




Member of the Fire Protection Association of Australia

**Lot 22, DP 602041, 90 Cabbage Tree Road, Bayview
NSW 2104.**

Tuesday, 27 July 2021

Prepared and certified by:	Matthew Willis BPAD – level 3 Certified Practitioner Certification No: BPD-PA 09337		27/07/2021
Can this proposal comply with AS3959-2009 or NASH	Bushfire construction requirements do not apply.		
What is the recommended AS 3959-2009 or NASH level of compliance?	N/A		
Is referral to the RFS required?	No.		

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1 GENERAL

Bushfire Planning Services has been requested to supply a bushfire compliance report on lot 22, DP 602041, 90 Cabbage Tree Road, Bayview.

This proposal is for the construction of a new Artist Studio, see attached plans for details. This assessment is contingent on Council considering the building as a Class 10A structure.

The National Construction Code (NCC) class for the proposed work does not include any class 1, 2, 3 or 4 structures, the building does not contain any form of residential accommodation or Special Fire Protection Development buildings.

The NCC 2022 calls up AS 3959 2018 as the deemed to satisfy construction requirements for some classes of buildings in bushfire prone areas.

- Volume 1 of the NCC refers to a Class 2 or Class 3 buildings, or a class 10a building or deck associated¹ with a class 2 or 3 building in a designated bushfire prone area.
- Volume 2 refers to class 1 and 10a (class 10 building or deck associated with a class 1 building).

As the proposal does not include any Class 1, 2, 3 or a class 10 that is associated with a class 1 building, AS 3959 2018 does not apply to this development.

The Rural Fire Service document Planning for Bushfire Protection 2019 states:

Although AS 3959 2018 is not considered applicable for this type of building and Planning for Bushfire Protection 2018 also states that there are no specific construction requirements, Planning for Bushfire Protection 2018 goes on to state “all development on bushfire prone land must satisfy the aim and objectives of Planning for Bushfire Protection”.

The aim of PBP is stated as follows;

The aim of Planning for Bushfire Protection is to provide for the protection of human life and minimise impacts on property from the threat of Bushfire, while having due regard to development potential, site characteristics and protecting the environment.”

The objectives of Planning for Bushfire Protection are as follows;

- *Afford occupants of any building adequate protection from exposure to a bushfire;*
- *Provide for a defensible space to be located around buildings;*
- *Provide appropriate separation between a hazard and buildings which, in combination with other measures, minimises material ignition;*
- *Ensure that appropriate operational access and egress for emergency service personnel and residents is available;*
- *provide for ongoing management and maintenance of bushfire protection measures;*
- *ensure that utility services are adequate to meet the needs of fire fighters.*

The following table outlines the relevant objectives, the method of compliance/non-compliance and opinion of compliance or non-compliance with those objectives;

¹ “associated” in this instance means within 6m.

<u>PBP specific objectives</u>	<u>Opinion</u>	<u>Compliant?</u>
<i>Afford occupants of any building adequate protection from exposure to a bush fire;</i>	<i>The proposal in non-habitable and therefore has no occupants to protect.</i>	<i>N/A.</i>
<i>Provide for a defensible space to be located around buildings;</i>	<i>The creation of Defendable Space is a recommendation of this assessment.</i>	<i>Yes.</i>
<i>Provide appropriate separation between a hazard and buildings which, in combination with other measures, minimises material ignition</i>	<i>See section 3.</i>	<i>Yes.</i>
<i>Ensure that appropriate operational access and egress for emergency service personnel and residents is available.</i>	<i>Access is considered appropriate.</i>	<i>Yes.</i>
<i>Provide for ongoing management and maintenance of bushfire protection measures.</i>	<i>Normal property maintenance can provide this.</i>	<i>Yes.</i>
<i>Ensure that utility services are adequate to meet the needs of fire fighters.</i>	<i>Any new facilities will be in accordance with the BCA requirements.</i>	<i>Yes.</i>

2 SPECIFIC OBJECTIVES FOR INFILL.

In addition to the Aims and Objectives of PBP the Specific Objectives for Infill developments need to be considered.

Infill developments are defined as “..... to the development of land by the direction of, alteration or addition to, a dwelling which does not require the spatial extension of services including public roads, electricity, water or sewerage and is within an existing lot”.

The objectives are;

- *provide a defensible space to enable unimpeded access for firefighting around all elevations of the building;*
- *provide better bushfire outcomes on a redevelopment site than currently exists, commensurate with the scale of works proposed;*
- *design and construct buildings commensurate with the bushfire risk;*
- *provide access, services and landscaping to aid firefighting operations;*
- *provide access, services and landscaping to aid firefighting operations; and*

- *increase the level of bushfire protection to existing dwellings based on the scale of the*

The following table outlines the objectives and the proposals level of compliance with those objectives.

<u>Specific Objectives for Infill</u>	<u>Opinion</u>	<u>Compliant</u>
<i>Provide a defendable space to enable unimpeded access for firefighting around all elevations of the building.</i>	<i>The creation of Defendable Space is a recommendation of this assessment.</i>	Yes.
<i>Provide better bushfire outcomes on a redevelopment site than currently exists, commensurate with the scale of works proposed.</i>	<i>The additional vegetation management associated with this proposal will provide a better outcome for this property.</i>	Yes
<i>Design and construct buildings commensurate with the bushfire risk</i>	<i>The buildings will be constructed in accordance with the NCC and incorporate the general fire safety construction provisions of the NCC which are taken as acceptable solutions under Planning for Bushfire Protection 2018.</i>	Yes.
<i>Provide access, services and landscaping to aid firefighting operations.</i>	<i>Access is adequate.</i>	Yes.
<i>Not impose an increased bushfire management and maintenance responsibility on adjoining landowners.</i>	<i>This proposal does not increase any neighbors' responsibilities.</i>	Yes.
<i>Increase the level of bushfire protection to existing dwellings based on the scale of the proposed work and level of potential risk.</i>	<i>The additional vegetation management associated with this proposal will provide a better outcome for this property.</i>	Yes.

3 RECOMMENDATIONS

1. *Although AS3959 considers that no specific construction requirements need to be applied to this proposal some risk from bushfire still exists. The subject lot is in an area that may be affected by a fire in the larger, surrounding area which could be expected to cause smoke and burning embers to affect this new building.*

It would be prudent to consider constructing the building to incorporate ember protection which will give an enhanced level of protection for the new building.

The additional cost is not significantly onerous and is recommended, however not strictly required.

The application of this additional construction level should be at the discretion of the owner.

2. *At the commencement of building works and in perpetuity the area surrounding the new works is to be managed as defendable space for a distance of at least 10m or, if 10m is not achievable due to the proximity of a property boundary, to the property boundary.*

The defendable space is to incorporate the following features.

- *A 2–3 metre wide fuel-reduced or non-combustible surface (e.g. gravel, stone, concrete) will be established around the structure to provide separation from ground fuels.*
 - *The building and its surrounds will be kept free of combustible materials, leaves, and debris year-round.*
 - *No flammable liquids or fuels will be stored in or near the structure.*
3. *The pool is to be used as a Firefighting water supply (SWS).*
 - *A pump is to be provided with a minimum 5hp or 3kW petrol or diesel-powered pump, and are shielded against bush fire attack; any hose and reel for firefighting connected to the pump shall be 19mm internal diameter; and*
 - *If fitted, fire hose reels are constructed in accordance with AS/NZS 1221:1997 and installed in accordance with the relevant clauses of AS 2441:2005.*
 - *A 'SWS' marker shall be obtained from the local NSW Rural Fire Service and positioned for ease of identification by brigade personnel and other users of the SWS. In this regard:*
 - *a) Markers must be fixed in a suitable location so as to be highly visible; and*
 - *b) Markers should be positioned adjacent to the most appropriate access for the static water supply.*
 4. *A Bushfire Survival Plan is to be formulated for the site. [Bush fire survival plan - NSW Rural Fire Service](#)*

4 CONCLUSION.

The subject lot is covered by the local councils Bushfire Prone Land Map and is therefore considered to be bushfire prone. (Appendix 1)

This proposal falls outside the requirements for specific bushfire safety construction standards as outlined in the NCC, AS-3959 and Planning for Bushfire Protection and requires only the general fire safety provisions of the NCC that are associated with that class of structure.

Planning for Bushfire Protection requires that this proposal complies with the aims and objectives of that document and the specific objectives for infill development.

It is considered that this proposal does comply with the intent of the relevant aims and objectives of Planning for Bushfire Protection and the relevant specific objectives for infill.

Bushfires are affected by many external influences such as climactic conditions, vegetation type, moisture content of the fuel, slope of the land and human intervention to name a few and are difficult to predict.

This report does not intend to provide a guarantee that the subject property will survive if a bushfire should impact the surrounding area. The purpose of this report is to show the developments level of compliance or in some cases non-compliance with the New South Wales legislation regarding building in bushfire prone areas.

Where non-compliance is found measures will be suggested that should make the building less susceptible to the various attack mechanisms of a bushfire and comply with the performance requirements of the Building Code of Australia.

The opinions expressed in this report are based on the writers experience and interpretation of the relevant guidelines and standards. Notwithstanding the above, these guidelines and standards are open to interpretation. All care has been taken to ensure that the opinions expressed in this report are consistent with past successful outcomes.

Some of the information used in the compilation of this assessment has been provided by the proponent or the proponent's representatives. While we believe this information to be true and have accepted the information in good faith, this company or its representatives will not accept any responsibility if the provided information is determined to be incorrect.

If any further clarification is required for this report please do not hesitate to contact me using the details above.

Yours Sincerely



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