

Bushfire Management Plan Coversheet



This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Bushfire Management Plan and Site Details

Site address / Plan reference:	Lot 2976 # 68 Bushside Drive			
Suburb:	Ellenbrook	State:	W.A	Postcode: 6069
Local government area:	Swan			
Description of the planning proposal:	Subdivision Development			
BMP / Reference number:	BMP14125-26	Version:	1	Date of issue: 6/04/2026
Client / Business name:	Emergen Bushside Pty Ltd			

Reason for referral to DFES ¹	Yes	No
Has the BAL been calculated by a method other than Method 1 as outlined in AS3959? (Tick No if AS3959 Method 1 has been used to calculate the BAL)	☐	☒
Have any of the bushfire protection criteria elements been addressed through the use of an outcomes-based approach ?	☐	☒
Strategic planning proposal (including rezoning applications)	☐	☒
Local planning scheme amendment containing supplementary provisions, additional to the deemed provisions for bushfire risk management	☐	☒
Where a bushfire local planning policy, or variation to the acceptable solutions or the APZ is proposed	☐	☒
Where there is a conflict of opinion between the decision maker and proponent	☐	☒
Expert technical advice on bushfire behaviour, emergency management, or other occasions where bushfire technical advice is required to support planning decision-making	☐	☒
Expert technical advice on bushfire matters referred to State Administrative Tribunal (SAT) or Development Assessment Panel (DAP)	☐	☒
Comments on future buildings' compliance with FES Commissioner's operational requirement guidelines	☐	☒
Decision maker discretionary referral, (e.g. renewable energy, hazardous materials, vulnerable land use)	☐	☒

If the development is a special development type as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land use as the development is for accommodation of the elderly, etc.)?

Note: The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name Benjamin den Boer	Accreditation Level Level 2	Accreditation No. 37153	Accreditation Expiry July 2026
Company Bushfire protection Australia		Contact No. 0487825844	

I declare that the information provided within this bushfire management plan is to the best of my knowledge true and correct.

Signature of Practitioner

Date

6/04/2026
28/03/2026

¹ For more information please refer to DFES [Referral to DFES Checklist](#)



BUSHFIRE MANAGEMENT PLAN

Subdivision & Residential Development Application

Emergen Bushside Pty Ltd

Lot 2976 #68 Bushside Drive, Ellenbrook
BMP14125-26

TABLE OF CONTENTS

TABLE OF CONTENTS	1
DISCLAIMER AND LIMITATION	2
DOCUMENT DETAILS	4
SECTION 1: BUSHFIRE ASSESSMENT RESULTS	5
SECTION 2: ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA	12
SECTION 3: IMPLEMENTATION MEASURES	16
ADDENDUM: MAPS	

DISCLAIMER AND LIMITATION

This Bushfire Management Plan (BMP) is prepared for Emergen Bushside Pty Ltd. It is not for the benefit of any other person and may not be relied upon by any other person.

The Mitigation Strategies contained in this Bushfire Management Plan are considered to be the minimum standards only, based on the standards prescribed by relevant authorities and Bushfire Protection Australia's (BPA) experience. It is expressly stated that BPA and the writer do not guarantee that if these standards are complied with or if a property owner exercises prudence, that property will not be damaged or that lives will not be lost in a bushfire event.

On completion of this report other factors are likely to impose greater or lesser risk to the site. Factors such as the growth, planting or removal of vegetation, poor maintenance of fire prevention measures, the addition of structures not included in this report or other activities can and will change the bushfire threat to all structures detailed in the document. Furthermore, the level of implementation of fire precautions described in this Bushfire Management Plan will depend on the actions of the landowner and/or occupiers of the land, over which BPA has no control.

To the maximum extent permitted by the law, Bushfire Protection Australia, its employees, officers, agents and the writer excludes all liability whatsoever for:

1.1 Claims, damage, loss or injury to any property or any person caused by fire or as a result of fire or indeed howsoever caused;

1.2 Errors or omissions in this report except where grossly negligent.

1.3 Refusal or non-approval of any planning/building submissions to Local Government, WAPC, DFES, SAT or any other entity with the authority to accept or refuse applications.

The proponent expressly acknowledges that they have been made aware of these exclusions and that such exclusions of liability are reasonable in all circumstances.

If despite the provisions of the above disclaimer BPA is found liable,

then BPA limits its liability to the lesser of the maximum extent permitted by the law and the proceeds paid out by BPA's Professional or Public Liability insurance following the making of a successful claim against such insurer.

BPA accepts no liability or responsibility whatsoever for or in respect of any use or reliance upon this report and its supporting material by any Third Party.

DOCUMENT DETAILS

Property Address: Lot 2976 #68 Bushside Drive

Suburb: Ellenbrook

Lot Size: 3707m²

Client: Emergen Bushside Pty Ltd

Project Number: BMP14125-26

Prepared by: Ben den Boer

Document Control

Report Version	Purpose	Author/Reviewer & Accreditation Details	Date Submitted
1	Subdivision & Residential Development Application	B. den Boer BPAD 37153 L2	6/04/2026

SECTION 1: BUSHFIRE ASSESSMENT RESULTS

The potential bushfire impact to the site/proposed development from each of the identified vegetation plots are identified below.

Plot 1 is excluded as per AS3959 Section 2.2.3.2 clauses (e & f). The area is classed as low threat gardens and non-vegetated areas.

Plot 2 is classed a A Forest with trees 15-20m tall, >30% Foliage cover.

Plots 3 & 4 are classed as D Scrub. Vegetation is mainly shrubs and bushes with >30% foliage cover. Includes small trees up to 6.0m tall.

Table 1: BAL Analysis

Plot	Vegetation Classification/ Exclusion clause	Effective Slope
1	Exclusion (f)	0.0°
2	Forest	0.0°
3	D Scrub	0-5°
4	D Scrub	0-5°

Vegetation Classification

All vegetation within 150m of the site/proposed development was classified in accordance with Clause 2.2.3 of AS 3959-2018. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified below.

PLOT ID	3
Vegetation Classification or Exclusion Clause Description / Justification for Classification	D Scrub Bushes and shrubs >2.0m tall, >30% foliage cover. Includes occasional tree up to 6.0m tall. 
Photo ID	1

PLOT ID Vegetation Classification or Exclusion Clause Description / Justification for Classification Photo ID	3
	D Scrub Bushes and shrubs >2.0m tall, >30% foliage cover. Includes occasional tree up to 6.0m tall.  Bushfire Protection Australia BMP14125-26 24.02.2026 13:14 SW

PLOT ID Vegetation Classification or Exclusion Clause Description / Justification for Classification Photo ID	3
	D Scrub Bushes and shrubs >2.0m tall, >30% foliage cover. Includes occasional tree up to 6.0m tall.  Bushfire Protection Australia BMP14125-26 24.02.2026 13:14 SW

PLOT ID	3
Vegetation Classification or Exclusion Clause Description / Justification for Classification	D Scrub Bushes and shrubs >2.0m tall, >30% foliage cover. Includes occasional tree up to 6.0m tall. 
Photo ID	4

PLOT ID	3
Vegetation Classification or Exclusion Clause Description / Justification for Classification	D Scrub Bushes and shrubs >2.0m tall, >30% foliage cover. Includes occasional tree up to 6.0m tall. 
Photo ID	5

PLOT ID Vegetation Classification or Exclusion Clause Description / Justification for Classification Photo ID	2
	A Forest Trees, 10-20m tall, >30% foliage cover. Includes understorey of shrubs and bushes. 

PLOT ID Vegetation Classification or Exclusion Clause Description / Justification for Classification Photo ID	2
	A Forest Trees, 10-20m tall, >30% foliage cover. Includes understorey of shrubs and bushes. 

PLOT ID Vegetation Classification or Exclusion Clause Description / Justification for Classification Photo ID	3 D Scrub Bushes and shrubs >2.0m tall, >30% foliage cover. Includes occasional tree up to 6.0m tall.  Bushfire Protection Australia BMP14125-26 24.02.2026 13:16 8
---	--

PLOT ID Vegetation Classification or Exclusion Clause Description / Justification for Classification Photo ID	3 D Scrub Bushes and shrubs >2.0m tall, >30% foliage cover. Includes occasional tree up to 6.0m tall.  Bushfire Protection Australia BMP14125-26 24.02.2026 13:18 9
---	--

PLOT ID	1
Vegetation Classification or Exclusion Clause Description / Justification for Classification	Exclusion (f) Subject site. No bushfire prone vegetation present.
Photo ID	10



PLOT ID	1
Vegetation Classification or Exclusion Clause Description / Justification for Classification	Exclusion (f) Subject site. No bushfire prone vegetation present.
Photo ID	11



SECTION 2: ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA

In planning for subdivision, development or land use the WAPC and DFES have adopted a performance-based system of control for each Bushfire Hazard Management issue

The criteria are designed to assist in the assessment of proposed Bushfire Risk Management measures required for the proposal.

These elements are summarised as:

- Location
- Siting and design of development
- Vehicular access
- Water Supply

The compliance of the planned development against each element of Section 5 Structure Plans and Subdivision Applications and Section 6 Development - Residential in the Guidelines for Planning in Bushfire Prone Areas 2024 is summarised in Table 2: Compliance.

Table 2: Compliance Section 5: Structure Plans and Subdivision Applications

Element	Acceptable Solution	Compliance	Notes
1. Location	A1.1a Broader Landscape Type A	Yes	Development meets the criteria for a Simplified BLA
	A1.2b Broader Landscape Type B	N/A	
2. Siting and Design of Development	A2.1a Siting and Design	Yes	All proposed lots achieve development areas of BAL-29 and below.
	A2.1b Sitting in area exceeding BAL-29	N/A	
	A2.2 Asset Protection Zone (APZ)	Yes	APZ's are not required due to all lots achieving suitable areas of BAL-29 and below.
	A2.3 Clearing natural Vegetation	N/A	No natural vegetation is present on the subject area.
3. Vehicular Access	A3.1 Public Roads	N/A	No public roads are proposed.
	A3.2 Access Routes	Yes	The existing public road network leads to 2 separate suitable destinations.
	A3.3 No-through Roads	N/A	A no-through road is not proposed.
	A3.4 Emergency Access Way	N/A	No Emergency Access Way is proposed
	A3.5 Perimeter Roads	N/A	No perimeter roads are proposed
	A3.6 Battle-axe access legs	N/A	None of the proposed lots are battle-axe lots.
4. Water	A4.1 Water Supply for residential habitable buildings	Yes	The site is connected to the mains water supply. A number of Fire Hydrant are located in close proximity of the site.

Explanatory Notes:

Element 1. Location

Simplified Broader Landscape Assessment

1. Is the subject site within a kilometre of a townsite, urban area or suitable destination?

The site is located within an urban area.

2. Is the road pattern from the planning proposal to the closest townsite, urban area or suitable destination, simple and/or direct (limited intersections)?

The road pattern is simple with limited intersections to navigate to reach an urban area / suitable destination.

3. Is the majority of vegetation cleared, managed or Class G Grassland, within the broader landscape assessment area (e.g. clearing for residential zoned urban lots)?

Approximately 75% of the area within the BLA assessment is cleared, managed or Class G Grassland.

4. Is the planning proposal exposed to two or less aspects with external bushfire hazards (excluding Class G Grassland)?

The proposal is exposed to 1 aspect classed as Bushfire Prone.

Element 2. Siting and Design of Development

All proposed building lots achieve BAL ratings under BAL-29 based on the external vegetation classed as bushfire prone.

- Lots 7-14 have a small strip (Approximately 5.0m wide) of BAL-29 on the southern side of the lots. Proposed class 1a buildings are in BAL-19 areas.
- Lots 1-6 are rated as BAL-12.5.

The proposed Class 1a buildings on all lots are to be built to the corresponding BAL level for each lot. See detailed BAL Contour Map with measurements for more detail.

All lots require that a notification pursuant to Section 165 of the Planning and Development Act 2005, is to be placed on the certificate(s) of title of the existence of a hazard or other factor. See Table 3 Implementation Action for further detail.

Bushfire Protection Criteria 6: Development – Residential

Element 3. Vehicular Access -

A3.1 Private Driveways

The proposed communal driveway is to service all 14 lots.

The total length is approximately 68m long with an allocated vertical width of 5.0m.

Element 4. Water Supply

A4.2 Water supply for subdivision applications

A reticulated water supply is proposed within the development area.

Where a reticulated water supply is existing or proposed, a hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority.

Several fire hydrants are located within close proximity of the development. The closest hydrant is on the corner of Bushside Drive and Doig Road.

SECTION 3: IMPLEMENTATION MEASURES

RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF THE BUSHFIRE MEASURES

Table 3: Implementation Actions

Developer	
No.	Implementation Action
1	Create individual lots.
2	Ensure hydrants provided near the site are in accordance with the specifications of the relevant water supply authority.

Developer	
No.	Prior to issue of titles
1	A notification, pursuant to Section 165 of the Planning and Development Act 2005, is to be placed on the certificate(s) of title of all the proposed lots within the designated bushfire prone area advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows: “This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and is subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land”. (Western Australian Planning Commission)

Developer/Builder	
No.	Construction
1	Ensure all class 1a buildings are built to the relevant BAL standards.

Local Government	
No.	At all relevant times
1	Enforce the requirements of City of Swan Fire Hazard Reduction Notice where applicable.
2	Maintain all Fire Hydrants in the vicinity of the proposal.

ADDENDUM 1: MAPS

Fig 1. Site Plan - Subdivision

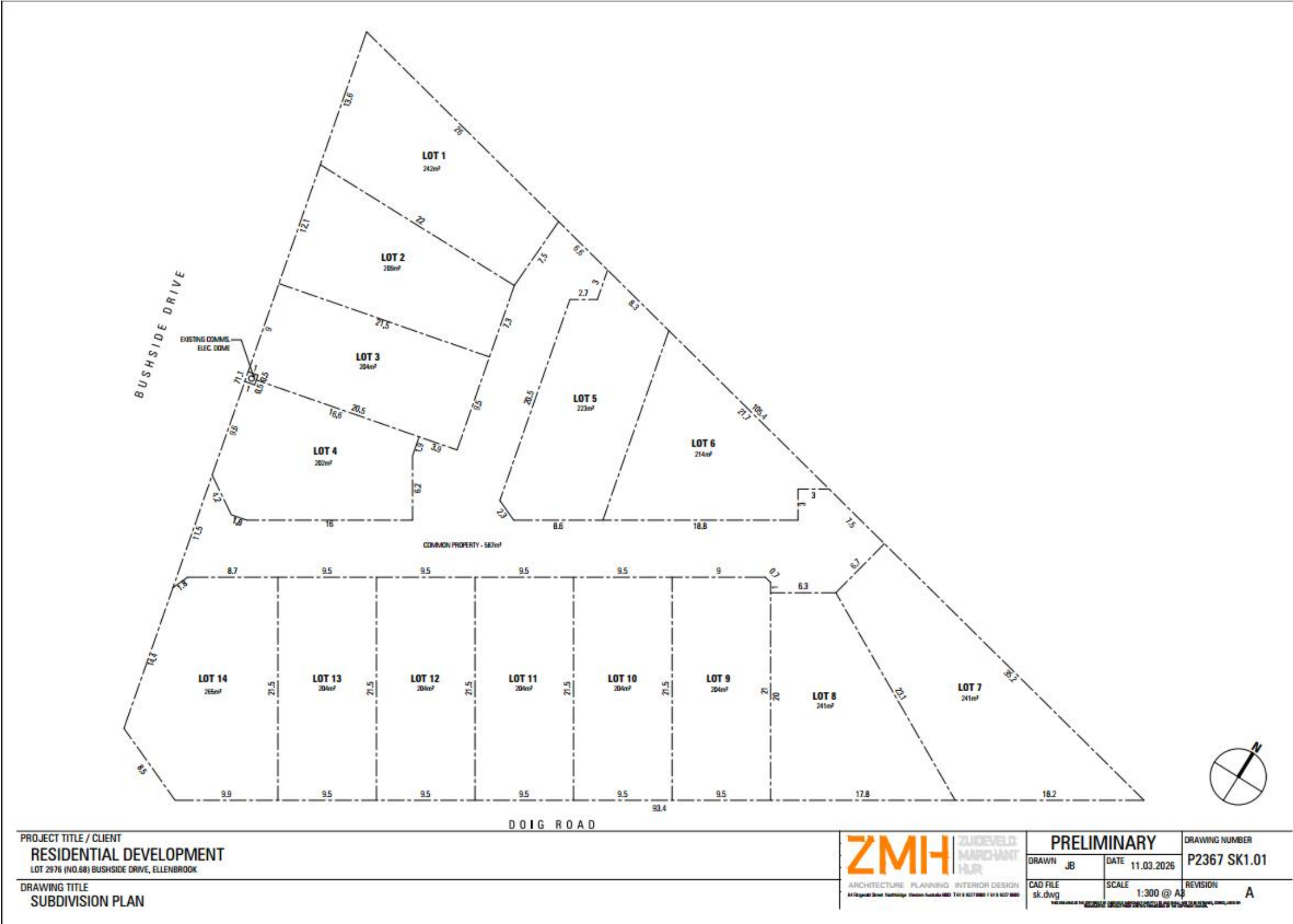
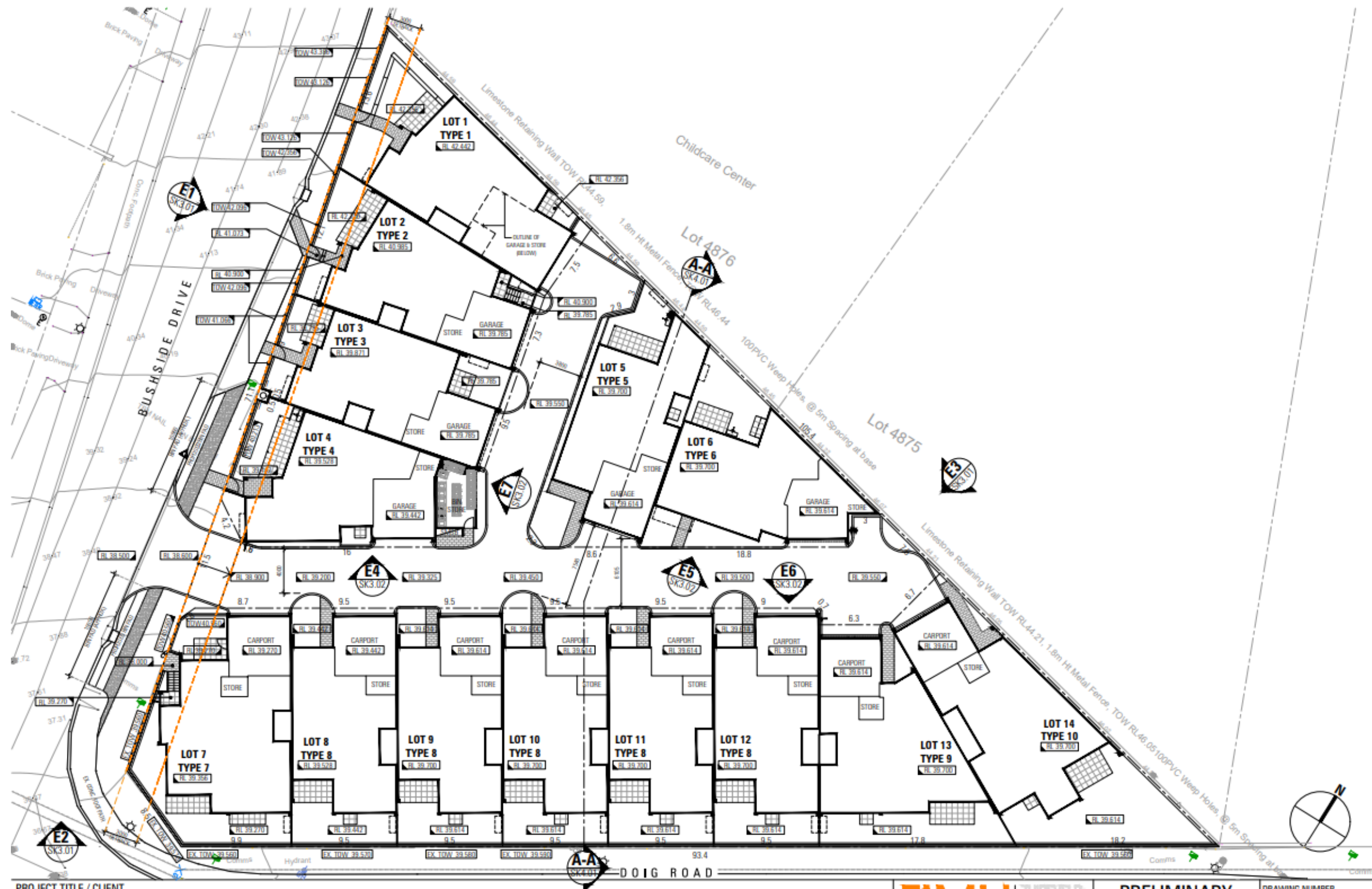


Fig 2. Site Plan – Residential Development



PROJECT TITLE / CLIENT
RESIDENTIAL DEVELOPMENT
LOT 2976 (NO.68) BUSHSIDE DRIVE, ELLENBROOK

DRAWING TITLE
SITE PLAN

ZMH ZUIDVELD MARCHANT HUR
ARCHITECTURE PLANNING INTERIOR DESIGN
64 Fitzgerald Street, Northbridge, Western Australia 6003 T 08 9427 9800 F 08 9427 9800

PRELIMINARY		DRAWING NUMBER
DRAWN JB	DATE 01.05.2026	P2367 SK1.02
CAD FILE sk - 260501.dwg	SCALE 1:300 @ A3	REVISION B

Fig 3. Vegetation Assessment Map



Fig 4. BAL Contour Map



Fig 5. BAL Contour Map – Lot Layout

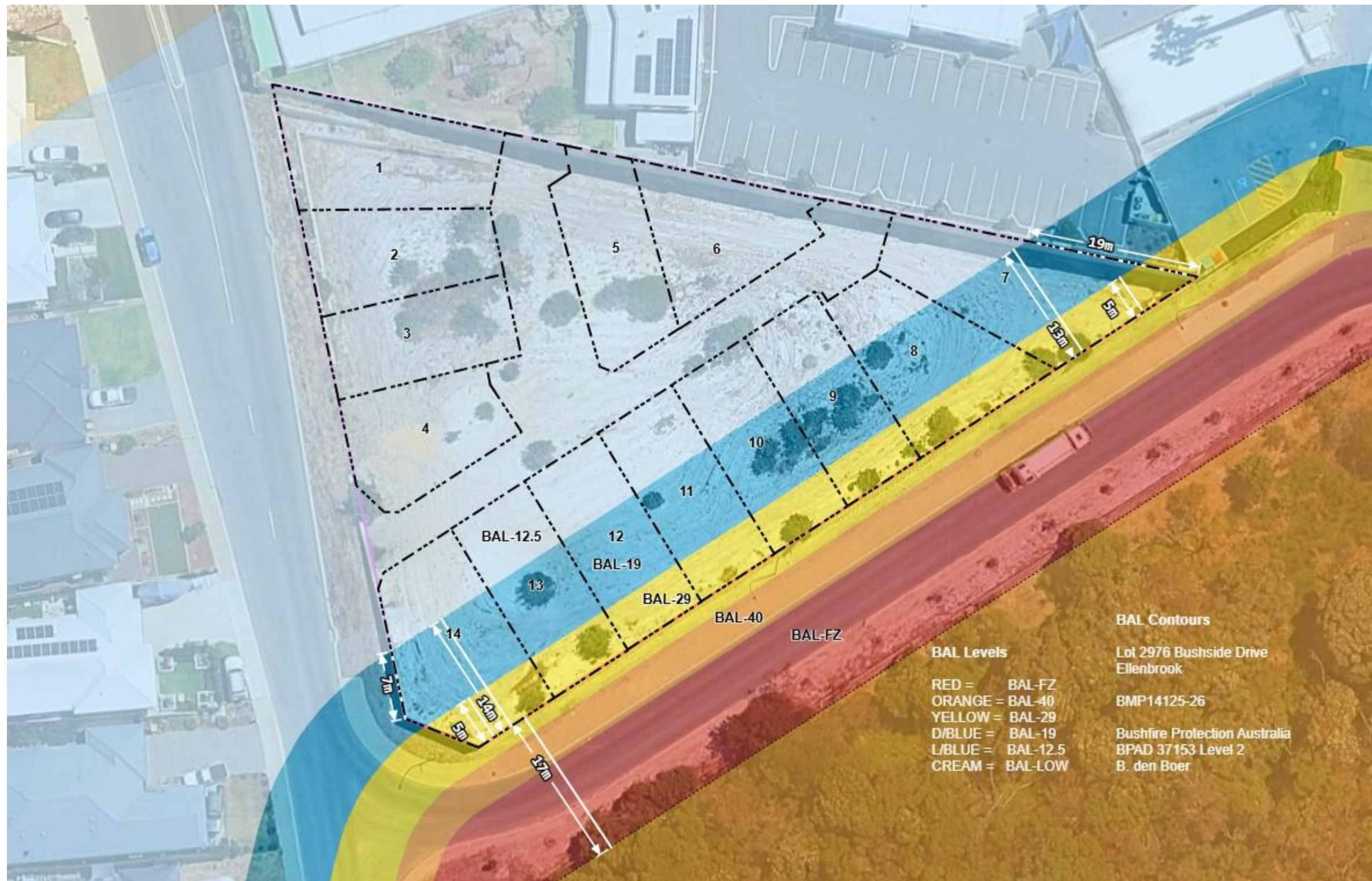
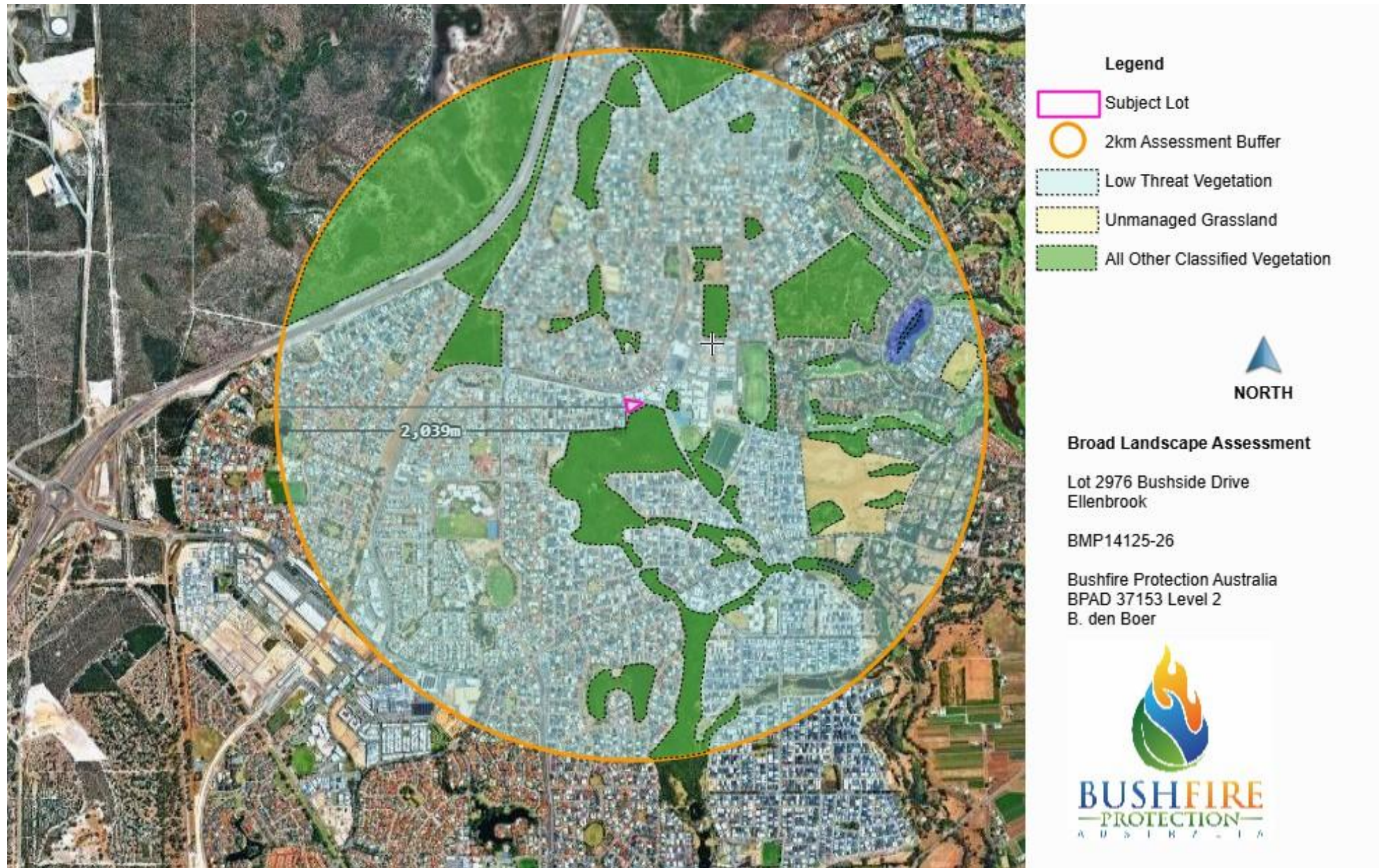


Fig 6. Landgate Contours



Fig 7. Broad Landscape Assessment Map





SUMMATION

Bushside Drive

Sustainable Design Assessment Report

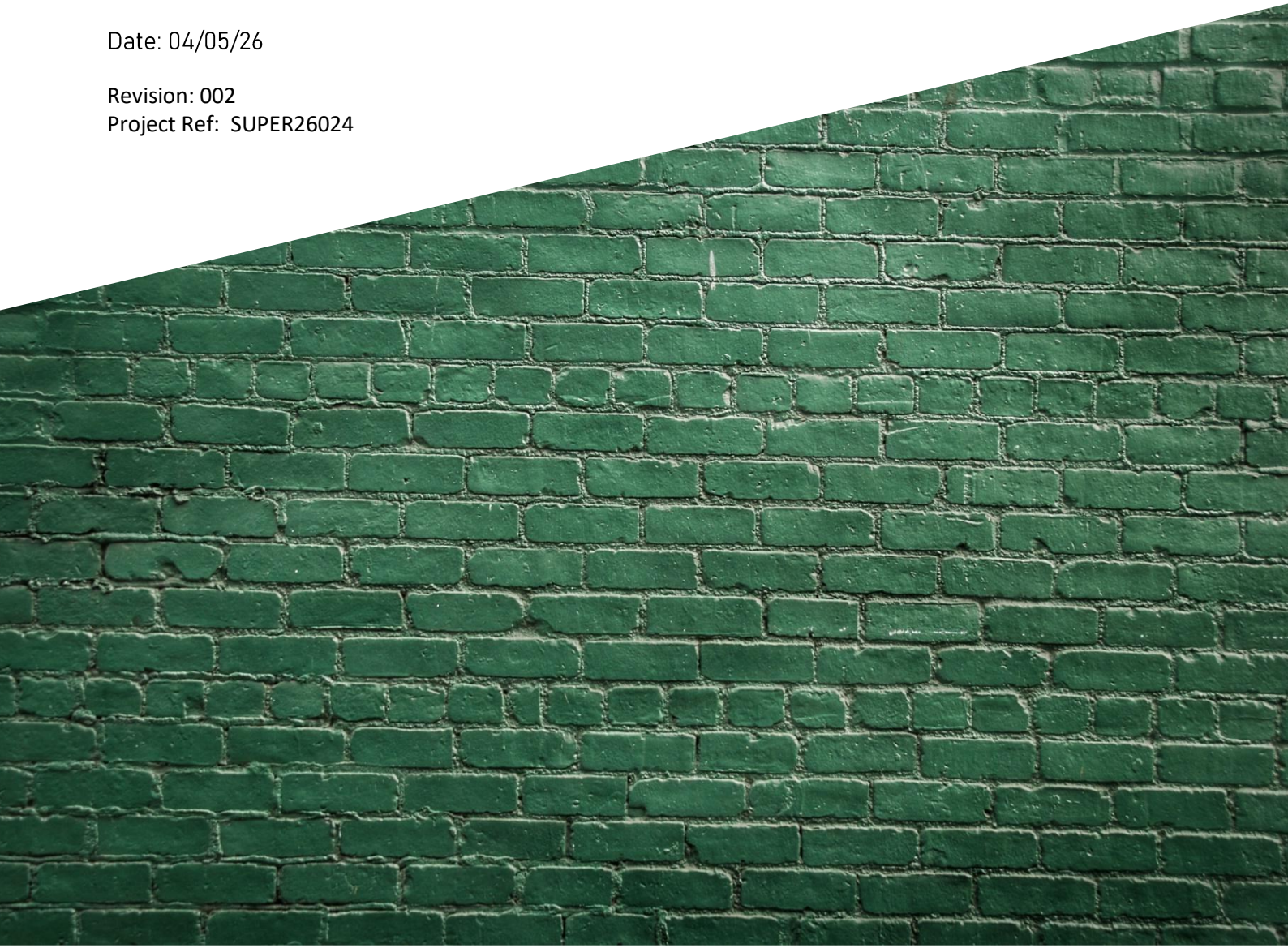
Prepared for: Emergen Property

Prepared by: Khryst Vizon

Date: 04/05/26

Revision: 002

Project Ref: SUPER26024





Executive Summary

This document has been prepared to outline the sustainability initiatives that are being considered for inclusion in the Bushside Drive project located in Lot 2976, 68 Bushside Drive, Ellenbrook, WA.

Summation Pty Ltd has been engaged as the sustainability consultants for the project and will be responsible for the delivery of the sustainability objectives. The sustainability team for this project will be led by Prasanna Suraweera, who is a Director with Summation and a Green Star Accredited Professional with over 21 years of experience in delivery of sustainable developments. It is confirmed that Summation has been engaged to provide a wholistic review of the sustainability opportunities with the aim of adopting robust and appropriate initiatives accordingly.

The following guidelines are acknowledged as applicable to the site:

- WA State Planning Policy 7.0 – Design of the Built Environment

“Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.”

It is acknowledged there are no other sustainability specific requirements applicable for this site.

The design of Bushside Drive requires a careful balance between cost and sustainability. To maintain affordability, many conventional industry sustainability metrics such as Green Star cannot be applied as they significantly increase construction costs. Instead, the project will focus on practical, integrated, cost-effective initiatives that deliver strong environmental performance whilst ensuring that development cost and operational cost are appropriately balanced. As a result, the project prioritises on core fundamentals, namely the passive design features such as Low ‘e’ Neutral single glazing, high NatHERS performance and good practice services approach

Summary of the key sustainability initiatives targeted for the project are outlined below:

- Energy Efficiency Passive Design Features
- Electrification
- Provision for Solar PV
- Water Sensitive Design
- Effective Stormwater Management
- Heat Island Mitigation
- Waste Minimisation
- Improved Indoor Environment Quality

Refer to Section 2 for further discussion of the proposed initiatives.



Contents

1	Introduction	3
1.1	Project Background	3
1.2	Disclaimer	3
2	Proposed Initiatives	4
2.1	Summary of Initiatives	4
2.2	Energy Efficiency Passive Design Feature	4
2.3	Electrification – Hot Water, Space Heating and Cooking	4
2.4	Provision for Solar PV	5
2.5	Water Sensitive Design	5
2.6	Effective Stormwater Management	5
2.7	Heat Island Mitigation	6
2.8	Waste Minimisation	6

List of figures

Figure 1 – Site Location and Context	3
Figure 2: Preliminary roof area available for Solar PV allocation	5
Figure 3: Waste Storage Area Allocation	6

Revision History

Revision	Date	Notes	Prepared By	Approved By
001	28/04/2026	Issued for comment	KCV	PDS
002	04/05/2026	Issued for DA	KCV	PDS

Checked and approved by:

Name: Prasanna Suraweera

Signature:



Abbreviations/Glossary

Abbreviation	Description
ESD	Environmentally Sustainable Design
GBCA	Green Building Council of Australia
GSAP	Green Star Accredited Professional
KPI	Key Performance Indicators
EOT	End of Trip
NCC	National Construction Code
BMS	Building Management System

1 Introduction

1.1 Project Background

The proposed Bushside Drive project is located at Lot 2976, 68 Bushside Drive, Ellenbrook, WA. The site location is shown in Figure 1 below.



Figure 1 – Site Location and Context

The project consists of 14 single-storey villas, comprising a mix of three-to-four-bedroom units.

1.2 Disclaimer

This report provides high level guidance regarding the sustainability commitments targeted for this project and the preliminary strategies and initiatives to be adopted therein.

The purpose of this report is to articulate the sustainability initiatives being committed by the project. Due care has been taken to ensure the initiatives are coordinated and achievable for the project, however, note that the specific strategies mentioned in this report are indicative and may evolve throughout the futures stages of design.

2 Proposed Initiatives

2.1 Summary of Initiatives

A summary and discussion of the key initiatives proposed are outlined below:

- Energy Efficiency Passive Design Features
- Electrification
- Provision for Solar PV
- Water Sensitive Design
- Effective Stormwater Management
- Heat Island Mitigation
- Waste Minimisation
- Improved Indoor Environment Quality

2.2 Energy Efficiency Passive Design Feature

Energy efficiency and passive design features provide the ideal mechanism for improving the sustainability performance of housing projects. This is due to the low-cost nature of adopting these initiatives. Whilst ideal lot orientation cannot often be achieved, of primary importance is minimising the extent of glazing to minimise reliance on active heating and cooling.

The following fundamental concepts will be considered in the design of Reflection Boulevard Project:

- Low 'e' Neutral single glazing (as a minimum)
- LED lighting throughout for light quality and efficiency
- Light-coloured roofing (e.g. Surfmist or equivalent) to reduce heat gain and support compliance / sustainability.

2.3 Electrification – Hot Water, Space Heating and Cooking

Electrification is a key strategy for ongoing emissions improvement as the electricity grid continues to improve its carbon intensity. This is due to the ongoing 'greening' of the grid as the additional renewable's capacity is realised. As an example, over the past 15 years, the grid emissions have improved by approximately 40% to 50% on the South-West Interconnected System (SWIS). This trend is expected to continue with further investment into renewable projects planned for the SWIS.

The project commits to all services (i.e. hot water, cooking and space heating) being provided by electricity-based systems. By having all services and energy demands electrified, this project is well placed to achieve ongoing savings in carbon emissions alongside the grid.

2.4 Provision for Solar PV

Provision of renewables is critical to the sustainability performance of buildings. It is a key initiative for reducing carbon emissions and will also provide operating cost benefits to the residents.

- Each unit to have future provision for solar PV connection
- Option to install solar to be provided as an optional package to purchases

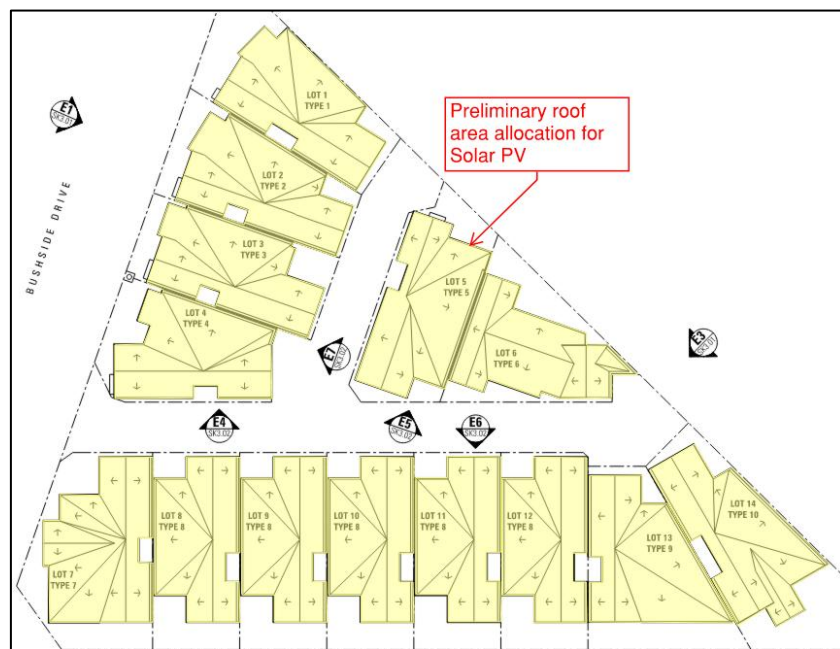


Figure 2: Preliminary roof area available for Solar PV allocation

2.5 Water Sensitive Design

Water efficiency will be targeted through the selection of suitable fittings and fixtures. The following initiatives will be targeted:

- High efficiency fittings and fixtures – High Water Efficiency Labelling and Standards (WELS) rated fittings:
 - Taps and Dishwashers– 5 Star
 - Toilets – 4 Star rated dual flush for toilets
 - Showers – 3 Star (7.5 l/min)

2.6 Effective Stormwater Management

Storm water management plan will be completed, with due consideration for reducing pollution runoff and flooding from the development.

2.7 Heat Island Mitigation

The external colour of roof elements can have significant impact on the local microclimate, specifically temperature. Dark surfaces will absorb heat and can increase ambient temperatures by 5+ degrees.

The Bushside Drive project will adopt light coloured roofing materials with Solar Absorptance of 0.32 (ie. Surfmist or similar) to minimise its impact on the local microclimate and provide respite for occupants in peak summer conditions.

2.8 Waste Minimisation

The waste storage areas have sufficient allowance to enable effective waste separation and recycling to occur. Appropriate waste sorting area has been determined based on the expected throughput of each waste streams. These have been located with safe efficient access by occupants and waste vehicles. Specific waste streams targeted include the following:

- General
- Comingled Recycling
- Organic/ Food Waste

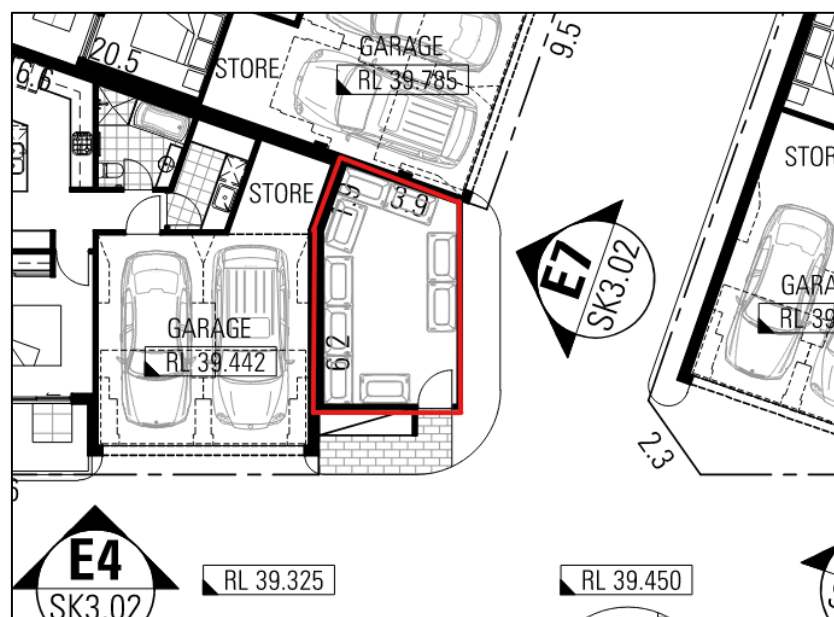


Figure 3: Waste Storage Area Allocation



SUMMATION