

23 September 2011

General Manager
Manly Council
PO Box 82
MANLY NSW 1655

Dear Sir/Madam,

**Development Application No. 164/11
5 Vista Avenue, Balgowlah Heights**



For Council's information, please find enclosed Construction Certificate No. 2011/4486 issued for demolition of existing retaining wall, construction of new raised garden bed, swimming pool & landscaping at the above address, accompanied by:

- Copy of Construction Certificate application form
- Notice of Commencement of Work and Appointment of Principal Certifying Authority
- Home Warranty Insurance Certificate
- Cheque for \$36.00 being the prescribed fee to receive the above certificate.

^{126/11}
NB: Please forward receipt for the above fee to Insight Building Certifiers Pty Ltd, PO Box 326, Mona Vale 1660.

Yours faithfully

**Tom Bowden
Insight Building Certifiers Pty Ltd**

CERTIFIER

\$36

R. 813776

126-9-11

Construction Certificate Determination

issued under the Environmental
Planning and Assessment Act 1979
Section 109C (1) (b), 81A (2) and 81A (4)

Certificate No. 2011/4486

Council	Manly
Determination Date of issue	Approved 23 September 2011
Subject land Address Lot No, DP No.	5 Vista Avenue, Balgowlah Heights Lot 101 DP 555865
Applicant Name Address Contact No.	Mrs Susan Sinclair 5 Vista Avenue, Balgowlah Heights NSW 2093 9948 0072 / 0412 382 880
Owner Name Address Contact No.	Mrs Susan Sinclair 5 Vista Avenue, Balgowlah Heights NSW 2093 9948 0072 / 0412 382 880
Description of Development Type of Work	Demolition of Existing Retaining Wall, Construction of New Raised Garden Bed, Swimming Pool & Landscaping
Builder or Owner/Builder Name Contractor Licence No/Permit	Premier Pools Pty Ltd 34971
Value of Work Building	\$84,465.00

Attachments

- Copy of completed Construction Certificate Application Form
- Long Service Levy Corporation receipt no. 628080573 dated 22 September 2011
- Manly Council receipt no. 00812787 for payment of Long Service Levy & Trust Fund Deposit
- BASIX Certificate no. A116089 dated 23 June 2011

Plans & Specifications certified

The development is to be carried out in compliance with the following plans and documentation listed below and endorsed with *Insight Building Certifiers* stamp.

- Site Plan, Pool Plan & Section Details, Sediment & Erosion Control Measures & Sydney Water Gully Connection Details reference no. 11594, Drawing no's. L-01(C), L-02(D) & L-03(D) - amended Landscape Plan, prepared by Space Landscape Designs Pty Ltd dated 16 June 2011
- Structural Details reference no. 11-0824, Drawing no. P01 (A), prepared & endorsed by Peninsula Consulting Engineers dated 6 September 2011
- Stormwater Management Plan reference no. 11-0824, Drawing no. D01 (A), prepared & endorsed by Peninsula Consulting Engineers dated 7 September 2011
- Waste Management Plan prepared by Premier Pools Pty Ltd dated 7 September 2011
- Geotechnical Engineers Report reference no. MM 27699 prepared by Jack Hodgson Consultants Pty Ltd dated 25 July 2011
- Sydney Water approval dated 19 September 2011

Certificate

I hereby certify that the above Plans, documents or Certificates, satisfy:

- The relevant provisions of the Building Code of Australia
- The relevant conditions of this Development Consent

and that work completed in accordance with the documentation accompanying the application for this Certificate (and any modifications as verified by me and shown on that documentation) will comply with the requirements of the Environmental Planning & Assessment Regulation referred to in Section 81A(5) of the Environmental Planning & Assessment Act, 1979.

Signed



Date of endorsement
Certificate No.

23 SEP 2011
2011/4486

Certifying Authority

Name of Accredited Certifier
Accreditation No.
Accreditation Authority
Contact No.
Address

Tom Bowden
BPB0042
Building Professionals Board
(02) 9999 0003
13/90 Mona Vale Road, Mona Vale NSW 2103

Development Consent

Development Application No.
Date of Determination

164/11
18 August 2011

BCA Classification

10b

COPY

BY:

APPLICATION FOR A CONSTRUCTION CERTIFICATE

Environmental Planning and Assessment Act 1979 & Environmental Planning and Assessment Regulation 2000

Description of Building Work

SWIMMING POOL

Estimated cost of work

84,465

BCA Classification(s)

10B

Development Consent Reference no.

164/11

Date of Issue

18.8.11

Modified Consent Reference no. (If applicable)**Date of Issue (If applicable)****Property Address**

Unit/Street no.

5

Street name

VISTA AVENUE

Suburb

BALGOWLAH HEIGHTS

Post code

2093

Lot no.

101

DP no.

555865

Accompanying Documents

- i. Appropriate Architectural Plans and Specifications
- ii. All information required by Part 3 of Schedule 1 Forms of the Regulation (see over)

I, the owner of the abovementioned property, hereby make application to Tom Bowden/Stephen Pinn of Insight Building Certifiers Pty Ltd ('Insight') for a Construction Certificate for the building work described above and, in doing so, I also declare that the documents provided and asserted by me as a copy of a development consent and incorporated plans are a true copy of same as issued by the relevant consent authority or the Land and Environment Court.

Owner's Name:

SUSAN SINCLAIR

Owner's Address:

5 VISTA AVE
BALGOWLAH HEIGHTS NSW 2093

Daytime Telephone:

99480072

Mobile:

0412 382 880

Owner's Signature:



Date:

31/8/11

[Office Use Only]: Date received by Accredited Certifier:

All documents received as part of this Construction Certificate application have been stamped to that effect

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

XX/XX/XXXX XX:XX XXXXXXXX:XX XX
XXXXXXXXXX XXXXXXXXXX
TAX INVOICE/RECEIPT
ABN #:43662868065
Manly Council
PO Box 82
MANLY NSW 1655
Ph 02 9976 1500 Fax 02 9976 1400
Email: records@manly.nsw.gov.au
Website: www.manly.nsw.gov.au

COMMONWEALTH BANK
EFTPOS
MANLY COUNCIL
MANLY NSW
TERMINAL: 12736200
REFERENCE: 005675

MERCHANT COPY

Date 19/09/2011 08:39
Receipt 00812787:0001 Terminal 1:1327
David Sinclair

Details	Amount
Long Service Levy 008000.9200.8079 5 Vista	280.00
Builders Deposits - 010.2011.00000164.001 5 Vista	2500.00

Merchant Fees on Cre 20.85
(GST 1.89)
Invoice/Receipt Total: 2800.85

Total Non-Taxable: 2780.00
Total Taxable: 18.96
Total GST Payable: 1.89

Total Value 2800.85
Tendered
Credit 2800.85
Change 0.00

CARD NO: 6776<1>
PAN SEQ NO: 01
EXPIRY DATE:
AID: A0000000041010
TVR: 0000048000
TSI: E800
ATC: 00005
TC: 62B304BFE5876BA3

CREDIT
PURCHASE \$2800.85
TOTAL AUD \$2800.85

19 SEP 2011 08:37
CBA Credit
AUTH NO.: 035324

APPROVED 00

Levy Online Payment Receipt



Thank you for using our Levy Online payment system. Your payment for this building application has been processed.

Applicant Name:	PREMIER POOLS
Levy Application Reference:	5019457
Application Type:	DA
Application No.:	164/11
Local Government Area/Government Authority:	MANLY COUNCIL
Site Address:	5 VISTA AVENUE
	BALGOWLAH HTS
	NSW
	2093
Value Of Work:	\$25,000
Levy Due:	\$87
Levy Payment:	\$87
Online Payment Ref.:	628080573
Payment Date:	22/09/2011 9:59:59 AM

BASIX Certificate

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

Alterations and Additions

Certificate number: A116089

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: Thursday, 23, June 2011



Planning

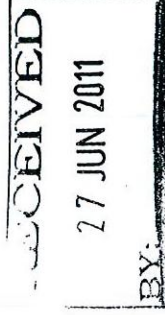
These plans relate to Development

Consent No. 164/11

The plans are NOT for construction.

Description of project

Project address	
Project name	5 Vista Ave, Balgowlah Heights
Street address	5 Vista Avenue Balgowlah Heights 2093
Local Government Area	Manly Council
Plan type and number	Deposited Plan 555865
Lot number	101
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).



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.	

**NOTICE OF COMMENCEMENT OF BUILDING WORK AND
APPOINTMENT OF PRINCIPAL CERTIFYING AUTHORITY (PCA)****1. Subject land details**

Unit/Street no.

Street name

5

VISTA AVENUE

Suburb

Postcode

BALGOWLAH HEIGHTS

NSW

2093

Lot no.

DP no.

101

555865

2. Other Consent(s)

Council DA

☒

Consent No.

164/11

Modified No.
(If applicable)

Or

Council CDC

☐

Date of approval

18.8.11

Date of Modification
(If applicable)**3. Description of Approved Development**

SWIMMING POOL

4. Construction Certificate or Complying Development Certificate details

Certificate No.

2011/4486

Date of Issue

23 SEP 2011

5. Principal Certifying details

Accredited Certifier: Tom Bowden Accreditation No: BPB0042 Accredited Certifier: Stephen Pinn Accreditation No: BPB0326

6. Home Building Act 1989 requirements

Has the Principal Certifying Authority been provided with a copy of the Home Warranty Insurance Certificate under Part 6 of the Home Building Act 1989?

Yes

☒

No

☐

N/A - Owner Builder

☐**7. Date building work is to commence**

Date

28.9.2011

8. Builder's details PREMIER POOLS PTY. LTD.

Builder's Name

ABN 49 002 664 048
303 PACIFIC HIGHWAY
LINDFIELD 2070

Licence No.

Or Permit No.

34971

Address

PH: 9415 8888 FAX: 9415 8899

Telephone No.

9. Applicant's declaration & signature

I/We are the persons having the benefit of the Development Consent or Complying Development Certificate for the proposed building works. I/we confirm that I/we am/are not the principal building contractor(s) for this project.

Have all conditions been satisfied prior to the commencement of work?

Yes

☒

No

☐(Conditions may include payment of security deposits, Section 94 Contributions,
endorsement of building work plans by Water Supply Authority, LSL Contributions)

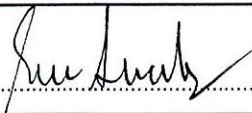
Name

SUSAN SINCLAIR

Date

31/8/11

Signature(s)





Home Warranty Insurance Fund

calliden
group

NSWPOOL/109181-PermitAuthority

29/08/2011

Premier Pools Pty Ltd
9/303 Pacific Highway
LINDFIELD NSW 2070

Calliden Insurance Ltd
ABN 47 004 125 268 AFS Licence 234438
Level 9, 11-33 Exhibition Street
MELBOURNE VIC 3000
Phone: (03) 9637 1300 FAX: 1300 662 215

Certificate of Insurance

RESIDENTIAL BUILDING WORK BY CONTRACTORS

A contract of insurance complying with sections 92 and 96A of the Home Building Act 1989 has been issued by **Calliden Insurance Limited** (ABN 47 004 125 268) (AFSL 234438) 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: Swimming Pool
At: 5 Vista Avenue
BALGOWLAH HEIGHTS NSW 2093

Carried out by: Premier Pools Pty Ltd
Licence Number: 34971
ABN: 49002664048
For: David & Sue Sinclair
In the amount of: \$84,465.00

Subject to the Act and the Home Building Regulation 2004 and the conditions of the insurance contract, cover will be provided to:

- a beneficiary described in the contract and successors in title to the beneficiary,
- OR
- the immediate successor in title to the contractor or developer who did the work and subsequent successors in title.

Authorisation: Signed by Calliden Insurance Ltd (ABN 47 004 125 268) (AFSL 234438) as agent for and on behalf of the NSW Self Insurance Corporation (SICorp) (ABN 97 369 689 650)

Issued on the 29th day of August, 2011.

NOTICE: To download a copy of your insurance policy wording visit <http://www.policywording.com.au>.

WASTE MANAGEMENT PLAN

DEMOLITION, CONSTRUCTION & USE OF PREMISES

OUTLINE OF PROPOSAL

Site Address:

5 Vista Avenue
Balgowlan Heights

Applicant's name & address:

PREMIER POOLS PTY. LTD.

ABN 48 002 864 048

803 PACIFIC HIGHWAY

LINDFIELD 2070

PH: 9415 8888 FAX: 9415 8899

Phone:

Fax:

Buildings & other structures currently on the site:

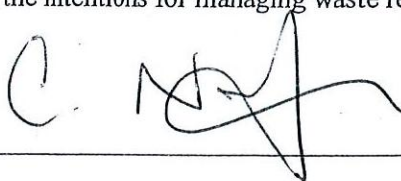
DWELLING

Brief description of proposal:

CONCRETE SWIMMING POOL

The details provided on this form are the intentions for managing waste relating to this project.

Signature of Applicant:



Date:

7 - 9 - 11

SECTION TWO – CONSTRUCTION STAGE

MATERIALS ON SITE		DESTINATION		
		ON-SITE Proposed re-use or on-site recycling methods	RE-USE & RECYCLING OFF-SITE Contractor & recycling outlet	DISPOSAL
Excavation Material	EST. (m ³) 63.3			Contractor & landfill site
Green Waste				TBA at time of excavation
Bricks				Dumpers handy bin on site
Concrete				Dumpers handy bin on site

SECTION THREE -- USE OF PREMISES

TYPE OF WASTE TO BE GENERATED	EXPECTED VOLUME PER WEEK	PROPOSED ON-SITE STORAGE & TREATMENT FACILITIES	DESTINATION
Waste water from pool to be directed to board sewer via backwash system and gully			



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN: 94 053 405 011

MM 27699.

29th July 2011

Page 1.

The General Manager
Manly Council
P O Box 82
MANLY NSW 2095

Dear Sir,

5 VISTA AVENUE, BALGOWLAH

We have examined the amended plan prepared by Space Landscape Designs dated 27/07/11
Revision C and numbered 11594.

Jack Hodgson Consultants prepared the geotechnical report for the subject address dated 25th
July, 2011 "Risk Analysis & Management for Proposed Pool at 5 Vista Avenue Balgowlah
Heights.

The proposed changes as shown below have an Acceptable Risk Level in accordance with the
AGS 2007 and do not change the recommendations in the report.

1. Move the pool some 2.5m to the west.

JACK HODGSON CONSULTANTS PTY. LIMITED.

**Ben White M.Sc. Geol.,
AusIMM., CP GEOL.
No. 222757
Engineering Geologist.**

DIRECTOR: J.D. HODGSON, M.Eng.Sc., F.I.E. Aust., Nper3 Struc. Civil 149788
67 Darley Street, Mona Vale NSW 2103
PO Box 389 Mona Vale NSW 1660
Telephone: 9979 6733 Facsimile: 9979 6926



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN: 94 053 405 011

MM 27699 .
25th July, 2011.
Page 1.

**STABILITY REPORT
FOR
PROPOSED POOL
AT
5 VISTA AVENUE, BALGOWLAH HEIGHTS**

This Report is based on a surface inspection of the subject property. It did not include any excavation or opening up of the site or of any existing development on the site. The inspection was directed at observing any cracks or other signs of movement in the land or any structures on it which would indicate land instability. It is not intended to be a complete assessment of the structure with regard to structural adequacy.

Experience over a period of some thirty years in the Pittwater and Warringah areas and inspection of some 10,000 slopes in that period form the back ground to this Report. This assessment of the risk of instability regarding landslides is according to the latest guidelines issued by the Australian Geomechanics Society.

1. PROPOSED DEVELOPMENT.

- 1.1 Construct a pool on the downhill side
- 1.2 Install a rainwater tank on the southern side of the house
- 1.3 Replace the brick retaining wall on the downhill side
- 1.4 Details of the proposed development are shown on 3 drawings prepared by Space Landscape Designs, numbered L-01 to L-03 and dated 16th July, 2011.

2. SITE DESCRIPTION.

- 2.1 The site was inspected on the 25th July, 2011.
- 2.2 The property is on the low side of the road and has an easterly aspect (Photo 1). It is located at the base of the slope that rises from Adrian Place to Dobroyd Scenic Drive. From the road the slope of the site drops at some 10 degrees and increases in grade on the downhill side of the house. The grade of the slope is consistent above the site leading to the crest of the hill some 330 meters to the east.



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN: 94 053 405 011

MM 27699 .

25th July, 2011.

Page 3.

5. SUBSURFACE INVESTIGATION.

The surface features described in this Report are considered to be adequate for the proposed development.

5.1 Four DCP tests were carried out in the location shown on the site plan. The results of these tests are as follows:

DEPTH (m)	NUMBER OF BLOWS - conducted with Pointed Tip			
	DCP1	DCP2	DCP3	DCP4
0.0 to 0.3	2	2	3	5
0.3 to 0.6	6	8	4	5
0.6 to 0.9	14	10	3	3
0.9 to 1.2	#	29	4	2 (drop)
1.2 to 1.5	#	33	4	6
1.5 to 1.8	#	40	4	20
1.8 to 2.1	#	#	8	40
2.1 to 2.4	#	#	21	#
2.4 to 2.7	#	#	24	#
2.7 to 3.0	#	#	29	#
3.0 to 3.3	#	#	31	#
3.3 to 3.6	#	#	38	#
	Refusal on rock @ 0.8m	End of Test @ 1.75m	Refusal on rock @ 3.5m	End of Test @ 2.0m

Notes:

DCP 1: Refusal on rock @ 0.8m, White impact dust on dry tip

DCP 2: End of Test @ 1.75m, Red/white clay on wet tip

DCP 3: Refusal on rock @ 3.5m, White impact dust on wet tip

DCP 4: End of Test @ 2.0m, Gray sand fragments on wet tip

5.2 One hand auger hole was put down in the location shown on the site plan. The log of the hole is as follows:

AUGER 1

0.0 - 0.35	Dark brown soft organic topsoil with white rock fragments
0.35 - 0.6	Dark brown damp organic topsoil
0.6 - 0.75	Light brown soft damp sandy clays
0.75 - 1.0	Brown saturated sandy clays, W.T encountered at 0.85m
1.0 - 1.2	Stiff brown clays with red clay fragments
1.2 - 1.4	Stiff white sandy clays

End of test in stiff clay @ 1.4m

DIRECTOR: J.D. HODGSON, M.Eng.Sc., F.I.E. Aust., Nper3 Struc. Civil 149788

67 Darley Street, Mona Vale NSW 2103

P.O. Box 389 Mona Vale NSW 1660

Telephone 9979 6733 Facsimile: 9979 6926



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN: 94 053 405 011

MM 27699 .

25th July, 2011.

Page 5.

9.2 Retaining walls are to be back filled with non-cohesive free draining material to provide a drainage layer immediately behind the wall. The free draining material is to be separated from the ground materials by geotextile fabric. A strip drain is to be run along the base of the back wall to remove any water from behind the wall.

10. FOUNDATION MATERIALS AND FOOTINGS.

10.1 It is recommended that all footings for the proposed development be taken to weathered rock. The design ultimate bearing capacity is 1.2MPa for spread footings or shallow piers.

10.2 Any footings uphill and adjacent to retaining walls are to be taken to a minimum of 300mm below the bottom of the retaining wall.

11. REMEDIAL WORKS.

No remedial works are required.

12. STORM WATER AND EFFLUENT.

12.1 The existing house is connected to the main sewer.

12.2 Any storm water runoff from the proposed additions is to be collected and piped to the storm water drains through any domestic water tank or detention tank that may be required by the regulating authorities. Normal under-pool drainage will be sufficient for the development.

13. INSPECTIONS.

It is recommended that all footing excavations be inspected and approved before concrete is placed.

No special geotechnical inspections are required.

JACK HODGSON CONSULTANTS PTY. LIMITED.

**Ben White M.Sc. Geol.,
AusIMM., CP GEOL.
No. 222757
Engineering Geologist.**

DIRECTOR: J. D. HODGSON, M.Eng. Sc., F.I.E. Aust., Nper3 Struc. Civil 149788

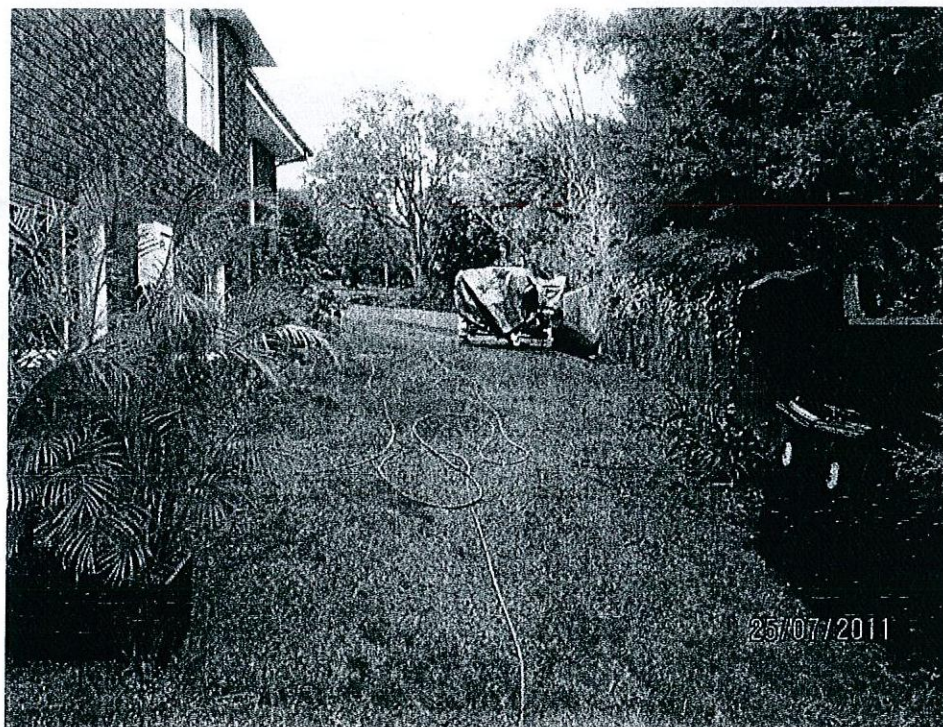
67 Darley Street, Mona Vale NSW 2103

PO Box 389 Mona Vale NSW 1660

Telephone: 9979 6733 Facsimile: 9979 6926

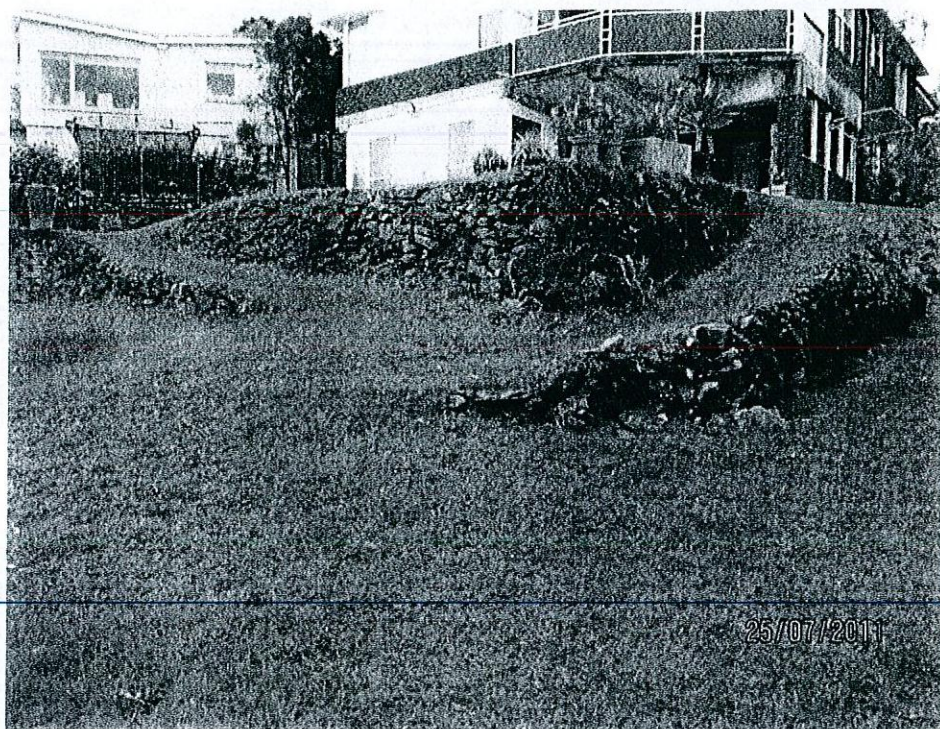


(Photo 3)



(Photo 4)

MM 27699 .
25th July, 2011.
Page 9.

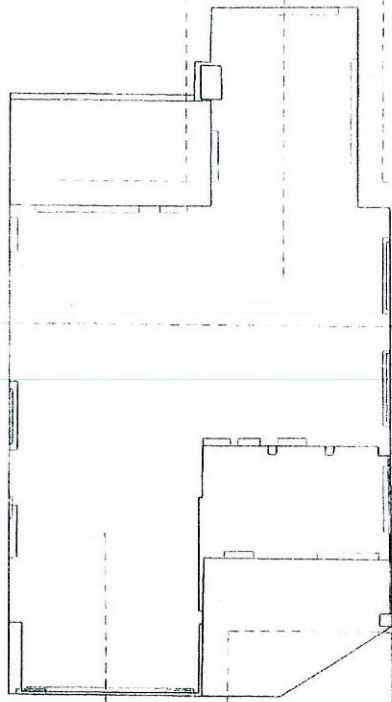
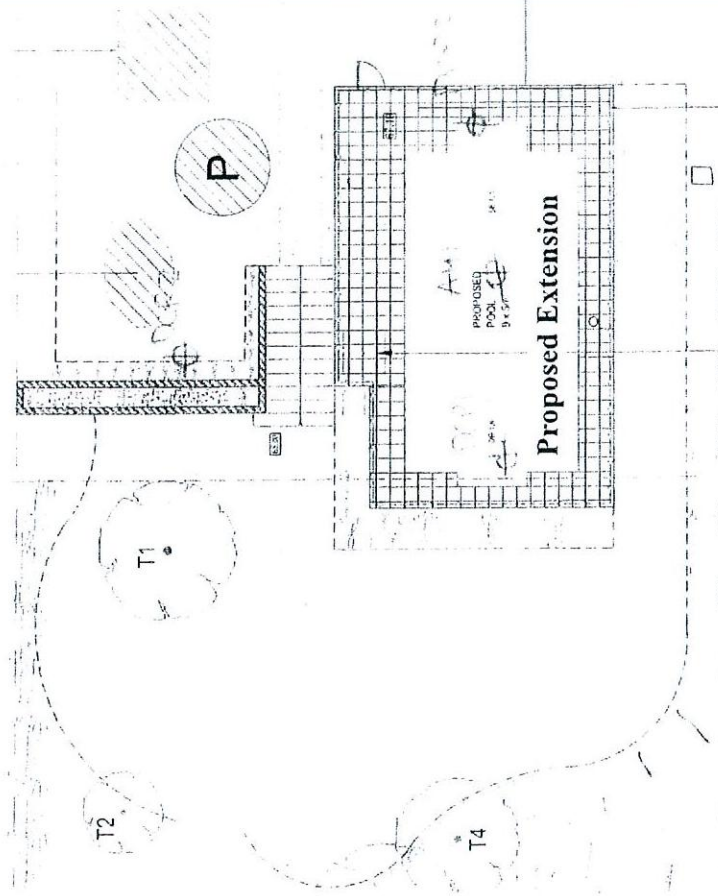


(Photo 7)



(Photo 8)

4 20' 00" 00"



EXISTING TURF AND LOW
SHRUBS TO REMAIN

Site Plan
5 Vista Avenue, Balgowlah Heights
MM 27699
Scale 7:1000

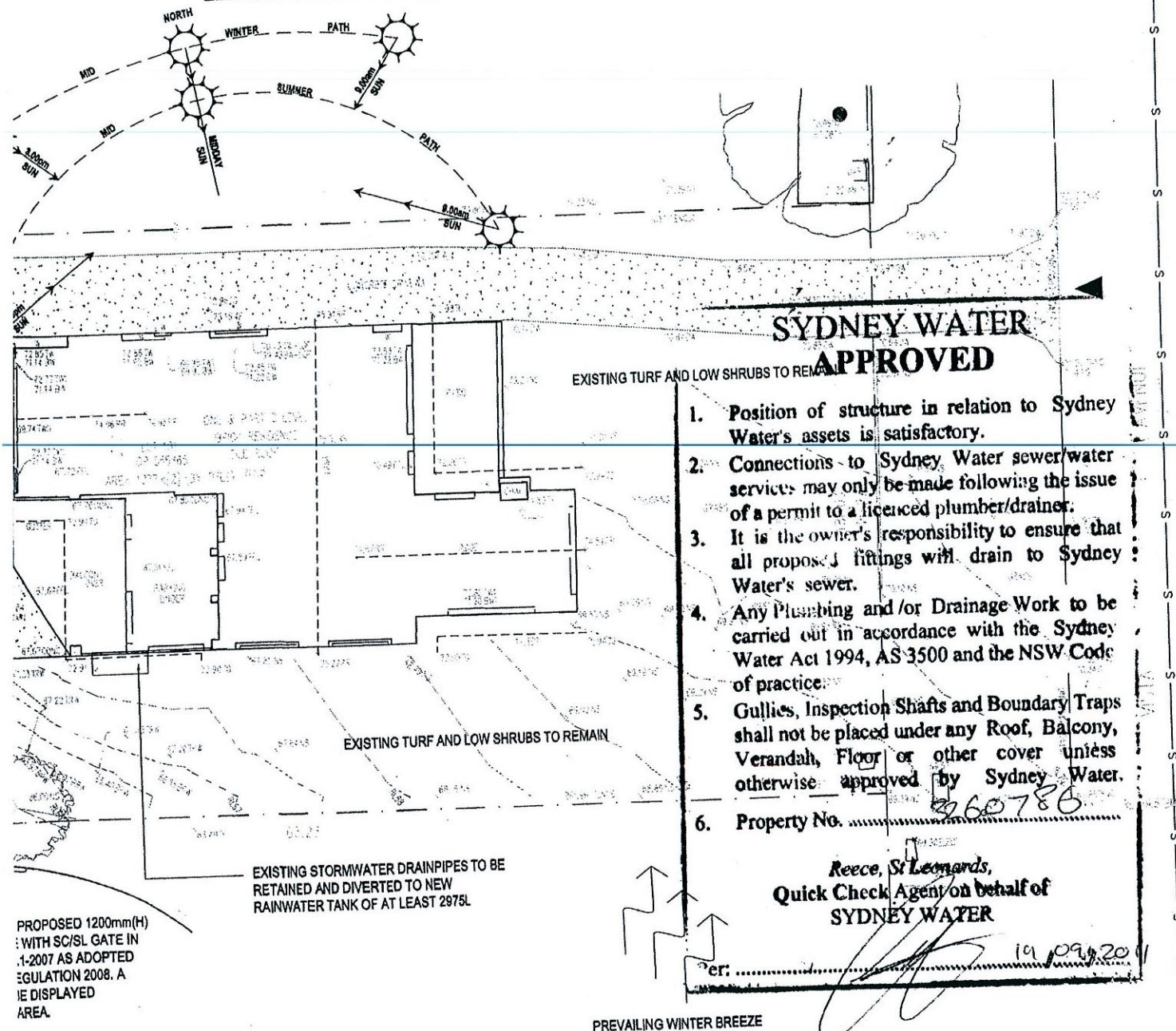
BASIC REQUIREMENTS

RAINWATER TANK
THE APPLICANT MUST INSTALL A RAINWATER TANK OF AT LEAST 2975 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 50 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 68.5 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: SOLAR ONLY.

SITE ANALYSIS LEGEND

	PRINCIPAL PRIVATE OPEN SPACE		EXISTING TREES TO BE RETAINED
	PREVAILING WIND		SITE VEHICLE ENTRY
	WASTE STORAGE AREA		MATERIALS STORAGE AREA



Space Landscape Designs Pty Ltd
Suite 138, 117 Old Pittwater Road
Brookvale NSW 2100
Tel: 9905 7870 Fax: 9905 7657
www.spacedesigns.com.au
abn 60 799 663 674 acn 139 316 251

Client: Sue and David Sinclair

Address: 5 Vista Avenue
Balgowlah Heights

Drawn: A. ELBOZ ALDM #625

Date Created: 16/06/11

Scale: 1:100@A1

Project No: 11594

Title: SITE ANALYSIS / SITE PLAN / STORMWATER MANAGEMENT PLAN

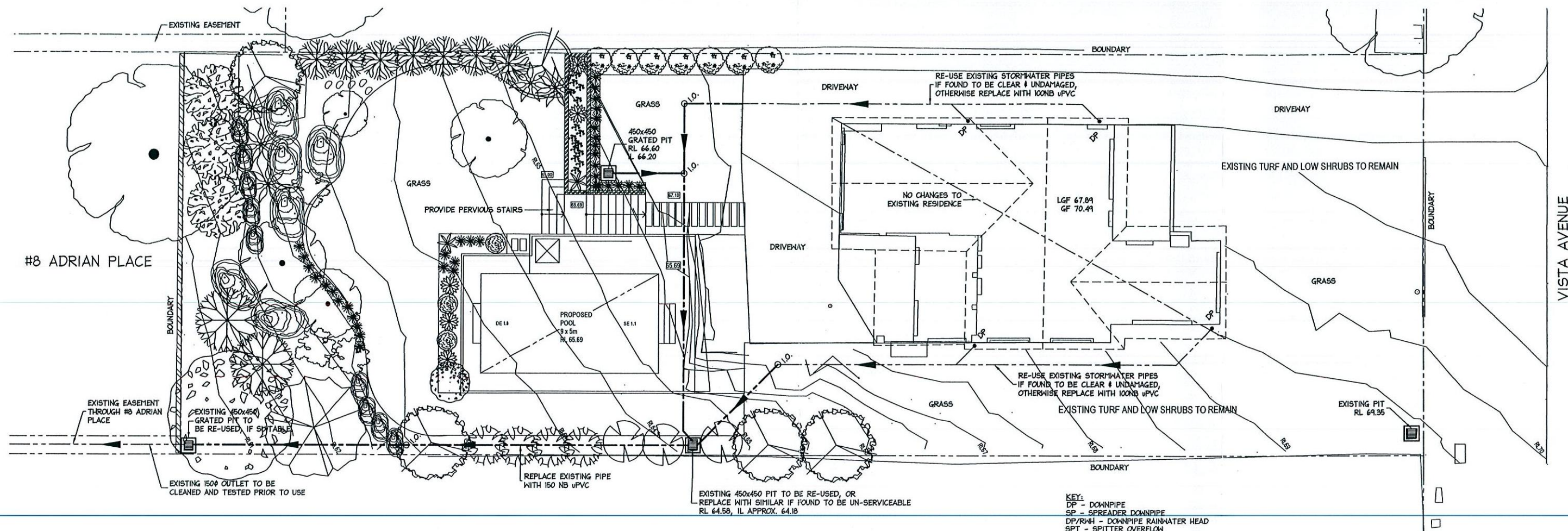
Drawing No:

L-01 of 3

Rev:



C



CONCEPT STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100

STORMWATER NOTES:

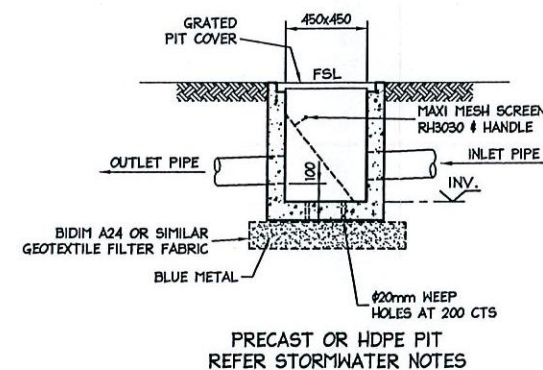
- ALL PIPES TO BE 100mm ϕ SEWER GRADE uPVC UNLESS NOTED OTHERWISE.
- ALL PIPES TO BE uPVC TO AS 1254-2002 UNLESS NOTED OTHERWISE.
- ALL PIPES TO BE LAID AT 1% MINIMUM GRADE UNLESS NOTED OTHERWISE.
- ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D. BELOW PAVEMENTS.
(NO COMPACTION REQUIRED BELOW LANDSCAPING)
COVER TO SURFACE FROM TOP OF PIPE TO BE AS PER AS3500.
BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
- DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT WITH WORK.
- PROVIDE CLEANING EYES AT ALL DOWNPIPES.
- ALL PITS TO BE PRECAST, PREFORMED OR HDPE, IN ACCORDANCE WITH LOCAL COUNCIL SPECIFICATIONS.
- ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
- ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
- PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
- ALL LEVELS SHOWN ARE TO AHD.
- ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.
- ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO uPVC.
- ALL WORKS TO BE IN ACCORDANCE WITH AS 3500-2003 NATIONAL PLUMBING DRAINAGE CODE PART 3 - STORMWATER DRAINAGE.

ONSITE DETENTION SYSTEM SUMMARY NOTES - MANLY COUNCIL

STORMWATER CONTROL ZONE	ZONE 1
RESIDENTIAL DENSITY SUB-ZONE	ZONE 7
TOTAL SITE AREA	1282 m ²
DESIGN METHOD USED	COUNCIL SPECIFICATIONS
PRE DEVELOPMENT IMPERVIOUS AREA	350 m ² (27%)
POST DEVELOPMENT IMPERVIOUS AREA	394 m ² (< 60%, EXCL POOL 47 m ²)
ADDITIONAL IMPERVIOUS AREA IS	394 - 350 = 44 m ²

AS PER THE PLANNING & STRATEGY COMMITTEE REPORT, DATED SEPTEMBER 2004, 'EXISTING DWELLINGS WITH ONE OFF EXTENSIONS BEYOND THE FOOTPRINT OF THE EXISTING DWELLING UP TO 50 SQM OVER A PERIOD OF 5 YEARS SHALL BE PERMITTED WITHOUT THE REQUIREMENT FOR OSD, WITH A MAXIMUM OF 60% TOTAL IMPERVIOUS PERCENTAGE THE CUT OFF MARK.'

AS THE SITE IS LESS THAN 60% IMPERVIOUS, OSD IS NOT REQUIRED.



450x450 PIT DETAIL

SCALE = 1 : 20

A1

NOTES:

- ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WITH WORK.
- FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: S01.



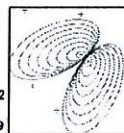
DOCUMENT CERTIFICATION

Date: SEP. '11
Bruce Lewis
(Principal - Peninsula Consulting Engineers)
BE (Civil), CP Eng, MIE Aust., NPER.
Institute of Engineers Membership No. 879131

7-09-2011	A	FOR COUNCIL SUBMISSION
Date:	Rev:	Amendment:

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The copyright of this drawing remains with Peninsula Consulting Engineers.

Project:
PROPOSED WORKS
at: 5 VISTA AVENUE,
BALGOWLAH HEIGHTS
for: SUE & DAVID SINCLAIR

Drawing Title:

CONCEPT STORMWATER MANAGEMENT PLAN & DETAILS

Job No:

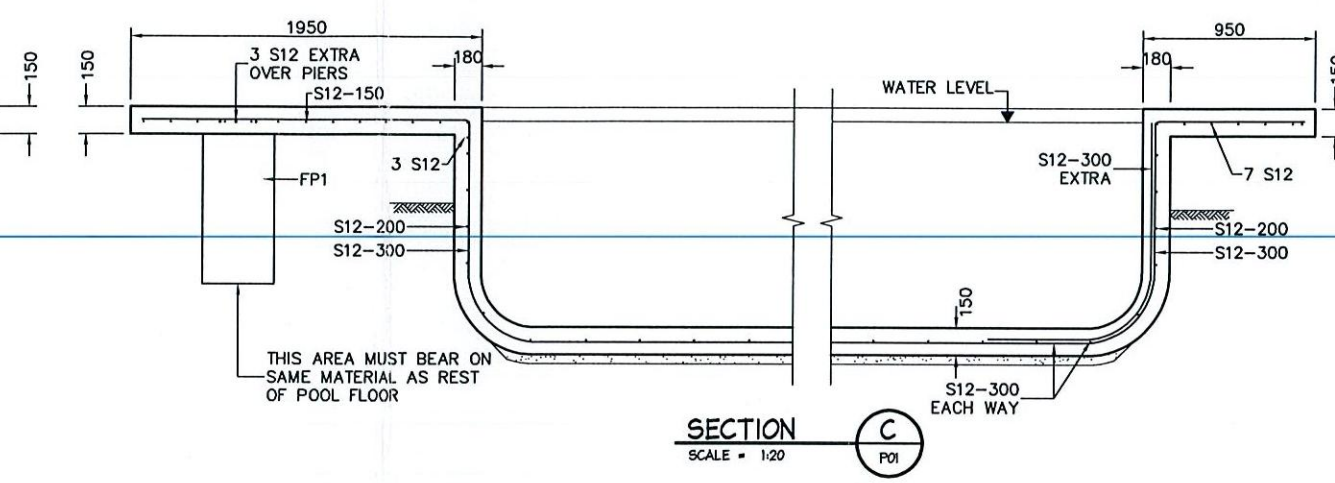
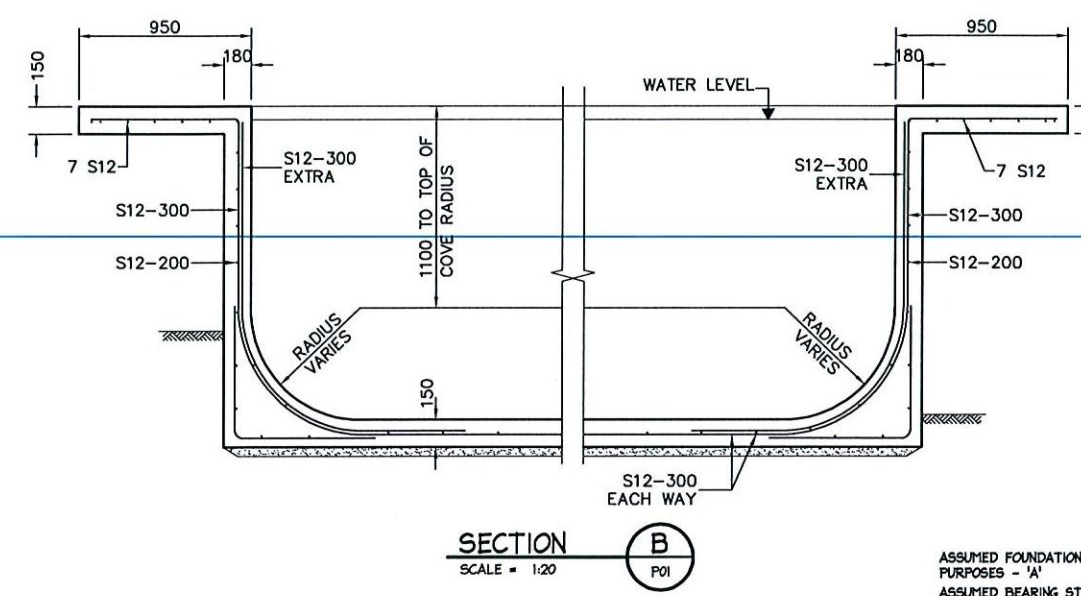
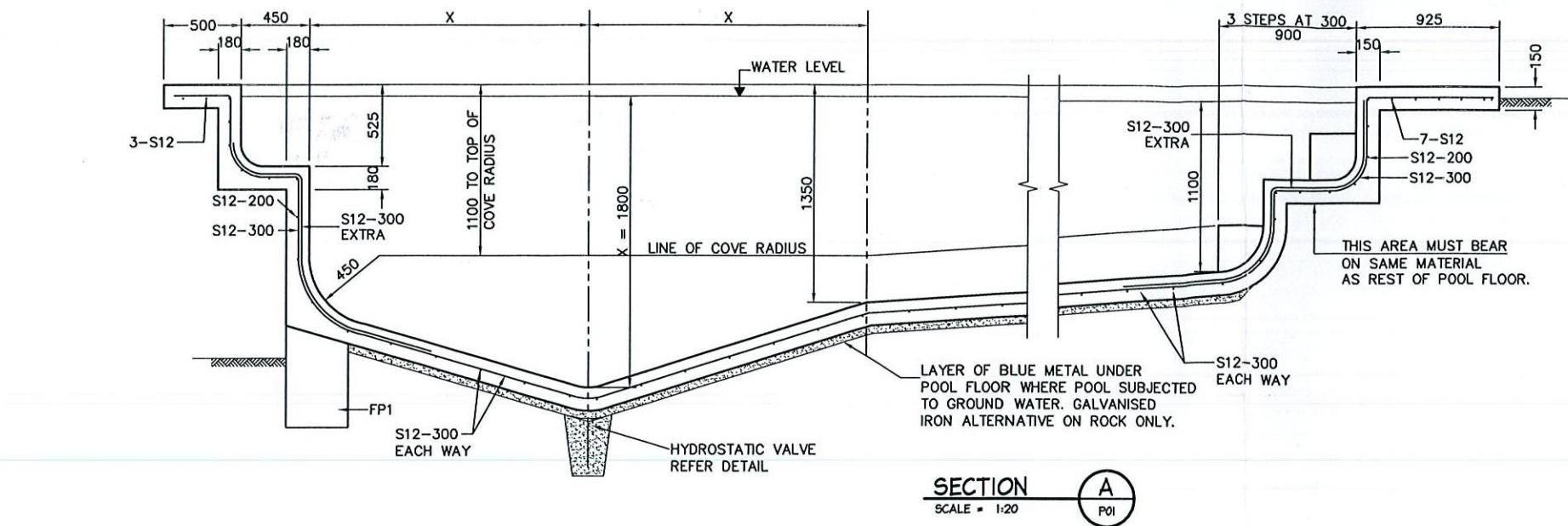
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Drawing No:

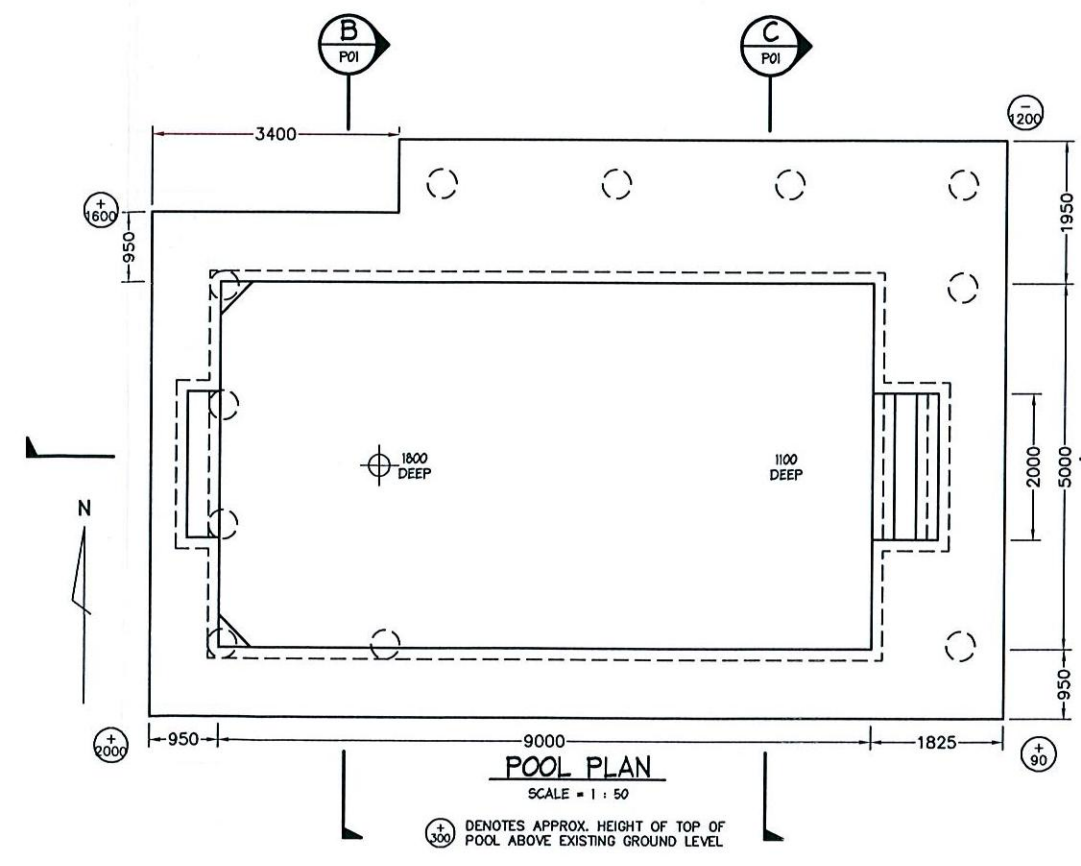
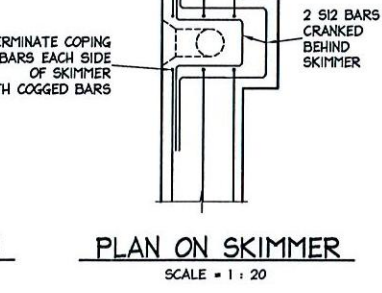
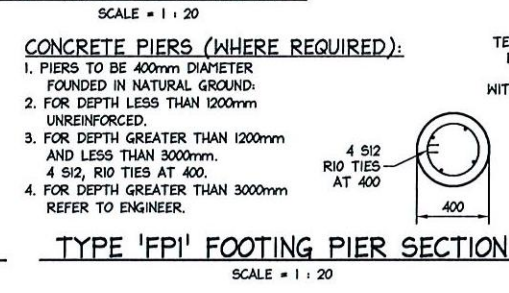
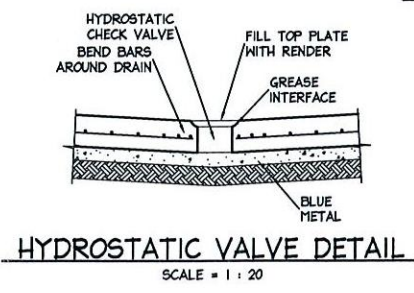
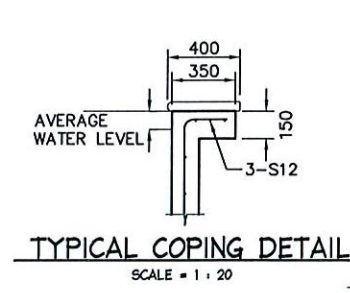
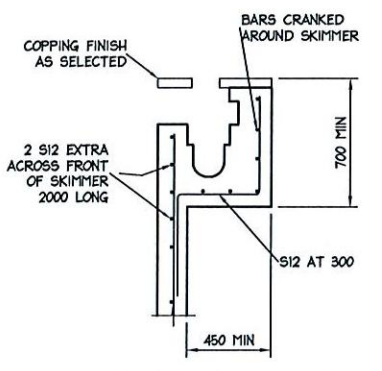
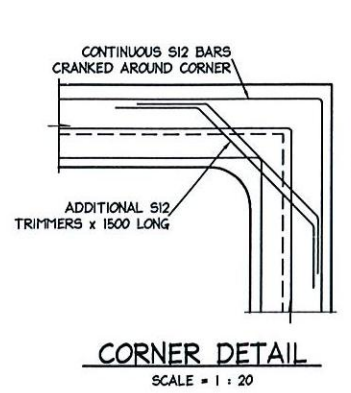
D01

Rev:

A



ASSUMED FOUNDATION CLASSIFICATION FOR DESIGN PURPOSES - 'A'
ASSUMED BEARING STRATA FOR DESIGN PURPOSES - ROCK, 600 kPa.
PREMIER POOLS TO CONFIRM ASSUMED FOUNDING MATERIAL.



POOL NOTES:
GENERAL NOTES:
G1 - Pool design and construction to be in accordance with AS 2783 (1994) and all other relevant Australian Standards.
G2 - Site plan dimensions are to the water face UNO & do not include finishes. Do not scale from the drawings. The overall dimensions shall be checked on site.
G3 - The pool foundation material must be uniform, stable, natural ground with a minimum 150 kPa safe bearing capacity. Any variations in founding material shall be immediately referred to the Engineer. Advise Engineer if excavating in fill or if ground water is encountered. The Geotechnical Engineer is to inspect all excavations to determine their suitability.
G4 - Holloways have been designed for a distributed load of 2 kPa. No additional loads are permitted without prior approval from the Engineer. The holloways have not been designed to support masonry walls unless noted otherwise.
G5 - Excavation is not permitted within 2 m of an existing structure without the prior approval of the Engineer unless shoring &/or underpinning details have been provided.
G6 - The excavation base is to be lined with a 75 mm blue metal drainage layer with forscan membrane over. If base of excavation is entirely on sand, forscan need only be applied over sand. The hydrostatic valve shall be installed at the base of the pool with blue metal all round. Refer to typical details. The drainage layer is to drain to the hydrostatic valve. The hydrostatic valve is to be cleared of all debris on completion of concreting.
CONCRETE NOTES:
C1 - All workmanship and materials shall be carried out in accordance with AS 3600 & AS 2783. Concrete design strength (F_{cd}) at 28 days to be 32 MPa.
C2 - Max. aggregate size is to be 10 mm. Max. slump 80 mm. Cement type A.
C3 - Concrete placed in contact with the (excavation) ground to have 60mm minimum cover to reinforcement. Concrete placed in contact with the water face to have 60mm minimum cover to reinforcement. Concrete placed in contact with the air to have 60mm minimum cover to reinforcement. Plumbing pipe work to be located behind reinforcement and to have minimum 65 mm cover.
C4 - Mild steel rods denoted S12 are 12mm diameter 250S Grade deformed bars. Mild steel rods denoted N12 are 12mm diameter D500N grade deformed bars. Provide 450mm minimum lap to all S12 bars. Stagger laps minimum 75 mm. Provide S12-300 reinforcement, UNO. Reinforcement to be adequately wire tied with wire ends flattened into the plane of the reinforcement.
C5 - Plastic or non-rusting chairs are to be used at a maximum of 1000 mm centres to support all reinforcement. Plastic tipped wire chairs are to be used in all out of ground walls & copings.
C6 - After concreting, the pool is to be cured for a minimum of 7 days by thoroughly wetting all concrete surfaces a minimum of twice each day. Ten days curing required in summer.
C7 - Earthing of reinforcement is required to meet AS3000.
C8 - Piers - If pool floor is partially founded on solid rock provide 400mm & concrete piers at 1500mm maximum centres to remainder of pool floor. All piers to be founded on rock. Piers up to 1.0m deep to be mass concrete. Piers between 1.0m and 2.0m deep, provide 4 S12 bars with R6 Ties at 400mm centres. Any piers over 2.0m deep to Engineers detail. For any internal piers under pool floor provide 3 S12 bars (1500mm long) at 300mm centres each way directly over piers to pool floor.
C9 - If pool founded in sand, provide S12 droppers at 300 c/c in pool walls.
OTHER NOTES:
N1 - The position of skimmers, lights, return lines, etc. on this drawing is indicative only and the final positions are to be determined in situ.
N2 - Safety fencing to meet SAA Standards is required prior to filling pool.
N3 - The pool is not designed for diving. Provide safety signage to SAA Standards.
N4 - Notify Engineer if pool is to be emptied after completion of pool.
N5 - Underwater pool lights require full immersion during use.
N6 - Mark noted 'By Others' are not included in the works.
N7 - Any Paving laid adjacent to the pool coping must have a min. 15mm wide expansion joint. All paving laid on sand shall have minimum 3mm gap between pavers. If paving is laid in mortar, expansion joints must be inserted between the paving & the pool coping.
N8 - This pool is not designed for diving. Provide safety signage to SAA codes.

Premier Pools
THE POOL PROFESSIONALS

DOCUMENT CERTIFICATION
I, Bruce Lewis, am a qualified Structural & Civil Engineer with the following qualifications:
BE(Civil), CPEng, MIEAust., NPER.
Institute of Engineers Membership No. 879131
I hereby state that this drawing is in compliance with the provisions of the Building Code of Australia and/or relevant Australian/Industry Standards.

Date: 6-09-2011
Bruce Lewis
(Principal- Peninsula Consulting Engineers.)

Date	Rev.	Amendment
6-09-2011	A	FOR CONSTRUCTION
27-08-2011	P	DRAFT

Project: **PROPOSED NEW POOL**
at: 5 VISTA AVENUE,
BALGOWLAH HEIGHTS
for: Sue & David Sinclair

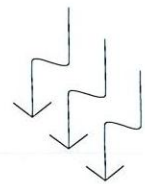
Drawing Title: **POOL STRUCTURAL**
PLAN & DETAILS

Job No: **11-0824** Drawing No: **P01** Rev: **A**

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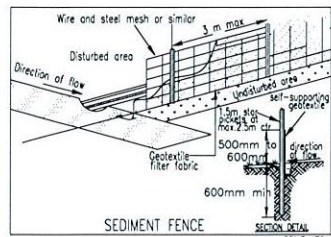
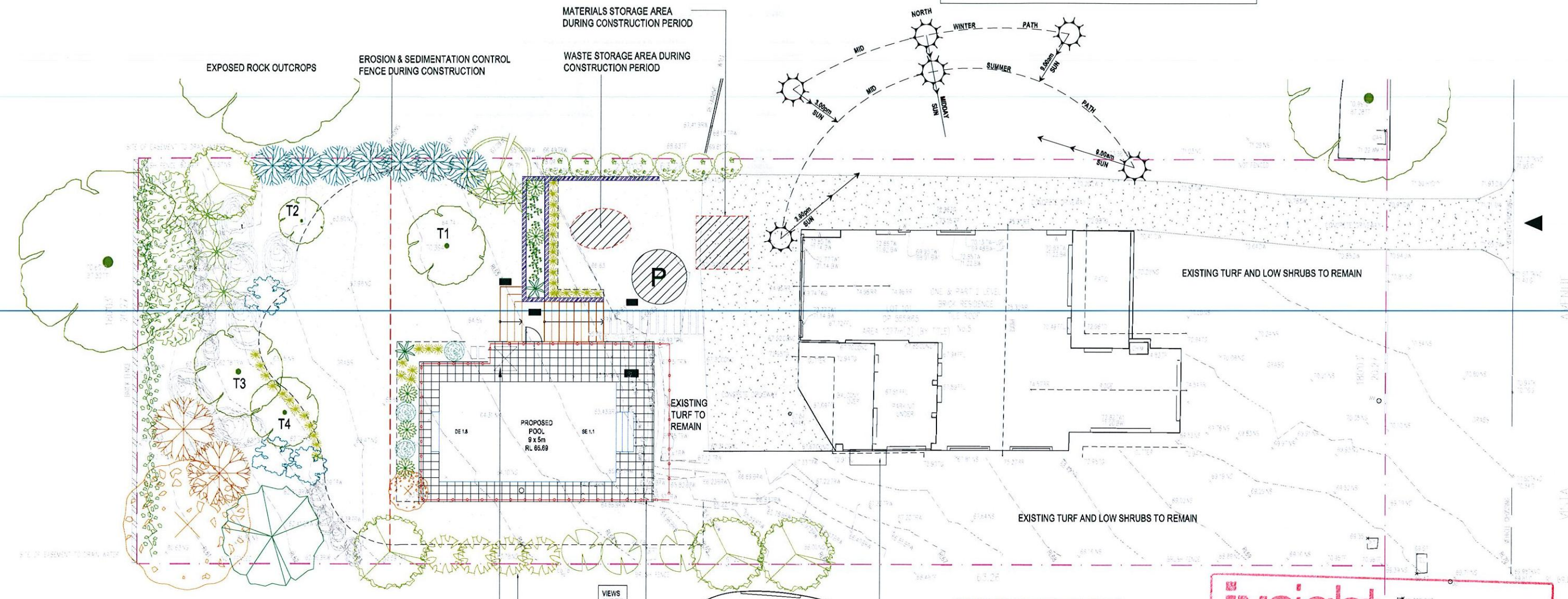
LEGEND	
	BOUNDARY
	SEWER
	EXISTING CONTOURS
	EROSION & SEDIMENTATION CONTROL FENCE
	EXISTING CONCRETE

PREVAILING SUMMER BREEZE



BASIX REQUIREMENTS	
RAINWATER TANK	THE APPLICANT MUST INSTALL A RAINWATER TANK OF AT LEAST 2975 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 50 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 66.5 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: SOLAR ONLY.

SITE ANALYSIS LEGEND			
	PRINCIPAL PRIVATE OPEN SPACE		EXISTING TREES TO BE RETAINED
	PREVAILING WIND		SITE VEHICLE ENTRY
	WASTE STORAGE AREA		MATERIALS STORAGE AREA

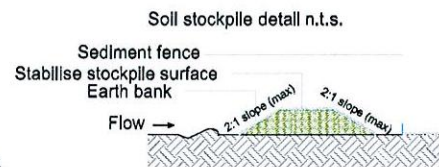


FILTER BOX LOCATED IN SOUNDPROOF BOX UNDER POOL WITH OVERFLOW RELIEF GULLY (ORG) TO BE CONSTRUCTED TO AS/NZS 3500 AND INSTALLED TO SEWER CLEANOUT POINT OFF HOUSE.

APPROPRIATE SCREEN PLANTING TO PROTECT THE PRIVACY OF ADJACENT PROPERTY

APPROXIMATE POSITION OF PROPOSED 1200mm(H) CHILDPROOF SAFETY FENCE WITH SC/SL GATE IN ACCORDANCE WITH AS 1926.1-2007 AS ADOPTED BY THE SWIMMING POOLS REGULATION 2008. A RESUSCITATION SIGN WILL BE DISPLAYED PROMINENTLY IN THE POOL AREA.

EXISTING STORMWATER DRAINPIPES TO BE RETAINED AND DIVERTED TO NEW RAINWATER TANK OF AT LEAST 2975L



1. Where possible located stockpile at least 5m from existing vegetation, water flows, roads and hazards.
2. Construct on the contour as a low, flat elongated mound.
3. Where there is sufficient area topsoil piles shall be less than 2m in height.
4. Construct earth bank (see detail) on the upslope side to divert run off around the stockpile and a sediment fence 1-2m downslope of the stockpile.

- During earthworks the following procedures shall be followed:
1. Install silt barriers where shown on plan prior to commencement of works.
 2. Silt barriers to be maintained regularly & after heavy rain by removal of built up silt & spreading silt on existing site when 50% capacity.
 3. Repair any damages to fence immediately.
 4. Clean up spillages outside silt fence immediately.
 5. Sediment control measures to be left in place until works completed.
 6. Topsoil from the work's area will be stockpiled for later use in landscaping if necessary.
 7. Approved bins for building waste, concrete and mortar slurries, paints and acid washings will be provided by contractor.

insight building certifiers pty ltd
 CONSTRUCTION CERT. NO. 2011/4486
CONSTRUCTION CERTIFICATE PLANS
 I certify that the work completed in accordance with these plans & specifications will comply with the regulations referred to in Section 81A(5) of the Environmental Planning & Assessment Act 1979
 T. Bowden 23 SEP 2011
 T. Bowden Accreditation No. BPB0042

Rev.	Date	Issue	Checked
A	23/06/11	DA Issue	BB
B	27/07/11	DA Issue	BB
C	06/09/11	CC Issue	BB



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 www.spacelandscape.com.au
 abn 50 799 663 674 acn 139 318 251

Client: Sue and David Sinclair
 Address: 5 Vista Avenue
 Balgowlah Heights

Drawn: A. ELBOZ
 Date Created: 16/06/11
 Scale: 1:100@A1
 Project No: 11594

Site: SITE ANALYSIS / SITE PLAN / STORMWATER MANAGEMENT PLAN
 Drawing No: L-01 of 3
 Rev: C

