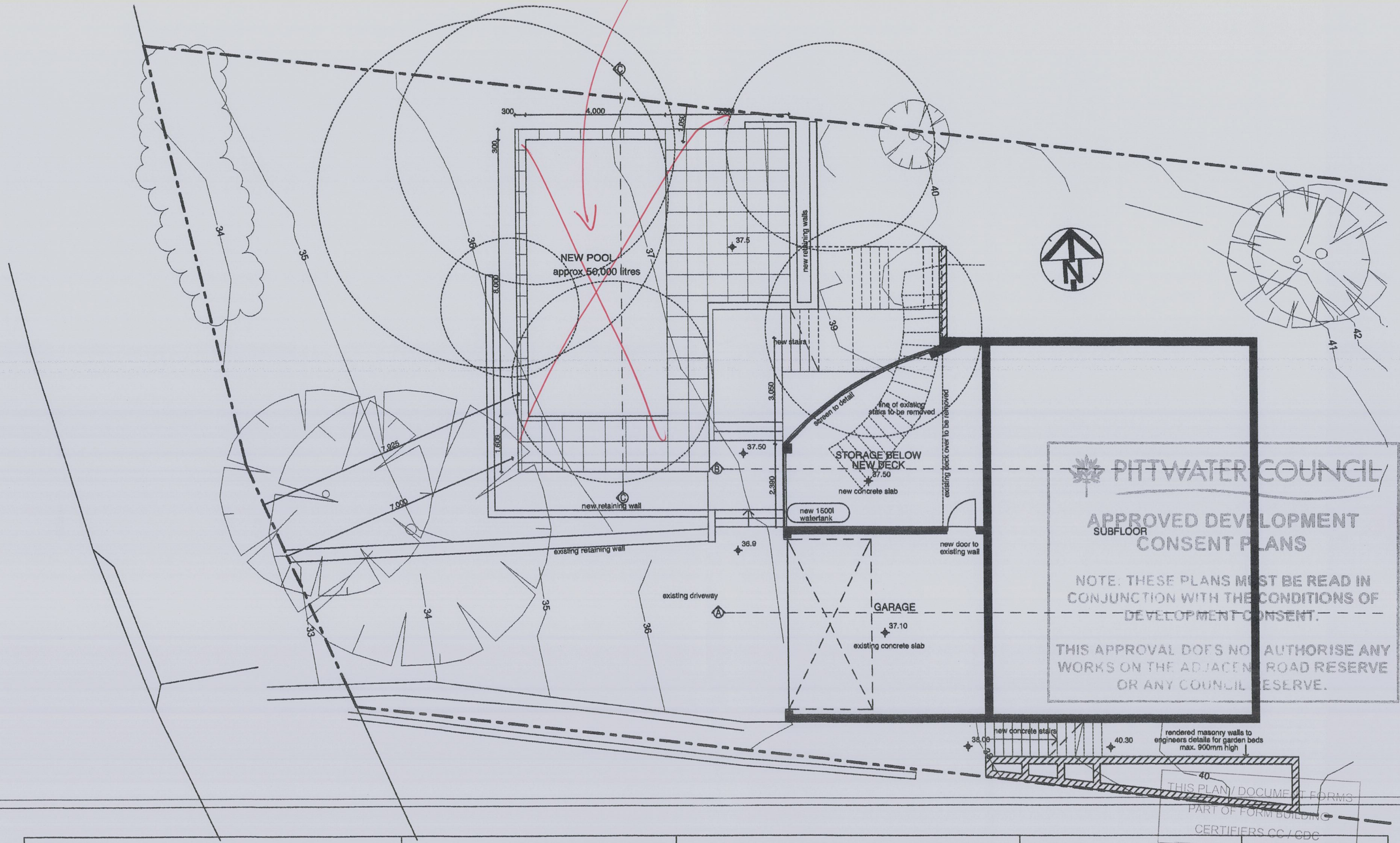
date: FEBRUARY 2012

scale: 1:200 & 1:1000(A3)

NOTE: Use figured dimension only. Do not scale off drawings. All levels and dimensions to be verified prior to construction of work

drawing number: **DA-1A**

NOT PART OF THIS CC.



PITTWATER COUNCIL

APPROVED DEVELOPMENT CONSENT PLANS

NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT.

THIS APPROVAL DOES NOT AUTHORISE ANY WORKS ON THE ADJACENT ROAD RESERVE OR ANY COUNCIL RESERVE.

THIS PLAN/ DOCUMENT FORMS PART OF FORM BUILDING CERTIFIERS CC / CDC

AMENDMENTS
2/7/12 -'A' - gable roof over dining room changed to hipped roof, W22 increased in size

JO WILLMORE DESIGNS
11 Hudson Parade
Clareville NSW 2107
9918 2479
ABN 27 370 370 173

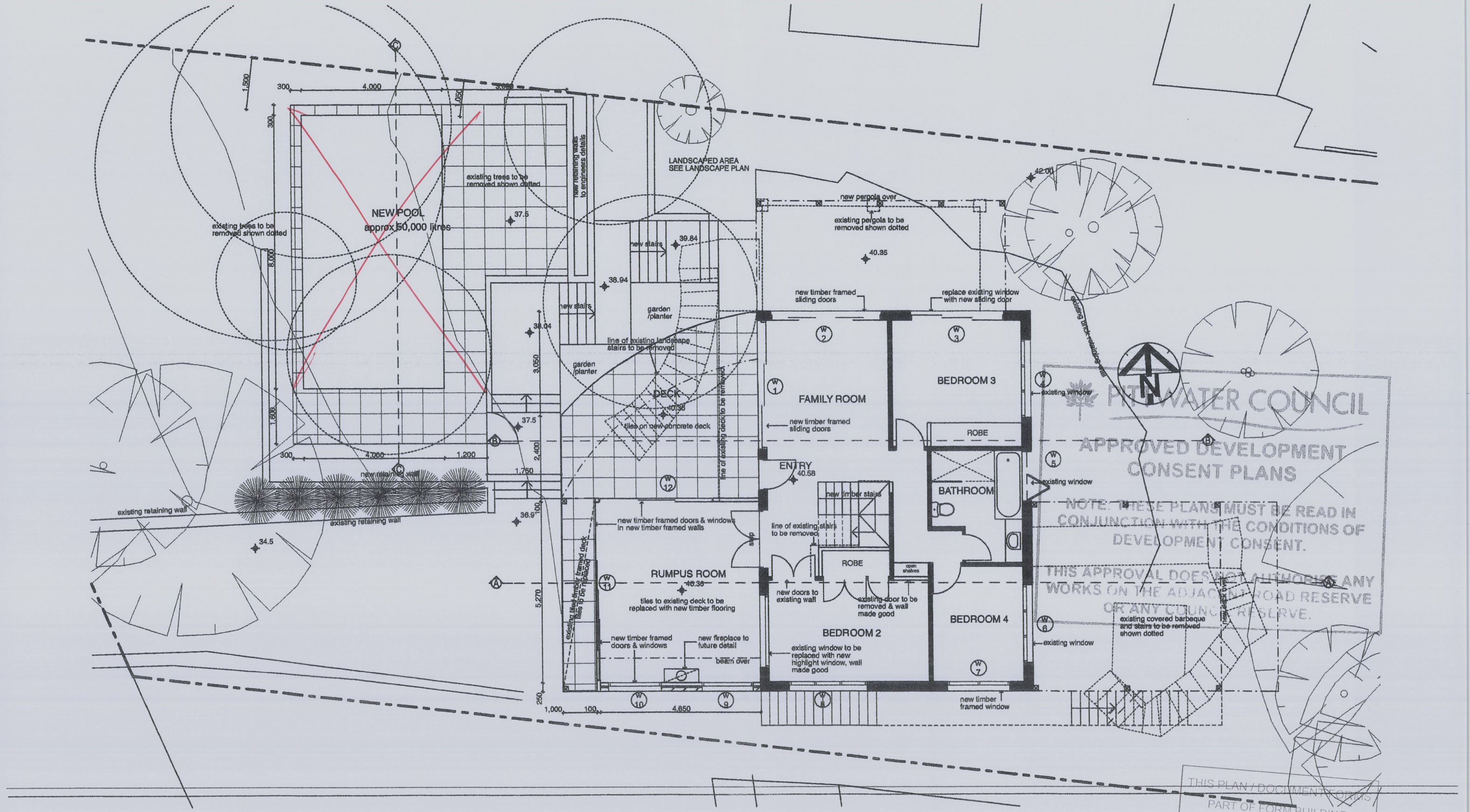
PROPOSED ALTERATIONS & ADDITIONS

for: A. & M. Baylis
at: Lot 112 DP 8394, 69 Marine Parade
AVALON 2107

drawing title
BASEMENT PLAN

NOTE: Use figured dimension only. Do not scale off drawings. All levels and dimensions to be verified prior to construction of work

date: FEBRUARY 2012
scale: 1:100 (A3)
drawing number
DA- 2A



AMENDMENTS
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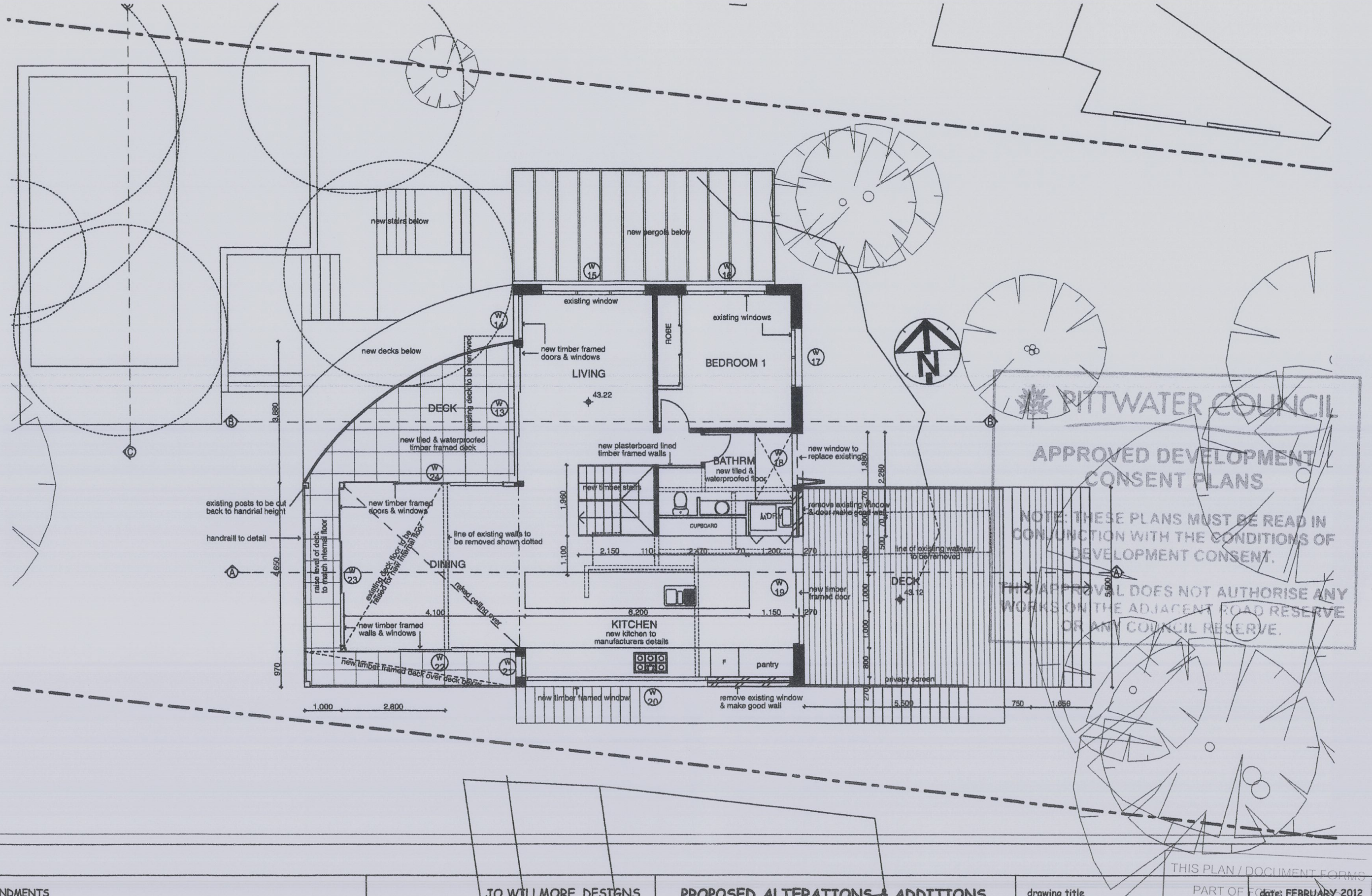
PROPOSED ALTERATIONS & ADDITIONS

for: A. & M. Baylis
at: Lot 112 DP 8394, 69 Marine Parade
AVALON 2107

drawing title
GROUND FLOOR PLAN

NOTE: Use figured dimension only. Do not scale off drawings . All levels and dimensions to be verified prior to construction of work

date: FEBRUARY 2012
scale: 1:100 (A3)
drawing number
DA- 3A



AMENDMENTS
2/7/12 -'A' - gable roof over dining room changed to hipped roof, W22 increased in size

JO WILLMORE DESIGNS
11 Hudson Parade
Clareville NSW 2107
9918 2479
ABN 27 370 370 173

PROPOSED ALTERATIONS & ADDITIONS

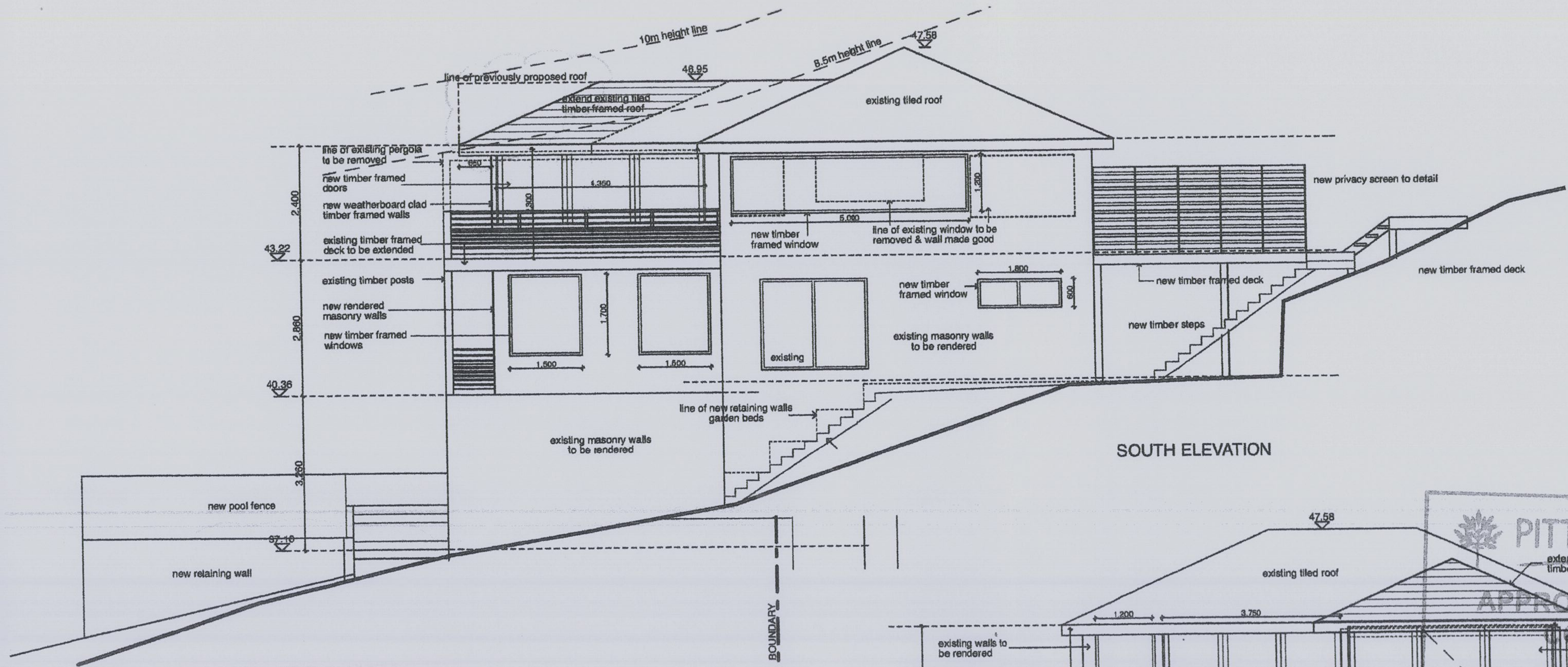
for: A. & M. Baylis
at: Lot 112 DP 8394, 69 Marine Parade
AVALON 2107

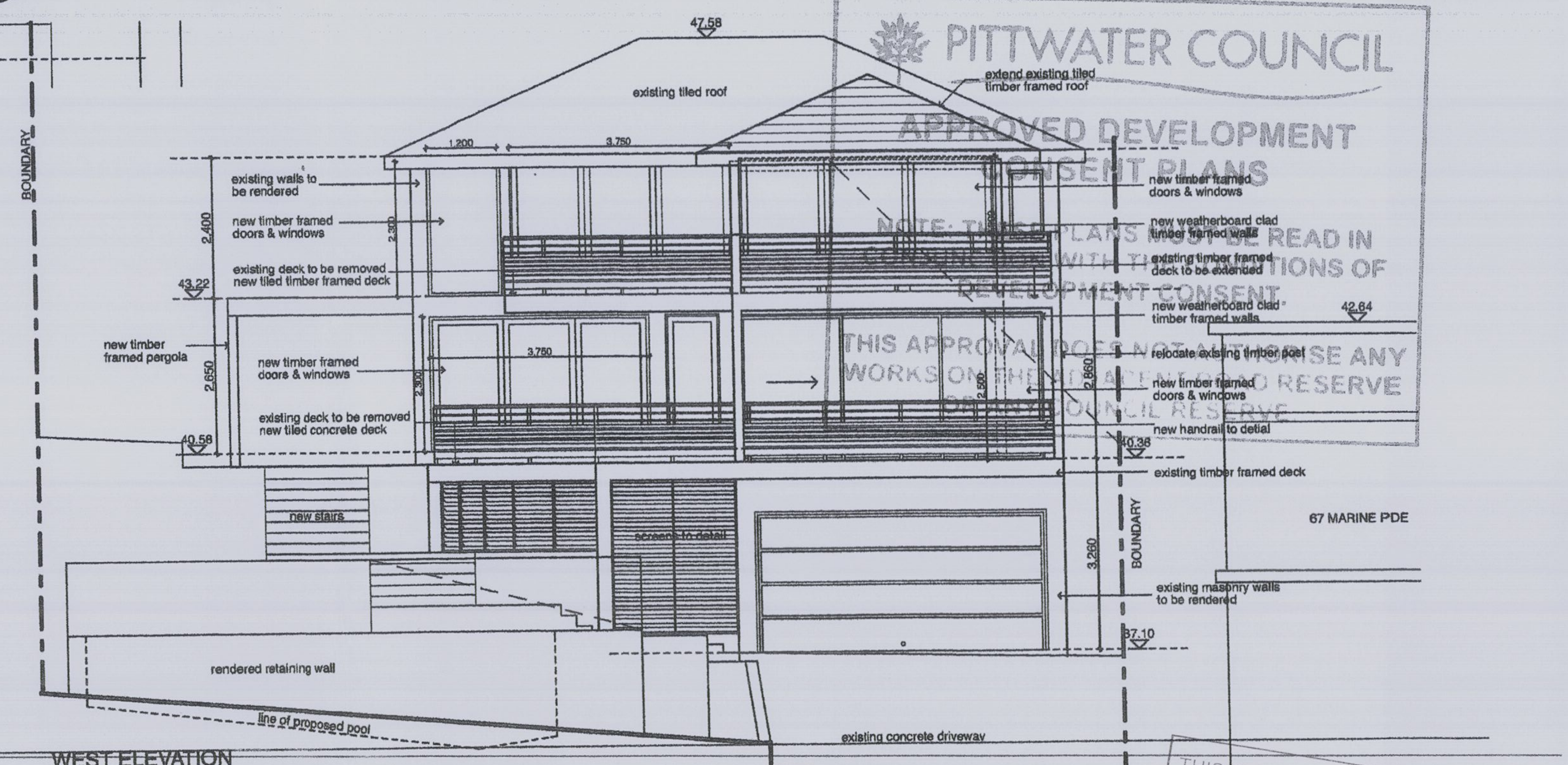
drawing title
FIRST FLOOR PLAN

date: FEBRUARY 2012
scale: 1:100 (A3)

NOTE: Use figured dimension only.
Do not scale off drawings . All levels and dimensions to be verified prior to construction of work

drawing number
DA- 4A





BASIX CERTIFICATE COMMITMENTS

The measures are required to be carried out:

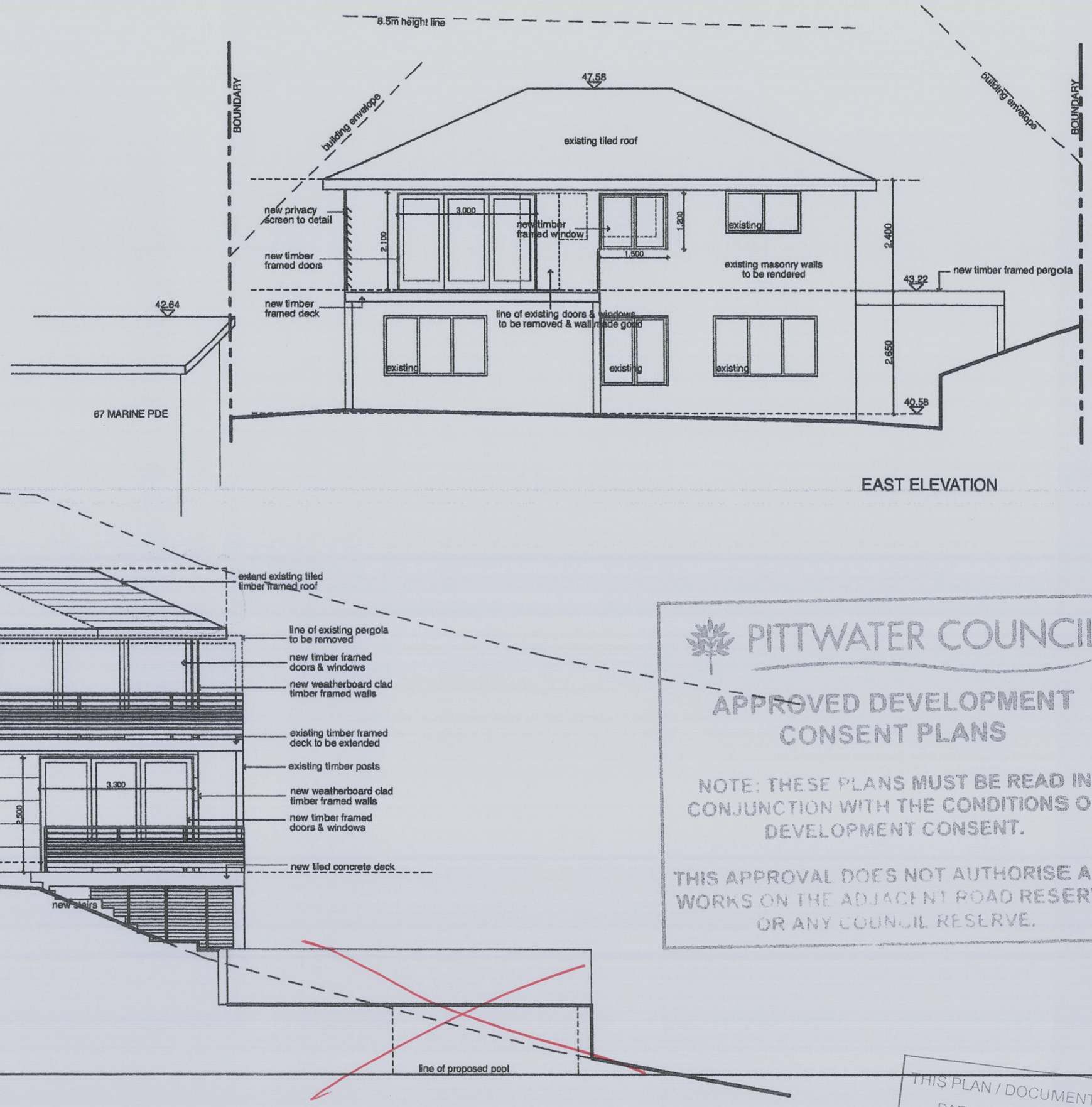
- ☐ Rainwater tank ______________ L
- ☒ Pyrolytic 'e' glass - window / door / skylight
- ☐ Toned glass - window / door / skylight
- ☐ Fixed / adjustable awning - window / door / skylight
- ☒ 40% energy efficient lighting

REFER TO BASIX CERT. FOR FULL LIST OF COMMITMENTS

PITTWATER COUNCIL
APPROVED DEVELOPMENT CONSENT PLANS
NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT
THIS APPROVAL DOES NOT AUTHORISE ANY WORKS ON THE ADJACENT ROAD RESERVE OR ANY COUNCIL RESERVE

AMENDMENTS 2/7/12 -'A' - gable roof over dining room changed to hipped roof, W22 increased in size	JO WILLMORE DESIGNS 11 Hudson Parade Clareville NSW 2107 9918 2479 ABN 27 370 370 173	PROPOSED ALTERATIONS & ADDITIONS for: A. & M. Baylis at: Lot 112 DP 8394, 69 Marine Parade AVALON 2107	drawing title ELEVATIONS NOTE: Use figured dimension only. Do not scale off drawings. All levels and dimensions to be verified prior to construction of work	date: FEBRUARY 2012 scale: 1:100 (A3) drawing number DA- 5A

THIS PLAN / DOCUMENT FORMS PART OF THE BUILDING CERTIFIERS CC / CDC



EAST ELEVATION

NORTH ELEVATION

AMENDMENTS
2/7/12 -'A' - gable roof over dining room changed to hipped roof, W22 increased in size

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11 Hudson Parade
Clareville NSW 2107
9918 2479
ABN 27 370 370 173

PROPOSED ALTERATIONS & ADDITIONS

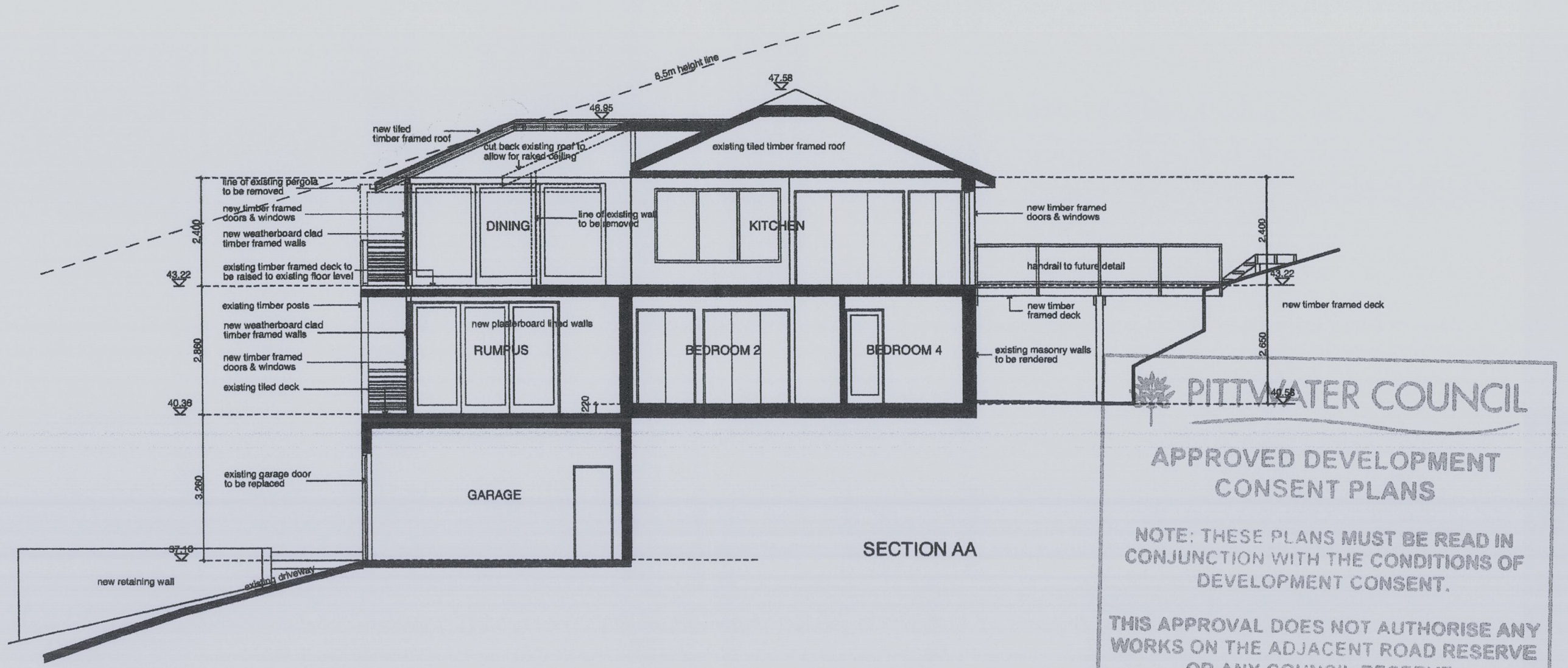
for: A. & M. Baylis
at: Lot 112 DP 8394, 69 Marine Parade
AVALON 2107

drawing title
ELEVATIONS

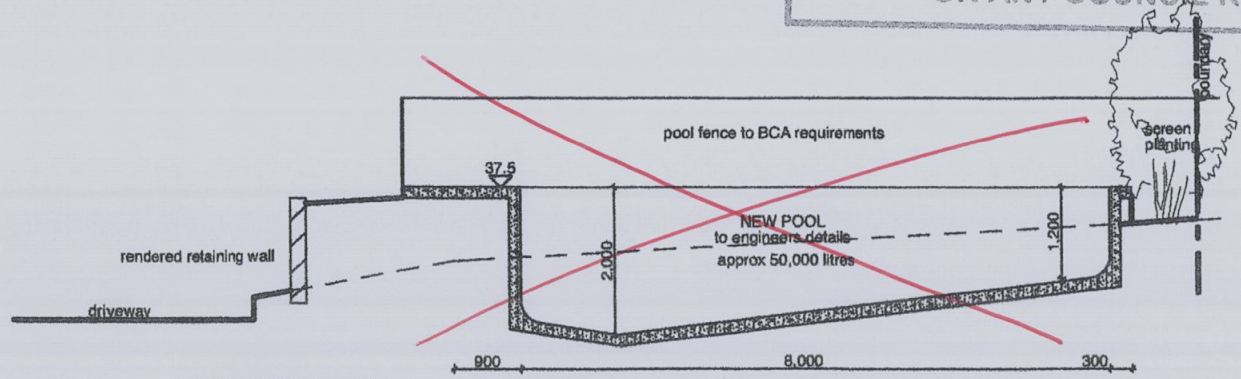
NOTE: Use figured dimension only. Do not scale off drawings . All levels and dimensions to be verified prior to construction of work

date: FEBRUARY 2012
scale: 1:100 (A3)

drawing number
DA- 6A



SECTION AA



SECTION CC

AMENDMENTS
2/7/12 -'A' - gable roof over dining room changed to hipped roof, W22 increased in size

JO WILLMORE DESIGNS
11 Hudson Parade
Clareville NSW 2107
9918 2479
ABN 27 370 370 173

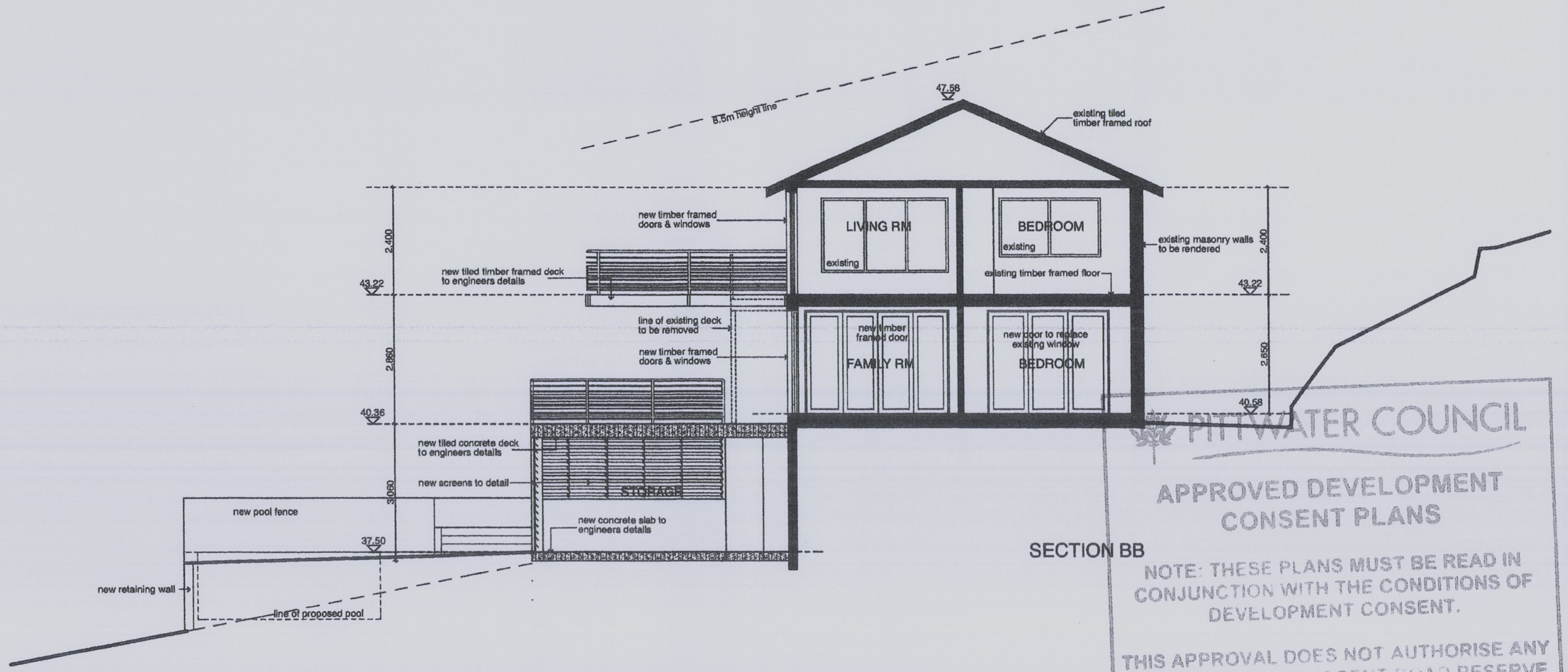
PROPOSED ALTERATIONS & ADDITIONS

for: A> & M. Baylis
at: Lot 112 DP 8394, 69 Marine Parade
AVALON 2107

drawing title
SECTIONS

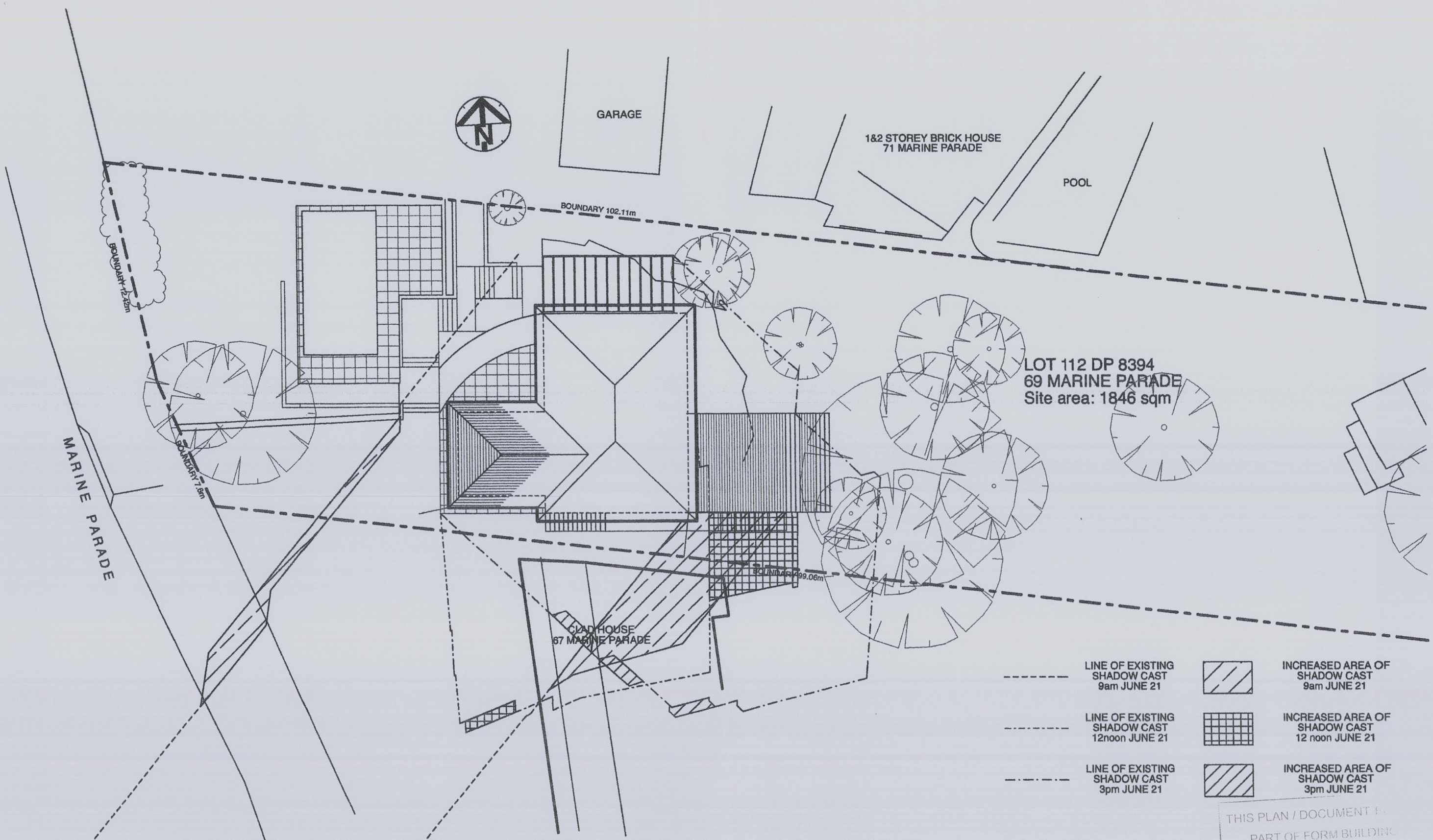
NOTE: Use figured dimension only.
Do not scale off drawings . All levels and dimensions to be verified prior to construction of work

date: FEBRUARY 2012
scale: 1:100 (A3)
drawing number
DA-7A



SECTION BB

AMENDMENTS 2/7/12 -'A' - gable roof over dining room changed to hipped roof, W22 increased in size	JO WILLMORE DESIGNS 11 Hudson Parade Clareville NSW 2107 9918 2479 ABN 27 370 370 173	**PROPOSED ALTERATIONS & ADDITIONS** for: A> & M. Baylis at: Lot 112 DP 8394, 69 Marine Parade AVALON 2107	drawing title **SECTIONS** NOTE: Use figured dimension only. Do not scale off drawings . All levels and dimensions to be verified prior to construction of work	date: FEBRUARY 2012 scale: 1:100 (A3) drawing number DA- 8A



AMENDMENTS
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PROPOSED ALTERATIONS & ADDITIONS

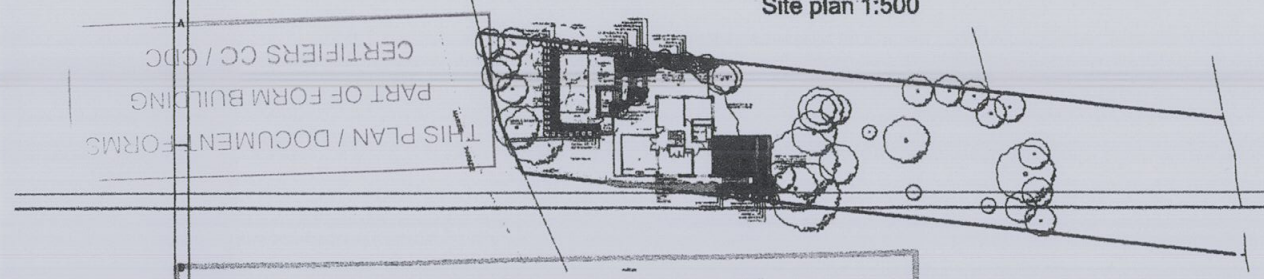
for: A. & M. Baylis
at: Lot 112 DP 8394, 69 Marine Parade
AVALON 2107

drawing title
SHADOW DIAGRAM -JUNE 21

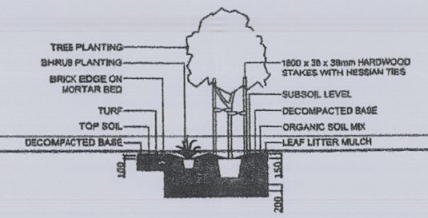
NOTE: Use figured dimension only. Do not scale off drawings . All levels and dimensions to be verified prior to construction of work

date: FEBRUARY 2012
scale: 1:200 (A3)
drawing number
DA- 9A

Site plan 1:500

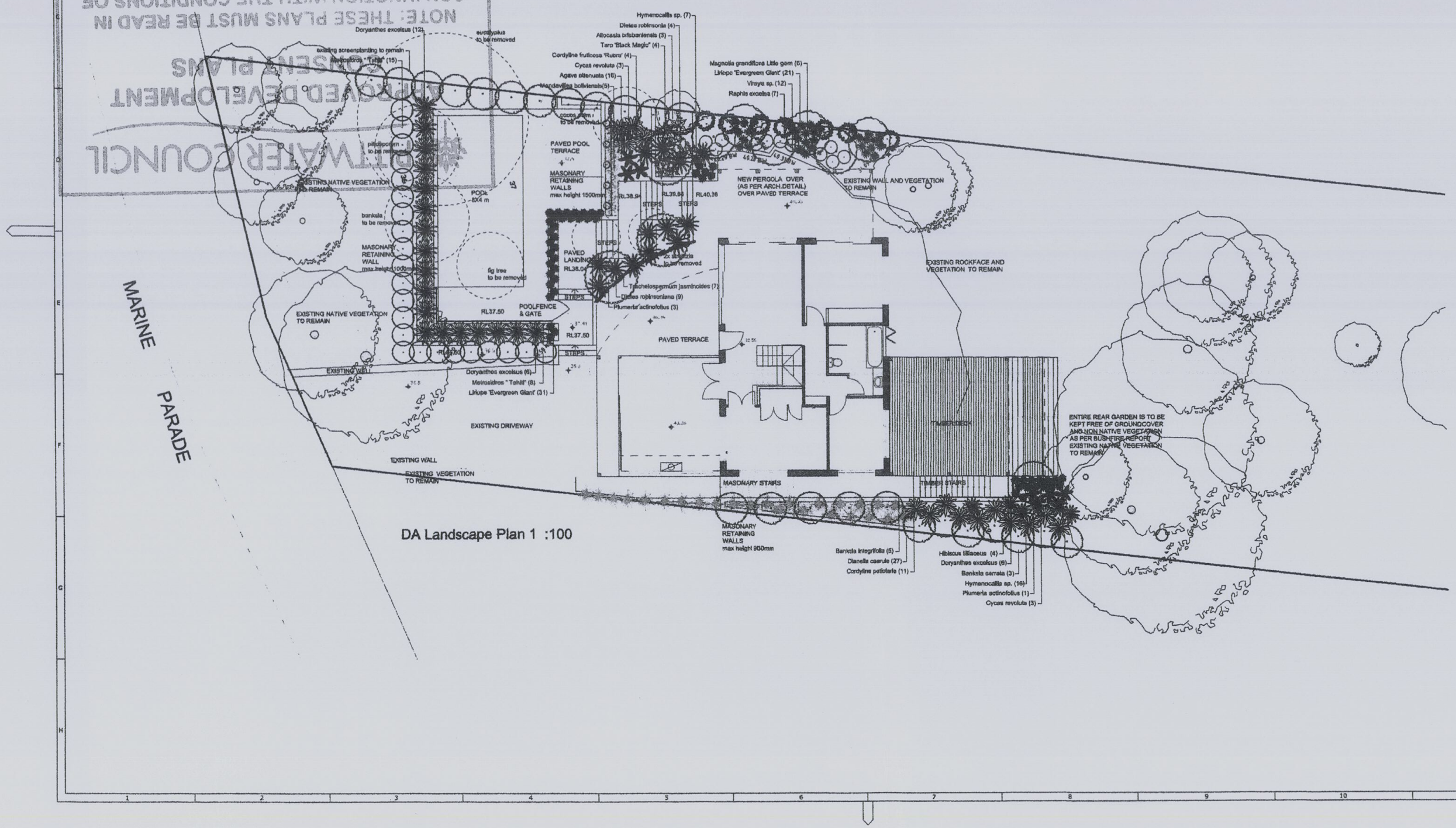


Planting Detail



Plant List

botanical name	common name	quantity	pot size
TREES			
Banksia integrifolia	coast banksia	5	200mm
Banksia serrata	old man banksia	3	25l
Magnolia grandiflora 'Little Gem'	evergreen magnolia	6	25l
Plumeria rubra var. acutifolia	frangipani	4	25l
SHRUBS			
Hibiscus tiliaceus	sea hibiscus	4	25l
Rhododendron x kreyes	tropical rhododendron 1.5-2m	12	150mm
Metrosideros 'Tahiti'	nz christmas bush	33	200mm
PALMS & CYCADS			
Cycas revoluta	japanese sago palm	6	25l
Rhapis excelsa	miniture fan palm	7	200mm
PERENNIALS			
Agave attenuata	american aloe	16	200mm
Alocasia brisbanensis	elephant's ear	3	200mm
Cordyline fruticosa 'Rubra'	red leaf palm lilly	4	200mm
Cordyline petiolaris	palm lilly	11	200mm
Dianella caerule	flag lilly	27	150mm
Dietes robinsoniana	fortnight lilly	13	200mm
Doryanthes excelsa	gymea lilly	24	200mm
Hymenocallis	sacred lily of the incas	23	150mm
Liriope muscari 'Evergreen Giant'	giant lily-turf	52	150mm
Taro ' Black Magic"	taro	4	200mm
GROUNDCOVERS			
Mandevillea boliviensis	mandevillea	5	200mm
Trachelospermum jasminoides	star jasmin	7	200mm



DA Landscape Plan 1 :100

Key Plan

NOTES

ALL DRAWINGS TO BE READ IN CONJUNCTION WITH ARCHITECT AND ENGINEER DRAWINGS.

BEFORE FILLING WITH PLANTER BOX MIX, ALL PLANTER BOXES TO BE PAINTED WITH WATERPROOFING MEMBRANE, AND BE LINED WITH 40MM THICK DRAINAGE CELL COVERED WITH GEOTECH FILTER FABARIC. ALSO, ALL PLANTER BOXES TO HAVE DRAINAGE CONNECTED TO STORMWATER SYSTEMS.

ALL GARDEN AREAS ARE TO BE CLEARED OF WEEDS & UNWANTED VEGETATION .

ALL GARDEN AREAS ARE TO BE CULTIVATED WITH 50MM COMPOST AND MULCHED WITH COMPOSTED HORTICULTURAL FINE MULCH.

ALL PLANTS ARE TO BE SUPPLIED AS PER PLANTLIST AND INSPECTED BY LANDSCAPE DESIGNER PRIOR TO PLANTING

PAVING
GROUT COLOUR TO MATCH PAVER COLOUR.
GROUT JOINTS MAXIMUM 8MM WIDTH.

ALL EXISTING TREES SHOWN ON THIS DRAWING ARE TO REMAIN ALL OTHER EXISTING TREES WILL BE REMOVED

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATION OF UNDERGROUND SERVICES SHOWN ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN. THE CONTRACTOR MUST VERIFY ALL CLEARANCES ON SITE PRIOR TO ANY EXCAVATION WORKS.

Rev.	No.	Notes	Descr	Reviewed

BUILDERS/ CONTRACTORS ARE TO VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF SITE WORK OR OFF-SITE FABRICATION. ALL SHOP DRAWINGS ARE TO BE SUBMITTED TO THE PROJECT MANAGER, AND MANUFACTURE SHALL NOT COMMENCE UNTIL RETURN OF UNMARKED SHOP DRAWINGS. FIGURED DIMENSIONS ARE TO BE READ IN PREFERENCY TO SCALED.

Quantity Surveyor

Builder

Architects

Landscape Designers

VOLKER KLEMM LANDSCAPE DESIGN

PO BOX 7C0 AVALON NSW 2107 TEL/FAX 02 9973 3797 MOBILE 0403 181 537

Project

69 Marine Parade
Avalon

Drawing Title

DA Landscape Plan

Drawing No.	Revision No.
DA1	C
Date: 05/12	Project No.
Scale: 1:100	
Reviewed	Approved

BASIX® Certificate

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

Alterations and Additions

Certificate number: A130432

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 Alterations and Additions Definitions" dated 29/9/2006 published by Department of Planning. This document is available at www.basix.nsw.gov.au

Director-General
Date of issue: Monday, 06, February 2012
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT | Planning & Infrastructure

Description of project

Project address	
Project name	Baylis House
Street address	69 Marine parade Avalon 2107
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 8394
Lot number	112
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at $50,000 or more, and includes a pool (and/or spa).

Certificate Prepared by (please complete before submitting to Council or PCA)
Name / Company Name: Jo Willmore Designs
ABN (if applicable): 27370370713

Pool and Spa	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Rainwater tank			
The applicant must install a rainwater tank of at least 1181 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rainwater runoff from at least 130 square metres of roof area.		✓	✓
The applicant must connect the rainwater tank to a tap located within 10 metres of the edge of the pool.		✓	✓
Outdoor swimming pool			
The swimming pool must be outdoors.	✓	✓	✓
The swimming pool must not have a capacity greater than 50 kilolitres.	✓	✓	✓
The swimming pool must have a pool cover.		✓	✓
The applicant must install a pool pump timer for the swimming pool.		✓	✓
The applicant must install the following heating system for the swimming pool that is part of this development: gas.		✓	✓

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Hot water			
The applicant must install the following hot water system in the development: gas instantaneous.	✓	✓	✓
Lighting			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
Fixtures			
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.		✓	✓
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.		✓	✓
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.		✓	

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Insulation requirements			
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R-value)	Other specifications
suspended floor above garage: framed (R0.7).	nil	
floor above existing dwelling or building.	nil	
external wall: brick veneer	R1.16 (or R1.70 including construction)	
external wall: cavity brick	nil	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
flat ceiling, pitched roof	ceiling: R2.50 (up), roof: foil/sarking	medium (solar absorptance 0.475 - 0.70)

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓
Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions.		✓	✓
Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.		✓	✓
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.		✓	✓
Overshadowing buildings or vegetation must be of the height and distance from the centre and the base of the window and glazed door, as specified in the 'overshadowing' column in the table below.	✓	✓	✓

Windows and glazed doors glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type
			Height (m)	Distance (m)		
W1	W	8.625	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W2	N	7.36	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type
			Height (m)	Distance (m)		
W3	N	5.67	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W5	E	2.25	5.6	2	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W7	S	1.06	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W9	S	2.55	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W10	S	2.55	0	0	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W11	W	13	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W12	N	8.25	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W13	W	8.62	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)
W14	W	2.875	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)
W18	E	2.25	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)
W19	E	6.3	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)
W20	S	6	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
W21	W	6.6	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type			
			Height (m)	Distance (m)					
W22	S	6.5	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W23	W	10	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			
W24	N	10	0	0	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single pyrolytic low-e, (U-value: 3.99, SHGC: 0.4)			

Legend
In these commitments, "applicant" means the person carrying out the development.
Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
Commitments identified with a "✓" in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued.

This Report has been prepared and submitted by R Coffey, FPA Australia, Certified Practitioner
Practitioner Certification No-PBD-PA-09328

Planning For Bushfire Protection Pty Ltd

ABN: 52 136 652 296
Ronald Coffey
0408220443
Email: roncoffey@optusnet.com.au
Web: www.bushfireconsultants.com.au

Reference: 612
12th January 2012

FPA AUSTRALIA
Certified Business
Bushfire Planning & Design

Bushfire Risk Assessment

In relation to proposed development at:

No 69 Marine Parade, Avalon

This Assessment has been prepared and Certified by: Ronald Coffey *BPAD – A Certified Practitioner* *FPAA Cert. No: BPD-PA 09328*	R E Coff
Can this proposal comply with AS3959, 2009 + addendum to Appendix 3 of PBP?	**YES**
What is the recommended level of compliance AS3959, 2009?	**BAL 12.5**
Does this development comply with the requirements of PBP?	**YES**
Does this development comply with the Aims and objectives of PBP?	**YES**
Is referral to the NSW RFS required?	**NO**
Architectural Plans Provided by: Jo Willmore Design	Drawing Ref No: DA 1 - 6 Dated: December 2011
Landscape Plans Provided by: Volker Klemm Landscape Design	Drawing Ref No: DA1 Dated: 12/11

Contents

Introduction

1) Location
2) Development Proposal and Building Classifications
3) Description of the Subject Property
4) Classification of the Vegetation on and surrounding the Site
5) Assessment of Effective Slope
6) Access and Egress
7) Water Supplies
8) Environment considerations
9) Bushfire Threat Assessment
10) Assessment of the extent to which the development proposal
Conforms or Deviates with Chapter 4 of Planning for Bushfire Protection
11) Recommendations
12) Summary
13) References
14) Plans and Elevations
15) Fences and Gates

Introduction

The purpose of this report is to determine the category of bushfire attack and subsequent construction standard for the proposed development of alterations and additions, a new pool and landscaping at No 69 Marine Parade, Avalon.

The site is identified as 'bush fire prone land' for the purposes of Section 146 of the *Environmental Planning and Assessment Act 1979* and the legislative requirements for building on bushfire prone lands are applicable.

The proposed development is an infill development as defined within Chapter 4.3.5 of Planning for Bushfire Protection 2006 and this report has been prepared in accordance with the requirements of section 79BA of the Environment Planning and Assessment Act.

This assessment includes an analysis of the hazard, threat and subsequent risk to the development proposal and provides recommendations that satisfy the Objectives and Performance requirements of the Building Code of Australia, Planning for Bushfire Protection 2006 [PBP] and Australian Standard AS3959, 2009.

The site was inspected: 16th January 2011

1) Location

No 69 Marine Parade, Avalon.

Lot 112, DP 8394

LGA - Pittwater

2) Development Proposal and Building Classifications

The proposal is for alterations and additions to an existing class 1A dwelling.

The development includes alterations and additions, new decks, a new pergola, a new inground swimming pool and landscaping.

3) Description of the Subject Property

The development site is a residential lot facing west onto Marine Parade.

The following sections 4-8 describe in detail the vegetation, slope, access and egress, availability of water supplies and environmental considerations for the site.

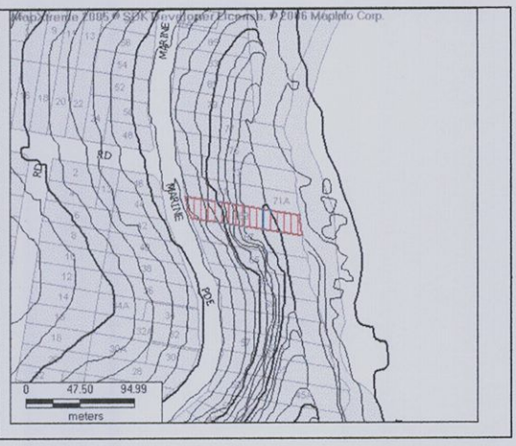
The adjacent image is the bushfire prone land map for the area.

4) Classification of the Vegetation on and surrounding the Site

The site is developed and mostly maintained. A condition of consent will be that the entire of the site where not built on shall be established and maintained as an APZ. The subject site extends to the waterfront and this recommendation will eliminate any hazard to the east of the development.

North & West: Properties north and west of the subject site are developed and maintained and there is no threat of bushfire attack from these directions for more than 100m.	*South*: Adjoining the southern boundary is a strip of coastal heath shown on the bushfire prone land map as hazard. With the exception of a small area of scrub on the top of the cliff the two adjoining properties to the south are mostly maintained. The proposed development is >30m from the closest point of this small area of hazard.	*East*: The subject site is outlined in red above. This entire property is managed and not a threat from bush fire attack to the proposed development. A condition of consent will be that the entire of the site, where not built on, shall be established and maintained as an APZ. The subject site extends to the waterfront and this recommendation will eliminate any hazard to the east of the development.

5) Assessment of Effective Slope

Effective slope away from the development site: *North*: No hazard for >100m *South*: Upslope to the hazard [30m] then 10-15 degrees downslope to the cliff edge *East*: No hazard for >100m *West*: No Hazard for >100m	

6) Access and Egress

The site has direct access to Marine Parade, which is a public road, and access and egress for emergency vehicles and evacuation is in opposite directions and appears adequate.

7) Adequacy of water supply

The area has reticulated water supply and hydrants are spaced at regular distances along Marine Parade.

8) Environmental Considerations

The scope of this assessment has not been to provide an environmental assessment; however, the subject site is a small residential lot that has been developed for many years and it appears that the proposed development will have no adverse environmental effect.

9) Bushfire Risk Assessment

Table 1; Reference AS3959, 2009 Table 2.4.2

Determination of category of bushfire attack for the site and subsequent required building standards

Direction	Distance of APZ	Vegetation Classification	Assessment of Effective Slope	Anticipated Radiant heat	Bushfire Attack Level (BAL)
North	>140m	Developed sites	n/a	-	-
South	>30m	'C' Shrubland	10-15 degrees downslope	<12.5kw/m2	BAL 12.5
East	>140m	Developed sites	n/a	-	-
West	>140m	Developed sites	n/a	-	-
Summary: Based upon the relevant provisions of PBP the anticipated radiant heat attack is for the site is <12.5kw/m2 and the subsequent minimum construction standard is BAL 12.5 AS3959, 2009.					

10) Assessment of the extent to which the construction conforms or deviates from Chapter 4 of 'Planning for Bushfire Protection 2006'

The proposed development conforms to the requirements of PBP for bushfire protection measures for infill development in relation to:

Performance Criteria	*Meets Performance Criteria?*	*Comment*
Asset Protection Zones	Yes	Asset protection zones are provided partially on site and by adjoining development and public roads.
Defendable Space	Yes	Defendable space is provided on all sides of the building
Siting and design	Yes	The siting of the building has been previously determined in accordance with local council requirements and the proposed additions and alterations will not involve a re-siting of the building [no advantage could be gained by recommending a re siting of the building].
Landscaping	Yes	The development application shall include recommendations that the site is managed in accordance with Inner Protection Area requirements of PBP.

Construction Standards	Yes	Construction standards have been recommended in accordance with the requirements of PBP
Access and Egress	Yes	The access and egress requirements have been designed to provide safe and effective evacuation from the subject site and appear to be adequate for fire brigade personnel and fire fighting equipment.
Water Supplies	Yes	The area has reticulated water supply and the nearest street hydrant is within the minimum required distance from the most distant point of the subject site in accordance with the requirements of PBP and AS2419.1 2005
Electricity & Gas supplies	Yes	This report shall recommend compliance with PBP 4.1.3 for services including electricity and gas.
Emergency and Evacuation Planning	Yes	The need to formulate an emergency evacuation plan has been discussed; however, an emergency evacuation plan is not recommended as a condition of consent.

11) Recommendations

The following recommendations are made for the bushfire protection measures for the proposed residential development of alterations and additions at No 69 Marine Parade, Avalon and are based upon the relevant provisions of the NSW Rural Fire Service guideline entitled *Planning for Bushfire Protection 2006.*

1) Construction Standard: The proposed development shall be constructed to a minimum standard of Section 5 [BAL 12.5] of AS3959, 2009 *'Construction of Buildings in Bushfire Prone Areas'* and Section A3.7 of the NSW Rural Fire Service Addendum to Appendix 3 of '*Planning for Bushfire Protection 2006'.*
2) Construction Standard Class 10a Buildings: Class 10a buildings shall comply with the requirements of AS3959, 2009 Part 3.2.*Construction Requirements for Specific Structures.*
3) Construction Standard Class 10b: At the planning stage, class 10b buildings in bushfire prone areas should be non-combustible. [Class 10b buildings include a retaining or free standing wall, swimming pool or the like.]

4) Fences and Gates: All new fencing and gates shall be constructed in accordance with the NSW Rural Fire Service guideline: Fast Fact – *Fences or Gates in Bushfire Prone Areas*. [Refer Section 15 of this report]
5) Electricity and Gas Supplies: As far as practical, new electricity and gas supplies shall be installed in accordance with the requirements of 4.1.3 of PBP. Note: 4.1.3 of PBP requires that *'where practical, electrical transmission lines should be underground'* and *'the location of gas services will not lead to ignition of surrounding bushland or the fabric of the building'*.
6) Existing Dwelling: The existing dwelling is required to be upgraded to improve ember protection. This is to be achieved by enclosing all openings [excluding roof tiled spaces] or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes any sub floor areas, openable windows, vents, weepholes and eaves. External doors are to be fitted with draft excluders.
7) Asset Protection Zones: At the commencement of building works and in perpetuity, the entire property shall be managed as an inner protection area as outlined within PBP and the NSW RFS document *'Standards for asset protection zones'*.

   The following points are a guide to Inner Protection area requirements.

   The Inner Protection Area should comprise of the following:

   - Minimal fine fuel on the ground;
   - Vegetation that does not provide a continuous path to the building for the transfer of fire;
   - Shrubs and trees that do not form a continuous canopy and vegetation is planted in clumps rather than continuous rows;
   - Species that retain dead material or deposit excessive quantities of ground fuel are avoided;
   - Shrubs and trees are pruned so that they do not touch or overhang the building; and

- Vegetation is located far enough away from the building so that plants will not ignite the building by direct flame contact or radiant heat emission.

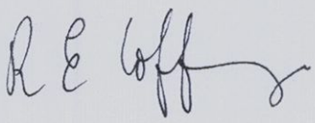
8) Emergency and Evacuation Planning: An emergency evacuation plan is not recommended as a condition of consent.
9) Water Supplies: Reticulated water supply is located on the adjoining road at regular intervals and is easily accessible. No additional water supplies have been recommended.

12) Summary

This report consists of a bushfire risk assessment for the proposed residential development of alterations and additions at No 69 Marine Parade, Avalon.
The report concludes that the proposed development is on designated bushfire prone land and the legislative requirements for development in bushfire prone areas are applicable.
The proposed development will be constructed to the minimum standards required in accordance with the guidelines of *Planning for Bushfire Protection 2006.*
This report has considered all of the elements of bushfire attack and provided the proposed development is constructed in accordance with the recommendations included in section 11 of this report, it is my considered opinion that the development satisfies the Objectives and Performance requirements of the *Building Code of Australia, Planning for Bushfire Protection 2006 and Australian Standard AS3959, 2009.*

Not withstanding the precautions adopted, it should always be remembered that bushfires burn under a wide range of conditions and an element of risk, no matter how small always remains, and although the standard is designed to improve the performance of such buildings, there can be no guarantee, because of the variable nature of bushfires, that any one building will withstand bushfire attack on every occasion.

This Report is a Bush Fire Hazard Assessment that provides the required information to assist Local Council and the Rural Fire Service in determining compliance in accordance with Planning for Bushfire Protection and AS 3959, 2009. The Local Council is the Final Consenting Authority and the construction of the building must comply with the recommendations included in the Council's conditions of consent.



Ron Coffey – Bushfire Safety Engineer
Grad I Fire E [Institute of Fire Engineers - 1973]
Grad Cert Fire Safety Eng [UWS - 2003]
Grad Dip Building in Bushfire Prone Areas [UWS – 2005]
Ass Prof Cert in Expert Evidence in the Land & Environment Court [UTS – 2005]
Corporate Member - Institute of Fire Engineers
Member - Fire Protection Association Australia

FPA AUSTRALIA
Certified Business
Bushfire Planning & Design

Planning for Bushfire Protection Pty Ltd
Fire Protection Association of Australia
BPAD-A Certified Practitioner/Certified Business
Certification No BPD-PA09328
02 99137907 0408220443

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13) References

Australian Building Codes Board
Building Code of Australia
Volumes 1&2
Canprint

Australian Building Codes Board [2001]
Fire Safety Engineering Guidelines
Edition 2001
ABCB Canberra

D. Drysdale D. [1998]
Introduction to Fire Dynamics 2nd Edition
John Wiley & Sons Ltd

NSW Government Environmental Planning and Assessment Act [1979]
Part 79BA – Consultation and development Consent – Certain Bushfire Prone Land
NSW Government Printer

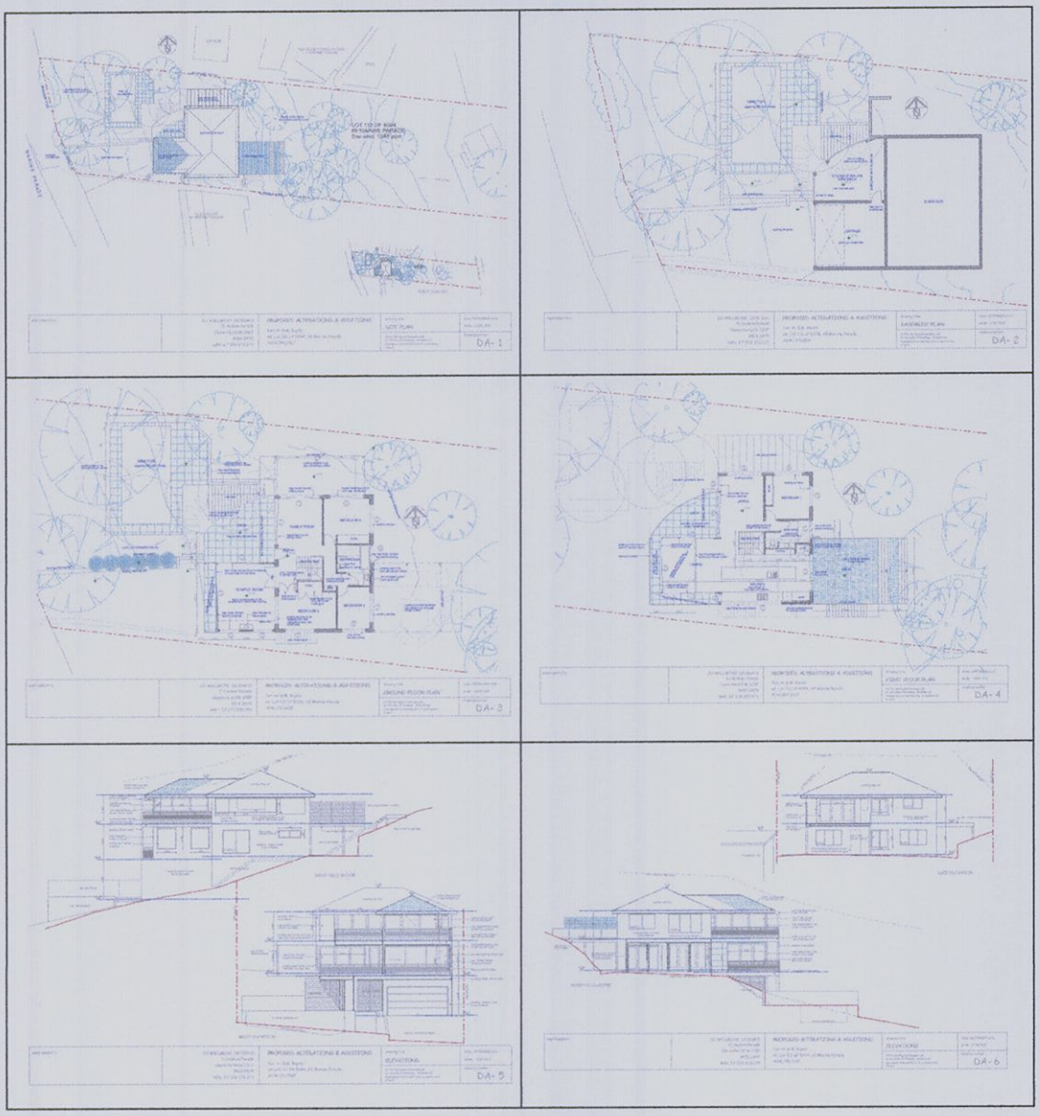
Planning NSW [2006]
Planning for Bushfire Protection 2006
A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners
This document provides the necessary planning considerations when developing areas for residential use in residential, rural residential, rural and urban areas when development sites are in close proximity to areas likely to be affected by bushfire events and replaces Planning for Bushfire Protection 2001.
This document is essential reading: Download a copy from the RFS website or purchase a copy through the NSW Government Online Shop or phone 9228 6333

Ramsay C & Rudolph L [2003]
Landscape and Building Design for Bushfire Prone Areas
CSIRO Publishing

Standards Australia [2009]
Australian Standards 3959
Australian Building Code Board

14) Plans and Elevations

A full set of architectural plans are available with the development application



15) Fences and Gates

BAL 12.5 & BAL 19

1. Where a timber fence does not connect to a dwelling and has a minimum of 1 metre separation from the dwelling then a fence may be constructed from hardwood, or non-combustible material.

2. Where a fence connects directly to or has less than 1 metre separation from a dwelling it should be constructed from non-combustible materials only.

3. In all cases where timber fences are proposed, care should be taken in the selection, location and maintenance of landscaping adjoining the fence. Unmanaged landscaping could promote fire activity due to ember, radiant heat and direct flame contact and then further impact timber fencing.

The above is based on the premise that construction for level 1 & 2 dwellings is sufficiently removed from the main fire front and won't be subjected to direct flame contact or extreme levels of radiant heat that may cause ignition of combustible materials. However, dwellings could still be exposed to significant levels of ember attack and relatively high levels of radiated heat that may cause fences to ignite.

BAL 29, BAL 40 &/or Flame Zone

Dwellings assessed as requiring these construction levels shall have fencing constructed from non-combustible materials e.g. Sheet metal or masonry. This is due to the increased likelihood of direct flame contact causing ignition of combustible materials which may provide a fire path to the dwelling.

GENERAL NOTES

GENERAL

G1 - These drawings are to be read in conjunction with all architectural and other consultants drawings and specifications. Any discrepancies are to be referred to all parties and rectified before proceeding with the works.
G2 - Dimensions shall not be obtained by scaling from these drawings.
G3 - During construction the structure shall be kept in a stable condition and no part shall be over stressed.
G4 - All materials and workmanship are to be in accordance with the current Australian Standards, OH&S requirements, and the by-laws and ordinances of any relevant statutory authority.

FOUNDATIONS

F1 - The foundation material is to be **ROCK 1.2MPa** bearing capacity.
F2 -The foundation material is to be **inspected, verified and approved** by a **Geotechnical Consultant** as being in accordance with the above and that it is sound and consistent with minimal possibility of differential settlement across the development.
F3 - Should variable foundation material be encountered the engineer is to be contacted and it is likely all foundations are to be piered to similar material of the greatest bearing capacity and that additional detailing of the foundation reinforcement will be required.
F4 - Any excavation works are to include measures to ensure the temporary and long term stability of any existing structure within its vicinity.
F5 - All foundations shall be a minimum 300mm into the approved material unless otherwise noted.
F6 - Foundation depth dimensions are a minimum only and final depth will be dependent on the adequacy of the bearing material.
F7 - All organic matter and top soil shall be removed from the underside of all slabs and foundations.
F8 - Any soft or questionable excavated areas are to be brought to the attention of the Geotechnical Consultant and may require controlled filling.
F9 - Any filling shall be to the approval of the Geotechnical Consultant and will generally be granular material compacted in not more than 150mm layers to a minimum dry density ratio of 98%.

CONCRETE

C1 - All workmanship and materials shall be in accordance with AS3600.
C2 - Concrete quality shall be verified by tests.
C3 - All concrete shall have a slump of 80mm and maximum aggregate size of 20mm.
C4 - Concrete strength and cover shall be as detailed on the plans.
C5 - Size of concrete members do not include thickness of applied finishes.
C6 - Beam depths are written first and include slab thickness if any.
C7 - No penetrations are to be made to the concrete members without the written approval of the engineer.
C8 - No water is to be added to the concrete prior to placement.
C9 - All construction joints shall be located to the approval of the engineer.
C10 - Fire rating requirements and adequacy is to be reviewed and specified by others.
C11 - All concrete members are to be cured by keeping the surfaces continuously wet for a period of 3 days followed by the prevention of loss of moisture for a further 7 days.
C12 - All concrete elements shall be compacted to form a dense homogenous mass using mechanical vibrators.
C13 - All formwork shall be installed and stripped in accordance with AS3610.
C14 - All formwork is to be free of debris prior to pouring of concrete.
C15 - Exposed finished concrete surfaces (such as polished floors etc) will require additional top reinforcement (SL102) and specialist curing / shrinkage controlling additives as per the concrete suppliers recommendations.
C16 - All parties are to acknowledge that exposed finished concrete surfaces (such as **polished floors** etc) will be **susceptible to cracking**.

REINFORCEMENT

R1 - All reinforcement shall be Grade D500.
R2 - Top reinforcement is to be continuous over supporting elements and lapped between supporting elements only.
R3 - Bottom reinforcement is to be continuous between supporting elements and lapped at supporting elements only.
R4 - Reinforcement is represented diagrammatically only and is not necessarily shown in its true projection.
R5 - Welding of reinforcement is not permitted.
R6 - All reinforcement shall be supported on bar chairs at max 750mm spacing.
R7 - Reinforcement shall be tied at alternate intersections.
R8 - Reinforcement bars are to lap a minimum length equal to 40 times the bar diameter (ie min 480mm for N12 bars, 640mm for N16 bars) .
R9 - Reinforcement fabric is to lap 1 complete square plus 25mm.

MASONRY

M1 - All workmanship and materials shall be in accordance with AS3700.
M2 - An approved slip joint material is to be placed over all load bearing masonry supporting a concrete slab and laid on smooth brick work or a trowed mortar finish, this material may constitute two layers of greased metal.
M3 - Masonry shall be constructed on suspended concrete structures only after all propping has been removed and the concrete has achieved its specified strength.
M4 - Control joints are to be placed in all walls at a maximum of 8m centres and between new and existing structures or closer as deemed necessary by the engineer. The joints are to be 10mm wide and sealed with an approved flexible sealant, with ties at 600mm centres vertical.
M5 - Concrete blocks shall have a minimum compressive strength of 15 MPa.
M6 - Core filling shall be 20 MPa concrete with 10mm aggregate, 230mm slump and compacted adequately.
M7 - Concrete blocks used in retaining wall construction are to be Double Web H blocks.
M8 - Maximum pour height for unrestrained blockwork is 1.8m.
M9 - All masonry components are to be tied at not more than 600mm centres to adjacent steel or concrete columns.

STEEL

S1 - All workmanship and materials shall be in accordance with AS4100.
S2 - Hot rolled plates shall comply with AS 3678.
S3 - Hot rolled sections shall comply with AS3679.
S4 - Cold formed sections shall comply with AS4600.
S5 - Welded and seamless hollow sections shall comply with AS1163.
S6 - Unless noted otherwise all welds shall be 6mm continuous fillet from E4xx electrodes, unless noted otherwise.
S7 - Unless noted otherwise all bolts shall be M16 high strength structural bolts grade 8.8, snug tightened, uno.
S8 - Unless noted otherwise all connections shall be 3M16 bolts, 10mm plate and 6mm continuous weld.
S9 - All structural steel work shall have the following level of corrosion protection (coatings listed below by *ORICA Australia p/l* maybe substituted with a certified equivalent) All coatings/finishes shall be applied in accordance with the manufacturers specifications and recommendations including surface preparation.
Internal elements
not visible - a single coat (75 microns) of Zincanode 402.
visible - a first coat (75 microns) of Zincanode 402 and a second coat (100 microns) of Weathermax HBR.
External elements (> 100m from waterfront including members with an external cavity or within 1m of a significant opening)
not visible - a first coat (75 microns) of Zincanode 402 and a second coat (200 microns) of Duremax GPE MIO
or Hot Dipped Galvanised to AS 4680.
visible - a first coat (75 microns) of Zincanode 402 and a second coat (200 microns) of Duremax GPE MIO and a third coat (100 microns) of Weathermax HBR
or Hot Dipped Galvanised to AS 4680 and a decorative coating.
External elements (marine environment ie < 100m from waterfront)
Specialist specification from paint manufacturers is to be applied to all members
S10 - All work shop drawings are to be reviewed and approved by the Engineer.

TIMBER

T1 - All workmanship and materials shall be in accordance with AS1720 and AS1684.
T2 - All exposed timber shall be H3 treated or of durability class 1.
T3 - All timber in contact with the ground shall be H4 treated or of durability class 1.
T4 - All exposed cuts shall be treated to achieve H3 or H4 requirements.
T5 - All softwood shall be minimum F7.
T6 - All hardwood shall be a minimum F14.
T7 - All bolt hole s shall be exact size and washers shall be 2.5 x the bolt diameter.

DESIGN LIFE OF THE STRUCTURE

D1 - The design life of all elements as specified within these documents correspond to that equired by the Building Code of Australia and the relevant Australian Standard.
D2 - The Design Life of elements relevant to slope stability maybe extended to that required by Pittwater Councils Interim Risk Management Policy by the implementation of a rigorous maintenance and inspection schedule together with additional concrete strength and cover specifications as detailed within these plans.

DESIGN WIND SPEED

Wind loads are in accordance with AS 1170 as follows :
Basic wind velocity = 41 m/s

INSPECTIONS

I1 - Barrenjoey Consulting Engineers shall only inspect works within its capacity as an Engineering Consultancy and will not carry out Mandatory Critical Stage Inspections.
I2 - Barrenjoey Consulting Engineers will not inspect or certify foundation material adequacy, see F2.
I2 - All inspections are to be carried out at the request of the projects Principal Certifying Authority, or should independent certification be required at the request of the client or builder.
I3 - Typical inspections include -
- Foundation reinforcement
- Slab on ground reinforcement
- Suspended concrete reinforcement
- Steel and Timber structures
- Completed Stormwater Management systems

I4 - The client shall be responsible for any fees for inspections regardless of whom requested them.
I5 - All re inspection required due to no compliance with issued drawings or that deemed necessary by Barrenjoey Consulting Engineers shall be charged to the client.
I6 - No certification will be given for works not inspected by Barrenjoey Consulting Engineers.
I7- 48 Hrs notice is required for any inspection within the Sydney region and 72 Hrs notice is required for any inspection outside of this region.

This is the plan/spec. referred to in Form Building Certifiers Certificate
Certificate No 2013-181
Plan Nos S1.00, S2.00, S2.01, S2.02, S2.03, S2.04, S3.00, S5.00, S6.01, S6.02,
Craig Formosa S6.00, S6.01 BPB0124
30/08/13

DRAWING SCHEDULE

S1.00 - GENERAL NOTES
S2.00 - FOOTING PLAN
S2.01 - FOOTING DETAILS SHEET 1
S2.02 - FOOTING DETAILS SHEET 2
S2.03 - FOOTING DETAILS SHEET 3
S2.04 - FOOTING DETAILS SHEET 4
S3.00 - STORE AND POOL SLAB PLANS
S3.01 - STORE AND POOL SLAB DETAILS SHT 1
S3.02 - STORE AND POOL SLAB DETAILS SHT 2
S3.03 - STORE AND POOL SLAB DETAILS SHT 3
S3.04 - STORE AND POOL SLAB DETAILS SHT 4
S3.05 - STORE AND POOL SLAB DETAILS SHT 5
S3.06 - STORE AND POOL SLAB DETAILS SHT 6
S3.07 - STORE AND POOL SLAB DETAILS SHT 7
S3.08 - STORE AND POOL SLAB DETAILS SHT 8
S4.00 - GROUND FLOOR SLAB PLAN
S5.00 - FIRST FLOOR FRAMING PLAN
S5.01 - FIRST FLOOR DETAILS SHEET 1
S5.02 - FIRST FLOOR DETAILS SHEET 2
S6.00 - ROOF FRAMING PLAN
S6.01 - ROOF FRAMING DETAILS

Barrenjoey Consulting Engineers Pty Ltd
Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
ACN : 124 694 917

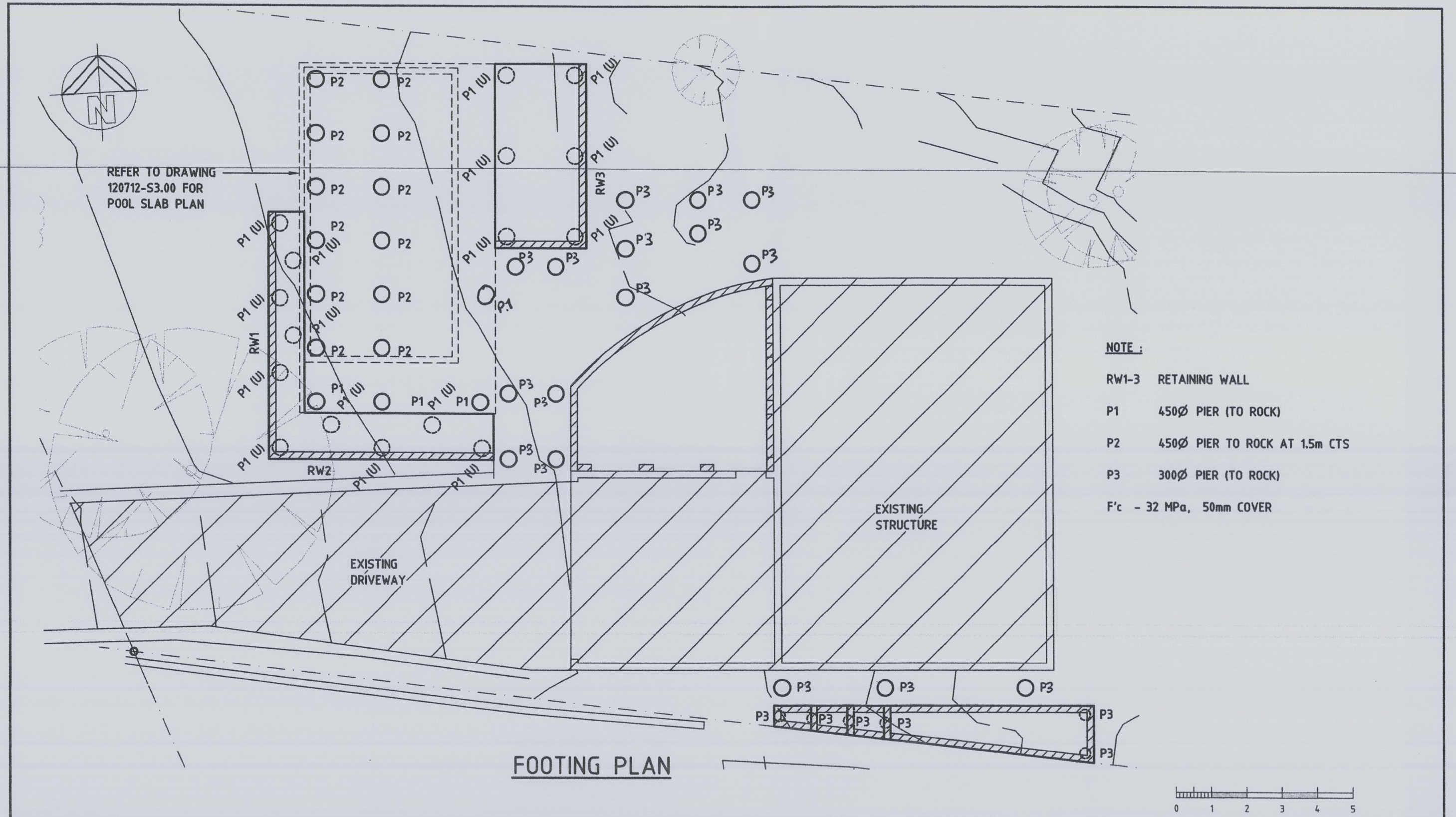
Project :
ALTERATIONS AND ADDITIONS
69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :
GENERAL NOTES AND DRAWING LIST

Job No : 120712

Drawing No : S1.00

Document certification
Barrenjoey Consulting Engineers Pty Ltd
PER
Lucas Molloy MIEA CPEng NPER Director
SEPT'12



FOOTING PLAN

0 1 2 3 4 5

NOTE :

RW1-3 RETAINING WALL

P1 450Ø PIER (TO ROCK)

P2 450Ø PIER TO ROCK AT 1.5m CTS

P3 300Ø PIER (TO ROCK)

F'c - 32 MPa, 50mm COVER

Barrenjoey Consulting Engineers Pty Ltd
Stormwater Structural Civil

PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
ACN : 124 694 917

Project :

ALTERATIONS AND ADDITIONS
69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

FOOTING PLAN

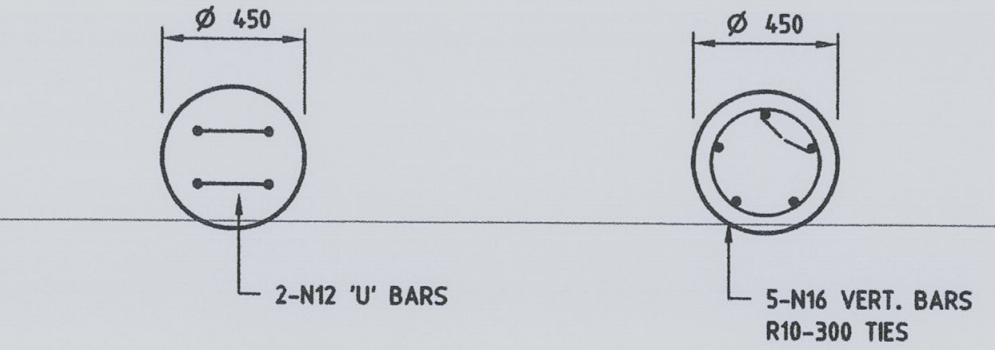
Job No : 120712

Drawing No : S2.00

Document certification
Barrenjoey Consulting Engineers Pty Ltd

PER
Lucas Molloy MIEA CPEng NPER Director

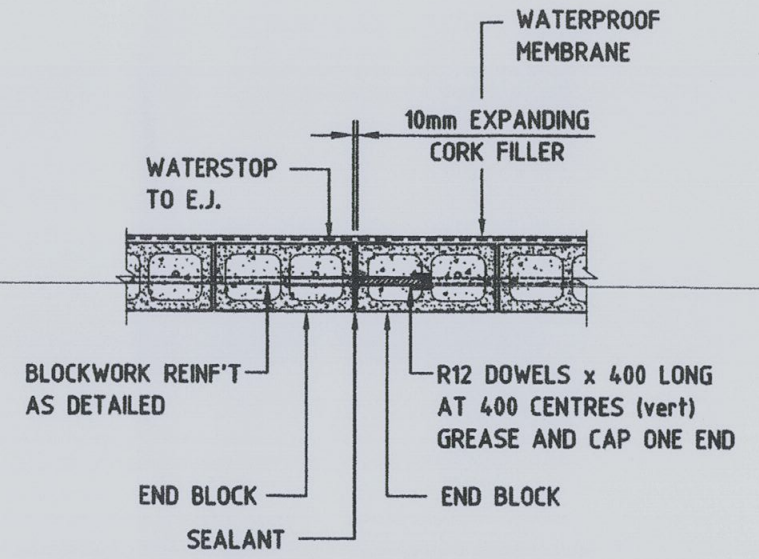
sept'12



IF PIER ≤ 1.0m IN DEPTH

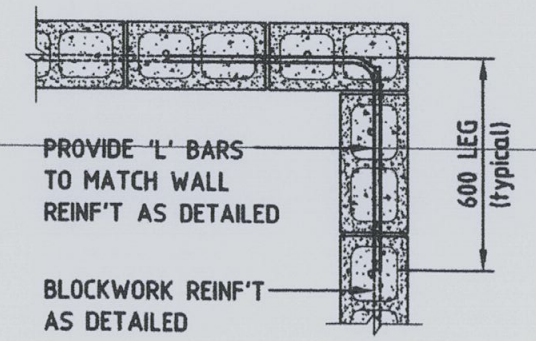
IF PIER ≥ 1.0m IN DEPTH

TYPICAL PIER SECTION

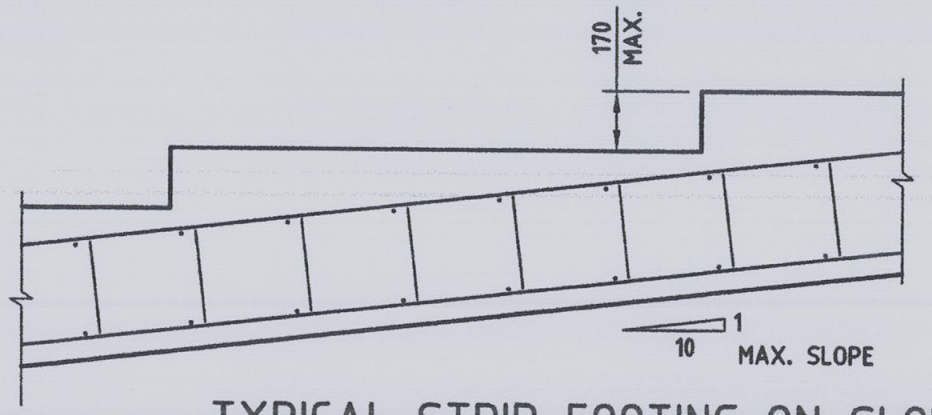


TYPICAL BLOCKWORK VERTICAL EXPANSION JOINT

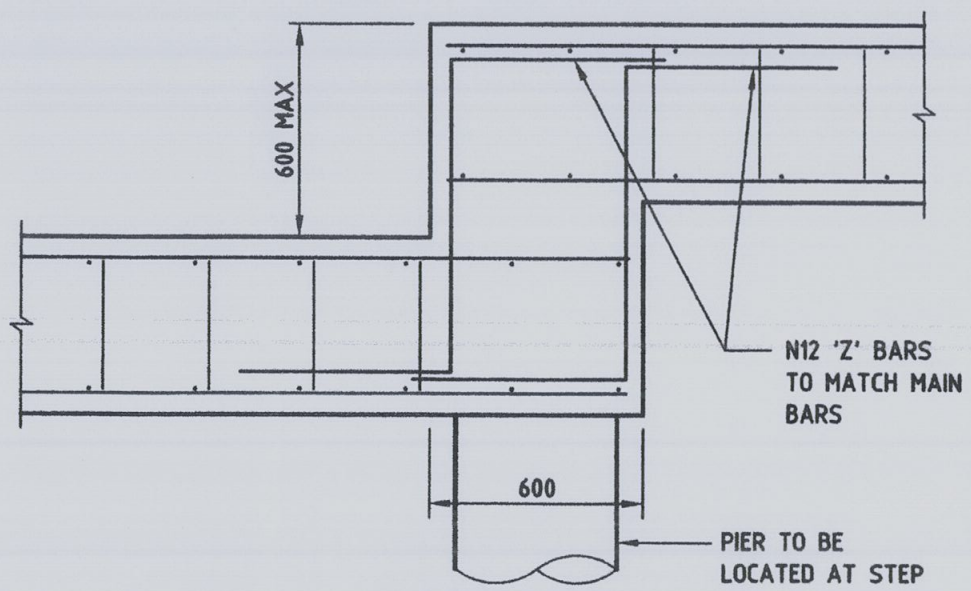
UNLESS OTHERWISE NOTED ON PLAN
JOINTS SHALL BE LOCATED AT 8000 CENTRES max.



TYPICAL BLOCKWORK CORNER DETAIL



TYPICAL STRIP FOOTING ON SLOPE



TYPICAL FOOTING STEP DETAIL

Barrenjoey Consulting Engineers Pty Ltd
Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
ACN : 124 694 917

Project :

ALTERATIONS AND ADDITIONS
69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

FOOTING DETAILS
SHEET 1

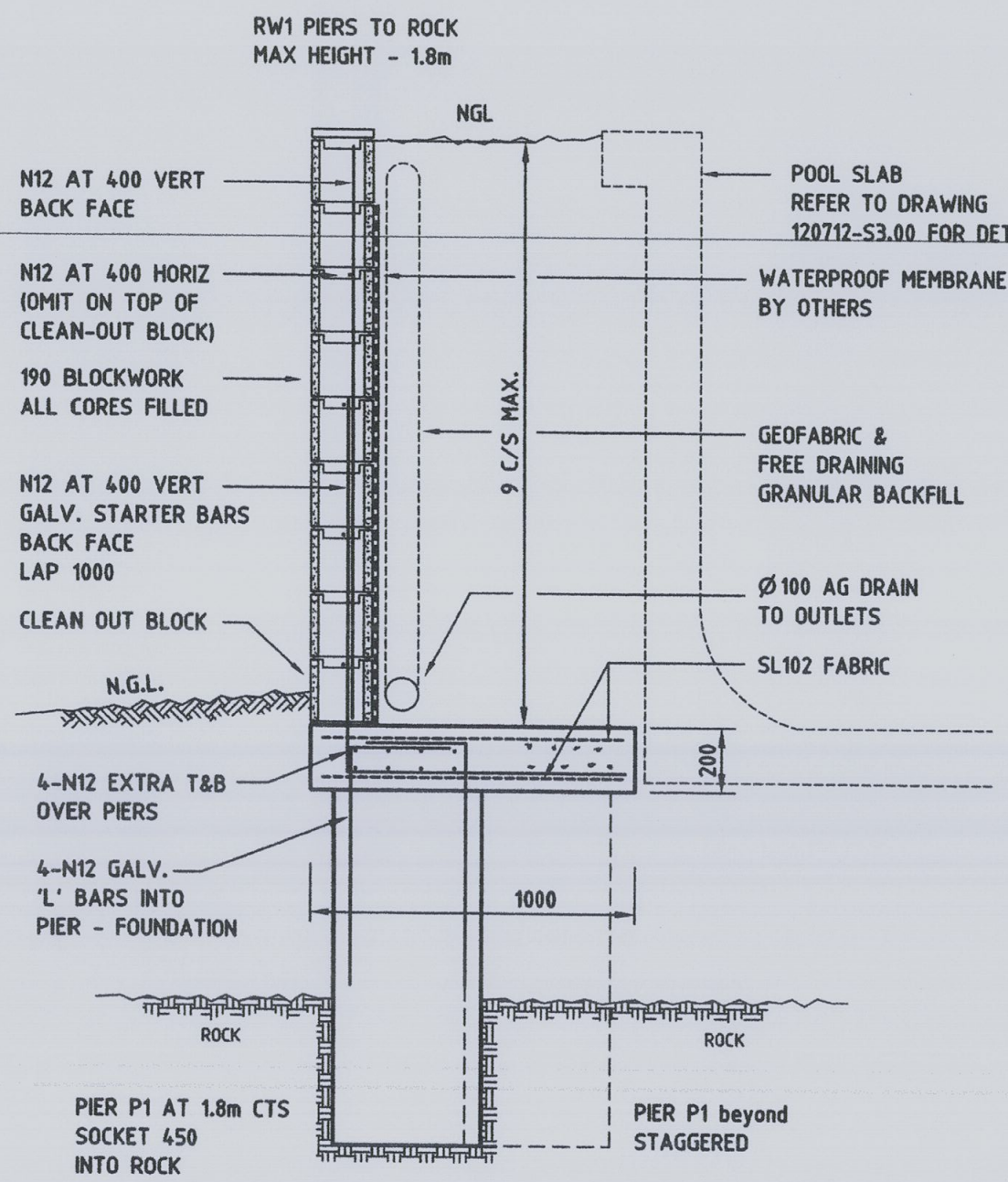
Job No : 120712

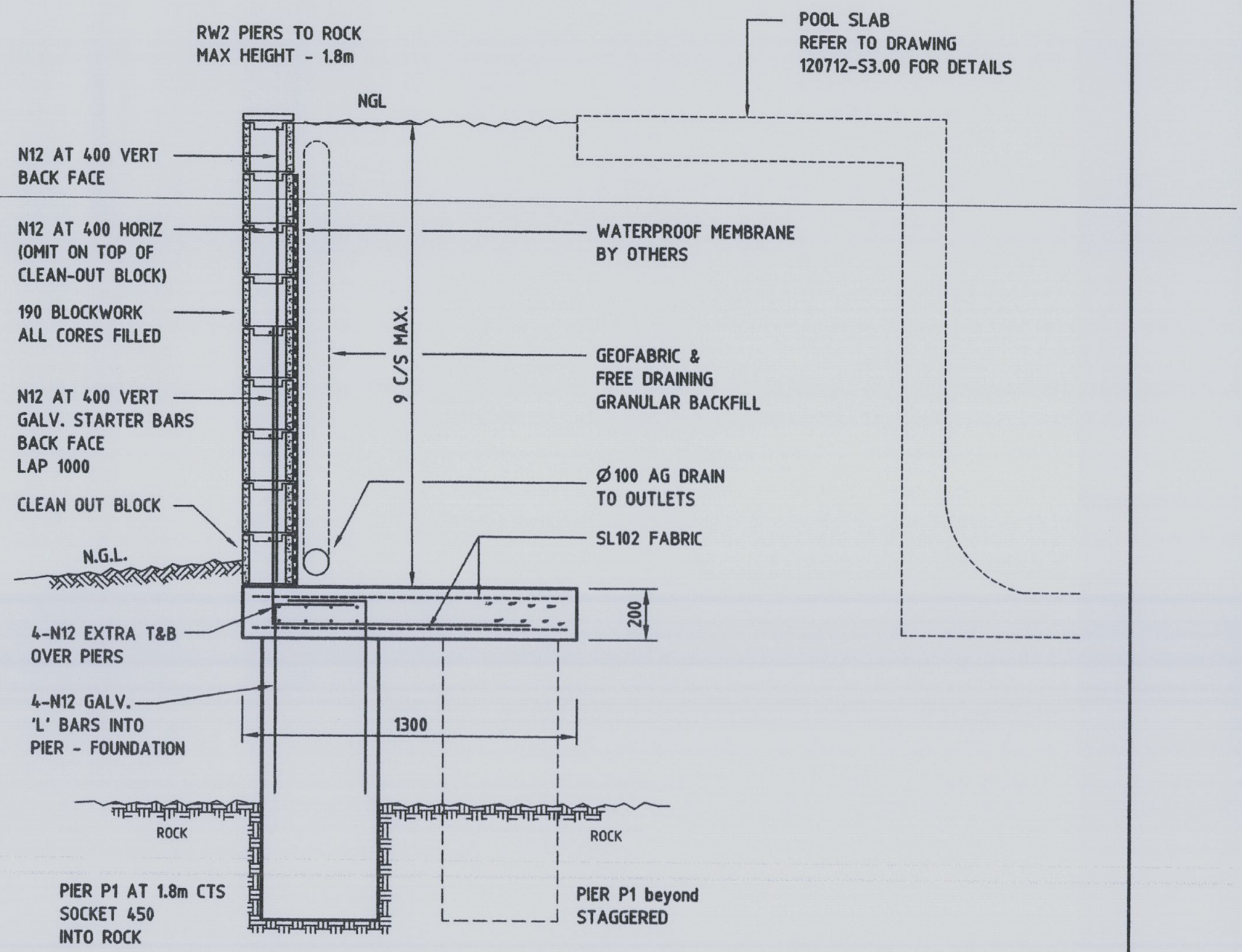
Drawing No : S2.01

Document certification
Barrenjoey Consulting Engineers Pty Ltd

PER
Lucas Molloy MIEA CPEng NPER Director

SEPT'12





TYPICAL RETAINING WALL RW1 DETAIL

TYPICAL RETAINING WALL RW2 DETAIL

Barrenjoey Consulting Engineers Pty Ltd
Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
ACN : 124 694 917

Project :

ALTERATIONS AND ADDITIONS
69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

FOOTING DETAILS
SHEET 2

Job No : 120712

Drawing No : S2.02

Document certification
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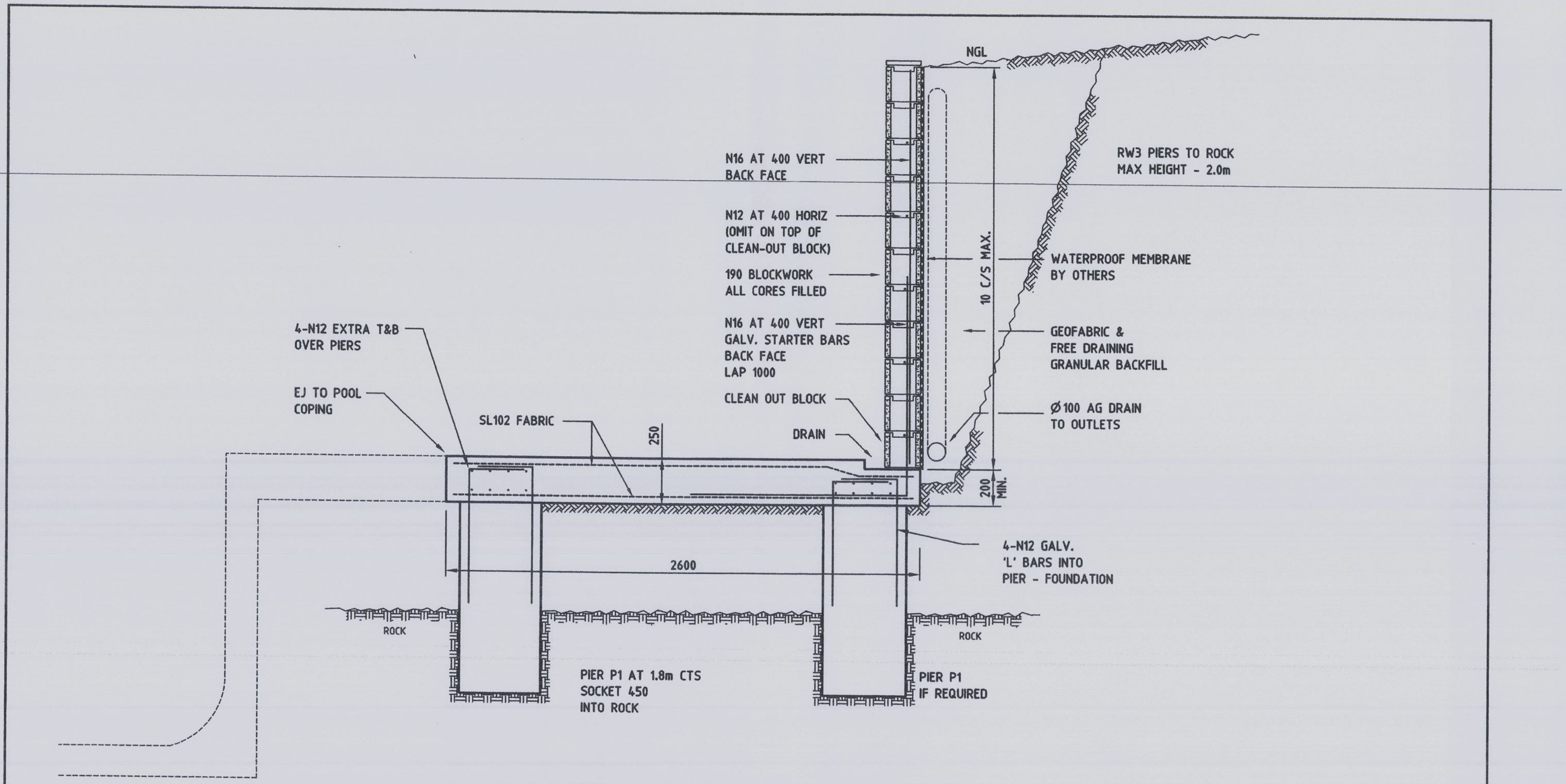

TYPICAL RETAINING WALL RW3 DETAIL

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Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
ACN : 124 694 917

Project :

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69 MARINE PARADE
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Drawing :

FOOTING DETAILS
SHEET 3

Job No : 120712

Drawing No : S2.03

Document certification
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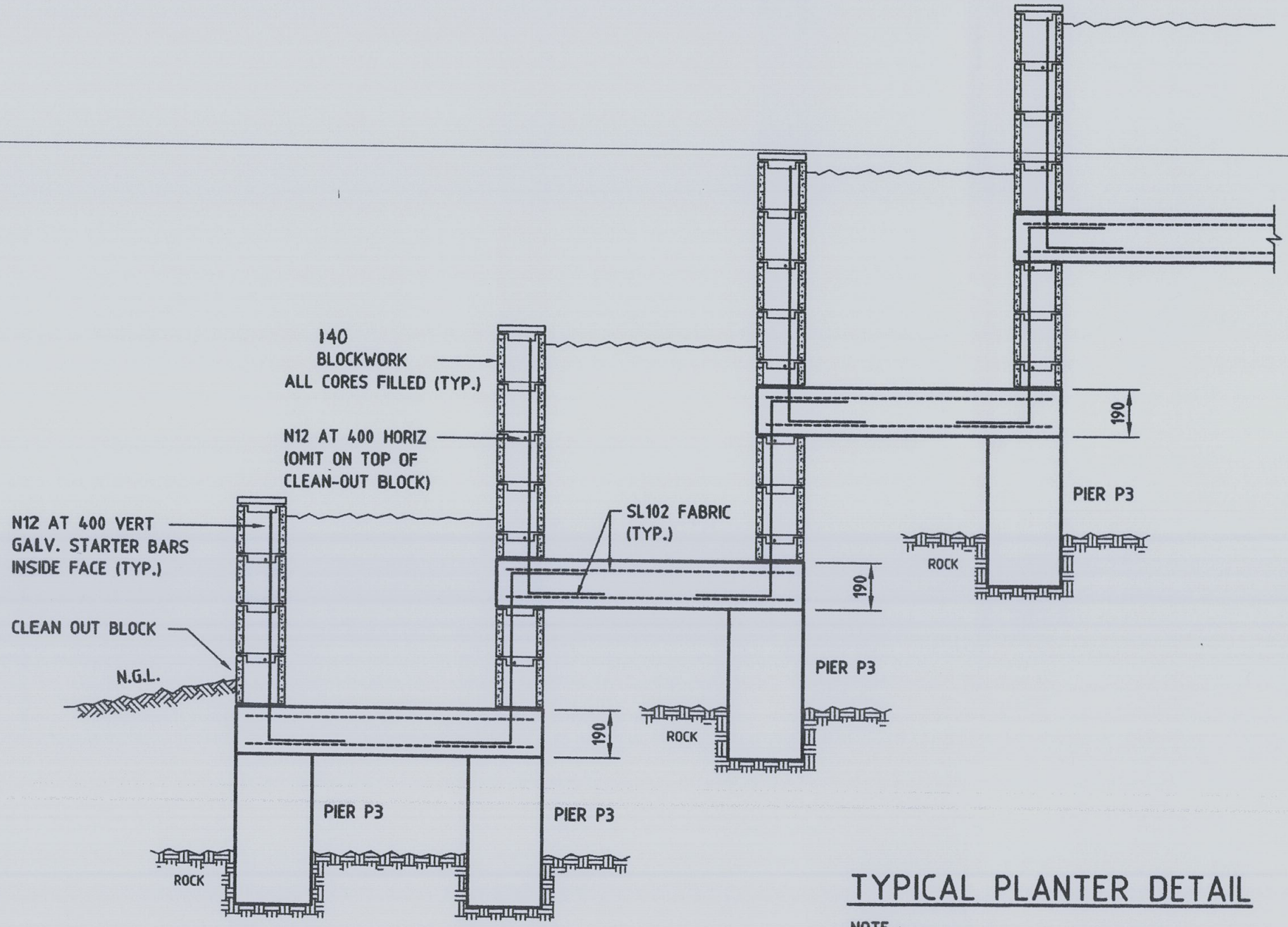

TYPICAL PLANTER DETAIL

NOTE :
ALTERNATEIVELY, 190 BLOCKWORK DIRECTLY OFF ROCK
(MAX. HEIGHT 1.8m)

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Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
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Drawing :

FOOTING DETAILS
SHEET 4

Job No : 120712

Drawing No : S2.04

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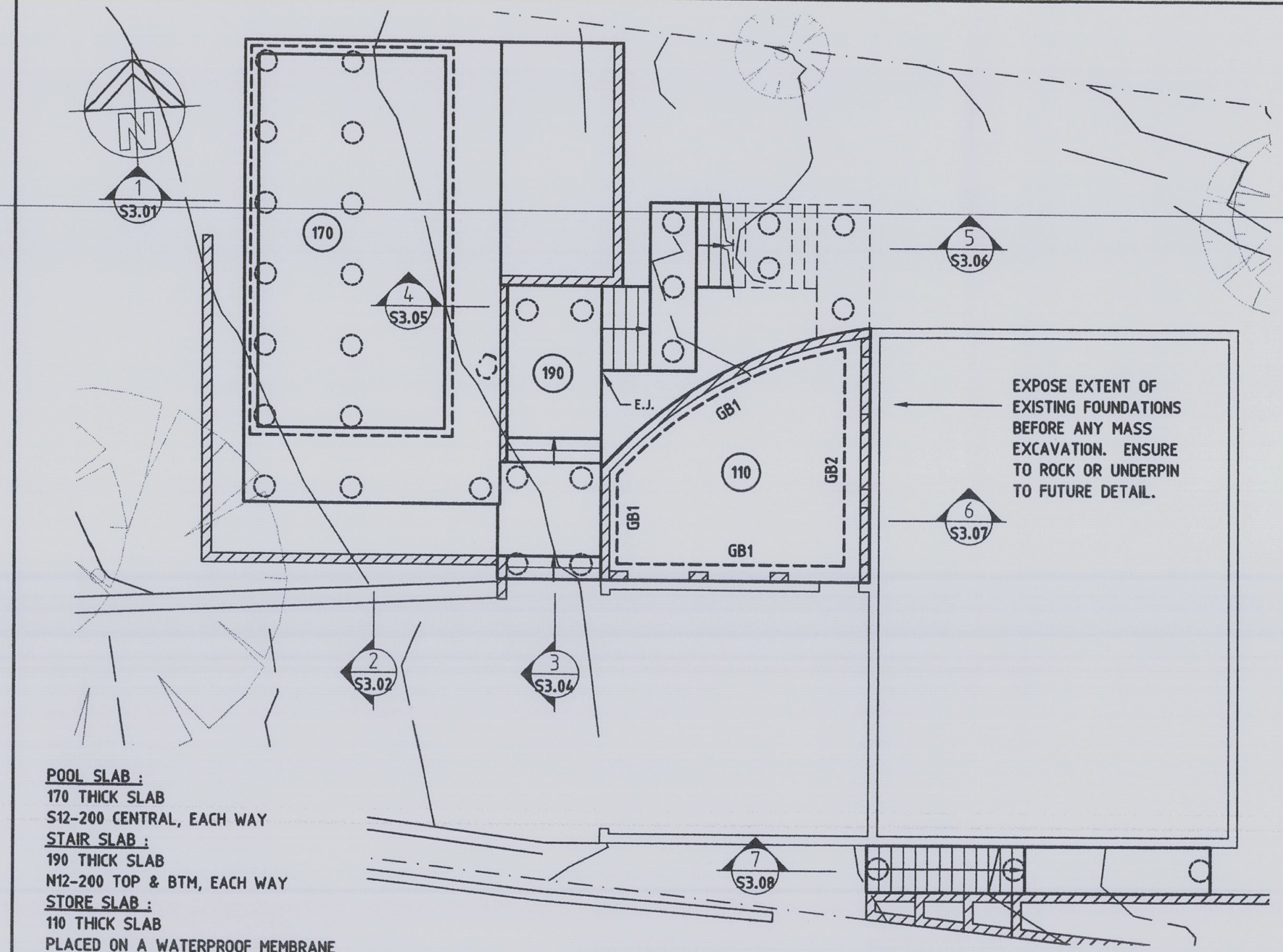

POOL SLAB :
170 THICK SLAB
S12-200 CENTRAL, EACH WAY
STAIR SLAB :
190 THICK SLAB
N12-200 TOP & BTM, EACH WAY
STORE SLAB :
110 THICK SLAB
PLACED ON A WATERPROOF MEMBRANE
OVER A 30mm SAND BLINDING UNO.
GB1, GB2 - 350 WIDE DOWNTURN TO ROCK

CONCRETE STRENGTH F'c= 40 MPa
30mm COVER INT. 65mm COVER EXT. 50mm GROUND COVER

SWIMMING POOL, STAIR AND STORE SLAB PLAN

POOL SETOUT AND DIMENSIONS
ARE TO ARCHITECTS DETAILS

0 1 2 3 4 5

GENERAL NOTE:

- ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH SAA 2783-1985 AND ORDINANCES OF THE LOCAL BUILDING AUTHORITY.
- THE OVERALL DIMENSIONS SHALL BE CHECKED ON SITE. DIMENSIONS SHOWN ARE CONCRETE SIZES AND DO NOT INCLUDE FINISHES. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT BUT DO NOT FORM PART OF THE CONTRACT. DO NOT SCALE FROM THIS DRAWINGS. ANY DISCREPANCIES SHALL BE NOTIFIED TO THE ENGINEER.
- THE FOUNDATION MATERIAL MUST BE STABLE AND SHALL HAVE A MINIMUM BEARING OF 1.2 MPa. ANY VARIATIONS IN THE FOUNDATIONS FROM THAT ASSUMED SHALL BE IMMEDIATELY REFERRED TO THE ENGINEER . THE UNDERSIDE OF THE POOL SHELL SHALL BE SEPARATED FROM THE FOUNDATION MATERIAL BY AN IMPERIOUS MEMBRANE OVERLYING A 50mm THICKNESS OF PERMEABLE MATERIAL DRAINING TO THE HYDROSTATIC VALVE.
- EXCAVATIONS SHALL NOT BE PERMITTED WITHIN 2 METRES OF AN EXISTING STRUCTURE WITHOUT PRIOR APPROVAL OR RECOMMENDATIONS FOR SHORING OR UNDERPINNING PROVIDED BY ENGINEER.

REINFORCED CONCRETE SHELL IN ACCORDANCE WITH AS 2783-1985

- THE MIX SHALL BE PROPORTIONED TO PRODUCE A MIN. 28 DAY COMPRESSIVE STRENGTH OF 32 Mpa SUITABLE FOR PNEUMATIC APPLICATION. ALL WORKMANSHIP AND THE MATERIALS TO BE IN ACCORDANCE WITH AS 3600.
- THE USE OF CALCIUM CHLORIDE AS AN ACCELERATOR WILL NOT BE PERMITTED WITHOUT REFERENCE TO THE ENGINEER.
- CONCRETE COVER SHALL BE AS PER THE SWIMMING POOL CODE. MIN COVER FOR SPRAY CONCRETE SHALL BE 65mm.
- CONCRETE SHALL BE MOIST CURED BY THE MEANS OF A HAND HELD HOSE APPROXIMATELY FOUR TIMES A DAY, CONTINUE MINIMUM OF SEVEN DAYS AFTER CONCRETE DISPLACEMENT. THIS WORK SHALL BE CARRIED OUT BY THE OWNER.
- ALL REINFORCING STEEL TO BE FIXED BY AN APPROVED METHOD AND SUPPORTED AT 1m MAX. CENTRES.
- N-DENOTED HIGH YIELD BAR S-DENOTED STRUCTURAL GRADE 230 DEFORMED BAR
- ALL LAPS TO BE 600mm UNLESS NOTED OTHERWISE.

SPECIFICATIONS

1. CONCRETE TO BE PLACED PNEUMATICALLY USING A SQUEEZECRETE PUMPING MACHINE AND TO HAVE A F'c AT 28 DAYS OF 32 MPa.
2. REINFORCEMENT TO BE STRUCTURAL GRADE DEFORMED ROUND REINFORCING BAR HAVING AN ALLOWABLE Fs = 230 MPa.
3. ALL BARS TO HAVE 40 BAR DIAMETER MINIMUM SPLICE LENGTH
4. SPLICES IN BOND BEAM TO BE STAGGERED.
5. ALL REINFORCEMENT TO HAVE 65mm COVER TO WATER FACE U.N.O.
6. IF WRITTEN DIMENSIONS AND SCALED MEASUREMENTS DISAGREE, THE WRITTEN DIMENSIONS ARE TO BE TAKEN AS CORRECT.
7. POOL AREA TO BE FENCED TO LOCAL AUTHORITY REQUIREMENTS AND ALL GATES TO BE SELF CLOSING AND SELF LOCKING.
8. POOL PLUMBING & ELECTRICS TO POOL EQUIPMENT SUPPLIER DETAILS

Barrenjoey Consulting Engineers Pty Ltd
Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
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Project :
ALTERATIONS AND ADDITIONS
69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :
STORE AND POOL SLAB PLAN

Job No : 120712

Drawing No : S3.00

Document certification
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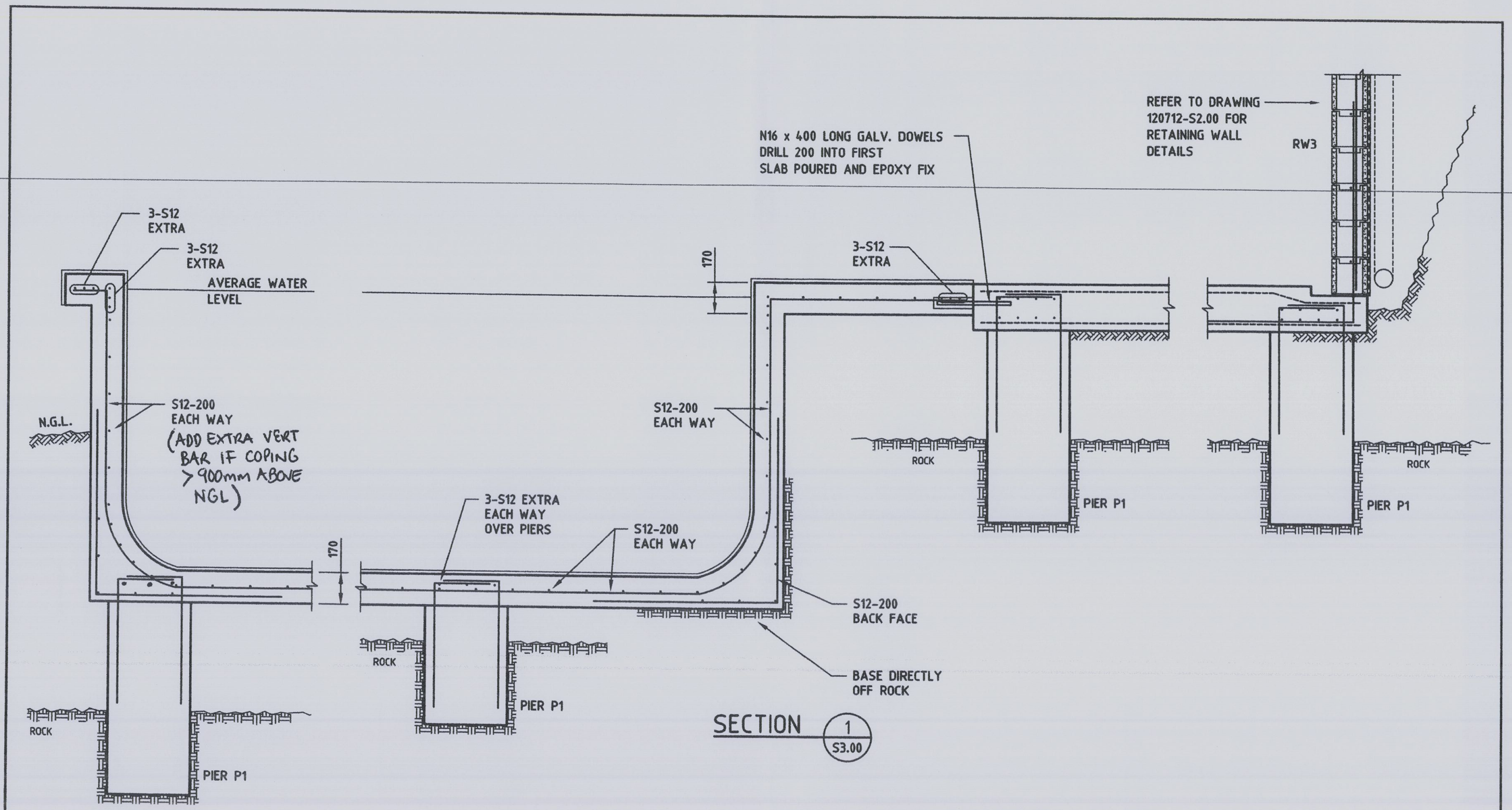

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Drawing :

STORE AND POOL SLAB
DETAILS SHEET 1

Job No : 120712

Drawing No : S3.01

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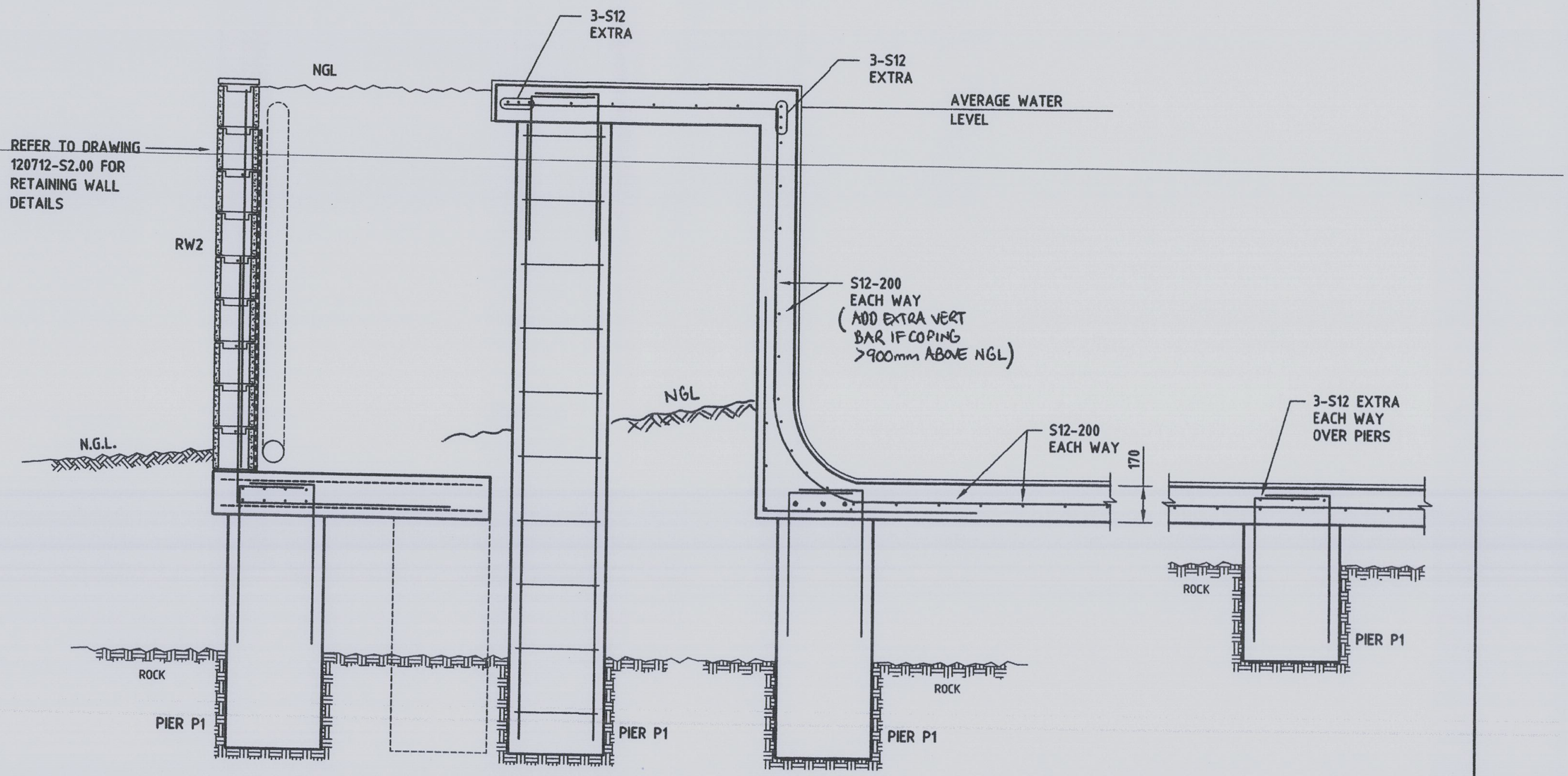

SECTION 2 / S3.00

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Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
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E : lucasbce@bigpond.com
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69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

STORE AND POOL SLAB
DETAILS SHEET 2

Job No : 120712

Drawing No : S3.02

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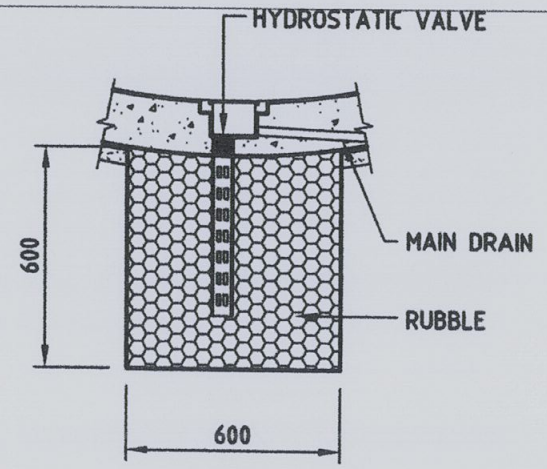
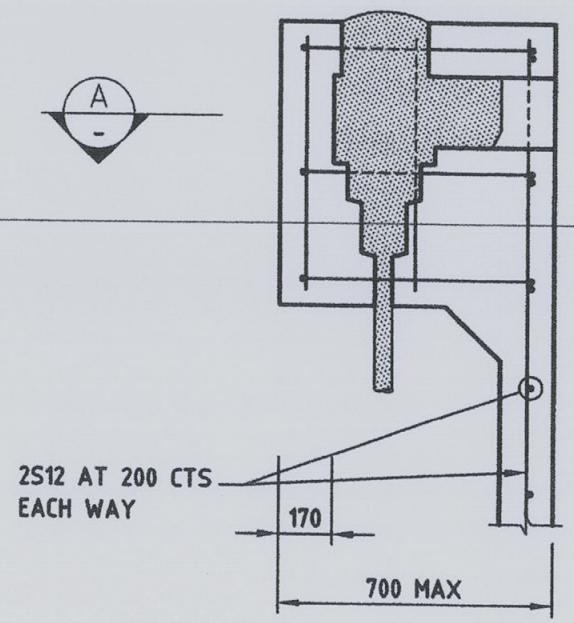
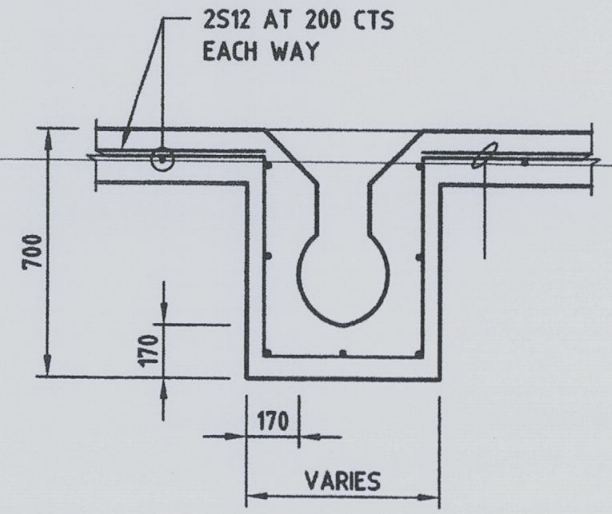


MAIN DRAIN DETAIL



SKIMMER BOX DETAIL

LOCTION TO BE CONFIRMED BY ARCHITECT AND POOL MANUFACTURER.



SECTION A

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Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
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69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

STORE AND POOL SLAB
DETAILS SHEET 3

Job No : 120712

Drawing No : S3.03

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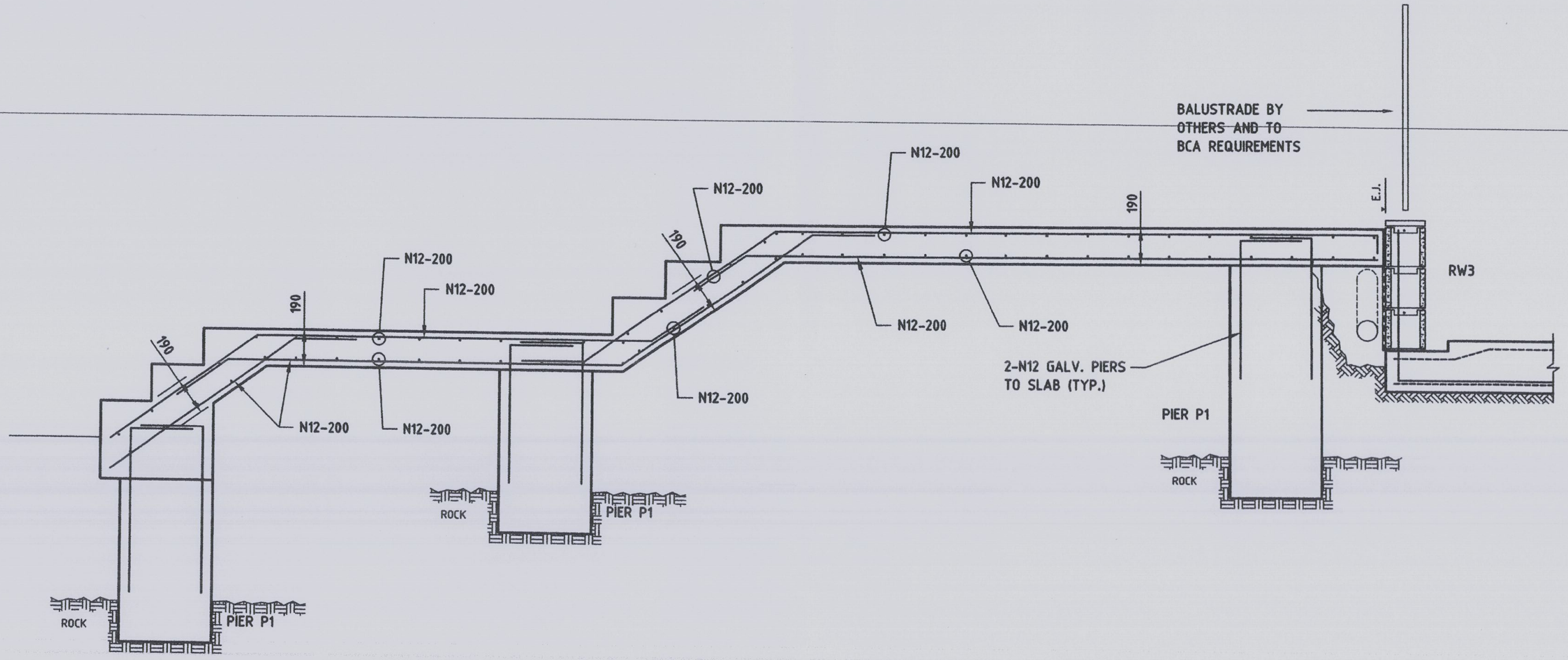

SECTION 3 / S3.00

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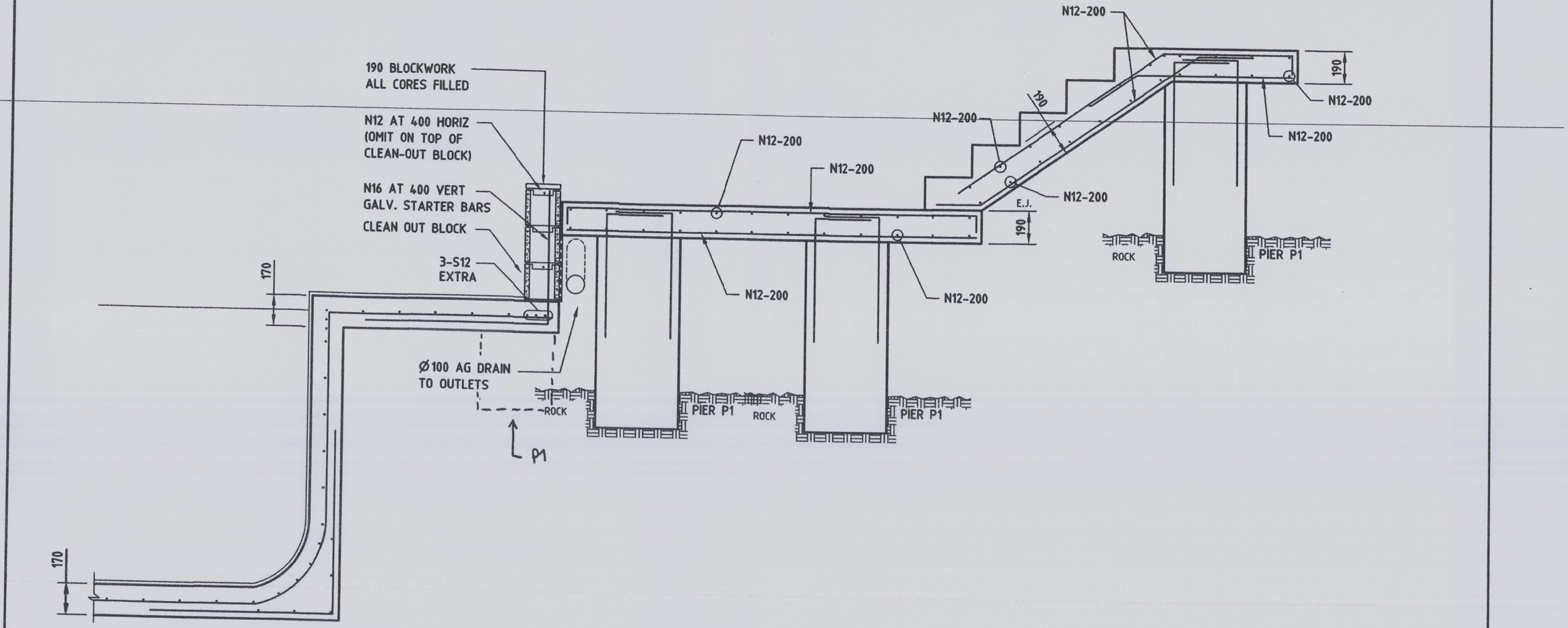

SECTION 4 / S3.00

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Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
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Project :

ALTERATIONS AND ADDITIONS
69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

STORE AND POOL SLAB
DETAILS SHEET 5

Job No : 120712

Drawing No : S3.05

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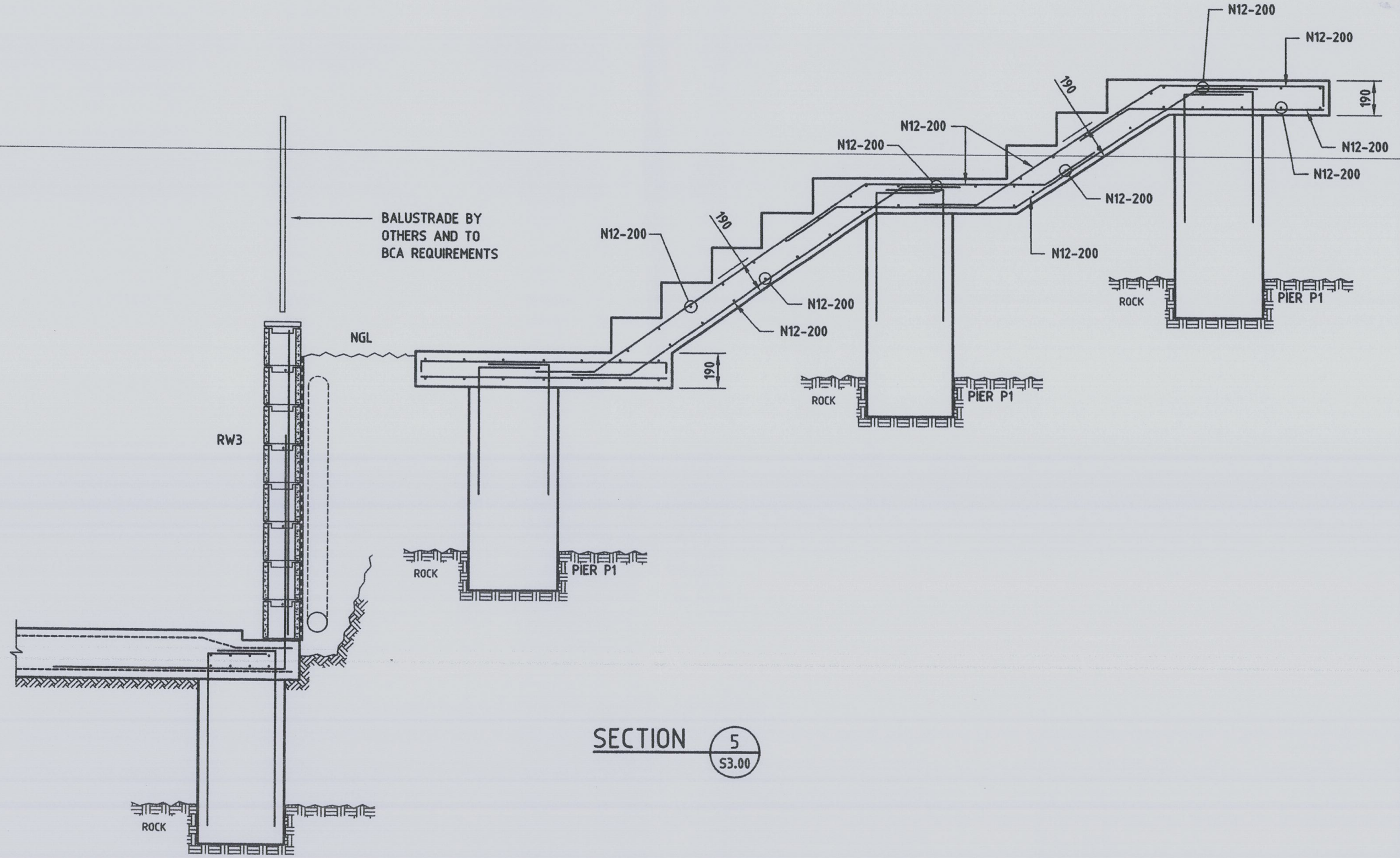

SECTION 5 / S3.00

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Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
ACN : 124 694 917

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69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

STORE AND POOL SLAB
DETAILS SHEET 6

Job No : 120712

Drawing No : S3.06

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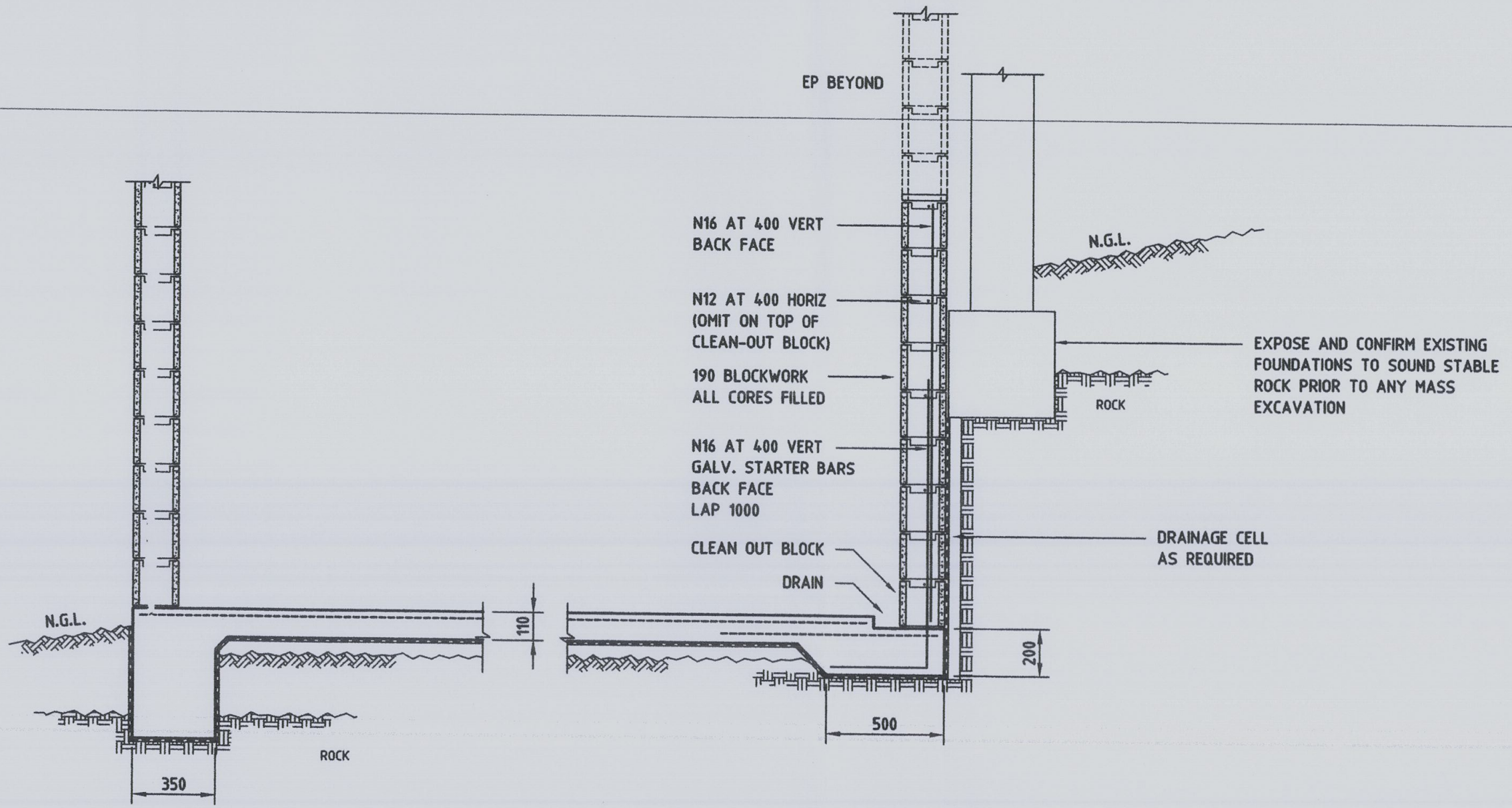

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Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
ACN : 124 694 917

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69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

STORE AND POOL SLAB
DETAILS SHEET 7

Job No : 120712

Drawing No : S3.07

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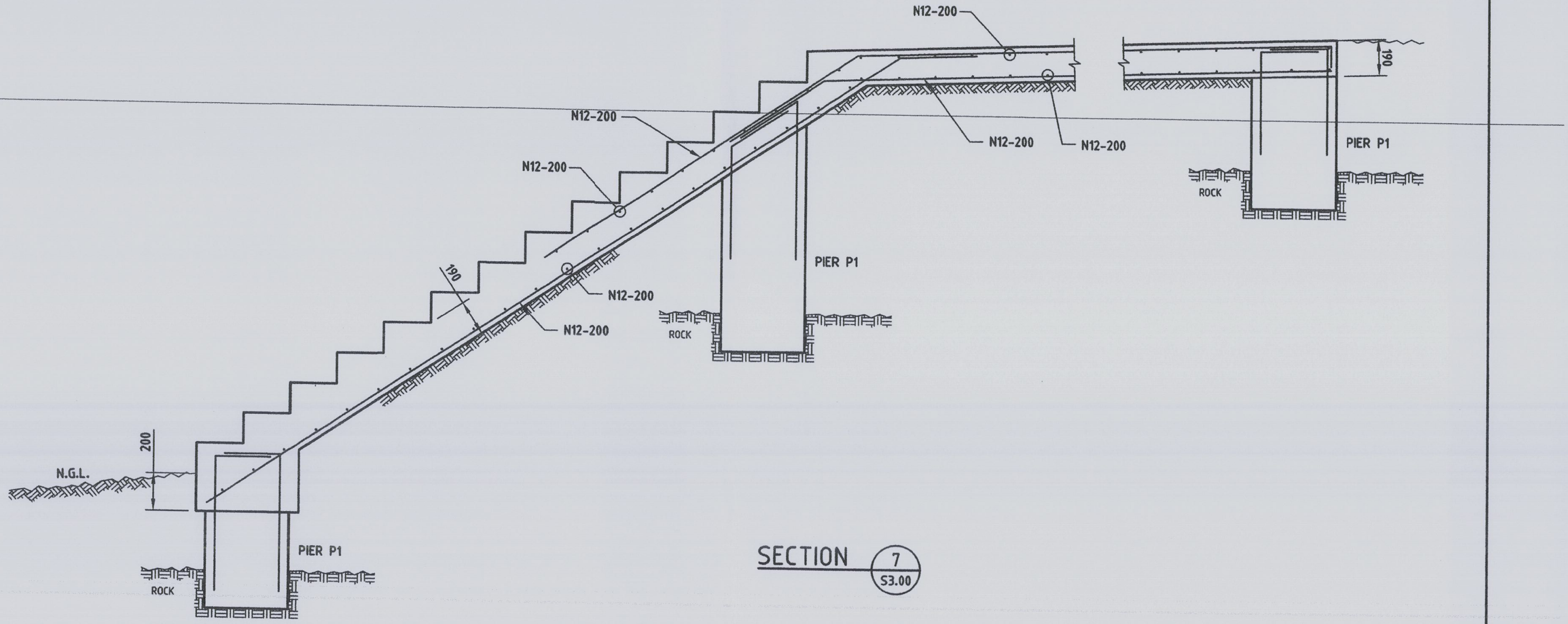

SECTION 7 / S3.00

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Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
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69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

STORE AND POOL SLAB
DETAILS SHEET 8

Job No : 120712

Drawing No : S3.08

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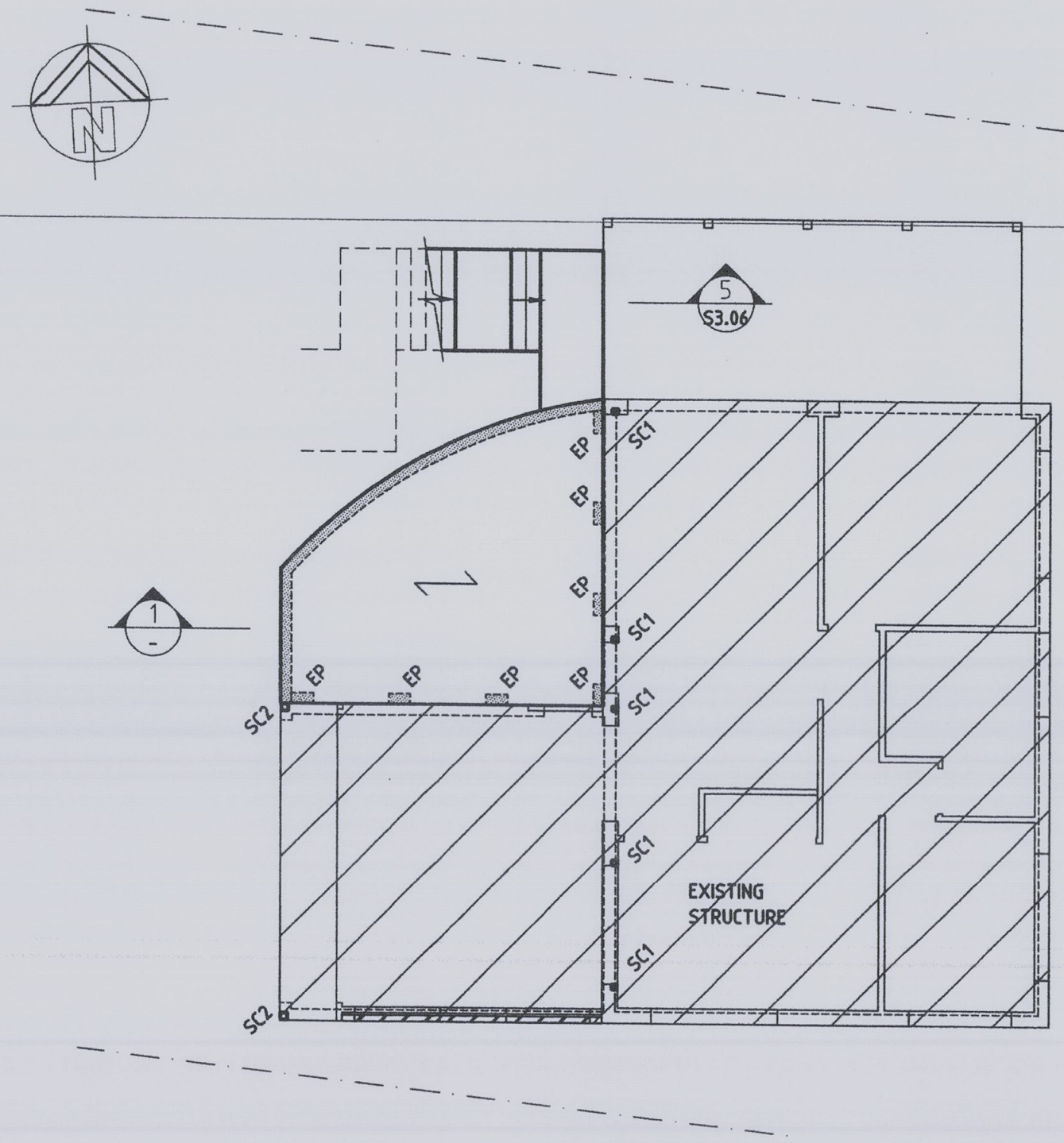


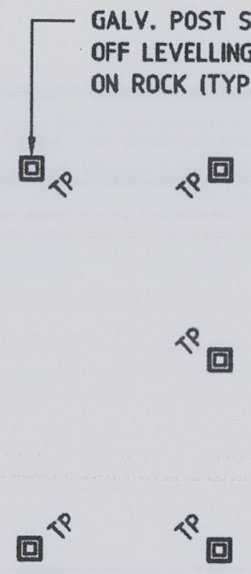
NOTE :

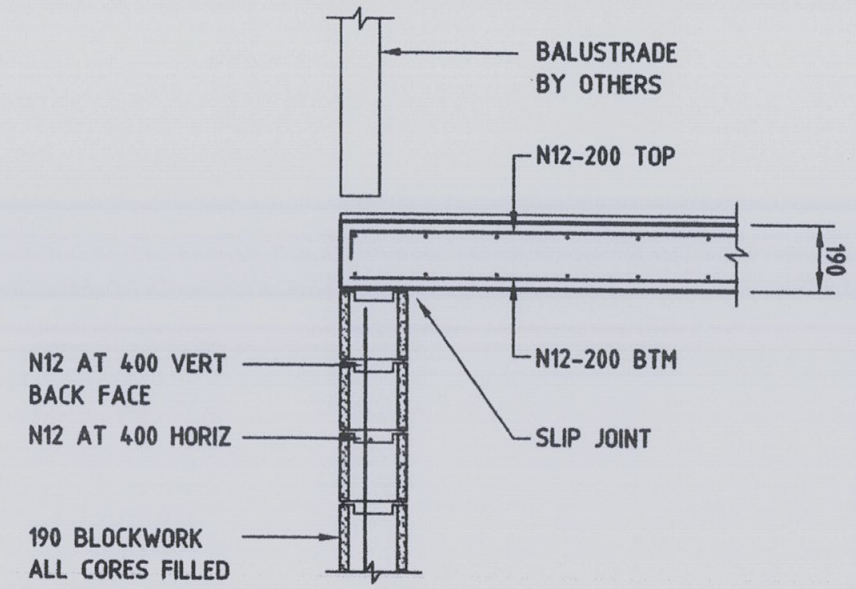
190 THICK SLAB UNO, F'c = 40 mPa
30mm BTM COVER 45mm TOP COVER

SLAB REINFORCED WITH N12-200 E.W.
TOP & BTM. EXTRA BARS AS SHOWN ON PLAN

DENOTES SPAN DIRECTION
FOR SLAB PRIMARY REINFORCEMENT

EP - NEW PIER TO SUPPORT SLAB





SECTION 1 / -
SCALE 1:20

GROUND FLOOR SLAB PLAN

0 1 2 3 4 5

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Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
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E : lucasbce@bigpond.com
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Project :

ALTERATIONS AND ADDITIONS
69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

GROUND FLOOR SLAB
PLAN

Job No : 120712

Drawing No : S4.00

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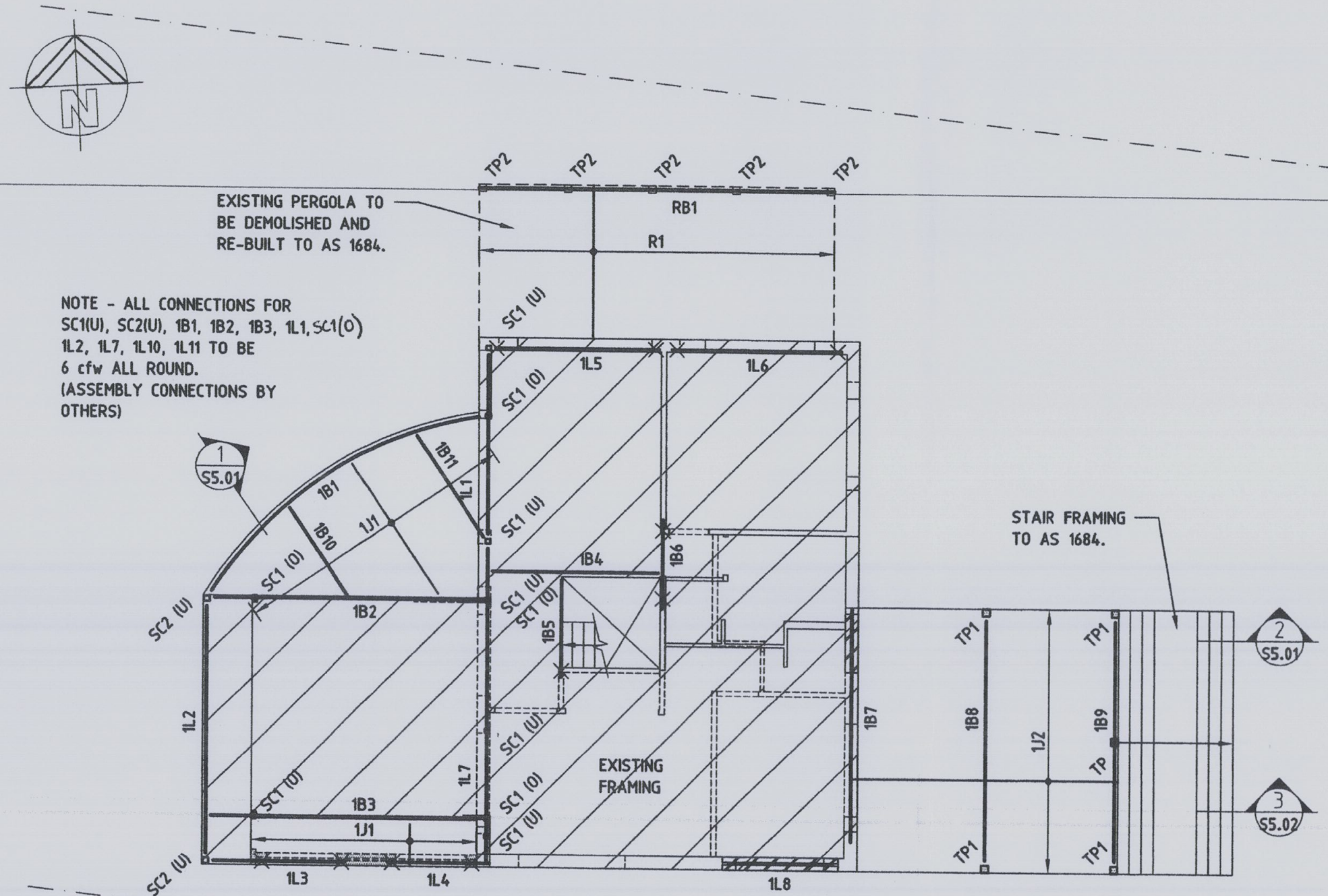

FIRST FLOOR FRAMING PLAN

0 1 2 3 4 5

NOTE :

1J1	~~200 x 45 HYSPAN LVL JOISTS AT 450 CTS~~
1J2	190 x 45 F7 H3 JOISTS AT 450 CTS
1B1	310UB46 (CURVED AS REQUIRED)
1B2, 1B3	250UB37 OR 300 PFC
1B4-1B6	240 x 63 HYSPAN LVL
1B7	190 x 45 F27 KD TRIMMER
1B8	200UB29
1B9	2/190 x 45 F7 H3 TIMBER BEAM
1B10, 1B11	150 PFC
1L1, 1L2	250UB37 OR 300 PFC
1L3, 1L4	150 x 45 HYSPAN LVL INT. 100 x 100 GALINTEL EXT.
1L5, 1L6, 1L8	2/240 x 45 HYSPAN LVL INT. 150 GALINTEL EXT.
1L7	200 PFC
RB1	190 x 45 F7 H3 BEAM
R1	140 x 45 F7 H3 RAFTERS AT 600 CTS
SC1	89 x 6.0 SHS
SC2	125 x 6.0 SHS (NOTE : cfw TO 1L2 OVER)
TP1	135 x 135 F7 H3 TIMBER POST
TP2	90 x 90 F7 H3 TIMBER POST
X	TRIPLE STUDS

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Avalon nsw 2107
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Project :

ALTERATIONS AND ADDITIONS
69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

FIRST FLOOR FRAMING PLAN

Job No : 120712

Drawing No : S5.00

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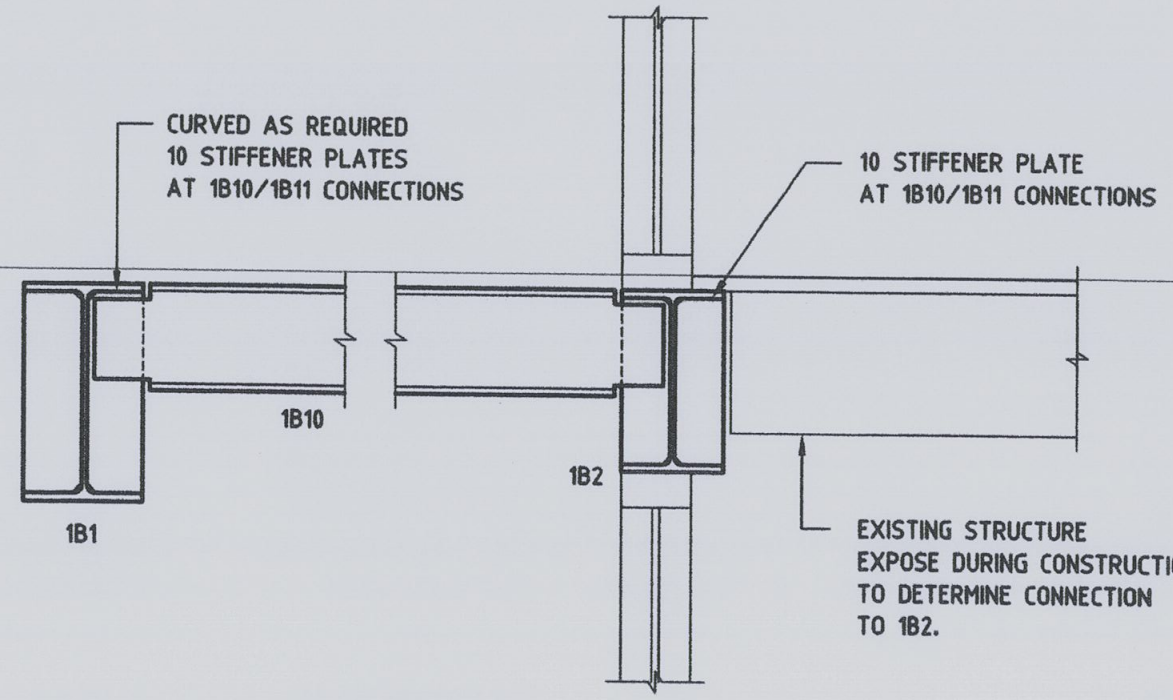
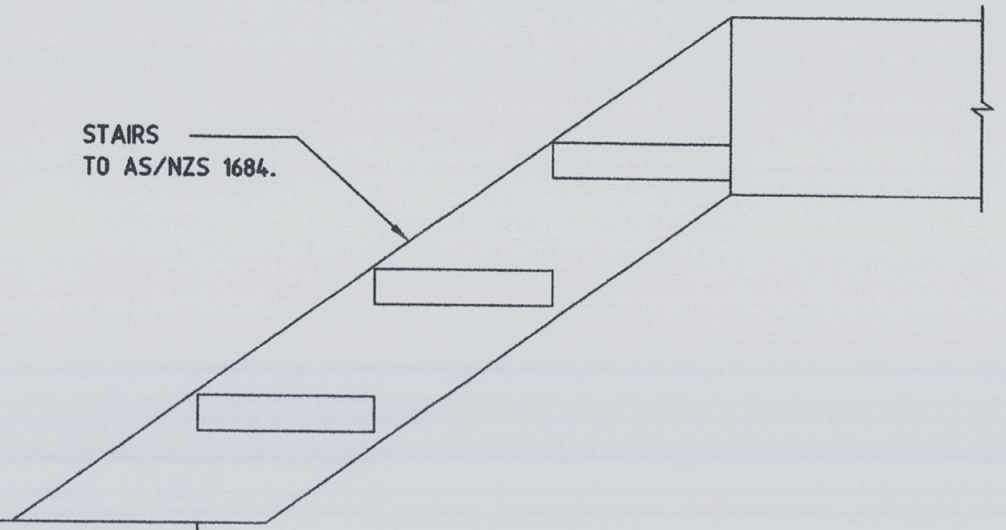
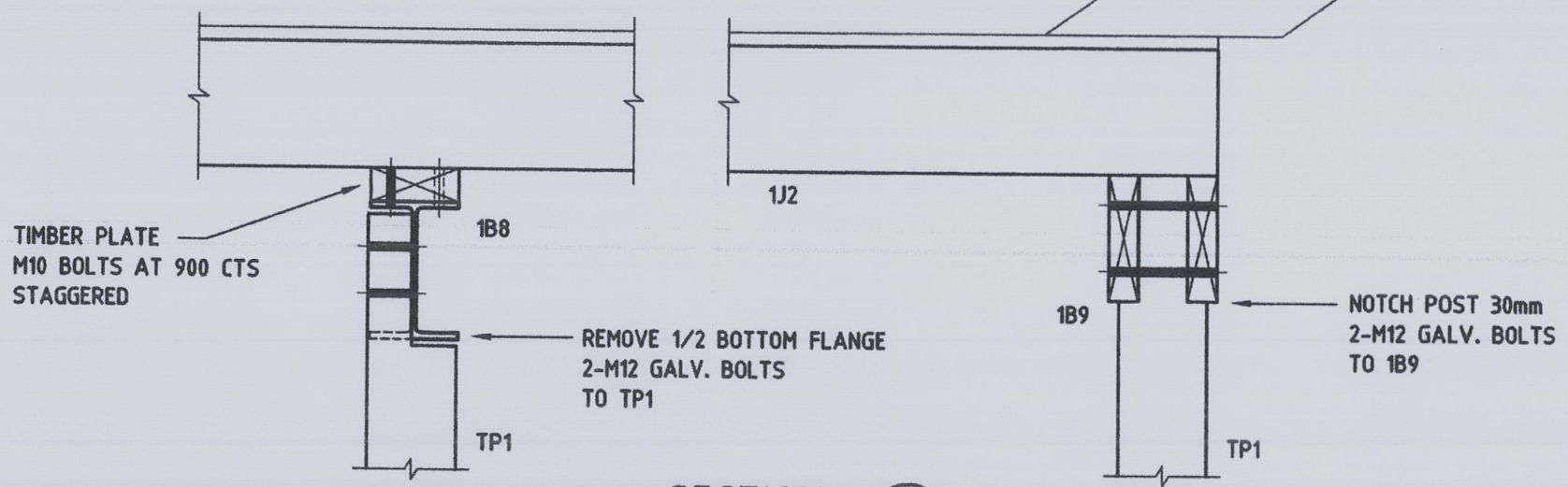


SECTION 1 / S5.00





SECTION 2 / S5.00

Barrenjoey Consulting Engineers Pty Ltd
Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
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69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

FIRST FLOOR DETAILS
SHEET 1

Job No : 120712

Drawing No : S5.01

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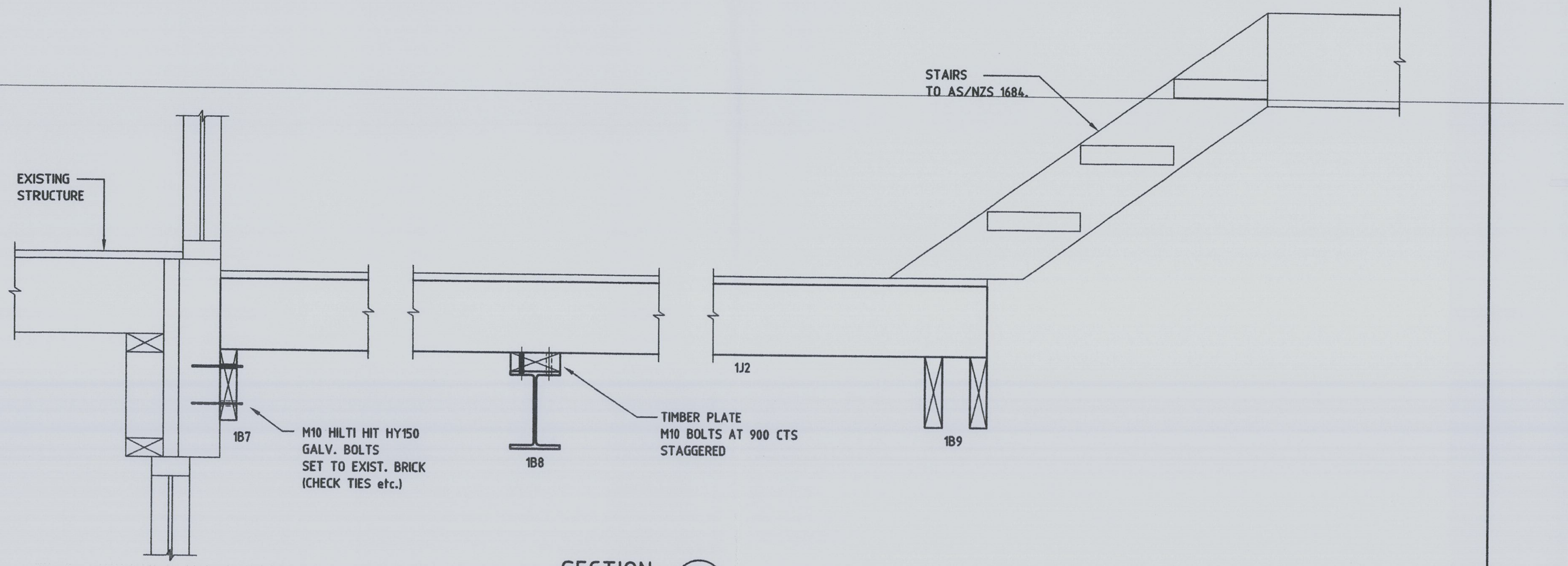

SECTION 3 / S5.00

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Stormwater Structural Civil
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Avalon nsw 2107
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Project :

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AVALON, N.S.W.
for A & M BAYLIS

Drawing :

FIRST FLOOR DETAILS
SHEET 2

Job No : 120712

Drawing No : S5.02

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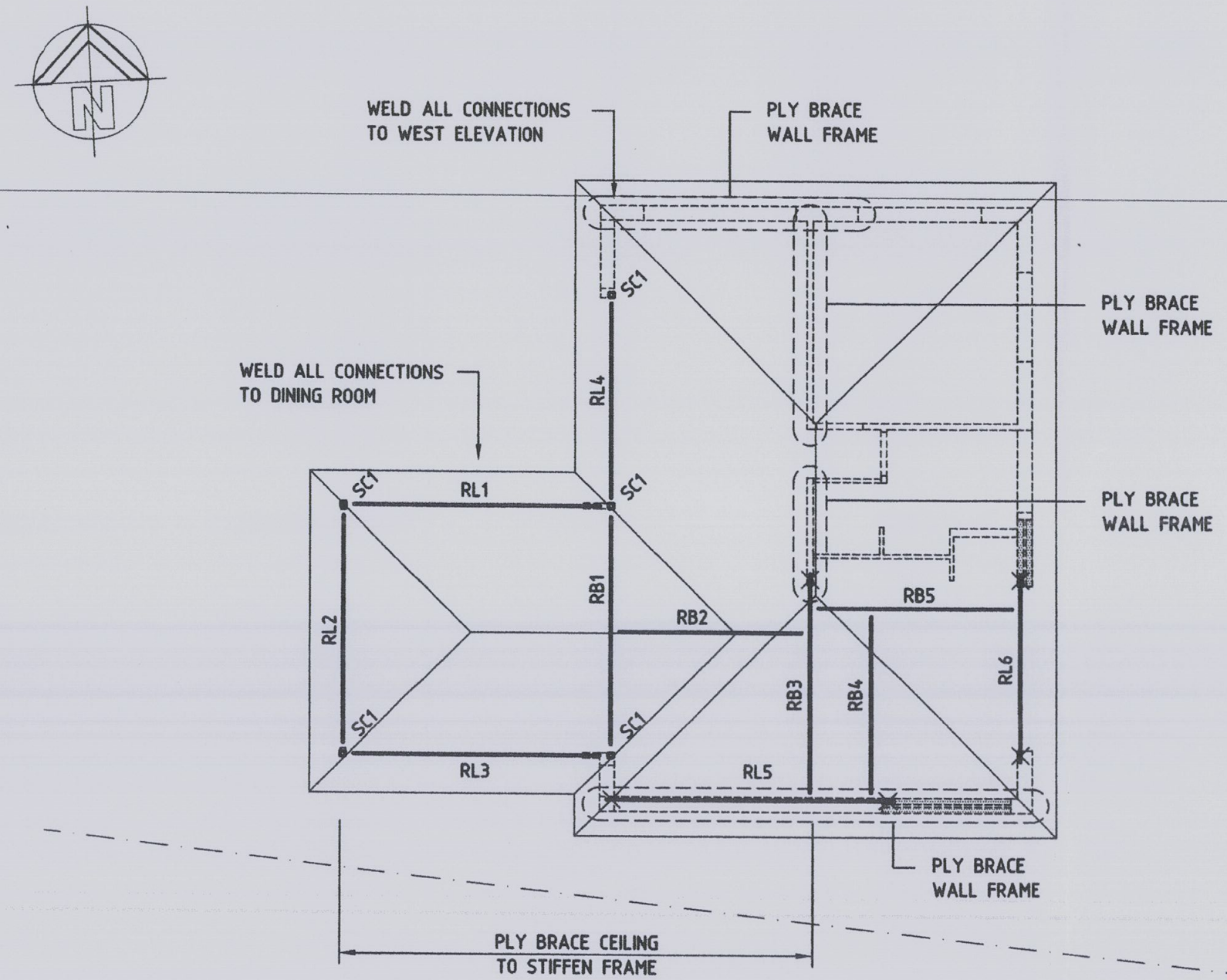
SEPT'12



NOTE :

RL1 - 5	200 PFC LINTEL
RL6	300 x 75 HYSPAN LVL
RB1	200 PFC LINTEL
RB3	400 x 75 HYSPAN LVL OR 200 PFC
RB2, RB4, RB5	300 x 75 HYSPAN LVL
SC1	89 x 6.0 SHS BASE PLATE CONNECTION TBC DURING CONSTRUCTION UPON EXPOSURE OF EXISTING FRAMING
X	DOUBLE STUDS AND TIE DOWN TO FLOOR FRAMING

ROOF FRAMING PLAN

0 1 2 3 4 5

Barrenjoey Consulting Engineers Pty Ltd
Stormwater Structural Civil
PO Box 672
Avalon nsw 2107
P : 9918 6264 F : 9918 5841
M : 0418 620 330
E : lucasbce@bigpond.com
ABN : 13 124 694 917
ACN : 124 694 917

Project :

ALTERATIONS AND ADDITIONS
69 MARINE PARADE
AVALON, N.S.W.
for A & M BAYLIS

Drawing :

ROOF FRAMING PLAN

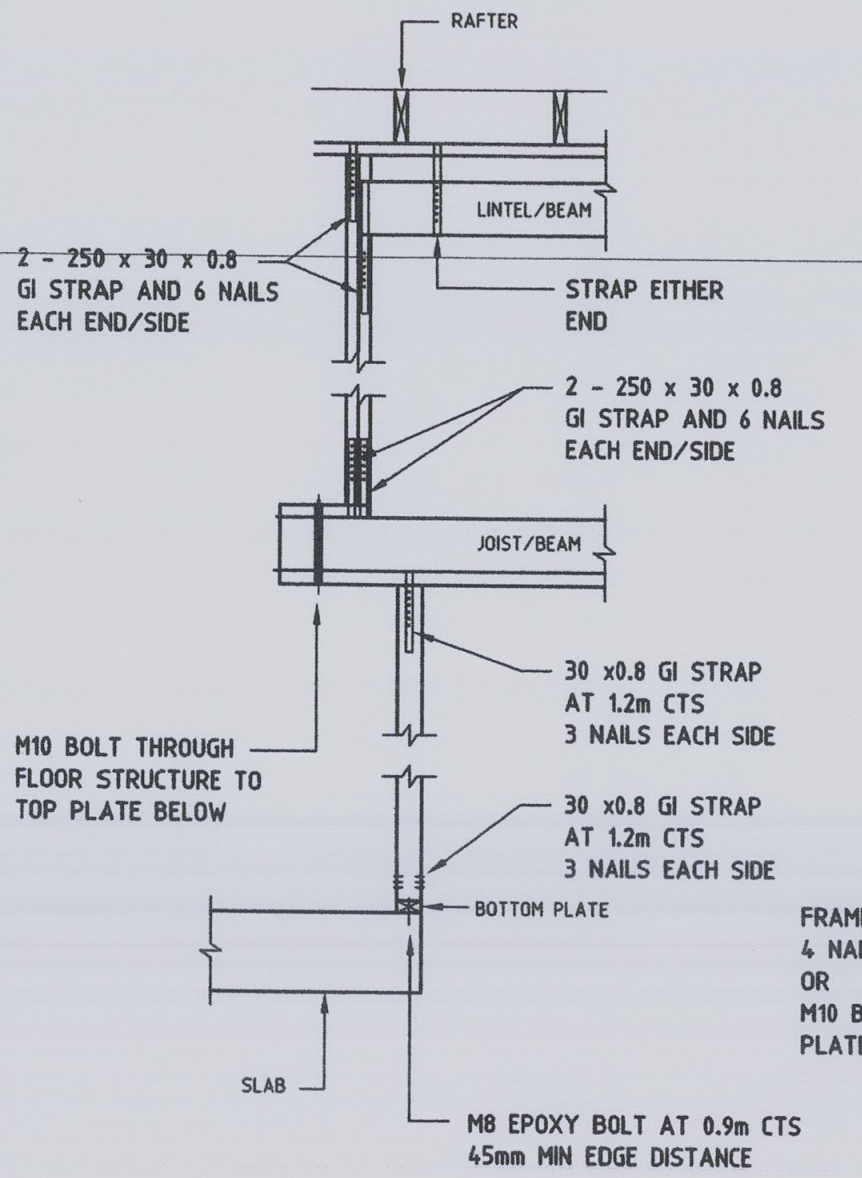
Job No : 120712

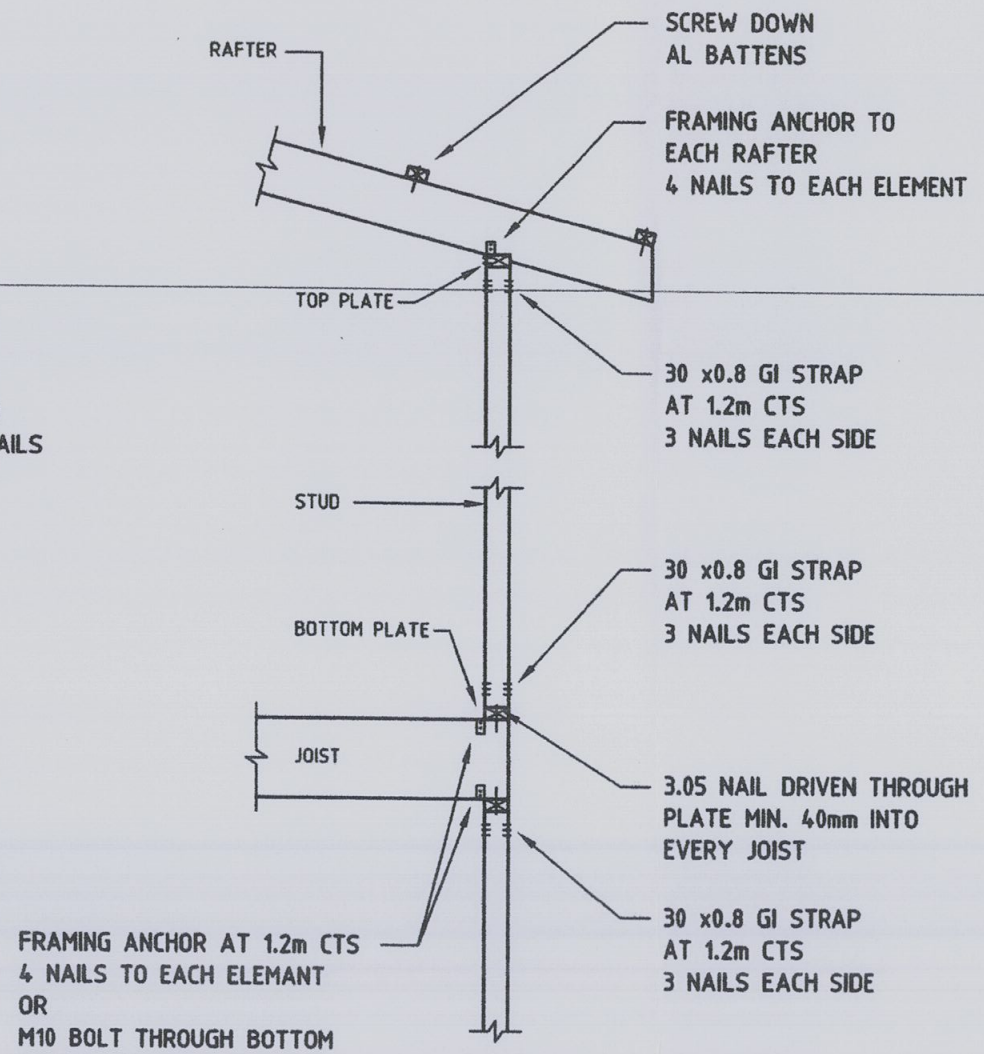
Drawing No : S6.00

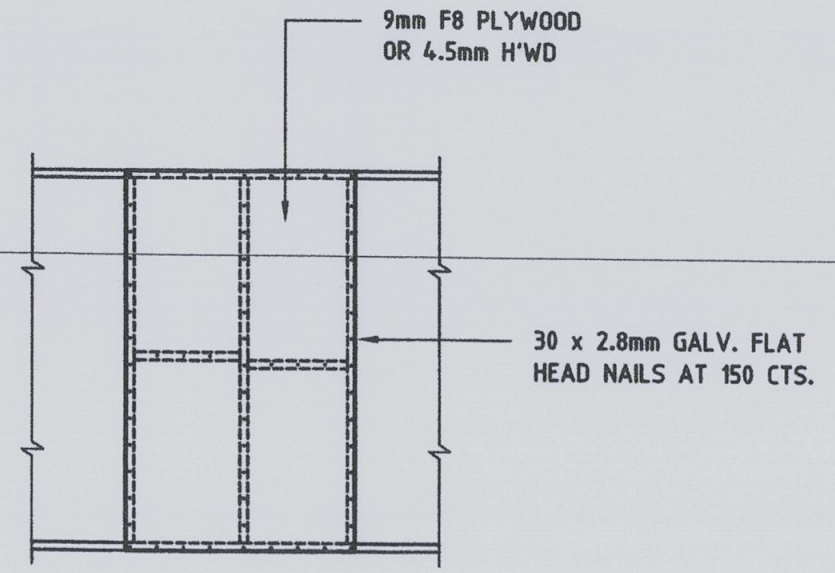
Document certification
Barrenjoey Consulting Engineers Pty Ltd

PER
Lucas Molloy MIEA CPEng NPER Director

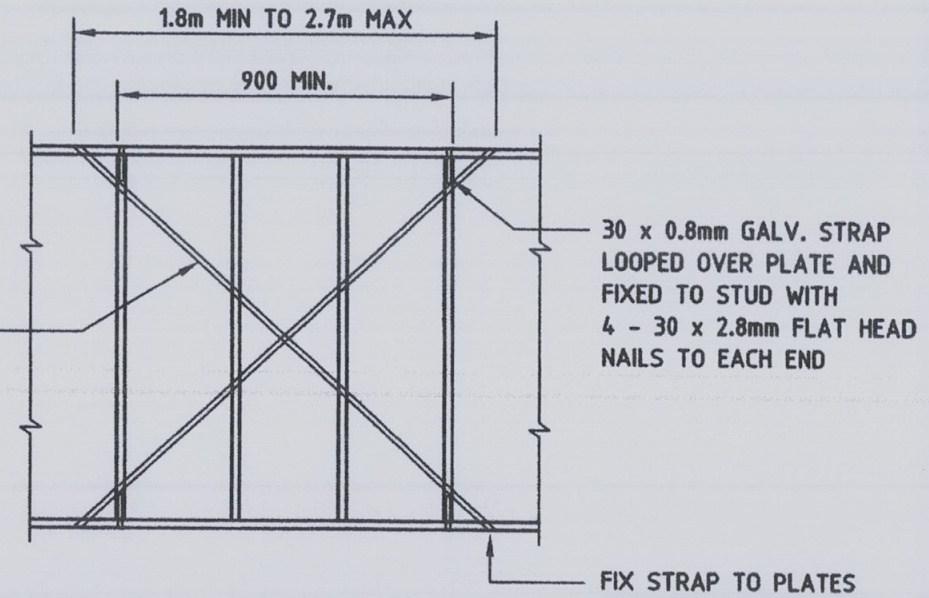
SEPT'12







PLY BRACING DETAIL



CROSS BRACING DETAIL

SPECIFIC TIE DOWN REQUIREMENTS

ALL NAILS 30x2.8mm GALV FLAT HEAD

REFER TO AS1684 FOR OTHER JOINT GROUP REQUIREMENTS

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Lucas Molloy MIEA CPEng NPER Director

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