PHONE (03) 5441 4000
FAX (03) 5441 1439
EMAIL engineers@alliedconsultants.com.au
WEB www.alliedconsultants com.au.

493 HARGREAVES STREET, BENDIGO 3550

BUSHFIRE ATTACK LEVEL REPORT

Ref No: 26487 – Stage 8

SITE DETAILS

LOCATION: Lots 25 to 38 & 46 to 53 Marong Run (Goldie Street), Marong

DATE: 26th August 2020

CLIENT: ARBOR Estates

Type of Building Works

- [x] New Class 1 building
- [ ] New Class 10a building
- [ ] New Class 2 building
- [ ] New Class 3 building
- [ ] Alteration/Additions to an existing building

Description of building work:
New Residence

Site classification
BAL- 12.5

Site Information

1. **Relevant Fire Danger Index:** ☐ **FDI:** 50 ☑ **FDI:** 100

2. **Vegetation within 100m in all directions:**

Vegetation classification (see Table 2.3)	North	South	East	West
Group B - Woodland	✓	✓		
Group D - Scrub				
Group G - Grassland				
Exclusions (where applicable)	See below Exclusion descriptions			
			a & f	a & f

Distance of the site from classified vegetation (see clause 2.2.4)

Distance to classified vegetation	Show distances in metres			
	98m	45m	More than 100m	More than 100m

Effective slope of land under the classified vegetation

Effective slope	Upslope			
Slope under the classified vegetation	Upslope or 0˚	Upslope or 0˚ ✓	Upslope or 0˚	Upslope or 0˚ ✓
	Downslope			
	>0˚ to 5˚ ✓	>0˚ to 5˚	>0˚ to 5˚ ✓	>0˚ to 5˚
	>5˚ to 10˚	>5˚ to 10˚	>5˚ to 10˚	>5˚ to 10˚

BAL for each side of the site	**BAL-12.5**	**BAL-12.5**	**BAL-12.5**	**BAL-12.5**

Exclusions (where applicable)

a) Vegetation of any type that is more than 100 m from the site.

b) Single areas of vegetation less than 1 ha in area and not within 100 m of other areas of vegetation being classified.

c) Multiple areas of vegetation less than 0.25 ha in area and not within 20 m of the site, or each other.

d) Strips of vegetation less than 20 m in width regardless of length and not within 20 m of the site or each other, or other areas of vegetation being classified.

e) Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops.

f) Low threat vegetation, including grassland managed in a minimal fuel condition, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.

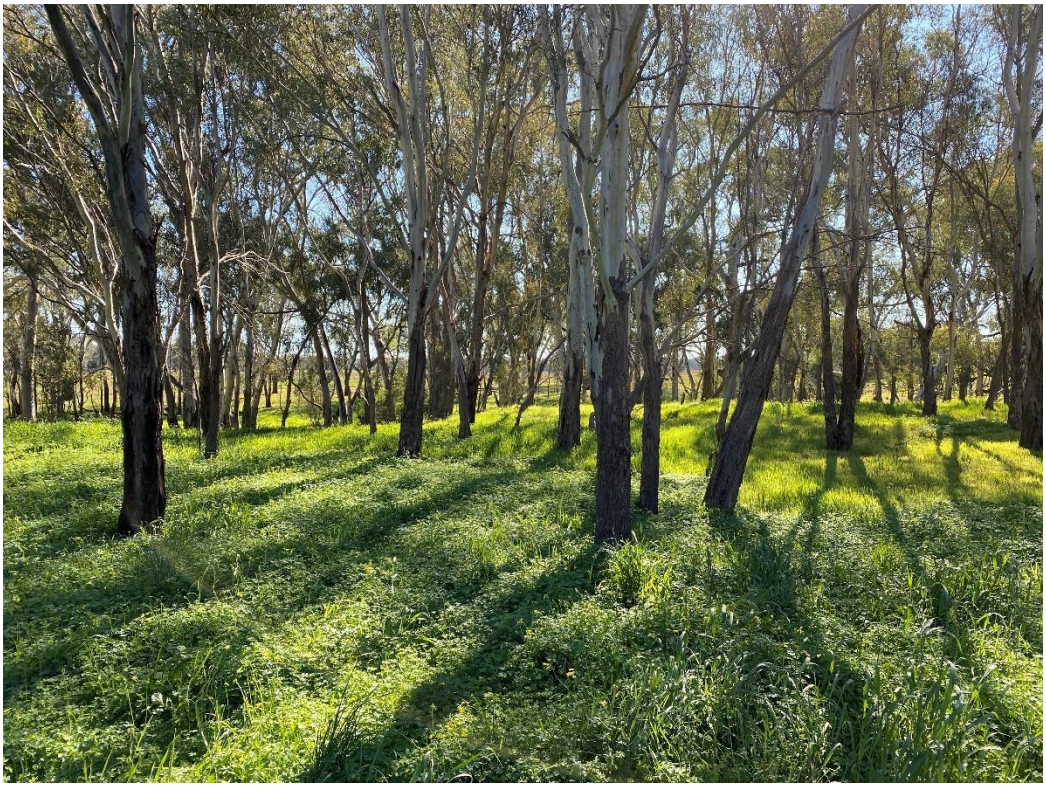
NOTE: Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm).

Managed Vegetation
Managed Vegetation
Woodland Vegetation
Bullock Creek Water Frontage
Managed Vegetation
Managed Vegetation
Managed Vegetation
N
Oscar Dr
Norman Way
Jean Ct
Thomas Dr
Goldie St
Marong Caravan And Cabin Village
100 m

N
Woodland Vegetation
Managed Vegetation
Stage 7
Cathcart Street
Goldie Street
Managed Vegetation
Stage 9
Stage 8
Calder Highway
Managed Vegetation
Alana Ct
Oscar Dr
Jean Ct
Norman Way
Bullock Creek Water Frontage
50 m

CATHCART STREET
CALDER HIGHWAY
GOLDIE STREET
OSCAR DRIVE
JORDAN LANE
THOMAS DRIVE
NORMAN WAY
Road 1459m²
Reserve 1493m²
Reserve 2335m²
Reserve 1140m²
Res 92m²
Res 35m²
Stage 9
28 Lots
Stage 8
29 Lots
Stage 7
24 Lots

Existing Dirt Road to West



Typical Vegetation 45m North from site

3. **BAL – 12.5 Construction requirements:**

a. **Floors:** No special construction requirements.

b. **Elevated floors:**

Enclosed

No special construction requirements for elevated floors, including bearers, joists, and flooring, where the subfloor space is enclosed with-

a) a wall the conform with Clause 5.4; or
b) a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion resistant steel, bronze or aluminium; or
c) a combination of items a & b above

Unenclosed

Bearers, joists, and flooring, less than 400mm above finished ground level, shall be one of the following:

a) non-combustible
b) bushfire-resisting timber
c) a combination of items a & b

This standard does not provide construction requirements for elements of elevated floors including bearers, joists and flooring, if the underside of the element is 400mm or more above finished ground level.

c. **External walls:**

Parts less than 400mm above the ground or decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110mm from the wall shall be one of the following:

a) Non-combustible material including the following provided the minimum thickness is 90mm:
   i. Full masonry or masonry veneer walls with an outer leaf of clay, concrete, calcium silicate or natural stone.
   ii. Precast or in situ walls of concrete or aerated concrete.
   iii. Earth wall including mud brick; or

b) Timber Logs of a species with a density of 680 kg/m3 or greater at a 12% moisture content; of a minimum nominal overall thickness of 90mm and a minimum thickness of 70mm; and gauge planed; or

c) Cladding that is fixed external to a timber-framed or a steel-framed wall and is –

   i. Non-combustible material; or
   ii. Fibre-cement a minimum of 6mm thickness; or
   iii. Bushfire-resisting timber; or

d) A combination of any of item a, b, or c

This standard does not provide construction requirements for exposed elements of an external wall that is 400mm or more above the ground, decks, carport roofs awnings and similar elements.

d. **Joints**
All joints in the external surface material of walls shall be covered, sealed, overlapped, backed or butt jointed.

e. **External glazed elements, assemblies & doors:**
Protected by bushfire shutters or completely screened with steel, bronze, or aluminium mesh or 4mm Grade A safety glass or glass blocks within 400 mm of ground, deck etc. Operable portion of windows & doors shall be screened internally or externally that have a frame of metal or metal reinforced PVC-U or bushfire resisting timber.

Where fitted, screens for windows and doors shall have a mesh or perforated sheet made of corrosion-resistant steel with a maximum aperture of 2mm, made of bronze, or aluminium.

f. **External doors:**

Protected by bushfire shutter or screened with steel, bronze or aluminium mesh or glazed with 4mm Grade A safety glass, non-combustible or 35 mm solid timber for 400 mm above threshold, metal or bushfire resisting timber framed for 400mm above ground, decking, etc, tight-fitting with weather strips at base.

Where fitted, screens shall have a mesh or perforated sheet made of corrosion-resistant steel with a maximum aperture of 2mm, made of bronze, or aluminium.

g. **Roofs:**
Non-combustible covering. Roof/wall junction sealed. Openings fitted with non-combustible ember guards. Roof to be fully sarked.
Only evaporative coolers manufactured in accordance with AS/NZ 60335.2.98 shall be used. Evaporative coolers with an internal damper to prevent the entry of embers into the roof space need not be screened externally.

h. **Verandas / decks etc**:
Enclosed & Unenclosed sub-floor space – no special requirement for materials except within 400mm of ground. No special requirements for supports or framing. Decking to be non-combustible or bushfire resistant within 300 mm horizontally and 400mm vertically from a glazed element.

Veranda posts shall be timber mounted on galvanized stirrups with a clearance of not less than 75mm above the adjacent finished ground level or if less than 400mm about a deck or ground, must be non-combustible material or bushfire resisting timber.

i. **Water and gas supply pipes**
Above ground, exposed water supply pipes shall be metal.

External gas pipes and fittings above ground shall be of steel or copper construction having a minimum wall thickness in accordance with gas regulations or 0.9mm whichever it greater. Metal pips shall extend a minimum of 400mm within the building and 100mm below ground.

4. For more detailed options refer to Section 5 of AS3959-2018.

5. The bush rating supplied in this report complies with the requirements of AS3959-2018; however, this rating does not imply that any building constructed on the site is immune to destruction by bushfire.

   Therefore, the property owner should make their own assessment of construction requirements to protect any building on the site from bushfire damage wether by direct bushfire attack or by ember attack.

6. This report is for the use only of the party to whom it is addressed, and for the purposes for which it was prepared, and for no other purpose. No responsibility is accepted to any third party which may use, or rely on, the whole, or any part, of the content of this report. This report has been prepared on the basis of specific instructions and information provided by, or on behalf of, the party whom it is addressed, and for the use of that party in its particular circumstances, for its particular purpose. Its contents and conclusions may therefore be inappropriate for any third party in the context of that party's particular purpose or circumstances. Any third party should obtain its own independent report or other professional advice and in no way rely on this report.

Yours faithfully,
ALLIED DESIGN Consultants
per: