



Building Code & Bushfire Hazard Solutions

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Mr Mark Fenna-Roberts
C/- Playoust Churcher Architects
Email: annie.pascoe@playoustchurcher.com.au

25th November 2024
Our Ref. 250243

Attention: Annie Pascoe

**Re: PROPOSED CONVERSION OF A CARPORT TO A GARAGE
LOT 1 DP 525168 / 7A LINKMEAD AVENUE, CLONTARF
BUSHFIRE ASSESSMENT STATEMENT**

Dear Annie,

We thank you for engaging us to undertake this assessment for you.

The proposed development application seeks consent for the conversion of an existing carport to a garage within an existing allotment known as 7A Linkmead Avenue, Clontarf (Lot 1 DP 525168).

Properties considered to be affected by possible bushfire impact are determined from local Bushfire Prone Land Map's 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 - 2019' (PBP).

Northern Beaches Council's Bushfire Prone Land Map identifies that the subject property as containing Category 2 Vegetation and the Vegetation Buffer, therefore PBP is applicable in this instance.

The vegetation identified as being the hazard is to the west within the subject and neighbouring allotments and Fisher Bay Bushland Reserve.

The purpose of this bushfire assessment is to provide the owners and Council with an independent bushfire assessment together with appropriate recommendations for both building construction and bushfire mitigation measures considered necessary having regard to construction within a designated 'bushfire prone' area.

The scope of this statement is limited to providing a bushfire assessment and recommendations for the proposed garage within the subject site. Where reference has been made to the surrounding lands, this statement 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.

The proposed development relates to the conversion of an existing carport to a garage within an existing residential allotment (s4.14 application). To accord with PBP the development is classified as infill development and Chapter 7 'Residential Infill Development' and Chapter 8 'Other Development' applied. The proposed works are indicated on the plans prepared by Playoust Churcher Architects, Revision A, Dated 14/11/2024.



Figure 01: Extract from Northern Beaches Council's Bushfire Prone Land Map



Figure 02: Aerial view of the subject property C/- Nearmap

Vegetation Identification:

In accordance with Appendix 1 'Site Assessment Methodology' of PBP an assessment of all vegetation formations within 140 metres of the subject site for each aspect as per Keith (2004) has been undertaken.

The vegetation identified as being the hazard is to the west within the subject and neighbouring allotments and Fisher Bay Bushland Reserve.

The vegetation posing a hazard was found to consist of trees 10 - 20 metres in height with 50 - 70% foliage cover, the understorey consisted of low trees, exotics and ferns. The NSW Vegetation mapping identifies the vegetation as Sydney Coastal Sandstone Foreshores Forest (PCT: 3594).

The vegetation directly to the west was found to provide a less than 50 fire run toward the subject site. However, there are runs of greater than 50 metres to the northwest and southwest toward the subject property.

For the purpose of assessment under 'Planning for Bush Fire Protection' the vegetation posing a hazard to the west has been determined to be Forest.



Figure 03: Extract from Vegetation Mapping NSW, showing the vegetation types in the 140 metre assessment area.

Slope Analysis:

The slope that would most significantly influence bushfire behaviour must be assessed for a distance of 100 metres from within the hazard. The most significant bushfire impact from the west is expected to be a bushfire travelling up slope toward the subject property.

It is noted that there is a substantial cliff line running along the rear of the subject and neighbouring properties reducing the effective slope within the hazard.

The slope that would **most significantly** influence bushfire impact was determined onsite using an inclinometer and verified from topographic imagery to be:

- 15 - 20 degrees down slope within the hazard to the west



Figure 04: Extract from ELVIS – Geoscience Australia (1m contours)

Asset Protection Zones:

The vegetation identified as being the hazard is to the west within the subject and neighbouring allotments and Fisher Bay Bushland Reserve.

The available Asset Protection Zone (APZ) was measured to be >3 metres from the hazard interface to the west. The APZ consists of maintained grounds within the subject property.

Fire Fighting Water Supply:

Hydrants are available throughout Linkmead Avenue and surrounding roads for the replenishment of fire service vehicles. The most distant external point of the subject dwelling is within 70 metres of a public road that supporting a hydrant network and therefore a Static Water Supply is not required under section 7.4 of PBP.

The existing water supply is considered adequate for this development.

Property Access:

The subject property has street frontage to Linkmead Avenue to the east. Persons seeking to egress from the subject property are able to do so via the existing access drive and public roads. The most distant external point of the proposed footprint is less than 70 metres from a public road supporting the operational use of fire fighting vehicles and therefore the Access requirements detailed in Table 7.4a of PBP are not applicable.

Access to the hazard is available via Linkmead Avenue and walking trails to the west for hazard reduction for fire suppression activities. The existing access is considered adequate as part of this development

Summary:

	West
Vegetation Structure	Forest
Slope	15 - 20 degrees down
Asset Protection Zone	>3 metres
Significant landscape features	Maintained grounds
Threatened species	APZ Existing
Aboriginal Relics	APZ Existing
Bushfire Attack Level	BAL FZ

The highest Bushfire Attack Level to the proposed works determined from Table A1.12.5 of PBP to be 'BAL FZ'.

In relation to the proposed garage section 8.3.2 of PBP states:

The NCC defines a Class 10 building as a non-habitable building or structure such as a:
a. Class 10a – a non-habitable building being a private garage, carport, shed or the like; or

- b. Class 10b – a structure being a fence, mast, antenna, retaining or free-standing wall, swimming pool, or the like; or*
- c. Class 10c – a private bush fire shelter*

There is no bush fire protection requirements for Class 10a buildings located more than 6m from a dwelling in bush fire prone areas. Where a Class 10a building is located within 6m of a dwelling it must be constructed in accordance with the NCC.

The proposed garage will be within 6 metres of a dwelling and it will be separated by a compliant wall as below:

3.2.3 Adjacent structures on the subject allotment

Where any garage, carport, or similar roofed structure on the subject allotment is not attached to a building required to conform with this Standard, that structure shall conform with the construction requirements of this Standard.

Alternatively, the adjacent structure shall be separated from the subject building by one of the following:

(b) A wall of the building required to conform that extends to the underside of a non-combustible roof covering and has an FRL of not less than 60/60/60 for loadbearing walls and -/60/60 for non-loadbearing walls when tested from the outside. Any openings in the wall shall be protected in accordance with the following:

- (i) Doorways-by self-closing fire doors with an FRL of -/60/30, conforming with AS 1905.1 and tested in accordance with AS 1530.4.*
- (ii) Windows-by fire windows with an FRL of -/60/- when tested in accordance with AS 1530.4 and permanently fixed in the closed position.*
- (iii) Other openings-by construction with an FRL of not less than -/60/- when tested in accordance with AS 1530.4.*

NOTE: Control and construction joints, subfloor vents, weepholes and penetrations for pipes and conduits need not conform with Item (iii).

It is therefore of our opinion the proposed works satisfy the requirements of PBP by means of the above.

Recommendations

Asset Protection Zones

1. That all grounds within the subject property continue to be maintained as an Asset Protection Zone as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones' and Appendix 4 of Planning for Bush Fire Protection 2019.

Construction

2. That the garage is separated from the dwelling by a wall that extends to the underside of a non-combustible roof covering and has an FRL of not less than 60/60/60 for loadbearing walls and -/60/60 for non-loadbearing walls when tested from the outside.

Landscaping

3. That any new landscaping is to comply with table 7.4a of Planning for Bush Fire Protection 2019.

In accordance with the bushfire safety measures contained in this assessment, 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.

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

Reviewed by
Building Code & Bushfire Hazard Solutions



Duncan Armour



Stuart McMonnies

Director / Manager Bushfire Section
G. D. Design in Bushfire Prone Areas.
Certificate IV Fire Technology
FPA Australia BPAD Level 3 Accredited Practitioner
BPAD Accreditation No. BPAD9400



Quote from Planning for Bush Fire Protection 2019, 'While the material within this publication is current at the time of writing changes in circumstances after the time of publication may impact on the accuracy of the material. Individuals are responsible for ensuring they have the most current version of this publication.'

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

Bush Fire Certificate

Certificate issued under 4.14(1)(b) of the *Environmental Planning & Assessment Act, 1979* and *Planning for Bush Fire Protection 2019*

This Certificate has been issued by a person accredited by Fire Protection Association Australia (FPA Australia) under the Bush Fire Planning and Design (BPAD) Accreditation Scheme and who is recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment within the meaning of section 4.14(1)(b) of the *Environmental Planning and Assessment Act 1979* (NSW).



Property Details and Description of Works

Address Details	Unit no	Street no	Street name	Lot/Sec/DP
		7A	Linkmead Avenue	1/-/525168
Local Government Area BCA class of the building Description of the proposal Development Application Reference	Suburb	State		Postcode
	Clontarf	NSW		2093
	Northern Beaches			
	10			
Conversion of a carport to a garage				

Bush Fire Assessment Report

A detailed Bush Fire Assessment Report is attached, which includes the relevant submission requirements set out in <i>Appendix 2</i> of <i>Planning for Bush Fire Protection 2019</i> together with recommendations as to how the relevant specifications and requirements are to be achieved.	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
Report Reference and date		
Bushfire Assessment Report 250243	25 November 2024	

BPAD Certification

Name Stuart McMonnies	I hereby certify, in accordance with Section 4.14(1)(b) of the <i>Environmental Planning and Assessment Act 1979</i> that:	
Company Details & ABN Bushfire Hazard Solutions 19 057 337 774	<ul style="list-style-type: none"> I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment; and the development conforms to the relevant specifications and requirements of <i>Planning for Bush Fire Protection 2019</i> in accordance with section 4.14(1)(b) of the <i>Environmental Planning and Assessment Act 1979</i> (NSW). 	
BPAD Accreditation Number 9400 	Signature 	Date 25 November 2024