Bush Fire Assessment Report

Proposed Child Care Centre

21 Noble Street, Eugowra

Prepared for: Eugowra Community Children's Centre

March 2025





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Executive Summary

Table 1: Executive Summary

Item	Response			
Street Address	1 Noble Street, Eugowra			
Real Property Description	ot 150 DP 750182			
Local Government Area	abonne			
Proposed Development	ew child care centre			
Planning for Bushfire Protection (PBP) Classification of Development	Special Fire Protection Purpose Development			
Referral to RFS required	es 🛛 (Integrated Development for s.100B BFSA)			
	o Clause 4.14 EP&A Act Council assessment for that conforms with PBP)	r development		
Compliance with PBP	cceptable Solutions Yes 🛛 No 🗌			
	erformance Solution ¹ Yes $oxtimes$ No \Box			
Notes:				
1 Conforming with the relevant specifications and requirements of 'Planning for Bush Fire Protection' can be achieved by both Acceptable Solutions and Performance Solutions.				



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1 Introduction

1.1 Purpose

This Bush Fire Assessment Report (BFAR) has been prepared to support a Development Application (DA) for a proposed Child Care Centre on Lot 150 DP 750182, being 21 Noble Street, Eugowra.

The DA is to be lodged with Cabonne Shire Council and will require referral to the NSW Rural Fire Service for a Bush Fire Safety Authority (BFSA) as part of the DA assessment process. This report has been prepared in accordance with *Planning for Bush Fire Protection 2019* (PBP) to provide sufficient information for both approval authorities.

1.2 The Development

The proposed development involves the erection and use of a new Child Care Centre. The proposed development is to have a capacity of 120 children, comprised of 75 pre school places and 45 long day care places. The development will have a 39 space on site car park, with a turnaround area at the eastern end of the carpark.

Plans of the development are provided in **Appendix A.** Hydraulic design is provided in **Appendix B.**

1.3 The Site

1.3.1 Location

The subject site is comprised of one parcel, being Lot 150 DP 750182 is located on the southeastern corner of the intersection of Noble Street and Nangar Road, Eugowra. The location of the site is shown in **Figure 1** and an aerial image in **Figure 2**.

1.3.2 Site Details

Lot 150 has an area of 8 acres 2 roods and 0 perches by title diagram, which converts to 3.43 hectares. The site contains grassland vegetation with scattered remnant trees. It has also more recently contained the depot for the NSW Reconstruction Authority following the floods in Eugowra.

The site is located within an area zoned RE2 Private Recreation under *Cabonne Local Environmental Plan* 2012 as shown in **Figure 3**. Nangar Road/Pye Street to the north of the site is zoned SP2 Classified Road, beyond which is zoned RU1 Primary Production. To the east and south of the site is zoned RE2 Private Recreation and to the west of the site RU5 Village.









Figure 1: Site Location

Source: NSW Spatial Services Ref: 24117





Source: MetroMap; NSW Spatial Services Ref: 24117 Figure 2: Site Aerial







Figure 3: LEP Zoning

1.3.3 Environmental Significance

The site is mapped by the LEP as being Groundwater Vulnerable as shown in **Figure 4**.

None of the site is mapped as being of Biodiversity Values as mapped under the Biodiversity Values Map as shown in **Figure 5**.

1.3.4 Threatened Species

No known assessments flora and fauna assessments have been undertaken for the site.

1.3.5 Indigenous Heritage

An Aboriginal Heritage Information Management System (AHIMS) Search was undertaken for the site. No items of indigenous heritage have been recorded or identified on the site (refer **Appendix B**).

1.4 Legislative Framework

1.4.1 Bush Fire Safety Authority

Special Fire Protection Purpose (SFPP) development, which includes a Child Care Centre, within a bush fire prone area requires a BFSA to be obtained under section 100B of the *Rural Fires Act* 1997 (RF Act).

Clause 45 of the *Rural Fires Regulation 2022* specifies the requirements for any application for a BFSA. These requirements have been addressed within this report and a checklist provided in **Appendix C** outlining where each requirement has been specifically addressed.

1.4.2 Bush Fire Prone Land

The site is designated as bush fire prone land in accordance with Section 10.3 of the Environmental Planning & Assessment Act 1979 (EP&A Act). As shown in **Figure 6** the site is mapped as being within the Category 3 Vegetation.







0



200 m

Figure 4: LEP Environmental Significance

Source: MetroMap; DCS Spatial Services; SEED Ref: 24117









Source: NSW Spatial Services; SEED Ref: 24117







200 m

Source: NSW Spatial Services; NSW Rural Fire Service; MetroMap Ref: 24117

Figure 6: Bush Fire Prone Land Map

1.4.3 Integrated Development

As the development requires both development consent and a BFSA under Section 100B of the RF Act in order for it to be carried out, the development becomes Integrated Development pursuant to Section 4.46 of the EP&A Act.

In this regard, Council is required to refer the DA to the NSW Rural Fire Service (RFS) to obtain the BFSA before it can determine the application in accordance with Section 4.46 of the EP&A Act.

1.4.4 Planning for Bush Fire Protection

PBP applies to all DAs on bush fire prone land. As required by Section 1.4 of PBP, this report has been prepared to address the requirements of the PBP as a SFPP development. Specifically, the following has been addressed in this report:

- The objectives of PBP, as outlined in Section 1.1 of PBP; and
- The performance criteria of the relevant Bush Fire Protection Measures (BFPM) which are outlined in Section 6.8 of PBP.



2 Bush Fire Assessment

2.1 Methodology

The methodology utilised for this bush fire assessment is consistent with Appendix 1 of PBP. The following provides the required information in accordance with the methodology.

2.2 Vegetation Formations

A site inspection was carried out on 18 November 2024 of the site and land within 140m of the site (assessment area). All vegetation within the assessment area has been classified in accordance with *Ocean Shores to Desert Dunes* (Keith 2004) as required by A1.2 of PBP.

The classified vegetation within the assessment area has been mapped and is shown in **Figure 7**. Photographs of the classified vegetation from the site inspection are provided in the following plates for each of the assessment plots.





Plot 2				
Vegetation Description	Cropped vegetation/u subject site.	nmanaged grassland v	with scattered tree	s within the
Existing Classification	Grassland			
Post Development Classification	Grassland/APZ			
DIRECTION 100 deg(T) 628404 6300020	ACCURACY 5 m DATUM WGSB4	DIRECTION 151 deg(T)	628432 6300166	ACCURACY 5 m DATUM WGS84
17 Noble St Eugowra A Plate 3: Plot 2	2024-11-18 09:58:33+11:00	17 Noble St Eugowra Plate 4: Plot 2	A	2024-11-18 10:01:11+11:00
DIRECTION 180 deg(T) 628600 6300124 Image: constraint of the state o	ACCURACY 5 m DATUM WGSB4	DIRECTION 217 deg(T)	628601 6300123	ACCURACY 5 m DATUM WGS84
Plate 5: Plot 2		Plate 6: Plot 2		



Plot 3					
Vegetation Descrip	otion	Managed grassland in verge area adjacent to the site			
Existing Classificat	ion	A1.10 Low threat vegetation – exclusions			
Post Development	Classification	A1.10 Low threat vegetation – exclusions/APZ			
DIRECTION 256 deg(T)	628600 6300123	ACCURACY 5 m DIRECTION 628395 6299968 ACCURACY 5 m DATUM WGS84 42 deg(T) 628395 6299968 DATUM WGS84			
		. 199×			



Plate 7: Plot 3

Plate 8: Plot 3

Plot 4				
Vegetation Description	Semi-managed/unma	naged grassland with	scattered trees in th	ne adjacent site.
Existing Classification	Grassland			
Post Development Classification	Grassland			
DIRECTION 628383 6299930 123 deg(T)	ACCURACY 5 m DATUM WGS84	DIRECTION 85 deg(T)	628386 6299898	ACCURACY 11 m DATUM WGS84
17 Noble St Eugowra C Plate 9: Plot 4	2024-11-18 10:10:35+11:00	17 Noble St Eugovra Plate 10: Plot 4		2024-11-18 10:14:18+11:00



Plot 5				
Vegetation Description	Managed grassland vegetation and non-vegetated areas within the Showground site and adjacent road reserve.			
Existing Classification	A1.10 Low threat veg	etation – exclusions		
Post Development Classification	A1.10 Low threat veg	etation – exclusions		
DIRECTION 12 deg(T) 628374 6299812	ACCURACY 5 m DATUM WGS84	DIRECTION 19 deg(T)	628379 6299810	ACCURACY 5 m DATUM WGS84
17 Noble St Eugowra C Plate 11: Plot 5	2024-11-18 10:12:55+11:00	17 Noble St Eugowra Plate 12: Plot 5	C	2024-11-18 10:12:47+11:90
DIRECTION 108 deg(T) 628376 6299812 6299812 6299812 7000 6299812 7000 629977 7000 6299777 7000 629977777777777777777777777777777777777	ACCURACY 5 m DATUM WGS84	DIRECTION 172 deg(T) 172 deg(T) 170 ble St Eugowra 17 Noble St Eugowra Plate 14: Plot 5	628373 6299811	ACCURACY 5 m DATUM WGS84
Plate 13: Plot 5		Plate 14: Plot 5		





Plot 7			
Vegetation Description	Managed vegetation and non-vegetated areas around existing dwellings/buildings of Eugowra village area.		
Existing Classification	A1.10 Low threat vege	etation – exclusions	
Post Development Classification	A1.10 Low threat vege	etation – exclusions	
DIRECTION 222 deg(T) 628362 6299819	ACCURACY 5 m DATUM WGS84	DIRECTION 224 deg(T) 628376 6299898 ACCURACY 5 m DATUM WGS84	
Plate 17: Plot 7		Plate 18: Plot 7	



Plot 7							
Vegetation Description	Managed vegetation and non-vegetated areas around existing dwellings/buildings of Eugowra village area.						
Existing Classification	A1.10 Low threat vegetation – exclusions						
Post Development Classification	A1.10 Low threat vegetation – exclusions						
DIRECTION 335 deg(T) 628389 6299969	ACCURACY 5 m DATUM WCS84 2024-11-18 10:09:46+11:00						
Plate 19: Plot 7	Plate 20: Plot 7						

Plot 8	
Vegetation Description	Managed vegetation and non-vegetated areas around existing dwellings/buildings north of Pye Street.
Existing Classification	A1.10 Low threat vegetation – exclusions
Post Development Classification	A1.10 Low threat vegetation – exclusions





Plot 8								
Vegetation Description	Managed vegetation and non-vegetated areas around existing dwellings/buildings north of Pye Street.							
Existing Classification	A1.10 Low threat vegetation – exclusions							
Post Development Classification	A1.10 Low threat vegetation – exclusions							
DIRECTION 628381 6300185 4 deg(T)	ACCURACY 5 m DIRECTION 628341 6300196 ACCURACY 5 m 322 deg(T) 628341 6300196 DATUM WGS84							
17 Noble St Eugowra	2024-11-18 10:66:43+11:60 1 Noble St Eugowra B 2024-11-18 10:65:40+11:60	0						
Plate 23: Plot 8	Plate 24: Plot 8							

Plot 9	
Vegetation Description	Unmanaged grassland north of Pye Street, west of the intersection with Noble Street.
Existing Classification	Grassland
Post Development Classification	Grassland





Plot 10				
Vegetation Description	Unmanaged grasslan Street.	d north of Pye Street, e	east of the interse	ction with Noble
Existing Classification	Grassland			
Post Development Classification	Grassland			
DIRECTION 149 deg(T) 628446 6300279	ACCURACY 5 m DATUM WG584	DIRECTION 102 deg(T)	628446 6300279	ACCURACY 5 m DATUM WGS84
17 Noble St Eugowra B Plate 27: Plot 10	2024-11-18 10:03:03+11:00	17 Noble St Eugowra Plate 28: Plot 10		2024-11-18 10:03:01+11:00
DIRECTION 31 deg(T) 628662 6300104	ACCURACY 5 m DATUM WG584	DIRECTION 83 deg(T)	628662 6300104	ACCURACY 5 m DATUM MCS84
Plate 29: Plot 10		Plate 30: Plot 10		





2.3 Effective Slope

The topography for the site is shown in **Figure 8**. To determine the effective slope, 2m contour data has been sourced from the NSW Elevation Data Service (NSW Government n.d.). The contour data was verified by ground truthing during the site inspection.

2.4 Fire Weather

The subject site is located within the Cabonne Council LGA. Pursuant to A1.6 of the PBP and the RFS' NSW Local Government Areas FDI (NSW Rural Fire Service 2017), the relevant Fire Danger Index (FDI) for the site is 80.









Source: NearMap; DCS Spatial Services Ref: 24117

Figure 7: Vegetation Classification Plan





Source: MetroMap; DCS Spatial Services Ref: 24117

Figure 8: Slope

2.5 Asset Protection Zone Determination

Asset Protection Zones (APZ) have been determined for the proposed development. The APZs have been determined based on Table A1.12.1 of PBP and are outlined in the following table.

Plot	Vegetation Classification	Effective Slope	APZ Required
1	Exclusion	N/A	N/A
2a	Grassland	Upslope	36m
2b	Grassland	Downslope >0°-5°	40m
3	Exclusion	N/A	N/A
4	Grassland	Downslope >0°-5°	40m
5	Exclusion	N/A	N/A
6	Exclusion	N/A	N/A
7	Exclusion	N/A	N/A
8	Exclusion	N/A	N/A
9	Grassland	Downslope >0°-5°	40m
10	Grassland	Downslope >0°-5°	40m
11	Exclusion	N/A	N/A

Table 2: APZ Calculation

As can be seen in **Table 2**, the minimum APZ required is 40m. The proposed development provides for a minimum APZ of 40m to the areas of remaining classified vegetation, which meets the minimum required.



3 Bush Fire Protection Measures

3.1 Introduction

SPFF are required to comply with the Bush Fire Protection Measures (BFPM) outlined in Section 6.8 of PBP. There are six key BFPMs outlined by PBP:

- Asset Protection Zones;
- Landscaping;
- Construction Standards;
- Access;
- Services Water, gas and electricity; and
- Emergency Management Arrangements.

The BFPMs relevant to the development have been considered in **Section 3.5**. Figure 9 illustrates the BFPM as applied to the development.

PBP requires consideration of the development in relation to the aims and objectives of PBP and also the objectives for SFPPs. These matters have been considered respectively in **Sections 3.2** and **3.3**.

3.2 PBP Aims & Objectives

The aim of PBP is:

to provide for the protection of human life and minimise impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment.

The objectives of PBP are to:

- afford buildings and their occupants protection from exposure to a bush fire;
- provide for a defendable space to be located around buildings;
- provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;
- ensure that appropriate operational access and egress for emergency service personnel and occupants is available;
- provide for ongoing management and maintenance of BPMs; and
- ensure that utility services are adequate to meet the needs of firefighters.

The development has been designed to provide for a development that will have radiant heat levels of less than 10kW/m² and avoid flame contact, thus providing for appropriate separation to the hazards. The development, designed in conjunction with the bush fire protection measures, will provide for safe operational access and egress for emergency services personnel and possible residents within the development, as well as sufficient water supply. Therefore, the proposed development is considered to be consistent with the objectives of PBP.



3.3 PBP Objectives for SFPP Developments

Section 6.2 of PBP contains the specific objectives for SFPP Developments:

- minimise levels of radiant heat, localised smoke and ember attack through increased APZ, building design and siting;
- provide an appropriate operational environment for emergency service personnel during firefighting and emergency management;
- ensure the capacity of existing infrastructure (such as roads and utilities) can accommodate the increase in demand during emergencies as a result of the development; and
- ensure emergency evacuation procedures and management which provides for the special characteristics and needs of occupants.

In complying with the BFPM, the proposed development complies with objectives for SFPP developments outlined above.







0



Source: MetroMap; NSW Spatial Services; Highlands Design Ref: 24117

Figure 9: Bush Fire Protection Measures

3.4 Bush Fire Protection Measures

3.4.1 Asset Protection Zones & Building Construction

The intent of measures for the Asset Protection Zone (APZ) and Building Construction BFPM is:

to provide suitable building design, construction and sufficient space to ensure that radiant heat levels do not exceed critical limits for firefighters and other emergency services personnel undertaking operations, including supporting or evacuating occupants.

The following table outlines the Performance Criteria and associated Acceptable Solutions for the BFPM, and how the development responds.

Performance Criteria	Acceptable Solution	Development Response				
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment	
ASSET PROTECTION ZONES						
Radiant heat levels of greater than 10kW/m ² (calculated at 1200K) will not be experienced on any part of the building.	The building is provided with an APZ in accordance with Table A1.12.1 in Appendix 1.				The APZ has been determined in accordance with Table A1.12.1 of PBP as outlined in Section 2.5 . The location and extent of the compliant APZ is shown in Figure 9 .	
APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	APZs are located on lands with a slope less than 18 degrees.				The APZ will be located on land with a slope of less than 18 degrees.	
• APZs are managed and maintained to prevent the spread of fire to the building.	The APZ is managed in accordance with the requirements of Appendix 4 of this document, and				The APZ is to be managed in accordance with Appendix 4 of PBP, which is provided in Appendix D of this report.	
The APZ is provided in perpetuity.	APZ are wholly within the boundaries of the development site; and				The APZ is to be wholly within the subject site and adjacent road reserve.	



Performance Criteria	Acceptable Solution				Development Response
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
	Other structures located within the APZ need to be located further than 6m from the refuge building.				No refuge building proposed.
Variations					
Camping and primitive camping: no performance criteria applicable.	N/A.				Not applicable to the development.
Bed and breakfast and farmstay: the building will not be exposed to radiant heat levels exceeding 29kW/m ² (1090K).	An APZ is provided in accordance with Tables A1.12.2 or A1.12.3 in Appendix 1 of this document around the entire building or structure.				Not applicable to the development.
Ecotourism: radiant heat levels of greater than 10kW/m ² (1200K) are not experienced by emergency service personnel and occupants during firefighting and emergency management around a building on site that can be used as a refuge.	An APZ is provided in accordance with Table A1.12.1 in Appendix 1 of this document around the entire refuge building or structure.				Not applicable to the development.
Manufactured home estates: APZs achieve radiant heat levels that are commensurate with the construction standard for the proposed dwellings.	 an APZ in accordance with Table A1.12.1 in Appendix 1 of this document is provided to all new dwellings; or an APZ in accordance with Table A1.12.2 or A1.12.3 in Appendix 1 of this document is provided where it is demonstrated that all new dwellings will be constructed in accordance with BAL-29. 				Not applicable to the development.



Performance Criteria	Acceptable Solution	Development Response					
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment		
LANDSCAPING					-		
Landscaping is designed and managed to minimise flame contact and radiant heat to	Landscaping is in accordance with Appendix 4; and				Landscaping is to be provided in accordance with Appendix 4 of PBP, as provided in Appendix D of this report.		
buildings, and the potential for wind-driven embers to cause ignitions.	Fencing is constructed in accordance with section 7.6.				Any fencing is to be constructed in accordance with Section 7.6 of PBP.		
CONSTUCTION STANDARDS	CONSTUCTION STANDARDS						
The proposed building can withstand bush fire attack in the form of wind, embers, radiant heat and flame contact.	A construction level of BAL-12.5 under AS 3959 or NASH Standard and section 7.5 of PBP is applied.				Not applicable to the development. Variation below applies to child care centres.		
Variations							
Hospitals, schools, child care centres and residential care buildings	A construction level of BAL-19 or greater under AS 3959 and section 7.5 of PBP is applied.	\boxtimes			To be constructed to BAL-19 under AS3959 and section 7.5 of PBP.		
Camping and primitive camping: no performance criteria applicable.	N/A.				Not applicable to the development.		
Bed and breakfast and farmstay: the proposed building can withstand bush fire attack in the form of wind, embers, radiant heat and flame contact.	Construction is applied in accordance with Appendix 1 of PBP.				Not applicable to the development.		
Ecotourism: the proposed refuge building can withstand bush fire attack in the form of wind, embers, radiant heat and flame contact.	A construction level of BAL-12.5 or greater is applied to the refuge building in accordance with AS 3959 or NASH Standard and 7.5 of PBP.				Not applicable to the development.		



Performance Criteria	Acceptable Solution		Development Response		
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
Manufactured home estates: the proposed manufactured home can withstand bush fire attack in the form of wind, embers, radiant heat and flame contact.	 Where an APZ is provided in accordance with Table A1.12.1 in Appendix 1 of this document the construction standards for BAL-12.5 shall apply; or Where an APZ is provided in accordance with Table A1.12.2 or A1.12.3 in Appendix 1 of this document the construction standards for BAL-29 shall apply. 				Not applicable to the development.
ECOTOURISM					
Occupants of the ecotourism facility are	A refuge building is provided;			\boxtimes	Not applicable to the development.
provided with appropriate shelter in the event of a bush fire.	The refuge building must have sufficient space for all occupants and comply with the occupancy levels permissible for that structure; and				Not applicable to the development.
	The refuge building must be constructed to BAL-12.5 or greater in accordance with AS 3959 or NASH Standard and 7.5 of PBP.				Not applicable to the development.



3.4.2 Access

The intent of measures for the Access BFPM is:

to provide safe operational access for emergency services personnel in suppressing a bush fire, while residents are accessing or egressing an area.

The following table outlines the Performance Criteria and associated Acceptable Solutions for the Access BFPM, and how the development responds.

Table 4: Access

Performance Criteria	Acceptable Solution	Development Response			
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
ACCESS					
Firefighting vehicles are provided with safe, all-weather access to structures and hazard	SFPP access roads are two-wheel drive, all-weather roads	\boxtimes			The property access road is to be either bitumen sealed or concrete.
vegetation.	access is provided to all structures;	\boxtimes			Access is provided to all habitable structures.
	traffic management devices are constructed to not prohibit access by emergency services vehicles;				All traffic management devices are to be constructed to not prohibit access by emergency services vehicles.
	access roads must provide suitable turning areas in accordance with Appendix 3; and				The property access road is to be provided with a turning area in accordance with Appendix 3 of PBP, and as provided in Appendix E of this report.
	one way only public access roads are no less than 3.5 metres wide and have designated parking bays with hydrants located outside of these areas to ensure accessibility to reticulated water for fire suppression.				No one way public access roads proposed.


Performance Criteria	Acceptable Solution				Development Response	
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment	
Variations						
Primitive camping: Firefighting vehicles are provided with safe, all-weather access to structures and hazard vegetation.	Access is provided in accordance with the property access requirements of Table 5.3b.				Not applicable to the development.	
Bed and breakfast and farmstay: Firefighting vehicles are provided with safe, all-weather access to structures.	Access is provided in accordance with the property access requirements of Table 5.3b.				Not applicable to the development.	
Ecotourism: fire fighting vehicles are provided with safe, all-weather access to the proposed refuge building.	Vehicular access is provided to the refuge building from a public road in accordance with property access requirements of Table 5.3b;				Not applicable to the development.	
	Accommodation is within 100m of the refuge building; and				Not applicable to the development.	
	Pedestrian paths from accommodation to the refuge building/s are provided and clearly signposted.				Not applicable to the development.	
Hospitals, schools, child care centres and residential care buildings: Firefighting vehicles are provided with safe, all-weather access to structures and hazardous vegetation.	Vehicular access must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and				A performance-based solution is provided in Section 3.4.2.1 .	
	Must have a minimum unobstructed width of 6m with no part of its furthest boundary more than 18m from the building and in no part of the 6m width				A performance-based solution is provided in Section 3.4.2.1.	



Performance Criteria	Acceptable Solution				Development Response
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
	be built upon or used for any purpose other than vehicular or pedestrian movement; and				
	Must provide reasonable pedestrian access from the vehicular access to the building; and				Access is provided from the vehicular access to the building.
	Must have a load bearing capacity and unobstructed height to permit the operation and passage of fire fighting vehicles; and				The property access road is to have a load bearing capacity and unobstructed height to permit the operation and passage of fire fighting vehicles.
	Must be wholly within the allotment except that a public road complying with above may serve as the vehicular access or part thereof.				The property access road is wholly located within the subject site apart from where it connects to the Noble Street road reserve.
The capacity of access roads is adequate for firefighting vehicles.	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.				The capacity of the property access road is to be sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes). No bridges or causeways proposed.
There is appropriate access to water supply.	Hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression;				Hydrants are to be located outside of parking reserves and road carriageways.
	Hydrants are provided in accordance with the relevant clauses of AS 2419.1: 2021 Fire hydrant installations – System				Hydrants are to be provided in accordance with AS 2419.1: 2021 Fire hydrant installations – System design, installation and commissioning.



Performance Criteria	Acceptable Solution				Development Response
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
	design, installation and commissioning.; and				
	there is suitable access for a Category 1 fire appliances to within 4m of the static water supply where no reticulated supply is available.				Reticulated water supply to be provided.
PERIMETER ROADS					
Perimeter access roads are designed to allow	There are two-way sealed roads;			\boxtimes	No perimeter roads required or provided.
safe access and egress for firefighting vehicles while occupants are evacuating as well as providing a safe operational	Minimum 8m carriageway width kerb to kerb;			\boxtimes	No perimeter roads required or provided.
environment for emergency service personnel during firefighting and emergency	Parking is provided outside of the carriageway width;			\boxtimes	No perimeter roads required or provided.
management on the interface.	Hydrants are to be located clear of parking areas;			\boxtimes	No perimeter roads required or provided.
	There are through roads, and these are linked to the internal road system at an interval of no greater than 500m;				No perimeter roads required or provided.
	Curves of roads have a minimum inner radius of 6m;			\boxtimes	No perimeter roads required or provided.
	The maximum grade road is 15 degrees and average grade of not more than 10 degrees;				No perimeter roads required or provided.
	The road crossfall does not exceed 3 degrees; and			\boxtimes	No perimeter roads required or provided.



Performance Criteria	Acceptable Solution		Development Response			
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment	
	A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.			\boxtimes	No perimeter roads required or provided.	
Non-perimeter access roads are designed to allow safe access and egress for firefighting	Minimum 5.5m carriageway width kerb to kerb;			\boxtimes	No non-perimeter roads required or provided.	
vehicles while occupants are evacuating.	Parking is provided outside of the carriageway width;			\boxtimes	No non-perimeter roads required or provided.	
	Hydrants are located clear of parking areas;			\boxtimes	No non-perimeter roads required or provided.	
	There are through roads, and these are linked to the internal road system at an interval of no greater than 500m;			\boxtimes	No non-perimeter roads required or provided.	
	Curves of roads have a minimum inner radius of 6m;			\boxtimes	No non-perimeter roads required or provided.	
	The maximum grade road is 15 degrees and average grade of not more than 10 degrees;			\boxtimes	No non-perimeter roads required or provided.	
	The road crossfall does not exceed 3 degrees; and			\boxtimes	No non-perimeter roads required or provided.	
	A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.			\boxtimes	No non-perimeter roads required or provided.	



3.4.2.1 Performance Solution Access

It is proposed to provide a performance-based solution for compliance with PBP for certain components of the development's access.

Pursuant to Section 1.4.5 of PBP:

Performance based solutions must provide substantiated evidence and clearly demonstrate how the specific objectives and performance criteria are to be satisfied.

Furthermore, Section A2.4 of PBP requires:

For performance based applications, it must be demonstrated how the product, design or material can meet the performance criteria of this document including the intent of measures and also, the aim and objectives.

The Intent and Performance Criteria are outlined in the table below.

Intent	Performance Criteria	Acceptable Solution
To provide safe operational access for emergency services personnel in suppressing a bush fire, while residents are accessing or egressing an area.	Firefighting vehicles are provided with safe, all-weather access to structures and hazardous vegetation.	• Vehicular access must be capable of providing continuous access for emergency vehicles to enable travel in a forward direction from a public road around the entire building; and
		 Must have a minimum unobstructed width of 6m with no part of its furthest boundary more than 18m from the building and in no part of the 6m width be built upon or used for any purpose other than vehicular or pedestrian movement; and
		 Must provide reasonable pedestrian access from the vehicular access to the building; and
		 Must have a load bearing capacity and unobstructed height to permit the operation and passage of fire fighting vehicles; and
		• Must be wholly within the allotment except that a public road complying with above may serve as the vehicular access or part thereof.

To achieve appropriate access, it is necessary to demonstrate that the performance-based solution complies with the Performance Criteria. It is proposed in this instance to demonstrate this through evidence to demonstrate that the design meets the performance criteria.



As shown in **Figure 7**, the subject site is located within a fairly low threat area being located directly adjacent to the existing urban area of Eugowra and adjacent to the semi managed area of the Eugowra Showground. Otherwise, the site is surrounding by paddocks consisting of cropped/grazed vegetation which is classified as grassland vegetation.

The performance-based solution is as follows:

- Provision of a 6m wide unobstructed property access road extending from the Noble Street public road and extending the length of the proposed building. The property access road is wholly within 14m of the building (refer **Figure 9**) and within the subject site.
- An extended hard stand area is to be provided at the eastern extent of the property access road, which includes within it a standard Type B PBP turnaround area (refer **Figure 9** and **Appendix E**). This provides for continuous forward access to be provided for emergency vehicles to access any fire approaching the site from the east/south east of the site. The vehicles can use the compliant turnaround the egress the site.
- Footpaths, minimum 2m wide, are provided adjacent to the carparking spaces, along with a central pedestrian crossing, to provide reasonable pedestrian access from the vehicular access to the building (refer **Figure 9**). The northern footpath also connects to the Noble Street road reserve.
- The property access road and hardstand area are to have a load bearing capacity to permit the operation and passage of fire fighting vehicles (i.e. up to 23 tonnes).
- The property access road and hardstand area are to have an unobstructed height to permit the operation and passage of fire fighting vehicles (i.e. clear to a minimum of 4m above the finished surface)
- Provisions are to be included in the Bushfire Emergency Management & Evacuation Plan for the development to establish procedures to manage the access of parents/carers where the site is or may be impacted by a bushfire, so as to not cause congestion of the carpark and local road network, and enable free access for emergency services.

Preliminary consultation was undertaken with the NSW RFS to determine the in-principle support for a performance-based solution for access. The results of the consultation are provided in **Appendix F**, which states:

The Rural Fire Service supports, in principle, the proposed performance-based solution for access to service the new child care centre. The proposed internal road(s) are considered to demonstrate compliance with the performance criteria for access in Table 6.8b of Chapter 6 and Table 3 of the Addendum to Planning for Bush Fire Protection 2019, with regard to the bush fire risk to the site and the existing access network relied on for evacuation ((NSW Rural Fire Service 2025)p.2.

The following provides demonstration of how the Performance-based Solution will achieve the Performance Criteria and Intent of the BFPM:

- The development comprises one (1) habitable building (i.e. the Child Care Centre building), and three (3) other class 10a buildings (storage sheds and a chicken coup) which are located a minimum of 12m from the habitable building. N.B. PBP typically does not require BFPM for non-habitable buildings located more than 6m from the habitable building.
- Access for firefighting vehicles is provided to the habitable building via the new property access road and also the existing Noble Street.
- Access for firefighting vehicles is provided to the hazardous vegetation located to the east and south of the habitable building via the via the new property access road and also the existing Noble Street.
- Access for firefighting vehicles is provided to the hazardous vegetation located to the north of the habitable building via the via the existing Noble Street and existing Nangar Road.
- The new property access road will be:
 - constructed have a load bearing capacity (i.e. up to 23 tonnes), and
 - clear to a height of at least 4m,

to permit the operation and passage of fire fighting vehicles.

• The new property access road will permit the fire fighting vehicles to traverse its entire length in a forward direction and provide a compliant (Type B) turnaround area at its termination, in order for vehicles to egress the site in a forward direction.



- The two (2) public roads (Noble Street and Nangar Road) are two-way two-lane bitumen sealed roads. They are designed to accommodate emergency services vehicles from both a load bearing capacity perspective and a clearance height.
- Through the Bushfire Emergency Management & Evacuation Plan, access for non-emergency services vehicles to the property access road and car park is to be limited when a fire is or is potentially impacting the site, so as to avoid the conflict of occupants' vehicles egressing the site whilst emergency services are accessing the site.

On the basis of the above, it can be seen that the performance solution will provide fire fighting vehicles with safe, all-weather access to the structures and hazardous vegetation, thus being consistent with the Performance Criteria. In doing this, the performance solution will also provide for safe operational access for emergency services personnel in supressing a bushfire whilst the occupants are accessing/egressing the development/area.



3.4.3 Services - Water Gas & Electricity

The intent of measures for the Services - Water Gas & Electricity BFPM is:

to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.

The following table outlines the Performance Criteria and associated Acceptable Solutions for the Services – Water, Electricity and Gas BFPM, and how the development responds.

Performance Criteria	Acceptable Solution	Development Response				
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment	
WATER SUPPLY						
an adequate water supply for firefighting purposes is installed and maintained.	 Reticulated water is to be provided to the development, where available; or A 10,000 litres minimum static water supply for firefighting purposes is provided for each occupied building where no reticulated water is available. 				Variation below applicable to Child Care Centres.	
Variations						
Caravan and camping grounds: an adequate water supply for firefighting purposes is installed and maintained.	 Either a reticulated water supply is provided; or a 10,000 litres minimum water supply on site. 				Not applicable to the development.	



Performance Criteria	Acceptable Solution				Development Response
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
Primitive camping: an adequate water supply for firefighting purposes is installed and maintained.	 Either a reticulated water supply is provided; or a 10,000 litres minimum water supply on site. 				Not applicable to the development.
Hospitals, schools, child care centres and residential care buildings: An adequate water supply for firefighting purposes is	Reticulated water is to be provided to the development, where available; and				Reticulated water supply is to be provided to the development.
Installed and maintained.	 Water for firefighting purposes must be made available and consist of – A fire hydrant system installed in accordance with AS2419.1; or Where no reticulated water is available, a static water supply consisting of tanks, swimming pools, dams or the like, or a combination of these, together with suitable pumps, hoses and fittings, determined in consultation with NSW RFS that – is capable of providing the required flow rate for a period of not less than 4 hours or has a volume of 10,000 litres for each occupied building. 				A fire hydrant system is to be provided with the development in accordance with AS2419.



Performance Criteria	Acceptable Solution				Development Response
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
 Water supplies are located at regular intervals. The water supply is accessible and 	Fire hydrant spacing, design and sizing comply with the relevant clauses of AS AS 2419.1: 2021;				Fire hydrant spacing, design and sizing are to comply with the relevant clauses of AS AS 2419.1: 2021.
reliable for firefighting operations.	Hydrants are not located within any road carriageway; and	\boxtimes			Hydrants will not be located within any road carriageway.
	Reticulated water supply to SFPPs uses a ring main system for areas with perimeter roads.				No perimeter road.
Flows and pressure are appropriate.	Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1: 2021.				Fire hydrant flows and pressures are to comply with the relevant clauses of AS 2419.1: 2021.
The integrity of the water supply is maintained.	All above-ground water service pipes external to the building are metal, including and up to any taps.				All above-ground water service pipes external to the building are to be metal, including and up to any taps.
Water supplies are adequate in areas where reticulated water is not available.	A connection for firefighting purposes is located within the IPA or non hazard side and away from the structure; a 65mm Storz outlet with a ball valve is fitted to the outlet;				Reticulated water supply provided.
	Ball valve and pipes are adequate for water flow and are metal;				Reticulated water supply provided.
	Supply pipes from tank to ball valve have the same bore size to ensure flow volume;				Reticulated water supply provided.



Performance Criteria	Acceptable Solution	Development Response				
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment	
	Underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank;				Reticulated water supply provided.	
	A hardened ground surface for truck access is supplied within 4m of the access hole;			\boxtimes	Reticulated water supply provided.	
	Above-ground tanks are manufactured from concrete or metal;			\boxtimes	Reticulated water supply provided.	
	Raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F AS 3959);				Reticulated water supply provided.	
	Unobstructed access is provided at all times;			\boxtimes	Reticulated water supply provided.	
	Tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters; and				Reticulated water supply provided.	
	Underground tanks are clearly marked,			\boxtimes	Reticulated water supply provided.	
	All exposed water pipes external to the building are metal, including any fittings;			\boxtimes	Reticulated water supply provided.	
	Where pumps are provided, they are a minimum 5hp or 3kW petrol or diesel- powered pump, and are shielded against bush fire attack; Any hose and reel for				Reticulated water supply provided.	



Performance Criteria	Acceptable Solution				Development Response	
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment	
	firefighting connected to the pump shall be 19mm internal diameter; and					
	Fire hose reels are constructed in accordance with AS/NZS 1221:1997 Fire hose reels, and installed in accordance with the relevant clauses of AS 2441:2005 Installation of fire hose reels.				Reticulated water supply provided.	
ELECTRICITY SERVICES						
Location of electricity services limits the possibility of ignition of surrounding bush	Where practicable, electrical transmission lines are underground;	\boxtimes			Where practicable, electrical transmission lines are to be underground.	
land or the fabric of buildings	Where overhead, electrical transmission lines are proposed as follow:				Where it is not practicable to provided electrical transmission lines underground, they are to be installed as	
	 lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and 				 lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas no part of a tree is closer to a power line than the 	
	• 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.				distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.	



Performance Criteria	Acceptable Solution				Development Response		
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment		
GAS SERVICES							
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	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;				Any reticulated or bottled gas is to be 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;				All fixed gas cylinders are to be 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;				All connections to and from gas cylinders are to be metal.		
	If gas cylinders need to be kept close to the building, safety valves are directed away from the building and at least 2m away from any combustible material, so they do not act as a catalyst to combustion;				Where gas cylinders need to be kept close to the building, safety valves are to be directed away from the building and be at least 2m away from any combustible material, so they do not act as a catalyst to combustion.		
	Polymer-sheathed flexible gas supply lines to gas meters adjacent to buildings are not to be used; and				Polymer-sheathed flexible gas supply lines to gas meters adjacent to buildings are not to be used.		
	Above-ground gas service pipes external to the building are metal, including and up to any outlets.				Above-ground gas service pipes external to the building are to be metal, including and up to any outlets.		



3.4.4 Emergency Management Planning

The intent of measures for the Emergency Management Planning BFPM is:

provide suitable emergency and evacuation arrangements for occupants of SFPP

developments.

The following table outlines the Performance Criteria and associated Acceptable Solutions for the Emergency Management Planning BFPM, and how the development responds.

Performance Criteria	Acceptable Solution	Development Response			
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
EMERGENCY MANAGEMENT					
A Bush Fire Emergency Management and Evacuation Plan is prepared.	 Bush Fire Emergency Management and Evacuation Plan is prepared consistent with the: The NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan; NSW RFS Schools Program Guide; Australian Standard AS 3745:2010 Planning for emergencies in facilities; and Australian Standard AS 4083:2010 Planning for emergencies – Health care facilities (where applicable). 				 Prior to the issue of an Occupation Certificate, a Bush Fire Emergency Management and Evacuation Plan is prepared consistent with the: The NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan; and Australian Standard AS 3745:2010 Planning for emergencies in facilities.
	The Bush Fire Emergency Management and Evacuation Plan should include planning for the early relocation of occupants.				The Bush Fire Emergency Management and Evacuation Plan is to include planning for the early relocation of occupants.



Performance Criteria Acceptable Solution		Development Response			
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
	Note: 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.				The Bush Fire Emergency Management and Evacuation Plan is to be provided to the Local Emergency Management Committee for its information prior to occupation of the development
Variations					
Caravan and camping grounds: a Bush Fire Emergency Management and Evacuation Plan is prepared. Primitive camping: a Bush Fire Emergency Management and Evacuation Plan is prepared.	A Bush Fire Emergency Management and Evacuation Plan is prepared consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan, and AS 3745:2010;				Not applicable to the development.
	 For proposals in isolated or remote areas which involve large travel distances through bush fire prone vegetation, the following issues should be determined and addressed: the amount of travel likely to be generated during an emergency evacuation; the capacity of the broader road network to facilitate safe emergency evacuation; limitations/constraints inherent in the road system: and 				Not applicable to the development.



Performance Criteria Acceptable Solution			Development Response		
Intent may be ac	hieved where:	Acceptable Solution	Performance Solution	N/A	Comment
	management of potential traffic conflicts (such as emergency vehicles versus evacuating members of the public).				
	The Bush Fire Emergency Management and Evacuation Plan must consider a mechanism for the early relocation of occupants on days when adverse fire weather is notified or adverse fire activity occurs in the local government area in which the development operates.				Not applicable to the development.
	Note: A copy of the Bush Fire Emergency Management and Evacuation Plan shall be provided to the Local Emergency Management Committee for its information prior to occupation of the development.				Not applicable to the development.
Appropriate and adequate management arrangements are established for consultation and implementation of the Bush Fire Emergency Management and Evacuation Plan.	An Emergency Planning Committee is established to consult with residents (and their families in the case of aged care accommodation and schools) and staff in developing and implementing an Emergency Procedures Manual; and				The Bush Fire Emergency Management and Evacuation Plan is to establish an Emergency Planning Committee to consult with families of the occupants and staff in developing and implementing an Emergency Procedures Manual.
	Detailed plans of all emergency assembly areas including on site and off-site arrangements as stated in AS 3745:2010				The Bush Fire Emergency Management and Evacuation Plan is to require that detailed plans of all emergency assembly areas including on site and off-site arrangements as stated in



Performance Criteria Acceptable Solution		Development Response			
Intent may be achieved where:		Acceptable Solution	Performance Solution	N/A	Comment
	are clearly displayed, and an annually emergency evacuation is conducted.				AS 3745:2010 are clearly displayed, and an annually emergency evacuation is conducted.



4 Recommendations

4.1 Summary of Bush Fire Protection Measures

This BFAR has assumed that the proposed development will be carried out in accordance with a number of BFPM. The following table provides a summary of the BFMP that must be incorporated into the development to ensure it best protects the development from the effects of bushfire in accordance with the requirements of PBP and other best practice guidelines. The BFPM are also shown on **Figure 9**.

Provision	Measures			
Asset Protection Zone	• Prior to the issue of an Occupation Certificate, an Asset Protection Zone is to be established on site in the location and for the extent as shown on Figure 9 of the Bush Fire Assessment Report prepared by Integrated Consulting, and in accordance with the Inner Protection Area standards outlined in Appendix 4 of <i>Planning for Bush Fire Protection 2019</i> . The APZ is to be maintained in accordance with these standards in perpetuity.			
Landscaping	 All landscaping is to be in accordance with Appendix 4 of PBP All fencing is to be constructed in accordance with section 7.6 of PBP. A non-combustible pathway directly adjacent to the building and not less than 1.5m wide must be provided around the perimeter of the building. 			
Construction Standards	 The new buildings are to be constructed to: A minimum level of BAL-19 in accordance with AS3959, and Section 7.5 of Planning for Bush Fire Protection 2019. 			
Access	Property Access Roads			
	 Prior to the issue of an Occupation Certificate, the property access road for the development must be constructed in accordance with the following requirements and must be maintained in perpetuity in accordance with the following requirements: Provide a 6m wide bitumen or concrete sealed access road in the location shown on Figure 9; Be designed and constructed to have a load bearing capacity to permit the operation and passage of fire fighting vehicles (up to 23 tonnes); Vegetation above the property access road is clear to a height of 4m above it; Crossfall and gradient of the access road is not to exceed 10 degrees; and Provide a Type B turnaround area in accordance with Appendix 3 of PBP and additional hardstand areas as shown in Figure 9 and be line marked and sign posted to not permit any parking/standing of vehicles or storage of materials at any time. 			
Water Supply	 Prior to the issue of an Occupation Certificate, reticulated water supply is to be provided to the development in accordance with the following requirement, and is to be maintained in good working order at all times during the operation of the development in accordance with these requirements: Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2021, Hydrants are not located within any road carriageway, Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2021, and All above-ground water service pipes external to the building are metal, including and up to any taps. 			

Table 8: Summary of Recommendations



Provision	Measures		
Electricity	• Where practicable, electrical transmission lines are underground. Where electricity transmission lines are above ground, short pole spacings are to be providing (i.e. less than 30m) and vegetation around the power lines are to be managed in accordance with 'Vegetation Safety Clearances' issued by Energy Australia (NS179, April 2002).		
Gas Supplies	 Any gas supplies are to be provided and maintained in perpetuity as follows: Bottled gas to be installed and maintained in accordance with AS 1596; Metal piping is to be used for all connections to and from the cylinders. No Polymer sheathed flexible gas supply lines are to be sued adjacent to the building; Fixed cylinders are to be kept clear of flammable materials; Fixed cylinders are to be shielded from the hazard; and Release valves are to be directed away from the building and be more than 2m from any combustible materials. 		
Emergency Evacuation Plan	 Prior to occupation of the development, a Bush Fire Emergency Management and Evacuation Plan (BFEMEP) is to be prepared consistent with the following documents (where applicable): The NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan; NSW RFS Schools Program Guide; Australian Standard AS 3745:2010 Planning for emergencies in facilities; and Australian Standard AS 4083:2010 Planning for emergencies – Health care facilities, and The BFEMEP is to provide for the early relocation of occupants. An Emergency Planning Committee is to be established to consult with occupants (and their families in the case of children) and staff in developing and implementing an Emergency Procedures Manual. Detailed plans of all emergency assembly areas, including on-site and off-site arrangements, as stated in AS 3745:2010 are to be clearly displayed, and an annually emergency evacuation is to be conducted. Provisions are to be included in the Bushfire Emergency Management & Evacuation Plan for the development to establish procedures to manage the access of parents/carers where the site is or may be impacted by a bushfire, so as to not cause congestion of the carpark and local road network, and to enable free access for emergency services. 		

Table 8: Summary of Recommendations



5 Conclusion

On completion, the proposed development will ensure that all habitable development is located in an area that has an acceptable bushfire hazard level. With the implementation of the recommendations, as outlined in **Section 4** and as shown on **Figure 9**, the proposed development is considered to be appropriately protected from bushfire and complies with the requirements of PBP. The proposed development is not expected to increase the bushfire risk.



6 References

- Keith. 2004. Ocean Shores to Desert Dunes: The Native Vegetation of New South Wales and the ACT. Hurstville: NSW Department of Environment and Conservation.
- NSW Government. n.d. NSW Elevation Data Service. Accessed February 10, 2023. https://portal.spatial.nsw.gov.au/portal/apps/webappviewer/index.html?id=437c0697e6524d8ebf1 oadod915bc219.
- NSW Rural Fire Service. 2017. NSW Local Government Areas FDI. Lidcombe: NSW RFS.
- —. 2019. Planning for Bush Fire Protection: A guide for councils, planners, fire authorities and developers. Granville: NSW Rural Fire Service.
- NSW Rural Fire Service. 2022. Planning For Bush Fire Protection: A Guide for Councils, Planners, Fire Authorities and Developers Addendum November 2022. Sydney: NSW Rural Fire Service.

—. 2025. "Pre DA Advice Summary." NSW RFS, 17 February.



Appendix A

Development Plans



EUGOWRA COMMUNITY CHILDREN'S CENTRE

21 Noble Street, EUGOWRA, NSW, 2806

GENERAL NOTES:

This drawing must be read in conjunction with all other consultant's drawings and the specification (if attached).

1.	This Building shall be constructed to comply with the NA
2.	All dimensions shown in millimeters UNO.
3.	DO NOT SCALE from drawing - use figured dimensions.
4.	The Builder is to confirm all dimensions and levels on site
5.	All structural elements to be designed by a practicing str
6.	All wet areas to be waterproofed in accordance with AUS
7.	All plumbing and drainage work is to comply with the req
	AS3500 - NATIONAL PLUMBING AND DRAINAGE COI
	OF PRACTICE FOR PLUMBING AND DRAINAGE.
3.	Where any Exhaust Fan disposes air into the Roof Space
	Provide Eave Vents adjacent to Exhaust Fan locations to
9.	Externally located Hot & Cold water service pipes shall b
	extremes of ambient temperature in accordance with AU
10.	Heating & Cooling Ductwork and Fittings must be insulat
11.	All Masonry Brickwork to Compy with AUSTRALIAN STA
	Articulation Joints to be provided as defined by the Struc
12.	Install Exit Signs to comply with AS/NZS 2293.1 & NCC
13.	Install Emergency Lighting System to comply with AS/NZ
14.	Install Fire Hose Reel in position shown in accordance w
15.	Install Portable Fire Extinguishers in accordance with Se
	Table E1D14 of National Construction Code (NCC).
16.	Provide Artificial Lighting throughout the building to comp
17.	Conditioned areas to comply with Part J of the NCC - see
18.	Mechanical Ventilation of the building to comply with Clau
19.	All Floor Linings & Coverings to comply with specification
20.	Access for people with Disablities must be provided to a
21.	A door to a required exit or in the path of travel to a requ
	a key from the side that faces a person seeking egress,
	action on a single device, which is located between 900n
22.	Where Roof or Wall Sarking is installed, it must comply w

Proposed New Facility

For

TIONAL CONSTRUCTION CODE (NCC).

. If in doubt ask.

te prior to construction. ructural engineer. STRALIAN STANDARD AS3740. uirements of AUSTRALIAN STANDARD DE and THE NEW SOUTH WALES CODE

ace, it shall be fitted with a Self Closing Damper. o provide necessary Roof Ventilation. be suitably insulated to resist the effects of JSTRALIÁN STANDARD AS3500.4.

ted & sealed against air loss. ANDARD AS3700.

ctural Engineer.

Clauses E4D2, E4D4, E4D5 & E4D8. ZS 2293.1 & NCC Clauses E4D2, E4D4, E4D5 & E4D8. with AS 2441.

ections 1, 2, 3 & 4 of AS 2444 and

ply with Clause F6D5 of the NCC and to AS/NZS 1680. ee separate report. use F6D6 (NSW) of the NCC.

n C2D11 of NCC. and within all areas normally used by occupants.

- uired exit, must be readily openable without by a single hand downward action or pushing
- mm & 1100mm from the floor. with NCC Clause C2D11

SECTION J NOTES:

Section J BCA requirements – 21 Noble St, Eugowra NSW (to be read in conjunction with Section J report)

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- Roof (light colour with SA<0.45): reflective sarking / anticon blanket
- Ceiling: R3.5 External walls: R2.5 bulk insulation and vapour permeable sarking
- Floor slab: nil
- Thermal breaks required for steel framed construction: R0.2
- External windows & glass doors
- All façades: U = 3.8 & SHGC = 0.45 • Glazing to comply with AS2047

Draught sealing

- External doors to be fitted with a foam seal around perimeter, draught stopper along
- bottom edge and self-closer. Bathroom & kitchen exhaust fans to be fitted with a self-closing damper.

Air conditioning

- To comply with Part J6 as applicable •
- Package AC units to comply with MEPS
- Single conditioned zone OR when serving more than 1 zone, thermostatically control the
- temperature of each zone in accordance with J6D3. All AC units with a heating or cooling capacity of more than 2kWr to have a time switch •
- controller (refer to spec 40 of BCA for details). Ductwork (where installed) to be insulated to R1.0. •
- Mechanical fresh air ventilation (if installed) to comply with AS 1668.2 and AS/NZS 3666. •

Internal lighting & power control

- Childcare / office / general internal areas maximum illumination power density of 4.5 W/m2 95% of lighting to be controlled by a time switch or occupant sensing device. •
 - Maximum of 250 sq.m of lighting controlled per light switch.

External lighting

- All new external lighting to be controlled by either a daylight sensor or time switch and where • total perimeter lighting exceeds 100W have a minimum of 90% of light fittings to be LEDS or be controlled by a motion sensor.
- Façade lighting or illuminated signs to be controlled by a time switch or daylight sensor.

Hot water supply

Heated sanitary water systems to be designed and installed as per part B2 NCC vol. 3 •

Boiling / chilled water units (if any) • To be controlled by a time switch

Metering of gas / electricity

- Electricity meter (as per supply authority requirements) to be installed.
 - Sub metering is not required Main switchboard with provision for future solar PV & battery system.
 - 20% of roof space left clear for future solar PV system.









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Eugowra Community Children's Centre roject Name Proposed New Facility

roject Address 21 Noble Street EUGOWRA NSW 2806 Cover Sheet

Drawn by Date 6.3 Scale Issue

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Client Eugowra Community Children's Centre Project Name Proposed New Facility

Location Plan

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Client Eugowra Community Children's Centre Project Name Proposed New Facility

Project Address 21 Noble Street Site Plan

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Date		6.3.2025	
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Door Schedule						
Mark	Height	Width	Frame Material	Glazing.	U-Value	SHGC.
D-01	2100	900	Aluminium	Double Clear	3.8	0.45
D-02	2100	900	Aluminium	Double Clear	3.8	0.45
D-03	2100	1800	Aluminium	Double Clear	3.8	0.45
D-04	2040	920	Timber			
D-05	2100	1800	Aluminium	Double Clear	3.8	0.45
D-06	2100	1800	Aluminium	Double Clear	3.8	0.45
D-07	2040	920	Timber			
D-08	2100	1800	Aluminium	Double Clear	3.8	0.45
D-09	2100	900	Aluminium	Double Clear	3.8	0.45
D-10	2040	920	Timber			
D-11	2100	1800	Aluminium	Double Clear	3.8	0.45
D-12	2040	820	Timber			
D-13	1197	920	Timber			
D-14	2040	920	Timber			
D-15	2100	1800	Aluminium	Single Clear	6.44	0.75
D-16	2040	820	Timber			
D-17	2040	920	Timber			
D-18	2100	1800	Aluminium	Single Clear	6.44	0.75
D-19	2100	920	Timber			
D-20	2100	920	Timber			
D-21	2100	1800	Aluminium	Single Clear	6.44	0.75
D-22	2100	920	Timber			
D-23	2100	920	Timber			
D-24	2040	920	Timber			
D-25	2100	900	Aluminium	Single Clear	6.44	0.75
D-26	2100	900	Aluminium	Single Clear	6.44	0.75

Mark	Height	Width	Frame Material	Glazing.	U-Value	SHGC
D-27	2100	1800	Aluminium	Single Clear	6.44	0.75
D-28	2100	920	Timber			
D-29	2100	920	Timber			
D-30	2040	1840	Aluminium	Single Clear	6.44	0.75
D-31	2040	920	Timber			
D-32	2040	820	Timber			
D-33	2040	920	Timber			
D-34	2040	820	Timber			
D-35	2040	920	Timber			
D-36	2340	2825	Aluminium			
D-37	2040	1840	Timber			
D-38	2040	1840	Timber			
D-40	2040	1840	Timber			
D-41	2040	1840	Timber			
TD1	1200	600	Laminate			
TD2	1200	600	Laminate			
TD3	1200	600	Laminate			
TD4	1200	600	Laminate			
TD5	1200	600	Laminate			
TD6	1200	600	Laminate			
TD7	1200	600	Laminate			
TD8	1200	600	Laminate			
TD9	1200	600	Laminate			
TD10	1800	600	Laminate			
TD11	1800	700	Laminate			
TD12	1800	700	Laminate			

Window Schedule						
Window Style	Height	Width	Material	Glazing	U Value.	SHGC Value.
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	600	970	Aluminium	Double Obscure	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1570	Aluminium	Double Clear	3.8	0.45
Sliding	1200	1210	Aluminium	Double Clear	3.8	0.45
Sliding	600	970	Aluminium	Double Obscure	3.8	0.45
Sliding	600	970	Aluminium	Double Obscure	3.8	0.45
Fixed	900	1200	Aluminium	Single Clear	6.44	0.75
Sliding	600	1810	Aluminium	Single Clear	6.44	0.75
Fixed	900	1200	Aluminium	Single Clear	6.44	0.75
Fixed	900	1200	Aluminium	Single Clear	6.44	0.75
Sliding	600	1210	Aluminium	Single Clear	6.44	0.75
Sliding	600	1210	Aluminium	Single Clear	6.44	0.75
Fixed	900	1560	Aluminium	Single Clear	6.44	0.75
Fixed	900	1560	Aluminium	Single Clear	6.44	0.75
Fixed	900	1560	Aluminium	Single Clear	6.44	0.75
Fixed	900	1560	Aluminium	Single Clear	6.44	0.75
Fixed	900	1560	Aluminium	Single Clear	6.44	0.75
Sliding	400	1810	Aluminium	Double Clear	3.8	0.45
Fixed	900	1560	Aluminium	Single Clear	6.44	0.75

	SIGNAGE LEG	END
A	EXIT	EXIT SIGN
B	Unisex Toilet RH	UNISEX ACCESSIBLE TOILET - RH
©	Male Ambulant Toilet	MALE AMBULANT TOILET
D	Female Ambulant Toilet	FEMALE AMBULANT TOILET

164.6 m² 216.7 m² Preschool Verandah Long Daycare Floor Area Long Daycare Verandah 142.8 m² Grand total 1317.7 m²





ACCREDITED BUILDING DESIGNER E: mcwatts@bigpond.net.au Accreditation Number 6529

roject Address

21 Noble Street

EUGOWRA NSW 2806

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MCW

6.3.2025

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Drawn by

Scale As indicated Issue X

Date





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← PVC Downpipes

FC Sheet to Soffit

Fairview Genesis

-Prefinished Compressed

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Client Eugowra Community Children's Centre Project Name Proposed New Facility Project Address

Sections (1)

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Client Eugowra Community Children's Centre Project Name Proposed New Facility

Proiect Address

3D Views

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	Client Eugowra Community Children's Centre Project Name Proposed New Facility	Car Ti	urning Plan		
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Client Eugowra Community Children's Centre Project Name Proposed New Facility	Custo	m Doo	ors & Wi	ndows	
Proiect Address	Drawn by		MCW		
21 Noble Street	Date		6.3.2025	AD-01	A1
FUGOWBA NSW 2806	Scale	1:20	Issue X	• •	



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Date		6.3.2025	AD-02	A3
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Appendix B

Hydraulic Design





About Marline Engineering Newcastle At Marline, we take a comprehensive approach when designing your new development.

With in-house electrical, mechanical and hydraulic engineers, Marline Engineering makes your engineering design needs a breeze. We are able to adjust, implement and create designs on AutoCAD and REVIT which makes it easy for contractors and builders to build our designs.

We advise you on the most affordable, practical and effective solutions and systems based on the site and legal factors.

As consulting engineers, Marline has also expanded the range of services to provide a wide range of building services disciplines including Air-conditioning, Electrical, Hydraulics, Fire Protection and Lift Services.

Marline has seen a huge amount of growth in the Energy sector. We provide services that go above and beyond the standard regulatory requirements and offer unique solutions to your Section J or JV3 Alternative solution reports. We also offer a fast NABERS and BEEC certification that ensures advertising for commercial properties are fully compliant with the CBD advertising rules and regulations.

With engineering consulting experience that dates back as far as 1975, we're one of the best engineering companies in Australia, and have developed the kind of projects that residential and commercial property developers benefit from.

Our Newcastle engineering firm continues to grow, however our team prides itself on every customer receiving the kind of high quality workmanship and personalised service that our company is known for.

To accommodate the expansion and demand for engineering services within Newcastle and throughout New South Wales, Marline Engineering has almost doubled the number of highly trained employees in the last five years.

Our engineering firm currently employs ten engineers, eight technical assistants and an office administrator. As a result, we continue to be leaders amongst engineering companies in Australia, with a large portfolio and a positive attitude.

> **PROJECT No:** MN15425

CLIENT: INCLINE CONSTRUCTION PTY LTD

ARCHITECT: INCLINE CONSTRUCTION PTY LTD

Hydraulic Services EUGOWRA COMMUNITY CHILDREN'S CENTRE NOBEL STREET, EUGOWRA, NSW, 2806

DRAWING SCHEDULE

HY-00-000	COVER SHEET
HY-00-001	LEGEND & NOTES
HY-00-002	SITE SERVICES
HY-00-003	SITE SERVICES
HY-10-001	GROUND FLOOR - WATER & GAS LAYOUT
HY-20-001 HY-20-002	GROUND FLOOR - SANITARY DRAINAGE LAYOUT ROOF - DRAINAGE LAYOUT
HY-30-001	DETAILS - SHEET 1

DETAILS - SHEET 1



HYDRAULIC SERVICES

HY-00-000

NOTE: SOME ITEMS MAY NOT BE USED

LINETYPES - EXISTING

- — — eCW ——	COLD WATER
— – —— eHW ———	HOT WATER
eWW	WARM WATER
— · · — eFH — –	FIRE HYDRANT
eSP	FIRE SPRINKLER
– – – – — eG —	GAS
— — — — eNP ——	NON POTABLE
— — — — eRW ——	RAINWATER REUSE
eS	SANITARY
— — — — eVP —	VENT PIPE OFFSET
eTW	TRADE WASTE
eSW	STORMWATER
— — — — eDP ——	STORMWATER TO RWT
eOF	STORMWATER OVERFLOW
eSS	SUBSOIL DRAIN
/ / / / / / / / / / / / / / / / / / / 	DISUSE PIPE

	COLD WATER
	HOT WATER
	HOT WATER FLOW
HWR	HOT WATER RETURN
	WARM WATER
T	TEMPERED WATER
	HEAT TRACE
	FIRE HYDRANT
	FIRE SPRINKLER
	GAS
NP	NON POTABLE
———— RW —	RAINWATER REUSE
	SANITARY
	VENT PIPE OFFSET
TW	TRADE WASTE
	PUMP DISCHARGE
sw	STORMWATER
DP	STORMWATER TO RV
BD	BALCONY DRAIN TO
RC	RECYCLED/RECLAIM
OF	STORMWATER OVER

LINETYPES - NEW

	FIRE HYDRANT
	FIRE SPRINKLER
	GAS
	NON POTABLE
—	RAINWATER REUSE
	SANITARY
	VENT PIPE OFFSET
	TRADE WASTE
	PUMP DISCHARGE
	STORMWATER
	STORMWATER TO RWT
	BALCONY DRAIN TO STORMWATER
	RECYCLED/RECLAIMED WATER
	STORMWATER OVERFLOW

SYMBOLS - OTHER

SUBSOIL DRAIN

כ	PIPEWORK CAP
<u>~</u>	EXPANSION LOOP
()	PIPEWORK PENETRATION TEE
0	PIPEWORK PENETRATION RISER
U	PIPEWORK PENETRATION DROPPER
U	PIPEWORK DROP DOWN
xxx FU	FIXTURE UNITS
xxx LU	LOADING UNITS
xxx MJ	MEGA JOULES
xxx L/s	LITRES/SECOND
	FLOW ARROW
VP 20	PIPEWORK RISES
VP 20	PIPEWORK DROPS
VP 20	PIPEWORK RISES & DROPS

SURFACE LEVEL
PIPEWORK REDUCER

 \times 0.00

SYMBOLS - WATER

\bowtie	ISOLATION VALVE
	BALANCING VALVE
Ы	CHECK VALVE
\bowtie	REFLUX VALVE IN SHAFT WITH INSPECTION OPENING
\bowtie	WATER VALVE IN PATH BOX
۲	CIRCULATING PUMP
	DUAL CHECK VALVES
\times	REDUCES PRESSURE ZONE DEVICE
T	THERMOSTATIC MIXING VALVE
$\langle \overline{D} \rangle$	TEMPERING VALVE
TMV	THERMOSTATIC MIXING VALVE IN WALL BOX
TV	TEMPERING VALVE IN WALL BOX
	MAIN WATER METER
	PRIVATE WATER METER
	MICRON FILTER
0	HOT WATER STORAGE UNIT

SYMBOLS - FIRE

0	
$\phi \leftrightarrow \phi $	BOOSTER ASSEMBLY
	PUMP SET
	VALVE SET
	TEST POINT
A	ALARM STROBE
\oslash	SINGLE PILLAR HYDRANT (INTERNAL)
Ø	DOUBLE PILLAR HYDRANT (EXTERNAL)
Н	STREET HYDRANT
	FIRE HOSE REEL
	THRUST BLOCK
FIP	FIRE INDICATOR PANEL

SYMBOLS - TRADEWASTE

(O	

GREASE ARRESTOR

GREASE ARRESTOR

COOLING PIT/DILUTION PIT

SYMBOLS - STORMWATER

\boxtimes

GRATED DRAIN GRATED PIT

SEALED PIT

DOWNPIPE WITH SPREADER



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SYMBOLS - SANITARY

¥	AIR ADMITTANCE VALVE
•	FLOOR WASTE
	BASKET FLOOR WASTE
Ø	CHROME PLATED BRASS SCREWED CAP
۲	SEALED FLOOR WASTE
\boxtimes	OVERFLOW GULLY
0	CLEAR OUT/INSPECTION OPENING
•	SANITARY FIXTURE
ο	INSPECTION SHAFT
0-12	INSPECTION SHAFT WITH BOUNDARY TRAP
\mathbf{r}	INDUCT PIPE MICA FLAP
_	TUNDISH ON WALL
_	TUNDISH INWALL
\bigcirc	SEWER ACCESS CHAMBER
0	SEWER MAINTENANCE SHAFT
	PLASTER TRAP
~~	SWIVEL EXPANSION JOINT
	PIPEWORK CAST IN BEAM
	BUNDED AREA

ABBREVIATIONS

AT	ART TROUGH.
ACU	AIR CONDITIONING UNIT.
AAV	AIR ADMITTANCE VALVE.
В	BATH.
BFW	BUCKET FLOOR WASTE.
BKS	BUCKET SINK.
BS	BAR SINK.
BID	BIDETTE.
BT	BOUNDARY TRAP.
BWU	BOILING WATER UNIT.
CD	CONDENSATE DRAIN.
CO	
CPC	CHROME PLATED BRASS SCREWED CLEAROUT.
CS	
	DUUBLE CHECK VALVE (TESTABLE).
	DOWNPIPE
DPH	DOUBLE PILLAR HYDRANT
DT	DBINKING TROUGH
DUCV	DUAL CHECK VALVE.
DW	DISHWASHER.
е	EXISTING.
ED	ELEVATED DRAINAGE.
eSAC	EXISTING SEWER ACCESS CHAMBER.
eSWP	EXISTING STORMWATER PIT.
EW	EYE WASH.
FC	FUME CUPBOARD.
FH	FIRE HYDRANT.
FL	FLOOR LEVEL.
FS	
FOL	
	FIATORE UNITS.
GB	GAS BAYONET
GCH	GAS CONVECTION HEATER
GCT	GAS COOK TOP
GD	GRATED DRAIN.
GW	GLASS WASHER.
Hb	HANDBASIN.
HT	HOSE TAP.
HWC	HUNTER WATER CORPORATION.
HWU	HOT WATER UNIT.
IL	INVERT LEVEL.
IM	
10	INSPECTION OPENING.
IS	INSPECTION SHAFT.
	INDUCT PIPE MICA FLAP.
	LABORATORY SINK
NG	NATURAL GAS
OG	OVERELOW GULLY
PA	PLASTER ARRESTOR.
PAT	PRACTICAL ACTIVITIES TROUGH.
PLD	PLANTER DRAIN.
RL	RELATIVE LEVEL.
RPZD	REDUCED PRESSURE ZONE DEVICE.
RWO	RAIN WATER OUTLET.
RV	REFLUX VALVE.
SAC	SEWER ACCESS CHAMBER.
Shr	
5H 5EM	
51-1V SI	SLALED FLOOR WASTE. SLIBEACE LEVEL
SMS	SEWER MAINTENANCE SHAFT
Snk	KITCHEN SINK.
SPH	SINGLE PILLAR HYDRANT.
SPR	RAINWATER SPREADER.

ABBREVIATIONS - continue

SPR	RAINWATER SPREADER.
SShr	SAFETY SHOWER.
SS	SOIL STACK.
ST	STERILIZER.
SVS	SPRINKLER VALVE SET.
-	TUBS.
D	TUNDISH.
MV	THERMOSTATIC MIXING VALVE.
WV	TRADE WASTE VENT.
JR	URINAL.
/b	VANITY BASIN.
/P	VENT PIPE.
Vc	WATER CLOSET.
VD	WINDOW DRENCHER.
VM	WASHING MACHINE.

WS WASTE STACK. WASH TROUGH. WT

GENERAL NOTES

- 1. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN A 'DIAL BEFORE YOU DIG' TO ASCERTAIN THE FULL EXTENT OF EXISTING SERVICES SURROUNDING THE SUBJECT PROPERTY. PRIOR TO ANY EXCAVATION THE RELEVANT AUTHORITIES eg TELSTRA OPTUS, AGILITY etc. ARE TO BE NOTIFIED OF ALL WORKS.
- 2. ALLOW TO PAY ALL FEES & CHARGES FOR ALL AUTHORITIES RELATING TO ALL WORKS DESIGNED & SPECIFIED.
- 3. IT IS THE HYDRAULIC CONTRACTORS RESPONSIBILITY TO ENGAGE A SUITABLE QUALIFIED CONTRACTOR TO CARRY OUT A THOROUGH GROUND SEARCH FOR EXISTING SERVICES AROUND AND IN THE PROPOSED BUILDING FOOTPRINT. NOTIFY THE SUPERINTENDENT IMMEDIATELY IF ADDITIONAL SERVICES TO THAT DOCUMENTED ARE LOCATED. THIS IS TO BE CARRIED OUT PRIOR TO ANY WORKS BEING COMMENCED.
- 4. ALL HOT, WARM & COLD WATER ISOLATION VALVES SHOWN ARE TO BE LOCATED IN THE CEILING VOID COMPLETE WITH ACCESS PANEL OTHERWISE 300mm DOWN FROM CEILING IN ROOM USING ENWARE VP356 ISOLATION VALVE WITH CHROME COVERPLATE.
- 5. ALL EXPOSED PIPEWORK TO BE CHROME PLATED OR PAINTED AS PER SPECIFICATION.
- 6. ALLOW TO PREPARE & SUPPLY DETAILED "AS INSTALLED" DRAWINGS & MAINTENANCE MANUALS FOR ALL ASSOCIATED WORKS AS DETAILED IN THE SPECIFICATION.
- 7. SUPPLY & INSTALL FIRE STOP COLLARS etc. TO COMPLY WITH AS4072.1 TO MAINTAIN THE FIRE RATING INTEGRITY OF THE BUILDING ELEMENT BEING PENETRATED. THE COLLARS MUST COMPLY WITH ALL CLAUSES / PARTS OF AS4072.
- 8. CONTRACTOR TO ENSURE THAT HYDRAULIC SERVICE PENETRATIONS THROUGH FIRE RATED WALLS/CEILINGS & OTHER FIRE RATED ELEMENTS ARE PROTECTED AND MEET THE REQUIREMENTS OF SPECIFICATION 13 OF THE NCC 2022
- 9. ALL HYDRAULIC SERVICES PIPEWORK, EQUIPMENT & VALVES SHOULD BE LABELED TO ENABLE THEM TO BE CLEARLY IDENTIFIED. LOCATIONS OF LABELS TO BE APPROVED BY ARCHITECT.
- 10. ALL HOT/WARM WATER PIPEWORK TO BE INSULATED WITH THERMOTEC INSULATION OR EQUIVALENT WITH R-VALVE = 0.6 IN ACCORDANCE WITH AS/NZS 3500.4. REFER TO SPECIFICATION FOR EXACT REQUIREMENTS.
- 11. ALL DISRUPTIONS TO EXISTING SERVICES FOR NEW CONNECTIONS ARE TO BE COORDINATED ON SITE WITH THE PROJECT SUPERINTENDENT.
- 12. ALL INWALL TUNDISH ARE TO BE MODTEC OR EQUIVALENT. REFER TO DETAILS.
- 13. ALL EXTERNAL HOSE TAPS TO BE ENWARE KEY OPERATED HOSE TAPS FITTED WITH VACUUM BREAKERS.
- 14. ALL LEVELS & LOCATIONS SHOWN ON DRAWINGS FOR EXISTING PITS, SERVICES, SEWER ACCESS CHAMBERS & KERB INLET PITS ARE TO BE CONFIRMED ON SITE PRIOR TO ANY WORKS BEING CARRIED OUT.
- 15. ISOLATION VALVE AT WATER METER ASSEMBLY TO BE SECURED IN THE OPEN POSITION BY A PADLOCKED METAL STRAP AND AN ENGRAVED NON FERROUS METAL LABEL ATTACHED. LABEL TO BE ENGRAVED WITH 8mm UPPER CASE WORDING: "FIRE SERVICE VALVE - CLOSE ONLY TO SERVICE FIRE HOSE REELS".
- 16. ALL SERVICES INSTALLED ADJACENT THE BUILDING ARE TO BE LOCATED OUTSIDE THE ZONE OF INFLUENCE AS PER AS3500.
- 17. ALL HYDRANT PIPEWORK TO BE BLUE BRUTE CLASS 16 INGROUND OR GALVANIZED STEEL ABOVE GROUND TO COMPLY WITH AUSTRALIAN STANDARDS. ALL BLUE BRUTE PIPEWORK TO BE SUPPORTED BY THRUST BLOCKS.
- 18. ALL TRADEWASTE BASKET TRAPS ARE TO BE FITTED WITH AN INSPECTION OPENING DOWNSTREAM OF TRAP.
- 19. ALL LOCATIONS OF WATER POINTS FOR INTERNAL FITOUT SHOWN ON THESE PLANS ARE FOR CLARITY ONLY. FINAL LOCATIONS ARE TO BE DETERMINED USING ARCHITECTURAL 1:50 INTERNAL LAYOUTS & ELEVATIONS.
- 20. EXCAVATE, LOCATE & CONNECT TO EXISTING SEWER JUNCTION SERVING THE SITE.
- 21. SANITARY DRAINAGE OVERFLOW GULLIES TO BE PROVIDED IN ACCORDANCE WITH AS3500.2 REQUIREMENTS. IF HEIGHTS IN ACCORDANCE WITH AS3500.2.4.6.6.6 CANNOT BE ACHIEVED REFLUX VALVES MUST BE INSTALLED.
- 22. WHERE PIPEWORK IS LIKELY TO BE EXPOSED TO FIRE IN AN AREA WITHIN A BUILDING THAT IS NOT PROTECTED BY SPRINKLERS, PIPE-SUPPORTS SHALL BE INSTALLED WITH A MINIMUM FRL NOT LESS THAN 60/-/-. THE PIPE-SUPPORTS ARE REQUIRED TO HAVE A TEMPERATURE RESISTANCE OF NOT LESS THAN 500°C WHEN TESTED IN ACCORDANCE WITH AS1530.4.

14.03.25 DA ISSUE

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Rev Date

2 12.03.25 DA ISSUE 1 15.11.24 50% ISSUE FOR REVIEW Reason for Issue

CM CB CM CB

CH CB

Drawn Design Verify

Project

– MECHANICAL —— ELECTRICAL —— HYDRAULIC —— FIRE —— ENERGY —— NABERS —— STORMWATER —— SECTION J —— BEEC –

EUGOWRA COMMUNITY CHILDREN'S CENTRE NOBEL STREET EUGOWRA, NSW, 2806

WATER PRESSURE - CENTRAL TABLELANDS WATER			
100mm WATER MAIN IN		TESTED: 30.10.2024	
SUMMARY RESULTS	FLOW L/S	PRESSURE kPa	
STATIC PRESSURE (kPa)	0	450	
MAXIMUM FLOW OBTAINED	5	450	
DURING TEXT: (litres/second)	10	400	
	15	250	
	18	200	
	21	90	

FIRE HOSE REEL SERVICE DESIGN

PRESSURE REQUIRED	220kPa
WATER REQUIRED	0.66L/s
MINIMUM PRESSURE IN MAIN	450kPa
LENGTH OF RUN	110m
PIPING PRESSURE LOSS	30kPa
LOSS OF FITTINGS (20%)	85kPa
VERTICAL RISE LOSS	25kPa
TOTAL PRESSURE LOSS	140kPa
PRESSURE AT TOP HOSEREEL	310kPa
A PUMP IS NOT REQUIRED	

FIRE HYDRANT SERVICE DESIGN

A PUMP IS NOT REQUIRED

FIRE HYDRANT COVERAGE IS ACHIEVED COMPLETELY VIA ON-SITE EXTERNAL/INTERNAL ATTACK/FEED HYDRANTS.	
BUILDING CLASSIFICATION	9b
RISE IN STOREY	<2
FIRE COMPARTMENT FLOOR AREA	999m2
PRESSURE REQUIRED	250kPa
WATER REQUIRED	10L/s
MINIMUM PRESSURE IN MAIN	400kPa
LENGTH OF RUN	46m
PIPING PRESSURE LOSS	10kPa
LOSS THROUGH DDCA	60kPa
LOSS OF FITTINGS (20%)	20kPa
VERTICAL RISE LOSS	15kPa
TOTAL PRESSURE LOSS	105kPa
PRESSURE AT TOP HYDRANT	295kPa








ecw_ MANGAR ROAD

RE2 71 750182

Drawing Title
SITE SERVICES

Discipline ^{Scale} 1:200 @ A1 HYDRAULIC SERVICES Drawing No. HY-00-003 Job No. Rev 3 MN15425





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– MECHANICAL —— ELECTRICAL —— HYDRAULIC —— FIRE —— ENERGY —— NABERS —— STORMWATER —— SECTION J —— BEEC – Project EUGOWRA COMMUNITY CM CB 14.03.25 DA ISSUE CHILDREN'S CENTRE 3 DA ISSUE CM CB 2 12.03.25 NOBEL STREET 1 15.11.24 50% ISSUE FOR REVIEW CH CB EUGOWRA, NSW, 2806 Reason for Issue Rev Date Drawn Design Verify



Drawing Title

Discipline ^{Scale} N.T.S @ A1 HYDRAULIC SERVICES Job No. Drawing No HY-30-001 3 MN15425

Appendix C

AHIMS Search





Integrated Consulting PO Box 9026 Bathurst West New South Wales 2795 Attention: Erika Dawson

Email: erika@integratedconsulting.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 150, DP:DP750182, Section : - with a Buffer of 50 meters, conducted by Erika Dawson on 24 February 2025.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0 Aboriginal sites are recorded in or near the above location.
0 Aboriginal places have been declared in or near the above location. *

Your Ref/PO Number : 24117 Client Service ID : 978354

Date: 24 February 2025

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Appendix D

Bush Fire Safety Authority Checklist



Table 9: Clause 45 Rural Fires Regulations 2022 Considerations

Requirement	Section of Report where addressed	Compliance		
		Yes	No	N/A
 (1) For the purposes of the Act, section 100B(4), an application for a bush fire safety authority must be made in writing. 	This report is to form part of that application			
(2) An application for a bush fire safety authority must include the following—				
 (a) a description, including the address, of the property on which the development the subject of the application is proposed to be carried out, 	Section 1.3			
 (b) a classification of the vegetation on and surrounding the property, out to a distance of 140 metres from the boundaries of the property, in accordance with the system for classification of vegetation contained in Planning for Bush Fire Protection, 	Section 2.2.	\boxtimes		
(c) an assessment of the slope of the land on and surrounding the property, out to a distance of 100 metres from the boundaries of the property,	Section 2.3			
(d) identification of significant environmental features on the property,	Section 1.3.3	\boxtimes		
(e) the details of a threatened species or threatened ecological community under the Biodiversity Conservation Act 2016 that the applicant knows to exist on the property,	Section 1.3.4			
(f) the details and location of an Aboriginal object or place, within the meaning of the National Parks and Wildlife Act 1974, that the applicant knows to be situated on the property,	Section 1.3.5			
(g) a bush fire assessment for the proposed development, including the methodology used in the assessment, that addresses the following matters—	Section 2			
i. the extent to which the development is to provide for setbacks, including asset protection zones,	Section 2.5 and 3.4.1			
ii. the siting and adequacy of water supplies for fire fighting,	Section 3.4.3			
iii. the capacity of nearby public roads to handle increased volumes of traffic when a bush fire emergency occurs,	Section 3.4.2			
iv. whether or not nearby public roads that link with the fire trail network have two-way access,	No fire trail network			



Table 9: Clause 45 Rural Fires Regulations 2022 Considerations

Requirement	Section of Report where addressed	Compliance		
		Yes	No	N/A
 v. the adequacy of arrangements for access to and egress from the development site for the purposes of an emergency response, 	Section 3.4.2	\boxtimes		
vi. the adequacy of bush fire maintenance plans and fire emergency procedures for the development site,	Section 3.4.4	\boxtimes		
vii. the construction standards to be used for building elements in the development,	Section 3.4.1	\boxtimes		
viii. the adequacy of sprinkler systems and other fire protection measures to be incorporated into the development,	To be provided in accordance with NCC requirements if required.			
ix. registered fire trails on the property,	Nil.			\square
(h) an assessment of the extent to which the proposed development conforms with or deviates from Planning for Bush Fire Protection.	Section 3.4	\boxtimes		
(3) An application for a bush fire safety authority must also be accompanied by the prescribed information if—				
 (a) the proposed development is subdivision for the purposes of dwelling houses, dual occupancies or secondary dwellings on property in an urban release area, and 	Not an URA.			
 (b) the application includes a request by the applicant that the Commissioner, when deciding the application, considers whether it would be appropriate for the erection of the dwelling houses, dual occupancies or secondary dwellings concerned to be excluded from the application of the Environmental Planning and Assessment Act 1979, section 4.14. 	Not an URA.			



Table 9: Clause 45 Rural Fires Regulations 2022 Considerations

Requirement	Section of Report where addressed	Compliance		
		Yes	No	N/A
(4) In this section—				
prescribed information means the following—				
(a) a plan of subdivision that shows—				
 x. (i) the bush fire attack levels that will apply to the property on completion of clearing of vegetation proposed to be carried out as part of subdivision work, within the meaning of the Environmental Planning and Assessment Act 1979, and 				
 xi. (ii) proposed setbacks of buildings that may in future be erected on the property, including asset protection zones, and 				
(b) other information about the proposed development that the Commissioner may require.				
Note—				
More information about bush fire attack levels, including the flame zone, can be found in Planning for Bush Fire Protection, ISBN 978 o 646 99126 9, Table A1.7, published by the NSW Rural Fire Service in November 2019.				
urban release area has the same meaning as in the Environmental Planning and Assessment Regulation 2021, section 270.				
<i>dual occupancy, dwelling house and secondary dwelling</i> have the same meanings as in the standard instrument prescribed by the Standard Instrument (Local Environmental Plans) Order 2006.				



Appendix E

APZ & Landscaping Measures





APPENDIX 4 ASSET PROTECTION ZONE REQUIREMENTS

In combination with other BPMs, a bush fire hazard can be reduced by implementing simple steps to reduce vegetation levels. This can be done by designing and managing landscaping to implement an APZ around the property.

Careful attention should be paid to species selection, their location relative to their flammability, minimising continuity of vegetation (horizontally and vertically), and ongoing maintenance to remove flammable fuels (leaf litter, twigs and debris).

This Appendix sets the standards which need to be met within an APZ.

A4.1 Asset Protection Zones

An APZ is a fuel-reduced area surrounding a building or structure. It is located between the building or structure and the bush fire hazard.

For a complete guide to APZs and landscaping, download the NSW RFS document *Standards for Asset Protection Zones* at the NSW RFS Website www.rfs.nsw.gov.au.

An APZ provides:

- a buffer zone between a bush fire hazard and an asset;
- an area of reduced bush fire fuel that allows for suppression of fire;
- an area from which backburning or hazard reduction can be conducted; and
- an area which allows emergency services access and provides a relatively safe area for firefighters and home owners to defend their property.

Bush fire fuels should be minimised within an APZ. This is so that the vegetation within the zone does not provide a path for the spread of fire to the building, either from the ground level or through the tree canopy.

An APZ, if designed correctly and maintained regularly, will reduce the risk of:

- direct flame contact on the building;
- damage to the building asset from intense radiant heat; and
- > ember attack.

The methodology for calculating the required APZ distance is contained within Appendix 1. The width of the APZ required will depend upon the development type and bush fire threat. APZs for new development are set out within Chapters 5, 6 and 7 of this document.

In forest vegetation, the APZ can be made up of an Inner Protection Area (IPA) and an Outer Protection Area (OPA).

A4.1.1 Inner Protection Areas (IPAs)

The IPA is the area closest to the building and creates a fuel-managed area which can minimise the impact of direct flame contact and radiant heat on the development and act as a defendable space. Vegetation within the IPA should be kept to a minimum level. Litter fuels within the IPA should be kept below 1cm in height and be discontinuous.

In practical terms the IPA is typically the curtilage around the building, consisting of a mown lawn and well maintained gardens.

When establishing and maintaining an IPA the following requirements apply:

Trees

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;
- Iower limbs should be removed up to a height of 2m above the ground;
- tree canopies should be separated by 2 to 5m; and
- > preference should be given to smooth barked and evergreen trees.

Shrubs

- create large discontinuities or gaps in the vegetation to slow down or break the progress of fire towards buildings should be provided;
- 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

- 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.

A4.1.2 Outer Protection Areas (OPAs)

An OPA is located between the IPA and the unmanaged vegetation. It is an area where there is maintenance of the understorey and some separation in the canopy. The reduction of fuel in this area aims to decrease the intensity of an approaching fire and restricts the potential for fire spread from crowns; reducing the level of direct flame, radiant heat and ember attack on the IPA.

Because of the nature of an OPA, they are only applicable in forest vegetation.

When establishing and maintaining an OPA the following requirements apply:

Trees

- tree canopy cover should be less than 30%; and
- > canopies should be separated by 2 to 5m.

Shrubs

- > shrubs should not form a continuous canopy; and
- shrubs should form no more than 20% of ground cover.

Grass

- grass should be kept mown to a height of less than 100mm; and
- > leaf and other debris should be removed.

An APZ should be maintained in perpetuity to ensure ongoing protection from the impact of bush fires. Maintenance of the IPA and OPA as described above should be undertaken regularly, particularly in advance of the bush fire season.



Figure A4.1

Typlical Inner and Outer Protection Areas.





Appendix F

Access Requirements





APPENDIX 3

ACCESS

This appendix provides design principles for emergency service vehicle access.

A3.1 Vertical clearance

An unobstructed clearance height of 4 metres should be maintained above all access ways including clearance from building construction, archways, gateways and overhanging structures (e.g. ducts, pipes, sprinklers, walkways, signs and beams). This also applies to vegetation overhanging roads.

Figure A3.1

Vertical clearance.



A3.2 Vehicle turning requirements

Curved carriageways should be constructed using the minimum swept path as outlined in Table A3.2.

Table A3.2

Minimum curve radius for turning vehicles.

Curve radius (inside edge in metres)	Swept path (metres width)
< 40	4.0
40 - 69	3.0
70 - 100	2.7
> 100	2.5

Figure A3.2a

Swept path width for turning vehicles.



The radius dimensions given are for wall to wall clearance where body overhangs travel a wider arc than the wheel tracks (vehicle swept path). The swept path shall include an additional 500mm clearance either side of the vehicle.

Figure A3.2b

Roundabout swept path.



Example of a swept path as applied to a roundabout. The distance between inner and outer turning arcs allows for expected vehicle body swing of front and rear overhanging sections (the swept path).

A3.3 Vehicle turning head requirements

Dead ends that are longer then 200m must be provided with a turning head area that avoids multipoint turns. "No parking" signs are to be erected within the turning head.

Figure A3.3

Multipoint turning options.



Type A





The minimum turning radius shall be in accordance with Table A3.2. Where multipoint turning is proposed the NSW RFS will consider the following options:



Туре В





A3.4 Passing bays

The construction of passing bays, where required, shall be 20m in length and provide a minimum trafficable width at the passing point of 6m.

Figure A3.4

Passing bays can provide advantages when designed correctly. Poor design can and does severely impede access.



A3.5 Parking

Parking can create a pinch point in required access. The location of parking should be carefully considered to ensure fire appliance access is unimpeded. Hydrants shall be located outside of access ways and any parking areas to ensure that access is available at all times.

Figure A3.5

Hydrants and parking bays.





A3.6 Kerb dimensions

All kerbs constructed around access roads should be no higher than 250mm and free of vertical obstructions at least 300mm back from the kerb face to allow clearance for front and rear body overhang.

Figure A3.6

Carriageway kerb clearance dimensions.



A3.7 Services

Hydrant services should be located outside the carriageway and parking bays to permit traffic flow and access. Setup of standpipes within the carriageway may stop traffic flow. Hydrant services shall be located on the side of the road away from the bush fire threat where possible.

A3.8 Local Area Traffic Management (LATM)

The objective of LATM is to regulate traffic an acceptable level of speed and traffic volume within a local area.

Traffic engineers and planners should consider LATM devices when planning for local traffic control and their likely impact on emergency services. LATM devices by their nature are designed to restrict and impede the movement of traffic, especially large vehicles.

Where LATM devices are provided they are to be designed so that they do not impede fire vehicle access.

A3.9 Road types

A3.9.1 Perimeter Roads

Perimeter roads are to be provided with a minimum clear width of 8m. Parking and hydrants are to be provided outside of carriageways. Hydrants are to be located outside of carriageways and parking areas.

Figure A3.9a

Perimeter road widths.



A3.9.2 Non-perimeter Roads

Non-perimeter roads shall be provided with a minimum clear width of 5.5m. Parking is to be provided outside of the carriageway and hydrants are not to be located in carriageways or parking areas.

Figure A3.9b

Non-perimeter road widths.



A3.9.3 Property access

Property access roads are to be a minimum of 4m wide.

Figure A3.9c

Property access road widths.



Appendix G

RFS Prelodgement Advice





PRE-DA ADVICE SUMMARY

Applicant: Erika Dawson, Integrated Consulting

Subject: 17 Noble Street Eugowra RFS Ref. PRE-DA20241128000286

Details of the Proposal

SFPP

New child care centre

 \Box Residential subdivision

C Other

Bush Fire Protection Issues Discussed

Application and/or Interpretation of sections of *Planning for Bush Fire Protection*

Performance Based Solutions

Qualitative Analysis

Quantitative Analysis

Proposed Redundancies

Strategic Bush Fire Study

Non compliances in relation to Bush Fire Protection Measures

Hazard Assessment

Asset Protection Zones

Performance solution for access for Class 9b SFPP

Access

Seeking confirmation from the RFS that Performance Solutions consistent with the Acceptable Solution of Table 6.8b of PBP are being accepted for Access relating to Child Care Centres.

Construction Standards

□ Services

Emergency and Evacuation Planning

1 of 2

Documentation

Preliminary Bush Fire Risk Correspondence from Integrated Consulting dated 26 November 2024 Assessment

Concept/Detailed Drawings

Other Documents

Pre DA Advice

- The Rural Fire Service supports, in principle, the proposed performance-based solution for access to service the new child care centre. The proposed internal road(s) are considered to demonstrate compliance with the performance criteria for access in Table 6.8b of Chapter 6 and Table 3 of the Addendum to *Planning for Bush Fire Protection 2019*, with regard to the bush fire risk to the site and the existing access network relied on for evacuation.
- Please note that the pre DA advice is not intended to provide pre approval of bush fire risk assessment to support a development application. The aim of the service is to identify any potential issues in relation to bush fire risk assessment before a formal development application is lodged. The advice issued is preliminary in nature and no detailed assessment of the site or development is undertaken at this stage. The service is not to be used for the purpose of submitting revised information/bush fire engineering brief for further review of the original advice.

Disclaimer

RFS advice is based on information provided and policy and legislative requirements applicable at the time. The advice should be copied into, or referenced in, any subsequent development application.

All efforts are made to identify issues of relevance and likely concern with the preliminary proposal. However, the comments and views in this document are based only on the plans and information submitted for preliminary assessment and discussion at the pre-DA meeting. You are advised that: -

- The views expressed may vary once detailed plans and information are submitted and formally assessed in the development application process, or as a result of issues contained in submissions by interested parties;
- > Given the complexity of issues often involved and the limited time for full assessment, no guarantee is given that every issue of relevance will be identified;
- > Amending any aspect of the proposal could result in changes which would create a different set of impacts from the original plans and therefore make this advice invalid; and,
- > The Pre-DA advice given does not bind Council officers, the elected Council members, or other parties to the DA process.

Submitted by:

Approved by:

Kalpana Varghese Supervisor, Development Assessment and Planning Planning and Environment Services (East) Built and Natural Environment Nika Fomin Manager Planning and Environment Services (East) Built and Natural Environment

Date: 17 February 2025

2 of 2