NSW RURAL FIRE SERVICE

Department of Planning and Environment (Sydney Offices)
GPO Box 39
Sydney NSW 2001

Your reference: SSD-9741-MOD-2
Our reference: DA20200224000721-S4.55-1

ATTENTION: Patrick Copas

Date: Friday 2 October 2020

Dear Sir/Madam,

Development Application
Other – Part3A – Commercial Premises
Lane Cove West Data Centre 1 Sirius Road Lane Cove West NSW 2066, 7//DP241877, 15//DP1179953

I refer to your correspondence regarding the above proposal which was received by the NSW Rural Fire Service on 22/09/2020.

Evacuation and Emergency Management
Intent of measures: to provide suitable emergency and evacuation arrangements for the occupants.

1.0 A Bush Fire Emergency Management and Evacuation Plan must be prepared and be consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan.The Bush Fire Emergency Management and Evacuation Plan should include planning for the early relocation of occupants. A copy of the Bush Fire Emergency Management and Evacuation Plan should be provided to the Local Emergency Management Committee for its information prior to occupation of the development.

Asset Protection Zones
Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.
2.0 From the start of building works, and in perpetuity to ensure ongoing protection from the impact of bush fires, the property around the building must be maintained as an inner protection area (IPA), in accordance with the requirements of Appendix 4 of *Planning for Bush Fire Protection 2019*, as follows:
- South West Inner Protection Area (IPA) for a distance of 34 metres from the Generator Platform No 1;
- North West Inner Protection Area (IPA) for a distance of 15 metres from the Generator Platform, No 2 and;
- North East Inner Protection Area (IPA) for a distance of 24 metres from the Generator Platform, No 3 and;
- South east Inner Protection Area (IPA) for a distance of 25 metres from the Generator Platform, No 1 and Substation and up to the site boundaries from the Data hall and Generator 3.

IPA 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;

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- 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; and
- 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
Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.
3.0 Construction of the proposed Data Centres south western, north western and north eastern elevations and roofing 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 (incorporating amendment A - 2015)*. New construction must also comply with the construction requirements in Section 7.5 of *Planning for Bush Fire Protection 2019*.

4.0 Construction of the proposed external Generator platforms and associated works 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 (incorporating amendment A - 2015)*. New construction must also comply with the construction requirements in Section 7.5 of *Planning for Bush Fire Protection 2019*.
5.0 Construction of the proposed Data Centres south eastern elevation must comply with Sections 3 and 8 (BAL 40) *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*.
6.0 Construction of the proposed Substation must comply with Sections 3 and 8 (BAL 40) *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*.
7.0 Construction of the proposed pedestrian link must comply with section 3 and section 7 (BAL 29) *Australian Standard AS3959-2018 Construction of buildings in bush fire-prone areas* or NASH Standard (1.7.14 updated) N*ational Standard Steel Framed Construction in Bushfire Areas – 2014* as appropriate and Section 7.5 of *Planning for Bush Fire Protection 2019*.

8.0 The existing Administration building located at 2 Apollo Place must be upgraded to improve ember protection by enclosing all openings (excluding roof tile spaces) or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes any sub floor areas, openable windows, vents, weepholes and eaves. External doors are to be fitted with draft excluders.

Access (3) - Property Access
Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.
9.0 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, all weather 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;
- at least one alternative property access road is provided for individual dwellings or groups of dwellings that are located more than 200 metres from a public through road;

- 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;
- 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;
- maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads; and
- a development comprising more than three dwellings has formalised access by dedication of a road and not by right of way.
- 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.

Access (4) - Fire Trails
Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.
10.0 Fire trails shall comply with the following requirements of section 3.4.4 of *Planning for Bush Fire Protection 2019:*

- A minimum carriageway width of 4 metres is provided with an additional 1 metre wide strip on each side of the trail (clear of bushes and long grass).
- The trail has a maximum grade of 15 degrees if sealed and not more than 10 degrees if unsealed.
- A minimum vertical clearance of 4 metres is provided to any overhanging obstructions, including tree branches.
- The crossfall of the trail is not more than 10 degrees.
- The trail has the capacity for passing by a reversing bays using the access to properties to reverse fire tankers, which are 6 metres wide and 8 metres deep to any gates, with an inner minimum turning radius of 6 metres and outer minimum radius of 12 metres; and/or a passing bay every 200 metres, 20 metres long by 3 metres wide, making a minimum trafficable width of 7 metres at the passing bay.
- The fire trail is accessible to fire fighters and maintained in a serviceable condition by the owner of the land.
- Appropriate drainage and erosion controls are provided.
- The fire trail system is connected to the property access road and/or to the through road system at frequent intervals of 200 metres or less.
- Fire trails do not traverse a wetlands or other land potentially subject to periodic inundation (other than a flood or storm surge).
- Gates for fire trails are provided and locked with a key/lock system authorised by the local RFS.
- Fire trail design does not adversely impact on natural hydrological flows.
- Fire trail design acts as an effective barrier to the spread of weeds and nutrients.
- Fire trail construction does not expose acid-sulphate soils.

Water & Utlility Services
Intent of measures: to minimise the risk of bush fire attack and provide protection for emergency services personnel, residents and others assisting firefighting activities.
11.0 The provision of water, electricity and gas must comply the following in accordance with Table 7.4a of *Planning for Bush Fire Protection 2019:*

- reticulated water is to be provided to the development where available;
- all above-ground water service pipes external to the building are metal, including and up to any taps;
- where practicable, electrical transmission lines are underground;
- where overhead, electrical transmission lines are proposed as follows:

a) lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and

b) 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

The intent of measures is for landscaping. To achieve this, the following conditions shall apply:

12.0 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.

General Advice – Consent Authority to Note

- The NSW Rural Fire Service recognises that the site is constrained and that the proposed development falls within the Flame Zone. Flame Zone development is high risk development; consequently, in situations such as this, the Service seeks to improve the overall fire safety of the existing development.This requires greater emphasis on construction standards, landscaping, siting, and vegetation management practices to ensure improved levels of protection are afforded to the development, its occupants and fire fighters. The Service has undertaken a merit based assessment of the proposal and provides the above advice in accordance with *Planning for Bush Fire Protection 2019.*
- This letter is in response to a further assessment of the application submitted and supersedes our previous general terms of approval/recommendations dated 9 April 2020.

For any queries regarding this correspondence, please contact Craig Casey on 1300 NSW RFS.

Yours sincerely,

Nika Fomin
Manager Planning & Environment Services
Planning and Environment Services