form
BUILDING CERTIFIERS

RECEIVED MONA VALE
23 JAN 2017
CUSTOMER SERVICE

RECEIVED
23 JAN 2017
PITTWATER COUNCIL

19 January 2017

Northern Beaches Council
PO Box 882
Mona Vale NSW 1660

Dear Sir /Madam

Re: Lodgement of CC2017-001 for DA No. N0171/16
Site address: No. 54 Attunga Road, Newport NSW 2106

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

- Part 4A Lodgement Fee $36.00 payable to Council;
- Copy of Home Building Compensation Fund Certificate of Insurance from Builder;
- Sydney Water approval;
- Full set of Council Approved 'Stamped' Plans (not attached);
- Full set of Construction Certificate Plans and Specifications;
- Structural Engineer's Plans;
- Stormwater Management Plans;
- Geotechnical Risk Assessment & Geotech Forms 1, 1a, 2a & 2b;
- Bushfire Hazard Assessment Report;
- Receipts for payment of Long Service Levy;
- Schedule of Finishes;
- Basix Certificate.

Yours faithfully

Ref # 406594.

Craig Formosa

Director
Form Building Certifiers

POSTED 20/1/17

form BUILDING CERTIFIERS

CONSTRUCTION CERTIFICATE #CC2017-001

Approved 19.01.17

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

Date Application Received	9 January 2017				
Council	Northern Beaches Council				
Development Consent No	N0171/16	Date Approved	10 August 2016		
Certifying Authority	Craig Formosa	Accredited Certifier	Craig Formosa - BPB0124		
Accreditation Body	Building Professionals Board	BCA in Force	BCA2016		
APPLICANT DETAILS					
Name	Alanna Smit/Mike Smit Constructions		Email	alanna@mikesmitconstructions.com.au	
Address	88 Irrubel Road, Newport NSW 2106		Ph No	0417 548 887	
OWNER DETAILS					
Name	David Clare	Email	-		
Address	54 Attunga Road, Newport NSW 2106		Ph No	-	
DEVELOPMENT DETAILS					
Subject Land	54 Attunga Road, Newport NSW 2106		Lot No	115	DP 752046
Description of Development	Alterations and additions to the existing dwelling and landscaping				
Class of Building	1a, 10b	Value of Work	$642,000.00		
BUILDER DETAILS/OWNER BUILDER DETAILS					
Name	Mike Smit Constructions Pty Ltd		Ph No	0425 265 596	
Address	88 Irrubel Road, Newport NSW 2106				
Email	mike@mikesmitconstructions.com.au		Lic No	222220C	
APPROVED PLANS & DOCUMENTS					
Plans Prepared By	Alanna Smit Structural Interiors				
Drawing Numbers	A01 – A08		Dated	05.12.16	
Engineer Details Prepared By	Burgess, Arnott & Grava Pty Ltd		Jack Hodgson Consultants (stormwater)		
Drawing Numbers	2016-158/ S1A – S4A	30425-H1	Dated	21.10.16	31.10.16
Basix Certificate No.	A245734_04		Dated	1 August 2016	

CERTIFICATION

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

a) The requirements of the regulations referred to in S81A(5) have been complied with. That is, work completed in accordance with the documentation accompanying the application for this certificate (with such modifications verified by the certifying authority as may be shown on that documentation) will comply with the requirements of the Regulation as referred to in section 81A(5) of the Act; and

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

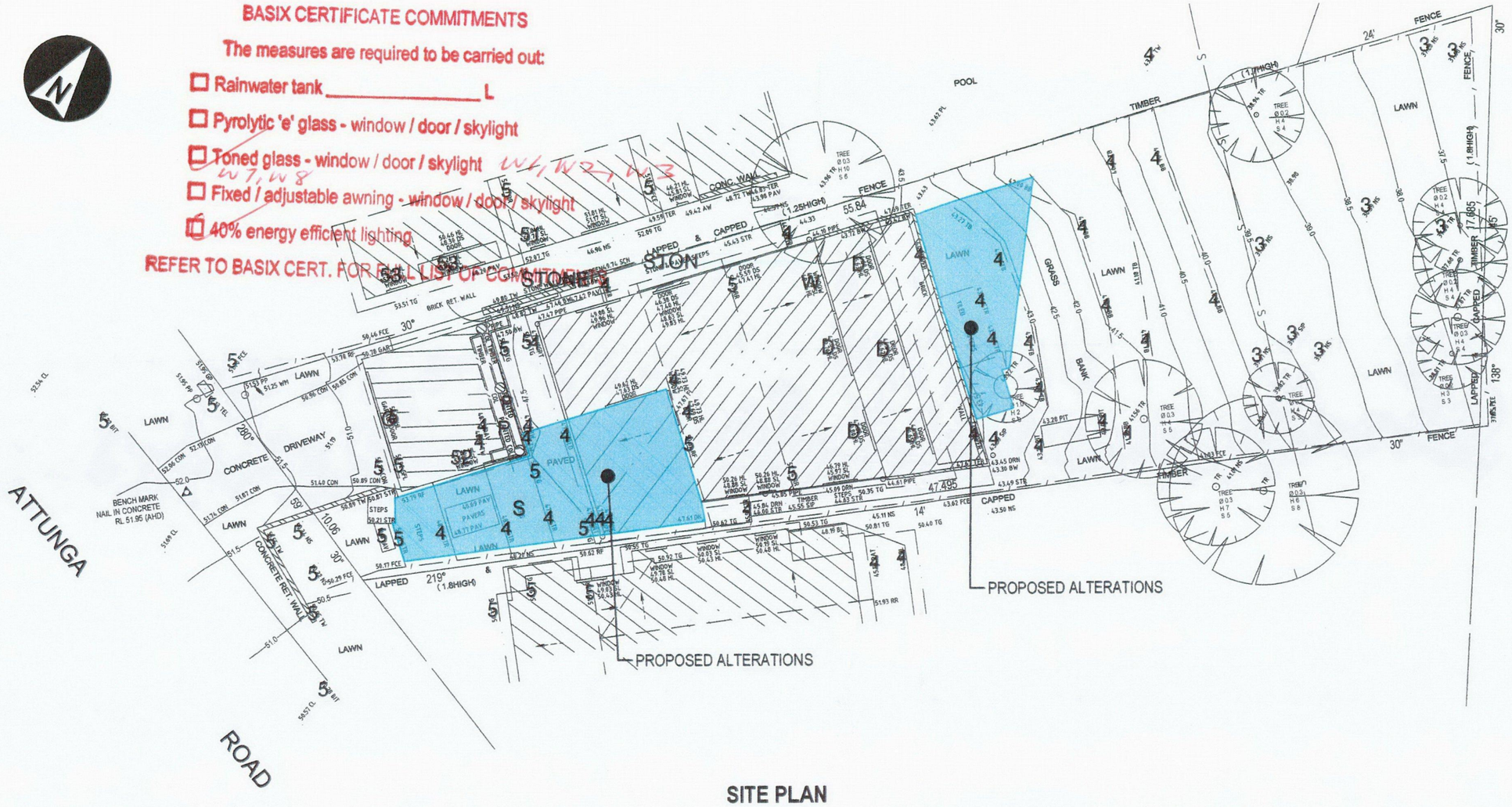
Signed: Date: 19.01.17

BASIX CERTIFICATE COMMITMENTS

The measures are required to be carried out:

- ☐ Rainwater tank _____ L
- ☐ Pyrolytic 'e' glass - window / door / skylight
- ☐ Toned glass - window / door / skylight W1, W2, W3
- ☐ Fixed / adjustable awning - window / door / skylight W7, W8
- ☐ 40% energy efficient lighting

REFER TO BASIX CERT. FOR FULL LIST OF COMMITMENTS



GENERAL NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVENT SAA CODES AND THE BY-LAWS AND ORDINANCES OF THE RELEVENT BUILDING AUTHORITIES AND THE LOCAL COUNCIL.
2. ALL TRADES, SERVICES AND SUB-CONTRACTORS SHALL BE LICENSED CURRENTLY WITH THE BUILDING SERVICES CORPORATION
3. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
4. DIMENSIONS SHOWN ON THE DRAWINGS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
5. SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE CHECKED AND VERIFIED ON SITE, BY THE CONTRACTOR, PRIOR TO COMMENCEMENT OF WORK.
6. IF IN DOUBT, UNDER NO CIRCUMSTANCES IS THE CONTRACTOR TO COMMENCE THAT STAGE OF THE PROJECT. THE CONTRACTOR SHALL CONFIRM THE DESIGN WITH THE OWNER OR THE DESIGNER.
7. ALL TIMBER WORK SHALL BE CONSTRUCTED AND G6. SUITABLY BRACED IN ACCORDANCE WITH THE NATIONAL TIMBER FRAMING CODE AS 1684 - 1992

SITE PLAN
1:250

BUSHFIRE - NCC/BCA Part 3.7.4
Construction standards to satisfy
AS 3959 - BAL 12.5 and in
strict compliance
with recommendations
in Development Consent NO 171/16,
Bushfire Report & attachments (AS3959)
by Building Code and Bushfire
Hazard Solutions Pty Ltd dated 26/2/16.

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

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

This is the plan/spec referred to in Form Building Certifiers Cerificate
Certificate No. CC2017-001
Plan Nos. A01 - A03
Craig Formosa BPB0124 DATE 19/01/17

2.5 0 5 10m
SCALE 1:250

Plot Date: 6/12/2016 9:52:21 PM Offices: AUDC1 Filename: C:\ASHSMIT CONSTRUCTIONS\SMIT4-54 ATTUNGA RD NEWPORT-PA\DA\A01-AR.DWG

ALANNA SMITH STRUCTURAL INTERIORS
88 Pittwater Road Mona Vale NSW 2103
+61 (0) 417 548 567
smith@alannasmith.com.au
www.alannasmith.com.au

CLIENT: D.CLARE

REV	DATE	REVISION DETAILS
A	04.12.15	ISSUED FOR APPROVAL
B	15.02.16	ISSUED FOR APPROVAL
C	14.06.16	RE-ISSUED FOR APPROVAL
D	20.07.16	RE-ISSUED FOR APPROVAL
E	05.12.16	RE-ISSUED FOR APPROVAL

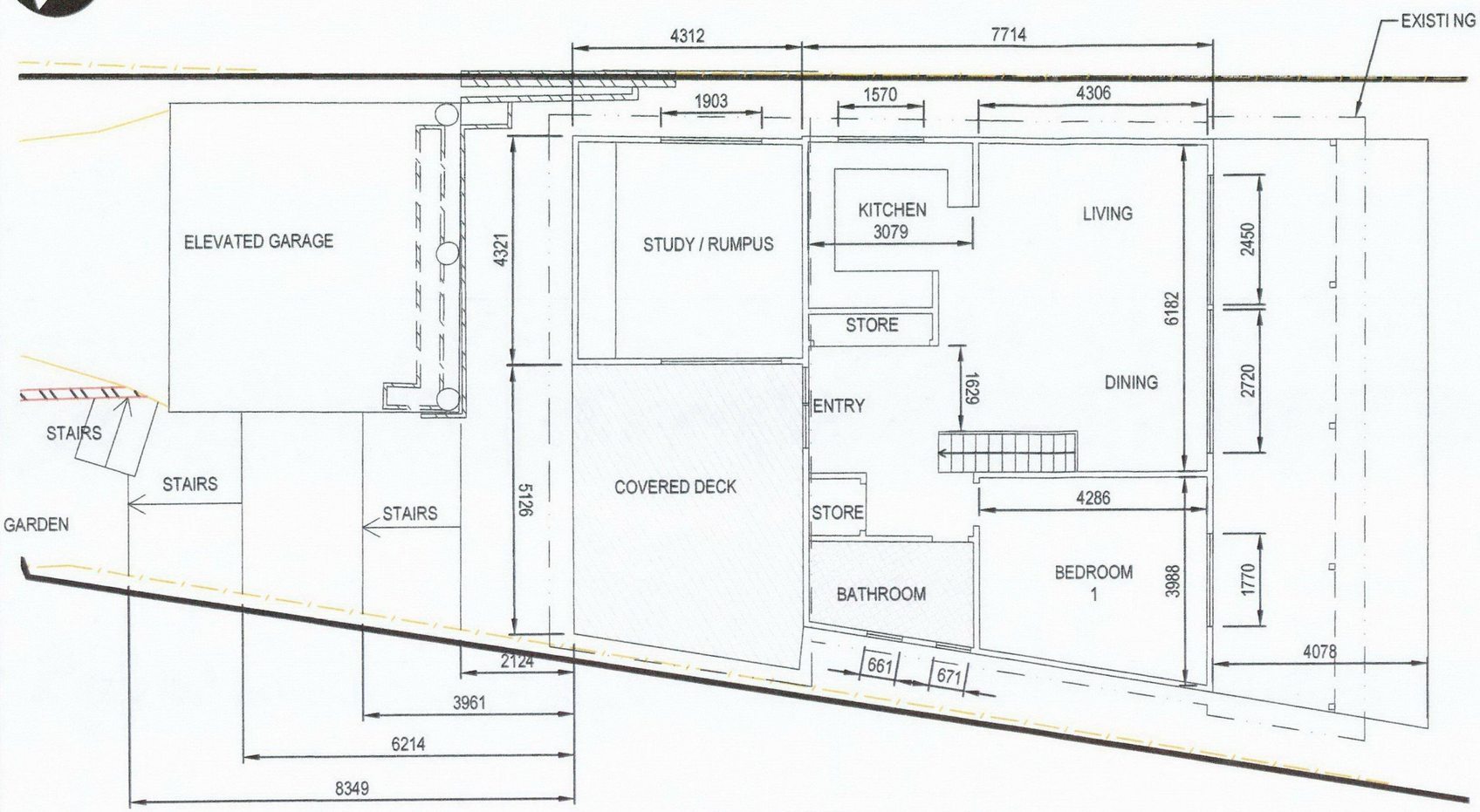
APPROVED

SCALE: AS SHOWN SIZE: A3
DRAWN: ARTS
DESIGNED:
CHECKED:

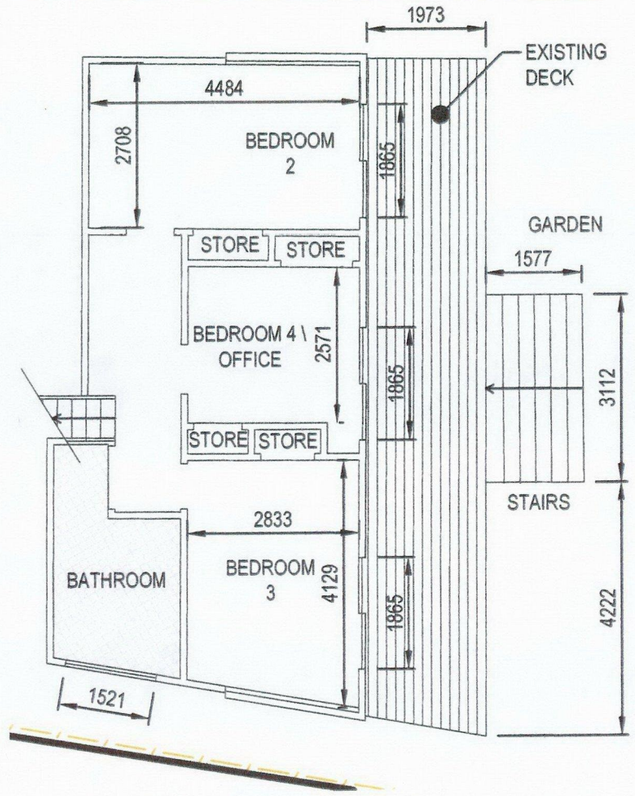
PRELIMINARY
NOT FOR CONSTRUCTION
APPROVED DATE

PROJECT: PROPOSED ALTERATIONS 54 ATTUNGA ROAD, NEWPORT
TITLE: SITE PLAN

DRAWING No. SMIT4 A01 – E



GROUND FLOOR PLAN
1:100



LOWER GROUND FLOOR PLAN
1:100

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

1 0 2 4m
SCALE 1:100

Plot Date: 6/12/2016 9:53:28 PM Office: AUDC1 Filename: C:\ASH\SMIT CONSTRUCTIONS\SMIT4-54 ATTUNGA RD NEWPORT-PA\DA02-AR.DWG

CLIENT
D.CLARE

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E	05.12.16	RE-ISSUED FOR APPROVAL

APPROVED

SCALE: AS SHOWN SIZE: A3
DRAWN: ARTS
DESIGNED:
CHECKED:

PRELIMINARY
NOT FOR CONSTRUCTION
APPROVED
DATE

PROJECT
PROPOSED ALTERATIONS
54 ATTUNGA ROAD, NEWPORT

TITLE
GROUND & LOWER GROUND
EXISTING FLOOR PLANS

DRAWING No. PROJECT No. SMIT4 NUMBER A02 REV - E

ASANNA SMIT STRUCTURAL INTERIORS
66 Iluka Road Newport NSW 2106
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email@asannasmit.com.au
www.asannasmit.com.au

NEW BLOCKWORK AND ALUMINUM PANEL FENCE.

NO WORKS TO DRIVEWAY ON ROAD RESERVE

AUTOMATIC SLIDING DOOR.

COMPLY WITH CONDITION B14 FOR GATE AND FENCE

NEW CONCRETE DRIVEWAY WIDENING

NEW STAIRS TO DRIVEWAY

EXISTING ELEVATED GARAGE

MAKE NEW EXISTING COURTYARD

Provide ~~Mechanical~~ Ventilation to satisfy NCC / BCA Part F4.5

EXISTING WINDOW TO BE REPLACED

Minimum 900mm

MAKE NEW EXISTING PATH AND STAIRS

EXISTI NG ROOF LINE

PRIVACY SCREEN TO GUTTER HEIGHT

EXISTING DECK TO REMAIN

EXISTING COLUMN TO BE REMOVED REPLACE WITH NEW LINTEL

EXISTING ROOF LINE

A A05

GARDEN

IN FILL EXISTING LAWN AREA TO ENGINEER'S SPECIFICATIONS.

EXISTING RETAINING WALL TO REMAIN

NEW RETAINING WALL TO ENGINEERS DETAILS, WITH NEW BLOCKWORK AND ALUMINUM PANEL FENCE.

MAKE NEW EXISTING STAIRS TO SUIT

MAKE NEW EXISTING COURTYARD

NEW UPPER ROOF LINE OVER

NEW ROOF OVER IN LINE WITH EXISTING

W1+W2 HIGHLIGHT WINDOWS

FILL EXISTING WINDOWS

EXISTING ROOF + SETBACK

WINDOW SEAT

NEW FIRE PLACE

EXISTING ROOF RIDGE

LAUNDRY

PANTRY

DINING

KITCHEN

POWDER ROOM

BED 1

ENSUITE

ROBE

LIVING

STEP

DOWN

UP

1690 WIDE OPENING

INSTALL A HARDWIRED SMOKE ALARM IN ACCORDANCE WITH AS3786

1580 1900 8106 1055 W3 1245 W5 D3 D6 D5 D4 D2 D1 W10 W4 955 1000 1300 5800 1100 1850 2580 4070 1987 1200 1300 1015 3000 1515 3815 700 1155 2255 3820 110 TYP 4205 320 1000 600

NEW STAIRS

Provide a handrail along the full length of the flight and a slip resistant finish to the edge of the nosings to comply with 3.9.1 and 3.9.2 of NCC

GROUND FLOOR PLAN

1:100

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

1 0 2 4m

SCALE 1:100

Plot Date: 6/12/2016 9:54:44 PM Offices: AUDC1 Filename: C:\ASHSMIT CONSTRUCTIONS\SMIT4-54 ATTUNGA RD NEWPORT.PAID\A03-AP.DWG

ALANNA SMIT STRUCTURAL INTERIORS

58 Hudson Road Newport NSW 2106

CLIENT

D.CLARE

REV	DATE	REVISION DETAILS	APPROVED
A	04.12.15	ISSUED FOR APPROVAL	
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E	05.12.16	RE-ISSUED FOR APPROVAL	

SCALE: AS SHOWN SIZE: A3

DRAWN: ARTS

DESIGNED:

CHECKED:

PRELIMINARY NOT FOR CONSTRUCTION

APPROVED DATE

PROJECT: PROPOSED ALTERATIONS 54 ATTUNGA ROAD, NEWPORT

TITLE: GROUND FLOOR PLAN PROPOSED ALTERATIONS

DRAWING No. PROJECT No. SMIT4 NUMBER A03 REV E

Minimum 900mm

6570
2485
3865
345
110
560
280
5200
W6
2.4Hx3W PRIVACY SCREEN
NEW DECK
500 MIN
BED 1
BED 3
2105
110
3210
600 TYP
D7
1385
ROBE
3266
LINEN
S
T
INSTALL A HARDWIRED SMOKE ALARM IN ACCORDANCE WITH AS3786
RUMPAS
2930
D8
1100
TV
1010
ROBE
BATHROOM
W/C
3375
BED 2
3550
W9
1600
1935
NEW STAIRS TO EXISTING LAWN LEVEL
W7
W8
2105
833
3888
580
EXISTING WINDOW TO BE REPLACED.
Minimum 900mm
GRASS
7375
42.0
BANK
3545
LAWN
41.5
41.0
40.5
40.0
39.5
39.0
38.5
38.0
37.5
LAWN
LAWN
SP2 ZONE
EXISTING SEWER MAIN REFER "DIAL BEFORE YOU DIG"
24' FENCE
(1.7HIGH)
38.9
37.2
37.0
30"
FENCE
FENCE
(1.8HIGH)
39.5
39.4
38.3
37.5
17.685
45'
TIMBER
37.6
39.4
39.6
39.1
37.8
CAPPED
39.8
38.0
TREE
Ø0.2
H3
S3
LAPPED
138°
41.0
30" FENCE

STAIRS
Provide a handrail along the full length of the flight and a slip resistant finish to the edge of the nosings to comply with 3.9.1 and 3.9.2 of NCC

LOWER GROUND FLOOR PLAN
1:100

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

1 0 2 4m
SCALE 1:100

Plot Date: 5/12/2016 9:55:38 PM Office: AUDC1 Filename: C:\ASHS\MIT CONSTRUCTIONS\MIT4-54 ATTUNGA RD NEWPORT-PA\DWG\04-AR.DWG

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www.alannasmt.com.au

CLIENT
D.CLARE

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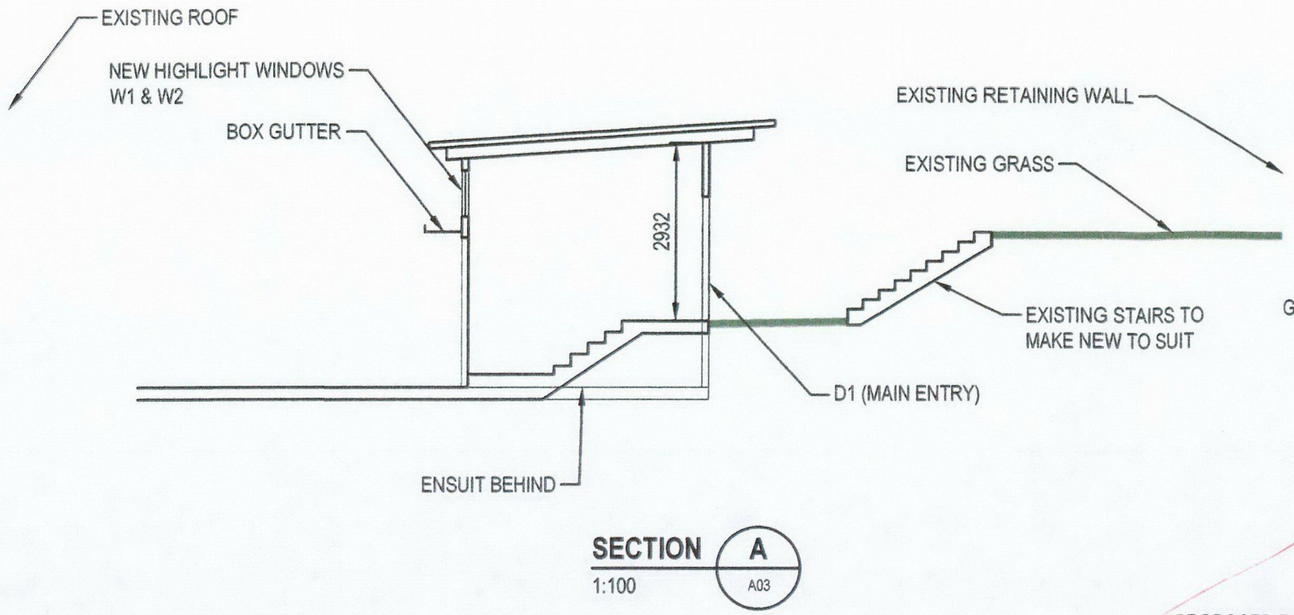
E	05.12.16	RE-ISSUED FOR APPROVAL	

SCALE: AS SHOWN
SIZE: A3
DRAWN: ARTS
DESIGNED:
CHECKED:
PRELIMINARY NOT FOR CONSTRUCTION
APPROVED
DATE
PROJECT
TITLE

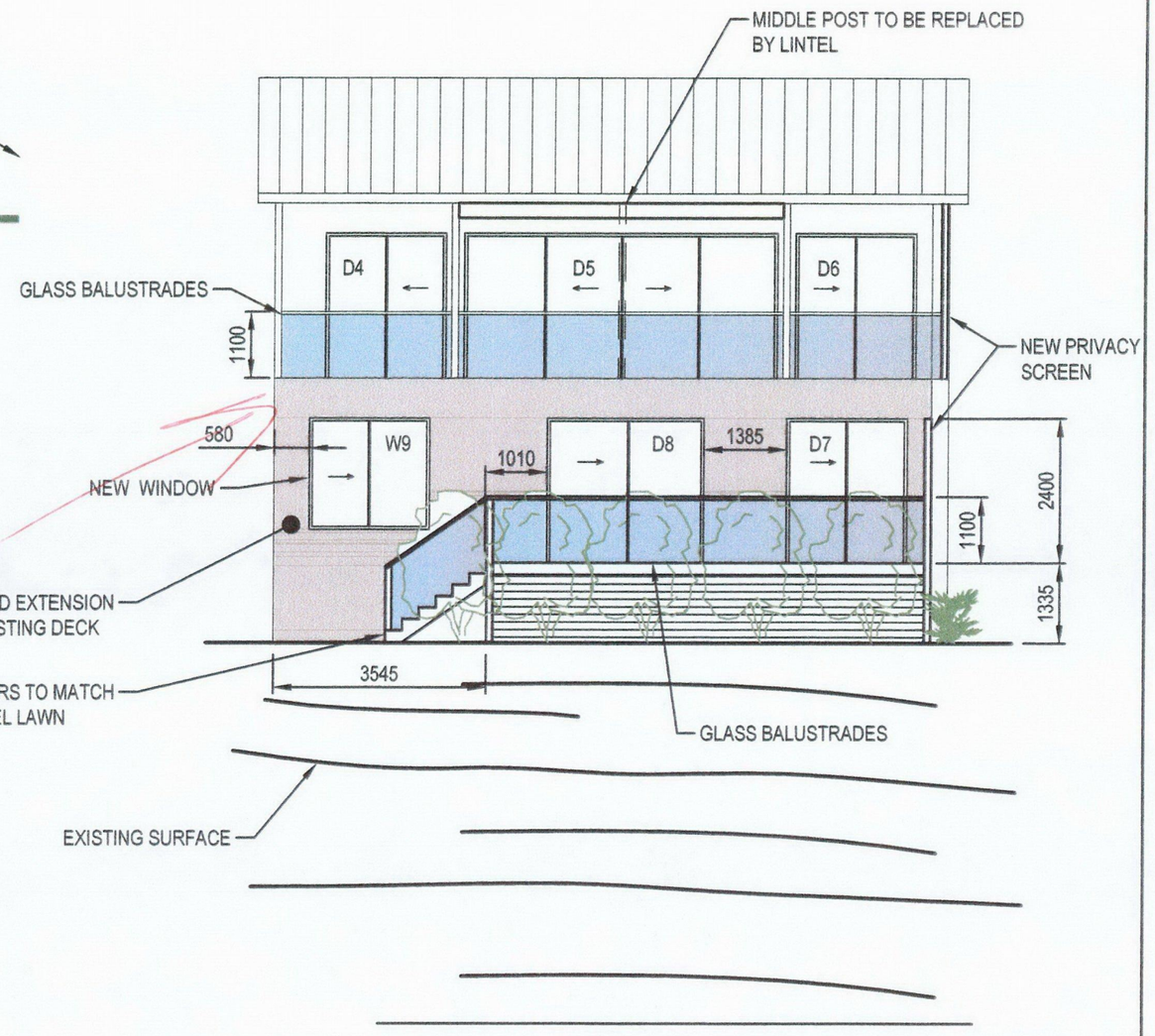
PROPOSED ALTERATIONS
54 ATTUNGA ROAD, NEWPORT
LOWER GROUND FLOOR PLAN
PROPOSED ALERATIONS

DRAWING No. SMIT4 A04 - E



SECTION A / A03
1:100

BALUSTRADES-NCC Part 3.9.
No horizontal elements to facilitate climbing between 150mm to 760mm where floor to level below is more than 4 meters.



NORTH ELEVATION
1:100

PROVIDE 1.7M SILL HEIGHT
OR CHILDSAFE LOCKS / SCREENS TO
COMPLY WITH BCA / NCC 2013

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

1 0 2 4m
SCALE 1:100

Plot Date: 6/12/2016 9:56:25 PM Office: AUDC1 Filename: C:\ASHSMIT CONSTRUCTION\SMIT4-54 ATTUNGA RD NEWPORT-PAID\A05-AR.DWG

REV	DATE	REVISION DETAILS	APPROVED
A	04.12.15	ISSUED FOR APPROVAL	
B	15.02.16	ISSUED FOR APPROVAL	
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CLIENT: D.CLARE

SCALE: AS SHOWN | SIZE: A3
DRAWN: ARTS
DESIGNED:
CHECKED:

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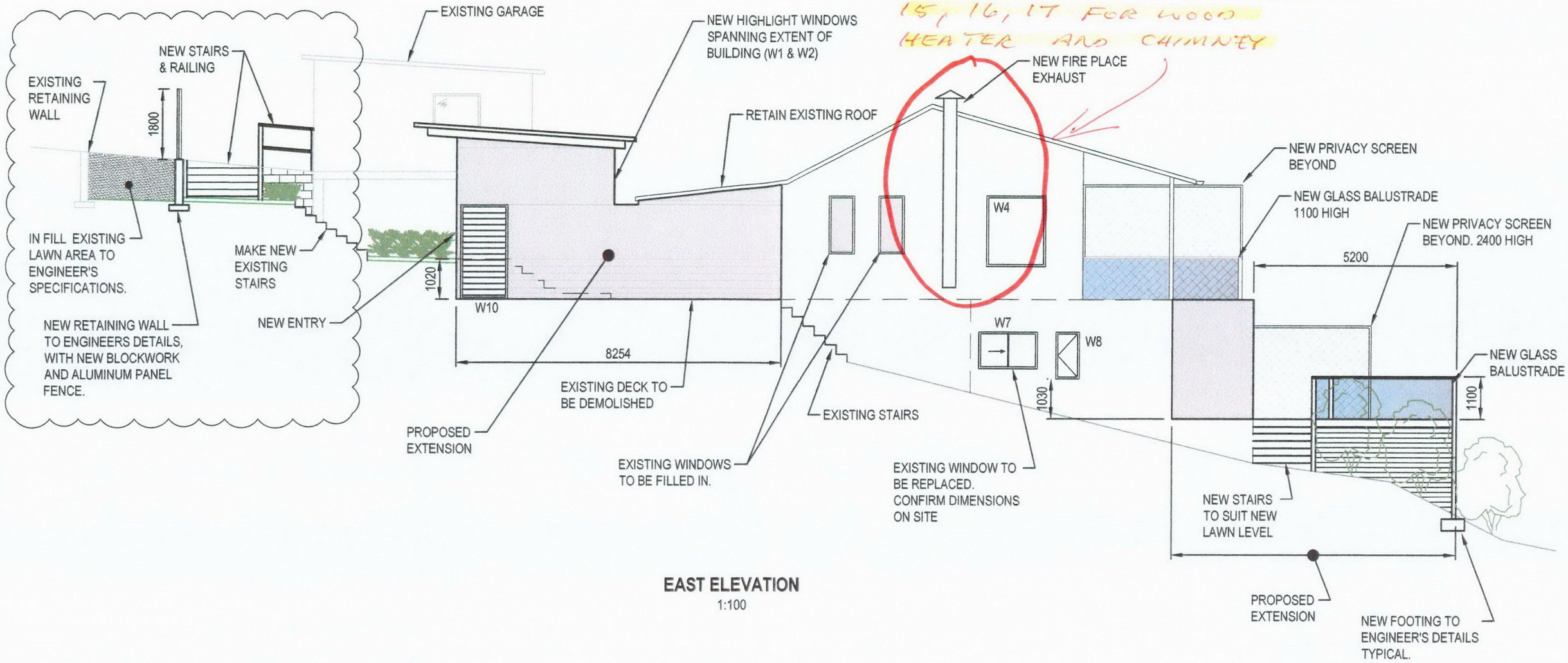
NOT FOR CONSTRUCTION
APPROVED
DATE

PROJECT
TITLE

PROPOSED ALTERATIONS
54 ATTUNGA ROAD, NEWPORT
SECTION & ELEVATIONS
SHEET 1

DRAWING No. SMIT4 | NUMBER A05 | REV E

COMPLY WITH CONDITIONS 15, 16, 17 FOR WOOD HEATER AND CHIMNEY



EAST ELEVATION
1:100

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

1 0 2 4m
SCALE 1:100

Plot Date: 6/12/2016 9:57:14 PM Office: AUDC1 Filename: C:\ASHRSMIT CONSTRUCTION\SMIT4-54 ATTUNGA RD NEWPORT-PAID\A06-AR.DWG

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CLIENT: D.CLARE

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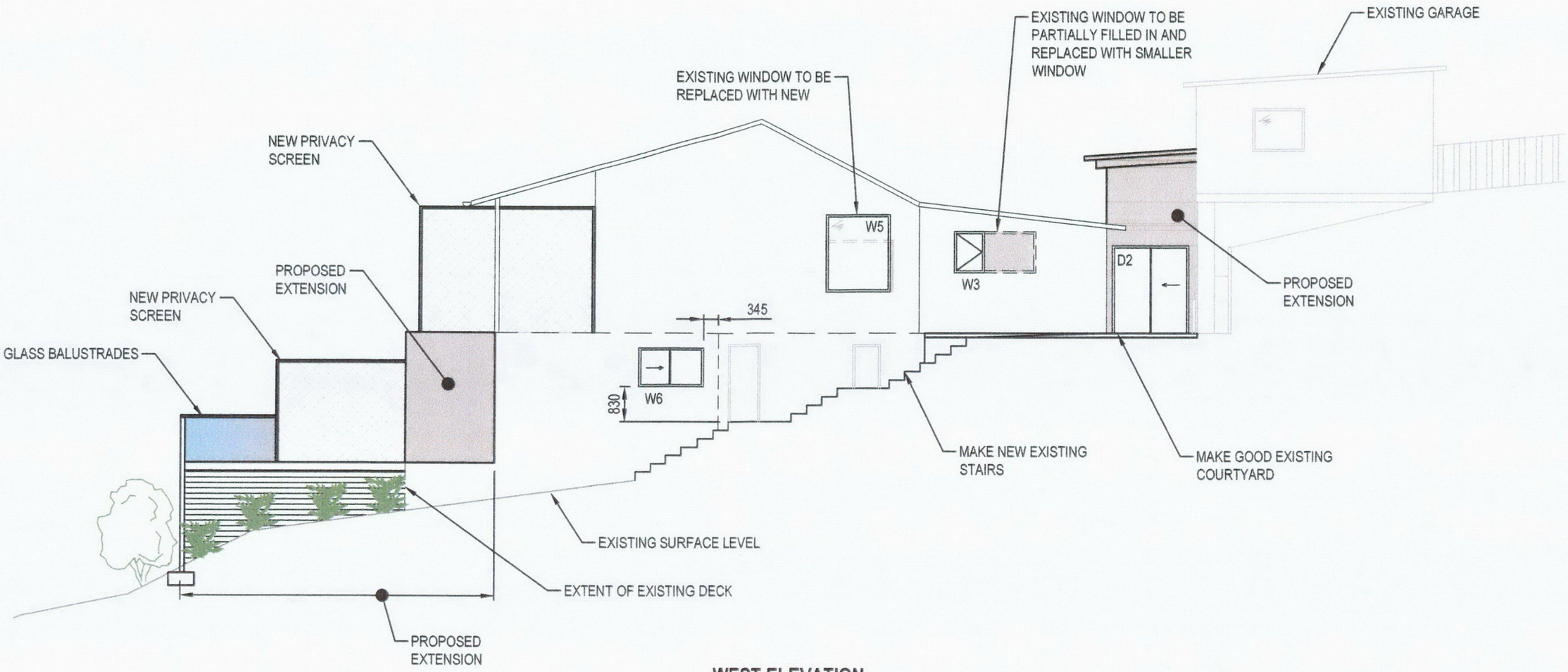
E	05.12.16	RE-ISSUED FOR APPROVAL	

SCALE: AS SHOWN | SIZE: A3
DRAWN: ARTS
DESIGNED:
CHECKED:

PRELIMINARY
NOT FOR CONSTRUCTION
APPROVED
DATE

PROJECT: PROPOSED ALTERATIONS
54 ATTUNGA ROAD, NEWPORT
TITLE: SECTIONS & ELEVATIONS
SHEET 2

DRAWING No. | PROJECT No. SMIT4 | NUMBER A06 | REV - E



WEST ELEVATION
1:100

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

1 0 2 4m
SCALE 1:100

Plot Date: 6/12/2016 9:57:59 PM Office: AUDC1 Filename: C:\ASHSMIT CONSTRUCTIONS\SMIT4-54 ATTUNGA RD NEWPORT-PAID\A07-AR.DWG

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CLIENT
D.CLARE

REV	DATE	REVISION DETAILS	APPROVED
A	04.12.15	ISSUED FOR APPROVAL	
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D	20.07.16	RE-ISSUED FOR APPROVAL	
E	05.12.16	RE-ISSUED FOR APPROVAL	

SCALE: AS SHOWN
SIZE: A3
DRAWN: ARTS
DESIGNED:
CHECKED:

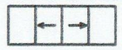
PRELIMINARY
NOT FOR CONSTRUCTION
APPROVED
DATE

PROJECT
PROPOSED ALTERATIONS
54 ATTUNGA ROAD, NEWPORT

TITLE
SECTIONS & ELEVATIONS
SHEET 3

DRAWING No. SMIT4 A07 - E

DOOR SCHEDULE

MARK	FRAME (WxH)	FRAME TYPE	GLASS TYPE	SCREEN	REMARKS
D1	1150X2400	STEEL	CLEAR		LHS - PIVOT DOOR 
D2	1800x2200	TIMBER	CLEAR	YES	SLIDING DOOR 
D3	800x2200	TIMBER	CLEAR		
D4	2000 x 2400	TIMBER	CLEAR	YES	SLIDING DOOR 
D5	5200 x 2400	TIMBER	CLEAR	YES	SLIDING DOOR 
D6	2000 x 2400	TIMBER	CLEAR	YES	SLIDING DOOR 
D7	2000 x 2400	TIMBER	CLEAR	YES	SLIDING DOOR 
D8	2600 x 2400	TIMBER	CLEAR	YES	SLIDING DOOR 

WINDOW SCHEDULE

MARK	FRAME (WxH)	FRAME TYPE	GLASS TYPE	SCREEN	REMARKS
W1	2000 x 600	TIMBER	TRANSLUCENT		HIGHLIGHT ELECTRONIC LOUVRED WINDOW WITH 150 WIDE BLADES
W2	2000 x 600	TIMBER	TRANSLUCENT		HIGHLIGHT ELECTRONIC LOUVRED WINDOW WITH 150 WIDE BLADES
W3	700 x 1200	TIMBER	TRANSLUCENT	YES	SIDE HUNG 
W4	1500 x 1800	TIMBER	CLEAR		FIXED PANEL
W5	1500 x 1800	TIMBER	CLEAR		FIXED PANEL
W6	1500 x 900	TIMBER	CLEAR	YES	SLIDING 
W7	1500 x 1200	TIMBER	TRANSLUCENT	YES	SLIDING 
W8	600 x 1200	TIMBER	TRANSLUCENT	YES	SIDE HUNG 
W9	2000 x 1800	TIMBER	CLEAR	YES	SLIDING 
W10	1200 x 2400	TIMBER	TRANSLUCENT	YES	LOUVRED WINDOW WITH 150 WIDE BLADES
SK1	700x550		CLEAR		SKYLIGHT IN CENTRED IN POWDER ROOM
SK2	1400x780		CLEAR		SKYLIGHT IN BEDROOM 1
SK3	1400x780		CLEAR		SKYLIGHT IN BEDROOM 1

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

Plot Date: 6/12/2016 9:58:40 PM Office: AUDC1 Filename: C:\ASHNSMIT CONSTRUCTIONS\SMIT4-54 ATTUNGA RD NEWPORT-PAID\A08-AR.DWG

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CLIENT: D.CLARE

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A	20.07.16	RE-ISSUED FOR APPROVAL	
B	05.12.16	RE-ISSUED FOR APPROVAL	

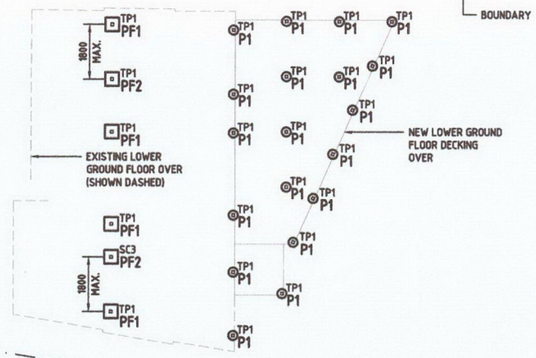
SCALE: AS SHOWN SIZE: A3
DRAWN: ARTS
DESIGNED:
CHECKED:

PRELIMINARY
NOT FOR CONSTRUCTION
APPROVED
DATE

PROJECT: PROPOSED ALTERATIONS
54 ATTUNGA ROAD, NEWPORT

TITLE: DOOR & WINDOW SCHEDULE

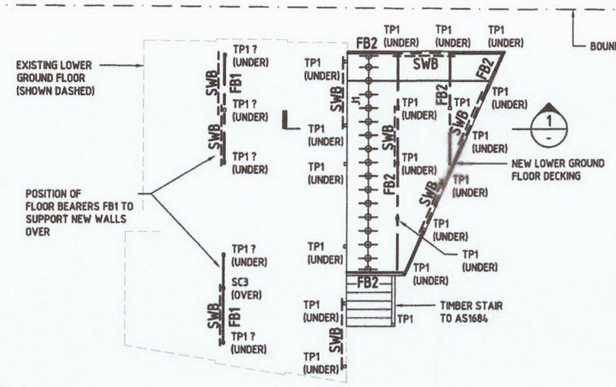
DRAWING No. SMIT4 A08 – B



PIER AND PAD FOOTING LAYOUT PLAN

SCALE 1:100

- ALL PIER FOOTINGS TO BE FOUNDED IN MATERIAL WITH A SAFE BEARING CAPACITY OF 800 kPa REFER TO GEOTECH REPORT, SOCKET 300 MIN. INTO WEATHERED SANDSTONE.
- PAD FOOTINGS UNDER EXISTING HOUSE TO BE FOUNDED IN MATERIAL WITH SAFE BEARING CAPACITY OF 200 kPa, REFER GEOTECH REPORT.
  PF1 - 450 SQUARE x 600 DEEP MASS CONCRETE PAD FOOTING.
  PF2 - 450 SQUARE x 1000 DEEP MASS CONCRETE PAD FOOTING.



LOWER GROUND LAYOUT PLAN

SCALE 1:100

- SUB - DENOTES SUB-FLOOR WALL BRACE TO AS1684

MEMBER SCHEDULE

LOWER GROUND FLOOR DECK

COLUMNS

SC3 ..... 90x3.5 SHS
TP1 ..... 90x90 TREATED F7 TIMBER POST

BEAMS

FB1 ..... 150x90 F14 KDHW FLOOR BEARER
FB2 ..... 90x90 MGP10 TREATED TIMBER BEARER
SWB ..... 150x50 OR 125 x75, F11 OR BETTER MIN.
J1 ..... 120x45-450 CTS MGP10 TREATED TIMBER FLOOR JOISTS

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

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

This is the plan/spec referred to in Form Building Certifiers Cerificate
Certificate No. CC2017-001
Plan Nos. S1A - S4A
Craig Formosa BPB0124 DATE 19/01/17

CONSTRUCTION NOTES.

General.

G1. These drawings shall be read in conjunction with all architectural and either consultants drawings and specifications and with such other written instructions as may the Architect for decision before proceeding with the work.
G2. Dimensions shall not be obtained by scaling the structural drawings.
G3. Setting out dimensions shown on the drawings shall be verified by the builder.
G4. During construction the structure shall be maintained in a stable condition and no part shall be overstressed.
G5. All excavation , shoring of excavation and stability of adjacent structures shall be the responsibility of the builder.
G6. The structural work shown on the drawings have been designed for the following live loads: Slabs ....2.0.... K.P.a. Balconies ....2.5.... K.P.A.
Stairs and landings ....3.0.... K.P.A.

Foundations.

F1. The footings have been designed for the allowable intensity of ....800.... K.P.A. ROCK
F2. All slabs on the ground subgrades shall be compacted to 95% M.D.D.
PIERS 700 kPa S/STONE

Concrete.

C1. All workmanship and materials shall be in accordance with AS3600 current edition with amendments, except where verified by the contract documents.
C2. Concrete quality is to be AS3600. Normal concrete is to have a maximum water cement ratio of .6 and a minimum portland cement content of 280 kg/per m.

Element	Slump	Max. Size agg.	Cement Type	AS3600 F'c	Admixture
PIERS	80	20	G.P.	25	
STRIP FOOTINGS	80	20	G.P.	25	
GROUND SLAB	80	20	G.P.	32	

C3. Clear concrete cover to reinforcement shall be as follows:

Element	Cast against forms complying with AS 1509		Cast against form work or The ground
	In sheltered Locations	Exposed to ground weather or water	
Beams	25	40	50
Footings	50	65	75
Slabs & Walls	20	40	50
PAVEMENTS	25	40	40

C4. Sizes of concrete elements do not include thickness of applied finishes.
C5. Construction joints where not shown shall be located to the approval of the Engineer. All construction joints shall be scabbled over the whole face and any unsound material removed.
C6. Beam depths are written first and include slab thickness.
C7. No holes or chases other than those shown on the structural drawings shall be made in concrete members without the prior approval of the Engineer.
C8. All concrete shall be mechanically compacted by a vibrator and the vibrator shall not be used to spread the concrete.
C9. Formwork to suspended slabs and beams shall remain in place for a full ..... days. cantilevers being bestpropped for a full 28 days. If there is less than 21 days between placing of concrete for successive slabs, props shall be placed directly under props over as that two slabs are carrying the load.
C10. Conduits, pipes, etc., must not be placed in concrete cover and shall be spaced minimum distance as for reinforcing steel.
C11. Reinforcement is represented diagrammatically; it is not necessarily shown in true projection.
C12. Welding of reinforcement will not be permitted unless shown on the structural drawings.
C13. Reinforcement symbols:
L -L10 deformed bar in accordance with AS 1302.
N -Structural grade deformed bar in accordance with AS 1302.
R -structural grade round bar in accordance with AS 1302.
SL -Hard drawn steel wire fabric in accordance with AS 1304.
C14. All reinforcement shall be firmly supported on plastic or M.S. (plastic tipped or galvanised) chairs generally at not greater than 1000mm. centres both ways. Bars to to be tied at alternative intersections.
C15. Unless noted otherwise, all cross rods and distributors shall be ....Y12 @ 300 ctrs.
C16. Splices in reinforcement shall be made only in the positions shown and shall be sufficient to develop the full strength of the reinforcement.
(1) Square fabric - minimum lap side .....200.... end .....400.....
(2) Rectangular fabric - minimum lap side ..... end .....
C17. Splice lengths generally to be in accordance with Table 13.1.2.2A of AS 3600.

Structural Steel.

S1. All workmanship and materials shall be in accordance with AS 4100, AS 1554 and for tubular members BS 449 and BS 1775, except where varied by contract documents.
S2. Connections shall be provided to carry the reactions shown unless otherwise detailed.
S3. The Contractor shall prepare workshop drawings and shall submit 3 copies of each drawing for examination of connections. Fabrication shall not commence until approval has been received.
S4. Welds shall be 6mm continuous fillet, all butts 20mm dia., all gusset plates 10mm thick unless otherwise noted.
S5. Concrete encased steelwork shall be wrapped with 3.15 mm. wire at 100 mm. cts. and shall have a minimum 50 mm. cover of concrete unless noted otherwise.
S6. Unless otherwise noted, all steel shall be in accordance with AS 1204 mild steel and AS 1163 steel hollow Grade 13.
S7. Unless otherwise noted, all steelwork not encased shall be given one coat of red oxide zinc chromate primer prior to dispatch.

Blockwork

M1. All blockwork shall be constructed in accordance with SAA Code AS 1475. Minimum block compressive strength to be as follows C = 12 MPa Ret. Walls = 20MPa
M2. All concrete masonry units shall be Class A units in accordance with AS 1500.
M3. Mortar shall be as follows:
a) Retaining walls andf all blockwork below ground - 1 part cement, 4 parts clean sharp sand & .005 Water Thickener DYNEX.
b) All other load bearing blockwork - 1 part cement, 0.5 part lime, 4.5 part clean sharp sand.
M4. Grout where required shall comprise 15 MPa concrete 230 slump.
M5. Cleanout openings shall be provided at base of all reinforced cells to enable cleaning of cells including removal of mortar protruding into cell, prior to placing of reinforcement.
M6. All steel lintels to be hot dipped galvanised with 150mm minimum bearing at each end.
M7. Approved joint reinforcement shall be laid horizontally at a maximum of 400mm cts. with additional layers directly above and below window and door openings.

TIMBER

T1. ALL TIMBER DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIAL SHALL BE IN STRICT ACCORDANCE WITH AS 1720.1-1998 SAA TIMBER STRUCTURES CODE.
T2. AS1684 - NATIONAL TIMBER FRAMING CODE SHALL BE APPLIED WHERE APPROPRIATE TO DOMESTIC CONSTRUCTION
T3. ALL SOFTWOOD TIMBER SHALL BE MINIMUM MGP 10 STRESS GRADE UNLESS NOTED OTHERWISE. ALL HARDWOOD TO BE MINIMUM GRADE F11 (UNO)
T4. UNLESS NOTED OTHERWISE ALL BOLTS IN TIMBER CONSTRUCTION TO BE COMMERCIAL BOLTS OF GRADE 4.6 SNUG TIGHT (M16-4.6/S) CONFORMING TO AS 1111 WITH WASHERS AS SPECIFIED.
T5. END AND EDGE DISTANCES FOR BOLTS WHERE NOT SPECIFIED SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF AS 1720.1.
T6. ALL BOLTS, NUTS & WASHERS TO BE HOT DIP GALVANISED, OR STAINLESS STEEL GRADE A4 (316), NOT ZINC OR CADMIUM PLATED.
T7. EXTERNAL TIMBER TO BE EITHER HARDWOOD DURABILITY CLASS I OR II TO AS1720.2 OR IMPREGNATED PINE GRADE MGP 10, PRESSURE TESTED TO AS1604 AND RE-DRIED PRIOR TO USE. SUPPLEMENTARY TREATMENT SHALL BE APPLIED TO CUT SURFACES.

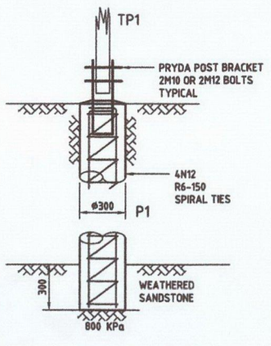
Amendment		Date
A	ISSUE FOR CONSTRUCTION CERTIFICATE	21.10.2016

ALTERATIONS AND ADDITIONS AT
54 ATTUNGA RD
NEWPORT N.S.W.
FOR

BURGESS, ARNOTT & GRAVA PTY LTD
CONSULTING CIVIL, STRUCTURAL & HYDRAULIC ENGINEERS
61A THE CENTRE FORESTVILLE P.O. BOX 69 FORESTVILLE 2087
Ph. 9451 4411 Fax. 9975 2274
email rob@gravaconsulting.com.au

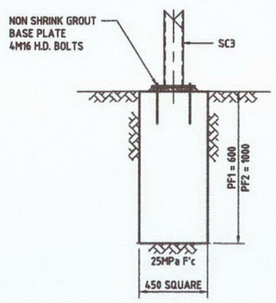
FOOTING AND LOWER GROUND LAYOUT PLANS AND DETAILS

Checked	Scale @ A1	Date	Drawing No.
R. GRAVA	1:00, 1:20	OCTOBER 2016	2016-158/S1A
Approved		Chartered Engineer	



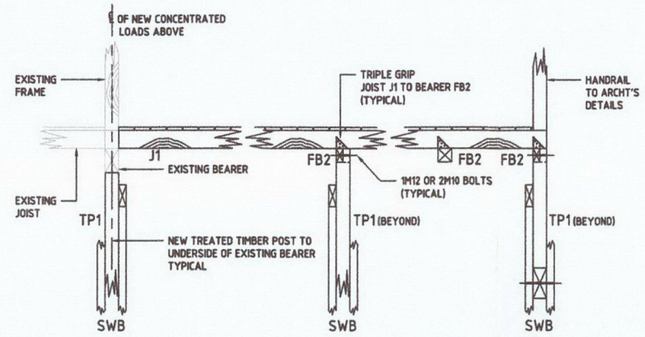
PIER P1 TO TIMBER POST TP1 - DETAIL

SCALE 1:20

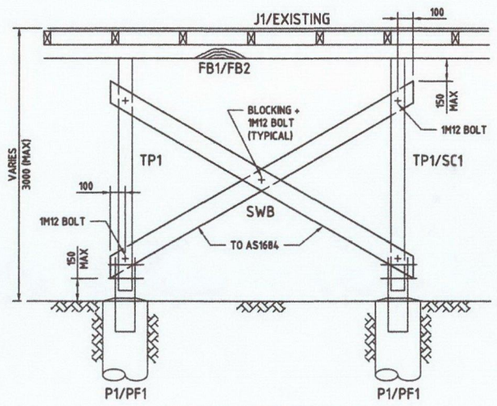


PAD FOOTING PF2 TO STEEL COLUMN SC1 - DETAIL
PAD FOOTING PF1 SIMILAR

SCALE 1:20

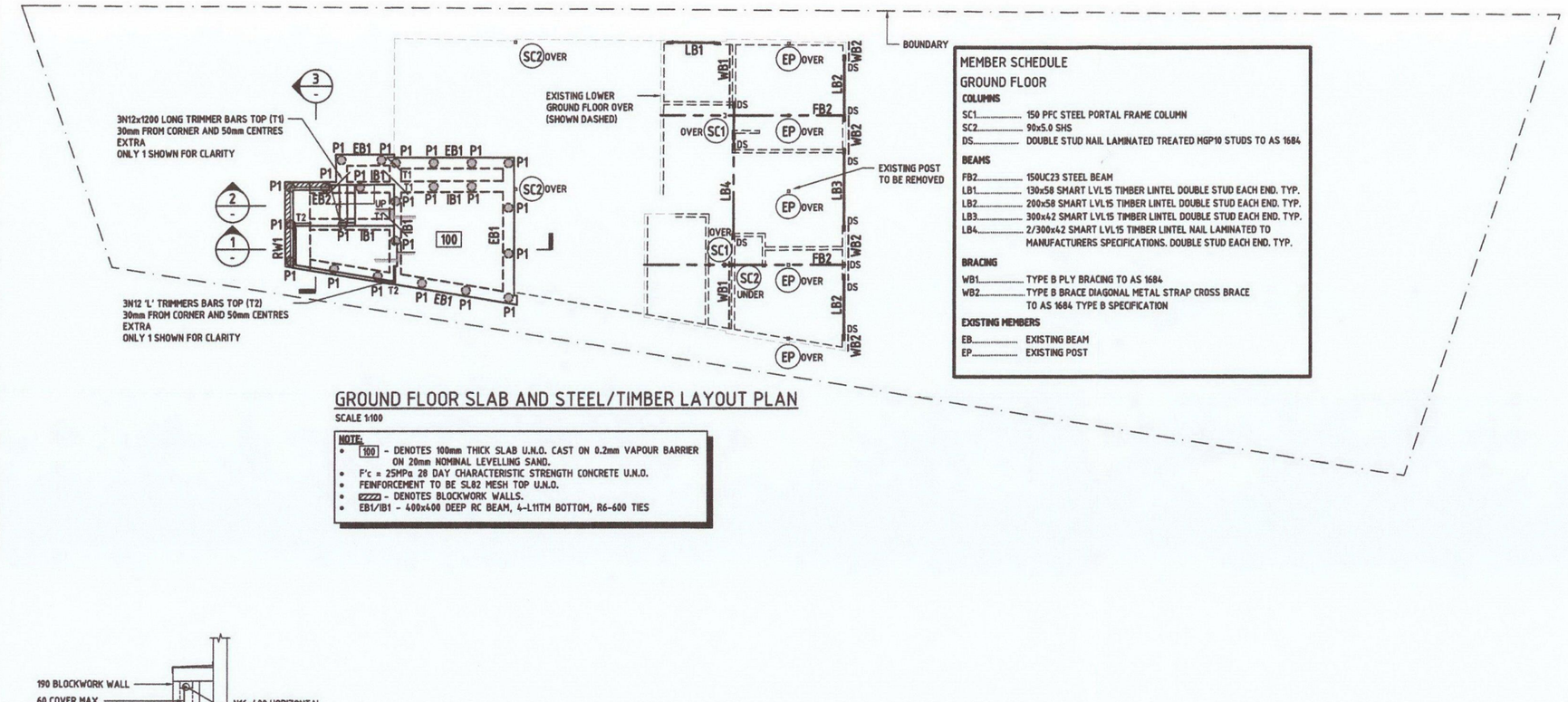


SECTION 1/- SCALE 1:20



SUB FLOOR WALL BRACE SWB - DETAIL

SCALE 1:20



MEMBER SCHEDULE

GROUND FLOOR

COLUMNS

SC1 ..... 150 PFC STEEL PORTAL FRAME COLUMN
SC2 ..... 90x5.0 SHS
DS ..... DOUBLE STUD NAIL LAMINATED TREATED MGP10 STUDS TO AS 1684

BEAMS

FB2 ..... 150UC23 STEEL BEAM
LB1 ..... 130x58 SMART LVL15 TIMBER LINTEL DOUBLE STUD EACH END. TYP.
LB2 ..... 200x58 SMART LVL15 TIMBER LINTEL DOUBLE STUD EACH END. TYP.
LB3 ..... 300x42 SMART LVL15 TIMBER LINTEL DOUBLE STUD EACH END. TYP.
LB4 ..... 2/300x42 SMART LVL15 TIMBER LINTEL NAIL LAMINATED TO MANUFACTURERS SPECIFICATIONS. DOUBLE STUD EACH END. TYP.

BRACING

WB1 ..... TYPE B PLY BRACING TO AS 1684
WB2 ..... TYPE B BRACE DIAGONAL METAL STRAP CROSS BRACE TO AS 1684 TYPE B SPECIFICATION

EXISTING MEMBERS

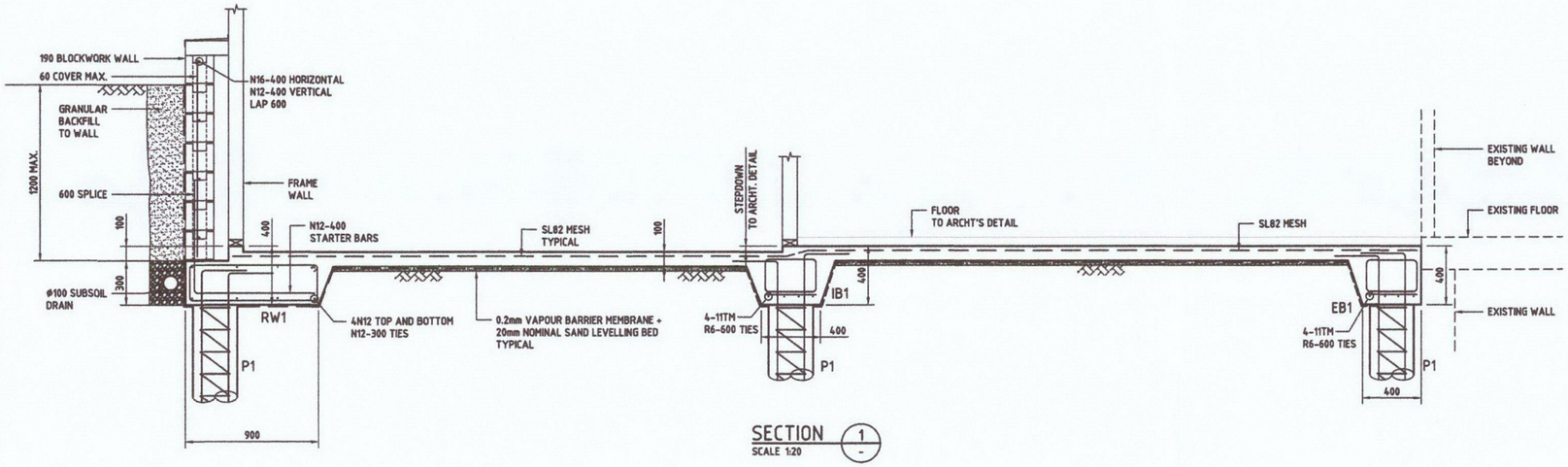
EB ..... EXISTING BEAM
EP ..... EXISTING POST

GROUND FLOOR SLAB AND STEEL/TIMBER LAYOUT PLAN

SCALE 1:100

NOTE:

- 100 - DENOTES 100mm THICK SLAB U.N.O. CAST ON 0.2mm VAPOUR BARRIER ON 20mm NOMINAL LEVELLING SAND.
- F'c = 25MPa 28 DAY CHARACTERISTIC STRENGTH CONCRETE U.N.O.
- FEINFORCEMENT TO BE SL82 MESH TOP U.N.O.
- ZZZZ - DENOTES BLOCKWORK WALLS.
- EB1/IB1 - 400x400 DEEP RC BEAM, 4-L11TM BOTTOM, R6-600 TIES



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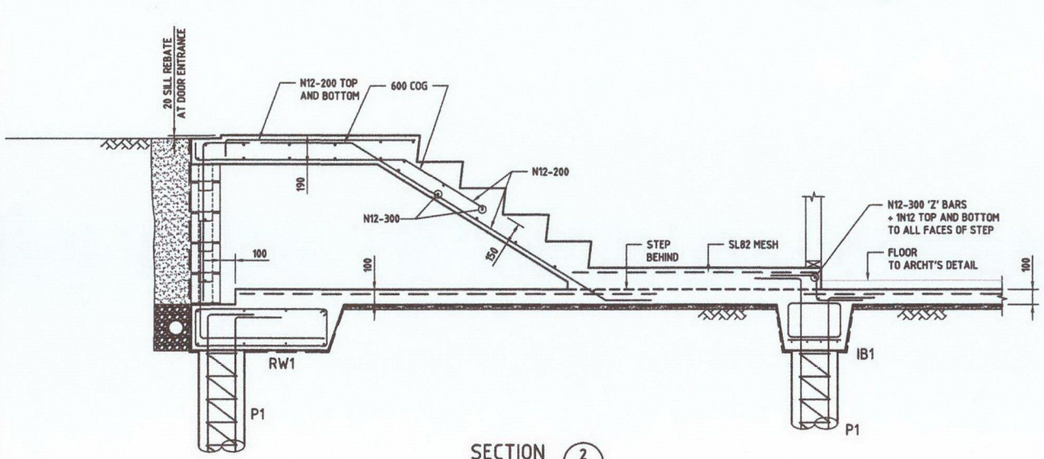

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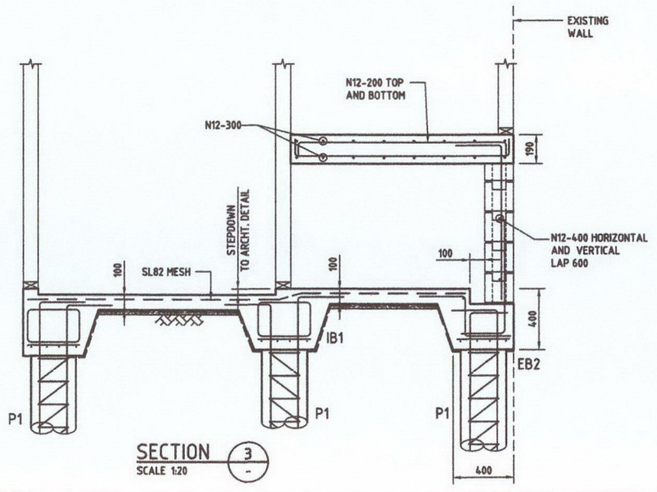

SECTION 3 / SCALE 1:20

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

Amendment		Date
A	ISSUE FOR CONSTRUCTION CERTIFICATE	21.10.2016

ALTERATIONS AND ADDITIONS AT
54 ATTUNGA RD
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FOR

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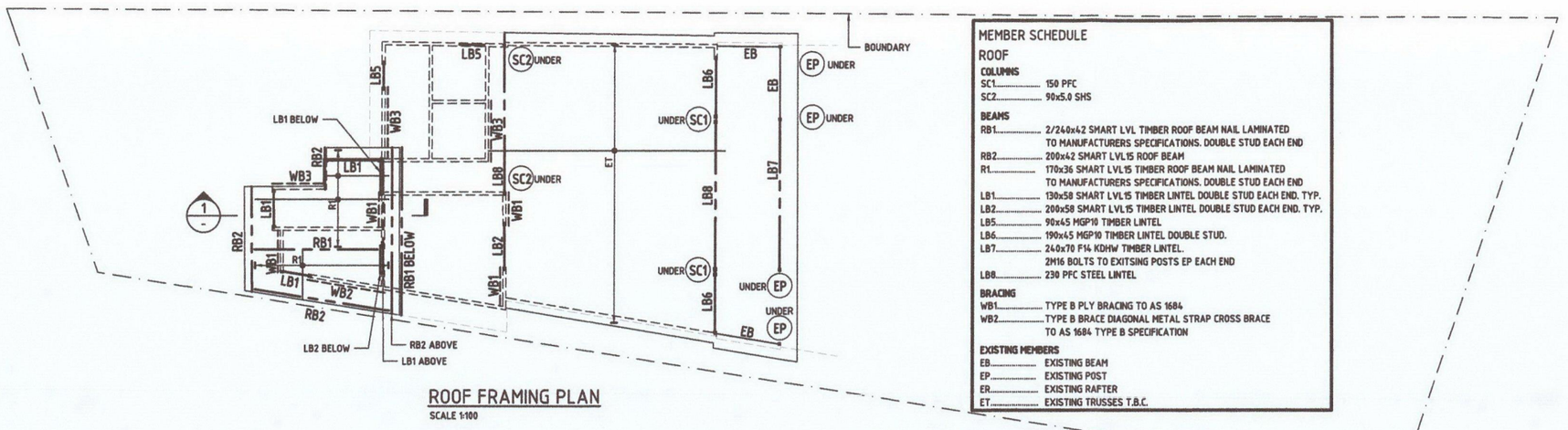
61A THE CENTRE FORESTVILLE P.O. BOX 69 FORESTVILLE 2087
Ph. 9451 4411 Fax. 9975 2274
email rob@gravaconsulting.com.au

GROUND FLOOR SLAB AND STEEL/TIMBER LAYOUT PLAN AND DETAILS

Checked	Scale @ A1	Date	Drawing No.
R. GRAVA	1:00, 1:20	OCTOBER 2016	2016-158/S2A

Approved ..... Chartered Engineer



ROOF FRAMING PLAN

SCALE 1:100

MEMBER SCHEDULE

ROOF

COLUMNS

SC1..... 150 PFC

SC2..... 90x5.0 SHS

BEAMS

RB1..... 2/240x42 SMART LVL TIMBER ROOF BEAM NAIL LAMINATED TO MANUFACTURERS SPECIFICATIONS. DOUBLE STUD EACH END

RB2..... 200x42 SMART LVL15 ROOF BEAM

R1..... 170x36 SMART LVL15 TIMBER ROOF BEAM NAIL LAMINATED TO MANUFACTURERS SPECIFICATIONS. DOUBLE STUD EACH END

LB1..... 130x58 SMART LVL15 TIMBER LINTEL DOUBLE STUD EACH END. TYP.

LB2..... 200x58 SMART LVL15 TIMBER LINTEL DOUBLE STUD EACH END. TYP.

LB5..... 90x45 MGP10 TIMBER LINTEL

LB6..... 190x45 MGP10 TIMBER LINTEL DOUBLE STUD.

LB7..... 240x70 F14 KDHW TIMBER LINTEL. 2M16 BOLTS TO EXITSING POSTS EP EACH END

LB8..... 230 PFC STEEL LINTEL

BRACING

WB1..... TYPE B PLY BRACING TO AS 1684

WB2..... TYPE B BRACE DIAGONAL METAL STRAP CROSS BRACE TO AS 1684 TYPE B SPECIFICATION

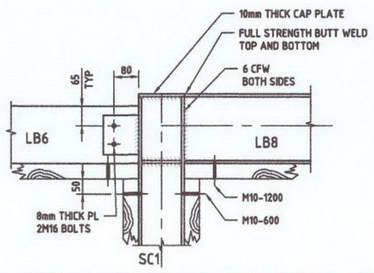
EXISTING MEMBERS

EB..... EXISTING BEAM

EP..... EXISTING POST

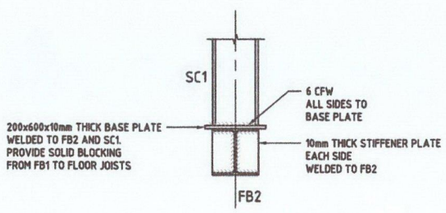
ER..... EXISTING RAFTER

ET..... EXISTING TRUSSES T.B.C.



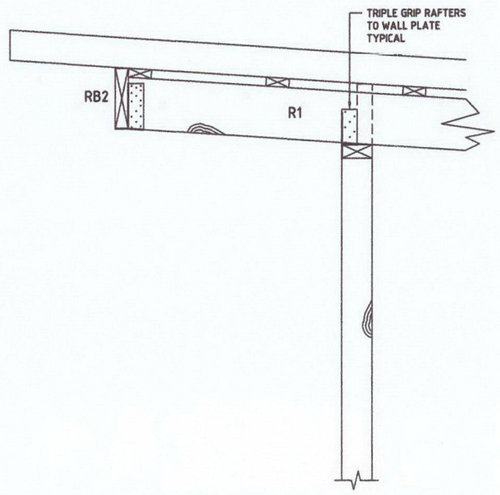
COLUMN SC1 TO LINTEL BEAMS LB6 AND LB8 - DETAIL

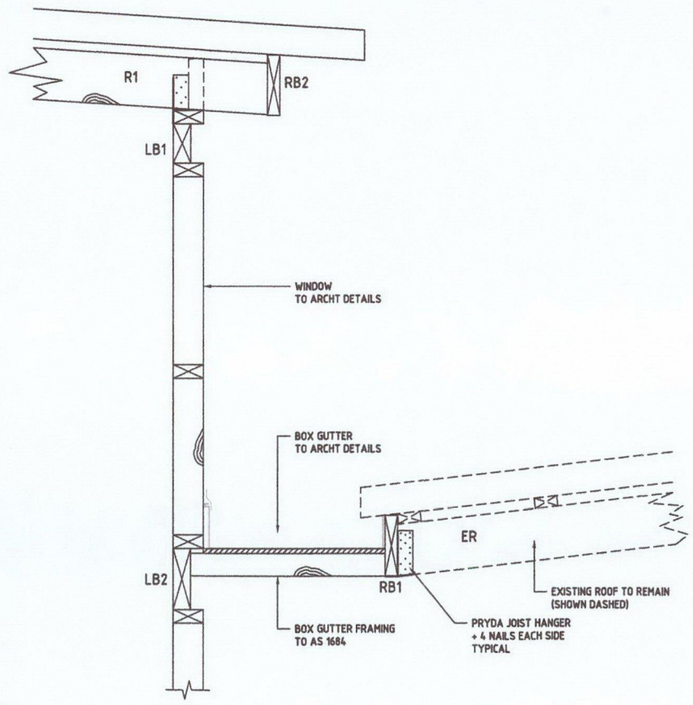
SCALE 1:100



COLUMN SC1 TO FLOOR BEAM FB2 - DETAIL

SCALE 1:100





SECTION 1 / -

SCALE 1:10

SOLID BLOCKING OMITTED FOR CLARITY

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

Amendment		Date
A	ISSUE FOR CONSTRUCTION CERTIFICATE	21.10.2016

ALTERATIONS AND ADDITIONS AT
54 ATTUNGA RD
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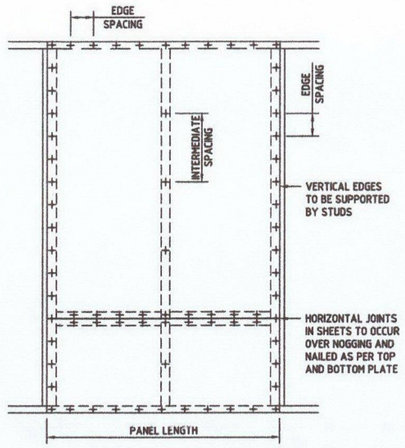
FOR

BURGESS, ARNOTT & GRAVA PTY LTD
CONSULTING CIVIL, STRUCTURAL & HYDRAULIC ENGINEERS
61A THE CENTRE FORESTVILLE P.O. BOX 69 FORESTVILLE 2087
Ph. 9451 4411 Fax. 9975 2274
email rob@gravaconsulting.com.au

ROOF FRAMING PLAN AND DETAILS

Checked	Scale @ A1	Date	Drawing No.
R. GRAVA	1:00, 1:10	OCTOBER 2016	2016-158/S3A
Approved		Chartered Engineer	

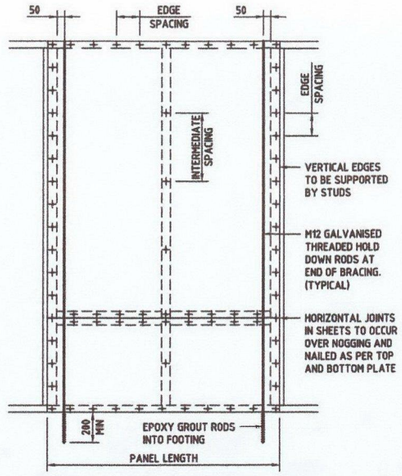


TYPE A SHEET BRACING UNITS

SCALE 1:20

PRODUCT	AUSTRALIAN STANDARD	TYPE/ GRADE	MIN THICKNESS (mm) FOR STUD SPACING (mm)		PANEL LENGTH (mm)	NAIL SIZE (mm)	NAIL SPACING (mm)		SPECIAL REQUIREMENTS
			450	600			EDGE	INTER-MEDIATE	
PLYWOOD	AS2269	F8	7	9	900	2.8x30 (GALVANISED)	150	300	NOGGING-1350 CTS MAX. NAILS SHALL BE 7mm FROM ALL EDGES
		F11	4.5	7					
		F14	4	6					
		F27	3	-					

NOTES:
1. PLYWOOD PANEL LENGTHS OF 600mm ARE EQUIVALENT TO 1/3 OF A TYPE-A BRACING UNIT.
2. FOR STUD SPACING OF 600mm CENTRES, WHERE NOGGING ARE INSTALLED AND THE PLYWOOD PANELS ARE NAILED TO THE NOGGINGS AT 150mm CENTRES, THE PLYWOOD THICKNESS MAY BE AS FOR STUD SPACING AT 450mm CENTRES.



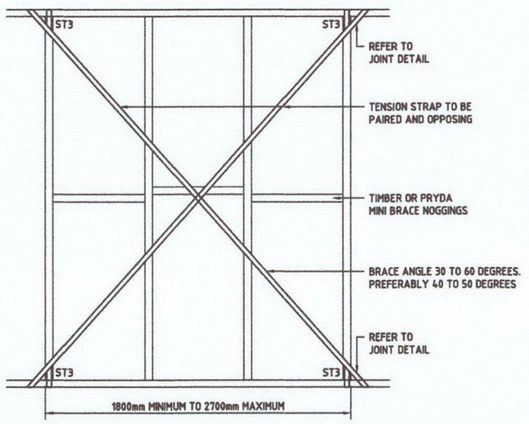
TYPE B SHEET BRACING UNITS

SCALE 1:20

PRODUCT	AUSTRALIAN STANDARD	TYPE/ GRADE	MIN THICKNESS (mm) FOR STUD SPACING (mm)		PANEL LENGTH (mm)	NAIL SIZE (mm)	NAIL SPACING (mm)		SPECIAL REQUIREMENTS
			450	600			EDGE	INTER-MEDIATE	
PLYWOOD	AS2269	F8	7	9	900	2.8x30 (GALVANISED)	50 TO PLATES AND 150 TO EDGE STUD	300	NOGGING-1350 CTS MAX. NAILS SHALL BE 7mm FROM ALL EDGES
		F11	6	7					
		F14	4	6					
		F27	4	4.5					

FIXING OF BRACING WALL TO FLOOR:
- BRACING UNITS SHALL BE FIXED TO THE FLOOR WITHIN THE LENGTH OF BRACING UNIT IN ACCORDANCE WITH TABLE BELOW:

BRACING TYPE	PLATE	FIXING DETAILS
TYPE-A	BOTTOM PLATE TO SLAB	1/175mm MASONRY NAIL AT MAX 1200mm CENTRES FOR 38mm THICK PLATES. 1/90mm MASONRY NAIL AT MAX 1200mm CENTRES FOR 50mm THICK PLATES.
TYPE-B	BOTTOM PLATE TO SLAB	M10 BOLT OR CAST IN GALVANISED METAL BOTTOM PLATE CONNECTOR AT EACH END OF BRACING UNIT AND AT 1200mm MAXIMUM CENTRES.

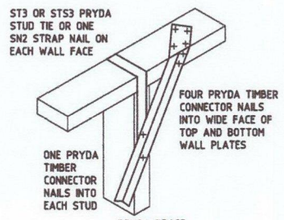


TYPE B DIAGONAL STRAP CROSS BRACE

SCALE 1:20

NOTE:
- IF 'PUNCHED' BRACING STRAP IS TO BE USED, CONSULT BURGESS ARNOTT & GRAVA PTY LTD FOR REVISED BRACE SPECIFICATION.

TYPE OF DIAGONAL BRACE	MATERIAL AND SIZE	NAILING REQUIREMENTS		SPECIAL REQUIREMENTS
		TO EACH STUD	TO EACH PLATE	
TENSION STRAP	GALVANISED FLAT METAL TENSION STRAP NOMINAL SIZE 30x0.8mm (UNPUNCHED) AND MIN SECTION 24mm^2	2/Ø30x3.15mm EACH END GALVANISED FLAT HEAD NAILS	4/Ø30x3.15mm EACH END GALVANISED FLAT HEAD NAILS	STRAPS MUST BE PROPERLY TENSIONED AND STRAP MUST RETURN OVER TOP PLATE AND UNDER BOTTOM PLATE. THE STUD NEAREST TO EACH END OF EACH DIAGONAL STRAP SHALL BE FIXED TO THE PLATES WITH STRAPS OR FRAMING ANCHORS 4/Ø30x2.8mm NAILS EACH END.



JOINT DETAIL

SCALE 1:10

BRACE: PRYDA STRAP BRACE SB103 OR SPEEDBRACE.
FIXING: PRYDA TIMBER CONNECTOR NAILS WITH 4 NAILS AT EACH END AND 1 NAIL AT EACH END.

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

Amendment		Date
A	ISSUE FOR CONSTRUCTION CERTIFICATE	21.10.2106

ALTERATIONS AND ADDITIONS AT
54 ATTUNGA RD
NEWPORT N.S.W.
FOR

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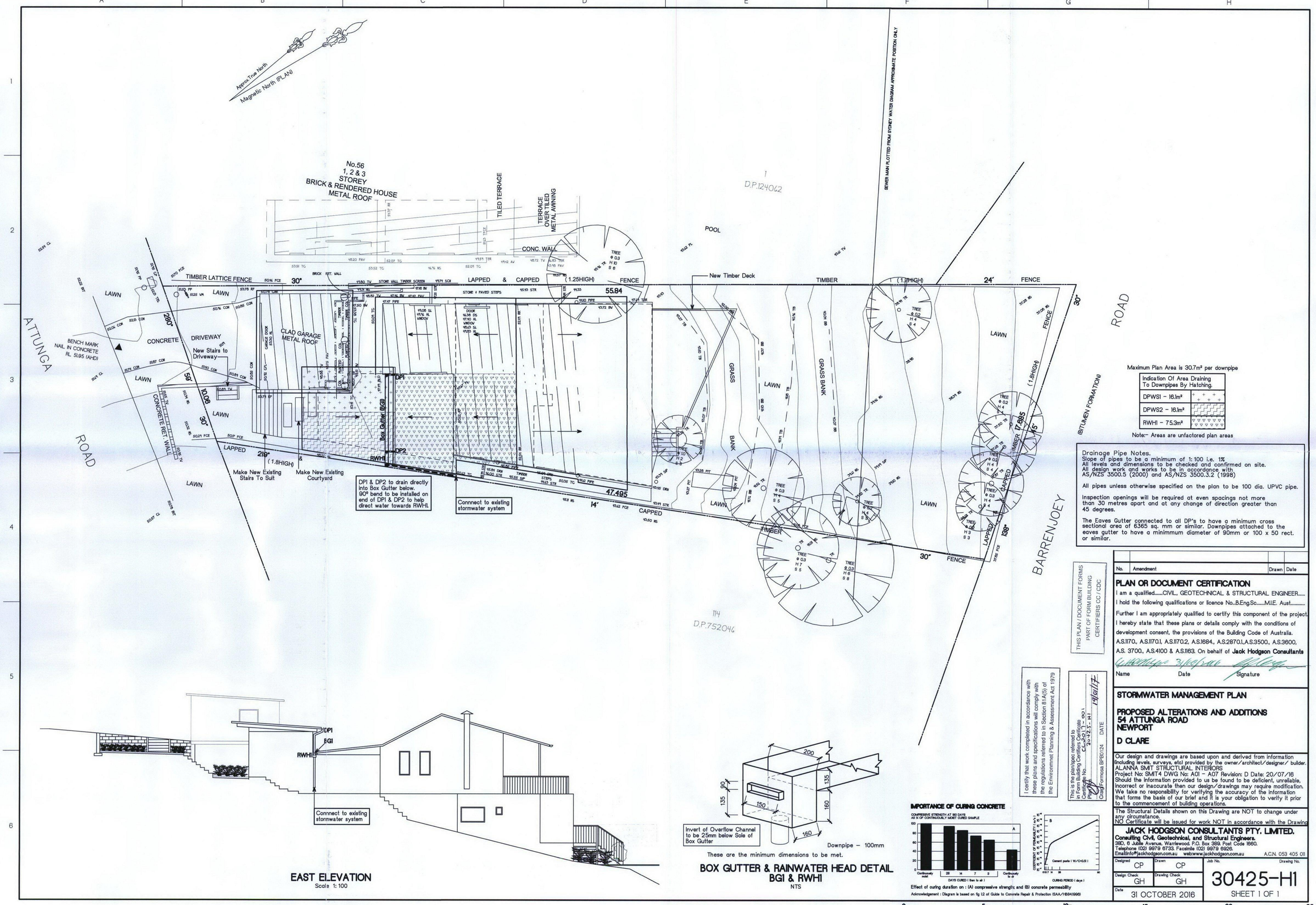
CONSULTING CIVIL, STRUCTURAL & HYDRAULIC ENGINEERS
61A THE CENTRE FORESTVILLE P.O. BOX 69 FORESTVILLE 2087
Ph. 9451 4411 Fax. 9975 2274
email rob@gravaconsulting.com.au

TYPICAL WALL BRACING DETAILS

Checked	Scale @ A1	Date	Drawing No.
R. GRAVA	1:20, 1:10	OCTOBER 2016	2016-158/S4A
Approved		Chartered Engineer	



Maximum Plan Area is 30.7m² per downpipe

Indication Of Area Draining To Downpipes By Hatching.	
DPWS1 – 16.1m²	
DPWS2 – 16.1m²	
RWHT – 75.3m²	

Note:– Areas are unfactored plan areas

Drainage Pipe Notes.

Slope of pipes to be a minimum of 1: 100 i.e. 1%
All levels and dimensions to be checked and confirmed on site.
All design work and works to be in accordance with AS/NZS 3500.5 (2000) and AS/NZS 3500.3.2 (1998)

All pipes unless otherwise specified on the plan to be 100 dia. UPVC pipe.

Inspection openings will be required at even spacings not more than 30 metres apart and at any change of direction greater than 45 degrees.

The Eaves Gutter connected to all DP's to have a minimum cross sectional area of 6365 sq. mm or similar. Downpipes attached to the eaves gutter to have a minimmum diameter of 90mm or 100 x 50 rect. or similar.

No.	Amendment	Drawn	Date

PLAN OR DOCUMENT CERTIFICATION

I am a qualified.....CIVIL, GEOTECHNICAL & STRUCTURAL ENGINEER.....
I hold the following qualifications or licence No...B.Eng.Sc.....M.I.E. Aust.....
Further I am appropriately qualified to certify this component of the project.
I hereby state that these plans or details comply with the conditions of development consent, the provisions of the Building Code of Australia.
A.S.1170., A.S.1170.1, A.S.1170.2, A.S.1684., A.S.2870.1,A.S.3500., A.S.3600, A.S. 3700., A.S.4100 & A.S.1163. On behalf of **Jack Hodgson Consultants**

Name Date Signature

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

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

This is the plan/spec referred to in Form Building Certifiers Certificate No. 30425-H1 Dated 19/07/17
Principal Certifying Authority
Chris Formosa BPB0124 DATE

STORMWATER MANAGEMENT PLAN

PROPOSED ALTERATIONS AND ADDITIONS
54 ATTUNGA ROAD
NEWPORT

D CLARE

Our design and drawings are based upon and derived from information (including levels, surveys, etc) provided by the owner/architect/designer/ builder.
ALANNA SMIT STRUCTURAL INTERIORS
Project No: SMIT4 DWG No: A01 – A07 Revision: D Date: 20/07/16
Should the information provided to us be found to be deficient, unreliable, incorrect or inaccurate then our design/drawings may require modification. We take no responsibility for verifying the accuracy of the information that forms the basis of our brief and it is your obligation to verify it prior to the commencement of building operations.

The Structural Details shown on this Drawing are NOT to change under any circumstance.
NO Certificate will be issued for work NOT in accordance with the Drawing

JACK HODGSON CONSULTANTS PTY. LIMITED.
Consulting Civil, Geotechnical, and Structural Engineers.
38D, 6 Jubile Avenue, Warriewood, P.O. Box 389, Post Code 1660.
Telephone (02) 9979 6733. Facsimile (02) 9979 6926.
Email:info@jackhodgson.com.au web:www.jackhodgson.com.au A.C.N. 053 405 011

Designed	Drawn	Job No.	Drawing No.
CP	CP	30425-H1	
Design Check: GH	Drawing Check: GH	SHEET 1 OF 1	
Date: 31 OCTOBER 2016			

BURGESS ARNOTT & GRAVA

A.C.N. 072 572 206 **Pty. Ltd.** A.B.N. 25 072 572 206

Consulting, Civil, Structural & Hydraulic Engineers

29 November 2016
Re: 2016-158 cert of designs

Private Certifying Authority
C/- Alanna Smit Structural Interiors
88 Irrubel Road
Newport NSW 2106

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

To whom it may concern,

Re: **PROPOSED ALTERATIONS - CERTIFICATE OF STRUCTURAL DESIGN**

SUBJECT PREMISES: **54 ATTUNGA ROAD, NEWPORT NSW**

Pursuant to the provisions of Clause A2.2 of the Building Code of Australia, I hereby certify that the above design is in accordance with normal engineering practice and meets the requirements of the Building Code of Australia, Part 7 of the Environmental Planning and Assessment Regulations, relevant Australian Standards and relevant conditions of Development Consent. In particular the design is in accordance with the following:

- A.S. 2870 Residential Slabs & Footings Code
- A.S. 4100 Steel Structures Code
- A.S. 3700 Masonry Structures Code
- A.S. 1720.1 Timber Structures
- A.S. 1684 Residential Timber Framing Code

I am an appropriately qualified and competent person in this area and as such can certify that the design and performance of the design systems comply with the above and which are detailed on the following drawings prepared by Burgess Arnott & Grava Pty Ltd:

- 2016-158/S1(A) Footings & Lower Ground Layout Plans & Details
- 2016-158/S2(A) Ground Floor Slab & Steel/Timber Layout Plan & Details
- 2016-158/S3(A) Roof Framing Plan & Details
- 2016-158/S4(A) Typical Wall Bracing Details

I possess indemnity insurance to the satisfaction of the building owner.

Full Name of Designer:	Robert Grava
Qualifications:	B.E. Civil M.I.E. Aust.NPER
Address of Designer:	61A the Centre, Forestville NSW 2087
Business Telephone No:	9451 4411 9975 9974Fax
Name of Employer:	Burgess Arnott & Grava Pty. Ltd.
Signature:	

for
R GRAVA M.I.E. AUST. C.P. EngNPER
Director.

61A The Centre, Forestville, N.S.W., 2087 ■ P.O. Box 69, Forestville, N.S.W., 2087
Ph: 9451 4411 ~ 9451 6772 ■ Fax: 9975 2274 ■ Email: rob@gravaconsulting.com.au

Sydney WATER

Building plan assessment application

Application number: 157232
Property address: 54 Attunga Rd, Newport 2106
Lot details: Lot 115, Deposited Plan 752046

21/11/2016

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

Dear Alanna Smit

Your building plan assessment application has been

APPROVED

This Approval is provided subject to the Conditions and Important Information issued to you by Sydney Water, which you are taken to have accepted by using the approval.

This Approval is based on the information you provided to us through Sydney Water Tap in.

If any of the information you have provided is incorrect or incomplete, Sydney Water may revoke this Approval.

This approval is valid until 21/11/2017 (one year).

ANY QUESTIONS?

Email us
swtapin@sydneywater.com.au

Call us
1300 082 746

STRUCTURES

The structures and information you supplied are displayed below.

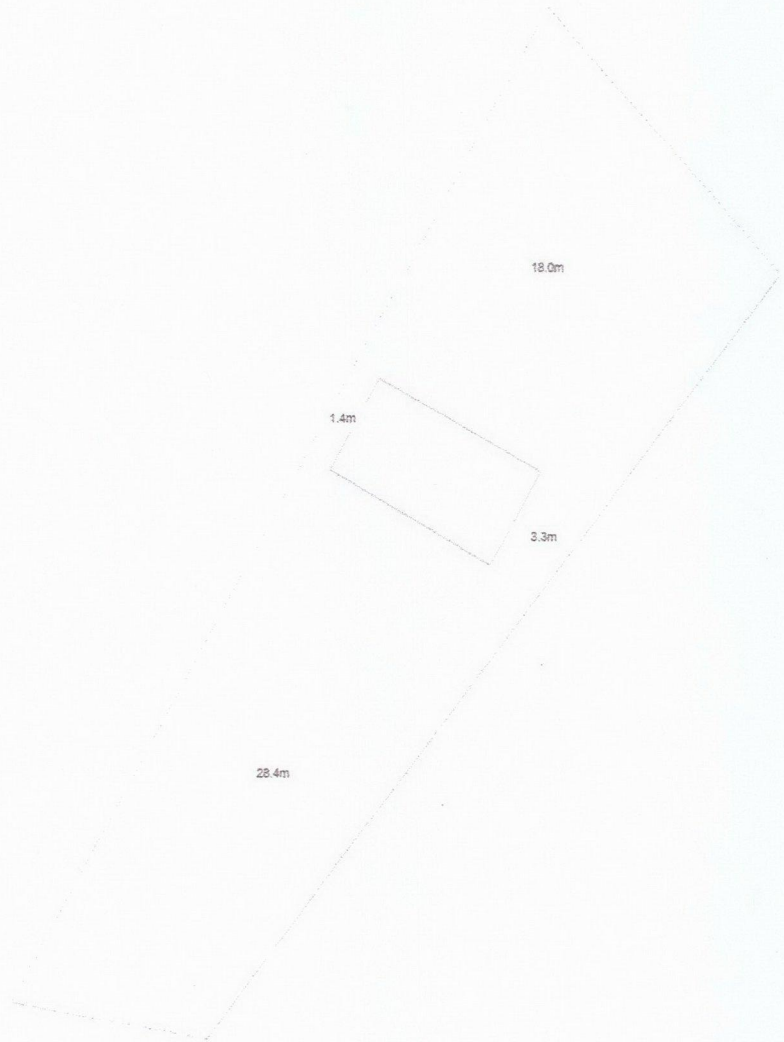
Structure(s) that will not impact Sydney Water infrastructure

Structure 1	Ground floor extension	9.4 m x 5.2 m x 1.0 m
Structure 2	Ground floor extension	8.3 m x 4.0 m x 2.0 m

Structure 1 of 2: Ground floor extension

Application number: 157232
Property address: 54 Attunga Rd, Newport 2106
Lot details: Lot 115, Deposited Plan 752046

This structure will not impact Sydney Water infrastructure.



Structure 2 of 2: Ground floor extension

Application number: 157232
Property address: 54 Attunga Rd, Newport 2106
Lot details: Lot 115, Deposited Plan 752046

This structure will not impact Sydney Water infrastructure.

CONDITIONS AND IMPORTANT INFORMATION

Conditions and Important Information

Attention: You must read the information below.

1 The approval of your building plan by Sydney Water (Approval) has been generated by an automated system based on the information you have provided to Sydney Water through the Sydney Water Tap in. Sydney Water does not make any representation or give any guarantee, warranty or undertaking (express or implied) as to the currency, accuracy, completeness, effectiveness or reliability of the Approval.

2 It is your responsibility to ensure that the information is correct and complete when submitting your building plan for approval through Sydney Water Tap in and, if any of the information is incorrect or incomplete, to resubmit information that is correct and complete. If any of the information that you have provided is incorrect or incomplete, this may result in the revocation of the Approval.

3 The Approval is provided on each of the following conditions which you are taken to have accepted by using the Approval. To the fullest extent permitted by law:

(a) all conditions and guarantees concerning the Approval (whether as to quality, outcome, fitness, care, skill or otherwise) expressed or implied by statute, common law, equity, trade, custom or usage or otherwise are expressly excluded and to the extent that those statutory guarantees cannot be excluded, the liability of Sydney Water to you is limited to either of the following as nominated by Sydney Water in its discretion, which you agree is your only remedy:

i. the supplying of the Approval again; or

ii. payment of the cost of having the Approval supplied again;

(b) in no event will Sydney Water be liable for, and you release Sydney Water from all Losses arising out of or in connection with you providing incorrect or incomplete information to Sydney Water in connection with the Approval:

i. whether arising under statute or in contract, tort or any other legal doctrine, including any negligent act, omission or default (including wilful default) by Sydney Water; and

ii. regardless of whether Sydney Water is or ought to have been aware of, or advised of, the possibility of such loss, costs or damages;

(c) you will indemnify, defend and hold harmless Sydney Water from and against all Losses of Sydney Water in respect of, or in connection with loss or damage to any property, personal injury (including death or illness of any person), arising out of or in connection with:

i. you providing incorrect or incomplete information to Sydney Water in connection with the Approval; or

ii. any third party claim against Sydney Water; and

(d) you assume all risks associated with the use of the Sydney Water Tap in and Sydney Water websites, including risk to your computer, software or data being damaged by any virus, and you release and discharge Sydney Water from all Losses which might arise in respect of your use of the websites.

4 Subject to condition numbered 3(c) in this document, your liability under condition numbered 3(c) in this document is reduced to the extent that the loss, liability, expense or damage:

(a) is caused solely and directly by any negligent act or omission of Sydney Water; or

(b) could not reasonably be foreseen and was not reasonably within the contemplation of you and Sydney Water at the time of the loss, liability, expense or damage.

5 The position of the proposed building/building works in relation to Sydney Water's pipes and structures is satisfactory. You are responsible for, amongst other things:

(a) protecting underground structures, including Sydney Water's pipelines, from damage and interference;

(b) maintaining minimum clearances between Sydney Water's structures and structures belonging to others;

(c) preventing loss or damage to any property, personal injury (including death or illness of any person) arising out of or in connection with you providing incorrect or incomplete information to Sydney Water in connection with the Approval;

(d) repairing or making good loss or damage to any property or the environment arising out of or in connection with you providing incorrect or incomplete information to Sydney Water in connection with the Approval;

(e) ensuring that connections to Sydney Water's sewer, watermain or stormwater are only be made following the issue of a permit to a licensed plumber/drainer;

(f) ensuring that all proposed fittings will drain to Sydney Water's sewer;

(g) ensuring that all plumbing and/or drainage Work is to be carried out in accordance with the NSW Code of Practice, AS 3500 and the Sydney Water Act 1994;

(h) ensuring that gullies, inspection shafts and boundary traps are not placed under any roof, balcony, verandah, floor or other cover unless otherwise approved by Sydney Water; and

(i) notifying Sydney Water immediately of any damage caused or threat of damage to Sydney Water's structures.

6 "**Sydney Water**" means Sydney Water Corporation and its employees, agents, representatives and contractors. References to "you" include references to your employees, agents, representatives, contractors, executors, administrators, successors, substitutes, assigns and anyone else using the Approval. References to "Losses" means all liabilities, losses, damages, expenses, compensations, fines, penalties, charges and costs (including legal costs on a full indemnity basis and whether incurred or awarded) of any kind or nature however they arise and whether they are present or future, fixed or unascertained, actual or contingent and including any loss of profits, loss of revenue or loss of opportunity. To the extent of any inconsistency, the conditions numbered 1 to 6 in this document will prevail over any other information provided or made available to you by Sydney Water.

In an emergency, or to notify Sydney Water of damage or threats to its structures, call 13 20 92 (24 hours, 7 days).

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 2 – PART A – To be submitted with detailed design for Construction Certificate

Development Application for _____
Name of Applicant

Address of site 54 ATTUNGA ROAD,NEWPORT

PART A: Declaration made by Structural or Civil Engineer in relation to the incorporation of the Geotechnical issues into the project design

I, ROBERT GRAVA **on behalf of** BURGESS ARNOTT & GRAVA PTY LTD

on this the 06/12/2016

certify that I am a Structural or Civil 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 also certify that I have prepared the below listed structural documents in accordance with the recommendations given in the Geotechnical Report for the above development and that

Please mark appropriate box

☑ the structural design meets the recommendations as set out in the Geotechnical Report or any revision thereto.

☑ the structural design has considered the requirements set out in the Geotechnical Report for Excavation and Landfill both for the excavation/construction phase and the final installation in accordance with Clause 3.2 (b)(iv) of the Geotechnical Risk Management Policy.

Geotechnical Report Details:

Report Title:	RISK ANALYSIS & MANAGEMENT FOR PROPOSED ADDITIONS AND ALTERATIONS AND LANDSCAPING AT 54 ATTUNGA ROAD,NEWPORT
Report Date:	17/03/2016
Author:	PETER THOMPSON
Author's Company/Organisation:	JACK HODGSON CONSULTANTS PTY LTD

Structural Documents list:

2016-158/S1A ,2016-158/S2A,2016-158/S3A,2016-158/S4A

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

Signature .....

Name ROBERT GRAVA

Chartered Professional Status BE MIE AUST CPEng NPER

Membership No. 947843

Company BURGESS ARNOTT & GRAVA PTY LTD

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

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

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

on this the 19TH DECEMBER, 2016 (date)

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

Please mark appropriate box

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

Geotechnical Report Details :

Report Title: RISK ANALYSIS & MANAGEMEMENT FOR PROPOSED ADDITIONS & ALTERATIONS & LANDSCAPING AT 54 ATTUNGA ROAD, NEWPORT – MR 30425 Report Date: 17TH MARCH, 2016 Author: PETER THOMPSON

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

ARCHITECTURAL PLANS PREPARED BY ALANNA SMIT STRUCTURAL INTERIORS PROJECT NO: SMIT 4 DWG NO: A01 TO A07 REVISION B DATED 15TH FEBRUARY, 2016
STRUCTURAL ENGINEERING PLANS PREPARED BY BURGESS, ARNOTT & GRAVE PTY LTD DWG NO: 2016-158/S1A TO S4A DATED 21ST OCTOBER, 2016

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

Signature Peter Thompson

Name Peter Thompson

Chartered Professional Status MIE Aust CPEng

Membership No. 146800

Company Jack Hodgson Consultants Pty Ltd

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

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1 – To be submitted with Development Application

Development Application for _____
Name of Applicant

Address of site 54 ATTUNGA ROAD, NEWPORT

Declaration made by geotechnical engineer or engineering geologist or coastal engineer (where applicable) as part of a geotechnical report

I, Peter Thompson (insert name) *on behalf of* Jack Hodgson Consultants Pty Ltd (Trading or Company Name)

on this the 17/03/2016 certify that I am a geotechnical engineer or engineering geologist or coastal engineer as defined by the Geotechnical Risk Management Policy for Pittwater - 2009 and 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.

Please mark appropriate box

☐ Prepared the detailed Geotechnical Report referenced below in accordance with the Australia Geomechanics Society's Landslide Risk Management Guidelines (AGS 2007) and the Geotechnical Risk Management Policy for Pittwater - 2009

☒ I am willing to technically verify that the detailed Geotechnical Report referenced below has been prepared in accordance with the Australian Geomechanics Society's Landslide Risk Management Guidelines (AGS 2007) and the Geotechnical Risk Management Policy for Pittwater - 2009

☐ Have examined the site and the proposed development in detail and have carried out a risk assessment in accordance with paragraph 6.0 of the Geotechnical Risk Management Policy for Pittwater - 2009. I confirm the results of the risk assessment for the proposed development are in compliance with the Geotechnical Risk Management Policy fro Pittwater - 2009 and further detailed geotechnical reporting is not required for the subject site.

☐ Have examined the site and the proposed development/alteration in detail and am of the opinion that the Development Application only involves Minor Development/Alterations that do not require a Detailed Geotechnical Risk Assessment and hence my report is in accordance with the Geotechnical Risk Management Policy for Pittwater – 2009 requirements for Minor Development/Alterations.

☐ Have examined the site and the proposed development/alteration is separate form and not affected by a Geotechnical Hazard and does not require a Geotechnical report or Risk Assessment and hence my Report is in accordance with the Geotechnical Risk Management Policy for Pittwater – 2009 requirements

☐ Provided the coastal process and coastal forces analysis for inclusion in the Geotechnical Report

Geotechnical Report Details:

Report Title: RISK ANALYSIS & MANAGEMENT FOR PROPOSED ADDITIONS AND ALTERATIONS AND LANDSCAPING AT 54 ATTUNGA ROAD, NEWPORT
Report Date: 17/03/2016

Author : PETER THOMPSON

Author's Company/Organisation : JACK HODGSON CONSULTANTS PTY LTD

Documentation which relate to or are relied upon in report preparation:

Drawings prepared by Alanna Smit Structural Interiors, project number SMIT4 A01 to A07 Revision B and dated 15th February, 2016

I am aware that the above Geotechnical Report, prepared for the abovementioned site is to be submitted in support of a Development Application for this site and will be relied on by Pittwater Council as the basis for ensuring that the Geotechnical Risk Management aspects of the proposed development have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature Peter Thompson

Name Peter Thompson

Chartered Professional Status MIE Aust CPEng

Membership No. 146800

Company Jack Hodgson Consultants Pty Ltd

GEOTECHNICAL RISK MANAGEMENT POLICY FOR PITTWATER
FORM NO. 1(a) - Checklist of Requirements for Geotechnical Risk Management Report for Development Application

Development Application for _____
Name of Applicant

Address of site **54 ATTUNGA ROAD, NEWPORT**

The following checklist covers the minimum requirements to be addressed in a Geotechnical Risk Management Geotechnical Report. This checklist is to accompany the Geotechnical Report and its certification (Form No. 1).

Geotechnical Report Details:

Report Title: RISK ANALYSIS & MANAGEMENT FOR PROPOSED ADDITIONS AND ALTERATIONS AND LANDSCAPING AT 54 ATTUNGA ROAD, NEWPORT

Report Date: 17/03/2016

Author: PETER THOMPSON

Author's Company/Organisation: JACK HODGSON CONSULTANTS PTY LTD

Please mark appropriate box

☒ Comprehensive site mapping conducted 21/01/16 (date)

☒ Mapping details presented on contoured site plan with geomorphic mapping to a minimum scale of 1:200 (as appropriate)

☒ Subsurface investigation required
- ☐ No Justification .....
- ☒ Yes Date conducted 21/01/16

☒ Geotechnical model developed and reported as an inferred subsurface type-section

☒ Geotechnical hazards identified
- ☐ Above the site
- ☒ On the site
- ☐ Below the site
- ☐ Beside the site

☒ Geotechnical hazards described and reported

☒ Risk assessment conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009
- ☒ Consequence analysis
- ☒ Frequency analysis

☒ Risk calculation

☒ Risk assessment for property conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009

☒ Risk assessment for loss of life conducted in accordance with the Geotechnical Risk Management Policy for Pittwater - 2009

☒ Assessed risks have been compared to "Acceptable Risk Management" criteria as defined in the Geotechnical Risk Management Policy for Pittwater - 2009

☒ Opinion has been provided that the design can achieve the "Acceptable Risk Management" criteria provided that the specified conditions are achieved.

☒ Design Life Adopted:
- ☒ 100 years
- ☐ Other ..... specify

☒ Geotechnical Conditions to be applied to all four phases as described in the Geotechnical Risk Management Policy for Pittwater – 2009 have been specified

☒ Additional action to remove risk where reasonable and practical have been identified and included in the report.

☒ Risk Assessment within Bushfire Asset Protection Zone

I am aware that Pittwater Council will rely on the Geotechnical Report, to which this checklist applies, as the basis for ensuring that the geotechnical risk management aspects of the proposal have been adequately addressed to achieve an "Acceptable Risk Management" level for the life of the structure, taken as at least 100 years unless otherwise stated, and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature Peter Thompson

Name Peter Thompson

Chartered Professional Status MIE Aust CPEng

Membership No. 146800

Company Jack Hodgson Consultants Pty Ltd

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

RISK ANALYSIS & MANAGEMENT FOR PROPOSED ADDITIONS AND ALTERATIONS AND LANDSCAPING AT 54 ATTUNGA ROAD, NEWPORT

1. INTRODUCTION.

1.1 This assessment has been prepared to accompany an application for development approval. The requirements of the Geotechnical Risk Management Policy for Pittwater, 2009 have been met.

1.2 The definitions used in this Report are those used in the Geotechnical Risk Management Policy for Pittwater, 2009.

1.3 The 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.

1.4 The experience of Jack Hodgson Consultants spans a time period over 40 years in the Pittwater area and greater Sydney region.

2. PROPOSED DEVELOPMENT.

2.1 Construct new extensions at the south-eastern and northern-eastern ends of the residence.

2.2 Construction of terraced fills in the north-eastern portion of the property supported by an engineered retaining walls with the construction of stairs descending down the north-western corner of the block.

2.3 Various internal alterations.

2.4 Details of the proposed development are shown on a set of Architectural drawings prepared by Alanna Smit Structural Interiors, project number SMIT4 A01 to A07 Revision B and dated 15th February, 2016.

3. DESCRIPTION OF SITE & SURROUNDING AREA.

3.1 The site was inspected on the 21st January, 2016.

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

3.2 The block is situated on the low side of the road and has a north-easterly aspect. The property is situated towards the middle of a slope that rises from the bottom of Bilgola Head to the crest of a north-easterly trending ridge some 150 metres away. From the road frontage the slope falls across the south-western and middle portions of the property at angles of 15 degrees. A steep slope falls at maximum angles of 35 degrees in the north-eastern portion of the property extending towards the lower boundary.

3.3 From the road frontage a short concrete driveway provides access to a double garage detached from the main residence (Photo 1). A series of timber stairs and terraced paved lawn areas are situated in the south-eastern portion of the property. The stairs provide access to a timber deck entry area situated on the south-eastern corner of the residence (Photo 2). The cut for residence is supported by a timber solider pile wall in the south-western portion of the property with pile support for the garage above spaced evenly along the wall (Photo 3). Access to the north-eastern portion of the block is via a concrete path and stairs that extends along the eastern boundary of the property (Photo 4). Access is also possible via sandstone stack stairs that extends along the western boundary (Photo 5). A paved ground floor balcony extends along the north-eastern side of the residence. A moderately sloping lawn area extends from the balcony to the lower north-eastern boundary with spaced medium sized trees lining the timber fences (Photo 6).

3.4 The part-two storey brick and timber clad residence is in average condition for its age. It is supported on brick walls and piers that displayed no evidence of cracking or significant movement that could be identified at the time of our inspection.

4. GEOLOGY OF THE SITE.

4.1 The site is underlain by interbedded sandstones, siltstones and shales of the Upper Narrabeen Group. The Narrabeen Group Rocks are Late Permian to Middle Triassic in age with the early rocks not outcropping in the area under discussion. The materials from which the rocks were formed consist of gravels, coarse to fine sands, silts and clays. They were deposited in a riverine type environment with larger floods causing fans of finer materials. The direction of deposition changed during the period of formation. The lower beds are very variable with the variations decreasing as the junction with the Hawkesbury Sandstones is approached. This is marked by the highest of persistent shale beds over thicker sandstone beds which are similar in composition to the Hawkesbury Sandstones.

4.2 The slope materials are colluvial at the surface and residual at depth. They consist of silty sands over sandy clays that merge into the weathered zone of the

underlying rocks at depths expected to be 2.0 to 2.5 metres or deeper where filling has been carried out.

5. SUBSURFACE INVESTIGATION.

Two Dynamic Cone Penetrometer (DCP) tests were put down to determine the nature of the ground materials. The locations of these tests are shown on the site plan provided and the results of these tests are as follows:

DEPTH (m)	NUMBER OF BLOWS - conducted with Pointed Tip	
	DCP1	DCP2
0.0 to 0.3	3	4
0.3 to 0.6	10	7
0.6 to 0.9	12	9
0.9 to 1.2	19	15
1.2 to 1.5	30	14
1.5 to 1.8	35	14/
1.8 to 2.1	29	
2.1 to 2.4	38	
2.4 to 2.7	39/	
	Refusal @ 2.55m	Refusal @ 1.65m

NOTES:
DCP 1: Refusal @ 2.55m bouncing on rock or floater. White impact dust on wet tip.
DCP 2: Refusal @ 1.65m bouncing on rock or floater. Orange impact dust on dry tip.

6. DRAINAGE OF THE SITE.

6.1 ON THE SITE.

The block is naturally well drained.

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 rainfall.

7. GEOTECHNICAL HAZARDS.

7.1 ABOVE THE SITE.

No geotechnical hazards likely to adversely affect the subject property were observed above the site.

7.2 ON THE SITE.

The slope of the land surface that falls across the property is considered a potential hazard (**HAZARD ONE**).

7.3 BELOW THE SITE.

No geotechnical hazards likely to adversely affect the subject property were observed below the site.

7.4 BESIDE THE SITE.

The areas beside the site are also classed slip affected hazard areas. These blocks have similar elevation and geomorphology to the subject property. No geotechnical hazards likely to adversely affect the subject property were observed beside the site.

8. RISK ASSESSMENT.

8.1 ABOVE THE SITE.

As no geotechnical hazards likely to adversely impact upon the subject site were observed above the site, no risk analysis is required.

8.2 ON THE SITE.

8.2.1 HAZARD ONE Qualitative Risk Assessment on Property

From the road frontage the slope of the land falls across the property at maximum average angles of 20 degrees. No significant evidence of slope instability was identified on site. Provided the proposed retaining walls are constructed in accordance with the requirements of this Report and good engineering and building practice they will not create a significant geotechnical hazard. The likelihood of the slope failing 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}).

8.2.2 HAZARD ONE Quantitative Risk Assessment on Life

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

8.2.2.1 Annual Probability
No evidence of significant slope instability was detected onsite.
$P_{(H)} = 0.0001$/annum

8.2.2.2 Probability of Spatial Impact
The house is situated towards the middle of a slope.
$\mathbf{P_{(SH)}} = 0.2$

8.2.2.3 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 12 hours a day, 5 days a week.
For the person most at risk:
$\frac{20}{24} x \frac{7}{7} = 0.83$
$\mathbf{P_{(TS)}} = 0.83$

8.2.2.4 Probability of Loss of Life on Impact of Failure
Based on the volume of land failing and its likely velocity when it hits the house, it is estimated that the vulnerability of a person to being killed when the slope fails is 0.01
$\mathbf{V_{(DT)}} = 0.01$

8.2.2.5 Risk Estimation
$\mathbf{R_{(LoI)}} = 0.0001 \times 0.2 \times 0.83 \times 0.01$
$= 0.00000017$
$\mathbf{R_{(LoI)}} = 1.7 \times 10^{-7}$/annum **NOTE:** This level of risk is **'ACCEPTABLE'** provided the recommendations given in **Section 10** are followed.

8.3 BELOW THE SITE.

As no geotechnical hazards likely to adversely impact upon the subject site were observed below the site, no risk analysis is required.

8.4 BESIDE THE SITE.

As no geotechnical hazards likely to adversely impact upon the subject site were observed beside the site, no risk analysis is required.

9. SUITABILITY OF DEVELOPMENT FOR SITE.

9.1 GENERAL COMMENTS.

The proposed developments are suitable for the site.

9.2 GEOTECHNICAL COMMENTS.

No geotechnical hazards will be created by the completion of the proposed development in accordance with the requirements of this Report and good engineering and building practice.

9.3 CONCLUSIONS.

The site and the proposed development can achieve the Acceptable Risk Management criteria outlined in the Pittwater Geotechnical Risk Policy provided the recommendations given in **Section 10** are undertaken.

10. RISK MANAGEMENT.

10.1. TYPE OF STRUCTURE.

Subject to detailed structural design and inspection the proposed retaining walls can be considered suitable for the site.

10.2. EXCAVATIONS.

With the exception of those required for footings and slab levels, no significant excavations are required for the proposed works.

10.3. FILLS.

10.3.1 The proposed filling and lawn levelling requires the installation of four engineered retaining walls to a maximum height of approximately 3.0m. The landfill is to be comprised of uncontaminated clean fill consisting of locally sourced natural material. The fill material is to be accompanied by certification stating it is uncontaminated locally sourced material.

10.3.2 The area to be filled is to be stripped of organic material and any topsoil prior to the addition of any fill material. All fills are to be placed in layers not more than 250 mm thick and compacted to not less than 95% of Standard Optimum Dry Density at plus or minus 2% of Standard Optimum Moisture Content.

10.3.3 The fills are to be supported by engineered retaining walls, built to complying codes and standards and incorporating subsurface drainage.

10.4. FOUNDATION MATERIALS AND FOOTINGS.

10.4.1 It is recommended that all footings and levels for the proposed development be taken to and potted into the weathered rock of the natural profile, subject to detailed design by Structural Engineer. The design ultimate bearing pressure recommended is 800kPa. It is expected that these materials will be encountered from an approximate depth of between 2.0 and 2.5 metres from current surface levels.

10.4.2 All fills and footings in the vicinity of the sewer main should comply with the minimum setbacks and all relevant regulations for protection and load distribution outlined by the Sydney Water authority.

10.4.3 When considering the design of the retaining walls and supports, it will be necessary to allow for surcharge loading from the proposed fill, and zone of influence by footings to existing structures both on-site and in adjoining properties. The retaining wall should only be designed as a cantilever wall where some degree of movement behind the wall is acceptable.

10.5. STORM WATER DRAINAGE.

Storm water generated from any new works is to be piped to the existing stormwater system all as required by the regulating authorities.

10.6. SUBSURFACE DRAINAGE.

All retaining walls are to be back filled with non-cohesive free draining material and pipe to provide a drainage layer immediately behind the wall. The free draining material is to be separated from the ground materials by geotextile fabric.

10.7. INSPECTIONS.

The foundation materials of all footing excavations are to be inspected and approved before concrete is placed.

11. GEOTECHNICAL CONDITIONS FOR ISSUE OF CONSTRUCTION CERTIFICATE.

It is recommended that the following geotechnical conditions be applied to the Development Approval:-

The work is to be carried out in accordance with the Risk Management Report MR 30425 dated 17th March, 2016.

The Geotechnical Engineer is to inspect and approve the foundation materials of any additional footing excavations before concrete is placed.

12. GEOTECHNICAL CONDITIONS FOR ISSUE OF OCCUPATION CERTIFICATE.

The Geotechnical Engineer is to certify the following geotechnical aspects of the development:-

The work was carried out in accordance with the Risk Management Report MR 30425 dated 16th March, 2016.

The Geotechnical Engineer inspected and approved the foundation material of all footing excavations.

13. RISK ANALYSIS SUMMARY.

HAZARDS	Hazard One
TYPE	The slope that falls across the property is considered a potential hazard.
LIKELIHOOD	'Unlikely' (10^{-4})
CONSEQUENCES TO PROPERTY	'Minor' (5%)
RISK TO PROPERTY	'Low' (5×10^{-6}).
RISK TO LIFE	1.7×10^{-7}/annum
COMMENTS	**NOTE:** This level of risk is **'ACCEPTABLE'** provided the recommendations given in **Section 10** are undertaken.

JACK HODGSON CONSULTANTS PTY. LIMITED.

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

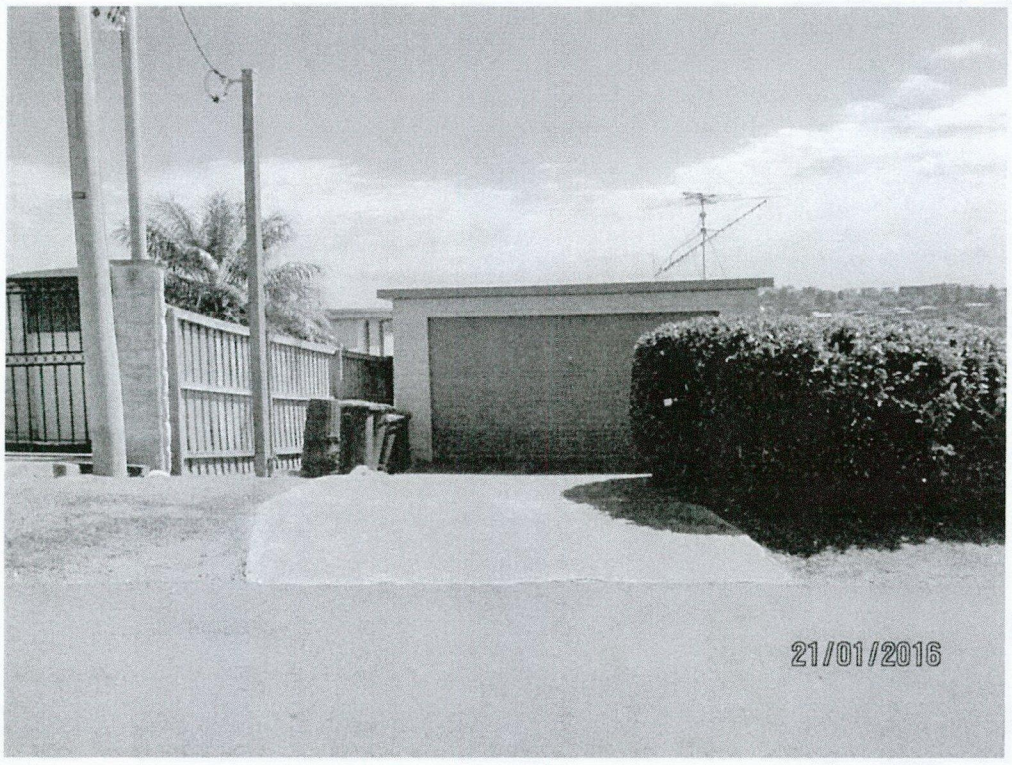


Photo 1

Photo 2

Photo 3

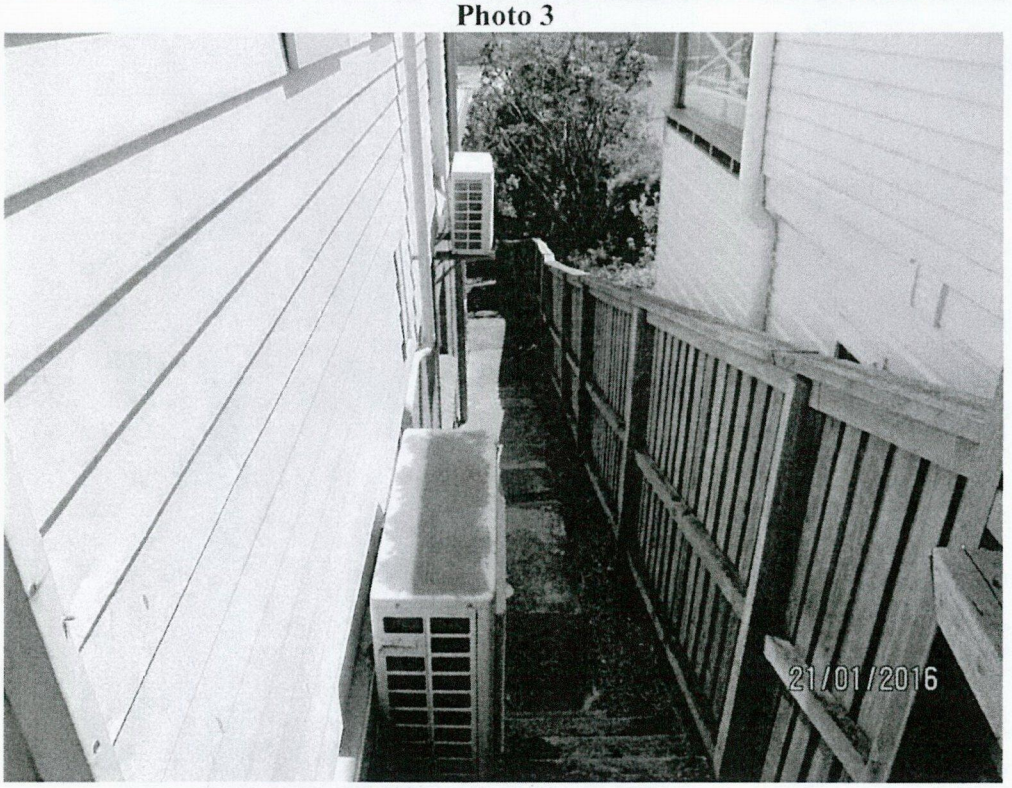
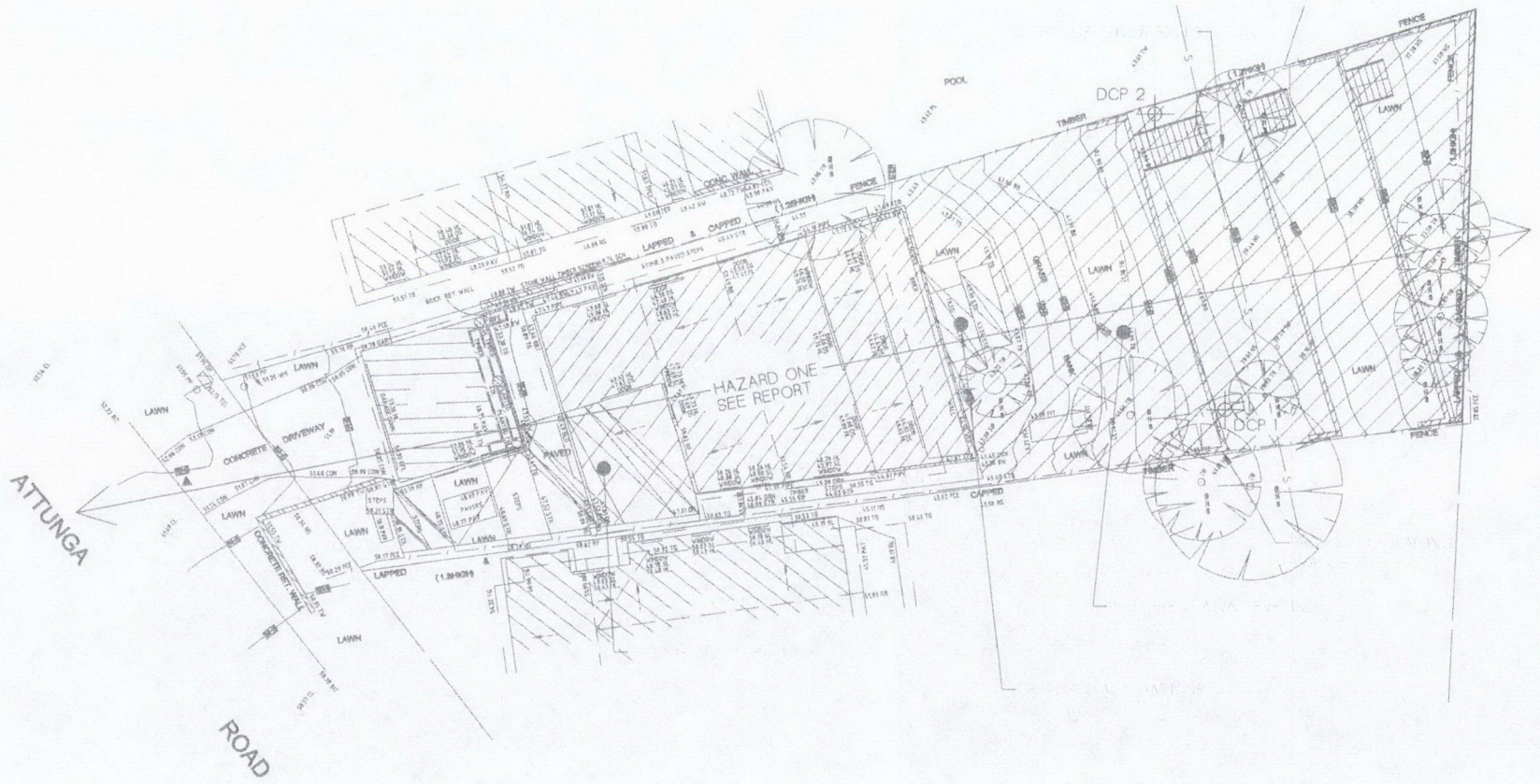


Photo 4

Photo 5

Photo 6

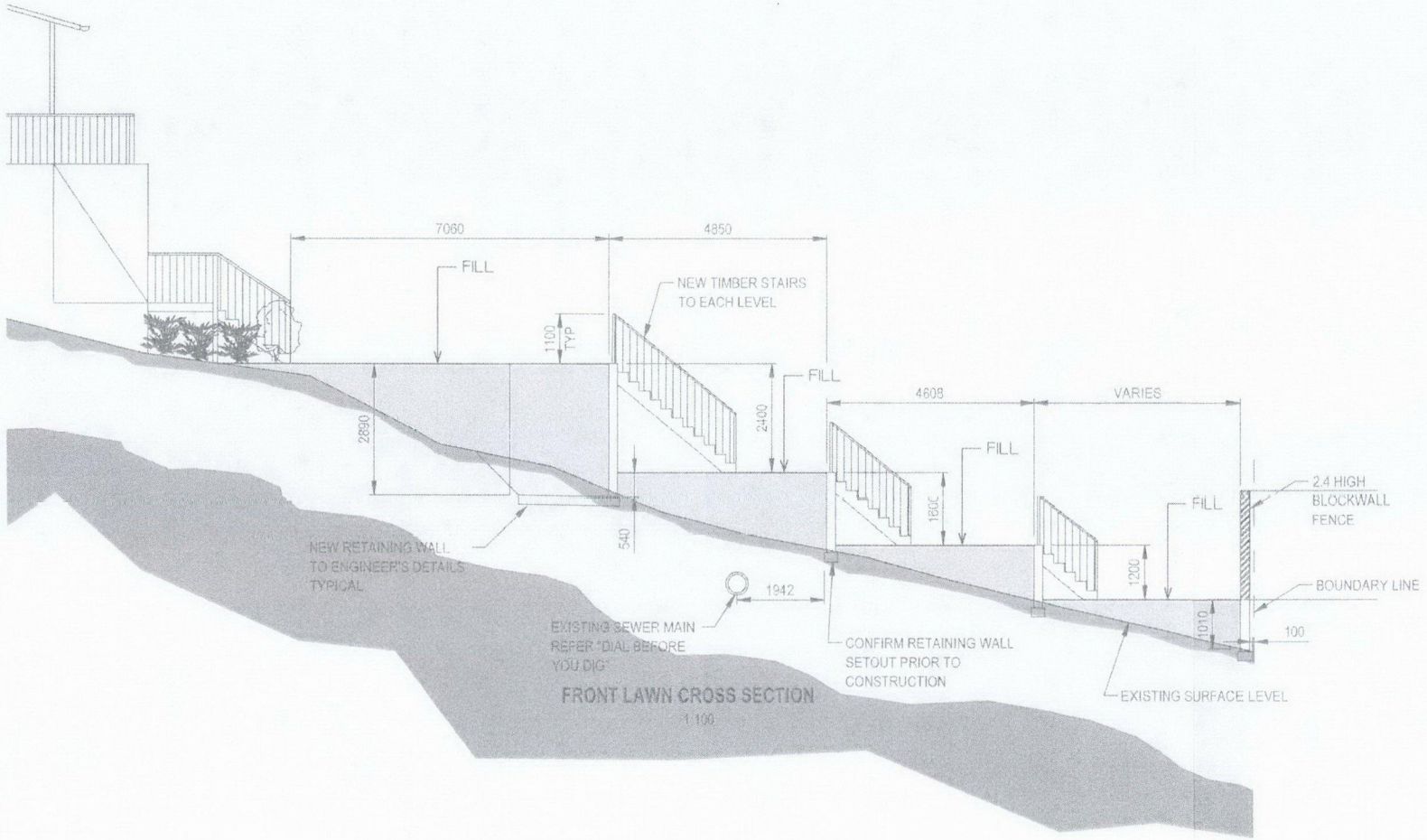


= DCP LOCATION

Jack Hodgson Consultants Pty Limited
CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

SITE PLAN - HAZARD AND DCP LOCATIONS

Job No	Address
MR 30425	54 ATTUNGA ROAD
Scale	NEWPORT
NTS	NSW



NOTE
INTERPRETED SUB SURFACE SECTION ONLY.
ACTUAL GROUND CONDITIONS MAY VARY.

ABN: 54 851 405 011
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CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

TYPE SECTION

Job No	Address
MR 30425	54 ATTUNGA ROAD
Scale	NEWPORT
NTS	NSW

Strata Profile Legend

- Fill
- Sandy Topsoil
- Sandy Clay
- Narrabeen Group Rocks

7 RISK ESTIMATION

7.1 QUANTITATIVE RISK ESTIMATION

Quantitative risk estimation involves integration of the frequency analysis and the consequences.
For property, the risk can be calculated from:
$R_{(Prop)} = P_{(H)} \times P_{(S:H)} \times P_{(T:S)} \times V_{(Prop:S)} \times E$ (1)

Where
$R_{(Prop)}$ is the risk (annual loss of property value).

$P_{(H)}$ is the annual probability of the landslide.

$P_{(S:H)}$ is the probability of spatial impact by the landslide on the property, taking into account the travel distance and travel direction.

$P_{(T:S)}$ is the temporal spatial probability. For houses and other buildings $P_{(T:S)}$= 1.0. For Vehicles and other moving elements at risk $1.0 < P_{(T:S)} > 0$.

$V_{(Prop:S)}$ is the vulnerability of the property to the spatial impact (proportion of property value lost).

E is the element at risk (e.g. the value or net present value of the property).
For loss of life, the individual risk can be calculated from:

$R_{(LoL)} = P_{(H)} \times P_{(S:H)} \times P_{(T:S)} \times V_{(D:T)}$ (2)
Where

$R_{(LoL)}$ is the risk (annual probability of loss of life (death) of an individual).

$P_{(H)}$ is the annual probability of the landslide.

$P_{(S:H)}$ is the probability of spatial impact of the landslide impacting a building (location) taking into account the travel distance and travel direction given the event.

$P_{(T:S)}$ is the temporal spatial probability (e.g. of the building or location being occupied by the individual) given the spatial impact and allowing for the possibility of evacuation given there is warning of the landslide occurrence.

$V_{(D:T)}$ is the vulnerability of the individual (probability of loss of life of the individual given the impact).
A full risk analysis involves consideration of all landslide hazards for the site (e.g. large, deep seated landsliding, smaller slides, boulder falls, debris flows) and all the elements at risk.

For comparison with tolerable risk criteria, the individual risk from all the landslide hazards affecting the person most at risk, or the property, should be summed.

The assessment must clearly state whether it pertains to 'as existing' conditions or following implementation of recommended risk mitigation measures, thereby giving the 'residual risk'.

Bushfire Hazard Assessment Report

Proposed:
Alterations and Additions

At:
54 Attunga Road Newport

Reference Number: 160706

Prepared For:
Mike Smit Constructions

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

26th February 2016

Prepared By:
Building Code & Bushfire Hazard Solutions Pty Limited

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FPA AUSTRALIA SILVER MEMBER Fire Protection Asscciation Australia

Contents

List of Abbreviations:

APZ	Asset Protection Zone
AS3959	Australian Standard 3959 – 2009 as amended
BAL	Bushfire Attack Level
BPMs	Bushfire Protection Measures
BPLM	Bushfire Prone Land Map
Council	Pittwater Council
DA	Development Application
EP&A Act	Environmental Planning and Assessment Act - 1979
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
IPA	Inner Protection Area
NCC	National Construction Code
NP	National Park
NSP	Neighbourhood Safer Place
OPA	Outer Protection Area
PBP	*Planning for Bush Fire Protection* – 2006
ROW	Right of Way
RF Act	Rural Fires Act - 1997
RFS	NSW Rural Fire Service
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SWS	Static Water Supply

1.0 Introduction

The development proposal relates to the alterations and additions to an existing sole occupancy dwelling within an existing residential allotment located at 54 Attunga Road, Newport.

The subject property has street frontage to Attunga Road to the south, abuts private residential allotments to the east and west, and Barrenjoey Road to the north. The vegetation identified as being the hazard is associated with unmanaged reserves to the north, east, south and west of the subject dwelling.

Pittwater Council's Bushfire Prone Land Map identifies the subject property as containing the designated buffer zone from Category 1 vegetation and therefore the application of *Planning for Bush Fire Protection* 2006 (PBP) must apply in this instance.

2.0 Purpose of Report

The purpose of this Bushfire Assessment Report is to provide the owners, builders and Council with an independent bushfire hazard determination together with appropriate recommendations for both new building construction and bushfire mitigation measures considered necessary having regard to construction within a designated 'bushfire prone' area.

The recommendations contained within this report may assist in forming the basis of any specific construction conditions and/or bushfire mitigation measures that Council and/or the NSW Rural Fire Service may elect to place within any consent conditions issued for the subject Development Application.

3.0 Scope of this Report

The scope of this report is limited to providing a bushfire assessment and recommendations for the subject property. Where reference has been made to the surrounding lands, this report does not purport to directly assess those lands; rather it may discuss bushfire impact and/or progression through those lands and possible bushfire impact to the subject property.

Where Council considers a bushfire risk is associated with surrounding private lands or lands owned by an authority, Council could seek to issue notice under Section 66 of the Rural Fires Act on any or all surrounding properties for the purposes of reducing and maintaining safe levels of vegetation and thus reducing the possibility of bushfire impact to the subject property and any adjoining properties.

4.0 Referenced Documents and Persons

Comments provided are based on the requirements of the *Environmental Planning and Assessment Act* 1979 (EP&A Act), the RFS document known as '*Planning for Bush Fire Protection* 2006' for the purposes of bushfire hazard determination and *Australian Standard 3959 'Construction of buildings in bushfire-prone areas'* 2009 as amended for building/structural provisions.

A company representative has made a site inspection of the subject property and the surrounding area. The Site Plan prepared by Alanna Smit Structural Interiors; Project No. SMIT4, Page: A01 Rev: A; Dated: 4.12.15 has been relied upon for this assessment.

5.0 Compliance Tables & Notes

The following table sets out the projects compliance with *Planning for Bush Fire Protection 2006*.

	North	East	South	West
Vegetation Structure	Scrub	Remnant	Remnant	Scrub
Slope	10 – 15 degrees down	0 degrees across slope	0 – 5 degrees down	0 degrees and up
Asset Protection Zone	40 metres	23 metres	34 metres	58 metres
Significant Environmental Features	Barrenjoey Road	Neighbouring residential allotments	Attunga Road	Neighbouring residential allotments
Threatened Species	APZ Existing	APZ Existing	APZ Existing	APZ Existing
Aboriginal Relics	APZ Existing	APZ Existing	APZ Existing	APZ Existing
Bushfire Attack Level	BAL 12.5	BAL 12.5	BAL 12.5	BAL 12.5
Required Construction Level	BAL 12.5	BAL 12.5	BAL 12.5	BAL 12.5

Asset Protection Zones Compliance

The proposed works were found to be within the existing pattern of development.

The separation from the hazard interface includes maintained land within the subject property, both Attunga Road and Barrenjoey Road reserves and neighbouring private residential allotments.

Construction Level Compliance

The highest Bushfire Attack Level to the proposed works was determined from Table 2.4.2 of AS3959 – 2009 to be 'BAL 12.5'. The proposed works are required to comply with Section 3 and BAL 12.5 Section 5 under AS 3959 – 2009 and Appendix 3 under PBP 2006.

A copy of these requirements has been provided to the applicant.

Access and Services

Guideline Ref.	Proposed Development Determinations
Property Access (Driveway)	The most distant external point of the building footprint is less than 70 metres from a public road supporting a hydrant network and therefore the Property Access requirements are not applicable. The existing access provisions are considered adequate.
Water Supply	The most distant external point of the building footprint is less than 70 metres from a public road supporting a hydrant network and therefore a Static Water Supply is not required.
Evacuation	Evacuation is possible by utilising existing road infrastructure. It is encouraged that the occupants complete a Bush Fire Safety Plan addressing "Prepare, Act, Survive" as advocated by the NSW RFS http://www.rfs.nsw.gov.au/ under publications / bushfire safety.
Electrical Supply	Supply provided.

6.0 Aerial view of the subject allotment

Image 01: Aerial view of the subject area Land and Property Management Authority 2016

7.0 Bushfire Hazard Assessment

7.01 Preface

Properties considered to be affected by possible bushfire impact are determined from the local Bushfire Prone Land Map as prepared by Council and or the Rural Fire Service. All property development within affected areas is subject to the conditions detailed in the document '*Planning for Bush Fire Protection* 2006' (PBP). Set back distances for the purpose of creating Asset Protection Zones (APZ's) must be applied and any buildings must then conform to corresponding regulations detailed in Australian Standard 3959 'Construction of buildings in bushfire prone areas' 2009.

Planning for Bush Fire Protection 2006, (PBP) formally adopted on the 1st March 2007 and amended May 2010 (Appendix 3) provides for the protection of property and life (including fire-fighters and emergency service personnel) from bushfire impact.

The thrust of the document is to ensure that developers of new properties or sub-divisions include the constraints associated with the construction of buildings in bushfire prone areas within their proposed development sites. PBP is applicable to proposed development inside a determined Category 1 or 2 areas and also inside a buffer zone radius of 100m from a Category 1 bushfire area or 30m from a Category 2 bushfire area.

The document also acknowledges 'infill' developments associated with re-development of existing properties and allows some higher levels of building safety where the increased 'set backs' (APZ's) may not be achievable.

The subject development relates to the alterations and additions to an existing sole occupancy dwelling within an existing residential allotment. To accord with PBP the development is classified as infill development and assessed as a 79ba application under the Environmental Planning and Assessment Act 1979.

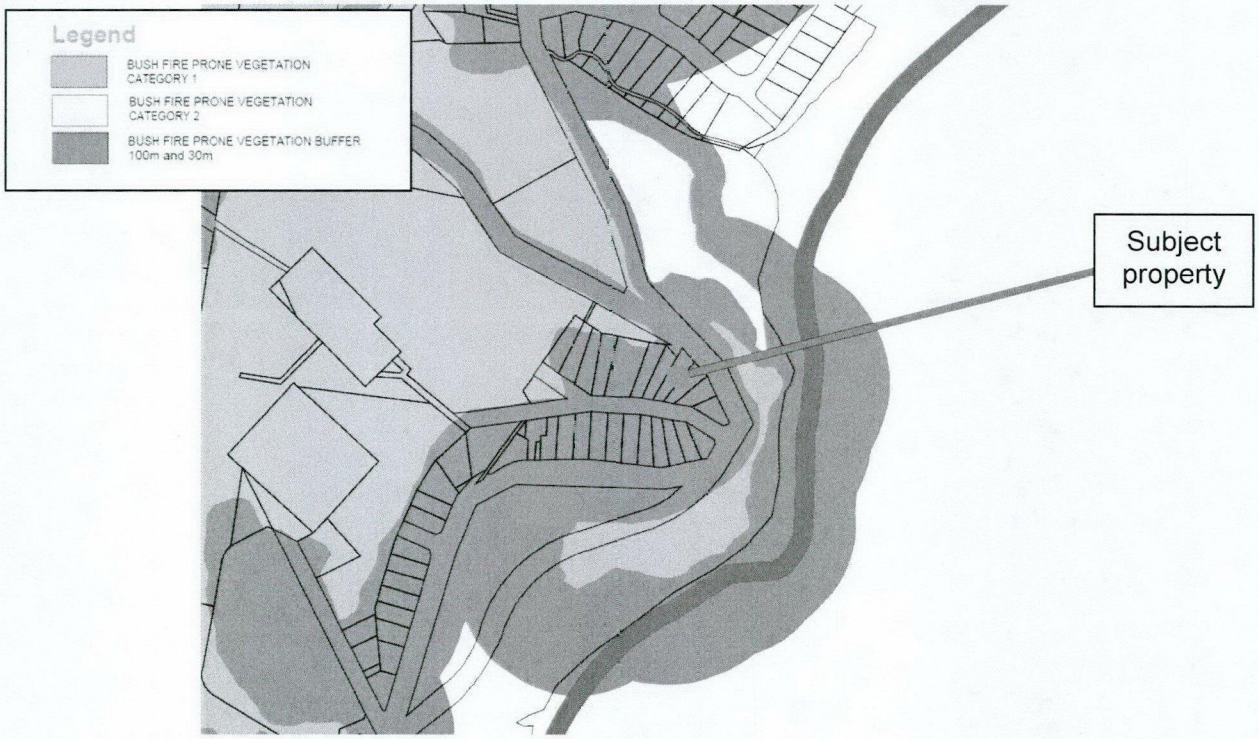


Image 02: Extract from Pittwater Council's Bushfire Prone Land Map

7.02 Location

The subject property is known as 54 Attunga Road, Newport (Lot 115 DP 752046) and is a residential allotment located within Pittwater Councils Local Government Area. The subject property has street frontage to Attunga Road to the south, Barrenjoey Road to the north and abuts private residential allotments to the east and west.

The vegetation identified as being the hazard is located within unmanaged reserves to the north, south, east and west of the subject dwelling.

Photograph 01: View north from the Attunga Road towards the subject property

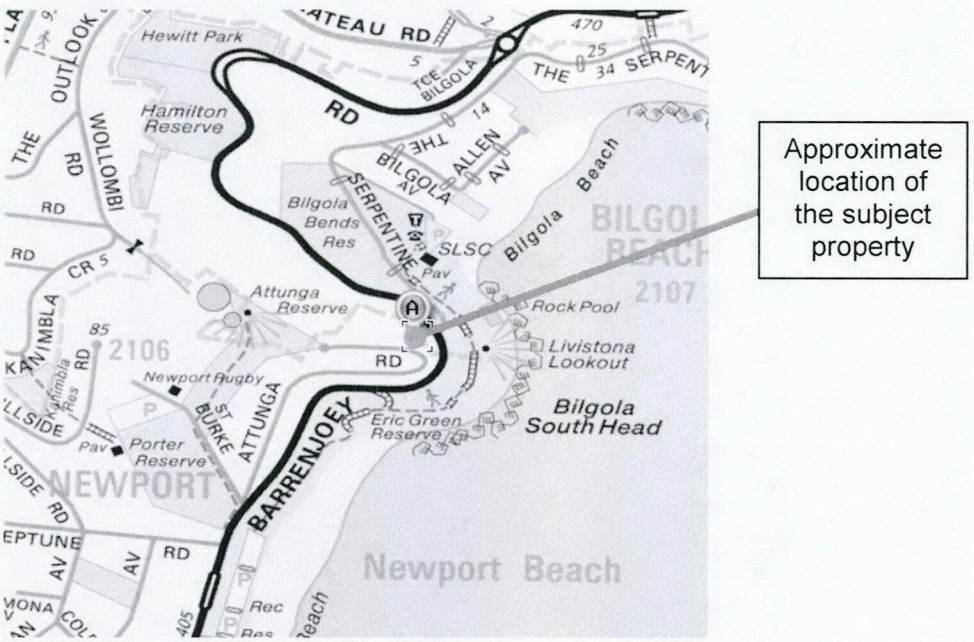


Image 03: Extract from street-directory.com.au

7.03 Vegetation

The predominate vegetation found within the subject property and most neighbouring private residential allotments was found to consist of built upon areas surrounded by maintained gardens and urban landscaping.

The vegetation posing a hazard to the subject dwelling is located to the north, south, east and west within unmanaged reserves. The vegetation posing a hazard was found to consist of shrubs 2-4 metres in height with a >70% foliage cover with a limited understorey of low shrubs and ground covers.

The vegetation to the east and south beyond Barrenjoey and Attunga Roads was found to provide a fire run of less than 50 metres towards the subject site and therefore has been assessed as a remnant hazard. The vegetation to the north and west has been assessed as Scrub.

The vegetation immediately to the east within private allotments was found to be less than 20m in width in accordance with the NSW RFS Guidelines for Bushfire Prone Land Mapping section *7.1.2 "Exclusions" Vegetation defined below is* ***excluded*** *from being mapped as bush fire prone:*

> *Strips of vegetation less than 20 metres in width, regardless of length and not within 20 metres of other areas of Category 1, 2 or 3 vegetation;*

and as such has been deemed not a hazard to the subject site.

For the purpose of assessment under 'Planning for Bush Fire Protection' the vegetation posing a hazard to the north and west has been determined to be Scrub and the vegetation posing a hazard to the south and east has been determined to be of no hazard.

7.04 Slope and Topography

The slope that would most significantly influence bushfire behaviour must be assessed for a distance of 100 metres from the proposed works.

The effective slope was measured onsite using an inclinometer and verified from topographic imagery of the subject area and found to be:

- 15 – 20 degrees down within the hazard to the north
- 0 degrees and up within the hazard to the west
- Across slope to the east
- 0 – 5 degrees down to the south

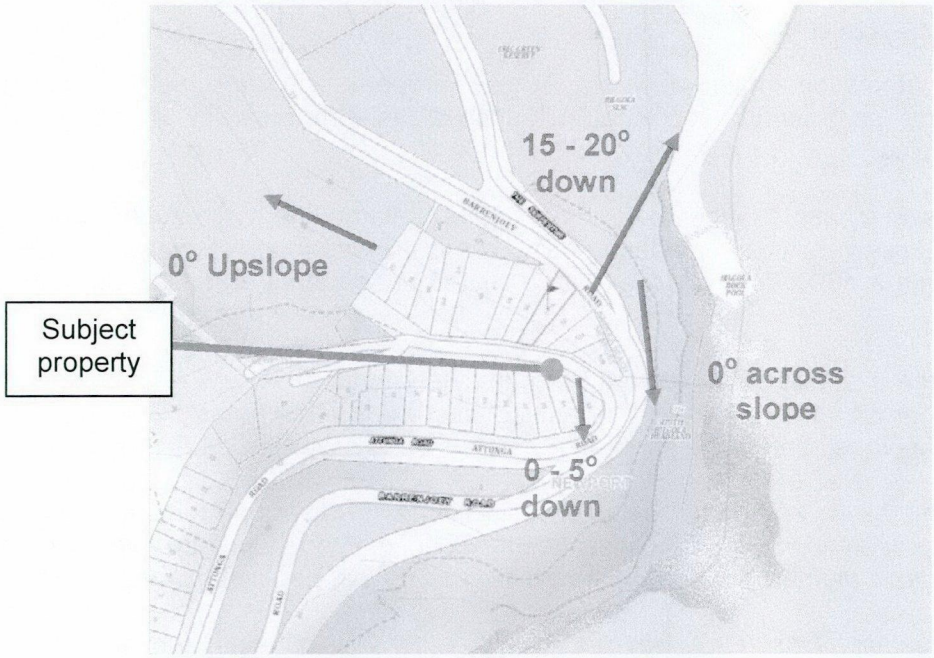


Image 04: Extract from Land and Property Management Authority Spatial Information Exchange

7.05 Asset Protection Zones

The proposed works are within the existing pattern of development and extend no closer to the bushfire hazard than neighbouring dwellings. The proposed works were found to be located 40 metres from the hazard interface to the north, 58 metres from the hazard interface to the west, 23 metres from the hazard to the east and 34 metres from the hazard to the south.

The subject property was found to have landscaped gardens, and urban landscaping around the existing dwelling. The separation from the hazard interfaces includes maintained land within the subject property and neighbouring private residential allotments.

All grounds within the subject property are required to be maintained as an Inner Protection Area (IPA) in accordance with Appendix 2 of PBP and the NSW Rural Fire Service document 'Standards for Asset Protection Zones'. This will allow for gardens (including native trees and shrubs) in the APZ managed as clumps or islands, covering no more than 20% of the area.

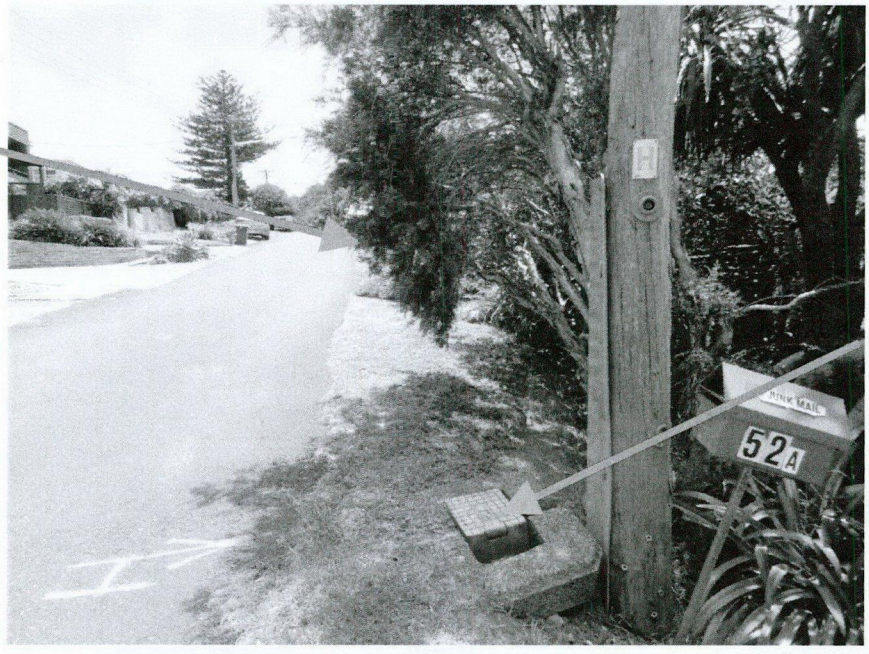
7.06 Fire Fighting Water Supply

The subject dwelling is connected to the reticulated town's water main in Attunga Road for its domestic needs. Existing in ground hydrants are available along Attunga Road for the replenishment of attending fire services.

The most distant external point of the building footprint is less than 70 metres from a public road supporting a hydrant network and therefore a Static Water Supply is not required.

The existing water supply is considered adequate for the replenishment of attending fire services.

Subject property



Hydrant

Photograph 02: View west along Attunga Road toward the subject site.

7.07 Property Access – Fire Services & Evacuation

The subject property has street frontage to Attunga Road to the south. Persons seeking to egress the subject dwelling are able to do so via the existing access drive and road infrastructure.

The most distant external point of the building footprint is less than 70 metres from a public road supporting a hydrant network and therefore the Property Access requirements are not applicable.

Attending fire services have pedestrian access around the subject dwelling. Furthermore attending fire services can access the hazard interface via the subject property, neighbouring private allotments, Attunga Road and Barrenjoey Road for hazard reduction or fire suppression activities without the need to enter the subject site.

Access for fire services and opportunities for occupant evacuation are considered adequate for this property.

8.0 Site & Bushfire Hazard Determination

8.01 *Planning for Bush Fire Protection* - 2006

Planning for Bush Fire Protection – 2006 (PBP) is applicable to those lands determined as being within a 'bushfire prone area' in accordance with a local Bushfire Prone Land Map as provided by the Rural Fire Service and Council.

The most appropriate method of determining site bushfire hazard under the terms of PBP is to consider the site in a singular form.

> *Bushfire prone areas are defined as those areas;*
> - *within or within 100m of high or medium bushfire hazards; or*
> - *within or within 30m of low bushfire hazards.*

In this instance the subject property has been identified as being bushfire prone land therefore it is appropriate to apply PBP as follows:

Northern Aspect:

a) Vegetation Structure Scrub
b) Slope 10 – 15 degrees downslope
c) A 40 metre APZ is available
d) The Bushfire Attack Level was determined to be 'BAL 12.5'

Western Aspect:

a) Vegetation Structure Scrub
b) Slope 0 degrees and upslope
c) A 58 metre APZ is available
d) The Bushfire Attack Level was determined to be 'BAL 12.5'

Eastern Aspect:

e) Vegetation Structure Remnant
f) Slope 0 degrees across slope
g) A 23 metre APZ is available
h) The Bushfire Attack Level was determined to be 'BAL 12.5'

Western Aspect:

i) Vegetation Structure Remnant
j) Slope 0 - 5 degrees downslope
k) A 34 metre APZ is available
l) The Bushfire Attack Level was determined to be 'BAL 12.5'

8.02 Australian Standard AS 3959 – 2009 'Construction of buildings in bushfire –prone areas'

Australian Standard 3959 – 2009 'Construction of buildings in bushfire-prone areas' provides for six (6) levels of building construction these being BAL - Low, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 and BAL - FZ. The Australian Standard 3959 specifies construction standards for buildings within various Bushfire Attack Levels as determined by the *Planning for Bush Fire Protection* – 2006 document. The NSW Rural Fire Service will not accept deemed to satisfy provisions for BAL Flame Zone and therefore have a NSW variation to the listed standard provisions of BAL FZ under AS3959 - 2009.

8.03 Correlation between bushfire impact and AS3959

Bushfire Attack Level	Maximum radiant heat impact (kW/m^2)	Level of construction under AS3959-2009
Low		No special construction requirements
12.5	≤12.5	BAL - 12.5
19	12.6 to 19.0	BAL - 19
29	19.1 to 29.0	BAL - 29
40	29.1 to 40.0	BAL - 40
Flame Zone	>40.0	BAL FZ No deemed to satisfy provisions

8.04 Site Specific Bushfire Hazard Determination

All property development must be assessed on an individual basis as broad-brush approaches of documents such as PBP may not be applicable in every instance. The proposed development located at 54 Attunga Road, Newport was assessed against the requirements of *Planning for Bush Fire Protection* 2006 noting the following:

a) Existing water supplies for firefighting purposes are adequate.
b) Access to the subject property is available from Attunga Road and the existing access drive.
c) The proposed development is within the existing pattern of development.
d) Recommendations to maintain the Asset Protection Zones within the subject property will be included.
e) Access to the hazard is available without the need to enter the subject site.

8.05 Viable Construction Method

The objectives of *Planning for Bush Fire Protection* – 2006 are for the protection of life including fire fighters. Provided these objectives can be met the construction of buildings is feasible and both the Rural Fire Service and Council should be in a position to consider such applications.

The highest Bushfire Attack Level to the proposed works was determined to be 'BAL 12.5'. The proposed works are required to comply with Section 3 and BAL 12.5 Section 5 under AS 3959 – 2009 and Appendix 3 under PBP 2006.

8.06 Risk Rating

In assessing the bushfire threat to the site and its structures it is important to have a holistic approach and assess the risk of a bushfire occurring and impacting the subject property. It is also important to include the risk the site poses to neighbouring properties.

Table 01 is an overview of risk to the subject dwelling. This model takes a holistic approach and assesses the risk of a bushfire occurring and impacting the site. This risk level can be reduced by either an increase in preparedness by the owners/occupants of the dwelling (e.g. good house-keeping, maintained lawns & bushfire awareness) and/or hazard reduction activities by local fire agencies. Alternatively this risk level can increase if the preparedness level decreases and/or hazard reduction activities are neglected for the area.

The below matrix is for risk only, it does not reflect the Bushfire Attack Level determined within PBP 2006. Note: All new work will comply with the requirements of *Planning for Bush Fire Protection* 2006.

		CONSEQUENCE			
		Minor	Moderate	Major	Catastrophic
LIKELIHOOD	Almost Certain	High	Very High	Extreme	Extreme
	Likely	Medium	High	Very High	Extreme
	Possible	Low	Medium	High	Very High
	Unlikely	Low	Low	Medium	High

Table 01: Risk Matrix

9.0 Recommendations

The following recommendations are provided as the minimum necessary for compliance with *Planning for Bush Fire Protection* 2006 and *Australian Standard 3959 'Construction of buildings in bushfire-prone areas'* 2009. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

Asset Protection Zones

1. All grounds within the subject property be maintained as an Asset Protection Zone (Inner Protection Area) as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Appendix 2 of *Planning for Bush Fire Protection* 2006.

Landscaping

2. That any new landscaping comply with Appendix 5 'Landscape and Property Maintenance' of *Planning for Bush Fire Protection* 2006

Construction

3. New construction shall comply with section 5 (BAL 12.5) Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" and section A3.7 Addendum Appendix 3 of "Planning for Bush Fire Protection".

10.0 Conclusion

Given that the property is deemed bushfire prone under Pittwater Council's Bushfire Prone Land Map any development would need to meet the requirements of '*Planning for Bush Fire Protection*' 2006 and of the construction requirements of *Australian Standard 3959 'Construction of buildings in bushfire-prone areas'* 2009. The determination of any bushfire hazard must be made on a site-specific basis that includes an assessment of the local bushland area and its possible impact to the subject property.

The subject property has street frontage to Attunga Road to the south, Barrenjoey Road to the north and abuts private residential allotments to the east and west. The vegetation identified as being the hazard is associated with unmanaged reserves located to the north, south, east and west of the subject dwelling.

The vegetation posing a hazard to the north and west was determined to be Scrub on a 10-15° downslope and 0° and upslope respectively and Remnant to the south and east on a 0-5° downslope and a 0° and upslope respectively.

The proposed works are within the existing pattern of development and extend no closer to the bushfire hazard than neighbouring dwellings.

The highest Bushfire Attack Level to the proposed works was determined from Table 2.4.2 of AS3959 - 2009 to be 'BAL 12.5'. The proposed alterations and additions are required to comply with BAL 12.5 as detailed within Section 3 and Section 5 of AS 3959 – 2009 and the addendum to Appendix 3 of PBP 2006.

The existing access and water supply is considered adequate.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development and also satisfy both the Rural Fire Service's concerns and those of Council in this area.

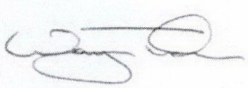
We are therefore in support of the development application.

Should you have any enquiries regarding this project please contact me at our office.

Prepared by
Building Code & Bushfire Hazard Solutions

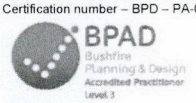
Glyn Bickford

Reviewed by
Building Code & Bushfire Hazard Solutions P/L



Wayne Tucker

G. D. Design in Bushfire Prone Areas.
Certificate IV Fire Technology
Ass Dip Applied Science
Manager - Bushfire Section
Fire Protection Association of Australia BPAD – L3 Accredited Practitioner
Certification number – BPD – PA-09399



Disclaimer:

Quote from *Planning for Bush Fire Protection* 2006, '*Any representation, statement opinion, or advice expressed or implied in this publication is made in good faith on the basis that the State of New South Wales, the NSW Rural Fire Service, its agents and employees are not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in respect of any representation, statement or advice referred to above..*'

Similarly the interpretations and opinions provided by Building Code and Bushfire Hazard Solutions in regard to bushfire protection are also given in the same good faith.

11.0 Annexure 01

List of Referenced Documents

a) Environmental Planning and Assessment Act - 1979

b) '*Planning for Bush Fire Protection*'- 2006 - NSW Rural Fire Services & Planning NSW

c) 'Construction of buildings in bushfire prone areas' - AS 3959 – 2009 (as - amended) – Standards Australia

d) 'Pittwater Council's Bushfire Prone Land Map'

f) Site Plan prepared by Alanna Smit Structural Interiors; Project No. SMIT4, Page: A01 Rev: A; Dated: 4.12.15

f) Acknowledgements to:

NSW Department of Lands – SIXMaps
Street-directory.com.au

Attachments

Attachment 01: 79BA Certificate

BUSHFIRE RISK ASSESSMENT CERTIFICATE

THIS FORM IS TO BE COMPLETED BY A RECOGNISED CONSULTANT IN BUSHFIRE RISK ASSESSMENT IN ACCORDANCE WITH SECTION 79BA 1(b) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 NO 203

PROPERTY ADDRESS:	54 ATTUNGA ROAD, NEWPORT
DESCRIPTION OF PROPOSAL:	ADDITIONS AND ALTERATIONS TO AN EXISTING SOLE OCCUPANCY DWELLING
PLAN REFERENCE: (relied upon in report preparation)	Site Plan by Alanna Smit Structural Interiors; Project no. SMIT4, Page: A01, Rev: A; Dated4.12.15
BAL RATING:	BAL 12.5 (If the BAL rating is **FZ** the application is to be referred to NSW RFS for assessment.)
DOES THE PROPOSAL RELY ON ALTERNATE SOLUTIONS:	YES NO (Circle the relevant response) (If **YES** the application is to be referred to NSW RFS for assessment.)

I WAYNE TUCKER (Print Name) of Building Code and Bushfire Hazard Solutions (Trading or Company Name)

have carried out a bushfire risk assessment on the above mentioned proposal and property. A detailed Bushfire Assessment Report is attached which includes the submission requirements set out in *Appendix 4* of *Planning for Bushfire Protection 2006* together with recommendations as to how the relevant specifications and requirements are to be achieved.

REPORT REFERENCE:	160706
REPORT DATE:	26th February 2016
CERTIFICATION NO/ACCREDITED SCHEME:	BPD - PA - 09399

I hereby certify, in accordance with *79BA of the Environmental Planning and Assessment Act 1979 No 203*:

1. That I am a person recognised by the *NSW Rural Fire Service* as a qualified consultant in bushfire risk assessment; and

2. That subject to the recommendations contained in the attached Bushfire Risk Assessment Report the proposed development conforms to the relevant specifications and requirements

I am aware that the Bushfire Assessment Report, prepared for the above mentioned site is to be submitted in support of a development application for this site and will be relied upon by Pittwater Council as the basis for ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with *Planning for Bushfire Protection 2006*.

SIGNATURE: _____ DATE: 26th February 2016

Note: this certificate must be completed and signed by a person recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment in accordance with 79BA of the EP&A Act 1979 No 203.

****

This form has been prepared by Pittwater Council for attachment to the Bushfire Assessment Report.

SECTION 3: CONSTRUCTION GENERAL

3.3 EXTERNAL MOULDINGS

Unless otherwise required in Sections 4 to 9, combustible external mouldings, jointing strips, trims and sealants may be used for decorative purposes or to cover joints between sheeting material.

3.6 VENTS, WEEPHOLES AND GAPS

Where a circular probe of 3 mm diameter is capable of being passed through external vents, weepholes or gaps, the vents, weepholes and gaps shall be screened as specified in Sections 3, 5, 6, 7, 8 and 9, except for weepholes from the frames of windows and glazed doors.

To determine the maximum aperture size of screening material, it shall not be possible to pass a circular probe of 2 mm diameter through the aperture.

Gaps between doors and the door jambs, heads or sills (thresholds) shall be as shown in Figure 3.2. Alternatively, gaps shall be protected by draught excluders.

C3.6 Weepholes from the frames of windows and glazed doors and those gaps between doors and door jambs, heads or sills (thresholds) that may exceed 3 mm (see Figure 3.2) are exempt from screening because they do not provide a direct passage for embers to the interior of the building or building cavity.

3.7 BUSHFIRE SHUTTERS

Bushfire shutters shall—

(a) be fixed to the building and be non-removable;

(b) when in the closed position, have no gap greater than 3 mm between the shutter and the wall, the sill or the head;

(c) be readily manually operable from either inside or outside;

(d) protect the entire window assembly or door assembly;

(e) consist of materials specified in Clauses 5.5.1, 6.5.1, 7.5.1, 8.5.1 and 9.5.1 for the relevant BAL; and

(f) where perforated, have—
  (i) uniformly distributed perforations with a maximum aperture of 3 mm when the shutter is providing radiant heat protection or 2 mm when the shutter is also providing ember protection (such as where the openable portion of the window is not screened in accordance with the requirements of the respective BAL); and
  (ii) a perforated area no greater than 20% of the shutter.

If bushfire shutters are fitted to all external doors then at least one of those shutters shall be operable from the inside to facilitate safe egress from the building.

SECTION 5: CONSTRUCTION FOR BUSHFIRE ATTACK LEVEL 12.5 (BAL — 12.5)

5.1 GENERAL

A building assessed in Section 2 as being BAL—12.5 shall comply with Section 3 and Clauses 5.2 to 5.8. There are a number of Standards that specify requirements for construction; however, where this Standard does not provide construction requirements for a particular element, the other Standards apply.

Any element of construction or system that satisfies the test criteria of AS 1530.8.1 may be used in lieu of the applicable requirements contained in Clauses 5.2 to 5.8 (see Clause 3.8).

NOTE: BAL—12.5 is primarily concerned with protection from ember attack and radiant heat up to and including 12.5 kW/m2 where the site is less than 100 m from the source of bushfire attack.

5.2 SUBFLOOR SUPPORTS

NSW RURAL FIRE SERVICE VARIATION

This Standard does not provide construction requirements for subfloor supports where the subfloor space is enclosed with—

(a) wall that complies with **(Clause 5.4 as appropriate)**; or
(b) a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion resistant steel, bronze or aluminium; or
(c) a combination of Items (a) and (b) above.

Where the subfloor space is unenclosed, the support posts, columns, stumps, piers and poles shall be—

(i) of non-combustible material; or
(ii) of bushfire-resisting timber (see Appendix (ii) F); or
(iii) a combination of Items (i) and (ii) above. (iii)

NOTE: This requirement applies to the principal building only and not to verandas, decks, steps, ramps and landings.

5.3 FLOORS

5.3.1 Concrete slabs on ground

This Standard does not provide construction requirements for concrete slabs on the ground.

5.3.2 Elevated floors

This Standard does not provide construction requirements for elevated floors, including bearers, joists and flooring.

See NSW Variation Following Page

NSW RURAL FIRE SERVICE VARIATION

Enclosed Subfloor Space

This Standard does not provide construction requirements for elevated floors, including bearers, joists and flooring, where the subfloor space is enclosed with—

(a) a wall that complies with **(Clause 5.4 appropriate)**; *or*

(b) a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion resistant steel, bronze or aluminium; *or*

(c) a combination of Items (a) and (b) above.

Unenclosed subfloor space

Where the subfloor space is unenclosed, the bearers, joists and flooring, less than 400 mm above finished ground level, shall be one of the following:

(a) Materials that comply with the following:

(i) Bearers and joists shall be—

A. non-combustible; *or*

B. bushfire-resisting timber (see Appendix F); *or*

C. a combination of Items (A) and (B) above

(ii) Flooring shall be—

A. non-combustible; *or*

B. bushfire-resisting timber (see Appendix F); *or*

C. timber (other than bushfire-resisting timber), particleboard or plywood flooring where the underside is lined with sarking-type material or mineral wool insulation; *or*

D. a combination of any of Items (A), (B) or (C) above *or*

(b) A system complying with AS 1530.8.1

This Standard does not provide construction requirements for elements of elevated floors, including bearers, joists and flooring, if the underside of the element is 400 mm or more above finished ground level.

5.4 EXTERNAL WALLS

5.4.1 Walls

The exposed components of an external wall that are less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the wall (see Figure D3, Appendix D) shall be:

(a) Non-combustible material.
NOTE: Examples include, but are not limited to, the following (with a minimum of 90 mm in thickness):
(a) Full masonry or masonry veneer walls with an outer leaf of clay, concrete, calcium silicate or natural stone.
(b) Precast or in situ walls of concrete or aerated concrete.
(c) Earth wall including mud brick.

or

(b) Timber logs of a species with a density of 680 kg/m3 or greater at a 12 percent moisture content; of a minimum nominal overall thickness of 90 mm and a minimum thickness of 70 mm (see Clause 3.11); and gauge planed.

or

(c) Cladding that is fixed externally to a timber-framed or a steel-framed wall and is—
  (i) non-combustible material; or
  (ii) fibre-cement a minimum of 6 mm in thickness; or
  (iii) bushfire-resisting timber (see Appendix F); or
  (iv) a timber species as specified in Paragraph E1, Appendix E; or
  (v) a combination of any of Items (i), (ii), (iii) or (iv) above.

or

(d) A combination of any of Items (a), (b) or (c) above.

This Standard does not provide construction requirements for the exposed components of an external wall that are 400 mm or more from the ground or 400 mm or more above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the wall (see Figure D3, Appendix D).'

5.4.2 Joints

All joints in the external surface material of walls shall be covered, sealed, overlapped, backed or butt-jointed to prevent gaps greater than 3 mm.

5.4.3 Vents and weepholes

Vents and weepholes in external walls shall be screened with a mesh with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium, except where the vents and weepholes have an aperture less than 3 mm (see Clause 3.6), or are located in an external wall of a subfloor space.

5.5 EXTERNAL GLAZED ELEMENTS AND ASSEMBLIES AND EXTERNAL DOORS

5.5.1 Bushfire shutters

Where fitted, bushfire shutters shall comply with Clause 3.7 and be made from—

(a) non-combustible material; *or*
(b) a timber species as specified in Paragraph E1, Appendix E; *or*
(b) bushfire-resisting timber (see Appendix F); *or*
(d) a combination of any of Items (a), (b) or (c) above.

5.5.1A Screens for windows and doors

Where fitted, screens for windows and doors shall have a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium. Gaps between the perimeter of the screen assembly and the building element to which it is fitted shall not exceed 3 mm.

The frame supporting the mesh or perforated sheet shall be made from—

(a) metal; *or*
(b) bushfire-resisting timber (see Appendix F); *or*
(c) a timber species as specified in Paragraph E2, Appendix E.

5.5.2 Windows

Window assemblies shall comply with one of the following:

(a) They shall be completely protected by a bushfire shutter that complies with Clause 5.5.1.
  or
(b) They shall be completely protected externally by screens that comply with Clause 5.5.1A.
  or
(c) They shall comply with the following:
  (i) For window assemblies less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the window frame (see Figure D3, Appendix D), window frames and window joinery shall be made from:

(A) Bushfire-resisting timber (see Appendix F).*or*

(B) A timber species as specified in Paragraph E2, Appendix E.*or*
(C) Metal. *Or*
(D) Metal-reinforced PVC-U. The reinforcing members shall be made from aluminium, stainless steel, or corrosion-resistant steel and the frame and sash shall satisfy the design load, performance and structural strength of the member.

(ii) Externally fitted hardware that supports the sash in its functions of opening and closing shall be metal.
(iii) Where glazing is less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the window frame (see Figure D3, Appendix D), the glazing shall be Grade A safety glass minimum 4 mm thickness, or glass blocks with no restriction on glazing methods.

NOTE: Where double glazed units are used the above requirements apply to the external face of the window assembly only.

(iv) Where glazing is other than that specified in Item (iii) above, annealed glass may be used.
(v) The openable portions of windows shall be screened internally or externally with screens that comply with Clause 5.5.1A.

5.5.3 Doors—Side-hung external doors (including French doors, panel fold and bi-fold doors)

Side-hung external doors, including French doors, panel fold and bi-fold doors, shall comply with one of the following:

(a) Doors and door frames shall be protected by bushfire shutters that comply with Clause 5.5.1.
or
(b) Doors and door frames shall be protected externally by screens that comply with Clause 5.5.1A.
or
(c) Doors and door frames shall comply with the following:
(i) Doors shall be—
(A) non-combustible; or
(B) a solid timber, laminated timber or reconstituted timber door, having a minimum thickness of 35 mm for the first 400 mm above the threshold; or
(C) a door, including a hollow core door, with a non-combustible kickplate on the outside for the first 400 mm above the threshold; or
(D) a door, including a hollow core door, protected externally by a screen that complies with Clause 5.5.1A; or
(E) a fully framed glazed door, where the framing is made from materials specified for bushfire shutters (see Clause 5.5.1), or from a timber species as specified in Paragraph E2, Appendix E.

(ii) Where doors incorporate glazing, the glazing shall comply with the glazing requirements for windows.
(iii) Doors shall be tight-fitting to the door frame and to an abutting door, if applicable.
(iv) Where any part of the door frame is less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the door (see Figure D3, Appendix D), that part of the door frame shall be made from:

(A) Bushfire-resisting timber (see Appendix F). *or*
(B) A timber species as specified in Paragraph E2, Appendix E. *or*
(C) Metal. *Or*

(D) Metal-reinforced PVC-U. The reinforcing members shall be made from aluminium, stainless steel, or corrosion-resistant steel and the door assembly shall satisfy the design load, performance and structural strength of the member.

(v) Weather strips, draught excluders or draught seals shall be installed at the base of side-hung external doors.

5.5.4 Doors—Sliding doors

Sliding doors shall comply with one of the following:

(a) They shall be completely protected by a bushfire shutter that complies with Clause 5.5.1.
or
(b) They shall be completely protected externally by screens that comply with Clause 5.5.1A.
or
(c) They shall comply with the following:
(i) Any glazing incorporated in sliding doors shall be Grade A safety glass complying with AS 1288.
(ii) Both the door frame supporting the sliding door and the framing surrounding any glazing shall be made from:

(A) Bushfire-resisting timber (see Appendix F). *or*
(B) A timber species as specified in Paragraph E2, Appendix E. *or*
(C) Metal. *or*
(D) Metal-reinforced PVC-U. The reinforcing members shall be made from aluminium, stainless steel, or corrosion-resistant steel and the frame and the sash shall satisfy the design load, performance and structural strength of the member.

(iii) There is no requirement to screen the openable part of the sliding door. However, if screened, the screens shall comply with Clause 5.5.1A.

NOTE: The construction of manufactured sliding doors should prevent the entry of embers when the door is closed. There is no requirement to provide screens to the openable part of these doors as it is assumed that a sliding door will be closed if occupants are not present during a bushfire event. Screens of materials other than those specified may not resist ember attack.

(iv) Sliding doors shall be tight-fitting in the frames.

5.5.5 Doors—Vehicle access doors (garage doors)

The following apply to vehicle access doors:
(a) The lower portion of a vehicle access door that is within 400 mm of the ground when the door is closed (see Figure D4, Appendix D) shall be made from—
(i) non-combustible material; *or*
(ii) bushfire-resisting timber (see Appendix F); *or*
(iii) fibre-cement sheet, a minimum of 6 mm in thickness; *or*
(iv) a timber species as specified in Paragraph E1, Appendix E; *or*
(v) a combination of any of Items (i), (ii), (iii) or (iv) above.
(b) Panel lift, tilt doors or side-hung doors shall be fitted with suitable weather strips, draught excluders, draught seals or guide tracks, as appropriate to the door type, with a maximum gap no greater than 3 mm.
(c) Roller doors shall have guide tracks with a maximum gap no greater than 3 mm and shall be fitted with a nylon brush that is in contact with the door (see Figure D4, Appendix D).
(d) Vehicle access doors shall not include ventilation slots.

5.6 ROOFS (INCLUDING VERANDA AND ATTACHED CARPORT ROOFS, PENETRATIONS, EAVES, FASCIAS, GABLES, GUTTERS AND DOWNPIPES)

5.6.1 General

The following apply to all types of roofs and roofing systems:

(a) Roof tiles, roof sheets and roof-covering accessories shall be non-combustible.

(b) The roof/wall junction shall be sealed, to prevent openings greater than 3 mm, either by the use of fascia and eaves linings or by sealing between the top of the wall and the underside of the roof and between the rafters at the line of the wall.

(c) Roof ventilation openings, such as gable and roof vents, shall be fitted with ember guards made of non-combustible material or a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium.

NSW RURAL FIRE SERVICE VARIATION

Any sarking used shall be:

(a) Non-combustible; or

(b) Breather-type sarking complying with AS/NZS 4200.1 and with a flammability index of not more than 5 (see AS1530.2) and sarked on the outside of the frame; or

(c) An insulation material conforming to the appropriate Australian Standard for that material.

5.6.2 Tiled roofs

Tiled roofs shall be fully sarked. The sarking shall—

(a) be located on top of the roof framing, except that the roof battens may be fixed above the sarking;

(b) cover the entire roof area including ridges and hips; and

(c) extend into gutters and valleys.

5.6.3 Sheet roofs

Sheet roofs shall—

(a) be fully sarked in accordance with Clause 5.6.2, except that foil-backed insulation blankets may be installed over the battens; and

(b) have any gaps greater than 3 mm (such as under corrugations or ribs of sheet roofing and between roof components) sealed at the fascia or wall line and at valleys, hips and ridges by—

(i) a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium; or

(ii) mineral wool; or

(iii) other non-combustible material; or

(iv) a combination of any of Items (i), (ii) or (iii) above.

5.6.4 Veranda, carport and awning roofs

The following apply to veranda, carport and awning roofs:

(a) A veranda, carport or awning roof forming part of the main roof space [see Figure D1(a), Appendix D] shall meet all the requirements for the main roof, as specified in Clauses 5.6.1, 5.6.2, 5.6.3, 5.6.5 and 5.6.6.

(b) A veranda, carport or awning roof separated from the main roof space by an external wall [see Figures D1(b) and D1(c), Appendix D] complying with Clause 5.4 shall have a non-combustible roof covering.

NOTE: There is no requirement to line the underside of a veranda, carport or awning roof that is separated from the main roof space.

5.6.5 Roof penetrations

The following apply to roof penetrations:

(a) Roof penetrations, including roof lights, roof ventilators, roof-mounted evaporative cooling units, aerials, vent pipes and supports for solar collectors, shall be adequately sealed at the roof to prevent gaps greater than 3 mm. The material used to seal the penetration shall be non-combustible.

(b) Openings in vented roof lights, roof ventilators or vent pipes shall be fitted with ember guards made from a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium. This requirement does not apply to the exhaust flues of heating or cooking devices with closed combustion chambers. In the case of gas appliance flues, ember guards shall not be fitted.
NOTE: Gasfitters are required to provide a metal flue pipe above the roof and terminate with a certified gas flue cowl complying with AS 4566. Advice may be obtained from State gas technical regulators.

(c) All overhead glazing shall be Grade A safety glass complying with AS 1288.

(d) Glazed elements in roof lights and skylights may be of polymer provided a Grade A safety glass diffuser, complying with AS 1288, is installed under the glazing. Where glazing is an insulating glazing unit (IGU), Grade A toughened safety glass minimum 4 mm thickness, shall be used in the outer pane of the IGU.

(e) Flashing elements of tubular skylights may be of a fire-retardant material, provided the roof integrity is maintained by an under-flashing of a material having a flammability index no greater than 5.

(f) Evaporative cooling units shall be fitted with non-combustible butterfly closers as close as practicable to the roof level or the unit shall be fitted with non-combustible covers with a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium.

(g) Vent pipes made from PVC are permitted.

5.6.6 Eaves linings, fascias and gables

The following apply to eaves linings, fascias and gables:

(a) Gables shall comply with Clause 5.4.

(b) Eaves penetrations shall be protected the same as for roof penetrations, as specified in Clause 5.6.5.

(c) Eaves ventilation openings greater than 3 mm shall be fitted with ember guards made of non-combustible material or a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium.

Joints in eaves linings, fascias and gables may be sealed with plastic joining strips or timber storm moulds.

This Standard does not provide construction requirements for fascias, bargeboards and eaves linings.

5.6.7 Gutters and downpipes

This Standard does not provide requirements for—

(a) gutters, with the exception of box gutters; and

(b) downpipes.

If installed, gutter and valley leaf guards shall be non-combustible. Box gutters shall be non-combustible and flashed at the junction with the roof with non-combustible material.

5.7 VERANDAS, DECKS, STEPS, RAMPS AND LANDINGS

5.7.1 General

Decking may be spaced.

There is no requirement to enclose the subfloor spaces of verandas, decks, steps, ramps or landings.

C5.7.1 Spaced decking is nominally spaced at 3 mm (in accordance with standard industry practice); however, due to the nature of timber decking with seasonal changes in moisture content, that spacing may range from 0–5 mm during service. The preferred dimension for gaps is 3 mm (which is in line with other 'permissible gaps') in other parts of this Standard.
It should be noted that recent research studies have shown that gaps at 5 mm spacing afford opportunity for embers to become lodged in between timbers, which may contribute to a fire. Larger gap spacings of 10 mm may preclude this from happening but such a spacing regime may not be practical for a timber deck.

5.7.2 Enclosed subfloor spaces of verandas, decks, steps, ramps and landings

5.7.2.1 Materials to enclose a subfloor space

NSW RURAL FIRE SERVICE VARIATION

The subfloor spaces of verandas, decks, steps, ramps and landings are considered to be 'enclosed' when —

(a) the material used to enclose the subfloor space complies with **(Clause 5.4 as appropriate)**; and

(b) all openings greater than 3 mm are screened with a mesh or perforated sheet with a maximum aperture of 2 mm, made of corrosion-resistant steel, bronze or aluminium.

5.7.2.2 Supports

This Standard does not provide construction requirements for support posts, columns, stumps, stringers, piers and poles.

5.7.2.3 Framing

This Standard does not provide construction requirements for the framing of verandas, decks, ramps or landings (i.e., bearers and joists).

5.7.2.4 Decking, stair treads and the trafficable surfaces of ramps and landings

NSW RURAL FIRE SERVICE VARIATION

Decking, stair treads and the trafficable surfaces of ramps and landings shall be—

(a) of non-combustible material; *or*

(b) of bushfire-resisting timber (see Appendix F); *or*

(c) a combination of Items (a) and (b) above.

5.7.3 Unenclosed subfloor spaces of verandas, decks, steps, ramps and landings

5.7.3.1 Supports

NSW RURAL FIRE SERVICE VARIATION

Support posts, columns, stumps, stringers, piers and poles shall be—
(a) of non-combustible material; *or*
(b) of bushfire-resisting timber (see Appendix F); *or*
(c) a combination of Items (a) and (b) above.

5.7.3.2 Framing

NSW RURAL FIRE SERVICE VARIATION

Framing of verandas, decks, ramps or landings (i.e., bearers and joists) shall be—
(a) of non-combustible material; *or*
(b) of bushfire-resisting timber (see Appendix F); *or*
(c) a combination of Items (a) and (b) above.

5.7.3.3 Decking, stair treads and the trafficable surfaces of ramps and landings

NSW RURAL FIRE SERVICE VARIATION

Decking, stair treads and the trafficable surfaces of ramps and landings shall be—
(a) of non-combustible material; *or*
(b) of bushfire-resisting timber (see Appendix F); *or*
(c) a combination of Items (a) and (b) above.

5.7.4 Balustrades, handrails or other barriers

NSW RURAL FIRE SERVICE VARIATION

Those parts of the handrails and balustrades less than 125 mm from any glazing or any combustible wall shall be—
(a) of non-combustible material; *or*
(b) bushfire-resisting timber (see Appendix F); *or*
(c) a combination of Items (i) and (ii) above.

Those parts of the handrails and balustrades that are 125 mm or more from the building have no requirements.

5.8 WATER AND GAS SUPPLY PIPES

Above-ground, exposed water and gas supply pipes shall be metal.

APPENDIX E
TIMBER SPECIES AND DENSITIES

E1 GENERAL CONSTRUCTION

Timber with a density of 750 kg/m3 or greater at a 12 percent moisture content is suitable for construction where specified in Sections 5 and 6. Examples of suitable timber species are listed in Table E1.

Densities of timber species not listed in Table E1 may be found in AS 1720.2.

Many of the timber species listed in Table E1 from various regions of Australia may not be available in all areas.

TABLE E1

TIMBER SPECIES WITH A DENSITY OF 750 kg/m3 OR GREATER

Standard trade name	Botanical name
Ash, Crow's	Flindersia australis
Ash, silvertop	Eucalyptus sieberi
Balau (selangan batu)	Shorea spp.
Bangkirai	Shorea laevifolia
Belian	Eusideroxylon zwageri
Blackbutt	Eucalyptus pilularis
Blackbutt, New England	Eucalyptus andrewsii
	Eucalyptus campanulata
Box, brush	Lophostemon confertus
Box, grey	Eucalyptus microcarpa
Box, grey, coast	Eucalyptus bosistoana
Box, white-topped	Eucalyptus quadrangulata
Box, yellow	Eucalyptus melliodora
Brownbarrel	Eucalyptus fastigata
Candlebark	Eucalyptus rubida
Gum, blue, southern	Eucalyptus globulus
Gum, blue, Sydney	Eucalyptus saligna
Gum, grey	Eucalyptus propinqua
Gum, grey, mountain	Eucalyptus cypellocarpa
Gum, Maiden's	Eucalyptus maidenii
Gum, manna	Eucalyptus viminalis
Gum, red, forest	Eucalyptus tereticornis
Gum, red, river	Eucalyptus camaldulensis
Gum, rose	Eucalyptus grandis
Gum, spotted	Corymbia maculata
	Corymbia henryi
	Corymbia citriodora
Gum, sugar	Eucalyptus cladocalyx
Hardwood, Johnstone River	Backhousia bancroftii
Ironbark, grey	Eucalyptus paniculata
Ironbark, red	Eucalyptus sideroxylon
Jarrah	Eucalyptus marginata
Kapur	Dryobalanops spp.
Karri	Eucalyptus diversicolor

TABLE E1 (Cont.)

Standard trade name	Botanical name
Kempas	Koompassia malaccensis
Keruing	Dipterocarpus spp.
Kwila (Merbau)	Intsia bijuga
Mahogany red	Eucalyptus resinifera
Mahogany, southern	Eucalyptus botryoides
Mahogany, white	Eucalyptus acmenoides
Messmate	Eucalyptus obliqua
Messmate, Gympie	Eucalyptus cloeziana
Northern Box (Pelawan)	Tristaniopsis spp.
Oak, American	Quercus spp.
Peppermint, narrow-leaved	Eucalyptus australiana
Satinay	Syncarpia hillii
Stringybark, Blackdown	Eucalyptus sphaerocarpa
Stringybark, blue-leaved	Eucalyptus agglomerata
Stringybark, brown	Eucalyptus baxteri
Stringybark, silvertop	Eucalyptus laevopinea
Stringybark, white	Eucalyptus eugenioides
Stringybark, yellow	Eucalyptus muelleriana
Tallowwood	Eucalyptus microcorys
Turpentine	Syncarpia glomulifera
Woollybutt	Eucalyptus longifolia

APPENDIX E
TIMBER SPECIES AND DENSITIES

E2 WINDOWS AND DOORS

Timber species with a density of 650 kg/m3 or greater at a 12 percent moisture content is suitable for window joinery, door frames and the framing surrounding any glazing where specified in Sections 5 and 6. Examples of suitable timber species are listed in Table E2.

Densities of timber species not listed in Table E2 may be found in AS 1720.2.

Many of the timber species listed in Table E2 from various regions of Australia may not be available in all areas.

TABLE E2

SOME TIMBER SPECIES WITH A DENSITY OF 650 kg/m3 OR GREATER

Standard trade name	Botanical name
Ash, alpine	Eucalyptus delegatensis
Ash, Crow's	Flindersia australis
Ash, mountain	Eucalyptus regnans
Ash, silvertop	Eucalyptus sieberi
Balau (selangan batu)	Shorea spp.
Bangkirai	Shorea laevifolia
Beech, myrtle	Nothofagus cunninghamii
Belian	Eusideroxylon zwageri
Blackbutt	Eucalyptus pilularis
Blackbutt, New England	Eucalyptus andrewsii Eucalyptus campanulata
Blackwood	Acacia melanoxylon
Box, brush	Lophostemon confertus
Box, grey	Eucalyptus microcarpa
Box, grey, coast	Eucalyptus bosistoana
Box, white-topped	Eucalyptus quadrangulata
Box, yellow	Eucalyptus melliodora
Brownbarrel	Eucalyptus fastigata
Candlebark	Eucalyptus rubida
Cypress	Callitris glaucophylla
Gum, blue, southern	Eucalyptus globulus
Gum, blue, Sydney	Eucalyptus saligna
Gum, grey	Eucalyptus propinqua
Gum, grey, mountain	Eucalyptus cypellocarpa
Gum, Maiden's	Eucalyptus maidenii
Gum, manna	Eucalyptus viminalis
Gum, mountain	Eucalyptus dalrympleana
Gum, red, forest	Eucalyptus tereticornis
Gum, red, river	Eucalyptus camaldulensis
Gum, rose	Eucalyptus grandis

TABLE E2 (Cont.)

Standard trade name	Botanical name
Gum, shinning	Eucalyptus nitens
Gum, spotted	Corymbia maculata
	Corymbia henryi
	Corymbia citriodora
Gum, sugar	Eucalyptus cladocalyx
Hardwood, Johnstone River	Backhousia bancroftii
Ironbark, grey	Eucalyptus paniculata
Ironbark, red	Eucalyptus sideroxylon
Jarrah	Eucalyptus marginata
Kapur	Dryobalanops spp.
Karri	Eucalyptus diversicolor
Kempas	Koompassia malaccensis
Keruing	Dipterocarpus spp.
Kwila (Merbau)	Intsia bijuga
Mahogany, Philippine red, dark	Shorea spp.
Mahogany red	Eucalyptus resinifera
Mahogany, southern	Eucalyptus botryoides
Mahogany, white	Eucalyptus acmenoides
Messmate	Eucalyptus obliqua
Messmate, Gympie	Eucalyptus cloeziana
Northern Box (Pelawan)	Tristaniopsis spp.
Oak , American	Quercus spp.
Peppermint, narrow-leaved	Eucalyptus australiana
Pine, celery-top	Phyllocladus asplenifolius
Pine, slash	Pinus elliottii
Ramin	Gonystylus spp.
Rosewood, New Guinea	Pterocarpus indicus
Satinay	Syncarpia hillii
Stringybark, Blackdown	Eucalyptus sphaerocarpa
Stringybark, blue-leaved	Eucalyptus agglomerata
Stringybark, brown	Eucalyptus baxteri
Stringybark, silvertop	Eucalyptus laevopinea
Stringybark, white	Eucalyptus eugenioides
Stringybark, yellow	Eucalyptus muelleriana
Tallowwood	Eucalyptus microcorys
Taun	Pometia pinnata
Turpentine	Syncarpia glomulifera
Vitex, New Guinea	Vitex cofassus
Woollybutt	Eucalyptus longifolia
Ash, Crow's	Flindersia australis
Ash, silvertop	Eucalyptus sieberi
Balau (selangan batu)	Shorea spp.
Bangkirai	Shorea laevifolia
Belian	Eusideroxylon zwageri
Blackbutt	Eucalyptus pilularis
Blackbutt, New England	Eucalyptus andrewsii
	Eucalyptus campanulata
Box, brush	Lophostemon confertus

TABLE E2 (Cont.)

Standard trade name	Botanical name
Box, grey	Eucalyptus microcarpa
Box, grey, coast	Eucalyptus bosistoana
Box, white-topped	Eucalyptus quadrangulata
Box, yellow	Eucalyptus melliodora
Brownbarrel	Eucalyptus fastigata
Candlebark	Eucalyptus rubida
Gum, blue, southern	Eucalyptus globulus
Gum, blue, Sydney	Eucalyptus saligna
Gum, grey	Eucalyptus propinqua
Gum, grey, mountain	Eucalyptus cypellocarpa
Gum, Maiden's	Eucalyptus maidenii
Gum, manna	Eucalyptus viminalis
Gum, red, forest	Eucalyptus tereticornis
Gum, red, river	Eucalyptus camaldulensis
Gum, rose	Eucalyptus grandis
Gum, spotted	Corymbia maculata
	Corymbia henryi
	Corymbia citriodora
Gum, sugar	Eucalyptus cladocalyx
Hardwood, Johnstone River	Backhousia bancroftii
Ironbark, grey	Eucalyptus paniculata
Ironbark, red	Eucalyptus sideroxylon
Jarrah	Eucalyptus marginata
Kapur	Dryobalanops spp.
Karri	Eucalyptus diversicolor
Kempas	Koompassia malaccensis
Keruing	Dipterocarpus spp.
Kwila (Merbau)	Intsia bijuga
Mahogany red	Eucalyptus resinifera
Mahogany, southern	Eucalyptus botryoides
Mahogany, white	Eucalyptus acmenoides
Messmate	Eucalyptus obliqua
Messmate, Gympie	Eucalyptus cloeziana
Northern Box (Pelawan)	Tristaniopsis spp.
Oak, American	Quercus spp.
Peppermint, narrow-leaved	Eucalyptus australiana
Satinay	Syncarpia hillii
Stringybark, Blackdown	Eucalyptus sphaerocarpa
Stringybark, blue-leaved	Eucalyptus agglomerata
Stringybark, brown	Eucalyptus baxteri
Stringybark, silvertop	Eucalyptus laevopinea
Stringybark, white	Eucalyptus eugenioides
Stringybark, yellow	Eucalyptus muelleriana
Tallowwood	Eucalyptus microcorys
Turpentine	Syncarpia glomulifera
Woollybutt	Eucalyptus longifolia

APPENDIX F
BUSHFIRE-RESISTING TIMBER

The following species have been tested and have met the requirements of Paragraph F2 within Appendix F for Bushfire Resisting Timber:

Standard trade name	Botanical name
Ash, silvertop	Eucalyptus sieberi
Blackbutt	Eucalyptus pilularis
Gum, red, river	Eucalyptus camaldulensis
Gum, spotted	Corymbia maculata Corymbia henryi Corymbia citriodora
Ironbark, red	Eucalyptus sideroxylon
Kwila (Merbau)	Intsia bijuga
Turpentine	Syncarpia glomulifera

BASIX® Certificate

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

Alterations and Additions

Certificate number: A245734_04

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Alterations and Additions Definitions" dated 18/09/2014 published by Planning & Infrastructure. This document is available at www.basix.nsw.gov.au

Director-General
Date of issue: Monday, 01, August 2016
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT Planning & Infrastructure

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

Description of project

Project address	
Project name	Attunga Rd Residence_04
Street address	54 Attunga Road Newport 2106
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 752046
Lot number	115
Section number	0
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at $50,000 or more, and does not include a pool (and/or spa).

Certificate Prepared by (please complete before submitting to Council or PCA)
Name / Company Name: KML Basix
ABN (if applicable): 24911963354

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

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

Construction	Additional insulation required (R-value)	Other specifications
concrete slab on ground floor.	nil	
external wall: brick veneer	R1.16 (or R1.70 including construction)	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
raked ceiling, pitched/skillion roof: framed	ceiling: R2.50 (up), roof: foil/sarking	medium (solar absorptance 0.475 - 0.70)

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

Windows and glazed doors glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type
			Height (m)	Distance (m)		
W1	N	1.2	0	0	external louvre/blind (adjustable)	timber or uPVC, single toned, (or U-value: 5.67, SHGC: 0.49)
W2	N	1.2	0	0	external louvre/blind (adjustable)	timber or uPVC, single toned, (or U-value: 5.67, SHGC: 0.49)

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type			
			Height (m)	Distance (m)					
W3	W	0.84	0	0	projection/height above sill ratio >=0.36	timber or uPVC, single toned, (or U-value: 5.67, SHGC: 0.49)			
W4	E	2.7	0	0	external louvre/blind (adjustable)	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W5	W	2.7	0	0	external louvre/blind (adjustable)	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W6	W	1.35	2	1	none	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W7	E	1.8	2	1	none	timber or uPVC, single toned, (or U-value: 5.67, SHGC: 0.49)			
W8	E	0.72	2	1	none	timber or uPVC, single toned, (or U-value: 5.67, SHGC: 0.49)			
W9	N	3.6	0	0	external louvre/blind (adjustable)	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
W10	E	2.88	0	0	external louvre/blind (adjustable)	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
D1	S	2.76	0	0	none	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
D2	W	3.96	2	1	eave/verandah/pergola/balcony >=600 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
D3	S	1.76	0	0	eave/verandah/pergola/balcony >=450 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
D4	N	4.8	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			
D5	N	12.48	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)			

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

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type
			Height (m)	Distance (m)		
D6	N	4.8	0	0	eave/verandah/pergola/balcony >=900 mm	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
D7	N	4.8	0	0	external louvre/blind (adjustable)	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)
D8	N	6.24	0	0	external louvre/blind (adjustable)	timber or uPVC, single clear, (or U-value: 5.71, SHGC: 0.66)

Skylights

The applicant must install the skylights in accordance with the specifications listed in the table below.	✓	✓	✓
The following requirements must also be satisfied in relation to each skylight:		✓	✓
Each skylight may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below.		✓	✓

Skylights glazing requirements

Skylight number	Area of glazing inc. frame (m2)	Shading device	Frame and glass type
SK1	0.3	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)
SK2	1.09	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)
SK3	1.09	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.5, SHGC: 0.456)

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

MIKE SMIT CONSTRUCTIONS

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

29th March 2016

Finishes Schedule – 54 Attunga Road Newport

To Whom It May Concern:

Finishes proposed for alterations and additions to the above address are.

Roof – Colourbond colour to match existing
Windows and doors – Timber/glass
Balustrade – Glass
External Walls – Hardies weatherboard colour TBC
New Deck – Merbau
Existing Deck – Travertine tiles

If you have any further enquiries please don't hesitate to contact me on 0425 265 596

Kind Regards,

Mike Smit
Director/ Builder

Mike Smit Constructions Pty Ltd
A 88 Irrubel Road Newport NSW 2106
M 0425 265 596
F 02 9997 5955
E mike@mikesmitconstructions.com.au
License No 222 220C **ABN** 33200 141 334

Levy Online Payment Receipt

Building and Construction

MIKE SMIT CONSTRUCTIONS
88 IRRUBEL ROAD
NEWPORT NSW 2106

Application Details:

Applicant Name:	**MIKE SMIT CONSTRUCTIONS**
Levy Number:	**5152969**
Application Type:	**CC**
Application Number:	**DANO171/16**
Approving Authority:	**NORTHERN BEACHES COUNCIL-NORTH**

Work Details:

Site Address:	**54 ATTUNGA ROAD** **NEWPORT NSW 2106**
Value of work:	**$122,000**
Levy Due:	**$427.00**

Payment Details:

LSC Receipt Number:	**270157**
Payment Date:	**18/01/2017 9:56:42 AM**
Bank Payment Reference:	**965944849**
Levy Paid:	**$427.00**
Credit card surcharge:	**$1.71**
Total Payment Received:	**$428.71**

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HELPLINE
13 14 41
www.longservice.nsw.gov.au

EMAIL
info@longservice.nsw.gov.au
ABN 93 646 090 808

POSTAL ADDRESS
Locked Bag 3000,
Central Coast MC, NSW 2252

Levy Online Payment Receipt

Building and Construction

MIKE SMIT CONSTRUCTIONS
88 IRRUBEL RD
NEWPORT NSW 2106

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

Application Details:

Applicant Name:	**MIKE SMIT CONSTRUCTIONS**
Levy Number:	**5141113**
Application Type:	**DA**
Application Number:	**171/16**
Approving Authority:	**PITTWATER COUNCIL**

Work Details:

Site Address:	**54 ATTUNGA RD** **NEWPORT NSW 2106**
Value of work:	**$520,000**
Levy Due:	**$1,820.00**

Payment Details:

LSC Receipt Number:	**256425**
Payment Date:	**14/09/2016 1:11:31 PM**
Bank Payment Reference:	**930465832**
Levy Paid:	**$1,820.00**
Credit card surcharge:	**$7.28**
Total Payment Received:	**$1,827.28**

icare hbcf

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

HBCF Policy No : HBCF16059440
Policy Date : 28/11/2016

statement of cover	
Mike Smit Constructions Pty Ltd	HIA INSURANCE SERVICES (NSW)
88 Irrubel Rd	4 BYFIELD STREET
NEWPORT NSW 2106	NORTH RYDE NSW 2113

Note: This document contains an extract of details kept on the HBCF Certificates Register. To confirm the authenticity of this document as proof of a valid contract of insurance, please visit the Certificates Register at www.hbcf.nsw.gov.au. The Register will also list whether any claims have been made on this insurance cover and any other relevant information.

CERTIFICATE IN RESPECT OF INSURANCE RESIDENTIAL BUILDING WORKS BY CONTRACTORS

A contract of insurance complying with sections 92 and 96 of the Home Building Act 1989 (the Act) has been issued by Insurance and Care NSW (icare) which provides services to the NSW Self Insurance Corporation in the management of the Home Building Compensation Fund (HBCF)

In respect of	Single Dwelling Alterations / Additions - Structural
At	
	54 Attunga Road
	Newport New South Wales 2106
Site plan No	NA
Site plan type	NA
Homeowner	David Clare
Carried out by	Mike Smit Constructions Pty Ltd
Builder job No	CLARE
Licence number	222220C
Contract sum	$642,000.00
Contract date	26/11/2016 (Proposed)
Premium paid	$4,618.55

Subject to the Act, the Home Building Regulation 2014 and the conditions of the insurance contract, cover will be provided to a beneficiary described in the contract and successors in title to the beneficiary. This Certificate is to be read in conjunction with the policy wording current as at the policy date and available at the Home Building Compensation Fund website at www.hbcf.nsw.gov.au

Certificate No HBCF16059440
Issued on 28/11/2016
Issued by QBE Insurance (Australia) Limited

Issued on behalf of NSW Self Insurance Corporation (ABN 97 369 689 650)