



Anthony Protas Consulting Pty Ltd
BUILDING REGULATIONS CONSULTANTS



14 November 2011

Our Ref: 092761

The General Manager
Pittwater Council
PO Box 882
Mona Vale NSW 1660

Dear Sir,

**Re: 42 Sunrise Road, Palm Beach
Occupation Certificate**

Pursuant to the requirements of the Environmental Planning and Assessment Act please find attached a copy of our Occupation Certificate and other relevant documents.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours faithfully

Anthony Protas
Anthony Protas Consulting Pty Ltd

\$36 REC: 312927 16/11/11.



Occupation Certificate

1. Details of the applicant

Mr Ms Mrs Dr Other **Susan Rothwell Architects**

First name Family name

Flat/street no. Street name

38 **Serpentine Road**

Suburb or town State Postcode

Greenwich **NSW**

Daytime telephone Fax Mobile

2065

Email

2. Details of the building

Flat/Street no. Street name

42 **Sunrise Road**

Suburb or town Postcode

Palm Beach **2108**

Description of the building or part of the building

New multi level dwelling and swimming pool

Lot no. Section

152

DP/MPS no. Volume/folio

6973

Development application or complying development certificate no.

528/07

3. Decision of the certifying authority

Type of certificate issued:

an interim occupation certificate

a final occupation certificate

Date of this decision

14 November 2011

4. Information attached to this decision

- The final fire safety certificate or an interim fire safety certificate (as relevant)
- Other relevant paperwork

Final occupation certificate**Anthony Protas**

certifies that:

- a current development consent has been granted for the development
- a current complying development certificate has been issued for the development
- a current construction certificate has been issued with respect to the plans and specifications for the building
- the building is suitable for occupation or use in accordance with its classification under the Building Code of Australia as a class **1a & 10b** building
- a final fire safety certificate has been issued for the building
- a final report from the Commissioner of Fire Brigades has been considered.

Occupation certificate no.

OC 2761/09

Date of the certificate

14 November 2011**Signature**

For this certificate to be valid, it must be signed by the certifying authority.

Signature



Name

Anthony Protas

Flat/Street no.

Locked Bag 1001

Street name

Suburb or town

Wareemba

State

NSW

Postcode

2046

Telephone

9715 5333

Fax

9715 5666

If the certifier is an accredited certifier:

Accreditation body of the certifier

Building Professionals Board

Accreditation no. of the certifier

BPB0332

Anthony Protas Consulting Pty Ltd

A.B.N 37 079 830 756

BUILDING REGULATIONS CONSULTANTS

Suite 1, 104 William Street, Five Dock NSW 2046
 Locked Bag 1001, Wareemba NSW 2046
 Telephone: (0 2) 97 15 5333 Fax: (0 2) 97 15 5666
 e-mail: mail@protas.net.au
 web: www.protas.net.au

Construction Certificates
 Occupation Certificates
 Compliance Certificates
 Building Audits
 Design Assessment
 Regulations Advice

INSPECTION REGISTER

Anthony Protas
 Accreditation Number BPB0332 (Building Professionals Board)

DA No. 528/07

CC No. 2761/09

Address: 42 Sunrise Rd, Palm Beach

Inspection	Date	Result	Inspected By
Commencement / Excavation	12/7/09	OK.	[Signature]
Pool Steel	13/7/09	Engineer to certify.	[Signature]
Footings	21/7/09	Engineer to certify	[Signature]
Basement steel	15/12/09	Engineer to certify	[Signature]
LG Slab	9/2/10	Engineer to certify.	[Signature]
GF Slab	29/4/10	Engineer to certify.	[Signature]
FF Slab	27/7/10	Engineer to certify	[Signature]
Roof Slab	1/9/10	Engineer to certify	[Signature]
Pool fence	11/9/10	OK.	[Signature]
WTF	19/10/10	OK. Insulation to be certified	[Signature]
SPW Connection	19/10/10	OK.	[Signature]

Final

21/11/10 OK - Subject to paperwork.

[Signature]

Duncan Bray MA (Eng) OXON AMICE MIE (Aust) BPEQ
80 Great Buckingham Street
Redfern N.S.W 2016
Tel: (02) 9319 1067, Mbl: 0427 808880
Fax: (02) 9319 0750
email: duncanbray@tpg.com.au

Ref: 3758

October 12, 2011

Mrs.Susan Rothwell
Susan Rothwell & Associates
38 Serpentine Road
GREENWICH
NSW, 2065

Dear Sir,

Completion Certificate

Alterations to 42 Sunrise Road, Palm Beach

All structural elements of this building were inspected during construction and reinforcement was checked prior to pouring of concrete slabs and footings.

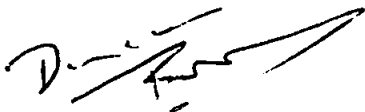
We consider the structure to be structurally adequate to carry the expected dead and live loads in accordance with:

Australian Standard 1170 Part 1	SAA Loading Code	Dead & Live loads
Australian Standard 1170 Part 2	SAA Loading Code	Wind Loads

We certify items have been built in accordance with Structural drawings itemised on the attached list..

Site inspections are listed on a separate list, together with the original Construction Certificate.

Yours faithfully



Duncan Bray
Structural Engineer

Duncan Bray MA (Eng) OXON AMICE MIE (Aust) BPEQ
80 Great Buckingham Street
Redfern N.S.W 2016
Tel: (02) 9319 1067, Mbl: 0427 808880
Fax: (02) 9699 4849
email: duncanbray@bigpond.com

Ref: 3758

October 19, 2011

Mrs. Susan Rothwell
Susan Rothwell & Associates
38 Serpentine Road
GREENWICH
NSW, 2065

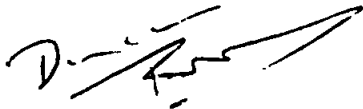
Dear Sir,

Completion Certificate
Alterations to 42 Sunrise Road, Palm Beach

All structural elements of this building were inspected during construction and reinforcement was checked prior to pouring of concrete slabs and footings.

Works in the public road reserve, as detailed on Structural Drawings S2-01 C2 and S2-02 C2, were also inspected and considered satisfactory.

Yours faithfully



Duncan Bray
Structural Engineer



Our Reference: SY070315

20 October 2011

Susan Rothwell and Associates
38 Serpentine Road (Lower)
GREENWICH NSW 2065

Attn: Mr Will Rothwell

Dear Mr Rothwell

**Re: Sunrise Parade 42 Palm Beach
Stormwater Completion Certification**

Further to Condition E3 of the Development Consent for the above project, we have reviewed photos and an as-built drawing provided by you and the Builder, Mr Nathan Lovett of Lovett Building, related to the site stormwater system.

Based on this information, we confirm that the stormwater on-site detention system has been completed generally in accordance with the engineering drawings for the site and will operate in accordance with the design intent. In turn, the engineering drawings were based on Council requirements, as certified in ACOR's previous letter dated 24 October 2008.

Stormwater Works: Drawing No SY070315 C1.01

ACOR Consultants possesses indemnity insurance to the satisfaction of the building owner or our principal.

Please note that this certification does not relieve the Builder, the property owner or other interested parties from their responsibilities in relation to this project.

Yours sincerely,
ACOR Consultants Pty Ltd

Bjorn Jensen
Associate
Senior Civil Engineer

ACOR CONSULTANTS PTY LTD
ENGINEERS
MANAGERS
INFRASTRUCTURE PLANNERS
SYDNEY-BRISBANE-NEWCASTLE
ACN 079 306 246
ABN 26 522 454 721
Level 1, 24 Falcon Street
PO Box 822
Crows Nest NSW 2065
TEL 02 9438 5098
FAX 02 9438 5398
acor@acor.com.au

ACOR Consultants Pty Ltd

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Page 1 of 1



PITTWATER COUNCIL

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER FORM NO. 3 – Post Construction Geotechnical Certificate to be submitted with Occupation Certificate or Subdivision Certificate

Development Application for Mrs POTHWELL
Name of Applicant

Address of site 42 SUNRISE RD, PALM BEACH

Declaration made by geotechnical engineer on completion of the Development

I, AGI ZENON on behalf of Jeffery & Kolauskas Pty Ltd
(Insert Name) (Trading or Company Name)

on this the 21 JULY 2011

certify that I am a Geotechnical Engineer, Engineering Geologist and/or Coastal Engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009. I am authorised by the above organisation/company to issue this document and to certify that the organisation/company has a current professional indemnity policy of at least \$2million. I prepared and/or verified the Geotechnical Report as per Form 1 dated 21 OCT 08 referred to below.

Geotechnical Report Details:

Report Title: Geotech Assessment, Proposed New House
Report Date: 4 Sept 07 Report Ref. No: 21120WZ cpt2
Author: A. Zenon
Author's Company/Organisation: Jeffery + Kolauskas

~~We~~^{footing} reviewed the original structural design, and where applicable the subsequently amended structural details (below listed) which have been incorporated into the completed project.

~~We~~^{are} have inspected and ~~are~~^{am} satisfied that the foundation materials, upon which the structural elements (as detailed in the original and amended structural documents) of the development have been erected, comply with the requirements specified in the Geotechnical Report and the Construction Certificate approved Structural Plans.

~~We~~^{are} have inspected the site during construction and to the best of ~~my~~^{our} knowledge, ~~I~~^{we} am/s are satisfied that the development referred to in the development consent D.A. dated (D.A.No) (Date consent given)

has been constructed in accordance with the intent of the Geotechnical Report, ~~the requirements of the conditions of Development Consent and the Construction Certificate approved Structural Plans relating to the geotechnical issues (including any treatment and/or maintenance plan that may be required to remove risk where reasonable and practical).~~

~~We~~^{are} am aware that Pittwater Council require this certificate prior to issuing an occupancy certificate for the development identified above and will rely on this certificate in regard to the development having achieved the "Acceptable Risk Management" criterion defined in the Policy and that reasonable and practical measures have been taken to remove foreseeable risk. *as indicated in the Report.*

List of all work as executed drawings and Ongoing Maintenance plans relevant to geotechnical risk management.

Drops of 42-102E, 103E, 104E & 105E by Susan Rothwell Architects
As built buried pipes (copy attached).

Signature AGI ZENON

Name AGI ZENON

Chartered Professional Status CPEng FIEDUST

Membership No. 213 297 1

Company Jeffery & Kolauskas Pty Ltd

LOVETT BUILDING COMPANY PTY LTD

29/14 Polo Avenue

Mona Vale NSW 2103

Telephone: (02) 9999 2117

Mobile: 0414 255 173

Fax: (02) 9997 8170

19th October 2011

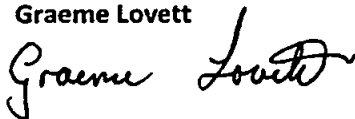
CERTIFICATE OF COMPLIANCE

WATERPROOFING

Re: 42 Sunrise Road Palm Beach

This is to certify that Lovett Building Company Pty Ltd completed internal Waterproofing at the above address in accordance with the Australian Standard.

Graeme Lovett



Vision Glass Pty Ltd

Frameless Glass Installations

October 19, 2011

CERTIFICATE OF CONFORMANCE

*The toughened & laminated glass products supplied by Vision Glass to
42 Sunrise Road, Palm Beach for showerscreens, balustrades and roofing
were purchased from Bevelite Glass Pty Ltd of 140 Gliba Road, Girraween NSW
and Sydney Glass Pty Ltd of 30 Short Street, Bankstown NSW respectively
and comply with Australian Standards AS 2208 - 1978, with reference to thickness limits
and fragmentation, safety glazing materials for use in buildings (Human impact considerations)*

Further, the installation of glass complies with AS 1288

Yours sincerely,



David Bevern

ABN 64 118 791 861
P.O. Box 1334, Dee Why 2099
Phone: 9970 6034 - Fax: 9913 8399 - Mobile: 0411 846 334
email: visionglass@optusnet.com.au



Makers of
QUALITY
TIMBER
WINDOWS
AND DOORS

18th October 2011

Lovett Building Company Pty Ltd
29/14 Polo Avenue
Mona Vale NSW 2103

By Email

Dear Graeme,

This letter is to certify that glazing in windows and doors supplied by Windoor Pty Ltd to the property at *42 Sunrise Road, Palm Beach* have been glazed in accordance with Building Code of Australia (BCA) Volume 2 clause 3.6 Glazing.

As required by the BCA, the glazing in these windows and doors meet Australian Standard AS 1288:2006 for application in Climate Classification N2.

Should you have any queries please do not hesitate to contact us on (02) 9833-6900.

Yours faithfully
WINDOOR PTY LIMITED

Per:

A handwritten signature in black ink, appearing to read "Ian Dolan".

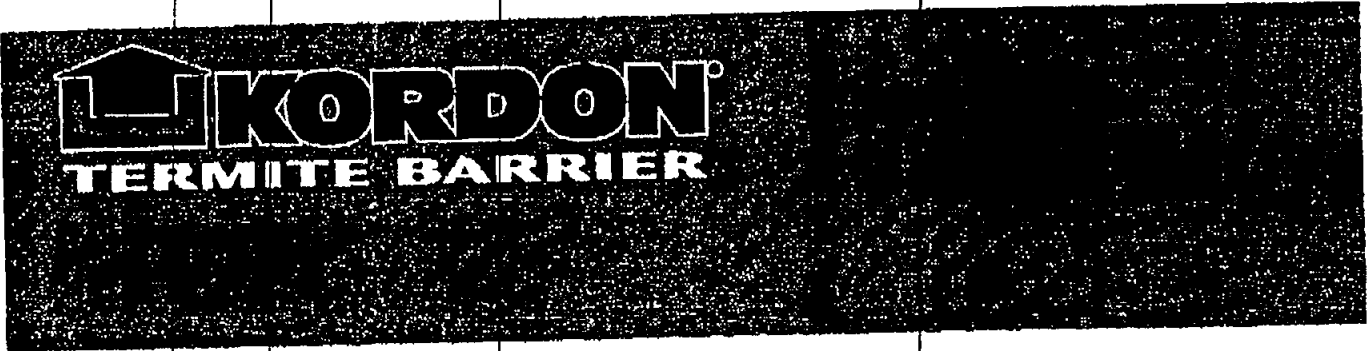
IAN DOLAN
Managing Director

WINDOOR PTY LTD
ACN 003 495 118
ABN 50 003 495 118

18 Anne Street
St Marys
NSW 2760

PO Box 794
St Marys
NSW 1790

T> 9623 2911
F> 9623 0170
E> sales@windoor.com.au



Warranty No: 2011-10-1672

This Warranty covers damage by Subterranean Termites ("Termites") only. Bayer warrants that Kordon shall restrict the entry of Termites into the Building through the Kordon barrier for a period of ten (10) years from the date of installation ("Warranty Period").

This Warranty covers damage by Termites to structural timbers and internal timbers BUT DOES NOT INCLUDE damage by Termites to:

- (a) chattels of any nature whatsoever including (but without limiting the foregoing) antiques, heirlooms, paintings, artwork and paintings; and
- (b) any pergolas, wiring, extensions to the Building and outhouses.

If Termite infestation of the Building occurs as a result of the failure of the Kordon and damage by Termites is caused to structural timbers and/or internal timbers fixtures and fittings during the Warranty Period, Bayer will without charge to the Owner:

- (a) repair the Kordon barrier where practicable; and/or
- (b) cause the repair or replacement of structural timbers and/or internal timbers so damaged.

To the extent permitted by the Law of the State or Territory in which the premises are located:

- (a) the liability of Bayer under this Warranty is limited to a maximum of \$100,000.00 in respect of any one (1) warranty claim.
- (b) All representations and other warranties express or implied and whether arising by virtue of Statute or otherwise are excluded or limited as stated in this Warranty.

This Warranty shall only have effect if the Kordon is installed by an Accredited Bayer Installer.

OWNERS RESPONSIBILITIES

The Owner of the Building during the Warranty Period ("Owner"), at the Owner's expense, arrange for thorough and regular inspection of the Building for the presence of Termites at intervals not exceeding 12 months by an accredited/licenced Timber Pest Inspector.

Where the Termite risk is high or the Building type is susceptible to Termite attack (e.g. North of the 26th parallel) more frequent inspections (3-6 months) should be undertaken.

These inspection recommendations comply with those outlined in AS 3660 Termite Management Series and AS 4349.1-1995, Inspection of buildings.

If Termites are detected or are found to have breached the Kordon barrier, the Owner must, within 7 days of such detection, notify Bayer

Bayer Environmental Science, 391-393 Tcoronga Rd, Hawthorn East, VIC, 3123

EXCLUSIONS

This Warranty shall be void and have no effect in any of the following circumstances:

The Kordon barrier is damaged, modified, bridged or otherwise interfered with by any person or any act, fact, matter or thing beyond the reasonable control of Bayer. The Building is structurally modified, altered or otherwise changed in any way which would or may diminish the effectiveness of the Kordon as a Termite barrier. If at any time during the Warranty Period, the Owner

- (a) allows or fails to prevent accumulation of:
 - (i) wood, rubbish or timber against the Building; AND
 - (ii) finished ground level around the Building to a height which does not comply with the terms of the Installation Manual.
- (b) allows the barrier dividing the soil surface and the structure of the Building formed by the Kordon to be bridged or broken by any other material or matter through which Termites may by-pass the Kordon and infest the Building.

Termites shall enter the Building through any manner other than by a breach of the Kordon barrier. If the Kordon is installed other than by an Accredited Bayer Installer.



Date of Installation: 14/08/2010

Installation Address: 42 Sunrise Road
Palm Beach
NSW, 2108

Company Contact: John Parkins
Company Name: Alliance First

Address: 14 Hogan Street
Balgowlah Heights
NSW, 2093

Phone Number: 0418 427 192

Accreditation Number: N144

THIS WARRANTY SHALL BE VOID UNLESS THE KORDON HAS BEEN INSTALLED BY A BAYER ACCREDITED INSTALLER.

Bayer will grant additional specific warranty conditions where required to accommodate high density, commercial constructions, government buildings, etc on documented request.



NOTE: This document is to be attached to Warranty Document Number: 2011-10-1672

Date of Installation: 14/08/2010
 Installation Address: 42 Sunrise Road
Palm Beach
NSW, 2108

Job Type: Large Job - Miscellaneous

Builder: Lovett Building Company
 Phone number: 0414 255183
 Owner: Susan Rothwell
 Phone number: 0414 255183
 Local Council: Pittwater Council
 Phone number: 02 99701111
 Company Contact: John Parkins
 Installer's Name: John Parkins
 Company Name: Alliance First

Product used:

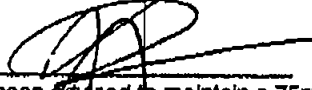
Linear Metres (m)	Product Width (mm)	Total SQM
113.9	300	34.17
1.02	450	0.46

Address: 14 Hogan Street
Balgowlah Heights
NSW, 2093

Service Penetrations

Kordon Collars	14	1.40
Manual Collars	0	0.00
Total Kordon Installed:		36.03

Phone Number: 0418 427 192
 Fax Number: 02 9907 8557
 Accreditation Number: n144

Authorised Signature: 

Date: 19/10/2011

Comments: The builder has been advised to maintain a 75mm or hard surface inspection zone around the building perimeter.
 Kordon will only protect areas where the product is installed.
 Regular termite inspections as per the Australian Standard are recommended.
 Kordon is installed to the service penetrations and perimeter as per the manufacturers specifications. Refer to the site installation drawing for details.
 No pre installation site inspection report as recommended by AS3660.1 was carried out.

synergy

Wednesday, October 19, 2011

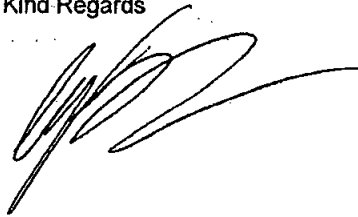
Mr. Graham Lovett
Lovett Building Company
29/14 Polo Avenue
Mona Vale NSW 2103

RE: AS3786 and AS3000.

Dear Graham

Confirming that the recent electrical work at number 42 Sunrise Rd, Palm Beach NSW 2108 complies with AS3000 and all local electrical service rules and that 240V hardwired smoke detectors have been wired and installed to AS3786.

Kind Regards



Clayton Brown

S U S A N R O T H W E L L
A R C H I T E C T S
38 SERPENTINE ROAD, GREENWICH N.S.W. 2065 TEL. (02) 9439 2380 FAX: (02) 9901 3185

Anthony Protas Consulting
Locked Bag 1001
Wareemba NSW 2046

29.07.11

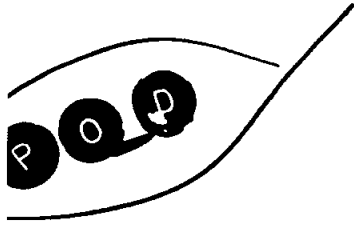
RE: DA 528/07 42 Sunrise Rd Palm Beach condition E12.

We write to confirm that all of the BASIX requirements at the above address have been satisfied, including:

- 300m2 of low water use species
- Min. 3 star showerheads
- Min. 4 star toilet systems connected to rainwater tank
- Min 5 star kitchen taps
- Min 5 star basin taps
- On demand gas hot water system 26-30 RECs
- Minimum 5,000l rainwater & 4000l stormwater tanks
- Tap located within 10m of swimming pool connected to rainwater tank
- 6 star air conditioning for heating / cooling
- Ventilation requirements
- LED lighting throughout
- 1.5 peak kilowatt photovoltaic system
- Swimming pool max 110kl
- Outdoor clothesline



Regards,
Will Rothwell



Landscape Practical Completion Report– 42 Sunrise Road Palm Beach

17.06.2011

To Whom it may concern.

This is a letter to certify that Pod Landscaping has both undertaken & completed all landscape works at 42 Sunrise road Palm Beach.

All landscape works have been executed in accordance with all relevant working drawings & specifications as illustrated on Susan Rothwell Architects Landscape Plan sr42-106, approved by Pittwater Council.

Pod Landscaping also verifies that there has been no damage to existing street trees (all listed Melaleuca quinquenervia) during building & landscape works at 42 Sunrise road.

The road reserve has been remediated with new 'soft leaf' buffalo turf laid to road edge.

This letter also certifies that all Bushland Management requirements have been met.

All noxious & environmental weeds as listed on the Pittwater Council noxious weed list have been removed from site by hand & chemical eradication methods.

All adjoining bushland is in the same condition as it was deemed prior to commencement of development.

Benjamin Kaye

Director

PITTWATER COUNCIL

PFN-1
Component Certificate
For
Pool Filter Noise

Property **42 SUNRISE ROAD, PALM BEACH, NSW 2108**

D/A No **N0528/07**

CC No

I **Richard Haydon**
(Name)

of

Acoustic Dynamics P/L
(Business)

at **PO BOX 270 NEUTRAL BAY NSW 2089**
(Mailing Address)

being a qualified acoustic engineer, my qualifications being:

BE(Mech)(Usyd), MIEAust, MAAS
Corporate Member AAAC

hereby certify that I have taken noise readings at the site and it has been determined that the **maximum noise level associated with the pool filter does not exceed 5dB(A) above ambient background level**, when measured from any adjoining premises.

Further, I am appropriately qualified and experienced to provide the certification for this component of the project.

Signature



Date **29 July 2011**





Project 2953
29 July 2011

Mr Will Rothwell
Susan Rothwell Architects Pty Ltd
38 Serpentine Road
GREENWICH NSW 2065

Email: willrothwell@email.com.
Ph: 0411 745 051
Fx: 02 9012 0250

Dear Mr Rothwell

**42 SUNRISE ROAD PALM BEACH – POOL EQUIPMENT
NOISE EMISSION ASSESSMENT FOR OC**

1 INTRODUCTION

Acoustic Dynamics is engaged by Susan Rothwell Architects to measure and assess noise emission resulting from the operation of the pool and spa equipment located at 42 Sunrise Road, Palm Beach, NSW, in accordance with the various planning requirements for the subject development.

Acoustic Dynamics has carried out relevant noise measurements and testing to determine the noise contribution from the pool and spa equipment, when measured at adjacent receiver locations.

2 DESCRIPTION OF DEVELOPMENT AND LOCATION

Acoustic Dynamics advises that the approved residential development at 42 Sunrise Road, Palm Beach, included the development of a swimming pool, and installation of associated pool filtration, cleaning, spa and heating equipment.

We advise that the following pool and spa equipment has been located within a mechanical plant room located below the pool. Acoustic Dynamics is advised that the following items of pool and spa equipment are installed:

- 4x Pool pumps for various pool equipment (located within the plant room);
- Various filtration equipment (located within the plant room); and
- 1x Gas heater (located outside the plant room).

Acoustic Dynamics understands the subject pool equipment is operated on electronic timing devices and is not used during the night-time hours (between 8pm and 7am (8am on weekends)).



The subject site has a single road frontage to Sunrise Road, to the south. All other boundaries are shared with adjacent residential lots, at 42A Sunrise Road, 44 Sunrise Road, 1174A Barrenjoey Road, and 40 Sunrise Road. The subject pool is located near the northern boundary of the site.

The subject site is shown in the Location Map and Aerial Photograph presented within **Appendix A**.

3 RELEVANT NOISE CRITERIA

Acoustic Dynamics is not in receipt of the Conditions of Consent for this matter, however we understand that Pittwater Council consent conditions such DA's typically require:

“Matters to be incorporated into the development and maintained over the life of the development:

Noise from the operation of any plant or equipment at the premises shall not exceed 5dB(A) above the background noise level.

Matters to be satisfied prior to the issue of Occupation Certificate:

A qualified acoustic engineer is to certify that the maximum noise level associated with the pool filter does not exceed 5dB(A) above ambient background level, when measured from any adjoining premises.”

Acoustic Dynamics has conducted a review of Pittwater Council's various planning and control instruments, including the Pittwater Local Environmental Plan (PLEP) 1993 and various Development Control Plans (DCPs). The relevant acoustic criteria, relating to noise emission associated with the operation of pool and spa equipment, are reproduced below.

Acoustic Dynamics review of the Pittwater LEP (1993) did not yield any specific criteria relating to noise emission associated with the operation of pool and spa equipment at a residential development.

Acoustic Dynamics review of the Pittwater 21 DCP (as amended) yielded the following acoustic criteria, relating to noise emission associated with the operation of pool and spa equipment, were identified:

“PART C

C1 DESIGN CRITERIA FOR RESIDENTIAL DEVELOPMENT

C1.6 Acoustic Privacy

Outcomes



Noise is substantially contained within each dwelling and noise from any communal or recreation areas are limited. (S)

Noise is not to be offensive as defined by the Protection of the Environment Operations Act 1997, including noise from plant, equipment and communal recreation areas (S)

Controls

Noise generating plants including pool/spa motors, air conditioning units and the like shall not produce noise levels that exceed 5dBA above the background noise when measured from the nearest property boundary.

C1.13 Pollution Control

Controls

Residential premises must not be designed, constructed, maintained and used in a proper and efficient manner to prevent air, water, noise and/or land pollution.

Developments must comply in all respects with the Protection of the Environment Operations Act, 1997, and other relevant legislation.

In addition to the above, the NSW Protection of the Environment Operations (Noise Control) Regulation 2008 requires compliance with the following legislative criteria:

"Division 2 Use of articles

Subdivision 1 Time limits on the use of certain articles

52 Air conditioners and heat pump water heaters

- (1) *A person must not cause or permit an air conditioner or heat pump water heater to be used on residential premises in such a manner that it emits noise that can be heard within a habitable room in any other residential premises (regardless of whether any door or window to that room is open):*

 - (a) before 8 am or after 10 pm on any Saturday, Sunday or public holiday, or*
 - (b) before 7 am or after 10 pm on any other day.*

- (2) *A person is not guilty of an offence under subclause (1) in relation to a heat pump water heater if the conduct alleged to give rise to the offence occurs within 6 months after the commencement of this Regulation.*

- (3) *A person is not guilty of an offence under subclause (1) unless:*

 - (a) the person has, within 7 days after causing or permitting an air conditioner or heat pump water heater to be used in such a manner, been warned by an authorised officer or enforcement officer not to cause or permit the air conditioner or heat pump water heater to be used in that manner, and*



(b) *the person causes or permits an air conditioner or heat pump water heater to be used in that manner within 28 days after the warning has been given.*

(4) *In this clause:*

heat pump water heater means a device that heats water using the energy generated from the compression of a gas.”

52 Air conditioners and heat pump water heaters

(1) *A person must not cause or permit an air conditioner or heat pump water heater to be used on residential premises in such a manner that it emits noise that can be heard within a habitable room in any other residential premises (regardless of whether any door or window to that room is open):*

- (a) *before 8 am or after 10 pm on any Saturday, Sunday or public holiday, or*
- (b) *before 7 am or after 10 pm on any other day.*

(2) *A person is not guilty of an offence under subclause (1) in relation to a heat pump water heater if the conduct alleged to give rise to the offence occurs within 6 months after the commencement of this Regulation.*

(3) *A person is not guilty of an offence under subclause (1) unless:*
(a) *the person has, within 7 days after causing or permitting an air conditioner or heat pump water heater to be used in such a manner, been warned by an authorised officer or enforcement officer not to cause or permit the air conditioner or heat pump water heater to be used in that manner, and*
(b) *the person causes or permits an air conditioner or heat pump water heater to be used in that manner within 28 days after the warning has been given.*

(4) *In this clause:*

heat pump water heater means a device that heats water using the energy generated from the compression of a gas.”

4 MEASUREMENT STANDARDS AND EQUIPMENT

All measurements were conducted in general accordance with Australian Standard 1055.1-1997, “Acoustics - Description and Measurement of Environmental Noise Part 1: General Procedures”. Acoustic Dynamics’ sound measurements were carried out using precision sound level meters conforming to the requirements of AS 1259-1990 “Sound Level Meters”.

The survey instrumentation used during the survey is set out in **Table 4.1**.



Table 4.1 Noise Survey Instrumentation

Type	Serial Number	Instrument Description
2260	2413547	Brüel & Kjaer Modular Precision Sound Level Meter
4189	2607949	Brüel & Kjaer 12.5 mm Prepolarised Condenser Microphone
4231	1730737	Brüel & Kjaer Acoustic Calibrator

The reference sound pressure levels were checked prior to and after all measurements using the relevant acoustic calibrator and remained within acceptable limits.

5 EQUIPMENT NOISE MEASUREMENTS AND ASSESSMENT

Acoustic Dynamics' conducted a site visit and inspection of the installed items of pool and spa equipment on Tuesday 7 June 2011. Noise emission measurements were conducted to determine the noise contribution of the installed pool and spa equipment, including the cleaning pumps and heating pumps, at adjacent receiver locations. Ambient background noise measurements were also conducted, during the late evening hours, to determine the background noise environment in the absence of noise emission from the subject installed equipment.

Acoustic Dynamics advises that the background noise measurements undertaken are representative of the quietest background noise levels during the period in which the subject equipment operates. The measurements were conducted on a calm, clear evening, with little or no insect and fauna noise.

Further to Acoustic Dynamics' background noise measurements, the following summary information is provided:

- An evening background L_{A90} noise level of **39 dB(A)** was measured at around 9pm at the nearest residential receiver locations;

Further to these measurements and Council's consent conditions, the following is derived:

- The criterion for noise emission from the subject pool and spa equipment for daytime and evening (7:00am to 8:00pm)* operation is an L_{Aeq} of **44 dB(A)** at the nearest residential receiver locations and an L_{Aeq} of **39 dB(A)** for night-time operation. (*Note: 8:00am to 8:00pm on Sundays and public holidays)

Acoustic Dynamics understands:

- The subject pool and spa equipment is operated on an electronic timing device and the heater is not used during the night-time hours (between 8pm and 7am (8am on weekends)).

Noise emission associated with the operation of the relevant equipment was measured and assessed during our survey, between 8:45pm and 9:45pm on Tuesday 7 June 2011.



Noise emission measurements were taken at the boundary of the nearest residential receiver, along the western boundary of the subject development site (44 Sunrise Road, Palm Beach). All equipment was operated at maximum capacity, for the purpose of our measurements.

Acoustic Dynamics' measurement results are provided within **Table 5.1** along with an assessment against the relevant noise emission criteria.

Table 5.1 Equipment Noise Measurement Results

Location	Equipment Operating	Measured L_{Aeq} Noise Level [dB(A)]	Calculated Contributed L_{Aeq} Noise Level [dB(A)]	Relevant L_{Aeq} Criterion [dB(A)]	Complies with Daytime & Evening Criterion?
Boundary of 44 Sunrise Rd	All Pool Equipment (excl. heater and pump)	40	<35	44	Yes
	All Pool Equipment (excl. heater and pump)	41	<36	44	Yes

Notes: 1) Noise level is controlled by extraneous noise in the area.

5 DISCUSSION AND CONCLUSION

Acoustic Dynamics has assessed the noise emission associated with the operation of pool and spa equipment located at 42 Sunrise Road, Palm Beach, NSW, in accordance with Pittwater Council's requirements.

Acoustic Dynamics' noise measurements indicate noise emission resulting from the concurrent operation, at maximum capacity, of all items of pool and spa equipment complies with Pittwater Council's relevant noise assessment criteria during daytime and evening hours, when measured at the adjacent residential boundary locations.

Accordingly, we attach the following component certificate:

1. Pittwater Council Component Certificate – Pool Filter Noise (PFN-1); and

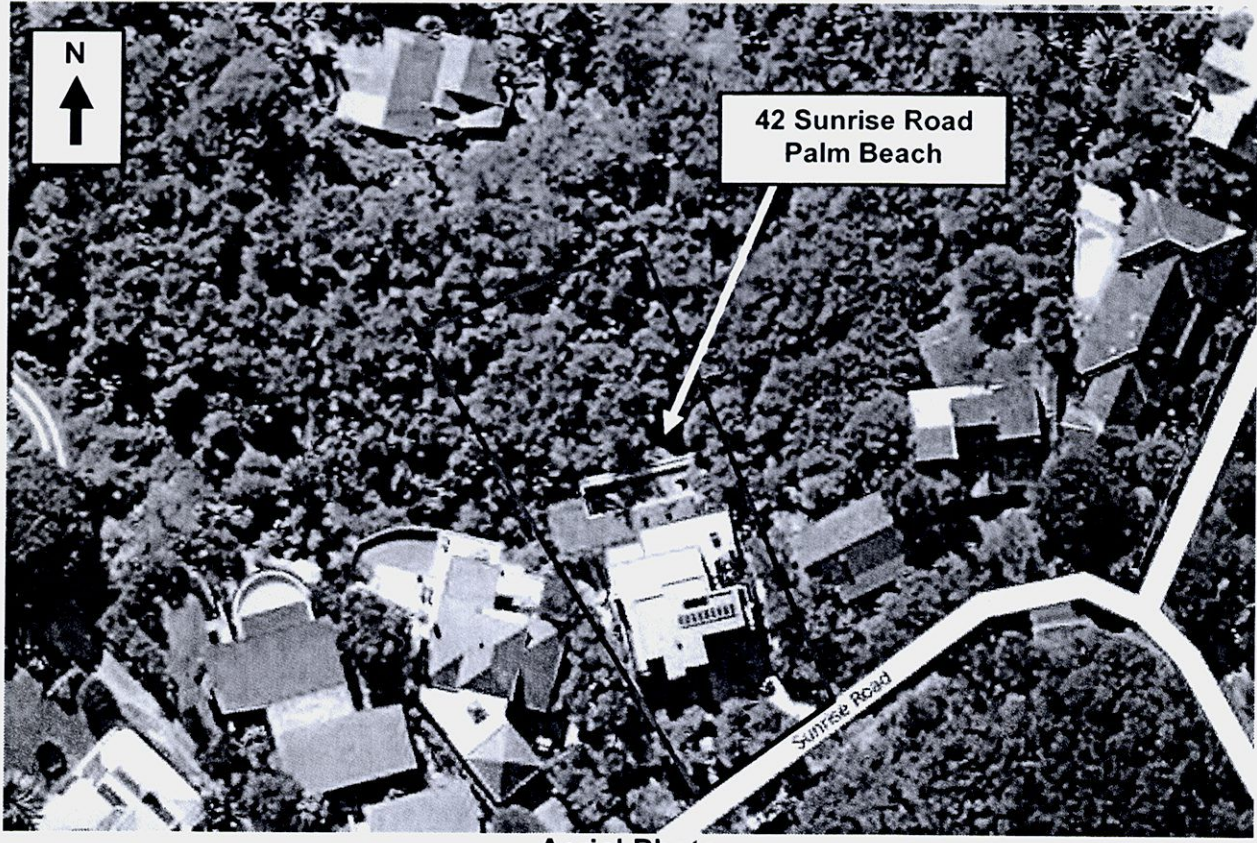
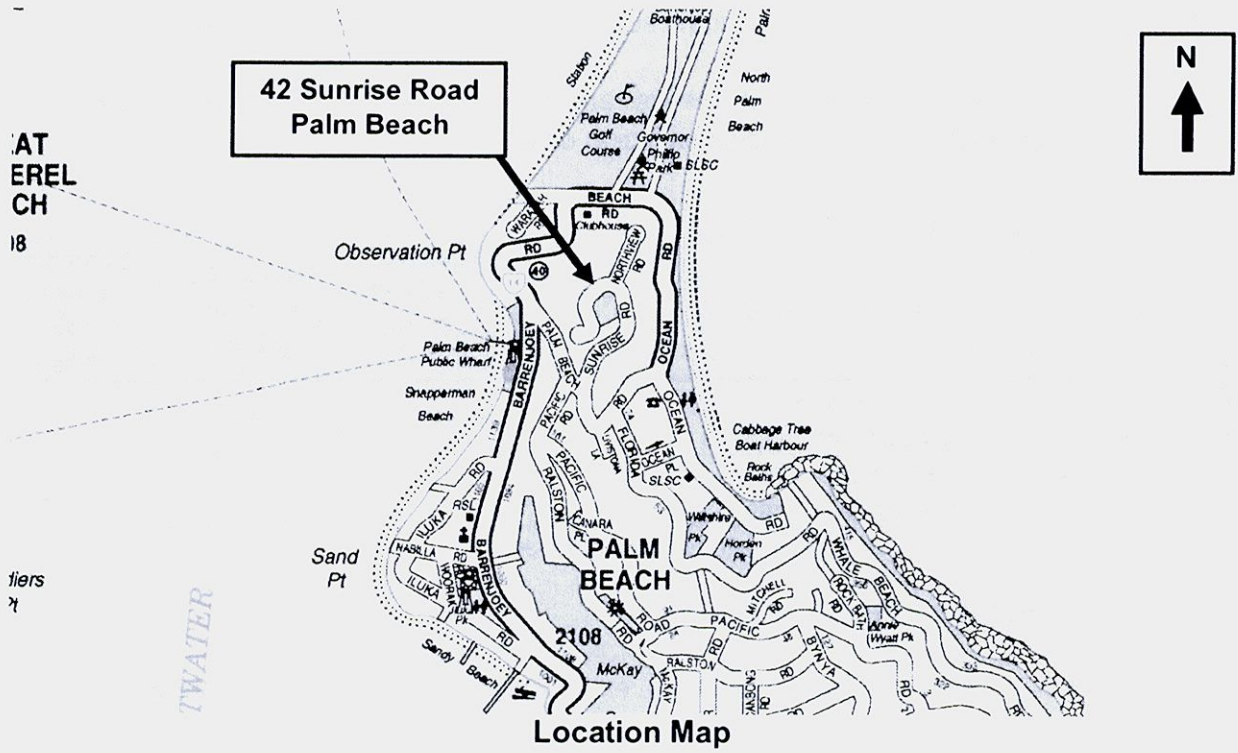
We trust that the above information meets with your present requirements and expectations. Please do not hesitate to contact us on 02 9908 1270 should you require further information or clarification.

Yours Faithfully

ACOUSTIC DYNAMICS

RICHARD HAYDON

Document	Revision	Date	Prepared	Checked	Approved
2953L001.AB.110705	Revision 0	29 July 2011	RH	MH	



Aerial Photo

S U S A N R O T H W E L L
A R C H I T E C T S
38 SERPENTINE ROAD, GREENWICH N.S.W. 2065 TEL. (02) 9439 2380 FAX: (02) 9901 3185

Anthony Protas Consulting
Locked Bag 1001
Wareemba NSW 2046

29.07.11

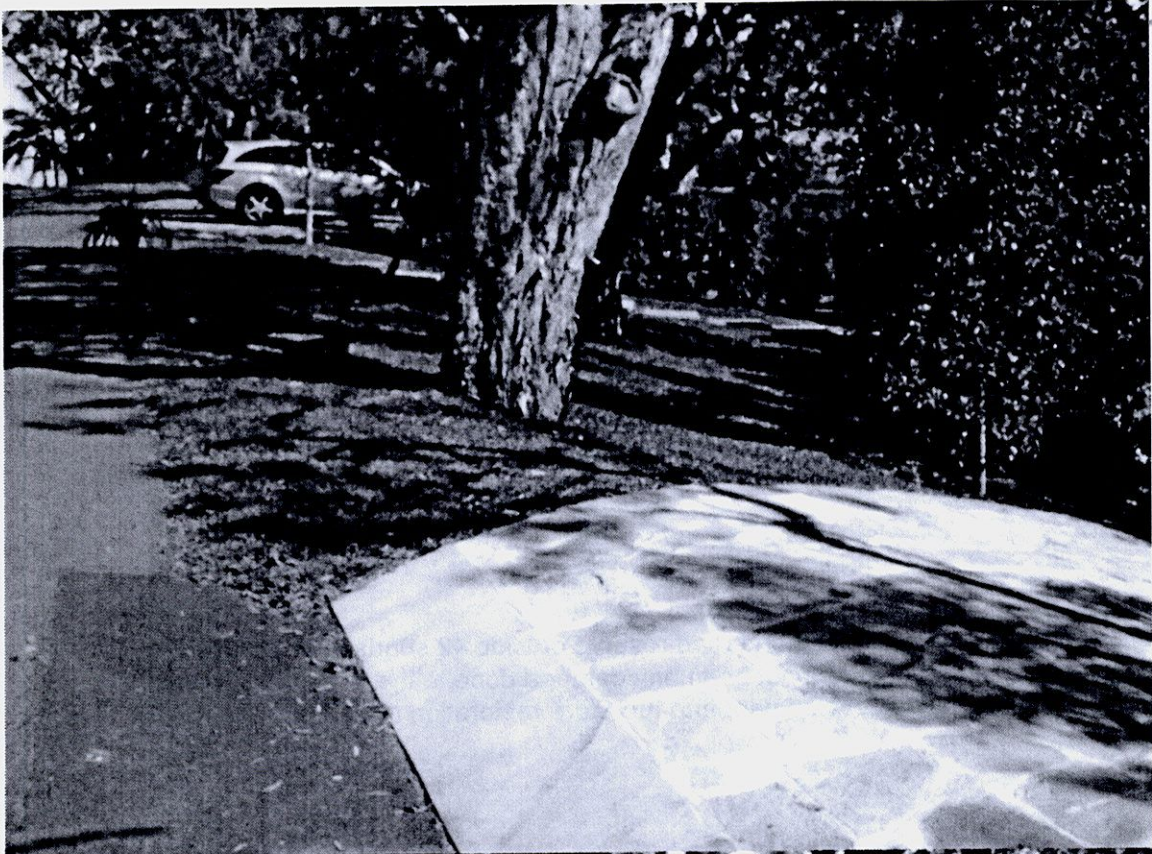
RE: DA 528/07 42 Sunrise Rd Palm Beach conditions E6, E7.

Dear Anthony,

Attached are photos of the street trees and road reserve outside 42 sunrise Rd after the completion of construction. There has not been any damage done to the trees or to public infrastructure as a result of the development and therefore restoration of public infrastructure was not necessary.



Regards,
Will Rothwell





Information Provided Through

Rudov & Associates P/L
Ph. 0403 36 39 36 Fax.

Title Search

LEAP Searching
An Approved LPI NSW
Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 152/6937

SEARCH DATE	TIME	EDITION NO	DATE
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26/10/2011	10:46 PM	4	17/11/2006

LAND

LOT 152 IN DEPOSITED PLAN 6937
LOCAL GOVERNMENT AREA PITTWATER
PARISH OF NARRABEEN COUNTY OF CUMBERLAND
TITLE DIAGRAM DP6937

FIRST SCHEDULE

SUSAN ELIZABETH ROTHWELL

(T AC740110)

SECOND SCHEDULE (3 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- * 2 AG582060 POSITIVE COVENANT
- * 3 AG582061 POSITIVE COVENANT

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

1111

PRINTED ON 26/10/2011

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. Leap Searching an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B (2) of the Real Property Act 1900.



**POST-CONSTRUCTION CONDITIONS
OF APPROVAL ASSESSMENT
FOR
OCCUPATION CERTIFICATE
42 SUNRISE ROAD, PALM BEACH**

Prepared for:

**Rothwell Architects
C/- Naturally Trees**

NOVEMBER 2011

Actinotus Environmental Consultants

Flora and Fauna Surveys, Biodiversity Impact Assessment & Bushfire
Hazard Assessment Services

Australian Business Number (ABN) 71 034 926 744
3/28 Tullimbar Rd, Cronulla NSW. 2230
7 Townsend Avenue, Frenchs Forest NSW. 2086

Tel: 9527 5262; 9453 9397. Mob: 0403 081902; 0412 217896. Fax: 9527 7454

Email: aec@actinotus.com
Web: [www@actinotus.com](http://www.actinotus.com)

Actinotus Environmental Consultants

Peter Stricker BSc. (Hons) (Syd) #

Anthony Smith-White BSc. (Syd), CertHEd., MSc., PhD. (UNSW) #+

Margaret Smith-White BSc. (Mcq), PhD. (UNSW) +*#

Member Ecological Consultants Association NSW Inc

+ Member of Bird Atlassers Association of NSW

* Member Birds Australia

Consultants experience

The principals of 'Actinotus Environmental Consultants' have collectively worked in the area of floristic impact and bushfire hazard assessment services for a period of greater than 20 years. They also have over 30 years of experience in scientific research (ecological, genetic) and teaching in biological science.

The principals of 'Actinotus Environmental Consultants' have completed the NSW Consulting Planners Bushfire Training Course organised by the Planning Institute of Australia NSW Division for planning consultants and allied professionals relating to the implementation of 'Planning for Bushfire Protection', in June 2003.

MATTERS TO BE SATISFIED PRIOR TO ISSUE OF OCCUPATION CERTIFICATE

Southern section of site

The southern section of the site has been remediated with landscaping being undertaken in accordance with plans illustrated on Susan Rothwell Architects Landscape Plan sr42 – 106 approved by Pittwater Council.

There is no damage to street trees of Broad-leaved Paperbark and the road reserve has been remediated with 'soft leaf' Buffalo Grass turf laid to the road edge.

Northern section of site

The vegetation of the northern section of the site has been modified to form an Asset Protection Zone and has been cleared to ground level of any shrubs including shrubs of woody weed species. Regrowth of some shrubs and small trees, including weed species is occurring. Figure 1 indicates the current regrowth structure of the vegetation at a part of this section of the site.



Figure 1- Indicates the current regrowth structure of the vegetation at a part of this section of the site.

E15 – ‘All work required by the Environmental Sustainability Plan (removal of protective fencing, weeds, site rehabilitation) to be completed’.

Comments:

- Protective fencing has been removed
- Weed species in the northern section of the site, including some noxious weeds have re-established since a previous assessment by POD Landscaping P/L in June 2011.

The following weed species were observed in the northern section of the site:

Status	Scientific Name	Common Name	Relative frequency of Occurrence
C4	<i>Asparagoides aethiopicus</i>	Asparagus Fern	c
*	<i>Bidens pilosa</i>	Cobblers Pegs	o
*	<i>Conyza albida</i>	Fleabane	c
*	<i>Conyza canadensis</i>	Tall Fleabane	o
*	<i>Ehrhata erecta</i>	African Veldt Grass	c
*	<i>Erechtites valerianifolia</i>	Brazilian Fireweed	o
*	<i>Galinsoga parviflora</i>	Potato Weed	u
C4	<i>Ipomoea indica</i>	Blue Morning Glory	c
C4	<i>Lantana camara</i>	Lantana	o
C4	<i>Ligustrum lucidum</i>	Large-leaved Privet	u
*	<i>Musa paradisiaca</i>	Banana	c
*	<i>Nephrolepis cordifolia</i>	Fishbone Fern	c
*	<i>Nothoscordum borbonicum</i>	Onion Weed	u
C4	<i>Ochna serrulata</i>	Mickey Mouse Plant	o
*	<i>Senna pendula</i> subsp <i>glabrata</i>	Common Cassia	o
*	<i>Solanum nigrum</i>	Black Nightshade	c
*	<i>Sonchus oleraceus</i>	Common Sowthistle	c

KEY

Status

* Exotic species

C4 - Noxious weeds in Pittwater Shire LGA as listed on the *NSW Noxious Weeds Act (1993)*

Relative ranked frequency of occurrence

c very common – common

o moderately common – occasional

u relatively uncommon – uncommon

Figure 2 indicates the occurrence of weed species in the subject area.



Figure 2 indicates the occurrence of weed species such as Morning Glory, Lantana, Common Cassia, Fishbone Fern, African Veldt Grass, Banana, etc in the subject area.

Most of these weeds are opportunistic and readily invade cleared areas and so must be regularly monitored, removed and controlled. Hand-pulling is sufficient in most cases, though chemical spraying for grasses, and cut and swab for woody weed species such as Lantana and Large-leaf Privet, is sometimes required, as detailed in the Vegetation Management Plan prepared by Conacher Travers P/L (2011).

- Site rehabilitation in regard to enrichment planting and landscaping in this section of the site does not appear to have commenced. Building refuse also occurs in the subject area. Sediment control fencing across the steep sloping northern section of the property does not appear to have been installed.

E16 – ‘Bushland is in the same (or better condition) post development relative to pre-development except in the location of the approved zone of influence of the development of the site’.

Comments:

- The previous composition of the northern section of the site has been described as having the shrub layer (which may have historically been removed) dominated by weeds, with only a limited number of native grasses and ferns occurring. The

understorey had been significantly impacted by the dumping of grass refuse (Conacher Travers 2011).

In this respect the current condition of the subject area is in better condition than the pre-development condition.

Certified by: Peter Stricker
Principal
Actinotus Environmental Consultants

Signed 

Dated 11.11.2011