



BUILDING CERTIFICATES AUSTRALIA PTY LTD
Building Regulations, Certification & Fire Safety Consultants
ABN 45 105 050 897

- construction, compliance & occupation certificates
- fire safety inspections for building upgrades
- pre-development compliance advice
- principal certifying authority (PCA)
- liaising with local authorities
- BCA compliance reporting
- project management
- building approvals
- strata approval

22 November 2011

The General Manager
Manly Council
PO Box 82
Manly, NSW 1655

Attention: Planning Department

Dear Sir/Madam,

RE:

28 THE CRESCENT, MANLY NSW 2095

Please find attached a copy of a Final Occupation Certificate that has been approved by Mr. Orlando Da Silva who is the PCA for this Development Consent.

This Final Occupation Certificate relates to the alterations and additions to an existing residential flat building at the above address.

We have enclosed an approved Final Occupation Certificate with the supporting documentation for Council's record.

✓ We have attached a cheque for the registration of this certificate. In forwarding the receipt for this cheque, it is requested that reference be made to the address of the premises. 6/12

If you have any queries regarding the above or if Council requests additional information in relation to this development, please do not hesitate to contact our office on (02) 8014 7720 during business hours to attend to your concerns.

Yours faithfully,

Orlando Da Silva
Building Certificates Australia Pty Ltd

CC:- Robert James Anderson & Louise Alma Jones

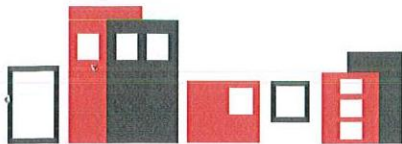


CERTIFIER

\$36

R 831517

6-12-11



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OCCUPATION CERTIFICATE

*Issued under the Environmental Planning and Assessment Act 1979
Sections 109C (1) (c) and 109H*

Certificate No.	298/11
Subject Land Lot and DP:	28 The Crescent, Manly NSW 2095 Lot 7 & 8 DP 456039
Applicant Name: Address: PH:	Robert James Anderson & Louise Alma Jones PO BOX 471, Manly NSW 2095 0407 644 002
Owner	Robert James Anderson & Louise Alma Jones
Type of Certificate Final or Interim: Determination: Date of Determination: Whole/Part of building works: Description of part (if applicable): BCA Classification: Use:	Final Approved 22/11/2011 Whole 2 Residential
Attachments	— Appendix of Supporting Documents
DA No. DA Determination Date: Issued by:	168/09 7/9/2009 Manly Council
Construction Certificate No. Determination Date:	2010-13488 2/6/2010
Principal Certifying Authority Accreditation Level: Registration No.: Accreditation Body:	A1 - Accredited Certifier - Building Surveying Grade 1 BPB 0081 Building Professionals Board

I certify that:

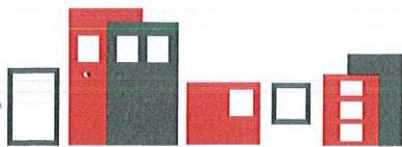
- the health and safety of the occupants of the building have been taken into consideration where an interim occupation certificate is being issued, and
- a current development consent or complying development certificate is in force for the building, and
- if any building work has been carried out, a current construction certificate (or complying development certificate) has been issued with respect to the plans and specifications for the building, and
- the building is suitable for occupation or use in accordance with its classification under the Building Code of Australia, and
- a fire safety certificate has been issued for the building, and
- a report from the Fire Commissioner has been considered (if required).

Signed:


Orlando Da Silva

Principal Certifying Authority

Date: 22/11/2011



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APPENDIX OF SUPPORTING DOCUMENTS FOR OC NO. 298/11

CRITICAL STAGE INSPECTIONS		Section 109E (3) (d) of the Act & Clause 162A of the Reg's	
In the case of a class 2, 3 or 4 building,	Critical Stage Inspections (Attached)	Inspection Date	
<i>prior to the placement of any slabs, footings & framework, and</i>	Yes ☐ Missed ☒ N/A ☐	14/7/2011	
<i>waterproofing in any wet areas, for a minimum of 10% of rooms with wet areas</i>	Yes ☐ Missed ☒ N/A ☐	14/7/2011	
<i>prior to covering any stormwater drainage connections, and</i>	Yes ☐ Missed ☒ N/A ☐	14/7/2011	
<i>fire Rating of any building element, and</i>	Yes ☐ Missed ☒ N/A ☐	14/7/2011	
<i>after the building work has been completed and prior to any occupation certificate</i>	Yes ☒ Missed ☐ N/A ☐	14/7/2011	

STATUTORY DOCUMENTS:

1. Application for a Occupation Certificate.

STRUCTURAL CERTIFICATION

2. Structural Engineer's certification covering all structural work carried out:
➤ Structural Engineering letter provided by Australian Consulting Engineers Pty Ltd dated 13/12/2010.

FIRE SAFETY REQUIREMENTS

3. Certification of installation of a Smoke Alarm system in accordance with AS3786 and BCA 3.7.2.3. Smoke alarms must be connected to the consumer mains power.
➤ Certification letter provided by Alphaspark Electrical Services Pty Ltd dated 21/2/2011.

ENERGY EFFICIENCY

4. Certification to the effect that all requirements and recommendations contained in the BASIX report have been implemented into the construction of the building to achieve the calculated energy efficiency rating.
➤ Certification letter provided by Sydcon Development Group dated 8/4/2011.

GENERAL

5. Plumbing & Stormwater works complies with AS 3500.
➤ Certification letter provided by SS One Plumbing dated 4/4/2011.
6. Certification that all new waterproofing to wet areas comply with F1.7/3.8.1.2 of the BCA and AS3740.
Including verification that the waterproof application is an accredited product in accordance with Part A2.2 of the Building Code of Australia.
 - All Bathrooms,
 - Planter Boxes,
 - External Walls.
 ➤ Certification letter provided by Matthew Disan Waterproofing Specialist dated 23/12/2010 & Unique Silicon Services dated 28/10/2010.
7. Glazing complies with AS1288.
 - Windows,
 - Doors,
 - Shower Screens.
 Certification for all glazed assemblies (including doors, windows, louvres and shopfronts) in external walls to comply with AS2047 (Windows in buildings – Selection and installation).
 ➤ Certification letter provided by Leda Aluminium Pty Ltd dated 7/4/2011 & Diamond Tannous dated 6/9/2011 & 7 Star Glass & Mirrors Pty Ltd dated 20/9/2011.
8. Provide a letter from the builder confirming that:
 - All works undertaken on the development been carried out in a good and workmanlike manner by appropriately licensed contractors,
 - All work undertaken comply and satisfy the relevant Australian Standards, Building Code of Australia and all Development Consent Conditions have been satisfied,
 - I confirm that each tread and riser dimensions for each private and public (internal and external) stairway are constant throughout each respective stair flight.
 - Any variations to the building design, as approved under the Construction Certificate, which may be contrary to the requirements of the DA consent and or Building Code of Australia, have been appropriately disclosed to the PCA.
 ➤ Certification letter provided by Sydcon Development Group dated 8/4/2011.
9. Certification from the architect to the effect that the building has been completed in accordance with the DA approved schedule of finishes.
 ➤ Letter provided by R J Anderson dated 15/11/2011.

Documents relied upon confirming compliance with Consent Conditions required to be addressed prior to the Issuing of a Occupation Certificate:

10. Provide certification that the new lightweight wall to western elevation achieves an FRL of 60/60/60.
 ➤ This condition is addressed via certification provided by Versus Interiors Pty Ltd dated 17/12/2010 & certification by Sydcon Development Group dated 8/4/2011.
11. Provide certification that the floor between units achieves a minimum FRL of 30/30/30 or the ceiling has an 60 min resistance to insipient spread of fire.
 ➤ This condition is addressed via certification by Sydcon Development Group dated 8/4/2011.

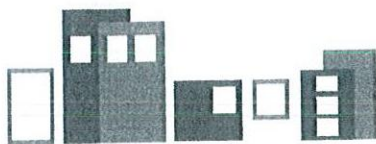


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12. Provide emergency lighting over the required external stair.
 - This condition is addressed via copy of invoice & receipt from Stephen Noel dated 8/9/2011.
 13. Provide a fire extinguisher and associated signage in a common location accessible to both units.
 - This condition is addressed via invoice dated 14/9/2011.
 15. Provide a compliance certificate from a qualified acoustic consultant to certify and confirm that the acoustic measures contained in acoustic report by RSA Acoustic have been implemented into the building.
 - This condition is addressed via acoustic report by Acoustic Dynamics dated 3/11/2011.
 16. Provide a copy of the fire safety certificate.
 - This condition is addressed via Fire Safety Certificate by Robert James Anderson and Louise Alma Jones dated 14/11/2011.
 14. All other supporting documents
-



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RECEIVED

14 NOV 2011

BC AUST P/L

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- fire safety inspections for building upgrades
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APPLICATION FOR AN OCCUPATION CERTIFICATE

Under Sections 109C (1) (c) and 109H of the Environmental Planning and Assessment Act 1979

(Please tick) ☒ Final Occupation Certificate, or an ☐ Interim Occupation Certificate

SUBJECT LAND

Level/Suite: _____ Street No: 28 Street Name: The Crescent
Suburb: Manly Post Code: 2095

DETAILS OF THE APPLICANT

(Applicant must be the original applicant for this development who is the person who holds the benefit of the development consent, if the applicant is different from the original, the building owner needs to authorize this applicant)

Applicant Name: ROBERT JAMES ANDERSON & LOUISE ALMA JONES

Applicant Address: 2/28 THECRESCENT, MANLY State: NSW Post Code: 2095

All correspondence to be C/- R-J. ANDERSON Yes ☐ No ☐

Mailing Address: P.O. BOX 471, MANLY NSW State: NSW Post Code: 2095

Contact No's: R.J. ANDERSON 0407644002 Email: andersonbobj@hotmail.com

Signature of Applicant: _____ Date: _____

Note: Originals of this document must be returned to our office or received via high quality scan and email (Faxes will not be accepted)

Note: All fields must be completed by the applicant; we accept no responsibility for wrong or false and misleading information provided.

Note: As we accept information in good faith, you are reminded that under the Environmental Planning and Assessment Regulation 2000, Clause 283 False or misleading statements - A person is guilty of an offence if the person makes any statement, knowing it to be false or misleading in an important respect, in or in connection with any document lodged with the Director-General or a consent authority or certifying authority for the purposes of the Act or this Regulation. False information submitted will VOID any Certificate Issued.

ONLY IF NOT ORIGINAL APPLICANT - BUILDING OWNERS CONSENT REQUIRED

(All owner(s)/directors must sign this document or provide a letter of authority)

- Every owner of the land must sign this application and as the owner(s) of the above property, I/we all consent to this application.
- Or, provide a statement signed by all owner/s of the land to the effect that the owner consents to the making of the application.
- If the owner is a company, this form must be signed by an authorised director of the company.
- If the property is a unit under strata title, relates to common property or a lot in a community title, this form must be signed by the chairperson or the secretary of the Body Corporate and/or Body Corporate seal or the appointed managing agent.

Owner(s) Name: ROBERT JAMES ANDERSON & LOUISE ALMA JONES

Signature(s): Robert James Anderson Louise Jones Date: 14.11.2011

- I/we as the owner/s of this land consent for the above applicant to apply on our behalf apply for an Occupation Certificate

OCCUPATION CERTIFICATE FOR DEVELOPMENT CONSENT NUMBER

DA/CDC No: 168/04 Consent Authority: _____

CC No./s: _____ Date of Determination: _____

DESCRIPTION OF DEVELOPMENT (Exact details as on the original CC/CDC Certificate)

Full Description of approved Development: ALTERATIONS + ADDITIONS TO AN EXISTING RESIDENTIAL FLAT BUILDING INCLUDING CONSOLIDATION TO TWO (2) TORRENS TITLE LOTS & STRATA SUBDIVISION

An Occupation Certificate Application is requested for Part or Whole of building works:

- ☒ Final Occupation Certificate - Whole of building works, all works are fully complete, or;
- ☐ Interim Occupation Certificate - Part of building works, works are not fully complete, if Interim;

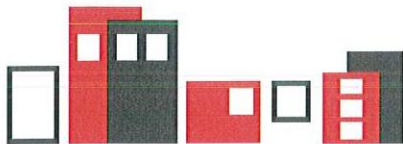
Description of part of development completed and to be occupied: _____

Description of part of development not completed as yet: _____

Current and/or Proposed New Use: _____

BCA Classifications: _____

Address: Suite 505, 64-76 Kippax Street, Surry Hills NSW 2010
Tel: (02) 8014 7720 Fax: (02) 9211 9332
Email: admin@bcaustralia.net.au



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CRITICAL STAGE INSPECTIONS - MISSED

*Issued under the Environmental Planning and Assessment Regulation 2000
162B Record of inspections conducted under section 109E(3)
162C Progress inspection unavoidably missed*

Subject Land Lot and DP:	28 The Crescent, Manly NSW 2095 Lot 7 & 8 DP 456039
Description of Building Works	Alterations and additions to an existing residential flat building
BCA Classification	2a
Principal Contractor/Builder Licence Number: Address: Contact telephone number:	Sydcon Development Group 140607C Suite 4/314-322 Darling Street, Balmain NSW 2041 (02) 9555 2455
Type of Inspection Missed	- Prior to placement of slabs, footings & timber/steel frames. - o Certification provided by Australian Consulting Engineers Pty Ltd dated 13/12/2010 is considered satisfactory. - Prior to covering waterproofing in wet areas. - o Certification provided by Matthew Disano dated 23/12/2010 & Unique Silicon Services dated 28/10/2010 is considered satisfactory. - Prior to covering stormwater drainage connections. - o Certification provided by SS One Plumbing dated 4/4/2011 is considered satisfactory. - Prior to fire rating of any building element. - o Certification provided by Sydcon Development Group dated 8/4/2011, Stephen Noel dated 16/11/2011, Inline Fitouts dated 28/9/2011, Sedgman Fire Pty Ltd dated 14/9/2011 & Versus Interiors Pty Ltd dated 17/12/2010 is considered satisfactory.
DA No.	168/09
Construction Certificate No.	CC2010-13488

Comments:

Particulars of the inspection that was missed and of the circumstances that the principal certifying authority considers were unavoidable that caused it to be missed;

- The builder failed to contact our office at the above critical stages of works, however, the builder has supplied certification as referred to above.

As PCA I'm satisfied that:

- Work that would have been the subject of the missed inspection is satisfactory based on the attached documentary evidence that was relied on to satisfy me via statements submitted by the principal builder, applicant and contractors.

Principal Certifying Authority

Accreditation Level:

Registration No.:

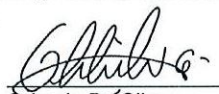
Accreditation Body:

A1 - Accredited Certifier - Building Surveying Grade 1

BPB 0081

Building Professionals Board

Signed:


Orlando Da Silva
Principal Certifying Authority

Date of Inspection: 22 November 2011



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CRITICAL STAGE INSPECTIONS

*Issued under the Environmental Planning and Assessment Regulation 2000
162B Record of inspections conducted under section 109E (3)*

Subject Land: 28 The Crescent, Manly NSW 2095

Type of Inspection: Final

DA No. DA 168/09

Construction Certificate No. 2010-13488

The above listed Critical Stage Inspection/s are:
☒ Satisfactory
☐ Unsatisfactory

Comments: Final Inspection prior to occupation;

– At the time of the final inspection works appear to be completed generally in accordance with the approved Development Consent and Construction Certificate Plans subject to relevant certificates and reports which are to be provided by the builder and contractors.

Accredited Certifier
Accreditation Level: A1 - Accredited Certifier - Building Surveying Grade 1
Registration No.: BPB 0081
Accreditation Body: Building Professionals Board

Signed: 
Orlando Da Silva
Principal Certifying Authority

Date of Inspection: 14 July 2011

Fire Safety Certificate

Issued under the Environmental Planning and Assessment Regulation 2000,
Clauses 170 to 174

Type of Certificate

☐ Interim ☒ Final

Owner / Agent

I, ROBERT JAMES ANDERSON & LOUISE ALMA JONES

Address

of 28 THE CRESCENT, MANLY, NSW**Certify that:**

each of the essential fire safety measures specified in the current fire safety schedule for the building to which the certificate relates:

- a) has been assessed by a properly qualified person, and
- b) was found, when it was assessed, to be capable of performing to at least the standard required by the current fire safety schedule for the building for which the certificate is issued.

Identification of Building

Street:

28 The Crescent, Manly

House/Unit No. or Building Name:

Side of Street:

Nearest Cross Street:

LAURENCE STREET

Particulars of Building

Scope:

☒ Whole ☐ Part

Description of Part (where applicable):

House/Unit No. or Building Name:

Date of Assessment:

Building Owner's DetailsName: ROBERT JAMES ANDERSON & LOUISE ALMA JONESAddress: 28 THE CRESCENT, MANLY, NSW, 2095**Fire Safety Measures**

Proposed Fire Safety Measures	Standard of Performance
Lightweight wall construction western boundary FRL level of 60/60/60	Building Code of Australia Consultant Report dated 13 December 2008 and condition ANS01 of Development Consent 168/09 issued by Manly Council.
Portable fire extinguishers	BCA E1.6, AS 2444 - 2001
Smoke alarm system and heat detector laundry areas	BCA clause E2.2a, specification E2.2a and Australian Standard 3786 - 1993
Emergency Lighting rear external stair area	BCA clause E4.2 Australian Standard 2293.1 - 2005
Protection of penetration floor between separate occupancy	BCA clauses C3.12 and 3.15
Fire rated ceiling ground floor unit 30/30/30	BCA specification C1.1 clause 5.1 (e)

Date of Certificate

dated this day of 14.11.2011

Signature

Anderson Andrew Jones
owner/agent

A copy of this certificate together with the relevant fire safety schedule must be forwarded to the Council and the Commissioner of the New South Wales Brigades.

A copy of this certificate together with the relevant fire safety schedule must be prominently displayed in the building.

Notes for completing the Fire Safety Certificate

Note 1

An **interim fire safety certificate** or a **final fire safety certificate** is required before:

- an interim occupation certificate can be issued to allow a partially completed new building (including and altered portion of, or an extension to, a new building) to be occupied or used, or
- an interim occupation certification can be issued to allow a change of building use for part of an existing building.

A **final fire safety certificate** is required:

- before a final occupation certificate can be issued to allow a new building (including an altered portion of, or extension to, a new building) to be occupied or used, or
- before a final occupation certificate can be issued to allow a change of building use for an existing building, or
- in accordance with a fire safety order given by a council.

An **interim fire safety certificate** is issued for part of the building and may deal only with those essential fire safety measures appearing on the most recent fire safety schedule (see note 3) relevant to the part of the building for which interim occupation certificate will be sought.

A **final fire safety certificate** must deal with all essential fire safety measures appearing on the most recent fire safety schedule (see note 3), subject to the following.

An **interim fire safety certificate** or a **final fire safety certificate** need not deal with those essential fire safety measures which have been the subject of some other final fire safety certificate or annual fire safety statement within the previous 6 months, unless the person or authority responsible for determining the relevant development consent, complying development certificate, construction certificate or fire safety order, has specified otherwise in the schedule. See also note 3.

Note 2

The person who carries out the assessment:

- must inspect and verify the performance of each fire safety measure being assessed; and
- in the case of a (interim or final) fire safety certificate for a new building (not an alteration to, or enlargement or extension of an existing building) must test the operation of each item of fire safety equipment installed in the building.

Note 3

The relevant essential fire safety measures are those specified in the most recent fire safety schedule, attached to one of the following:

- development consent for a change of building use; or
- complying development certificate for the erection of a building or a change of building use; or
- construction certificate for proposed building work, including building work associated with a change of building use; or
- a fire safety order.

The fire safety schedule will also identify standard of performance for each essential fire safety measure.

COUNCIL COPY

SydCon
Development Group
Lic No 140 607C ABN 16 101 805 038

8th April 2011

Robert Anderson & Louise Jones
28 The Crescent
Manly NSW 2095

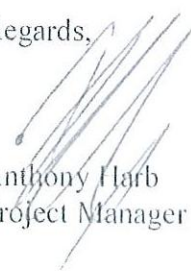


Dear Robert & Louise,

We would like to confirm the following;

- All works undertaken on the development have been carried out in a good and workmanship like manner by appropriately licensed contractors;
- All Development Consent Conditions have been satisfied;
- All tread and riser dimensions, for each private and public both internal and external stairways are consistent throughout each respective stair flight;
- Any variations to the building design, as approved under the construction certificate, which may be contrary to the requirements of the DA Consent and or Building Code of Australia, have been disclosed to the PCA.

Regards,


Anthony Harb
Project Manager

COUNCIL COPY



8th April 2011

Robert Anderson & Louise Jones
28 The Crescent
Manly NSW 2095



Dear Robert & Louise,

We certify the following at the above mentioned property;

- The new lightweight wall to western elevation achieves an FRL of 60/60/60.
- The floor between units achieves a minimum FRL of 30/30/30 or the ceiling achieved a 60 minute resistance to the insipient spread of fire.

Regards,

Anthony Harb
Project Manager

VERSUS INTERIORS PTY LTD

Lic #: 41411C

ABN: 30 112 669 717

17th December 2010

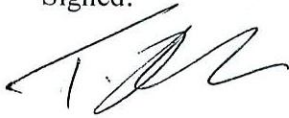
COUNCIL COPY

Mr Robert Anderson & Ms Louise Jones,
28 The Crescent
Manly NSW 2095

Certification for Fire Rating & Sound Proofing for Gyprock

This is to certify that the fire rating and sound proofing of all gyprock walls adhere to the relevant Australian Standards and have been carried out to the above mentioned address.

Signed:



Tai Zhang



64 Taylor St
West Pennant Hills NSW 2125
Ph: 0414 656 929 Fax: 02 9871 2895

343638

O/NO.

DATE _____

FROM

STEPHEN NOEL

8/27 SEABEACH AVE
MONA VALE 2103

A.B.N.

(Of Recipient)

A.B.N/G.S.T No.

(Of Supplier)

[illegible]



Unit4, 14 Powells Rd, Brookvale N.S.W 2095
ph 02 9938 6668 fx 02 9938 4448 ABN. 90 139 985 914

[illegible]



CARPENTRY FITOUTS • FIRE DOORS • FIRE RATED SLIDERS • MAINTENANCE • DOOR HARDWARE

Unit 4, 14 Powells Rd, Brookvale N.S.W 2100

p 02 9938 6668

www.inlinefitouts.com.au

f 02 9938 4448

ABN. 90 139 985 914

FIRE DOOR CERTIFICATE AND SCHEDULE OF EVIDENCE OF COMPLIANCE

FIRE DOOR CERTIFICATE NUMBER 229

Project Name:2/ 28 The Crescent, Manly.....

Building:2/ 28 The Crescent, Manly.....

Building Address: 2/ 28 The Crescent, Manly NSW 2095.....

The member company nominated certifies that the fire door set identified on the attached Schedule has been inspected and labelled as required by the appropriate regulatory authorities in accordance with BCA and Australian Standard AS 1905.1 – 1997 in respect to the Evidence of Compliance at Clause 6.3 and additionally comply in respect to supply, labelling and installation in accordance with the following Australian Standards:

- | | |
|-----------|---|
| AS 1530.4 | Methods for fire tests on building materials, components and structures, Part 4: Fire resistance test of elements of building construction |
| AS 1905.1 | Components for the protection of openings in fire-resistant walls, Part 1: Fire-resistant doorsets |
| AS 1530.4 | Ceiling - 2x layers of 16mm fire rated plasterboard lining on rondo furring channel fixed to existing timber structure (CSR865FRL 90/90/90 + RISF 60 minutes) |
| AS 1530.4 | Wall Linings - 2x layers of 13mm fire rated plasterboard lining fixed to existing timber structure (CSR915FRL 60/60/60) |

Certified by: .Inline Fitouts Pty Ltd.....

Name of Certifier: .Joe Cardillo.....

Signature:*Joe Cardillo*.....

Date:....28.09.11.....



Passive Fire Protection Australia



Accredifire
CERTIFIED

Door sets covered by this certificate are to be maintained in accordance with AS 1851 and the manufacturer's instructions.

A.B.N.: 65 148 168 503
463 Sydney Road Balgowlah NSW 2093
Phone: 0299489933

Tax Invoice

Docket No	1677	Date	08/09/2011 4:01PM
Served by	Armen		

Sold To : BOB ANDERSON

Delivered To:

BUILDING CERTIFICATES AUSTRALIA
OCCUPATION CERTIFICATE
Certificate No. Date

298-11 27 NOV 2011

FOR INFORMATION
This information has been provided to us and relied on
in good faith to confirm that works have complied to
BCA & all relevant Australian Standards.

PH: 0407 644 002

Description	Tax	Price \$	Qty	Total \$
3 X 35WATT SPOT EMERG PWF235 IP65	GST	653.00	1	653.00

ORIGINAL COPY

TAX INVOICE/STATEMENT

ONO

DATE _____

TO R.J. ANDERSON & L.A. JONES
28 THE CRESCENT
MANLY

A.B.N.
(Of Recipient)

FROM STEPHEN ROEL
8127 SCABLEY AVE
MONA VALE
A.B.N/G.S.T No. 94736547886
(Of Supplier)

[illegible]

53.00

59.36

53.00

3 For



15
EXTINGUISHA
b7b

4126

TAX INVOICE

Page No. 11

Certificate No.
Customer Code
Agreement No.
Customer P/O
Region/Route
Market Sector

T/I Refers
Date Due **NEW INSTALL**
Next Date **MAR 2012**
Contact **Bob Anderson**
Phone No. **407 644 002**
Service I.D. **ES**

Special Instructions

RJ ANDERSON & LA JONES
28 THE CRESCENT
MANKY NEW 2095

Type	Make	Size	Quantity		Service Level		Next Due	Next P/T	Depot Returns	Loan Units	Unit Price	Total
			Record	Actual	Due	Done						
PODE	F/S	4.5Kg	1	1	NEW	INSTALL	1	SEP 16			1	1
STR	FS	Min	1	1	1	1	6				1	1
Total Units			2	2								

BUILDING CERTIFICATES AUSTRALIA
OCCUPATION CERTIFICATE
 Certificate No. Date
 298-11 22 NOV 2011

FOR INFORMATION
 This information has been provided to us and relied on
 in good faith to confirm that works have complied to
 BCA & all relevant Australian Standards

Sub Total (A)

[illegible]

Non Routine Work Due	
Hoses Due P/T	
New Equip. Req.	Y/N
Sales Call	Y/N
Fire Training	Y/N

Check	
Location OK	Y/N ☒
Hostile Environment	☒ Y/N
Signage OK	Y/N ☒
Site Log/Plan	Y/N
Housekeeping OK	Y/N ☒
Labels Legible	Y/N ☒
Paintwork OK	Y/N ☒

Comments/Recommendations

Sub Total (B)

Net Total	\$50.00
-----------	---------

GST \$ 15.00

Tax Invoice Total	\$ 65.00
-------------------	----------

igned for
1-Site Service

igned for
-Site Service

Technician

Date _____

Client

Units Removed
For Service

Technician

Date _____

Client

Units Returned
From Service



Australian Consulting Engineers Pty Ltd

COUNCIL COPY

A.C.N: 054 059 941
Suite 2/141 Concord Road
North Strathfield NSW 2137
WEB: www.aceeng.com.au

A.B.N: 82 084 059 941
Ph: +61 2 9763 1500
Fax: +61 2 9763 1515
E-mail: info@aceeng.com.au

Date: December 13, 2010

Ref: 10AH154.SC1

STRUCTURAL ADEQUACY CERTIFICATE

PROJECT: RESIDENTIAL DEVELOPMENT
LOCATION: 28 THE CRESCENT MANLY
CLIENT: SYDCON DEVELOPMENT GROUP P/L
ELEMENTS: SLABS, AND TIMBER / STEEL ROOF FRAMING

We certify that we have inspected the above slab during constructions and found that the preparation works and steel placement were in accordance with the relevant drawings and details prepared by Rafic Rahme Associates Consulting Structural Engineers.

We certify that the inspection has been carried out by a qualified structural engineer from our firm.

Yours truly,

AUS TRALIAN CONSULTING ENGINEERS P/L

Per

Dr. Anthony S. Hasham

B.E., M.E., M.B.A., Ph.D., M.I.E. Aust., CPEng., N.P.E.R.
Civil/Structural Engineer
Accredited Certifier
Managing Director

BUILDING CERTIFICATES AUSTRALIA
OCCUPATION CERTIFICATE
Certificate No. Date

298-11

22 NOV 2011

FOR INFORMATION

This information has been provided to us and relied on
in good faith to confirm that works have complied to
BCA & all relevant Australian Standards



mb. 0424 189 890
em. ss1plumbing@hotmail.com
Lic No. 196700c

4 April 2011

Attention: Sydcon Development Group Pty Ltd
Suite 4, 314-322 Darling Street
Balmain NSW 2041

COUNCIL COPY

Re: 28 The Crescent, Manly

CERTIFICATE OF COMPLIANCE

Dear Sir/Madame,

This is to certify that all the storm water service which was constructed at 28 The Crescent, Manly, was carried out and installed in accordance and complies with AS/NZS4130, AS/NZS4020, AS/NZS2170, AS/NZS3500 and all following standards.

Regards


Sadek Sadek





Alphaspark Electrical Services Pty Ltd
PO Box 7057
BASS HILL NSW 2197
Mobile: 0421 892 770
Fax: 02 9645 5569

21 February 2011



Dear Sir/Madam

Re: 28 The Crescent, MANLY

To Install the Following Items:

- 2 x Smoke Alarms (located: 1 near kitchen area, 1 in hallway in flat B)
- 1 x Smoke Alarms (located: in hallway in flat A)
- 240V AC ionization smoke and fire alarm with DC battery back up and are all interconnected.
- Brand of Smoke Alarm used in Flat B is PDL.
- Brand of Smoke Alarm used in Flat A is Clipsal.

THE ELECTRICAL INSTALLATION OF THE SMOKE ALARMS ARE IN ACCORDANCE WITH **AS2293.1** AND BUILDING CODE OF AUSTRALIA REQUIREMENTS PART E17 **REF AS3000-1991** AND **AS3786-1993**.

Regards,

JOSEPH GEMAYEL

Electrical Contractor

A handwritten signature in black ink, appearing to read 'Joe Gemayel', written over a horizontal line.



Alphaspark Electrical Services Pty Ltd
PO Box 7057, Bass Hill, NSW 2197
Mobile: 0404 33 44 77
Fax: 02 9645 5569

COUNCIL COPY

BUILDING CERTIFICATES AUSTRALIA	
OCCUPATION CERTIFICATE	
Certificate No.	Date
298-11	27 NOV 2011
FOR INFORMATION	
This information has been provided to us and relied on in good faith to confirm that works have complied to BCA & all relevant Australian Standards	

22 February 2011

To Whom It May Concern

This is to certify that Alphaspark Electrical Services Pty Ltd licence No 158471c has completed the following work at 26 The Crescent MANLY:

Supply and install the following items in flat A:

New wiring for all final sub circuits.
1 x sub-board single phase include safety switches and circuit breakers
1 x 20amps circuits for oven.
24 x 10amps GPOs.
17 x Standard light fittings.
3 x IXL heaters in bathrooms.
1 x smoke alarm.

Supply and install the following items in flat B:

New wiring for all final sub circuits.
1 x sub-board single phase include safety switches and circuit breakers
3 x 20amps circuits for two AC and one oven.
37 x 10amps GPOs.
13 x Standard light fittings.
3 x IXL heaters in bathrooms.
15 x Downlights.
2 x Smoke alarm interconnected.

All work completed complies with and is according to Australian and New Zealand Wiring Rules (AS/NZS 3000:2007 and section J6 of the BCA) and done to the requirements and standards of all Energy Authorities, NSW Service and Installation Rules, and Local Rules.

Kind Regards,

Joe Gemayel

COUNCIL COPY



8th April 2011

Robert Anderson & Louise Jones
28 The Crescent
Manly NSW 2095

Dear Robert & Louise,

All requirements and recommendations contained in the BASIX report have been implemented into the construction of the building to achieve the calculated energy efficiency rating.

Regards,


Anthony Harb
Project Manager

BUILDING CERTIFICATES AUSTRALIA	
OCCUPATION CERTIFICATE	
Certificate No.	Date
298 - 11	22 NOV 2011
FOR INFORMATION	
This information has been provided to us and relied on in good faith to confirm that works have complied to BCA & all relevant Australian Standards	

LEDA ALUMINIUM PTY.LTD.

2/4 Naughton St Greenacre, N.S.W 2190
FAX: (02)9642-8743 Telephone: (02) 9642-8588

COUNCIL COPY

DATE: 07/04/2011

CERTIFICATE OF COMPLIANCE

TO Sydcon Development Group P/L
314-322 Darling Street
Balmain NSW 2041

PROJECT: 28 The Crescent Manly NSW 2095
O/N Ref 10831

BUILDING CERTIFICATES AUSTRALIA
OCCUPATION CERTIFICATE
Certificate No. Date

298-11

22 NOV 2011

FOR INFORMATION

This information has been provided to us and relied on
in good faith to confirm that works have complied to
BCA & all relevant Australian Standards

This is to certify that the aluminium windows and doors supplied to the above address comply with the following;

- All glass installed has a reflectivity of less than 20 %.
- Complies with the safety standards of AS1288-2006 (GLASS IN BUILDINGS) and the BCA
- All windows and doors comply with AS 2047 (WINDOWS IN BUILDINGS).



Yours Faithfully

Jalal Asfour
Leda Aluminium Pty Ltd



DIAMOND
TANNOUS

COUNCIL COPY

CERTIFICATE

06th September 2011

*This is to certify that the above named company supplied
& installed Shower Screens for :*

*Sydcon Development Group
at
28 The Crescent, Manly*

*Glass installed in shower screens is in safety glass which
complies with Australian Standards AS1288.*

*For any further queries, please do not hesitate to contact
the undersigned.*

Kind Regards

Zeina Chidiac

BUILDING CERTIFICATES AUSTRALIA
OCCUPATION CERTIFICATE
Certificate No. Date

298-11 22 NOV 2011

FOR INFORMATION

This information has been provided to us and relied on
in good faith to confirm that works have complied to
BCA & all relevant Australian Standards.



7 Star Glass & Mirrors Pty/Ltd

ABN: 70 139 673 251 ACN: 139 673 251

274-100 St George Street, Manly NSW 2210

Date: Tuesday, 20 September 2011

COUNCIL COPY

Site: 28 The Crescent Manly

To whom it may concern:

This letter is to certify that all the 12mm Toughened Glass at the above site is all Safety Glass
supplied by: 7 Star Glass & Mirrors Pty Ltd

Installed by: Alaska Balustrading

All Complies with the Australian Standard AS 2208 & AS1288-2006

Yours Faithfully

Abbas Taher

Directing Manager

BUILDING CERTIFICATES AUSTRALIA

OCCUPATION CERTIFICATE

Certificate No.

Date

298-11

22 NOV 2011

FOR INFORMATION

This information has been provided to us and relied on
in good faith to confirm that works have complied to
BCA & all relevant Australian Standards

For Any Further Information's

Phone: 02 9709 4030 Fax: 02 9709 6404 Email : sevenstarglass@hotmail.com

COUNCIL COPY

MATTHEW DISANO

WATERPROOFING SPECIALIST

DATE: 23/12/2010

LIC: 209338c

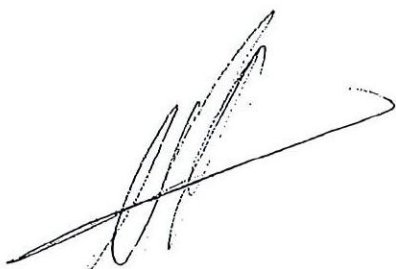
ADDRESS: 12 MEELA ST,
BLACKTOWN,
NSW 2148
PH: 0433 227 211

CERTIFICATE OF COMPLIANCE

JOB ADDRESS:
28 The Crescent,
Manly NSW 2095

I hereby certify and sign off on the above wet area waterproofing works, and warrant that the waterproofing work completed at the above site was installed in accordance with the manufactures written installation instructions and has been carried out in accordance with AS3740 (waterproofing of wet areas within residential buildings).

Membrane manufacture: Bostik
Membrane material: Bostik Ultraseal R (modified polyurethane)
Bond breaker: Bostik Seal'n'flex
Primer: Bostik Moisture seal (neutral epoxy)



Matthew Disano

BUILDING CERTIFICATES AUSTRALIA	
OCCUPATION CERTIFICATE	
Certificate No.	Date
298-11	22 NOV 2011
FOR INFORMATION	
This information has been provided to us and relied on in good faith to confirm that works have complied to BCA & all relevant Australian Standards.	

Unique Silicon Services

P.O. Box 4309 north rocks nsw 2151

ABN: 86 976 862 750

Mobile: 0438 989 388 Fax: (02) 88122365

CERTIFICATE OF WORK

Certificate No: 0267

Licence No: 160242C

Date: 28-10-2010

Job Address: 28 the crescent, manly, nsw

Job Description: waterproof for wet area at the above address, product used dampfix, manufactured by bostik

BUILDING CERTIFICATES AUSTRALIA
OCCUPATION CERTIFICATE
Certificate No. 298-11 Date 22 NOV 2011
FOR INFORMATION
This information has been provided to us and relied on
in good faith to confirm that works have complied with
BCA & all relevant Australian Standards.

COUNCIL COPY

ALL WORK CARRIED OUT COMPLIES WITH THE AUSTRALIAN STANDARD AS 3740 AND MEETS THE
REQUIREMENTS OF THE BCA

Signature



PIERRE YAMMOUNI



mb. 0424 189 890
em. ss1plumbing@hotmail.com
Lic No. 196700c

4 April 2011

Attention: Sydcon Development Group Pty Ltd
Suite 4, 314-322 Darling Street
Balmain NSW 2041



Re: 28 The Crescent, Manly

CERTIFICATE OF COMPLIANCE

Dear Sir/Madame,

This is to certify that all the Plumbing and Gas service which was completed at 28 The Crescent, Manly was carried out and installed in accordance and complies with AS/NZS3500, AG5601, NSW Code of Practice (Plumbing and Drainage), BCA and all relevant codes.

Regards

Sadek Sadek



COUNCIL COPY

Project 2801
3 November 2011

Mr Bob Anderson
28 The Crescent
MANLY NSW 2090

Email: andersonbobj@hotmail.com
Ph: 02 8021 9789
Mb: 0407 644 002

Dear Bob

**28 THE CRESCENT MANLY – RESIDENTIAL ALTERATIONS/ADDITIONS
FLOOR SOUND TRANSMISSION TESTS & ASSESSMENT**



1 INTRODUCTION

Acoustic Dynamics is engaged by Mr Bob Anderson to conduct impact and airborne sound transmission tests to determine the acoustic performance of the floor/ceiling system within apartment B (above apartment A) of the residential building located at 28 The Crescent, Manly, NSW, in accordance with the requirements of the Owners Corporation.

Acoustic Dynamics understands that acoustic testing is required to determine whether the floor/ceiling system, including timber floors within the living areas of apartment B, located above the living area of apartment A, achieves compliance with the applicable criteria.

This document presents an assessment of the floor/ceiling system, with regard to the acoustic recommendations detailed within our previous acoustic assessment report (document 2801L001.MH.100522, dated 25 May 2011) and with the assessment report provided by RSA Acoustics (document number 4687, dated December 2009)

Further to our site visit, inspection and sound transmission measurements, we provide the following information and assessment regarding floor/ceiling sound transmission performance.

2 RELEVANT ACOUSTIC CRITERIA AND REQUIREMENTS

2.1 Legislation

2.1.1 Strata Schemes Management Act 1996

The Strata Schemes Management Act 1996 provides a legal framework for regulating noise between apartments within a strata scheme. Within "Schedule 1 – By-laws", the following provisions relating to noise are made:

"1 Noise

*An owner or occupier of a lot must not create any noise on the parcel likely to interfere with the **peaceful enjoyment** of the owner or occupier of another lot or of any person lawfully using common property.*



Note: This by-law was previously by-law 12 in Schedule 1 to the Strata Schemes (Freehold Development) Act 1973 and by-law 13 in Schedule 3 to the Strata Schemes (Leasehold Development) Act 1986."

And

"14 Floor coverings

*(1) An owner of a lot must ensure that all floor space within the lot is covered or otherwise treated to an extent sufficient to prevent the transmission from the floor space of noise likely to disturb the **peaceful enjoyment** of the owner or occupier of another lot.*

(2) This by-law does not apply to floor space comprising a kitchen, laundry, lavatory or bathroom.

Note: This by-law was previously by-law 25 in Schedule 1 to the Strata Schemes (Freehold Development) Act 1973 and by-law 26 in Schedule 3 to the Strata Schemes (Leasehold Development) Act 1986."

2.2 Strata By-Laws

Further to the requirements of the current Legislation, detailed above, the Strata of the subject building can create and impose by-laws, which are above and beyond these acoustic requirements.

Acoustic Dynamics is advised that no special Strata By-laws, relating to the installation of hard floors within the building, exist for the subject building, which specify any additional acoustic requirements over and beyond the acoustic requirements of the Strata Schemes Management Act.

2.3 Council Criteria – Manly Council

Acoustic Dynamics has been advised by the proponent that before an Occupation Certificate can be granted, Manly Council requires the following condition to be met:

"Provide a Compliance Certificate from a qualified acoustic consultant to certify and confirm that the acoustic measures contained in the acoustic report no. 4687 by RSA Acoustics have been implemented into the building."

Acoustic Dynamics has also conducted a review of the Manly Local Environmental Plan (LEP) 1988 and the Manly Development Control Plan (DCP) for the Residential Zone 2007.

Acoustic references and criteria for assessment, relevant to the installation of floors within residential buildings, are not contained within the Manly LEP 1988 and the Manly DCP for the Residential Zone 2007.



2.4 Building Code of Australia

Further to the requirements of the Strata Schemes Management Act 1996, any relevant Strata By-laws and the requirements of Council, we advise that floors/ceiling systems installed within residential apartment buildings should comply with the minimum acoustic requirements of the Building Code of Australia. We provide the following information, addressing the acoustic requirements of the Building Code of Australia (BCA) 2011.

The relevant acoustic provisions of the current BCA are summarised below.

2.4.1 BCA Minimum Floor Requirements

The BCA provides the following minimum requirement for insulation rating of floors:

"F5.4 Sound insulation rating of floors

- (a) A floor in a Class 2 or 3 building must have an $R_w + C_{tr}$ (airborne) not less than 50 and an $L_{n,w} + C_i$ (impact) not more than 62 if it separates –
 - (i) sole-occupancy units; or*
 - (ii) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification."**

"VERIFICATION METHODS

FV5.1

Compliance with FP5.1 and FP5.3 to avoid the transmission of airborne and impact generated sound through floors is verified when it is measured in-situ that the separating floor has -

- (a) airborne: a weighted standardised level difference with spectrum adaption term ($D_{nT,w} + C_{tr}$) not less than 45 when determined under AS/NZS 1276.1 or ISO 717.1; and*
- (b) impact: a weighted standardised impact sound pressure level with spectrum adaption term ($L_{nT,w} + C_i$) not more than 62 when determined under AS/ISO 717.2."*

3 MEASUREMENT STANDARDS

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 3.1**.



Table 3.1 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
3207	2439141	Brüel & Kjaer 3207 Tapping Machine
C1010A	N/A	Redback 15" 2 Way Powered Speaker

The reference sound pressure level was checked prior to and after the measurements using the acoustic calibrator and remained within acceptable limits. Measurements and assessments of sound transmission through the floor/ceiling systems were carried out in accordance with the following standards:

- ☐ AS/NZS ISO 717.1:2004 – "Acoustics - Rating of sound insulation in buildings and of building elements - Airborne sound insulation";
- ☐ AS ISO 717.2:2004 – "Acoustics - Rating of sound insulation in buildings and of building elements - Impact sound insulation";
- ☐ AS ISO 140.4:2006 – "Acoustics - Measurement of sound insulation in buildings and of building elements - Field measurements of airborne sound insulation between rooms"; and
- ☐ AS/NZS ISO 140.7:2006 – "Acoustics - Measurement of sound insulation in buildings and of building elements - Field measurements of impact sound insulation of floors".

Acoustic Dynamics advises that parts 1 and 2 of Australian Standard AS/ISO 717 and parts 4 and 7 of Australian Standard AS/ISO 140 prescribe a methodology for the determination of sound insulation (airborne and impact), for various descriptors, but do not recommend values for building elements.

4 SOUND TRANSMISSION MEASUREMENT RESULTS

Impact and airborne sound transmission tests were conducted with the listed equipment, and in accordance with the relevant measurement standards summarised in section 3.

Acoustic Dynamics conducted inspections of the floor/ceiling system between the living area of apartment B and the living area of apartment A (below), on Thursday 20 October 2011.

Based on the information provided, and our inspections, Acoustic Dynamics understands the floor/ceiling partition construction separating the living area of apartment B from the living area of apartment A is as follows:

Floor covering

- ☐ Existing timber floorboards; over

Substratum & ceiling below

- ☐ Timber joists (estimated depth: 200mm); to
- ☐ Plaster ceiling below; to
- ☐ Newly installed independent fire rated ceiling below.



The results of Acoustic Dynamics' airborne and impact sound transmission tests are presented in **Table 4.1** and **Table 4.2**, along with the relevant 2011 BCA criteria. Measurement test reports have also been appended to this report as **Appendix A**.

Table 4.1 Airborne Floor/Ceiling Sound Transmission Test Results

Test No.	Measured Sound Transmission ¹		Minimum BCA Criteria		Complies with BCA?	
	$R_w + (C_{tr})$	$D_{nT,w} + (C_{tr})$	Design	Verification	$R_w + (C_{tr})$	$D_{nT,w} + (C_{tr})$
T001	49	48	$R_w + C_{tr} \geq 50$	$D_{nT,w} + C_{tr} \geq 45$	Yes ²	Yes

Note: 1) Note is made that higher numbers represents better performance for the airborne sound transmission indicator $R_w + C_{tr}$ and $D_{nT,w} + C_{tr}$.
 2) The tested floor system is 1 point from achieving compliance. The human ear is unlikely to be able to distinguish floor impact sound transmission performance differences up to 2 points. With regard to sound levels, the NGLG states "An increase of 2 dB is hardly perceivable".

Table 4.2 Impact Floor/Ceiling Sound Transmission Test Results

Test No.	Measured Sound Transmission ¹		Minimum BCA Criteria		Complies with BCA?	
	$L_{nw} + C_i$	$L_{nT,w} + C_i$	Design	Verification	$L_{nw} + C_i \leq 62$	$L_{nT,w} + C_i \leq 62$
T002	59	56	$L_{nw} + C_i \leq 62$	$L_{nT,w} + C_i \leq 62$	Yes	Yes

Note: 1) Note is made that lower numbers represent better performance for the impact sound transmission indicator $L_{nw} + C_i$ and $L_{nT,w} + C_i$

Acoustic Dynamics advises that the above sound transmission tests results are representative of the sound transmission performance expected where timber floors are located within apartment B.

5 DISCUSSION

The test results presented within section 4 above indicate:

- 1) The airborne sound transmission performance of the floor/ceiling system between apartment B and Apartment A marginally complies with the minimum airborne design sound transmission performance requirements of the BCA (being a $R_w + C_{tr} \geq 50$);
- 2) The airborne sound transmission performance of the floor/ceiling system between apartment B and Apartment A complies with the minimum verification airborne sound transmission performance requirements of the BCA (being $D'_{nT,w} + C_{tr} \geq 45$);
- 3) The impact sound transmission performance of the floor/ceiling system between apartment B and Apartment A complies with the minimum BCA impact design sound transmission performance requirements (being an $L_{nw} + C_i \leq 62$); and



- 4) The impact sound transmission performance of the floor/ceiling system between apartment B and Apartment A complies with the minimum BCA impact verification sound transmission performance requirements (being an $L'_{nT,w} + C_i \leq 62$).

Acoustic Dynamics advises that the sound transmission performance results indicate that the floor/ceiling system between apartment B and Apartment A is likely to provide sufficient reduction of impact and airborne sound transmission to the apartment below (Apartment A), and is considered to be unlikely to adversely affect *"the peaceful enjoyment of the owner or occupier of another lot"*.

6 CONCLUSION

Acoustic Dynamics has conducted impact and airborne floor sound transmission tests of the floor/ceiling system between apartment B and Apartment A of the residential apartment building located 28 The Crescent, Manly, NSW.

The results of Acoustic Dynamics' airborne and impact sound transmission testing are presented in section 4, with a discussion of the results provided within section 5 above.

Acoustic Assessment

Acoustic Dynamics advises that the floor/ceiling system between apartment B and Apartment A complies with the impact and airborne sound transmission performance requirements of Manly Council and the BCA (2011).

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

Kind Regards

ACOUSTIC DYNAMICS

A. Bell

ANDREW BELL

Document	Revision	Date	Prepared	Checked	Approved
2801L002.AB.111101	Revision 0	3 November 2011	AB	RH	<i>[Signature]</i>

Apparent sound reduction index according to ISO 140-4
Field measurements of airborne sound insulation between rooms

Client: **Mr Bob Anderson**
Building Address: **28 The Crescent Manly**
Test Date: **20/10/2011**
Project Number: **2801**

Description and identification of the building and test arrangement:

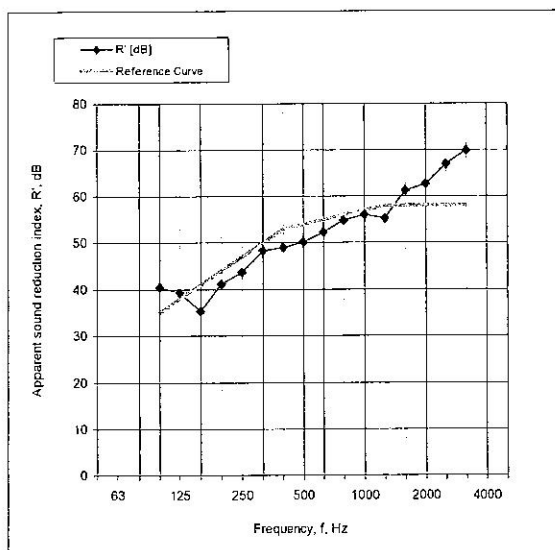
Construction:

Engineered floating timber floorboard; over 6mm thick Acoustica AngelStep



Source Room Volume: **63.9 m³**
Receiving Room Volume: **63.7 m³**
Surface area of dividing element: **23.2 m²**

Frequency f [Hz]	Average L1 [dB]	Average L2 [dB]	Average B2 [dB]	Average T2 [s]	R' [dB]
50	93.9	64.9	34.7	0.5	30
63	100.6	65.0	40.7	0.5	36
80	106.5	72.0	33.8	0.6	36
100	111.0	69.9	29.9	0.4	40
125	108.2	70.2	34.6	0.6	39
160	102.1	66.3	32.2	0.4	35
200	100.6	60.5	28.3	0.6	41
250	98.2	56.2	27.7	0.7	44
315	100.9	54.6	27.4	0.7	48
400	102.3	55.4	25.6	0.7	49
500	100.7	52.4	22.6	0.7	50
630	98.1	47.8	21.4	0.7	52
800	92.2	39.2	22.7	0.7	55
1000	87.6	33.2	22.0	0.6	56
1250	84.5	31.2	23.2	0.6	55
1600	88.9	29.9	23.5	0.6	61
2000	90.0	29.5	24.0	0.5	63
2500	92.4	27.3	21.0	0.5	67
3150	95.9	26.9	17.1	0.5	70
4000	-	-	-	-	-
5000	94.0	21.7	14.3	0.5	73



Rating According to AS/ISO 717.1-2004:

$R'_w(C; C_{tr}) = 54 \quad (-2; -5) \text{ dB}$ $C_{50-3150} = (-2) \text{ dB};$ $C_{50-5000} = (-1) \text{ dB};$ $C_{100-5000} = (-1) \text{ dB}$
 $C_{tr,50-3150} = (-7) \text{ dB};$ $C_{tr,50-5000} = (-7) \text{ dB};$ $C_{tr,100-5000} = (-5) \text{ dB}$

Evaluation Based on field measurement results obtained in one-third octave bands by an engineering method.

Measurements and assessments of sound transmission through wall and floor/ceiling systems are carried out in accordance with the following standards:

- AS ISO 717.1:2004 – "Acoustics - Rating of sound insulation in buildings and of building elements - Airborne sound insulation"; and
- AS/NZS ISO 140.4:2006 – "Acoustics - Measurement of sound insulation in buildings and of building elements - Field measurements of airborne sound insulation between rooms".

Test Report Number: **T001**

Test performed by: **RH**

Date of Report: **26/10/2011**

Testing Company: **Acoustic Dynamics Pty Ltd**

Report Prepared By: **Michael Holmes**

Report Authorised By: **Richard Haydon**

Position: **Acoustical Consultant**

Position: **Director (MAAS, MIEAust)**

Signed: *[Signature]*

Signed: *[Signature]*



Acoustic Dynamics
(Head Office)
Suite 12, 38-46 Albany Street
ST LEONARDS NSW 2065
(PO Box 270, NEUTRAL BAY NSW 2089)

Ph: +61 2 9908 1270
Fax: +61 2 9908 1271
Email: acoustics@acousticdynamics.com.au
Web: www.acousticdynamics.com.au

**Standardized level difference according to ISO 140-4
Field measurements of airborne sound insulation between rooms**

Client: Mr Bob Anderson
Building Address: 28 The Crescent Manly
Test Date: 20/10/2011
Project Number: 2801

Description and identification of the building and test arrangement:

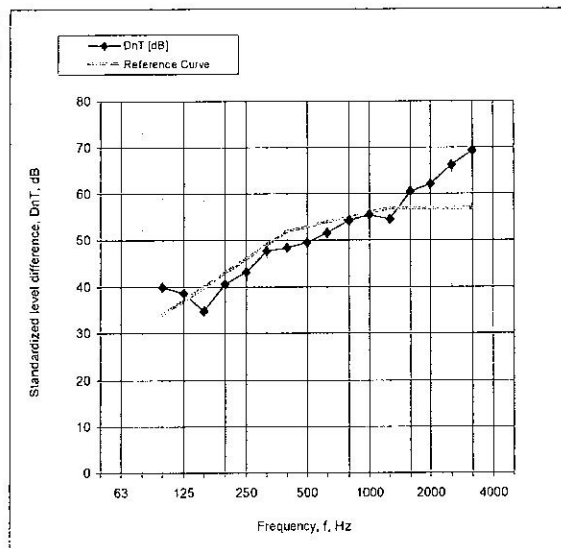
Construction:

Engineered floating timber floorboard; over 6mm thick Acoustica AngelStep



Source Room Volume: 63.9 m³
Receiving Room Volume: 63.7 m³

Frequency f [Hz]	Average L1 [dB]	Average L2 [dB]	Average B2 [dB]	Average T2 [s]	D _{nT} [dB]
50	93.9	64.9	34.7	0.5	29
63	100.6	65.0	40.7	0.5	36
80	106.5	72.0	33.8	0.6	35
100	111.0	69.9	29.9	0.4	40
125	108.2	70.2	34.6	0.6	39
160	102.1	66.3	32.2	0.4	35
200	100.6	60.5	28.3	0.6	41
250	98.2	56.2	27.7	0.7	43
315	100.9	54.6	27.4	0.7	48
400	102.3	55.4	25.6	0.7	48
500	100.7	52.4	22.6	0.7	50
630	98.1	47.8	21.4	0.7	52
800	92.2	39.2	22.7	0.7	54
1000	87.6	33.2	22.0	0.6	55
1250	84.5	31.2	23.2	0.6	55
1600	88.9	29.9	23.5	0.6	61
2000	90.0	29.5	24.0	0.5	62
2500	92.4	27.3	21.0	0.5	66
3150	95.9	26.9	17.1	0.5	69
4000	-	-	-	-	-
5000	94.0	21.7	14.3	0.5	73



Rating According to AS/ISO 717.1-2004:

$D_{nT,w}(C;C_{tr}) = 53 \quad (-1; -5) \text{ dB}$ $C_{50-3150} = (-1) \text{ dB};$ $C_{50-5000} = (0) \text{ dB};$ $C_{100-5000} = (0) \text{ dB}$
 $C_{tr,50-3150} = (-7) \text{ dB};$ $C_{tr,50-5000} = (-7) \text{ dB};$ $C_{tr,100-5000} = (-5) \text{ dB}$

Evaluation Based on field measurement results obtained in one-third octave bands by an engineering method.

Measurements and assessments of sound transmission through wall and floor/ceiling systems are carried out in accordance with the following standards:

- AS ISO 717.1:2004 – "Acoustics - Rating of sound insulation in buildings and of building elements - Airborne sound insulation"; and
- AS/NZS ISO 140.4:2006 – "Acoustics - Measurement of sound insulation in buildings and of building elements - Field measurements of airborne sound insulation between rooms".

Test Report Number: T001

Test performed by: RH

Date of Report: 26/10/2011

Testing Company: Acoustic Dynamics Pty Ltd

Report Prepared By: Michael Holmes

Report Authorised By: Richard Haydon

Position: Acoustical Consultant

Position: Director (MAAS, MIEAust)

Signed:

Signed:



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Web: www.acousticdynamics.com.au

Normalised impact sound pressure levels according to ISO 140-7
Field measurements of impact sound insulation of floors

Client: **Mr Bob Anderson**
Building Address: **28 The Crescent Manly**
Test Date: **20/10/2011**
Project Number: **2801**

Description and identification of the building and test arrangement:

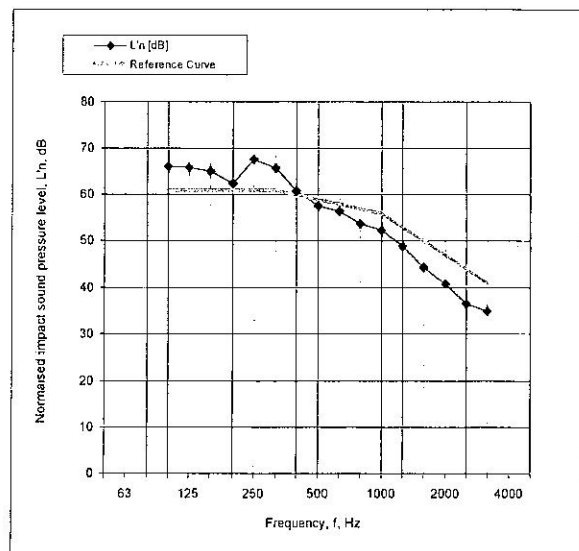
Construction:

Engineered floating timber floorboard; over 6mm thick Acoustica AngelStep



Wall height: 2.9 m
Long Wall Length: 5.2 m
Short Wall Length: 4.3 m
Floor/Ceiling Area: 22.4 m²
Room Volume: 63.7 m³

Frequency f [Hz]	Average L2 [dB]	Average B2 [dB]	Average T2 [s]	L'n [dB]
50	62.9	34.7	0.5	65.7
63	69.4	40.7	0.5	72.5
80	63.8	33.8	0.6	66.2
100	61.7	29.9	0.4	66.0
125	63.4	34.6	0.6	65.9
160	60.9	32.2	0.4	65.1
200	59.8	28.3	0.6	62.4
250	65.7	27.7	0.7	67.7
315	64.0	27.4	0.7	65.7
400	59.3	25.6	0.7	60.9
500	55.8	22.6	0.7	57.6
630	54.7	21.4	0.7	56.4
800	52.0	22.7	0.7	53.8
1000	49.9	22.0	0.6	52.3
1250	46.3	23.2	0.6	48.8
1600	41.7	23.5	0.6	44.3
2000	38.2	24.0	0.5	40.8
2500	33.7	21.0	0.5	36.5
3150	31.7	17.1	0.5	34.8
4000	28.5	15.4	0.5	31.6
5000	22.1	14.3	0.5	24.7



Rating According to AS/ISO 717.2:2004:

$$L'_{n,w}(C_1) = 59 \quad (0) \text{ dB} \quad C_{1,50-2500} = (3) \text{ dB}$$

Evaluation Based on field measurement results obtained in one-third octave bands by an engineering method.

Measurements and assessments of sound transmission through floor/ceiling systems are carried out in general accordance with the following standards:

- AS ISO 717.2:2004 – "Acoustics - Rating of sound insulation in buildings and of building elements - Impact sound insulation"; and
- AS/NZS ISO 140.7:2006 – "Acoustics - Measurement of sound insulation in buildings and of building elements - Field measurements of impact sound insulation of floors".

Test Report Number: T002

Test performed by: RH

Date of Report: 26/10/2011

Testing Company: Acoustic Dynamics Pty Ltd

Report Prepared By: Michael Holmes

Report Authorised By: Richard Haydon

Position: Acoustical Consultant

Position: Director (MAAS, MIEAust)

Signed:

Signed:



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Email: acoustics@acousticdynamics.com.au
Web: www.acousticdynamics.com.au

Standardized impact sound pressure levels according to ISO 140-7
Field measurements of impact sound insulation of floors

Client: Mr Bob Anderson
Building Address: 28 The Crescent Manly
Test Date: 20/10/2011
Project Number: 2801

Description and identification of the building and test arrangement:

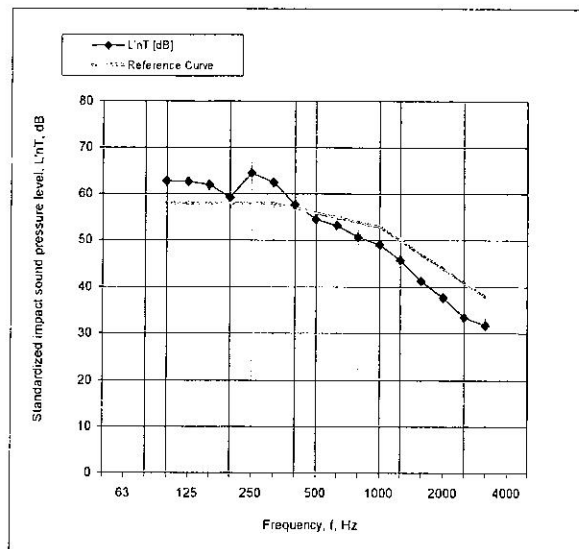
Construction:

Engineered floating timber floorboard; over 6mm thick Acoustica AngelStep



Wall height: 2.9 m
Long Wall Length: 5.2 m
Short Wall Length: 4.3 m
Floor/Ceiling Area: 22.4 m²
Room Volume: 63.7 m³

Frequency f [Hz]	Average L ₂ [dB]	Average B ₂ [dB]	Average T ₂ [s]	L' _{nT} [dB]
50	62.9	34.7	0.5	62.6
63	69.4	40.7	0.5	69.4
80	63.8	33.8	0.6	63.1
100	61.7	29.9	0.4	62.9
125	63.4	34.6	0.6	62.8
160	60.9	32.2	0.4	62.0
200	59.8	28.3	0.6	59.3
250	65.7	27.7	0.7	64.6
315	64.0	27.4	0.7	62.6
400	59.3	25.6	0.7	57.8
500	55.8	22.6	0.7	54.5
630	54.7	21.4	0.7	53.3
800	52.0	22.7	0.7	50.7
1000	49.9	22.0	0.6	49.2
1250	46.3	23.2	0.6	45.7
1600	41.7	23.5	0.6	41.2
2000	38.2	24.0	0.5	37.7
2500	33.7	21.0	0.5	33.4
3150	31.7	17.1	0.5	31.7
4000	28.5	15.4	0.5	28.5
5000	22.1	14.3	0.5	21.6



Rating According to AS/ISO 717.2:2004:

$L'_{nT,w}(C) = 56$ (0) dB $C_{1,60-2500} = (3)$ dB

Evaluation Based on field measurement results obtained in one-third octave bands by an engineering method.

Measurements and assessments of sound transmission through floor/ceiling systems are carried out in general accordance with the following standards:

- AS ISO 717.2:2004 – "Acoustics - Rating of sound insulation in buildings and of building elements - Impact sound insulation"; and
- AS/NZS ISO 140.7:2006 – "Acoustics - Measurement of sound insulation in buildings and of building elements - Field measurements of impact sound insulation of floors".

Test Report Number: T002

Test performed by: RH

Date of Report: 26/10/2011

Testing Company: Acoustic Dynamics Pty Ltd

Report Prepared By: Michael Holmes

Report Authorised By: Richard Haydon

Position: Acoustical Consultant

Position: Director (MAAS, MIEAust)

Signed:

Signed:



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Web: www.acousticdynamics.com.au

R J (Bob) Anderson & L A Jones
P O Box 471
Manly, NSW, 1655
Bob's mobile: 0407 644 002
Email: andersonbobj@hotmail.com

22 July 2011

General Manager
Manly Council
P O Box 82
Manly, NSW, 1655

Dear Sir

RE DA 168/09. SUBJECT PROPERTY, 28 THE CRESCENT MANLY. ALTERATIONS & ADDITIONS TO EXISTING RESIDENTIAL FLAT BUILDING INCLUDING CONSOLIDATION OF TWO TORRENS TITLE LOTS & STRATA SUBDIVISION.

Alterations and additions have been concluded. We are now at the strata plan stage.

A survey included in the attached Strata Plan Form was prepared by Paul Byrne, surveyor. On the Location Plan, two places have been identified where walls of an existing garage were over alignment onto Council land in two places by 0.01 metre and 0.03 metre respectively. The garage was erected in 1962.

The DA works are being certified by Robin Howard of Building Certificates NSW Pty Ltd, Surry Hills, telephone 8014 7720, email admin@buildingnsw.com.au. Mr Howard does not wish to conclude the certification until he has received written confirmation from Council that the encroachments are approved or inconsequential or that the matter is otherwise resolved between us and Manly Council.

On 21 July 2011 I telephoned Council and spoke with Ms Lisa Henderson of Parks & Reserves. She intimated that such a resolution could possibly be a matter for Building & Environment Services.

We wish to request that Council consider this matter at their earliest convenience and provide us with their response

Yours faithfully

R J (Bob) Anderson

FOR R J ANDERSON & L A JONES

From: Tony.Pavlovic@manly.nsw.gov.au
To: andersonbobj@hotmail.com
CC: admin@buildingnsw.com.au; Debbie.Bakhos@manly.nsw.gov.au
Date: Mon, 15 Aug 2011 15:53:41 +1000
Subject: 28 The Crescent, Manly

Dear Mr Anderson,

In refer to your correspondence dated July 22, 2011 concerning an encroachment at the above property.

Please be advised that Council deems both encroachments inconsequential.

If you require any further information please do not hesitate in contacting me.

Tony Pavlovic

Manager Compliance & Enforcement - Land Use & Sustainability

Manly Council

1 Belgrave Street Manly NSW 2095 | PO Box 82 Manly NSW 1655 | Direct 99761694 |
Switch 9976 1500 | Fax 9976 1400 | Tony.Pavlovic@manly.nsw.gov.au | www.manly.nsw.gov.au

BASIX Completion Receipt

Receipt no.: CR-1322025136225-A57991

This receipt is confirmation that the certifying authority identified below has satisfied the requirements of clause 154C of the Environmental Planning and Assessment Regulation 2000 for the development described in the 'BASIX Certificate details' section below.

Director-General
Date of issue: Wednesday, 23/11/2011



COUNCIL COPY

Principal certifying authority

Name: Orlando Da Silva
Accreditation scheme: BPB
Accreditation number: 0081

BUILDING CERTIFICATES AUSTRALIA
OCCUPATION CERTIFICATE
Certificate No. Date
298-11 22 NOV 2011

Final Inspection

Date of final inspection: Thursday, 14/07/2011

FOR INFORMATION
This information has been provided to us and relied on
in good faith to confirm that works have complied to
BCA & all relevant Australian Standards.

BASIX Certificate details

BASIX Certificate no.	A57991
Project name	8909, 28 The Crescent (A)
Street address	28 The Crescent
Suburb	Manly
Postcode	2095
Local Government Area	Manly Council