

# Fire Base Consulting

## Building Construction in Bush Fire Prone Areas

ABN - 14 640 865 430

Reference No 6 – 11 – 2003 - 35

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## Bush Fire Report – No 3 Boundary Road Warriewood

**For Mr S Avery**

The site was inspected on 6<sup>th</sup> November 2003

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Hazard Mitigation Engineer [Bush Fire Prone areas]  
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**6<sup>th</sup> November 2003**

**Subject:** Bushfire Report for Mr S Avery, No 3 Boundary Road Warriewood

**Reference:** Planning for Bushfire Protection 2001 – Australian Standard 3959 1999 -  
Site inspection 6-11-2003 – Pittwater Local Environmental Plan 1993 – Plans of  
Proposed Development submitted by W& B Consulting

### **Description of Proposed Development**

The proposed development is the erection of a new Class 1A dwelling at No 3 Boundary Road. Extensive plans have been supplied by W & B Consulting which show the proposed dwelling to be two storeys on reinforced concrete slab and piers. Consideration has been give to ensure that proposed construction materials are suitable for building in bushfire prone areas.

The dwelling has been sited to take advantage of the only relatively flat section of the allotment and is as close as permissible by local council to the northern boundary.

### **Classification of the Vegetation on and surrounding the property**

With reference to Figure 2.2 of Appendix 2, Planning for Bushfire Protection the bushland on and surrounding the property is 'Forest group 1'

**North** – There is a clear distance of 7.5m to the boundary and beyond this is a developed rural residential site which would not present a threat from bushfire attack.

**East** – An asset protection zone has been created by the removal of ground fuel and undergrowth to the boundary, a distance of 20m. Beyond the boundary is bushland which presents a threat from bushfire attack.

**West** – An asset protection zone of 60m has been created. This area is extensively fuel reduced and is within the boundary of the development site. Beyond this area is bushland of 'Forest Group 1'.

**South** – The proposed development is on the flat section as described and reinforced concrete slab on columns extends out over an area which has been cleared of ground cover and under growth to create an asset protection zone directly below the dwelling and for a distance of approximately 50m. This area has several extremely large sandstone boulders which provide a heat shield between the bushland threat and the proposed dwelling.

### **Assessment of the slope on and surrounding the property**

No 3 Boundary Road is on the side of a steep escarpment which rises from a creek, steeply at more than 50 degrees, up to the proposed development site, then levels to approximately 5 degrees across the site and varies from 5 to 10 degrees through to Mona Vale Road.

From East to West across the development the site slopes at approximately 5 degrees then increases in gradient to between 5 and 10 degrees.

### **Bushfire assessment of the proposed development**

With reference to Planning for Bushfire Protection 2001 Table A3.3 the threat of bushfire attack is considered 'Flame Zone'.

### **Water supplies**

The site does not have reticulated water supply and the developer has proposed the inclusion of two 22,500 litre water supply tanks, 10,000 litres of this to be dedicated to fire fighting. Investigations by the owner have revealed that a bore constructed to maintain the supply of water would be successful and the installation of this has been included in the construction plans.

### **Capacity of public roads in the vicinity**

The site is accessed by 150m of gravel road which is the southern end of Boundary Road, which is a public road, and links with Mona Vale road where access and egress for emergency vehicles and evacuation is in opposite directions. There is an alternate direction for access and egress via the Church Road which links with Jubilee Road.

## **Recommendation**

Considering the findings of the site inspection and with reference to Planning for Bushfire Protection 2001 and AS 3959 the development could be considered for approval provided the developer meets the following minimum requirements;

- 1** Construction standard to level 3 construction AS3959
- 2** The owner is committed to an ongoing maintenance regime for the asset protection zones and fire fighting equipment for the life of the habitable building.
- 3** Installation of the 45,000 litre water supply and the water bore, as proposed should be included in the development approval requirements.
- 4** A sprinkler system should be incorporated into the design of the dwelling which is capable of dousing the entire perimeter of the house simultaneously. Sprinkler operating heads, supply lines and all fittings should be metal.
- 5** A portable pump of sufficient capacity to supply the sprinkler system and fire fighting hose simultaneously should be available and in proper working order at all times.
- 6** Sufficient hose for first aid firefighting should be available to be used in conjunction with the fire pump.
- 7** Stortz couplings are to be used which are compatible with Rural Fire Service fittings.

The owner has been made aware of the importance of an ongoing maintenance regime.

Quote from Planning for Bushfire Protection 2001, *'notwithstanding the precautions adopted, it should always be remembered that bushfire burn under a wide range of conditions and an element of risk, no matter how small always remains.'*

Quote from Standards Australia, *'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.'*

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