



NSW RURAL FIRE SERVICE

Northern Beaches Council
PO Box 882
MONA VALE NSW 1660

Your reference: DA2021/1533 (CNR-27785)
Our reference: DA20210905003806-Original-1

ATTENTION: Northern Beaches Council

Date: Tuesday 21 September 2021

Dear Sir/Madam,

Development Application

s4.14 - Infill - Single Dwelling - New Dwelling

13 Morgan Road Belrose NSW 2085, 170//DP752038

I refer to your correspondence dated 05/09/2021 seeking advice regarding bush fire protection for the above Development Application in accordance with section 4.14 of the *Environmental Planning and Assessment Act 1979*.

The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted and provides the following recommended conditions:

Asset Protection Zones

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

1. From the start of building works, and in perpetuity to ensure ongoing protection from the impact of bush fires, the entire property must be managed as an inner protection area (IPA) in accordance with the requirements of Appendix 4 of *Planning for Bush Fire Protection 2019*. When establishing and maintaining an IPA the following requirements apply:

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;
- lower limbs should be removed up to a height of 2m above the ground;
- tree canopies should be separated by 2 to 5m;
- preference should be given to smooth barked and evergreen trees;
- large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings;
- shrubs should not be located under trees;
- shrubs should not form more than 10% ground cover;

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- clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
- grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and
- leaves and vegetation debris should be removed.

Construction Standards

The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack. To achieve this, the following conditions shall apply:

2. Construction of the proposed cabana must comply with Section 3 (excluding section 3.5) and Section 9 (BAL FZ) of Australian Standard AS3959-2018 *Construction of buildings in bushfire-prone areas* or the relevant BAL-FZ requirements of the NASH Standard - *Steel Framed Construction in Bushfire Areas - 2014* (incorporating amendment A - 2015). New construction must also comply with the construction requirements in Section 7.5 of *Planning for Bush Fire Protection 2019*.
3. Construction of the proposed dwelling must comply with section 3 and section 6 (BAL 19) Australian Standard AS3959-2018 *Construction of buildings in bush fire-prone areas* or NASH Standard (1.7.14 updated) *National Standard Steel Framed Construction in Bushfire Areas - 2014* as appropriate and Section 7.5 of *Planning for Bush Fire Protection 2019*.
4. Construction of the proposed garage accommodation must comply with Sections 3 and 5 (BAL 12.5) Australian Standard AS3959-2018 *Construction of buildings in bush fire-prone areas* or NASH Standard (1.7.14 updated) *National Standard Steel Framed Construction in Bushfire Areas - 2014* as appropriate and Section 7.5 of *Planning for Bush Fire Protection 2019*.
5. Fences and gates must comply with Section 7.6 of *Planning for Bush Fire Protection 2019*.
6. Construction of the retaining walls must be undertaken using non combustibile materials.

Access – Property Access

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

7. Property access roads must comply with the following requirements of Table 7.4a of *Planning for Bush Fire Protection 2019*:
 - property access roads are two-wheel drive, allweather roads;
 - the capacity of road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes), bridges and causeways are to clearly indicate load rating.
 - hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005;
 - there is suitable access for a Category 1 fire appliance to within 4m of the static water supply where no reticulated supply is available;
 - minimum 4m carriageway width;
 - in forest, woodland and heath situations, rural property roads have passing bays every 200m that are 20m long by 2m wide, making a minimum trafficable width of 6m, at the passing bay;
 - a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches;
 - property access must provide a suitable turning area in accordance with Appendix 3 of *Planning for Bush Fire Protection 2019*;
 - curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress;
 - the minimum distance between inner and outer curves is 6m;
 - the crossfall is not more than 10 degrees; and

- maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads.

Note: Some short constrictions in the access may be accepted where they are not less than 3.5m wide, extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed. The gradients applicable to public roads also apply to community style development property access roads in addition to the above.

Water and Utility Services

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

8. The provision of water, electricity and gas must comply the following in accordance with Table 7.4a of *Planning for Bush Fire Protection 2019*:

- A 20,000 litre minimum capacity static water supply must be provided on site;
- a connection for firefighting purposes is located within the IPA or non-hazard side and away from the structure;
- 65mm Storz outlet with a ball valve is fitted to the outlet;
- ball valve and pipes are adequate for water flow and are metal;
- supply pipes from tank to ball valve have the same bore size to ensure flow volume;
- underground tanks have an access hole of 200mm and a hardened ground surface for truck access is supplied within 4m to allow tankers to refill direct from the tank;
- above-ground tanks are manufactured from concrete or metal;
- raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F of AS 3959);
- unobstructed access can be provided at all times;
- underground tanks are clearly marked;
- all exposed water pipes external to the building are metal, including any fittings;
- where pumps are provided, they are 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
- where practicable, electrical transmission lines are underground;
- where overhead, electrical transmission lines are proposed as follows:
 - lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and
 - no part of a tree is closer to a power line than the distance set out in accordance with the specifications in *ISSC3 Guideline for Managing Vegetation Near Power Lines*.
- reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used;
- all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
- connections to and from gas cylinders are metal;
- polymer-sheathed flexible gas supply lines are not used; and
- above-ground gas service pipes are metal, including and up to any outlets.

Landscaping Assessment

The intent of measures is to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting fire fighting activities. To achieve this, the following conditions shall apply:

9. Landscaping of the site should comply with following principles of Appendix 4 of *Planning for Bush Fire Protection 2019*:

- Suitable impervious areas are provided immediately surrounding the building such as courtyards, paths and driveways.
- Grassed areas, mowed lawns or ground cover plantings are provided in close proximity to the building.
- Planting is limited in the immediate vicinity of the building.
- Planting does not provide a continuous canopy to the building (i.e. trees or shrubs should be isolated or located in small clusters).
- Landscape species are chosen in consideration needs of the estimated size of the plant at maturity.
- Species are avoided that have rough fibrous bark, or which keep/shed bark in long strips or retain dead material in their canopies.
- Smooth bark species of tree are chosen which generally do not carry a fire up the bark into the crown.
- Planting of deciduous species is avoided which may increase fuel at surface/ ground level (i.e. leaf litter).
- Climbing species are avoided to walls and pergolas.
- Combustible materials such as woodchips/mulch and flammable fuel are stored away from the building.
- Combustible structures such as garden sheds, pergolas and materials such timber garden furniture are located way from the building.
- Low flammability vegetation species are used.

For any queries regarding this correspondence, please contact Surbhi Chhabra on 1300 NSW RFS.

Yours sincerely,

Kalpana Varghese
Supervisor Development Assessment & Plan
Built & Natural Environment