

**QPRC**



**QUEANBEYAN PALERANG  
REGIONAL COUNCIL**

**DEVELOPMENT DESIGN  
SPECIFICATION**

**D10**

**BUSHFIRE PROTECTION –  
SOUTH JERRABOMBERRA**

**VERSION 2 – APRIL 2018**

TRIM REF: SF140543/04-01  
C1844645

**Amendment Record for this Specification Part**

This Specification is Council's edition of the AUS-SPEC generic specification part and includes Council's primary amendments for development at South Jerrabomberra.

Details are provided below outlining the clauses amended from the Council edition of this AUS-SPEC Specification Part. The clause numbering and context of each clause are preserved. New clauses are added towards the rear of the specification part as special requirements clauses. Project specific additional script is shown in the specification as italic font.

The amendment code indicated below is 'A' for additional script 'M' for modification to script and 'O' for omission of script. An additional code 'P' is included when the amendment is project specific.

<b>Amendment Sequence No.</b>	<b>Key Topic addressed in amendment</b>	<b>Clause No.</b>	<b>Amendment Code</b>	<b>Author Initials</b>	<b>Amendment Date</b>
VERSION 1	South Jerrabomberra specifications referenced	D10.03	A	KD	04/15
	South Jerrabomberra specifications referenced	D10.06	A		
VERSION 2	References updated to QPRC	N/A	M	CS	9/08/17

**DEVELOPMENT DESIGN SPECIFICATION D10  
BUSHFIRE PROTECTION – SOUTH JERRABOMBERRA – VERSION 2**

**CONTENTS**

<b>CLAUSE</b>	<b>PAGE</b>
<b>GENERAL .....</b>	<b>1</b>
D10.01 SCOPE .....	1
D10.02 OBJECTIVES .....	1
D10.03 REFERENCE AND SOURCE DOCUMENTS .....	1
<b>DESIGN CRITERIA .....</b>	<b>2</b>
D10.04 GENERAL .....	2
D10.05 ASSET PROTECTION ZONES .....	2
D10.06 PERIMETER ROADS .....	3
D10.07 FIRE TRAILS .....	3
D10.08 RESERVED .....	4
D10.09 INTERNAL ACCESS FROM SUBDIVISION ROADS .....	4
D10.10 STAGING WORKS .....	4
<b>SPECIAL REQUIREMENTS.....</b>	<b>5</b>
D10.11 RESERVED .....	5
D10.12 RESERVED .....	5
D10.13 RESERVED .....	5

## DEVELOPMENT DESIGN SPECIFICATION D10 BUSHFIRE PROTECTION – SOUTH JERRABOMBERRA – VERSION 2

### GENERAL

#### D10.01 SCOPE

1. The work to be executed under this Specification consists of the design of bushfire protection facilities to protect life and property and bring a fire to a halt.
2. The Specification contains procedures for the design of bush fire protection facilities. All relevant design principles contained in the NSW Rural Fire Service (RFS), *Planning for Bushfire Protection* 2006, (referenced below) must be integrated in the design of bush fire protection facilities. This Specification serves as a companion document to the RFS Guide extended to incorporate basic requirements for Perimeter Roads and Fire Trails. Designs shall be carried out to satisfy requirements of the Rural Fires Act 1997, the Council and the guidelines published by the NSW Rural Fire Service. Consultation with the local Fire Control Officer is recommended.

**RFS Guide  
Compliance**

#### D10.02 OBJECTIVES

- 1 This Specification aims to outline the requirements for bushfire hazard in developments, so that:
  - All new allotments have measures sufficient to minimise the impact of bushfires.
  - The impact of fire protection measures on vegetation, fauna, views, watercourses soil erosion, amenity and access is minimised.
  - The potential bushfire threats to individual sites are identified.
  - The risk to property and the community from bushfire is reduced.
  - Bushfire protection is afforded to all new allotments and likely future improvements.

#### D10.03 REFERENCE AND SOURCE DOCUMENTS

##### (a) Council Specifications

- |      |   |  |
|------|---|--|
| D1   | - | Geometric Road Design – South Jerrabomberra        |
| C501 | - | Bushfire Protection (Perimeter Tracks) – Version 2 |

##### (b) NSW Government Legislation

Environment Planning and Assessment Act 1979  
 Rural Fires Act, 1997  
 Rural Fires Regulations, 2002  
 Rural Fires and Environmental Assessment Legislation Amendment Act 2002

##### (c) NSW Government Department Publications

- NSW Rural Fire Service,  
 - *Planning for Bushfire Protection*. 2006  
 Department of Land and Water Conservation (formerly Land Management)  
 - Soil Conservation Service 1994. *Guidelines for Planning, Construction and Maintenance of Tracks*.

**(d) Other**

Board of Fire Commissioners

- *Hazard Reduction for the Protection of Buildings in Bushland Areas, 1984.*

Insurance Council of Australia.

- *Bushfire Safety in Urban Fringe Areas.*

Luke, R.H.

- *Before the Fires Start.*

## **DESIGN CRITERIA**

### **D10.04 GENERAL**

1. A bushfire threat assessment must form part of all development applications for subdivision. The threat assessment is an integral part of the subdivision design, and affects lot shape, size, orientation, and road layout. Bushfire protection measures have the potential to affect vegetation, fauna, views, watercourses, soil erosion, amenity and access.

***Bushfire  
Threat  
Assessment***

2. Assessment of threat from bushfire must examine impacts of the proposal both within and external to the site, including the capacity of the existing road network serving the site to accommodate traffic in emergency situations.

***Internal and  
External  
Impacts***

3. Preparation of an assessment of threat from bushfire should include reference to:

- NSW Rural Fire Service (RFS) – *Planning for Bushfire Protection – a guide for Land Use Planners, Fire Authorities, Developers and Home Owners.*
- Consultation with Council and RFS staff.

***Consultation  
with Council  
and RFS***

4. Fire protection measures must be capable of being maintained by owners and users.

***Maintenance***

5. Asset Protection Zones must be contained wholly within the subject site, and may incorporate fire trails, perimeter roads, cleared road verges and fixed building lines.

***Asset  
Protection  
Zones***

6. The subdivision design must provide adequate emergency vehicle access to those parts of the site fronting a potential bushfire source.

***Emergency  
Vehicle  
Access***

7. In instances where the balance between bushfire protection and environmental and social impact cannot be achieved, the proposal may not be supported.

***Environmental  
and Social  
Impact***

### **D10.05 ASSET PROTECTION ZONES**

1. The provision of Asset Protection Zones (APZs) shall occur as part of the development of the subdivision pattern. Each individual allotment shall have adequate space for the main building (*usually a dwelling*), an area of open space (*front, back or side yard*) and the APZ. The APZ shall meet the requirements set out in the RFS Guide.

***Part of  
Development***

2. The Asset Protection Zones are to be placed wholly within the subdivision they are intended to protect.

3. The Asset Protection Zones are to be placed as restrictions on the burdened allotments. No habitable or storage structures are permitted within those zones.

***Restrictions on Use***

4. Asset Protection Zones, Fire Trails and Perimeter Roads are not acceptable on land which is considered environmentally sensitive.

***Environmentally Sensitive***

5. Hazard reduction within the Asset Protection Zone is to be carried out so as to minimise site disturbance. Where necessary, reduction is to be carried out by hand with trees being felled rather than pushed over.

***Hazard Reduction***

6. To ensure effectiveness of the fire protection measures, restrictions may be placed upon the titles of the affected lots. These restrictions may relate to:-

***Restrictions on title***

- Habitable and storage structures being excluded from within the APZ.
- Level at which the fuel loading is to be maintained within the APZ.
- Responsibility for and nature of maintenance of fire trail, hazard reduction and APZ.

**D10.06 PERIMETER ROADS**

1. Perimeter roads in subdivisions are to have the following minimum specifications:

***Minimum Specifications***

- Width as set out in D1, GEOMETRIC ROAD DESIGN – SOUTH JERRABOMBERRA for the appropriate road type.
- Vertical kerb and gutter on the fire source side of the road.
- Kerb and gutter on the development side of the road as required for the appropriate road type.
- Have adequate turning facilities for emergency vehicles.

2. Long “dead end” sections of road are not acceptable.

***Dead Ends***

3. For those subdivisions receiving reticulated water, fire hydrants shall be situated at appropriate intervals or near where potential fire hazard areas exist as determined by Council. The locations of hydrants are to be delineated by blue pavement markers in the centre of the road.

***Hydrants***

4. Battle-axe shaped allotments, where the access handles are in excess of 30m in length are not permitted.

***Battle Axe Allotments***

**D10.07 FIRE TRAILS**

1. Where a fire trail is located on private land, a 20m wide right of carriageway in favour of Council and the Rural Fire Service shall contain the fire trail.

***20m Easement***

2. Where a fire trail crosses common boundaries between allotments, a gate or barrier with a Council approved lock will be required.

***Boundary Gate***

3. In residential zones, fire trails are to be a minimum of 6 metres wide, free of overhanging barriers and be constructed with a minimum 100mm base course thickness. The maximum longitudinal grade of fire trails is 15% using erosion resistant gravels.

4. Mountable verges are to be stabilised and free of overhanging branches.
5. Passing bays should be provided at regular intervals of 200 metres (maximum spacing).

**D10.08 RESERVED**

**D10.09 INTERNAL ACCESS FROM SUBDIVISION ROADS**

1. The provision of adequate internal access is also controlled by subdivision design. Subdivision roads shall incorporate the following features:
  - (a) width, vertical clearances and any dips and crests which allow the two way movement of firefighting appliances;
  - (b) construction standards of roads and any bridges which allow for the carrying of fully loaded fire appliances (28 tonnes or 8 tonnes per axle);
  - (c) curves which have a minimum inner radius of 12m and are minimal in number;
  - (d) maximum grades which do not exceed 15% (1:7) and preferably not more than 10% (1:10);
  - (e) clearly signposted roads;
  - (f) dead end roads which do not exceed 200 metres in length;
  - (g) dead ends which incorporate a minimum turning circle of 12.5m diameter; and
  - (h) a road network which connects regularly to any access tracks.

***Incorporated  
in Subdivision  
Design***

**D10.10 STAGING WORKS**

1. When considering the rate of development, planners shall provide for initial development to occur on the hazard perimeter of the development. A line of dwellings will tend to minimise the threat to the entire subdivision by limiting the hazard interface.
2. Scattered developments on the other hand, will allow a continuous network of fuel to threaten individual buildings until development is substantially underway.
3. For similar reasons, new developments should be 'tacked' onto old developments to minimise the hazard perimeter.
4. It is important that much of the bush fire protection is incorporated into the design of the development, rather than into individual allotments.

***Initial  
Development  
on Hazard  
Perimeter***

***Scattered  
Developments***

***Minimise  
Hazard  
Perimeter***

***Incorporated  
in Subdivision  
Design***

**SPECIAL REQUIREMENTS**

**D10.11      RESERVED**

**D10.12      RESERVED**

**D10.13      RESERVED**