S & K Johnson
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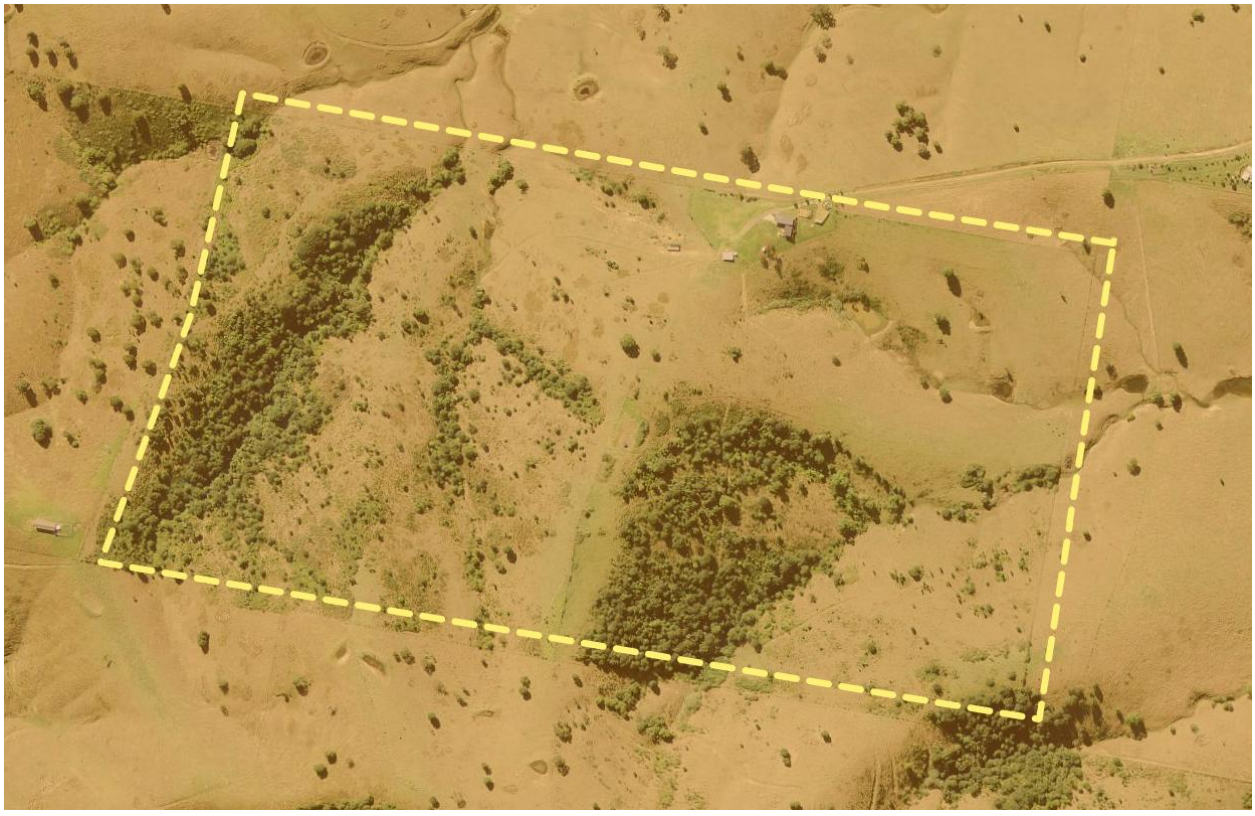
Bushfire Assessment

For the purposes of meeting the requirements of Section 4.14 of the Environmental Planning and Assessment Act 1979 and the objectives of Planning for Bushfire Protection 2019 (Chapter 7 Infill Development and Appendix 1), the following site has been assessed and a BAL rating obtained for the proposed development. The Simplified Approach (Method 1) as set out in AS3959-2018 has been used and presented below:

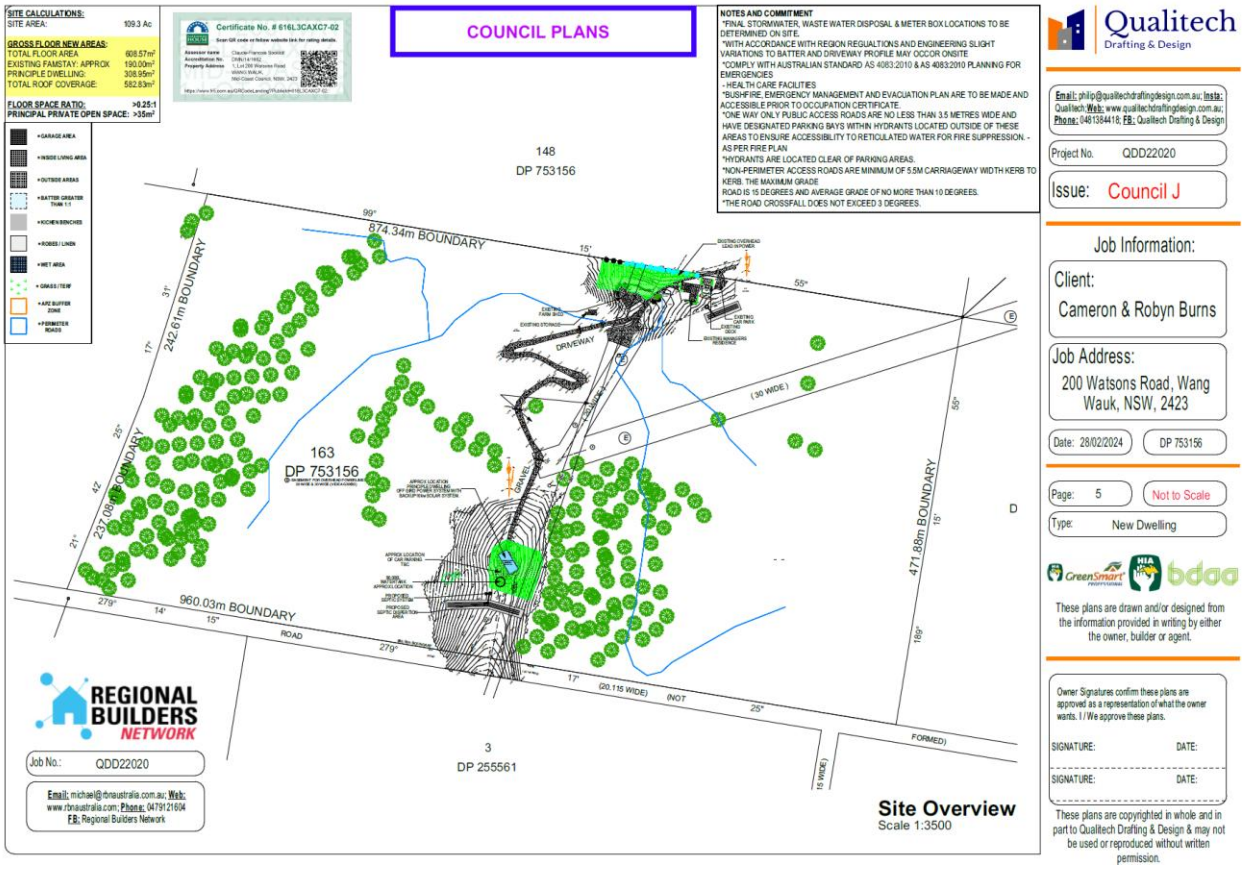
Property Description Lot 163 DP 753156
200 Watsons Road
Wang Wauk NSW 2423

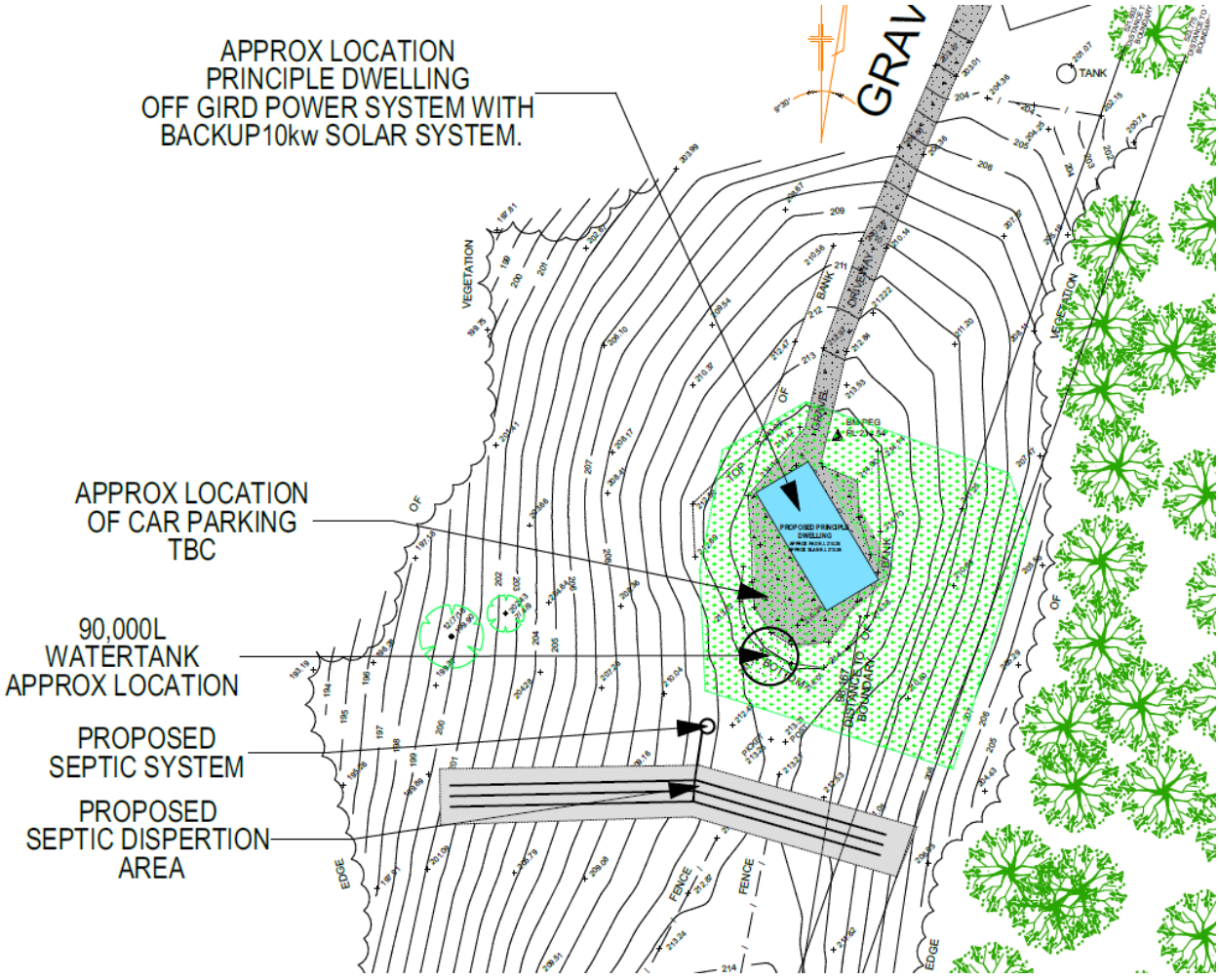
Subject Development

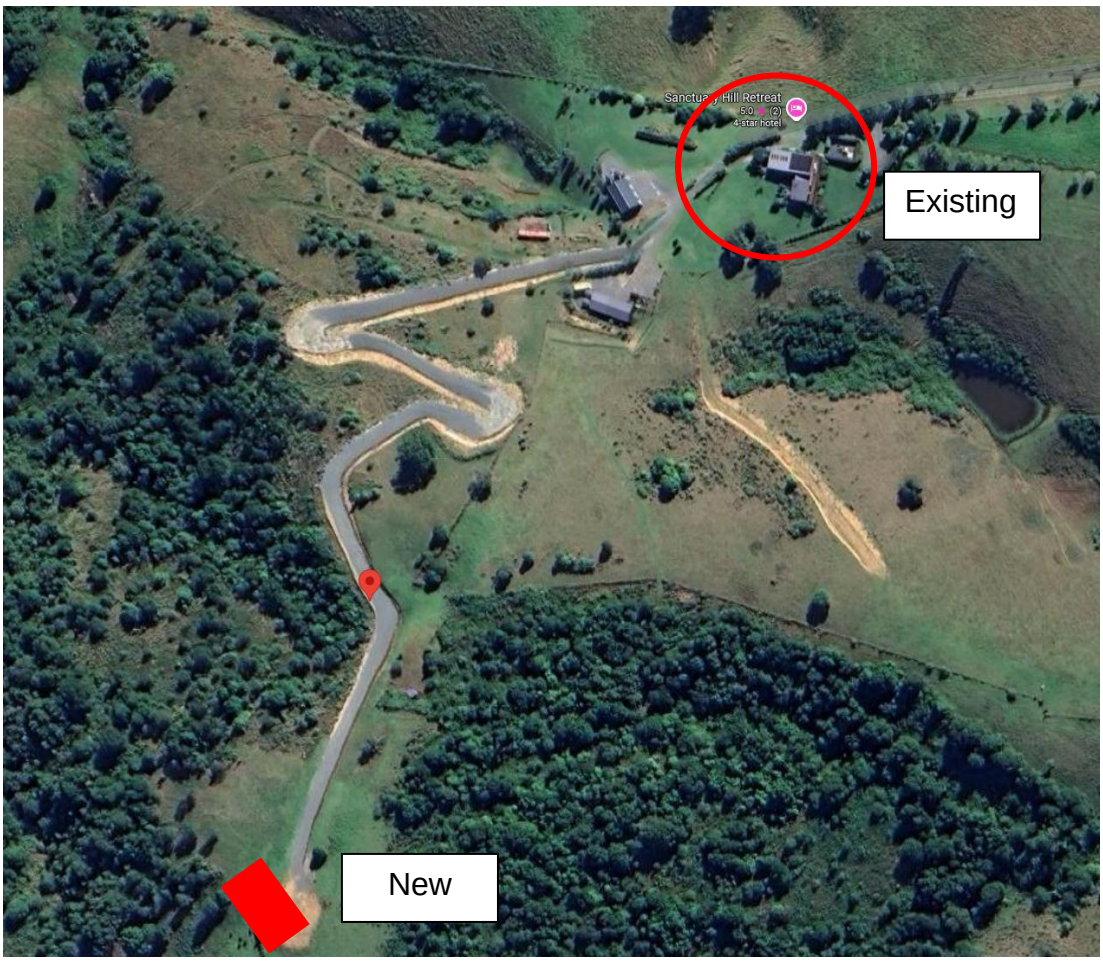
- Class 1 – New dwelling on a rural lot. This will be an additional dwelling creating a dual occupancy. The existing residence at the northern boundary will remain.
- Zoning: RU1 Primary Production
- Mapping: The site is identified as bushfire prone by Mid Coast Council using the NSW Planning Portal mapping.



The site presently contains a 3-bedroom dwelling with carparking at the northern boundary. Two (2) detached sheds are also present, used for storing farm equipment, well separated from the dwelling. A new gravel road has been constructed heading from the existing dwelling towards the south and the location of the proposed new dwelling.


COUNCIL PLANS
SITE CALCULATIONS:
SITE AREA: 109.3 Ac
GROSS FLOOR NEW AREAS:
TOTAL FLOOR AREA 608.57m²
EXISTING FAMSTAY: APPROX 190.00m²
PRINCIPLE DWELLING: 308.95m²
TOTAL ROOF COVERAGE: 582.83m²
FLOOR SPACE RATIO: >0.25:1
PRINCIPAL PRIVATE OPEN SPACE: >35m²
Certificate No. # 616L3CAXC7-02
NOTES AND COMMITMENT
*FINAL STORMWATER, WASTE WATER DISPOSAL & METER BOX LOCATIONS TO BE DETERMINED ON SITE.
*WITH ACCORDANCE WITH REGION REGUALTIONS AND ENGINEERING SLIGHT VARIATIONS TO BATTER AND DRIVEWAY PROFILE MAY OCCOR ONSITE
*COMPLY WITH AUSTRALIAN STANDARD AS 4083:2010 & AS 4083:2010 PLANNING FOR EMERGENCIES
- HEALTH CARE FACILITIES
*BUSHFIRE EMERGENCY MANAGEMENT AND EVACUATION PLAN ARE TO BE MADE AND ACCESSIBLE PRIOR TO OCCUPATION CERTIFICATE.
*ONE WAY ONLY PUBLIC ACCESS ROADS ARE NO LESS THAN 3.5 METRES WIDE AND HAVE DESIGNATED PARKING BAYS WITHIN HYDRANTS LOCATED OUTSIDE OF THESE AREAS TO ENSURE ACCESSIBILITY TO RETICULATED WATER FOR FIRE SUPPRESSION. - AS PER FIRE PLAN
*HYDRANTS ARE LOCATED CLEAR OF PARKING AREAS.
*NON-PERIMETER ACCESS ROADS ARE MINIMUM OF 5.5M CARRIAGEWAY WIDTH KERB TO KERB. THE MAXIMUM GRADE
ROAD IS 15 DEGREES AND AVERAGE GRADE OF NO MORE THAN 10 DEGREES.
*THE ROAD CROSSFALL DOES NOT EXCEED 3 DEGREES.
148
DP 753156
874.34m BOUNDARY
242.61m BOUNDARY
237.08m BOUNDARY
960.03m BOUNDARY
471.88m BOUNDARY
163
DP 753156
3
DP 255561
DRIVEWAY
GRAVEL
ROAD
(30 WIDE)
(20.115 WIDE) (NOT FORMED)
15 WIDE)
REGIONAL BUILDERS NETWORK
Job No.: QDD22020
Email: michael@rbnaustralia.com.au; Web: www.rbnaustralia.com; Phone: 0479121604
FB: Regional Builders Network
Site Overview
Scale 1:3500
Qualitech
Drafting & Design
Email: philip@qualitechdraftingdesign.com.au; Insta: Qualitech; Web: www.qualitechdraftingdesign.com.au; Phone: 0481384418; FB: Qualitech Drafting & Design
Project No. QDD22020
Issue: Council J
Job Information:
Client:
Cameron & Robyn Burns
Job Address:
200 Watsons Road, Wang Wauk, NSW, 2423
Date: 28/02/2024
DP 753156
Page: 5
Not to Scale
Type: New Dwelling
These plans are drawn and/or designed from the information provided in writing by either the owner, builder or agent.
Owner Signatures confirm these plans are approved as a representation of what the owner wants. I / We approve these plans.
SIGNATURE: DATE:
SIGNATURE: DATE:
These plans are copyrighted in whole and in part to Qualitech Drafting & Design & may not be used or reproduced without written permission.


APPROX LOCATION
PRINCIPLE DWELLING
OFF GIRD POWER SYSTEM WITH
BACKUP10kw SOLAR SYSTEM.
APPROX LOCATION
OF CAR PARKING
TBC
90,000L
WATERTANK
APPROX LOCATION
PROPOSED
SEPTIC SYSTEM
PROPOSED
SEPTIC DISPERTION
AREA
GRAVEL DRIVEWAY
TANK
VEGETATION
BANK
TOP
OF
EDGE
FENCE
PROPOSED PRINCIPLE DWELLING
BEARING
DISTANCE TO BOUNDARY



Vegetation Assessment

The new dwelling site is located in the southern portion of the large rural lot. The surrounding vegetation is made up of open grazing land as well as tall scrub trees within the gulleys either side of the dwelling location. This tall scrub has the potential to become Dry Sclerophyll Forest and will be assessed as such (taking a conservative approach).


Dwelling
location


Forest in
gulley

Slope under the hazard as measured out to 140 metres:

North – 5-10 Downslopes **East** – 10-15 Downslopes

South -Upslopes **West** - 10-15 Downslopes

FDI North Coast 80

Table A1.12.6

Determination of BAL, FFDI 80 – residential development

KEITH VEGETATION FORMATION		BUSH FIRE ATTACK LEVEL (BAL)				
		BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
		Distance (m) asset to predominant vegetation class				
ALL UPSLOPE AND FLAT LAND	Rainforest	< 7	7 -< 9	9 -< 14	14 -< 20	20 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 15	15 -< 20	20 -< 29	29 -< 40	40 -< 100
	Grassy and Semi-Arid Woodland (including Mallee)	< 8	8 -< 11	11 -< 16	16 -< 22	22 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 6	6 -< 8	8 -< 12	12 -< 18	18 -< 100
	Tall Heath	< 12	12 -< 16	16 -< 23	23 -< 32	32 -< 100
	Short Heath	< 7	7 -< 9	9 -< 14	14 -< 20	20 -< 100
	Arid-Shrublands (acacia and chenopod)	< 5	5 -< 6	6 -< 9	9 -< 14	14 -< 100
	Freshwater Wetlands	< 4	4 -< 5	5 -< 7	7 -< 11	11 -< 100
	Grassland	< 7	7 -< 10	10 -< 14	14 -< 20	20 -< 50
> 0 > 5 DEGREES – DOWNSLOPE	Rainforest	< 9	9 -< 12	12 -< 17	17 -< 25	25 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 19	19 -< 25	25 -< 35	35 -< 47	47 -< 100
	Grassy and Semi-Arid Woodland (including Mallee)	< 10	10 -< 13	13 -< 19	19 -< 28	28 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 8	8 -< 10	10 -< 15	15 -< 22	22 -< 100
	Tall Heath	< 13	13 -< 18	18 -< 26	26 -< 36	36 -< 100
	Short Heath	< 8	8 -< 10	10 -< 15	15 -< 22	22 -< 100
	Arid-Shrublands (acacia and chenopod)	< 5	5 -< 7	7 -< 11	11 -< 16	16 -< 100
	Freshwater Wetlands	< 4	4 -< 6	6 -< 8	8 -< 12	12 -< 100
	Grassland	< 8	8 -< 11	11 -< 16	16 -< 23	23 -< 50
> 5 > 10 DEGREES – DOWNSLOPE	Rainforest	< 11	11 -< 15	15 -< 22	22 -< 32	32 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 24	24 -< 31	31 -< 43	43 -< 57	57 -< 100
	Grassy and Semi-Arid Woodland (including Mallee)	< 12	12 -< 17	17 -< 24	24 -< 34	34 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 10	10 -< 13	13 -< 20	20 -< 28	28 -< 100
	Tall Heath	< 15	15 -< 20	20 -< 29	29 -< 40	40 -< 100
	Short Heath	< 9	9 -< 12	12 -< 18	18 -< 25	25 -< 100
	Arid-Shrublands (acacia and chenopod)	< 6	6 -< 8	8 -< 12	12 -< 18	18 -< 100
	Freshwater Wetlands	< 5	5 -< 6	6 -< 10	10 -< 14	14 -< 100
	Grassland	< 9	9 -< 12	12 -< 18	18 -< 26	26 -< 50
> 10 > 15 DEGREES – DOWNSLOPE	Rainforest	< 14	14 -< 20	20 -< 29	29 -< 40	40 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 30	30 -< 39	39 -< 52	52 -< 68	68 -< 100
	Grassy and Semi-Arid Woodland (including Mallee)	< 16	16 -< 21	21 -< 31	31 -< 42	42 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 12	12 -< 17	17 -< 25	25 -< 35	35 -< 100
	Tall Heath	< 17	17 -< 22	22 -< 32	32 -< 44	44 -< 100
	Short Heath	< 10	10 -< 13	13 -< 20	20 -< 29	29 -< 100
	Arid-Shrublands (acacia and chenopod)	< 7	7 -< 9	9 -< 14	14 -< 20	20 -< 100
	Freshwater Wetlands	< 5	5 -< 7	7 -< 11	11 -< 16	16 -< 100
	Grassland	< 10	10 -< 14	14 -< 21	21 -< 30	30 -< 50
> 15 > 20 DEGREES – DOWNSLOPE	Rainforest	< 19	19 -< 25	25 -< 36	36 -< 49	49 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 38	38 -< 48	48 -< 63	63 -< 81	81 -< 100
	Grassy and Semi-Arid Woodland (including Mallee)	< 20	20 -< 27	27 -< 38	38 -< 52	52 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 16	16 -< 22	22 -< 32	32 -< 43	43 -< 100
	Tall Heath	< 19	19 -< 25	25 -< 36	36 -< 49	49 -< 100
	Short Heath	< 11	11 -< 15	15 -< 23	23 -< 32	32 -< 100
	Arid-Shrublands (acacia and chenopod)	< 7	7 -< 10	10 -< 16	16 -< 23	23 -< 100
	Freshwater Wetlands	< 6	6 -< 8	8 -< 13	13 -< 18	18 -< 100
	Grassland	< 12	12 -< 16	16 -< 24	24 -< 34	34 -< 50

Bush Fire Attack Level BAL 29

AS 3959-2009 Application

- **New construction shall comply with Sections 3 and 7 (BAL 29) Australian Standard AS3959-2018 'Construction of buildings in bush fire-prone areas' and section 7.5.2 NSW State Variations of 'Planning for Bush Fire Protection 2019'.**

Asset Protection Zone and Defendable Space

- **The dwelling site will need to be treated as an Inner Protection Zone in perpetuity**
    - **North – out to 12 metres minimum**
    - **East – out to 39 metres minimum**
    - **South – out to 10 metres minimum**
    - **West – out to 39 metres minimum**
- **Access around the entire dwelling shall not be impeded**
- **Defendable space is available within the buffer area between the dwelling and the hazards. This will include the existing access roadway as well as the new dwelling structure.**

The requirements for vegetation within an Inner Protection Zone:

- Minimal fine fuel at ground level
- Grass mowed
- Trees and shrubs planted as clumps or islands and do not take up more than 20% of the area
- Minimal plant species that keep dead material or drop large quantities of ground fuel
- The canopy cover must be less than 15%
- Any canopy must be located more than 2 metres from any roofline
- Trees separated by 2-5 metres and do not provide a continuous canopy from the hazard to the building
- Trees should have lower limbs removed up to a height of 2 metres above the ground (4 metres if emergency vehicles need to park next to or drive around them).
- Shrubs and gardens need to be 1.5m away from exposed windows and doors.

Siting and Design

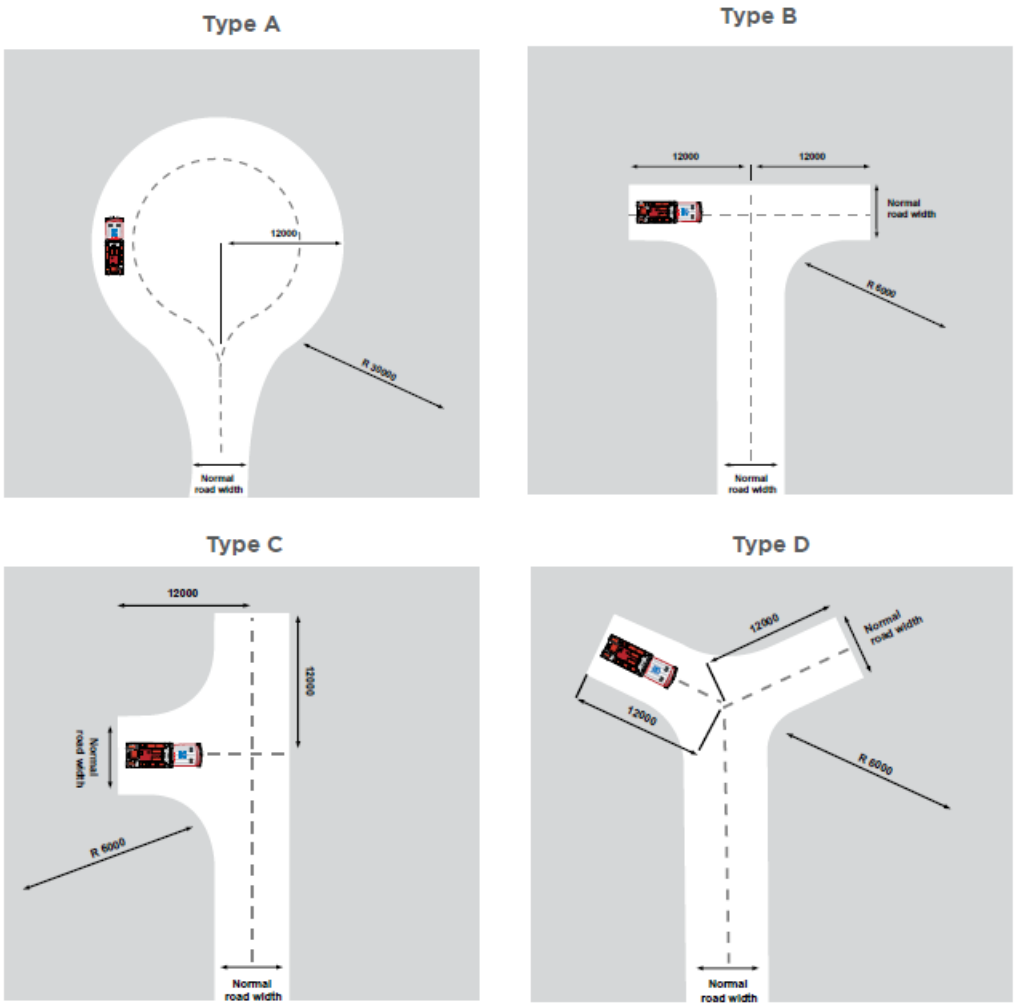
- The building has a number of corners where debris can build up. These areas will require particular attention by the home owner to ensure there is not a build-up of leaves and debris in this area.
- The valleys present in the roof means that extra attention will need to be paid to this area to ensure there is not a build-up of leaves and debris.

Access

- The development is located at the end of Watsons Road, which is a dead-end road, with the nearest through road 2.3km to the north (Bunyah Road). The increase in traffic volume of the change of use is expected to be limited to 2-3 vehicles. Both Watson Road and Bunyah Road have the capacity to withstand this increase traffic.
- Access to the new dwelling is via the driveway on plan. This access road will need to meet the requirements of Table 7.4a of PBP 2019:
    - 2-wheel drive, all weather road
    - Capacity to carry fully loaded firefighting vehicles (23 tonnes)
    - Minimum 4 metres of carriageway width
    - Minimum of 4 metres vertical distance to any overhanging obstructions
    - Maximum grades for unsealed roads – not more than 10 degrees
    - Crossfall is not more than 10 degrees
    - A turning facility provided (shown in Table A3.3) adjacent to the dwelling and/or additional water supply
- The relevant Performance Criteria of Table 7.4a are considered to be met

Figure A3.3

Multipoint turning options.



Services

- Reticulated water is unavailable. An additional water supply is needed for fire fighting purposes to meet the requirements of Table 7.4a of PBP:
    - 20,000 litre dedicated water supply – separate tank or part of a larger one
    - The outlet is to be located with the Inner Protection Zone (40 metre radius) but away from the dwelling
    - Connection - 65mm Storz outlet with a Ball or Gate valve
    - Concrete or metal tank
    - Metal supply pipes
    - Static Water Supply (SWS) sign at the entry to the property and adjacent to the water supply
    - A hard stand area is to be supplied adjacent to the water supply
- If gas bottles are used they are to comply with Table 7.4a of PBP, in particular they are to have the release valve facing away from the building
- Power lines are to be underground
- The relevant Performance Criteria of Table 7.4a are considered to be met

Emergency/Evacuation:

- A formal plan not required but the decision to stay and defend or leave early is of paramount importance and needs to be made in advance.

Landscaping:

- Maintain an area of lawn or non-combustible material (such as concrete) adjacent to the building
- Do not place plants and shrubs against building elements likely to fail – IE windows, any timber structure. They can ignite and bring flames closer to the building.
- Use non-flammable ground covers – pebbles or rocks
- Keep the area under fences, trees and gates raked and free of fuel.
- Choose plants that are less flammable IE those with less oil, higher moisture content, dense growth pattern. Look for broad fleshy leaves and smooth bark.
- Do not restrict access around the dwelling with plants or structures
- The fencing used should be metal – timber and other combustible fences can ignite, bringing flames and heat closer to the building.
- The entire building must be maintained on a regular basis to reduce leaf and other flammable debris from building up around dwelling and other structures.
- Check for branches overhanging roofs and driveways – trim as required
- Maintain all building elements – e.g. window screens, roof tiles/sheeting, draught seals, and hoses. Ensure all are in good working repair.
- Class 10b structures (e.g. retaining walls) must also meet the requirements of **BAL 29**

Krisann Johnson

Krisann Johnson
Graduate Diploma in Design for Bushfire Prone Areas
Member FPAA
BPAD-D Certified Practitioner BPD-PD-18578

BPAD Bushfire Planning & Design Accredited Practitioner Level 2

27th February 2025

Notes:

1. This statement is valid for 12 months from the date of issue.
2. The BAL Assessment relates to a proposed development on the subject land only. Only the plan provided has been considered.
3. The BAL Assessment does not imply or infer any approval for the removal of any vegetation for Asset Protection or other purposes. It is the responsibility of the landowner to obtain all necessary approvals.
4. Whilst the assessors use their best endeavours to ensure that the information contained within this report is valid and comprehensive, the company makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which might be incurred as a result of the data being inaccurate or incomplete in any way and for any reason