

7 March 2012

Pittwater Council
P O Box 882
Mona Vale NSW 2103

Dear Sir or Madam

RE: Lodgement of CC2012/057 for DA No. N0215/11
Site address: No.21 Marine Parade, Avalon NSW 2107

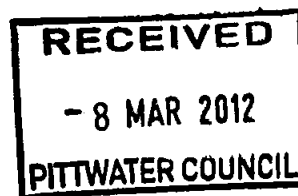
Please find attached all required documentation relied upon to issue Construction Certificate and Notice of Commencement for the above development:

- Part 4A Lodgement Fee \$36.00 payable to Council.
- Copy of Home Owner's Warranty Insurance.
- 1 full set of Council approved plans/Construction Certificate Plans.
- 1 Structural Engineer's Plans.
- Receipt showing payment for Long Service Levy fee.
- Bushfire Report for BAL 12.5.
- Sydney Water Building Plan Approval

Yours faithfully

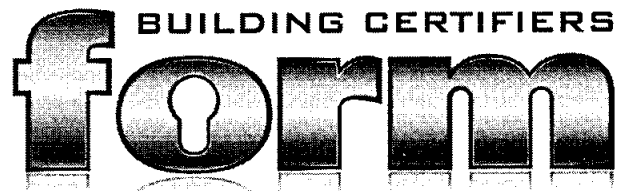


Craig Formosa



\$36 REC: 319180 8/3/12

POSTED
07/03/12



CONSTRUCTION CERTIFICATE #2012-057

Approved 07/03/12

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

Date Application Received	2.3.12				
Council	Pittwater				
Development Consent No.	N0215/11	Date Approved	9.8.11		
Certifying Authority	Craig Formosa	Accredited Certifier	Craig Formosa - BPB0124		
Accreditation Body	Building Professionals Board				
APPLICANT DETAILS					
Name	Jason Kougellis	Ph No.	9918 6622		
Address	21 Marine Parade, Avalon NSW 2107				
OWNER DETAILS					
Name	Jason Kougellis				
Address	21 Marine Parade, Avalon NSW 2107				
DEVELOPMENT DETAILS					
Subject Land	21 Marine Parade, Avalon NSW 2107	Lot No.	90	DP	83974
Description of Development	Alterations & Additions to an existing dwelling				
Class of Building	10a	Value of Work	\$52,900.00		
BUILDER DETAILS					
Name	BHE Building Pty Ltd				
Address	P O Box 518, Avalon NSW 2107				
Contact Number	0419 277 900	License No.	167096C		
APPROVED PLANS & DOCUMENTS					
Plans Prepared By	Sally Gardner Design & Draft				
Drawing Numbers	4-0711 A1-A5	Dated	29.4.11		
Engineer Details Prepared By	Michal Korecky				
Drawing Numbers	12011 S1-S4	Dated	17/2/12		
CERTIFICATION					
<p>I, Craig Formosa, as the certifying authority am satisfied that;</p> <p>(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</p> <p>(b) Long Service Levy has been paid where required under s34 of the Building & Construction Industry Long Service Payments Act 1986.</p>					
Signed:		Date: 07/03/12			

IMPORTANT ADVICE

Due to changes in planning laws, (Sect. S81A (2)C of the Act), **the critical stage inspections are mandatory and must** be inspected by the P.C.A or the final certificate (Occupation Certificate) may not be able to be issued (causing complications and delays when selling/refinancing etc). **The critical stage inspections are listed on the Notice of Commencement part of this document.**

Also, **NO CHANGES** to the building, as detailed in the plans, can be made without notification to your PCA (**some changes will need council consent**). **Please take note of any changes made in red to your plans, the builder will have to be provided with a copy of the approved construction certificate plans so that compliance with the Building Code of Australia and Council's DA conditions is achieved first time.**

Unauthorised changes may lead to fines and orders being issued by Council's Compliance Officers and prevent an Occupation Certificate being issued.

To arrange the mandatory inspections please give 48 hours notice by contacting Form Building Certifiers by telephone.

Please do not hesitate to ring me if there are any enquiries in respect of these matters.

Kind regards



Craig Formosa

Director

Form Building Certifiers

GENERAL NOTES

GENERAL

These drawings shall be read in conjunction with all architectural and other consultants' drawings and specifications and with such other written instructions as may be issued during the course of the contract. Any discrepancy shall be referred to the Engineer before proceeding with the work.

All materials and workmanship shall be in accordance with the relevant and current SAA codes and with the By-Laws and Ordinances of the relevant building authorities except where varied by the project specification.

All dimensions shall be taken from the Architectural drawings or the actual work and shall be verified by the builder on site. Engineer's drawings shall not be scaled for dimensions.

During construction the structure shall be maintained in a stable condition and no part shall be overstressed. Temporary bracing shall be provided by the builder to keep the works and excavations stable at all times.

Unless noted otherwise all levels are in metres and all dimensions are in mm.

All work shall be in accordance with The Building Code of Australia, current relevant S.A.A. Codes and those of all Statutory Authorities having jurisdiction over the work.

Lines and locations of existing work is shown on the drawings as indicative only. The builder is to check and refer any discrepancies to the engineer. The adequacy of the existing structures is not covered in these drawings U.N.O.

Only certified design details and certified drawings for the proposed new work shall be used for construction on site.

The details shown on the drawings cover the extent of the new structural work. Existing work is not included, unless noted, in the new work.

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The construction shall follow the member sizing and design intent as shown on the drawings. Substitutions, where necessary, shall be approved by the Engineer.

FOUNDATIONS

Footings have been designed for an allowable bearing intensity of:

Strip Footings	600	kPa	Pod Footings	600	kPa
Piers		kPa	Floor Slabs		kPa
Edge Beams to Slabs		kPa	Ribs to Slabs		kPa

The foundation material shall be approved by the engineer for this pressure before placing reinforcement or concrete.

Footings shall be located centrally under walls and columns u.n.o. before placing reinforcement or concrete.

Footings to be constructed and backfilled as soon as possible following excavation to avoid softening or drying out by exposure.

Do not backfill retaining walls (other than cantilever walls) until floor construction at top and bottom is completed. Ensure free draining backfill and drainage is in place.

If rock is encountered during excavation of the footings all footings/ piers are to be excavated to similar material of greater bearing capacity.

CONCRETE

All workmanship and materials shall be in accordance with AS 3600

Concrete components and quality at 28 days shall be as follows u.n.o

Location	N	Slump (mm)	Aggregate Size (mm)	F _c (MPa)
FOOTINGS	25	80	20	25
SLABS	32	80	20	32
BLOCK CORE FILL	20	80	10	20

Minimum clear concrete cover to all reinforcement shall be as follows U.N.O:

Exposure classification	Required cover,mm			
	20MPa	25MPa	32MPa	40MPa
A1	20	20	20	20
A2	20	30	25	20
B1	-	30	40	30
B2	-	-	(65)	45
C	-	-	-	(70)

DOCUMENT CERTIFICATION

I am a qualified Structural / Civil engineer. I hold the following qualifications:
MEngSc (Civl), MEngst.
I hereby state that these plans or details comply with the code of practice and the provisions of the Building Code of Australia 17/02/12

Michal Korecky

Minimum cover for fire resistance level (FRL) shall be as follows:

FRL	BEAM	SLAB	COLUMN	WALL
60	125/30	80/20	200/20	80/20
90	150/45	100/25	250/30	100/35
120	200/55	120/30	300/45	120/40
180	240/70	150/45	400/60	150/45
240	270/80	170/55	450/70	170/50

Cover shall be maintained by the use of approved spacers or chairs of 800mm maximum cts. Pipes, conduits etc., are not to be placed in cover concrete. Provide 100mm square galvanised metal pods under chairs in contact with the ground or membrane.

All concrete shall be mechanically vibrated. Vibrators shall not be used to spread concrete

Sizes of concrete elements do not include thickness of applied finishes.

Construction joints where not shown shall be located to approval of the engineer. All construction joints shall be scabbled over the hole face and any unsound material removed.

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.

Concrete shall be separated from supporting masonry by 2 layers of bituminous felt or approved equivalent.

Splices in reinforcement shall be made only in the positions shown or as approved by the engineer, where the lap length is not shown it shall be sufficient to develop the full strength of the reinforcement as specified in as3600. cogs and hooks shall be standard unless shown otherwise.

Splices in reinforcement shall be made only in the positions shown or as approved by the engineer, where the lap length is not shown it shall be sufficient to develop the full strength of the reinforcement as specified in as3600. cogs and hooks shall be standard unless shown otherwise.

Welding of reinforcement will not be permitted unless shown on the structural drawings or approved by the engineer.

Pipes or conduits shall not be placed within the concrete cover to reinforcement without the approval of the engineer.

Exposed corners shall be 20 mm chamfered u.n.o.

All reinforcement shall be inspected by the superintendent or engineer prior to placing concrete.

All slab concrete to be cured in an approved manner for a minimum of 7days. Formwork used for structural members shall comply with A.S.1509 and stripping of formwork shall comply with Table 4.2 of A.S.1509.

Props may be removed after 28days of curing or after 14 days if the concrete has reached its characteristic strength (as proved by cylinder test results).

Each floor shall be fully propped to the floor below in accordance with AS 3610 (formwork code).

Each floor shall be fully propped to the floor below in accordance with AS 3610 (formwork code).

All formwork and props for slabs and beams shall be removed before construction of any masonry walls or partitions on the floor.

REINFORCEMENT

All reinforcement bars and fabric shall comply with AS 4671-2001

All reinforcement specified is Grade D500 U.N.O.

Reinforcement is represented diagrammatically, it is not necessarily shown in true projection.

Reinforcement splices and construction joints shall not be relocated or added without the Engineers approval. Splices in reinforcement are to develop the full strength of the bar being spliced and standard hooks and caps(A.S.3600) shall be adopted U.N.O. Reinforcement shall be securely tied at all tops and intersections with 1,25mm annealed wire.

Reinforcement symbols

N – Deformed grade 500 normal ductility reinforcing bars to AS/NZS 4671.
R – Plain round grade 250 normal ductility reinforcing bars to AS/NZS 4671.
SL – Deformed grade 500 low ductility reinforcing mesh to AS/NZS 4671.
RL – Deformed grade 500 low ductility reinforcing mesh to AS/NZS 4671.
L – TM – Deformed grade 500 low ductility trench mesh to AS/NZS 4671.
Y – Deformed grade 450 normal ductility reinforcing bars to AS/NZS 4671.
F – Deformed grade 450 low ductility reinforcing mesh to AS/NZS 4671.

STEELWORK

All workmanship and materials shall be in accordance with AS4100. Steel shall comply with A.S.1204 and hollow sections shall be manufactured to A.S.1163 Grade 350, U.N.O.

All welds shall be 6 mm continuous fillet type sp. u.n.o. butt welds where indicated on the drawings shall be complete penetration welds as defined in AS1554.1 All butt welds and all fillet welds 8mm and over shall be Category SP. All welding shall use E41XX electrodes.

Unless noted otherwise all bolts shall be M20 Grade 8.8/S and no steel to steel connections shall have less than 2 commercial bolts 4.6/S.

BOLT DESIGNATION to A.S.1252 is as follows:

4.6/S–Commercial bolts of grade 4.6 to AS1111 tightened to a snug tight fit.
8.8/S–High Strength Bolts installed snug tight.
8.8/TB–High Strength Bolts in bearing mode.
8.8/TF–High Strength Bolts in friction grip mode.
Attention is drawn to the use of Hard Grade washers with High Strength bolts. All exposed bolts are to be galvanised U.N.O.

U.N.O. seal all tubes with 5mm plate and continuous fillet weld.

Two copies of shop drawings are to be approved by the Engineer prior to the commencement of fabrication.

Steelwork below ground shall have 75mm concrete encasing with FGM41 wrapping centrally placed.

U.N.O. beams and lintels to bear a minimum of 230mm on brickwork on a bed of 12mm of 2:1 sand / cement mortar.

The contractor shall provide temporary bracing as is necessary to stabilise the structure during erection.

The contractor shall provide all cleats and drill all holes necessary for fixing steel to steel and timber to steel whether or not detailed in the drawings.

U.N.O. all steelwork shall be thoroughly cleaned of rust, scale and grease and shall have one coat of red oxide zinc chromate primer except for concrete encased steelwork, galvanised steelwork, and mating steel surfaces connected together with 8.8/TF bolts. Priming is to be touched up on completion of erection. All exposed steelwork and external lintels shall be galvanised.

MASONRY

All workmanship and materials shall be in accordance with AS 3700.

Clay building bricks shall have a minimum compressive strength of 30MPa to A.S.1225, and concrete masonry units shall be Grade 12 units to A.S.2733.

Mortar to masonry shall be (Cement : Lime : Sand) as follows (U.N.O.):
Unreinforced masonry 1 : 1 : 6
Reinforced masonry 1 : 1/4 : 3

Non load bearing walls shall be separated from concrete above by 20 mm thick closed cell polyethylene strip.

All masonry walls supporting slabs and beams shall have a pre-greased two layer galvanised steel slip joint between concrete and masonry.

All masonry walls supporting or supported by concrete floors shall be provided with vertical joints to match any control joints in the concrete.

In all masonry, provide joint reinforcement and bond beams in accordance with A.S.3700 and the masonry unit manufacturer recommendations.

In reinforced masonry, grout shall have a minimum compressive strength (F_c) of 12MPa with a minimum cement content of 300kg/m³ and sufficient water to provide a pouring consistency that will enable the cores and cavities to be completely filled.

All cavities in masonry below ground are to be filled with mortar or grout.

Cleanout and inspection openings are to be provided at the base of all reinforced and grouted cavities and cores. Bed joints and perpendis in reinforced masonry are to be full width and shall not be raked.

TIMBER

All workmanship and materials shall be in accordance with AS 1684

All timber members not nominated shall conform to the req. of A.S.1684.

All soft wood to be Grade min. F7 U.N.O., All hardwood to be Grade F14 U.N.O.

All Exposed timber to be CCA Treated (to AS 1604) redried after full impregnation or durability class 1 or 2.

All joists deeper than 150mm to have blocking over support bearers at a max. 3000 CTS.

Roof trusses to be designed by the manufacturer to the relevant standards.

Pre combur to be an amount equal to dead load deflection (U.N.O)

all holes for bolts to be exact size. Washers to be used under all heads and nuts and to be at least 2.5 times the bolt diameter. Bolts to be min M16 grade 4.6. (U.N.O.)

treat all exposed cut ends to achieve H3 Exposure Classification.

COMPACTED FILL

Only to be used with Engineers approval and to be certified by Geotechnical Engineer.

Clear organic material and topsoil under proposed slab/footings.

Filling shall be granular material compacted in not more than 200mm layers to a minimum dry density ratio (AS 1289/E4 2 1982) of 98 percent.

During clearing and Excavation for slab and footings cut out soft spots and fill as above.

INSPECTIONS BY ENGINEER

48 hours notice required before any site inspection

Bearing strata of all footings prior to concrete pour

Any reinforcement prior to concrete pour

Timber and steel framing prior to cladding or lining

Steel lintels after installation

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 Environment Planning and Assessment Act 1979

This is the plan/spec. referred to in Form Building Certifiers Certificate
Certificate No. 2012-057
Plan No. 12011 51-54
07/03/12
Craig Formosa BPB0124 DATED

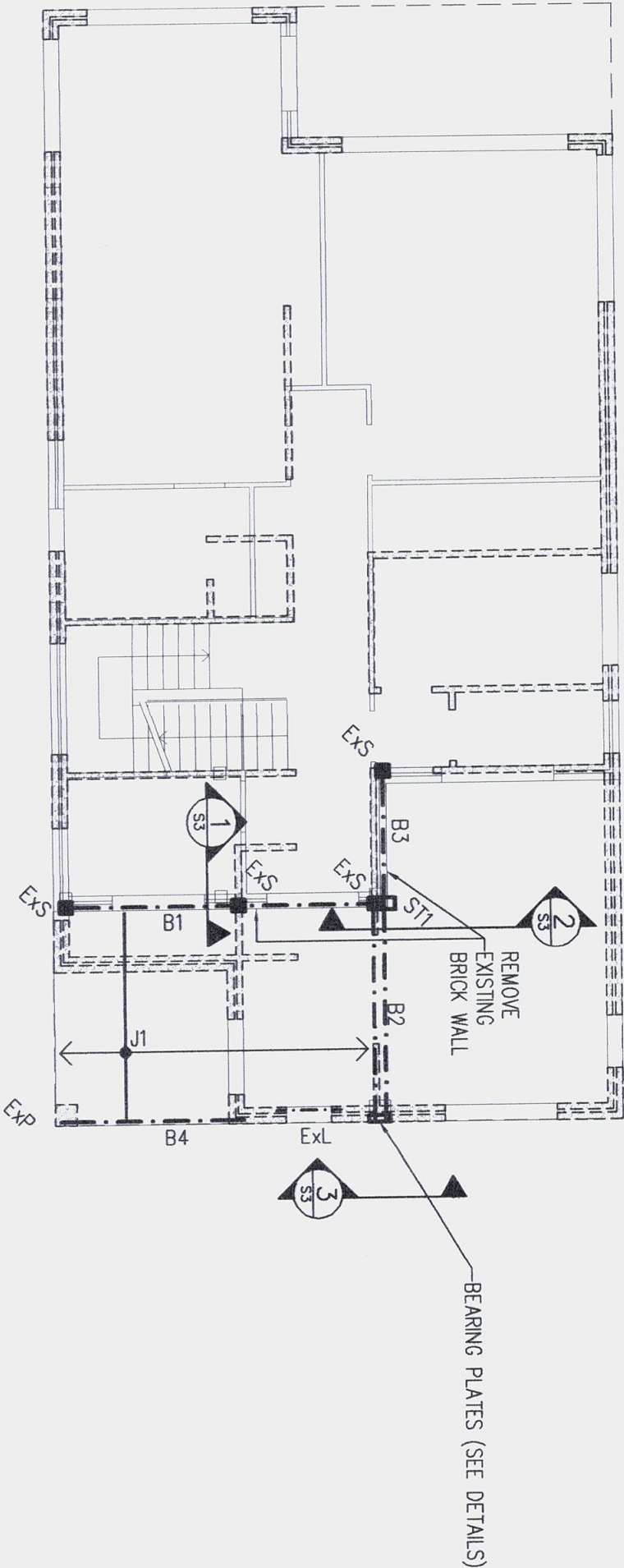
DRAWINGS SCHEDULE

- GENERAL NOTES AND DRAWING SCHEDULE
- FIRST FLOOR PLAN
- FIRST FLOOR DETAILS
- ROOF PLAN

PROJECT:
PROPOSED ADDITIONS AND ALTERATIONS
No 21 MARINE PARADE
AVALON
CLIENT:
JASON AND MARIE KOUCELIS

DESIGN BY:
MICHAL KORECKY
208 RIME AVENUE, CROWER NSW 2099
ABN: 79 393 130 294
Email: koreckym@gmail.com WWW.PLANSDSIGN.COM.AU
Phone: 99813332, Mob: 0438 148 944

DATE: 17/02/12	SCALE: AS NOTED
DRAWN: MK	ISSUE: 1
DRAWING Nr : 12011	SHEET: S1



FIRST FLOOR PLAN

1:100

JOISTS

J1 – 240 x 45 HYPAN AT 450 CTS

LINTELS

ExL – SIZE OF EXISTING LINTEL AND BEARING
ON DOUBLE STUD V.O.S.

BEAMS

B1 – 230 PFC
B2 – 2/150 PFC
B3 – 150 PFC
B4 – 230 PFC

POSTS

ExS – EXISTING STEEL POST 75 x 75 SHS (V.O.S.)
Exp – EXISTING 350 x 350 BRICK PIER
ST1 – 75 x 75 x 5 SHS
• V.O.S. VERIFY ON SITE

- TIE DOWN B2 WITH
25 mm x 1.0 mm GALVANISED STRAP
OVERLAP BRICK WALL 1800 mm

EXISTING FOOTINGS TO BE CHECKED
AND VERIFIED ON SITE DURING CONSTRUCTION

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

DOCUMENT CERTIFICATION

I am a qualified Structural / Civil engineer. I hold the following qualifications:
MEngSc (Civil), MEngSci.
I hereby state that these plans or details comply with the provisions of the Building Code of Australia
date: 17/02/12

Michal Korecky

ISSUED FOR CONSTRUCTION CERTIFICATE

AMENDMENT

No.

DATE

COPYRIGHT:

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DESIGN BY:

MICHAL KORECKY

208 RRIE AVENUE, CROMER NSW 2099

ABN: 79 393 130 294

Email: koreckym@gmail.com

Phone: 9981 3332, Mob: 0438 148 944

PROJECT:

PROPOSED ADDITIONS AND ALTERATIONS
No 21 MARINE PARADE
AVALON

CLIENT:

JASON AND MARIE KOUCELIS

DATE: 17/02/12

DRAWN: MK

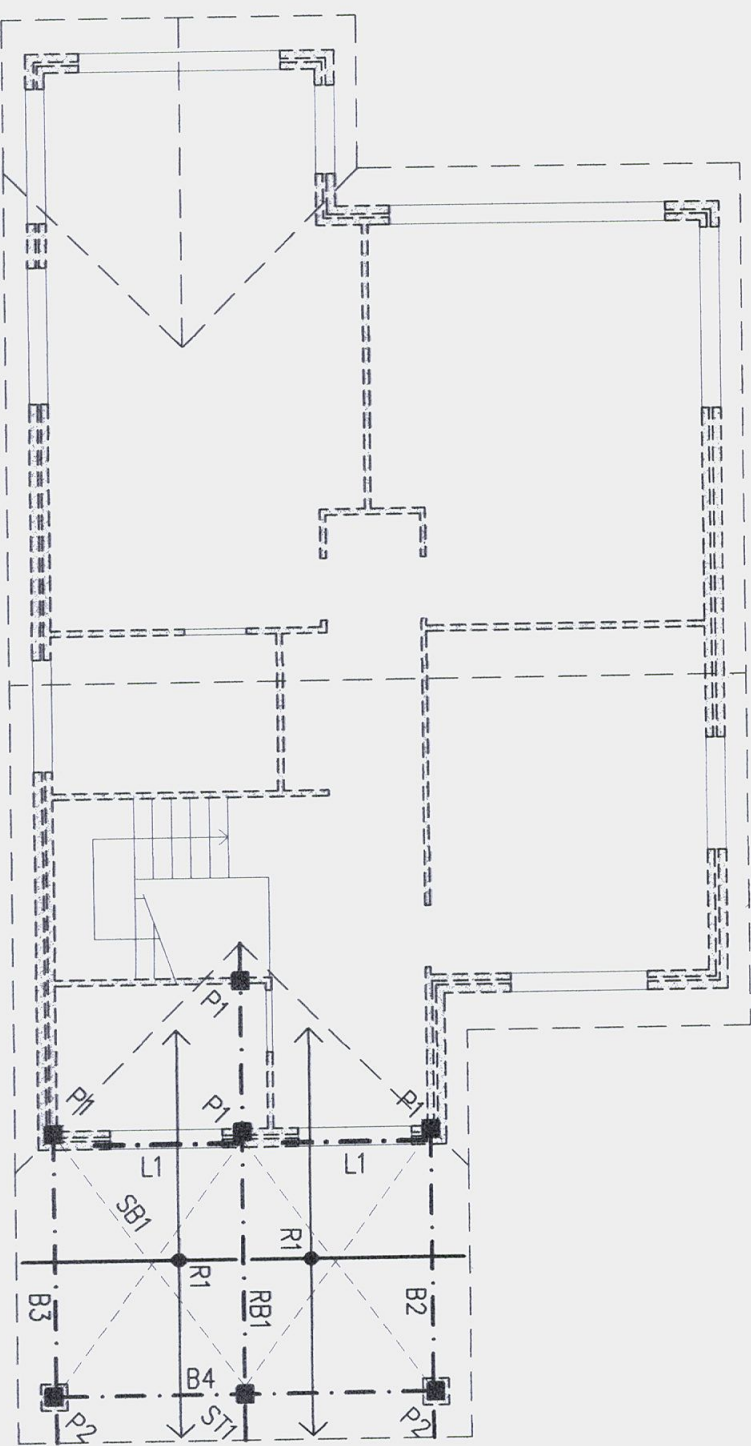
ISSUE: 1

DRAWING Nr :

12011

SHEET:

S2



ROOF PLAN

1:100

POSTS

- P1 – 90 x 90 F7 OR DOUBLE STUD
- P2 – 140 x 140 F7 (TR)
- ST1 – 90 x 90 F7 (TR)

BEAMS

- RB1 – 2/240 x 45 HYSpan (CONT.)
- B2 – 240 x 70 F7 TREATED
- B3 – 240 x 70 F7 TREATED
- B4 – 300 x 70 F14 HW BEAM

SB – SPEED BRACING TENSIONED

- TIE DOWN STRAP TOP PLATE AT 1.8m CTS.
25 mm x 1.0 mm GALVANISED STRAP
- TIE DOWN RAFTERS TO BEAMS USING TLG CONNECTION

• V.O.S. VERIFY ON SITE

RAFTERS


- R1 – 150 x 45 HYSpan AT 450 CTS
OR 170 x 45 F7 AT 450 CTS
- R1 TO BE CONNECTED TO RB1 USING JOISTS HANGER

LINTELS

- L1 – 100 x 100 x 10 L (GALV.)

ALL EXTERNAL STRUCTURAL STEEL HOT DIP GALVANISED.

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

DOCUMENT CERTIFICATION I am a qualified Structural / Civil engineer. I hold the following qualifications: MEngSc (Civil), MEngSci. I hereby state that these plans or details comply with the provisions of the Building Code of Australia date: 17/02/12  Michael Korecky		<table><tr><td colspan="2">No.</td><td colspan="2">1</td></tr><tr><td colspan="2">ISSUED FOR CONSTRUCTION CERTIFICATE</td><td colspan="2">17/02/12</td></tr><tr><td colspan="2">AMENDMENT</td><td colspan="2">DATE</td></tr></table>		No.		1		ISSUED FOR CONSTRUCTION CERTIFICATE		17/02/12		AMENDMENT		DATE	
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DESIGN BY: MICHAEL KORECKY 208 RYRE AVENUE, GROMER NSW 2099 ABN: 79 393 130 294 Email: koreckym@gmail.com Phone: 99813332, Mob: 0438 148 944		PROJECT: PROPOSED ADDITIONS AND ALTERATIONS No 21 MARINE PARADE AVALON CLIENT: JASON AND MARIE KOUCELIS													
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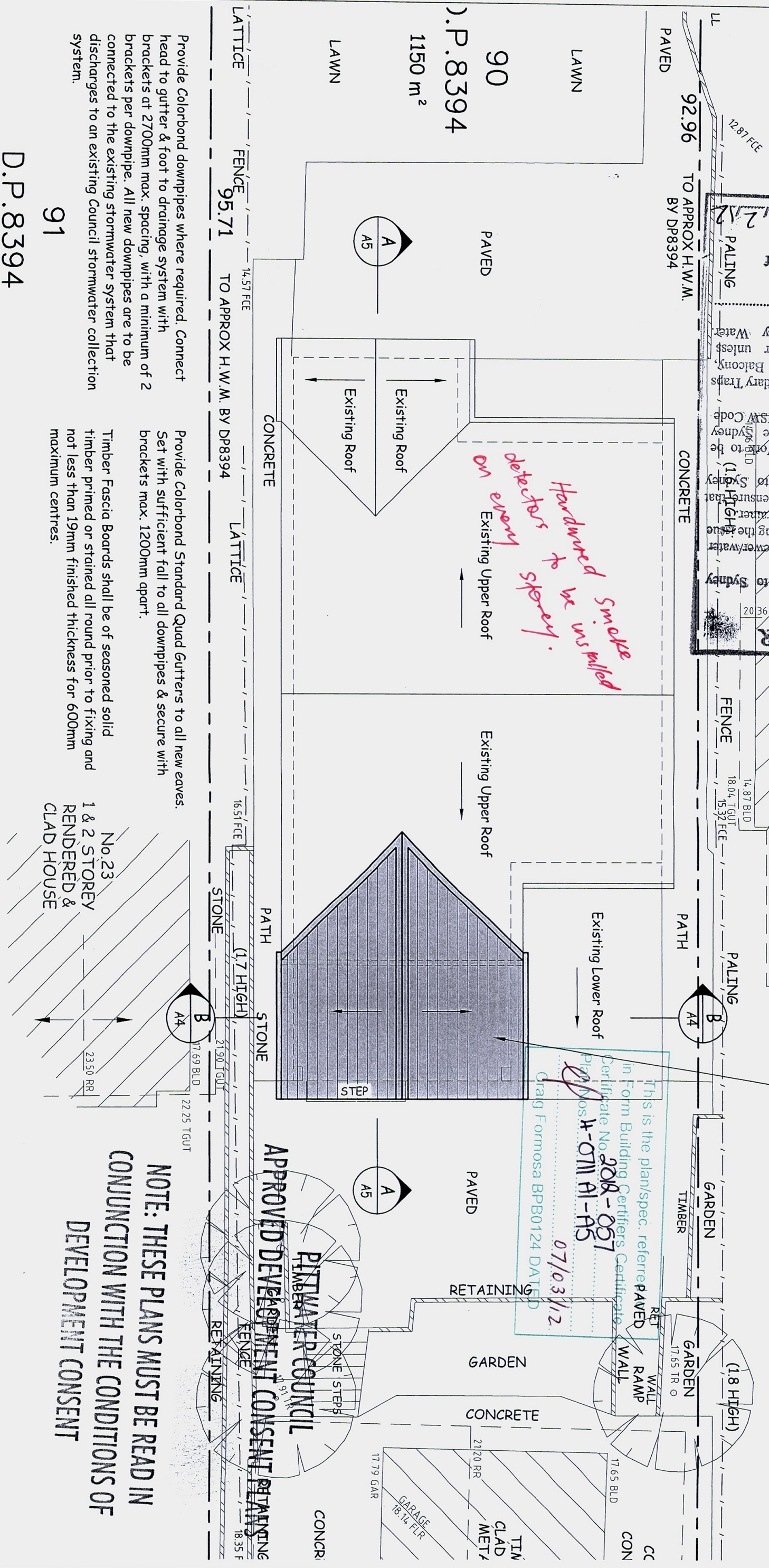
D.P. 8394
Per 89
Check Agent on behalf of
SYDNEY WATER
3433669
Property No.

1. Position of structure in relation to Sydney
2. Connections to Sydney Water sewer/water
3. Services may only be made following the issue
of a permit to a licensed plumber/drainlayer.
It is the owner's responsibility to ensure that
all proposed fittings will drain to Sydney
Water's sewer.
4. Any plumbing and/or drainage works to be
carried out in accordance with the
Water Act 1994, AS 3500 and the NSW Code
of practice.
5. Gutters, Inspection Shafts and Boundary Traps
shall not be placed under any Roof, Balcony,
Verandah, Floor or other cover unless
otherwise approved by Sydney Water.

APPROVED
20.29 RR 20.33 RR 20.36 RR
SYDNEY WATER

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 Environmental Planning and Assessment Act 1979

Roof tiles to match Existing. Reflective sarking to be installed under tiles. Provide all ridge, barge and other fittings as required to complete the roof and leave fully cleaned. Fixed to Rafters in Accordance with Manufacturers Specifications.



Provide Colorbond downpipes where required. Connect head to gutter & foot to drainage system with brackets at 2700mm max. spacing, with a minimum of 2 brackets per downpipe. All new downpipes are to be connected to the existing stormwater system that discharges to an existing Council stormwater collection system.

Provide Colorbond Standard Quad Gutters to all new eaves. Set with sufficient fall to all downpipes & secure with brackets max. 1200mm apart.

Timber Fascia Boards shall be of seasoned solid timber primed or stained all round prior to fixing and not less than 19mm finished thickness for 600mm maximum centres.

NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT

APPROVED DEVELOPMENT CONSENT PLANS
PITMATER COUNCIL

D.P. 8394

PROPOSED TERRACE ADDITION - 21 MARINE PARADE, AVALON

D.P.8394



APPROVED DEVELOPMENT CONSENT PLANS
PITTSBURGH COUNCIL
STONE STOPS
TIMBER
CON
17.79 GAR
A5

D.P.8394

91

PROPOSED TERRACE ADDITION - 21 MARINE PARADE, AVALON

[illegible]

Existing Ridge Level RL 25.10

Square timber posts to
Engineers details.

Existing Upper Floor Level RL 20.410

Provide weatherboard — cladding to balustrade adjacent existing roof, as selected by owners.

8.5m Maximum Building Height

Existing Ground Floor Level RL 17.460

Existing Lower Ground Floor Level RL 14.60

Natural Ground Line

WEST ELEVATION

Existing Ridge Level RL 25.10

8.5m Maximum Building Height

~~Install a hardwired smoke detector in accordance with AS3786~~

Existing Upper Floor Level RL 20.410

Install a hardwired smoke detector in accordance with AS3786

Existing Ground Floor Level RL 17.460

Install a hardwired smoke detector in accordance with AS3786

Existing Lower Ground Floor Level RL 14.60

- Natural Ground Line

EAST ELEVATION

PITWATER COUNCIL

APPROVED DEVELOPMENT CONSENT PLANS
Recommends Engineering requirements

NOTE: THESE PLANS MAY BE MODIFIED WITHOUT NOTICE TO THE CONTRACTOR.

PROPOSED TERRACE ADDITION - 21 MARINE PARADE, AVALON

SALLY GARDNER DESIGN AND DRAFT
 PLANNING
 PERMITTING
 DESIGN
 DRAFTING
 CONSTRUCTION
 MANAGEMENT
 BRAND DESIGN FOR COUNCIL APPROVAL

47 Towradgri Street, Narrabeena
NSW, 2099, Australia.
ABN 17 751 732 195
Mobile : 0414 731 685
e-mail: sally@designanddraft.com.au

Client
**JASON & MARIE
KUGELLIS**

Drawing Title	
---------------	--

ELEVATIONS
SHEET 1 of 2

North

Scale	1:100 @ A3
-------	------------

Job Number	4-0711
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29 APR. 2011

A3

1

e-mail: sally@designanddraft.com.au

Existing Ridge Level RL 25.10

Natural stone cladding to -
new brick pier, as selected
by owners.

New 1.0m high glass—balustrade to match existing, constructed to BCA requirements.

Existing Ground Floor Level RL 17.460

Natural stone cladding existing brick pier, as selected by owners.

Building Envelope

- New timber framed French doors to owners requirements

Boundary

Boundary

NORTH ELEVATION

Existing Ridge Level RL 25.10

4.5mm thk. "Hardiflex" to ceiling lining or equivalent, fixed to manufacturers instructions.

Existing Upper Floor Level RL 20.410

Timber framing to new Terrace in accordance with Engineer's details.

Existing Ground Floor Level RL 17.460

Building Envelope

Boundary

Porch

Entry

Bed 1

Boundary

PITTSBURGH WATER COUNCIL

APPROVED DEVELOPMENT CONSENT PLANS

NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT

SECTION B - B

PROPOSED TERRACE ADDITION - 21 MARINE PARADE, AVALON

Date _____

Amendments

SALLY GARDNER DESIGN
PLANS DRAWN FOR COUNCIL APPROVAL



47 Towradgi Street, Narrabeena
NSW, 2099, Australia.
ABN 17 751 732 195
Mobile : 0414 731 685
e-mail: sally@designanddraft.com.au

Client
**JASON & MARIE
KUGELLIS**

Drawing Title

ELEVATIONS
SHEET 2 of 2

North

Scale	1:100 @ A3
Date	29 APR. 2011

Job Number	
Drawing Number	

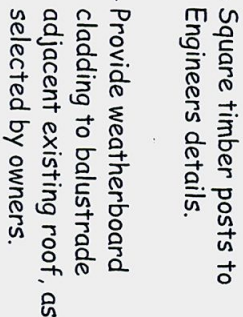
Rev.	071
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If a member which provides structural support to the work is subject to attack by subterranean termites, then provide protection to the new work by 1 or more of the means allowed for under AS 3660.1

Existing Upper Floor Level RL 20.410

Existing Ground Floor Level RL 17.460

Existing Lower Ground Floor Level RL 14.60



NOTE: THESE PLANS MUST BE READ IN CONJUNCTION WITH THE CONDITIONS OF DEVELOPMENT CONSENT

All paints or other coatings shall be of the best quality materials & of approved manufacture. All priming materials shall be of an approved brand and compatible to the finishing coats to be applied over them. External joinery intended to be painted, shall be primed on all faces at the place of assembly. Colours to be chosen by Owners. Where new or altered works adjoin existing painted surfaces, allow for repainting existing surfaces to provide uniform appearances. Only ZERO-VOC or LOW-VOC paints and primers are to be used.

PROPOSED TERRACE ADDITION - 21 MARINE PARADE, AVALON

Ben Eggleton

From: Marie Kougelis [gullwing4me@bigpond.com]
Sent: Tuesday, 28 February 2012 5:39 PM
To: info@bhebuilding.com.au
Subject: 21 Marine Prd Avalon Levy Online Payment Receipt

Hi Ben is this alright any more jobs for me? x Marie

Levy Online Payment Receipt



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

Applicant Name:	KOUGELLIS
Levy Application Reference:	5024737
Application Type:	DA
Application No.:	8394
Local Government Area/Government Authority:	PITTWATER COUNCIL
Site Address:	21 MARINE PRD
	AVALON BEACH
	NSW
	2107
Value Of Work:	\$38,700
Levy Due:	\$135
Levy Payment:	\$135
Online Payment Ref.:	643606616
Payment Date:	28/02/2012 5:26:00 PM

[Close]

THIS PLAN / DOCUMENT FORMS
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CERTIFIERS CC / CDC

Structural Certificate for New Loads

Client Name: Jason and Marie Kougellis
Address: 21 Marine Parade
Avalon NSW 2107

Project: Additions and alterations to Residence at
21 Marine Parade
Avalon NSW 2107

Certificate ref: 12011 - Load

Dear Jason and Marie Kougellis,

The structural design and details for the alterations and addition at 21 Marine Parade, Avalon NSW 2107 are shown on drawings number 12011-S1-S4. The structural drawings are based on the architectural layout as shown on the architectural drawings by Sally Gardner Design and Drafting job No. 4-0711.

A site inspection was made of the existing structure with a view to carrying the design loads in accordance with Australian Standard AS1170.1 (Loading Code).

The sizes of support walls and footings are adequate to carry the design loads subject to the requirements on the drawings No. 12011-S1-S4. Some further checking of the existing supporting walls may be required on site after initial set-out of the new works and prior to completion. Some adjustment may be required to the structure depending on the conditions encountered on site when work commences.

The structural adequacy of the existing residence, that is not associated or connected to the proposed new work was not inspected on site and is not covered by this certificate.

The design for the proposed additions is in accordance with Australian Standards AS3700 (Masonry Code), AS3600 (Concrete Code), AS 4100 (Steel Code), AS 1684 (Timber Framing Code) and AS1720 (Timber Code).

Yours sincerely

Michal Korecky
Sydney 17-02-2012



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

Planning For Bushfire Protection Pty Ltd




ABN: 52 136 652 296
Ronald Coffey
(02) 99137907-0408220443
Email: roncoffey@optusnet.com.au
Web: www.bushfireconsultants.com.au
Reference: 491
16th May 2011

Bushfire Risk Assessment

In relation to proposed development at:

No 21 Marine Parade, Avalon

<i>This Assessment has been prepared and Certified by: Ronald Coffey BPAD – A Certified Practitioner FPAA Cert. No: BPD-PA 09328</i>	
Can this proposal comply with AS3959, 2009 + addendum to Appendix 3 of PBP?	<u>YES</u>
What is the recommended level of compliance AS3959, 2009?	AS3959, 2009 BAL 12.5
Can this development comply with the requirements of PBP?	<u>YES</u>
Is referral to the NSW RFS required?	<u>NO</u>
Plans by: Sally Gardner Design	Drawing Ref No: 4-0711 Dated: April 2011

Contents

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- 1) Location
- 2) Development Proposal and Building Classifications
- 3) Description of the Subject Property
- 4) Classification of the Vegetation on and surrounding the Site
- 5) Assessment of Effective Slope
- 6) Access and Egress
- 7) Water Supplies
- 8) Environment considerations
- 9) Bushfire Threat Assessment
- 10) Assessment of the extent to which the development proposal
Conforms or Deviates with Chapter 4 of Planning for Bushfire Protection
- 11) Recommendations
- 12) Summary
- 13) References
- 14) Plans and Elevations

Introduction

The purpose of this report is to determine the category of bushfire attack and subsequent construction standard for the proposed development of alterations and additions at No 21 Marine Parade, Avalon.

The site is identified as 'bush fire prone land' for the purposes of Section 146 of the *Environmental Planning and Assessment Act 1979* and the legislative requirements for building on bushfire prone lands are applicable.

The proposed development is an infill development as defined within Chapter 4.3.5 of Planning for Bushfire Protection 2006 and this report has been prepared in accordance with the requirements of section 79BA of the Environment Planning and Assessment Act. This assessment includes an analysis of the hazard, threat and subsequent risk to the development proposal and provides recommendations that satisfy the Objectives and Performance requirements of the Building Code of Australia, Planning for Bushfire Protection 2006 [PBP] and Australian Standard AS3959, 2009.

The site was inspected: 18th May 2011

Summary of Assessment

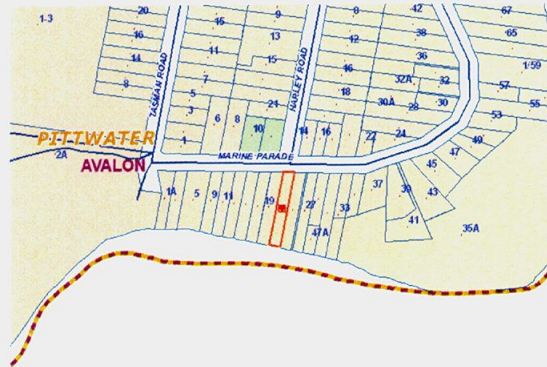
- Building construction and design – AS3959, 2009 BAL 12.5
- Asset Protection zones - Conforms to the requirements of PBP
- Landscaping - Conforms to the requirements of PBP
- Access and egress arrangements – Conforms to the requirements of PBP
- Water supply and utilities - Conforms to the requirements of PBP
- Defendable space - Conforms to the requirements of PBP

1) Location

No 21 Marine Parade, Avalon

Lot 90, DP 8394

LGA - Pittwater



2) Development Proposal and Building Classifications

The proposal is to provide a new terrace to the upper level, at the northern or Marine Parade end of the existing residence. An existing window in the northern wall is to be removed and replaced with French doors to provide access to the new terrace.

The additions are less than 50% of the existing dwelling and in accordance with the NSW Rural Fire Service advice this report does not include recommendations for the upgrading of the existing dwelling.

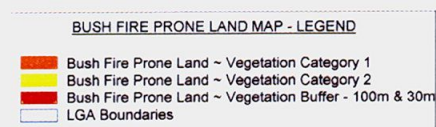
3) Description of the Subject

Property

The development site is a residential lot facing north onto Marine Parade.

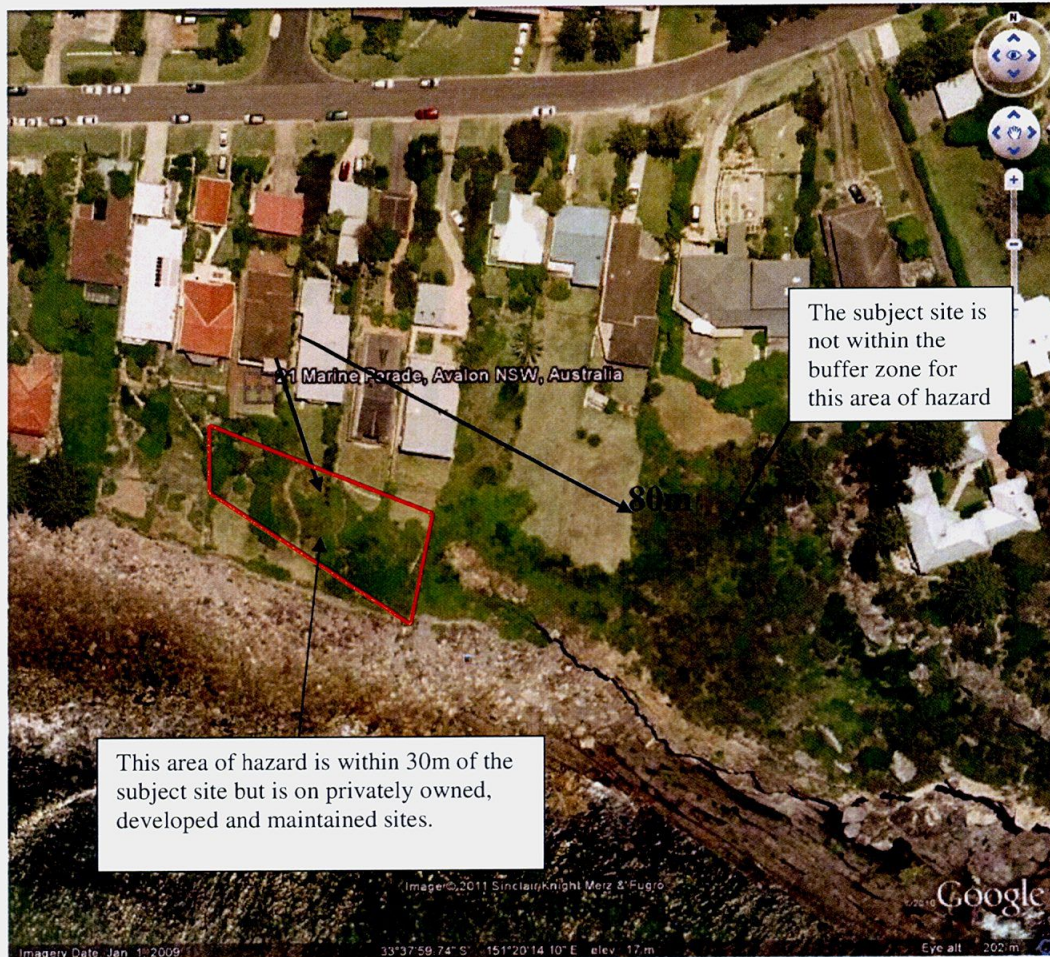
The following sections 4-8 describe in detail the vegetation, slope, access and egress, availability of water supplies and environmental considerations for the site.

The adjacent image is the bushfire prone land map for the area.



4) Classification of the Vegetation on and surrounding the Site

The site is developed and maintained and there is no threat from bushfire attack on the site.



Properties north and west of the subject site are developed and maintained and there is no threat of bushfire attack from these directions for more than 100m.

80m east of the subject site is an area of vegetation considered a hazard. The subject site is not within the buffer zone for this hazard.

South of the development, on the subject site and adjoining sites to the east is an area of bushland that is considered a hazard.

With reference to PBP and the bushfire prone land map for the area this area of bushland is a remnant and a low hazard. The APZ requirements and building construction standards for this bushland area will be the same as for rainforests. [PBP-Appendix 2]

PBP Appendix 2, part [a] provides that “*Remnant vegetation is a parcel of vegetation with a size of less than 1ha or a shape that provides a potential fire run directly towards buildings not exceeding 50m. These remnants are considered a low hazard and APZ setbacks and building construction standards for these will be the same as for rainforests. The effective slope is to be determined over the length of the remnant.*”

In this instance the parcel of land to the south and east considered a hazard, is across slope away from the subject site, is a narrow ‘handle’ in the immediate vicinity of the subject site, is on privately owned managed sites and could not support a substantial run of fire towards the proposed development.

5) Assessment of Effective Slope

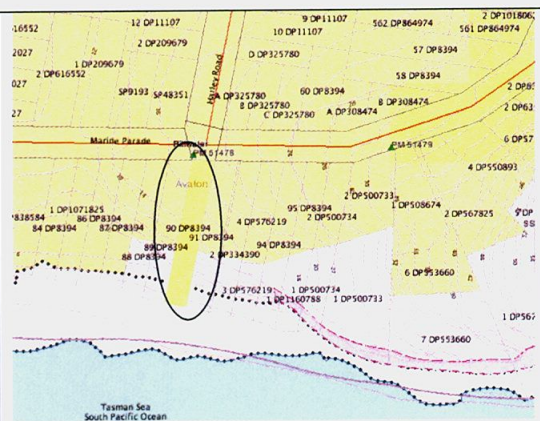
Effective slope away from the development site:

North: No hazard for >100m

South: Downslope to the hazard, however, the hazard is across slope away from the development

East: 5-10 degrees upslope

West: No Hazard for >100m



6) Access and Egress

The site has direct access to Marine Parade, which is a public road, and access and egress for emergency vehicles and evacuation is in opposite directions and appears adequate.

7) Adequacy of water supply

The area has reticulated water supply and hydrants are spaced at regular distances along Marine Parade.

8) Environmental Considerations

The scope of this assessment has not been to provide an environmental assessment; however, the subject site is a small residential lot that has been developed for many years and it appears that the proposed development will have no adverse environmental effect. A Statement of Environmental Effects shall be submitted with the development application.

9) Bushfire Risk Assessment

Table 1; Reference AS3959, 2009 Table 2.4.2

Determination of category of bushfire attack for the site and subsequent required building standards

Direction	Distance of APZ	Vegetation Classification	Assessment of Effective Slope	Anticipated Radiant heat	Bushfire Attack Level (BAL)
North	>140m	Developed sites	n/a	-	-
South	>25m	Remnant	Across slope	<12.5kw/m2	BAL 12.5
East	80m	Remnant	5-10 degrees upslope	<12.5kw/m2	BAL Low
West	>140m	Developed sites	n/a	-	-
Summary: Based upon the relevant provisions of PBP the anticipated radiant heat attack is for the site is <12.5kw/m2 and the subsequent minimum construction standard is BAL 12.5 AS3959, 2009.					

10) Assessment of the extent to which the construction conforms or deviates from Chapter 4 of 'Planning for Bushfire Protection 2006'

The proposed development conforms to the requirements of PBP for bushfire protection measures for infill development in relation to:

<u>Performance Criteria</u>	<u>Meets Performance Criteria?</u>	<u>Comment</u>
Asset Protection Zones	Yes	Asset protection zones are provided partially on site and by adjoining development and public roads.
Defendable Space	Yes	Defendable space is provided on all sides of the building
Siting and design	Yes	The siting of the building has been previously determined in accordance with local council requirements and the proposed additions and alterations will not involve a re-siting of the building [no advantage

		could be gained by recommending a re siting of the building].
Landscaping	Yes	The landscaping on the site complies with the principles of Appendix 5 of PBP.
Construction Standards	Yes	Construction standards have been recommended in accordance with the requirements of PBP
Access and Egress	Yes	The access and egress requirements have been designed to provide safe and effective evacuation from the subject site and appear to be adequate for fire brigade personnel and fire fighting equipment.
Water Supplies	Yes	The area has reticulated water supply and the nearest street hydrant is within the minimum required distance from the most distant point of the subject site in accordance with the requirements of PBP and AS2419.1 2005
Emergency and Evacuation Planning	Yes	The need to formulate an emergency evacuation plan has been discussed; however, an emergency evacuation plan is not recommended as a condition of consent.

11) Recommendations

The following recommendations are made for the bushfire protection measures for the proposed residential development of alterations and additions at No 21 Marine Parade, Avalon and are based upon the relevant provisions of the NSW Rural Fire Service guideline entitled *Planning for Bushfire Protection 2006*.

- 1) Construction Standard: The proposed development shall be constructed to a minimum standard of BAL12.5, AS3959, 2009 with the exception that the construction requirements shall be varied to comply with the requirements of Section A3.7 of the NSW Rural Fire Service Addendum to Appendix 3 of *Planning for Bushfire Protection 2006*.
- 2) Existing Dwelling: The additions are less than 50% of the existing dwelling and in accordance with the NSW Rural Fire Service advice this report does not include recommendations for the upgrading of the existing dwelling.
- 3) Asset Protection Zones: At the commencement of building works and in perpetuity, the entire property shall be managed as an inner protection area as outlined within PBP 2006 and the NSW RFS document 'Standards for asset protection zones'. *Note: Although the Asset Protection Zone requirements are listed as a recommendation, the site has been landscaped and is maintained to a*

standard that complies with the requirements of 'Planning for Bushfire Protection 2006' for Inner Protection Area Requirements.

12) Summary

This report consists of a bushfire risk assessment for the proposed residential development of alterations and additions at No 21 Marine Parade, Avalon.

The report concludes that the proposed development is on designated bushfire prone land and the legislative requirements for development in bushfire prone areas are applicable.

The proposed development will be constructed to the minimum standards required in accordance with the guidelines of *Planning for Bushfire Protection 2006*.

This report has considered all of the elements of bushfire attack and provided the proposed development is constructed in accordance with the recommendations included in section 11 of this report, it is my considered opinion that the development satisfies the Objectives and Performance requirements of the *Building Code of Australia, Planning for Bushfire Protection 2006 and Australian Standard AS3959, 2009*.

Notwithstanding the precautions adopted, it should always be remembered that bushfires burn under a wide range of conditions and an element of risk, no matter how small always remains, and although the standard is designed to improve the performance of such buildings, there can be no guarantee, because of the variable nature of bushfires, that any one building will withstand bushfire attack on every occasion.

This Report is a Bush Fire Hazard Assessment that provides the required information to assist Local Council and the Rural Fire Service in determining compliance in accordance with Planning for Bushfire Protection and AS 3959, 2009. The Local Council is the Final Consenting Authority and the construction of the building must comply with the recommendations included in the Council's conditions of consent.



Ron Coffey – Bushfire Safety Engineer
Grad I Fire E [Institute of Fire Engineers - 1973]
Grad Cert Fire Safety Eng [UWS - 2003]
Grad Dip Building in Bushfire Prone Areas [UWS – 2005]
Ass Prof Cert in Expert Evidence in the Land & Environment Court [UTS – 2005]
Corporate Member - Institute of Fire Engineers
Member - Fire Protection Association Australia



*Planning for Bushfire Protection Pty Ltd
Fire Protection Association of Australia
BPAD-A Certified Practitioner/Certified Business
Certification No BPD-PA09328
02 99137907 0408220443*

13) References

Australian Building Codes Board [2005]

Building Code of Australia
Volumes 1&2
Canprint

Australian Building Codes Board [2001]

Fire Safety Engineering Guidelines
Edition 2001
ABCB Canberra

D. Drysdale D. [1998]

Introduction to Fire Dynamics 2nd Edition
John Wiley & Sons Ltd

NSW Government Environmental Planning and Assessment Act [1979]

Part 79BA – Consultation and development Consent – Certain Bushfire Prone Land
NSW Government Printer

Planning NSW [2006]

Planning for Bushfire Protection 2006

A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners

This document provides the necessary planning considerations when developing areas for residential use in residential, rural residential, rural and urban areas when development sites are in close proximity to areas likely to be affected by bushfire events and replaces Planning for Bushfire Protection 2001.

This document is essential reading: Download a copy from the RFS website or purchase a copy through the NSW Government Online Shop or phone 9228 6333

Ramsay C & Rudolph L [2003]

Landscape and Building Design for Bushfire Prone Areas
CSIRO Publishing

Standards Australia [2009]

Australian Standards 3959
Australian Building Code Board

