EPC 101

PITTWATER COUNCIL

RECEIVED MONA VALE
21 JAN 2016
CUSTOMER SERVICE

Application for Building Certificate

Environmental Planning & Assessment Act, 1979 (as amended)
Section 149A, B, C, D

Effective from 1/7/15 till 30/6/16

Office Use – BC No: BC0005/16.

Please Note: Details provided on this form and documents provided will be made public both at Councils Office and via Application Tracking on Councils website. The information will be kept by Council and will be disposed of in accordance with the Local Government Disposal Authority. You are entitled to review your personal information at any time by contacting Council.

Property Description

Number: 11 Street: GILWINGA DRIVE

Suburb: BAYVIEW

Lot: 39 DP: 241518

Applicant

Applicants Name: RAYMOND PHILLIPS

Postal Address: 11 GILWINGA DR

Suburb: BAYVIEW Postcode: NSW 2104

Phone (02) 99992972 Daytime Contact No ( )

Mobile ( ) 0416073085 Fax ( )

Email: RAYANDCAROLE.PHILLIPS@GMAIL.COM

You can apply for a building Certificate if you are:
(Please tick the appropriate box)

☑ I am the owner of the building

☐ I have the owners consent to lodge this application (see below)

☐ I am the purchaser under a contract for the sale of the property

☐ I am the owner's or purchasers solicitor or agent

☐ We are a public authority which has notified the owner of its intention to apply for the certificate

Signature: Date: 23-12-15

For access to the building please contact: RAY

Phone: Mobile: 0416073085

Owners Consent

Owner/s Name/s: RAY + CAROLE PHILLIPS

Postal Address: 11 GILWINGA DR

Suburb: BAYVIEW Postcode: NSW 2104

Phone (02) 99992972 Mobile ( ) 0416073085

Email: rayandcarole.phillips@gmail.com

I/We consent to the lodgement of this application and permit Council authorised personnel to enter the site for the purpose of inspections:

Signature: C & P Phillips

Certificate Type

☐ Whole Property

☑ Whole Building i.e: HOUSE.

☐ Part Building i.e

☐ Pool , Fencing & Access

☐ Unauthorised works

Processing Fees

Fee Description	Detail	Code	Fee
Class 1 & 10 (& class 2 buildings with only 2 dwellings)	$250	FHEA	250
Class 2-9 buildings - floor area less than 200m²	$250	FHEA	
Class 2-9 buildings - floor area > 200m² to 2000 m²	$250 + $0.50 per m² > 200 m²	FHEA	
Class 2-9 buildings - floor area > 2000m²	$1165 + $0.75 per m² > 2000 m²	FHEA	
For unauthorised works, one of the above certificate fees will apply in addition to the following:			
Development Application, Construction Certificate and Notification fees OR CDC fees apply based on the cost of works	$860	FHEA	
Notification (required for unapproved works)	$270	TADV	
Notification Sign (required for unapproved works)	$40	NOPD	

Accompanying Information to be submitted with Application		
Checklist	Documents Required	Office Use
✓	A detailed survey prepared by a Registered Surveyor clearly showing the location of the structures and/or works on the site. The date of the survey is irrelevant in so far as the information contained therein is still current.	
	Where the property is identified on either Pittwater Councils Geotechnical Risk Management Map 2003 and/or Pittwater Councils Costal Hazard map 97-003 as being Bluff Management Areas A geotechnical Engineers report prepared in accordance with Councils Interim Geotechnical Risk management policy is to be provided, together with completed form 4 & 4a pursuant to that policy	
When this application relates to **unapproved structures or works** the following information is required:		
	A detailed survey prepared by a Registered Surveyor clearly showing the site & location of the structures on the property and any nearby structures on adjacent properties together with floor levels, finish surface levels and the like. (A detail and contour survey as required to accompany Development Applications as outlined on Councils Development Application form will satisfy this requirement).	
	1 set of Works as constructed plans. These plans should be prepared by a suitably qualified professional e.g. Architect/Draftsman and clearly annotate the unapproved structures and/or works as to their compliance with the relevant Council Development controls.	
	12 x A4 reduced copies of works as constructed plans for neighbour notification.	
	Certification as to the structural and/or Geotechnical adequacy of the structures and/or works as built. All built structures will require certification as to their structural integrity by a qualified Structural Engineer, all earthworks and foundations will require certification by a qualified & experienced Geotechnical Engineer as to their adequacy.	
	Certificate by an appropriately qualified person that the structures and/or works comply with the Building Code of Australia and appropriate Australian Standards.	
	Council may require additional information to enable appropriate assessment and determination of the Building Certificate.	

Office Use

Receipt No: 390700 Date: 21.01.2016

Privacy and Personal Information Protection Notice

This information is provided under the Environmental Planning & Assessment Act 1979 voluntarily by the applicant and is collected for the assessment of the application. Failure to provide this information will prevent Council processing your application and may lead to your application being rejected. This information is intended only for Officers of Pittwater Council and will be stored in accordance with Pittwater Council's compliant Records Management System (ECM) and the State Records Act 1998 (NSW). This information may be accessed by Council Officers or by requests under the Government Information (Public Access) Act 2009 (NSW). You have a right to access your personal information under the Privacy and Personal Information Protection Act 1998 (NSW) by application to Pittwater Council and to have that information updated or corrected.

Jack Hodgson Consultants Pty Limited
CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS
ABN: 94 053 405 011

RISK ANALYSIS & MANAGEMENT FOR BUILDING CERTIFICATE AT 11 GILWINGA DRIVE BAYVIEW

DIRECTOR: N. HODGSON
Unit 38D No 6 Jubilee Avenue, Warriewood NSW 2102
PO Box 389 Mona Vale NSW 1660
Telephone: 9979 6733 Facsimile: 9979 6926

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER - 2009
FORM NO. 4 (As per Pittwater Council's Geotechnical Risk Management Policy) – To be submitted with Application for a Building Certificate/Response to an Order

Building Certificate Application
for _____
Name of Applicant

Address of Site **11 GILWINGA DRIVE BAYVIEW**

Order No. N/A

Declaration made by geotechnical engineer in relation to the submission of an application for a Building Certificate

I, PETER THOMPSON (Insert Name) on behalf of JACK HODGSON CONSULTANTS PTY LTD (Trading or Company Name)

on this the 19/01/2016 (Date)

certify that I am a geotechnical engineer as defined by the Geotechnical Risk Management Policy for Pittwater 2009. 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 have inspected the site and the existing development and am satisfied that both the site and the development achieves at least the "Tolerable Risk Management" requirement of the Geotechnical Risk Management Policy for Pittwater - 2009. The attached report provides details of the assessment in accordance with the Geotechnical Risk Management Policy for Pittwater – 2009. The report also contains recommendations as to any reasonable and practical measures that can be undertaken to remove foreseeable risk. I am aware the Council will rely on this certification as the basis for ensuring that the geotechnical risk management aspects of the site and the development have been adequately addressed to achieve at least a "Tolerable Risk Management" level for the life of the structure taken as 100 years unless otherwise stated and justified in the Report.*

or

☐ I have inspected the site of the existing development. The attached report details the remedial actions required to be undertaken prior to me being prepared to certify that the site and the development achieves at least the "Tolerable Risk Management" criteria required in accordance with the Policy.

Geotechnical Report Details:

Report Title: RISK ANALYSIS & MANAGEMENT FOR BUILDING CERTIFICATE AT 11 GILWINGA DRIVE BAYVIEW

Report Date: 19/01/2016

Author : PETER THOMPSON

Signature Peter Thompson

Name PETER THOMPSON

Chartered Professional Status MIE Aust CPEng

Membership No. 146800

Company Jack Hodgson Consultants Pty Ltd

* Note: If life of structure taken as less than 100 years, please indicate ..... years

Jack Hodgson Consultants Pty Limited
CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS
ABN: 94 053 405 011

RISK ANALYSIS & MANAGEMENT FOR BUILDING CERTIFICATE AT 11 GILWINGA DRIVE BAYVIEW

1. INTRODUCTION.

1.1 The definitions and methods used in this Assessment are based on those described in Landslide Risk Management March 2007, published by the Australian Geomechanics Society and as modified by the Geotechnical Risk Management Policy for Pittwater, 2009.

1.2 The experience of Jack Hodgson Consultants spans a time period over 40 years in the Pittwater area and Greater Sydney Region.

2. EXISTING DEVELOPMENT.

2.1 The site was inspected on the 18th January, 2016, and previously by this firm in March 2007.

2.2 This block is located on the low side of the road and has a north-westerly aspect. The block is situated toward the middle of a moderate to steep slope that extends from the waterfront at McCarrs Creek to the crest of the ridge near Minkara Road. The slope drops from the road frontage at approximate average angles of some 15-20 degrees to the north-west.

2.3 From the road frontage a long concrete driveway descends the slope providing access to a garage as part of the main residence (Photos 1 & 2). Abundant large sandstone floaters and outcropping bedrock is situated across the upper portion of the block (Photos 3 & 4). The floaters are situated in stable positions in the slope. A large gently sloping lawn extends from the front of the residence (Photo 5). Stable rock stack walls support portions of the lawn area and garden beds at the southern and eastern sides of the residence (Photos 4, 6 & 7). Stable rock stack walls extend around the north eastern corner of the residence (Photo 8). A large concrete swimming pool is situated on the northern side of the residence and is founded directly on exposed sandstone outcrop and well-constructed sandstone stack rock walls (Photo 9). The slope below the house and pool is comprised of natural bushland (Photo 10). The topography of the slope is controlled by the shallow underlying and exposed sandstone bedrock (Photo 11). A gently sloping lawn covered fill extends along the western side of the residence and is supported by stable sandstone stack rock walls (Photo 12 & 13). A drainage channel extends along the western boundary (Photo 13).

DIRECTOR: N. J. HODGSON
Unit 38D No 6 Jubilee Avenue, Warriewood NSW 2102
PO Box 389 Mona Vale NSW 1660
Telephone: 9979 6733 Facsimile: 9979 6926
www.jackhodgson.com.au

2.4 The two-storey brick residence is in excellent condition. It's supporting walls and piers show no evidence of significant cracking or ground movement. In places the foundations can be seen to be founded directly on the underlying sandstone bedrock. (Photos 14 & 15).

3. DESCRIPTION OF SURROUNDING AREA.

The Pittwater Council Geotechnical Risk Map indicates that the subject property and those surrounding are considered H1 hazard areas. Our observations indicate the surrounding properties contain no significant geotechnical hazards likely to adversely affect the subject property.

4. GEOLOGY OF THE SITE.

4.1 The block is located very close to the transition between the Hawkesbury Sandstones and the underlying Narrabeen Group geology. The site is underlain by Hawkesbury Sandstones that outcrop on and around the site, with some floaters in the profile. These sandstones are of Middle Triassic age and were probably laid down in braided streams. The sand grains are mainly quartz with some sand grade claystone fragments. There are lenticular deposits of mudstones and laminites which are thought to have been deposited in abandoned channels of the main streams. The sandstones generally have widely spaced sub vertical joints with some current bedding. The joint directions are approximately north/south and east/west. The beds vary in thickness from 0.5 to in excess of 5 metres. Lower portions of the block may be the upper portions of the Narrabeen Group geology, though testing would be needed to confirm this.

4.2 The soil materials are sands, sandy loams and possibly some sandy fill material over sandy clays. On this site the sandy clays merge into the weathered zone of the under lying rocks at depths expected to be in the range of shallow to 1.0 metres, or deeper where filling has been carried out.

5. SUBSURFACE INVESTIGATION.

For purposes of this assessment, observation of the surface features as described in this Report is considered to be sufficient information to prepare the building certificate; therefore no subsurface investigation was undertaken.

6. DRAINAGE OF THE SITE.

6.1 ON THE SITE.

The site is naturally well drained. A drainage channel extends along the western boundary of the block.

6.2 SURROUNDING AREA.

Overland stormwater flow entering the site from the adjoining properties was not evident. Normal overland runoff could enter the site from above during heavy or extended downpours.

7. GEOTECHNICAL HAZARDS.

The slope that falls across the block is considered a potential hazard **(HAZARD ONE)**.

8. RISK ASSESSMENT.

8.1 HAZARD ONE Qualitative Risk Assessment on Property

From the road frontage the slope drops moderately at average angles of some 15-20 degrees to the north-west. The supporting walls of the house display no evidence of significant cracking or movement. Fills and garden beds are supported by stable sandstone stack rock walls that show no evidence of significant movement. Sandstone outcrops are situated in stable positions in the slope and are free of significant geological defects that may affect their stability. The likelihood of the slope failing and impacting the house is assessed as 'Unlikely' (10^{-4}). The consequences to property of such a failure are assessed as 'Minor' (5%). The risk to property is 'Low' (5×10^{-6}).

8.2 HAZARD ONE Quantitative Risk Assessment on Life

For loss of life risk can be calculated as follows:
$\mathbf{R_{(LoI)} = P_{(H)} \times P_{(SH)} \times P_{(TS)} \times V_{(DT)}}$ (See Appendix for full explanation of terms)

8.2.1 Annual Probability

No significant evidence of slope instability was observed at the time of our inspection.
$\mathbf{P_{(H)}} = 0.0001$/annum

8.2.2 Probability of Spatial Impact

The house is situated toward the middle of a moderate to steep slope.
$\mathbf{P_{(SH)}} = 0.1$

8.2.3 Possibility of the Location Being Occupied During Failure

The average household is taken to be occupied by 4 people. It is estimated that 1 person is in the house for 20 hours a day, 7 days a week. It is estimated 3 people are in the house 12hrs a day, 5 days a week.
For the person most at risk:

$$\frac{20}{24} x \frac{7}{7} = 0.83$$

$\mathbf{P_{(TS)}} = 0.83$

8.2.4 Probability of Loss of Life on Impact of Failure

Based on the volume of land subsiding, it is estimated that the vulnerability of a person being killed in the house when subsidence occurs is 0.1

$\mathbf{V_{(DT)}} = 0.1$

8.2.5 Risk Estimation

$\mathbf{R_{(LoI)}} = 0.0001 \times 0.1 \times 0.83 \times 0.1$

$= 0.00000083$

$\mathbf{R_{(LoI)}} = 8.3 \times 10^{-7}$/annum **NOTE:** This level of risk is **'ACCEPTABLE'**.

9. REMEDIAL/REQUIRED WORKS.

No remedial works are required at this time.

10. RISK ASSESSMENT SUMMARY.

HAZARDS	Hazard One
TYPE	The slope that falls across the block is considered a potential hazard
LIKELIHOOD	'Unlikely' (10^{-4})
CONSEQUENCES TO PROPERTY	'Minor' (5%)
RISK TO PROPERTY	'Low' (5×10^{-6})
RISK TO LIFE	8.3×10^{-7}/annum
COMMENTS	This level of risk is **'ACCEPTABLE'**

11. CONCLUSION.

The house and land achieves an '**Acceptable Risk Level**' in accordance with the 2009 Geotechnical Risk Management Policy for Pittwater.

JACK HODGSON CONSULTANTS PTY. LIMITED.

Peter Thompson

Peter Thompson MIE Aust CPEng
Member No. 146800
Civil/Geotechnical Engineer

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

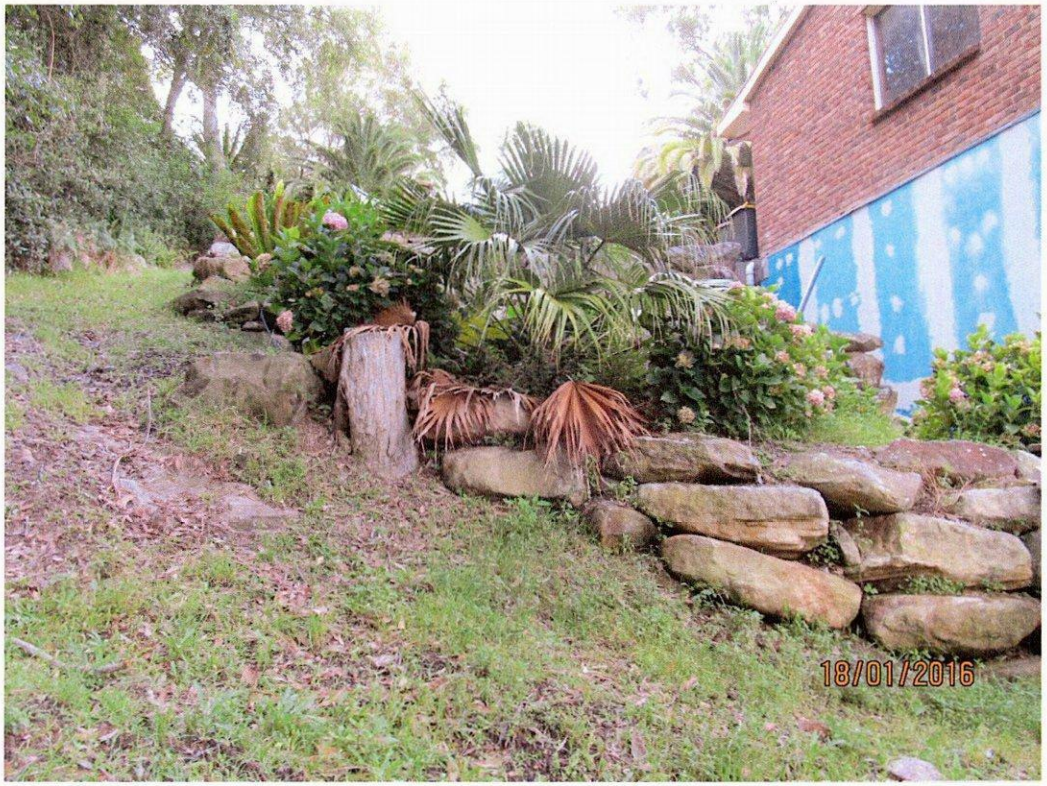

Photo 7

Photo 8

Photo 9

Photo 10

Photo 11

Photo 12

Photo 13

Photo 14

Photo 15

NOTE: 1. THIS DETAIL SURVEY IS NOT A "SURVEY" AS DEFINED BY THE SURVEYORS ACT, 1929. IF ANY CONSTRUCTION IS PLANNED IT IS ADVISABLE TO CARRY OUT FURTHER SURVEY WORK TO DETERMINE THE BOUNDARY DIMENSIONS.
2. ALL BEARINGS AND DISTANCES ARE SUBJECT TO FINAL SURVEY.
3. ONLY VISIBLE SERVICES ARE SHOWN.RELEVANT AUTHORITIES SHOULD BE CONTACTED PRIOR TO CONSTRUCTION WORK.
4. RIDGE AND GUTTER HEIGHTS ON ADJOINING PROPERTIES ARE APPROXIMATE ONLY.
5. ALL TREE CANOPIES ARE TO SCALE.
6. THESE GENERAL NOTES SHOULD BE STORED WITH THE SUPPLIED CAD DRAWING.
7. IF ANY BUILDING OR STRUCTURE IS TO BE LOCATED RELATIVE TO AN EXISTING FEATURE SHOWN ON THIS PLAN SUCH FEATURE SHOULD BE LOCATED ACCURATELY BY SURVEY.

322° 45' 20"
91.930

D. P. 241518

BALCONY

2 STOREY BRICK RESIDENCE
No.11

GARAGE FL 95.25

FL 94.70

PATIO

CONCRETE

FOOTPATH

BALCONY RL 92.0

TOP ROCK WALL

SEPTIC TANK

SEPTIC TANK

CUT IN ROCK

CONCRETE

39

DRIVEWAY

TELSTRA PIT

28.955
56° 00' 00"

GILWINGA DRIVE

138.390
130° 49' 40"

AUSTRALIAN HEIGHT DATUM

ORIGIN OF LEVELS : PM48789
RL 128.330
SCIMS 23-01-2007

DATE	REVISION	BY

DRAWN: JF
CHECKED: DH
SURVEYED: DH

FRANKHAM ENGINEERING SURVEYS PTY. LTD.
10 PRITCHARD STREET EAST, WENTWORTHVILLE. NSW 2145
P.O. BOX 281, WENTWORTHVILLE. NSW 2145.
PH: (02) 9636 3248 FAX: (02) 9636 9070
Email: fespl@tac.com.au

CLIENT: MR R PHILLIPS
PROJECT: 11 GILWINGA DRIVE, BAYVIEW
DETAIL SURVEY OVER PART

SCALE: 1 : 100
DATE: 31-01-2007
DRAWING No.: 207017