



Shire of Cuballing
Local Planning Scheme No. 2
Scheme Amendment No. 5

Various properties in Alton Street, Austral Street and Beeston Street,
Cuballing

Prepared by Edge Planning & Property for the Shire of Cuballing

www.edgeplanning.com.au

February 2020

**PLANNING AND DEVELOPMENT ACT 2005
RESOLUTION DECIDING TO AMEND A LOCAL PLANNING SCHEME**

SHIRE OF CUBALLING LOCAL PLANNING SCHEME No. 2

AMENDMENT No. 5

RESOLVED that the local government in pursuance of Section 75 of the *Planning and Development Act 2005*, amend the above Local Planning Scheme by:

1. Recoding Lot 7 Alton Street, Lot 9 Alton Street, Lot 8 Austral Street, Lot 91 Austral Street, Lot 92 Austral Street and Lot 90 Beeston Street from 'Rural Townsite R5' Zone to 'Rural Townsite R10' Zone and amending the Scheme Map accordingly.
2. Rezoning a portion of Lot 56 Austral Street from the 'Local Road' Reserve to the 'Rural Townsite' Zone, allocating an R-Coding of 'R5' and amending the Scheme Map accordingly.
3. Rezoning a portion of Lot 397 Beeston Street from the 'Local Road' Reserve to the 'Rural Townsite' Zone, allocating an R-Coding of 'R2.5' and amending the Scheme Map accordingly.

The Amendment is standard under the provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015*, contained in Regulation 34, on the basis it is:

- (b) An amendment that is consistent with a local planning strategy for the scheme that has been endorsed by the Commission.
- (e) An amendment that would have minimal impact on land in the scheme area that is not the subject of the amendment.
- (f) An amendment that does not result in any significant environmental, social, economic or governance impacts on land in the scheme area.

Dated this day of 20.....

.....
CHIEF EXECUTIVE OFFICER

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PROPOSAL TO AMEND A LOCAL PLANNING SCHEME

- | | |
|--|---|
| 1. LOCAL GOVERNMENT: | Shire of Cuballing |
| 2. DESCRIPTION OF LOCAL PLANING SCHEME: | Local Planning Scheme No. 2 |
| 3. TYPE OF SCHEME: | District Scheme |
| 4. SERIAL NUMBER OF AMENDMENT: | 5 |
| 5. PROPOSAL: | <ol style="list-style-type: none">1. Recoding Lot 7 Alton Street, Lot 9 Alton Street, Lot 8 Austral Street, Lot 91 Austral Street, Lot 92 Austral Street and Lot 90 Beeston Street from 'Rural Townsite R5' Zone to 'Rural Townsite R10' Zone and amending the Scheme Map accordingly.2. Rezoning a portion of Lot 56 Austral Street from the 'Local Road' Reserve to the 'Rural Townsite' Zone, allocating an R-Coding of 'R5' and amending the Scheme Map accordingly.3. Rezoning a portion of Lot 397 Beeston Street from the 'Local Road' Reserve to the 'Rural Townsite' Zone, allocating an R-Coding of 'R2.5' and amending the Scheme Map accordingly. |

REPORT BY THE SHIRE OF CUBALLING

1. INTRODUCTION

The Shire of Cuballing seeks the support of the Western Australian Planning Commission (WAPC) and the approval of the Hon. Minister for Planning to recode and rezone various lots in Alton Street, Austral Street and Beeston Street, Cuballing. In this report, the subject land will be called the 'site'.

The purpose of this report and associated plans are to explain and set out the planning merits of the Amendment.

The site is shown in Attachment 1 with the location plan set out in Attachment 2. The site is predominantly used for residential purposes, while other parts are undeveloped. The proposed recoding to R10 addresses the site's context, characteristics and capability. Additionally, the Amendment also addresses an anomaly with the *Shire of Cuballing Local Planning Scheme No. 2 (LPS2)* given a portion of Lot 56 Austral Street and a portion of Lot 397 Beeston Street, which are freehold, are reserved as 'Local Road' in LPS2.

Recoding the site will facilitate new development opportunities including the potential for a greater range of lot sizes and types of housing. The land use is expected to remain predominantly residential (as part of the Rural Townsite zone).

2. BACKGROUND

2.1 Property Address and Cadastral Details

Cadastral details for the site are summarised below in Table 1:

Lot	Deposited Plan	Volume	Folio	Area	Address
Lot 7 Alton Street	P222342	1152	290	3046m ²	131 Alton Street
Lot 9 Alton Street	P222342	1152	303	3087m ²	121 Alton Street
Lot 8 Austral Street	P222342	1156	980	3007m ²	78 Austral Street
Lot 56 Austral Street	P222342	1753	78	8245m ²	58 Austral Street
Lot 91 Austral Street	P222342	1156	981	3122m ²	74 Austral Street
Lot 92 Austral Street	P222342	1152	303	3521m ²	74 Austral Street
Lot 90 Beeston Street	P222342	1151	934	3358m ²	7 Beeston Street
Lot 397 Beeston Street	P181437	1814	929	2191m ²	23 Beeston Street

2.2 Regional Context

The site is situated in the Shire of Cuballing. The Cuballing townsite is located 185 kilometres south-east of Perth. Cuballing is in the southern Wheatbelt Region and it provides various services and facilities to residents and visitors.

2.3 Local Context

The site forms part of the Cuballing townsite and is located between 250 – 400 metres from the town centre (see Attachment 2).

Attachment 3 shows the Context Plan. There are a range of land uses nearby and in the locality including residential, rural residential, open space, community, commercial and industry. The range of land uses is reflective of most country towns.

To the east of the site is the Northam to Albany Railway, Ridley Street (part of the Great Southern Highway) and the Cuballing Brook. There are considerable mature trees between the Amendment site and Ridley Street which will filter views.

South of the site are a mix of service industrial and community uses.

The land to the west and north of the site has been developed for residential purposes with lots generally being between 2000m² and 4000m² in size. There is rural residential zoned land to the north-west of the site.

There are some areas coded Residential R10 in the Cuballing townsite.

2.4 Physical Characteristics

The main section of the site, generally bounded by Austral, Beeston and Alton Streets, has the following characteristics and features:

- it is largely undeveloped. There is a disused dwelling in poor condition and several associated outbuildings along with a small dam in the northern section. Lot 56 is a depot yard;
- it contains various mature trees;
- it has a gentle gradient, sloping down to the east;

- there is open drainage on some of the streets; and
- it is not classified as a contaminated site by the Department of Water and Environmental Regulation.

Lot 397 has frontage to Beeston Street and Andover Street. Lot 397 Beeston Street contains a dwelling and an outbuilding.

The site's physical features present no constraints to the Amendment.

2.5 Services

The site is provided with standard 'hard' infrastructure including reticulated (scheme) water, power, telecommunications, drainage and sealed roads except for reticulated sewerage which is not available in Cuballing. The site has various road frontages. The roads generally have a 6m wide pavement, except for a portion of Austral Street adjacent to the site which is approximately 4m wide.

2.6 Heritage

There is no registered Aboriginal heritage site on the subject land area as set out on the Department of Planning, Lands and Heritage inquiry system. While noting this, land developers have an obligation under the *Aboriginal Heritage Act 1972* to protect places and objects in Western Australia that are important to Aboriginal people because of the connections to their culture.

The site does not contain any structure or place of non-indigenous heritage significance on the Shire's Municipal Inventory (Local Heritage Survey).

3. PLANNING FRAMEWORK

3.1 Overview

The following section will outline how the Amendment suitably addresses relevant planning policies, strategies, plans and LPS2. In summary, the Amendment is consistent with the State, regional and local planning framework.

3.2 State Planning Framework

The following strategies and policies are of relevance to the Amendment:

- *State Planning Strategy 2050* - sets a broad strategic plan for Western Australia built on sustained growth and prosperity. The Strategy promotes regional development, a range of housing, liveability and making efficient use of land and infrastructure. The Amendment is consistent with the Strategy given it promotes infill residential development, near a town centre and near facilities in an established town.
- *State Planning Policy 1 State Planning Framework Policy (2006)* - identifies that the primary aim of planning is to provide for the sustainable use and development of land.
- *State Planning Policy No. 2.9 Water Resources (2006)* - development is required to adopt water sensitive urban design principles.
- *State Planning Policy No. 3 (2006)* - the Policy sets out the principles and considerations which apply for urban growth and settlement in Western Australia. The Policy promotes a sustainable settlement pattern, promoting development on 'brownfield' (previously developed) land, supports building on existing communities

and seeks convenient access to employment and services. The Amendment is consistent with SPP 3 given the site is near the town centre and other facilities.

- *State Planning Policy 3.7 Planning in Bushfire Prone Areas (2015)* - the site is within a Bushfire Prone Area as shown at <https://maps.slip.wa.gov.au/landgate/bushfireprone>.
- *State Planning Policy 5.4 Road and Rail Noise (2019)*.
- *Liveable Neighbourhoods (2009)* - promotes walkable neighbourhoods, mixed uses, the provision of a range of housing types and lot sizes, and to efficiently use land. A general principle is to plan residential neighbourhoods around existing/planned activity centres. The Amendment is consistent with Liveable Neighbourhoods given the site is only 250 - 400 metres from the centre of town and is within walking distance of other facilities.
- *Government Sewerage Policy (2019)* – the site is not within a sewerage sensitive area.

3.3 Regional Planning Framework

3.3.1 Wheatbelt Regional Planning and Infrastructure Framework (2015)

The Framework establishes the vision, objectives, planning approach and sets out key regional infrastructure projects. The Framework anticipates the population around Narrogin will grow and it supports a diverse economic base. The Framework seeks to focus new housing in established towns to support services and facilities.

3.3.2 Wheatbelt Regional Investment Blueprint (2015)

The Blueprint establishes priorities for economic development and growth of the Wheatbelt region and provides an analysis of local, regional, national and global factors influencing the region. A strategic economic growth plan and proposed transformational projects are set out. The Blueprint also supports growing the region's population, promoting development in established towns and a vibrant economy.

Complementing the Blueprint is the *Wheatbelt South Sub-Regional Economic Strategy (2014)*.

3.3.3 Greater Narrogin Region Growing Our Community: An Economic Development and Implementation Strategy (2015)

The Strategy's vision is 'To see prosperity and growth for the Greater Narrogin Region by encouraging workforce relocation, business growth, attracting new residents and providing attractive community amenities' (page 9). The Strategy supports population growth and providing a range of lot sizes and housing.

3.4 Local Planning Framework

3.4.1 Shire of Cuballing Local Planning Strategy (2019)

The *Shire of Cuballing Local Planning Strategy* identifies Cuballing as a 'rural town' and the focus for population growth in the district. Relevant strategies include:

- S4) Retain Residential R10 as the highest residential density (smallest lot size) in the Cuballing and Popanyinning townsites.

- S5) Support infill development and increases in housing density of land currently zoned 'Rural Townsite' to R10 where the land is considered suitable and capable.
- S8) Encourage a mix of lot sizes and promote affordability and choice in housing by encouraging a mix of housing types.
- S25) Require new developments to be appropriately serviced with potable water and on-site effluent disposal.

The Local Planning Strategy allocates the site as 'Residential' on Strategy Plan – Cuballing townsite and surrounds. Accordingly, the Amendment is consistent with the Local Planning Strategy given it supports infill development and residential densities to R10 to accommodate for the varying housing needs of the community.

3.4.2 Shire of Cuballing Local Planning Scheme No. 2

LPS2 is the principal statutory tool for achieving the Shire's aims and objectives, with respect to the development mainly from a land use, development control and infrastructure coordination perspective.

Most of the site is zoned 'Rural Townsite' with an R-Coding of R5. Lot 397 has an R-Coding of R2.5. A portion of Lot 56 Austral Street and a portion of Lot 397 Beeston Street are a 'Local Road' Reserve. This is an anomaly given the freehold tenure.

The Amendment is consistent with the aims of the scheme (clause 1.6) and the objectives for the Rural Townsite Zone in clause 3.2(a).

3.4.3 Local Planning Policies

There are no Local Planning Policies that directly relate to the Amendment. At future development stages, the Outbuildings Policy will in part guide future use and development of the site.

3.4.4 Shire of Cuballing Strategic Community Plan 2017-2027

The Strategic Community Plan sets the community's vision for the future and it is the principal strategic guide for the Council's future planning and activities. The vision for the town is:

'A progressive, diverse and caring community, with access to modern services and infrastructure, in a unique part of the world.'

The Strategic Community Plan promotes population growth, a growing and more diverse economy, supporting local facilities and protecting key environmental assets.

3.5 Planning Framework Implications for the Amendment

Common themes of the planning framework and their implications for the Amendment include:

- promoting a greater range of lot sizes to facilitate greater for housing choice and affordability. A wider range of both lot sizes and housing types are needed to cater for increasingly diverse household types;
- supporting infill development and increasing housing density of land currently zoned 'Rural Townsite' to R10 in the Cuballing townsite where suitably justified;

- addressing land use compatibility;
- addressing key environmental assets;
- addressing bushfire risks;
- addressing landscape impact;
- supporting local communities and local economies; and
- appropriate servicing including that subdivision and/or development is to be appropriately serviced with on-site sewerage disposal.

Based on the above, the Amendment is consistent with the planning framework and is consistent with the principles of orderly and proper planning.

4. AMENDMENT PROPOSAL

The Amendment proposes to recode the main part of site from 'Rural Townsite R5' to 'Rural Townsite R10'. Additionally, the Amendment also addresses an anomaly with LPS2 given a portion of Lot 56 Austral Street and a portion of Lot 397 Beeston Street are a 'Local Road' Reserve. This is an anomaly given the freehold tenure.

Accordingly, the majority of the site will remain in the 'Rural Townsite' Zone and there will not be any change to the land use provisions for the site. The objectives for the Rural Townsite Zone include providing for a range of compatible uses for a range of services, residential types, community and recreational facilities that may be found in a small country town.

Based on the site's context, characteristics and capability, it is anticipated that the undeveloped portions of the site will largely be developed for residential uses.

The proposed R10 coding, for the main part of the site, provides for an average lot size of 1000m². Related to this, there is a need to address the *Government Sewerage Policy* for on-site sewage disposal. Approval and implementation of the Amendment will provide opportunities for re-subdivision and/or grouped dwellings.

Recoding the site will facilitate new development opportunities including a greater range of lot sizes and different types of housing along with the potential for possible re-subdivision of the site.

Future development and uses will be subject to gaining necessary approvals from the WAPC and local government.

5. PLANNING CONSIDERATIONS AND PLANNING JUSTIFICATION

5.1 Overview

This section brings together an assessment of the site's attributes and the planning framework in considering key planning matters and justifying the Amendment.

5.2 Appropriate Location for Residential R10 Development

As outlined earlier, the main section of the site (generally bounded by Austral, Beeston and Alton Streets), is generally undeveloped and expected to be developed for predominantly residential purposes. The site is suitable and capable of residential development to Residential R10 for reasons including:

- it is consistent with the planning framework including the Local Planning Strategy which supports R10 as the highest residential density (smallest lot size) in the Cuballing townsite;
- it is only 250 – 400 metres from the town centre and is near other facilities;
- the central location promotes walking to shopping, leisure, community and other facilities and decreases car dependency;
- the use is compatible with adjoining and nearby development;
- the area is predominantly residential in nature;
- it promotes infill development on a 'brownfield' site;
- the site has manageable bushfire risks as outlined in Attachment 4;
- it is appropriately serviced. Attachment 5 confirms site conditions are suitable for residential development;
- the site has minimal environmental assets and future development will create manageable adverse environmental impacts;
- increasing the density of the site (and the resulting subdivision and development) is an efficient use of the land, particularly due to its location near the town centre; and
- it encourages a mix of lot sizes and promotes affordability and choice in housing by encouraging a range of housing types.

While the proposed R-Coding is higher than the surrounding residential area (which is largely zoned R5), there are some areas coded as R10 in the Cuballing townsite. The proposed density is therefore considered justified and consistent with the town's existing density areas. Additionally, the site is centrally located within the townsite. Therefore, it is considered reasonable that a R10 coding is implemented in this area to reflect the endorsed Local Planning Strategy.

5.3 Compatibility with Adjoining and Nearby Land Uses

Other than addressing the anomaly of a portion of Lot 56 Austral Street and a portion of Lot 397 Beeston Street being freehold yet reserved as 'Local Road' in LPS2, the zoning is not being changed by the Amendment. Accordingly, the risk of land use conflict is minimal for a site which has long been zoned as 'Rural Townsite'.

It is expected that the undeveloped portions of the site will be largely developed for residential purposes. The likely predominant residential use is compatible with adjoining and nearby land uses/development which are mainly residential in nature (see Attachment 3). Accordingly, the Amendment will retain the area's character.

The site's long established 'Rural Townsite' zoning is considered 'legacy' development and the Amendment will assist to facilitate a modest increase in the number of dwellings. Future development is expected to have manageable impacts from railway and highway traffic.

It is concluded that land use conflicts are not expected to be an issue considering the uses of the site will remain the same and a higher R-Coding is more appropriate in this location than areas further from the town centre.

5.4 Bushfire Management

Attachment 4 sets out the Bushfire Management Plan (Bushfire Hazard Level Assessment) by Lush Fire & Planning which has been prepared for the proposed rezoning of the main section of the site generally bounded by Austral, Beeston and Alton Streets.

The Bushfire Hazard Level Assessment has been prepared on the assumption that the site's development will result in the whole of the site being classified as low threat vegetation. On this basis, the site will have a 'moderate' bushfire hazard level upon completion of development.

This report demonstrates that the hazard level on the site will be reduced and permanently altered by the site being developed and the *Bushfire Protection Criteria in the Guidelines* can be achieved in the subsequent planning stages.

The assessment sets out that the Amendment complies with the objectives of State Planning Policy 3.7 as:

- It avoids any increase in the threat of bushfire to people, property and infrastructure. Where development can occur on land with a moderate hazard rating and with a maximum BAL- 29 rating it does not increase the threat of bushfire.
- It reduces vulnerability to bushfire through the identification and consideration of bushfire risks in the design of the development and the decision-making process. The bushfire hazard and risks have been identified and assessed in this report.
- The design of the subdivision and the development takes into account bushfire protection requirements and includes specific bushfire protection measures. The proposed development will be able to comply with the Bushfire Protection Criteria.
- Achieves an appropriate balance between bushfire risk management measures and biodiversity, conservation values, and environmental protection. The vegetation on the site which is to be cleared for any development is a relatively small area does not have any significant conservation value. Some vegetation can be retained within the site and still be classified as low threat vegetation complying with the specifications for an asset protection zone.

5.5 Environmental Impact

The Amendment will create minimal environmental impacts. For instance:

- the site has been previously cleared of native vegetation (it contains regrowth vegetation);
- the vegetation which is to be cleared for development is a relatively small area does not have any significant conservation value;
- the site has suitable conditions for on-site sewerage disposal (see Attachment 5);
- appropriate stormwater outcomes can be achieved; and
- the site is near the town centre and other facilities which facilitates various journeys to be made by cycling and walking.

Given the site's location near the railway line and Ridley Street, there may be a need for 'quiet' house principles to be implemented at the Development Application/Building Permit stages.

5.6 Site Classification and On-site Sewerage Disposal

The Shire engaged R Munns Engineering Consulting Services and UTS Soiltec to undertake a site classification (see Attachment 5). This revealed the site will be classified as 'S' according to AS 2870 – 2011. The site classification concludes the soil conditions are suitable for residential development. Recommendations were outlined to facilitate future servicing and construction.

The assessment reveals no limitations including the depth of groundwater.

Based on the assessment, it appears that site conditions are suitable for on-site sewerage disposal to an R10 coding. Further details will be provided at the development application and building permit stages.

5.7 Traffic Generation, Vehicular Access and Car Parking

The site has frontage to various streets. New development will ensure vehicular access is appropriate and complies with sight distance standards which will facilitate safety for road users.

Traffic impacts from proposed residential or associated development on the site will be low and can readily be accommodated on local roads. The existing road network and intersections have sufficient capacity to address traffic generation from proposed residential and associated development.

The site is centrally located and is highly accessible. There are accordingly various opportunities to promote walking and cycling to/from the site given it is close to the town centre and other facilities.

The site will provide on-site car parking.

5.8 Servicing

As outlined in section 2.5, the site is already appropriately serviced. It is not envisaged that upgrading of services will be required to facilitate development on the site.

Further details on on-site sewerage are outlined in section 5.6 and Attachment 5.

There is a need to ensure that the drainage system is designed so that rainwater and stormwater received by the lot and onto buildings and structures are detained within the lot and are then directed to a Shire connection point/drainage system.

5.9 Greater Range of Housing Choice

The Amendment, which in part proposes to rezone areas to Residential R10, will assist to facilitate a different choice for those people who are considering moving or investing in the Shire along with local residents seeking to downsize.

The Amendment offers the potential for more housing and different housing choices in a central location. The provision of a variety of lot sizes and housing types, that increasingly cater to the housing needs of the community, is consistent with the planning framework and assists to support local facilities and services.

Much of the surrounding land zoned for residential purposes is coded R2.5 and R5. Increasing the density of this site to R10 provides opportunities for a different lot size and provides housing variety to other parts of the Cuballing townsite. The proposed increase in density is also a response to adapting to changes to the community and social needs. At the same time, the increase in density to R10 has occurred elsewhere in the Cuballing townsite.

5.10 Supporting the Local Economy

As previously outlined, the Amendment is consistent with the planning framework. Approval and implementation of the Amendment will assist to encourage upgrading and investment on the site.

The Amendment will assist with job creation which will have various economic benefits. This includes it will support local employment, assist in a more sustainable local economy and it will add to Cuballing's overall viability, vitality and prosperity.

5.11 Planning Justification

The planning justification for the Amendment is summarised below in Table 2:

Strategic	Land Use Planning	Environment, Landscape and Heritage	Transport and Servicing	Economic and Community
<p>The Amendment is consistent with the State, regional and local planning framework including that it promotes infill residential development.</p> <p>Future development will reinforce Cuballing as the key centre within the Shire of Cuballing.</p> <p>It supports more efficiently using land.</p>	<p>The site is well located for residential development including it is compatible with adjoining and nearby uses.</p> <p>It is a 'brownfield' (already developed) site.</p> <p>The site is suitable and capable for residential development.</p> <p>Development will be effectively controlled through LPS2 provisions.</p>	<p>The site contains minimal environmental assets and will not create adverse environmental impacts.</p> <p>The site has manageable bushfire risks.</p> <p>There are minimal landscape impacts.</p>	<p>Traffic impacts can be readily accommodated on local roads.</p> <p>Car parking can be contained on-site.</p> <p>The site is centrally located and is highly accessible. There are accordingly various opportunities to promote walking and cycling to/from the site given it is close to the town centre and other facilities.</p> <p>The site is appropriately serviced.</p>	<p>It will promote job creation by supporting the development of Cuballing.</p> <p>The proposal will assist in enhancing Cuballing as a 'rural town'.</p> <p>The proposal will assist to enhance Cuballing through adding to its overall viability, vitality and prosperity and adding to the range of services that can be provided.</p>

In view of the above, the Amendment is consistent with the planning framework and the principles of orderly and proper planning.

6. CONCLUSION

This report confirms that the Amendment is consistent with the planning framework, the site is near the town centre and other facilities and the site is suitable to accommodate predominantly residential development to R10 coding (for the main part of site). Additionally, the Amendment also addresses an anomaly with LPS2 given a portion of Lot 56 Austral Street and a portion of Lot 397 Beeston Street, which are freehold, are reserved as 'Local Road' in LPS2.

The support of the WAPC and the approval of the Hon. Minister for Planning are requested.

PLANNING AND DEVELOPMENT ACT 2005

SHIRE OF CUBALLING

LOCAL PLANNING SCHEME No. 2

AMENDMENT No. 5

The Shire of Cuballing under and by virtue of the powers conferred upon it in that behalf by the *Planning and Development Act 2005* hereby amends the above Local Planning Scheme by:

1. Recoding Lot 7 Alton Street, Lot 9 Alton Street, Lot 8 Austral Street, Lot 91 Austral Street, Lot 92 Austral Street and Lot 90 Beeston Street from 'Rural Townsite R5' Zone to 'Rural Townsite R10' Zone and amending the Scheme Map accordingly.
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The Amendment is standard under the provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015*, contained in Regulation 34, on the basis it is:

- (b) An amendment that is consistent with a local planning strategy for the scheme that has been endorsed by the Commission.
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- (f) An amendment that does not result in any significant environmental, social, economic or governance impacts on land in the scheme area.



EXISTING SCHEME MAP

Legend

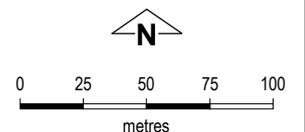
- | | |
|--------------------------|------------------------------|
| Cadastre with Lot number | Local road |
| R Codes | Public purposes |
| LPS Zones | CH Public purposes : Church |
| General agriculture | W Public purposes : Waterway |
| Rural residential | Railway |
| Rural townsite | Recreation and open space |
| LPS Reserves | |
| Highway | |



Department of Planning,
Lands and Heritage

Produced by Geospatial Research and Modelling,
Department of Planning, Lands and Heritage, Perth WA
Base Information supplied by Western Australian
Land Information Authority SLIP 1096-2018-1

Shire of Cuballing
Local Planning Scheme No. 2
Amendment No. 5





PROPOSED SCHEME AMENDMENT MAP

Legend

 Cadastre with Lot number

 R Code amendments

LPS Zones and Reserves Amendments

 Rural townsite



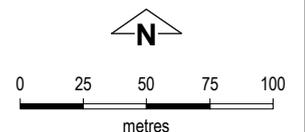
Department of Planning,
Lands and Heritage

Shire of Cuballing

Local Planning Scheme No. 2

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Produced by Geospatial Research and Modelling,
Department of Planning, Lands and Heritage, Perth WA
Base Information supplied by Western Australian
Land Information Authority SLIP 1096-2018-1



COUNCIL ADOPTION FOR ADVERTISING

Adopted for advertising by resolution of the Council of the Shire of Cuballing at the Ordinary Meeting of the Council held on the

.....

SHIRE PRESIDENT

.....

CHIEF EXECUTIVE OFFICER

COUNCIL RECOMMENDED/SUBMITTED FOR APPROVAL

This Standard Amendment was supported for submission to the Minister for Planning for approval by resolution of the Shire of Cuballing at the Ordinary Meeting of the Council held on the and the Common Seal of the Shire of Cuballing was hereunto affixed by the authority of a resolution of the Council in the presence of:

.....

SHIRE PRESIDENT

.....

CHIEF EXECUTIVE OFFICER

WAPC RECOMMENDED/SUBMITTED FOR APPROVAL

.....

DELEGATED UNDER S.16 OF THE
PLANNING AND DEVELOPMENT ACT 2005

DATE.....

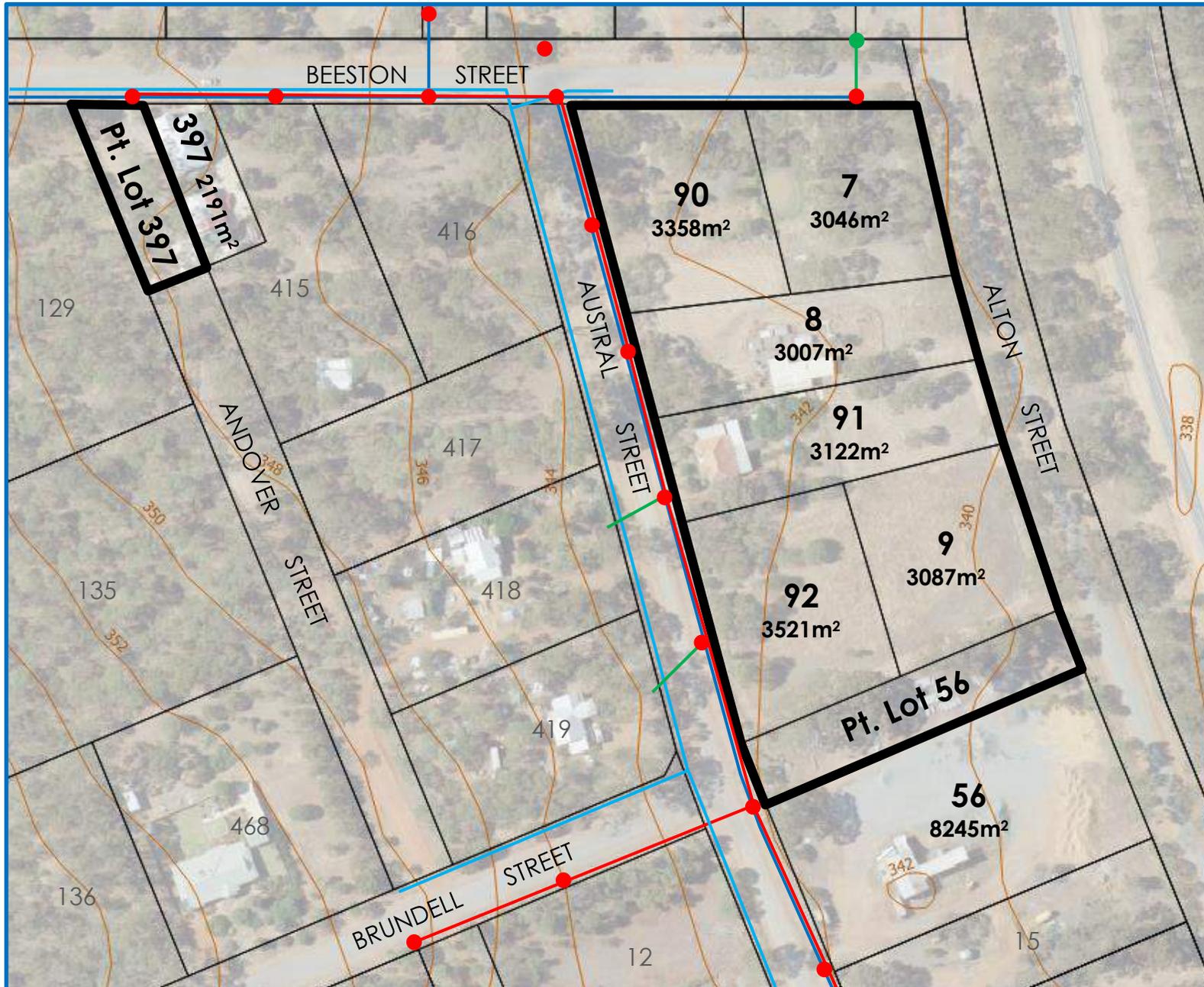
APPROVAL GRANTED

.....

MINISTER FOR PLANNING
S.87 OF THE PLANNING AND DEVELOPMENT ACT 2005

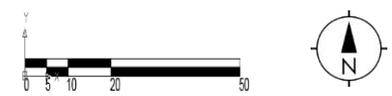
DATE.....

ATTACHMENT 1



AMENDMENT SITE PLAN
 Lots 7 & 9 Alton Street,
 Lots 8, 91, 92 & Part Lot 56
 Austral Street and Lot 90 &
 Part Lot 397 Beeston Street
 Cuballing
 Shire of Cuballing

- Legend
- Amendment Site
 - Contours (2m)
 - Western Power Powerpole
 - Western Power Distribution Overhead Powerline Low Voltage <1kV
 - Western Power Distribution Overhead Powerline High Voltage 1kV - 33kV
 - Western Power Distribution Underground Cable
 - Western Power Pillar
 - Underground Water Pipe

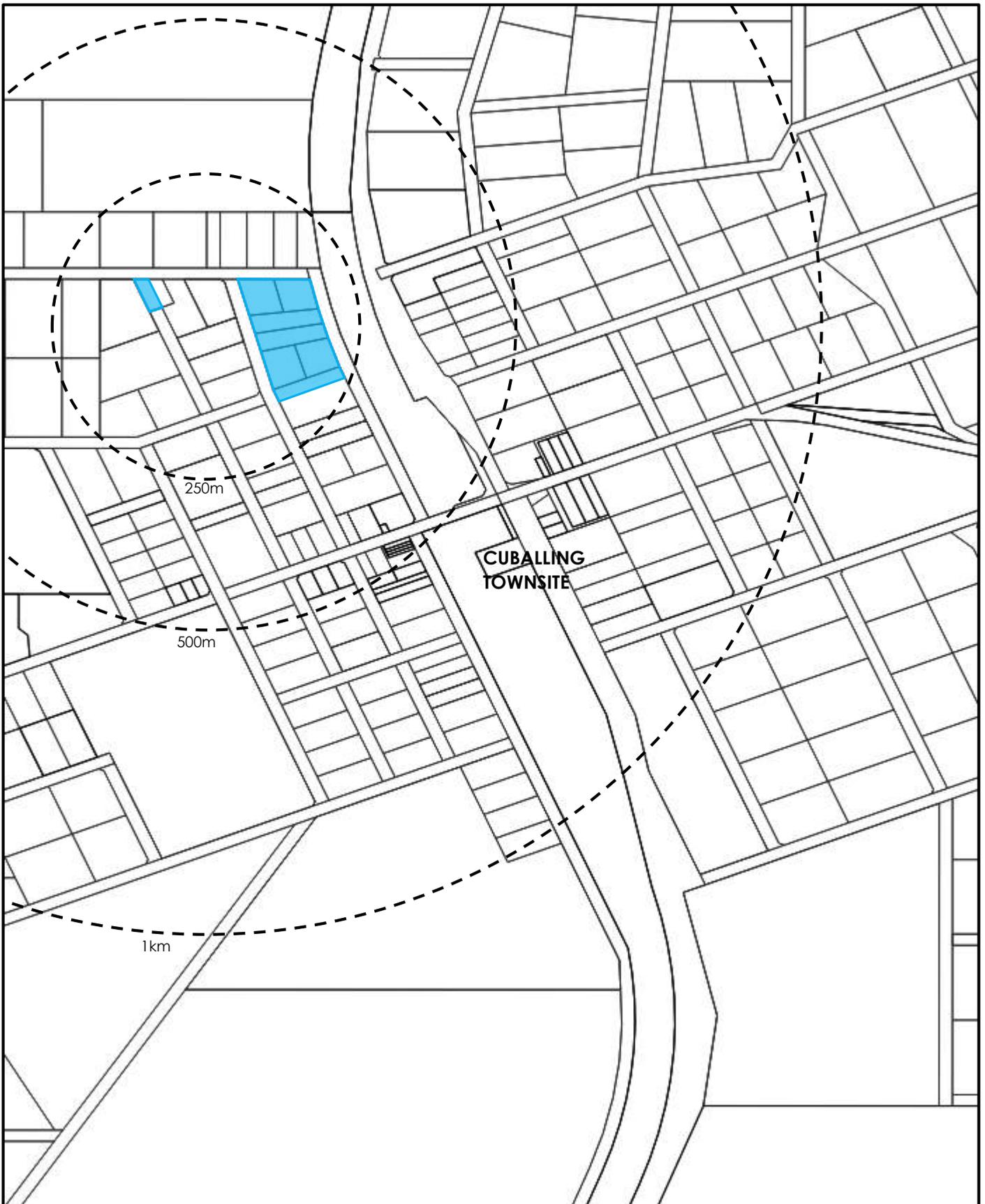


A	AMENDMENT SITE	191104	
REV	DESCRIPTION	YYMMDD	APPROVED

edge
 PLANNING & PROPERTY

Edge Planning & Property
 134 Mare Street, Mount Clarence
 ALBANY WA 6330
 W: www.edgeplanning.com.au
 E: steve@edgeplanning.com.au
 M: 0809 107 306

ATTACHMENT 2



LOCATION PLAN

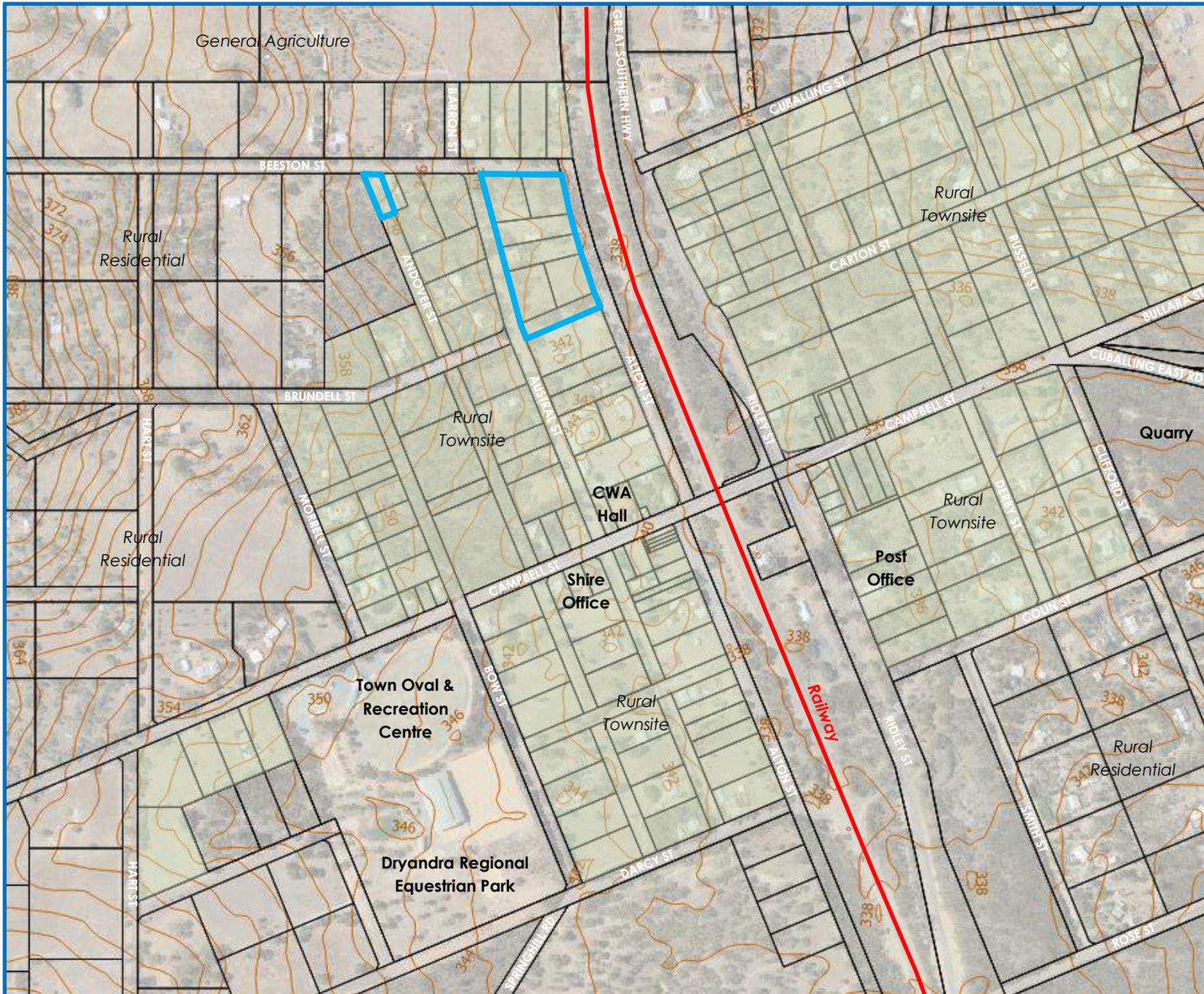
Lots 7 & 9 Alton Street
 Lots 8, 91, 92 & Part Lot 56 Austral Street
 Lot 90 & Part Lot 397 Beeston Street
 Shire of Cuballing



Edge Planning & Property
 134 Hare Street, Mount Clarence
 ALBANY WA 6330
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 E: steve@edgeplanning.com.au
 M: 0409 107 336



ATTACHMENT 3

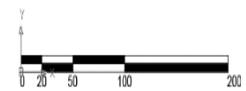


CONTEXT PLAN

Lots 7 & 9 Alton Street,
 Lots 8, 91, 92 & Part Lot 56
 Austral Street and Lot 90 &
 Part Lot 397 Beeston Street
 Cuballing
 Shire of Cuballing

Legend

-  Amendment Site
-  Rural Townsite
-  Contours



A	CONTEXT PLAN	191104	
REV	DESCRIPTION	YYMMDD	APPROVED



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ATTACHMENT 4



**Local Planning Scheme No 2
Amendment No 5
Bushfire Management Plan
(Bushfire Hazard Level Assessment)**



LUSH FIRE & PLANNING

No 3 Paterson Rd
Pinjarra WA 6208
0418 954 873
ABN 74 232 678 543

Ref 19-055
Ver B
October 2019

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:	Austral Street Cuballing		
Suburb:	Cuballing	State:	WA
		P/code:	6311
Local government area:	Cuballing		
Description of the planning proposal:	Scheme Amendment		
BMP Plan / Reference Number:	19-055	Version:	B
		Date of Issue:	17/10/2019
Client / Business Name:	Shire of Cuballing		

Reason for referral to DFES

	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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Is the proposal any of the following special development types (see SPP 3.7 for definitions)?

	Yes	No
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If the development is a special development 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.)?

Scheme Amendment re-coding no land use change

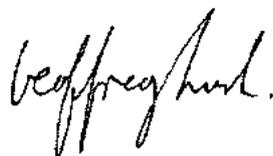
Note: The decision maker (e.g. the local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Geoffrey Lush	Level 2	BPAD 27682	28/02/2020
Company	Contact No.		
Lush Fire & Planning	0418 954 873		

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

Signature of Practitioner



Date

17/10/2019

Austral Street Cuballing - Executive Summary

This Bushfire Management Plan (bushfire hazard level assessment) has been prepared for the proposed rezoning of land in Austral Street, Cuballing. The subject land has a total area of 2.1385 hectares and is comprised of seven lots. It is bounded by Austral, Beeston and Alton Streets and situated 300m north of the local Post Office.

The site is vacant with a disused dwelling in poor condition and several associated outbuildings. It is predominantly cleared and has a low gentle gradient.

The surrounding land has been developed primarily for residential purposes with the main town centre located to the south. Between the site and Campbells Road there are a variety of service industrial and community uses.

The principal access to the site is via Austral Street from Campbell Street which is the main east west access through the townsite. Austral, Beeston and Alton Streets are all sealed access roads.

All of the property is designated as being bushfire prone.

The proposed Amendment will change the R Coding of the site from R5 to R10. The majority of the site will remain in the 'Rural Townsite zone' and there will not be any change to the land use classes. A 20m wide portion of Lot 56 on the southern boundary will be rezoned from 'Local Road Reserve' to 'Rural Townsite zone (R5)'. This is a minor zoning correction to the Scheme Maps.

It is anticipated that the site will be developed for residential accommodation being either single or group dwellings. The R10 coding provides for a minimum lot / site area per dwelling of 1,000sqm. Excluding the portion of Lot 56, the remainder of the subject land consists of six lots with a combined area of 1.9225 hectares. These could potentially be re-subdivided to create nineteen lots in total ie 13 additional lots.

A Bushfire Hazard Level Assessment has been prepared on the assumption that its development will result in the whole of the site being classified as low threat vegetation. On this basis the subject land will have a 'moderate' bushfire hazard level upon completion of development.

The townsite contains significant areas of bushland including land to the west of the site. There is also more linear vegetation to the east of the site adjacent to the railway line and Great Southern Highway. The most efficient and cost effective fire management measure is to separate development from hazard areas. Austral, Beeston and Alton Streets provide a 20m separation to the main hazard areas.

It is noted that the development setbacks for the Residential R10 coding are less than would be applicable to a BAL-29 setback when measured from the property boundary. This is especially relevant to Alton Street which has a narrow corridor of vegetation on the adjacent road verge. In the event that the BAL-29 setback encroaches into the land by more than the R-Code setback then this can be managed through the development application process or by the preparation of a Local Development Plan.

This report demonstrates that:

- a) The hazard level on the subject land will be reduced and permanently altered by the site being developed.
- b) The Bushfire Protection Criteria in the Guidelines can be achieved in the subsequent planning stages being a development application.

The proposed subdivision complies with the objectives of State Planning Policy 3.7 as:

- 1. It avoids any increase in the threat of bushfire to people, property and infrastructure.**

Where development can occur on land with a moderate hazard rating and with a maximum BAL-29 rating it does not increase the threat of bushfire.

Austral Street Cuballing - Executive Summary

- 2. It reduces vulnerability to bushfire through the identification and consideration of bushfire risks in the design of the development and the decision-making process.**

The bushfire hazard and risks have been identified and assessed in this report.

- 3. The design of the subdivision and the development takes into account bushfire protection requirements and includes specific bushfire protection measures.**

The proposed development will be able to comply with the Bushfire Protection Criteria.

- 4. Achieves an appropriate balance between bushfire risk management measures and biodiversity, conservation values, and environmental protection.**

The vegetation on the site which is to be cleared for any development is a relatively small area does not have any significant conservation value. Some vegetation can be retained within the site and still be classified as low threat vegetation complying with the specifications for an asset protection zone.

Document Reference

Property Details

Street No	Lot No's	Plan	Street Name	
	Various		Austral Street	
Locality	Cuballing	State	WA	Postcode 6311
Local Government Area	Cuballing			
Project Description	Local Planning Scheme Amendment			

Report Details

Ref No	19-055		
Prepared for	Shire of Cuballing		
Revision	Date	Purpose	
A	14/10/2019	Draft for Review	
B	17/10/2019	Edits	

Practitioner Details

BPAD	Level 2 Practitioner	Accreditation No	27682
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Disclaimer

The measures contained in this report do not guarantee that a building will not be damaged in a bushfire. The ultimate level of protection will be dependent upon the design and construction of the dwelling and the level of fire preparedness and maintenance under taken by the landowner. The severity of a bushfire will depend upon the vegetation fuel loadings; the prevailing weather conditions and the implementation of appropriate fire management measures.



Geoffrey Lush

17 October 2019
geoffrey@lushfire.com.au



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1.0 PROPOSAL DETAILS

1.1 Introduction

This bushfire hazard level assessment has been prepared for multiple lots in Austral Street Cuballing which are subject to Amendment No 5 to the Shire of Cuballing Local Planning Scheme No 2.

The subject land is located within the Cuballing being situated 300m north of Campbell Street as shown in Figure 1.

The subject land is comprised of seven lots as documented in Table 1. It is bounded by Austral, Beeston and Alton Streets with Lot 56 being on the southern boundary.

The objectives of this bushfire hazard level assessment are to demonstrate:

- a) How the hazard level will be initially reduced and maintained for the life of the development. This will enable the decision-maker to ensure that appropriate bushfire risk management measures are in place to achieve and maintain a low or moderate hazard level.
- b) That the Bushfire Protection Criteria in the Guidelines can be achieved now or in subsequent planning stages.

Table 1 Subject Land Details

Lot	Plan	Vol/Folio	Proprietor	Area (ha)
7	222342	1152/290	Shire of Cuballing	0.3006
8	222342	1156/980	Shire of Cuballing	0.3125
9	222342	1152/303	Shire of Cuballing	0.3086
90	222342	1151/934	Shire of Cuballing	0.3328
91	222342	1156/981	Shire of Cuballing	0.3138
92	222342	1152/303	Shire of Cuballing	0.3542
56 (part)	222342	1753/78	Khatt Pty Ltd	0.2160

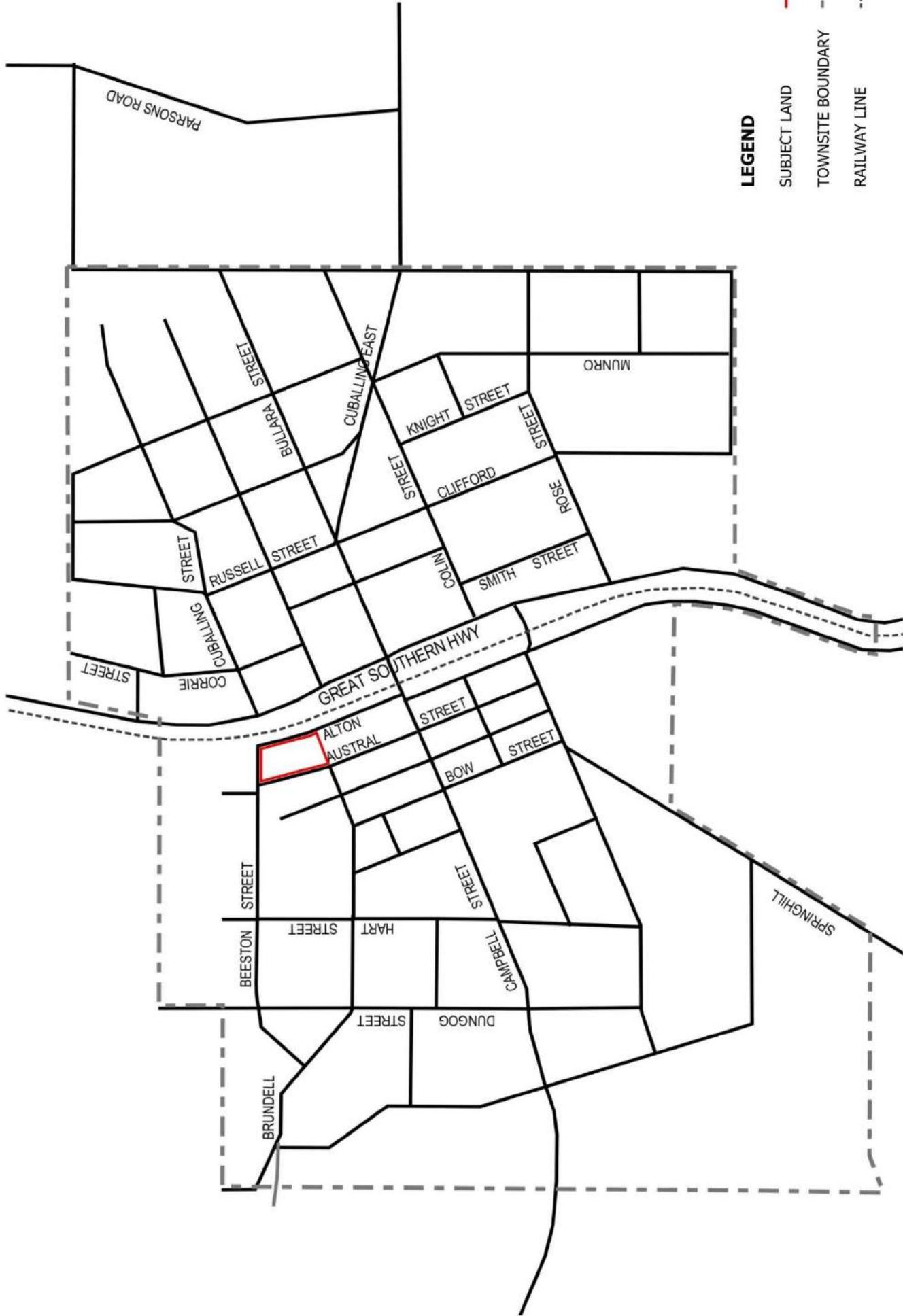


FIGURE 1
LOCATION

1.2 Existing Conditions

The existing conditions are shown in Figure 2.

The proposed development site has an area of 2.1385 hectares with a frontage of approximately 220m to Austral Street and a depth of approximately 100m. The site is predominantly vacant with an existing house in poor condition and some associated outbuildings. There is a dam in the northern portion.

The site is serviced with reticulated water and power.

The southern area adjacent to the boundary is part of Lot 56 which is a depot yard. South of the site is a mixture of industrial and community uses. The land to the west and north of the site has been developed for residential purposes with lots generally being between 0.2 and 0.4 hectares in size. To the east of the site is the Northam to Albany railway, Great Southern Highway and the Cuballing Brook.

The site has an elevation of 340m AHD which increases on the western side of Austral Street with a moderate gradient.

The principal access to the site is via Austral Street from Campbell Street which is the main east west access through the townsite. Austral, Beeston and Alton Streets are all sealed access roads with gravel shoulders as shown in the following photographs. They have a 6m wide pavement, except for a portion of Austral Street adjacent to the site which is approximately 4m wide.

The vegetation classifications are described in detail in Section 3.1.



Existing dwelling on the subject land.



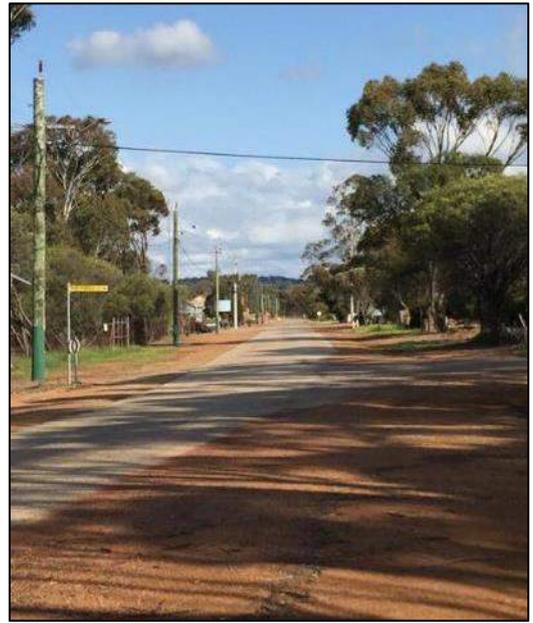
Alton Street adjacent to the subject land looking south.



Beetson Street looking east from Austral Street.



Austral Street adjacent to the subject land looking south from Beetson Street.



Austral Street looking south from Brundell Street.

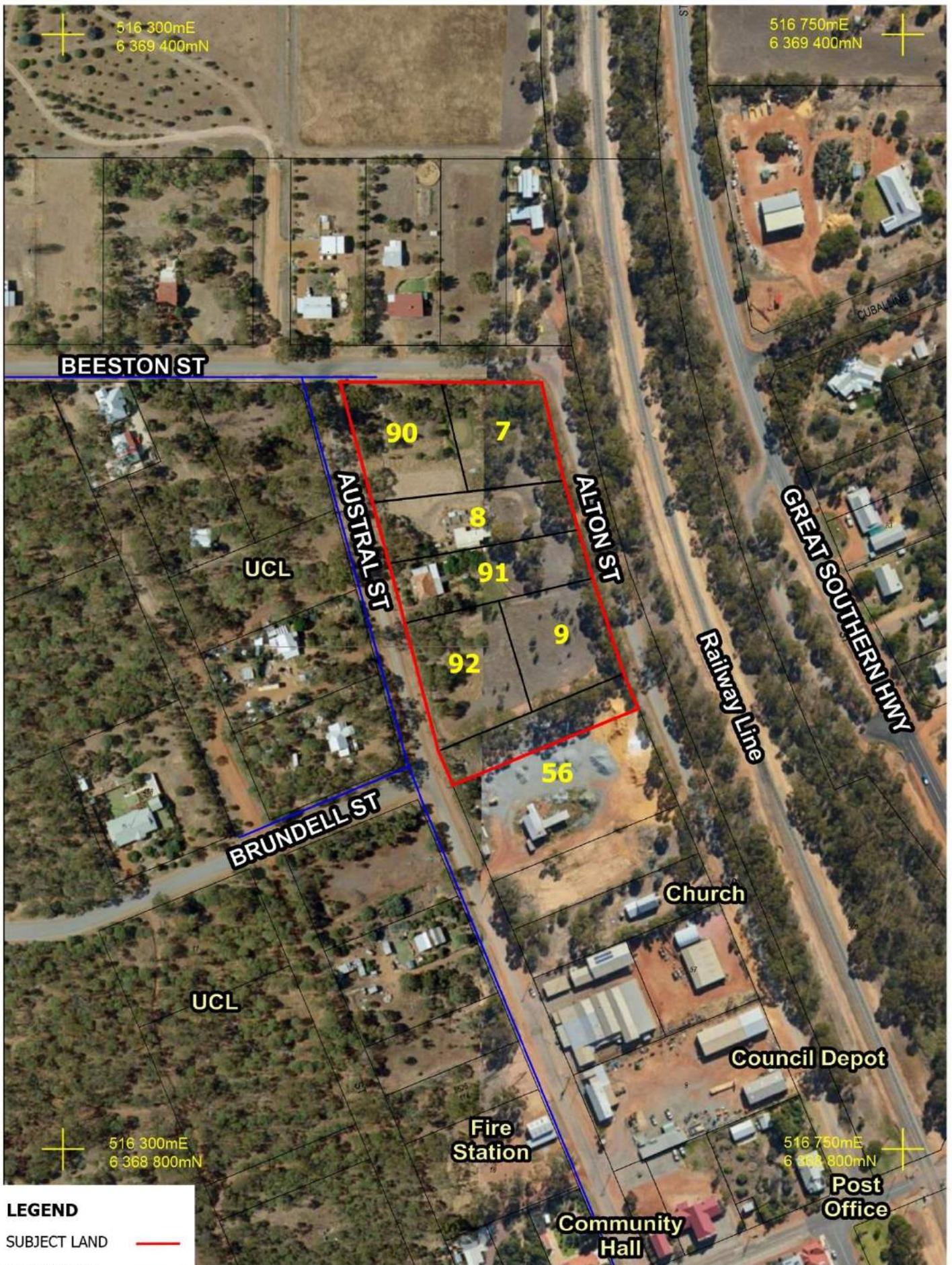


FIGURE 2
EXISTING CONDITIONS

1.3 Bushfire Prone Land

All of the subject land is designated on the Map of Bush Fire Prone Areas as being bushfire prone as shown in Figure 4. Bushfire prone areas are comprised of (1):

- Bushfire prone vegetation; and
- A 100m wide bushfire prone buffer.

The designation of bushfire prone areas triggers:

- The application of Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas under the Building Code of Australia;
- The provisions of the Planning and Development (Local Planning Schemes) Regulations 2015; and
- The application of SPP3.7 Planning in Bushfire Prone Areas.

1.4 Bush Fire Notice

The Shire's 2019/2020 Bush Fire Notice requires that land within the townsite shall comply with the following:

- All town lots under 2,024m² (1/2 acre) in area and all fuel depots within the Shire are required to be cleared of all debris and flammable material to a height not more than 50mm.
- All lots or combination of lots that comprise of one holding and having an area of 2,024m² (1/2 acre) or greater shall be either clear of all inflammable material or have a firebreak 2.5 metres wide free of all inflammable material provided inside and along all external boundaries.

1.5 Proposal

The proposal is to rezone the subject land as follows:

- Lots 7, 8, 9, 90, 91 and 92 from 'Rural Townsite zone (R5)' to 'Rural Townsite zone (R10)'; and
- Part Lot 56 from Local Road Reserve to 'Rural Townsite zone (R5)'.

It is anticipated that the site will be developed for residential accommodation being either single or group dwellings.

The R10 coding provides for an average site area per dwelling of 1,000sqm, with a 20m frontage. The setback requirements are 7.5m from the front boundary, 3m from a secondary street and 6m from the rear boundary.

Excluding the portion of Lot 56, the remainder of the subject land consists of six lots with a combined area of 1.9225 hectares. These could potentially be re-subdivided to create nineteen lots in total ie 13 additional lots.

A selection of the discretionary land use provisions from the current Planning Scheme are shown in Table 2 and these do not change.

Table 2 Land Use Provisions

Use Class			
Ancillary dwelling	P	Park home park	A
Bed & Breakfast	P	Place of worship	D
Caravan park	A	Reception centre	D
Caretaker's dwelling	D	Recreation – private	D
Carpark	A	Re-purposed dwelling	D
Childcare premises	D	Residential building	P
Community purpose	D	Second-hand dwelling	D
Consulting rooms	D	Single house	P
Educational establishment	A	Storage	D
Exhibition centre	D	Veterinary centre	D
Family day care	D	Warehouse	D
Grouped dwelling	D	Winery	A
Holiday accommodation	A	Workforce accommodation	A
Holiday house	A	Park home park	A
Home business	D	Place of worship	D
Home occupation	P	Reception centre	D
Office	D	Recreation – private	D

2.0 ENVIRONMENTAL CONSIDERATIONS

2.1 Native Vegetation Modification and Clearing

It is expected that the subject land will be fully or partially cleared for development.

2.2 Re-vegetation / Landscape Plans

There is no proposed revegetation or landscaping.

3.0 BUSHFIRE ASSESSMENT RESULTS

3.1 Assessment Inputs - Vegetation Classification

The vegetation classifications are shown in Figure 3 and the following photographs. The vegetation has been classified in accordance with:

- Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas;
- The Visual Guide for Bushfire Risk Assessment in Western Australia; and
- Applicable Fire Protection Australia BPAD Practice Notes.

It is noted that AS3959 (2018) commenced from the 1st May 2019 and this alters the classification of woodland and scrub. Woodlands are now defined as having a grassy understorey with isolated shrubs while Scrub vegetation (tall heath) has been increased from 4 to 6m height. However, the relative understorey fuel load remains the same being:

- Class A Forest - 25tph;
- Class B Woodland - 15tph;
- Class C Shrubland - 15tph;
- Class D Scrub - 25tph;
- Class E Mallee/Mulga - 8tph; and
- Class G Grassland - 4.5 tph.

Vegetation is regarded as being low threat due to factors such as flammability, moisture content or fuel load. This includes grasslands managed in a minimal fuel condition of less 100mm in height, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, cultivated gardens, nature strips and windbreaks. A windbreak is considered to be a single row of trees used as a screen or to reduce the effect of wind.

The predominant vegetation is Woodland being Eucalypts with an open foliage coverage of less than 30% comprising multiple species including York Gum (*Eucalyptus loxophleba*), Brown and Silver Mallets (*Eucalyptus astringens* & *falcata*) and White Gum (*Eucalyptus wandoo*). These are mixed with Scrub type vegetation predominantly being various Acacias with Jam Wattles (*Acacia acuminata*) being very common, and some Sheoaks (*Allocasuarina fraseriana*).

A number of these can be multi stemmed having a mallee type characteristic. Generally there is a weedy grassland understorey.



LEGEND

- SUBJECT LAND —
- VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject site) - - -
- UPSLOPE ➔
- PHOTO POINT ➔
- GEO REFERENCE +

VEGETATION CLASS

- A FOREST ■
- B WOODLAND ■
- C SHRUBLAND ■
- D SCRUB ■
- G GRASSLAND ■
- EXCLUDED AS PER CLAUSE 2.2.3.2 ■

Location Details: Austral Street
Cuballing
Assessment Date: 25/09/2019
Prepared by: G Lush
Accreditation Level: Level 2
Accreditation Number: BPAD 27682
Accreditation Expiry Date: February 2020
Date of Aerial Photo: May 2017

FIGURE 3
VEGETATION CLASSIFICATION



Job No 19-055
Rev Description
A Preliminary

Date
08/10/2019



Austral Street Cuballing

Photo No 1 Plot 1

Vegetation Classification

Class B Woodland - Woodland B-05

Description

Eucalypts predominantly York Gum to 20m interspersed with areas of Wattles with grassland understorey. Foliage coverage is variable as gums are clustered but generally 30%. Moderate surface fuel loads.



Photo No 2 Plot 2

Vegetation Classification

Class B Woodland - Woodland B-05

Description

Eucalypts predominantly York Gum to 20m interspersed with areas of Wattles with grassland understorey. Foliage coverage is variable as gums are clustered but generally 30%. Moderate surface fuel loads.



Photo No 3 Plot 2

Vegetation Classification

Class B Woodland - Woodland B-05

Description

Eucalypts predominantly York Gum to 20m interspersed with areas of Wattles with grassland understorey. Foliage coverage is variable as gums are clustered but generally 30%. Moderate surface fuel loads.



Austral Street Cuballing

Photo No 4 Plot 2

Vegetation Classification

Excludable - 2.2.3.2(f) Low Threat Vegetation

Description

Narrow strip of Eucalypts on road verge adjacent to the site with grassland understorey. Foliage coverage for upper storey is 10%. Moderate surface fuel loads.

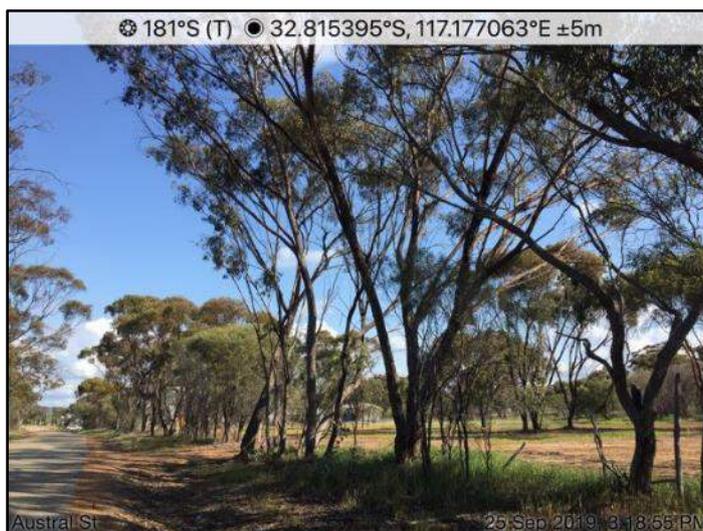


Photo No 5 Plot 3

Vegetation Classification

Class B Woodland - Woodland B-05

Description

Eucalypts within the subject land with bare or grassland understorey. Foliage coverage for upper storey is 30%. Low to moderate surface fuel loads.



Photo No 6 Plot 3

Vegetation Classification

Class B Woodland - Woodland B-05

Description

Eucalypts within the subject land with bare or grassland understorey. Foliage coverage for upper storey is 30%. Low to moderate surface fuel loads.



Austral Street Cuballing

Photo No 7 Plot 4

Vegetation Classification

Class G Grassland – Sown pasture G-26

Description

Grazing, cropping land north of the site.



Photo No 8 Plot 5

Vegetation Classification

Class G Grassland – Open tussock G-23

Description

Development site with recently earthworks areas. Some patches of grassland. It is expected to continue to regenerate and so has been classified as grassland.



Photo No 9 Plot 5

Vegetation Classification

Class G Grassland – Open tussock G-23

Description

Development site with recently earthworks areas. Some patches of grassland. It is expected to continue to regenerate and so has been classified as grassland.



Austral Street Cuballing

Photo No 10 Plot 6

Vegetation Classification

Class B Woodland - Woodland B-05

Description

Eucalypts predominantly York Gum to 20m interspersed with areas of Wattles with grassland understorey. Foliage coverage for upper storey is 30%. Moderate surface fuel loads less than 15 tpha.



Photo No 11 Plot 6

Vegetation Classification

Class B Woodland - Woodland B-05

Description

Eucalypts predominantly York Gum to 20m interspersed with areas of Wattles with grassland understorey. Foliage coverage for upper storey is 30%. Moderate surface fuel loads less than 15 tpha.



Photo No 12 Plot 7

Vegetation Classification

Class D Scrub - Closed scrub D-13

Description

Acacias (Jam Wattle) to 6m in height with more than 50% foliage coverage. Thick grassland understorey. The wattles can be multi stemmed and prone to producing suckers in dense copses.



Photo No 13 Plot 8

Vegetation Classification

Class B Woodland - Woodland B-05

Description

Mallet type trees in a narrow band along Brundall Street. Open foliage coverage of 20% over grass with discontinuous vertical fuel.



Photo No 14 Plot 9

Vegetation Classification

Class G Grassland – Sown pasture G-26

Description

Vacant lots with unmanaged grassland.



Photo No 15 Plot 10

Vegetation Classification

Excludable - 2.2.3.2(f) Low Threat Vegetation

Description

Lot 56 with gravelled area.



Austral Street Cuballing

Photo No 16 Plot 10

Vegetation Classification

Excludable - 2.2.3.2(f) Low Threat Vegetation

Description

Existing townsite development on managed land with minimal vegetation.



Photo No 17 Plot 10

Vegetation Classification

Excludable - 2.2.3.2(f) Low Threat Vegetation

Description

Existing townsite development on managed land with minimal vegetation.



3.2 Assessment Outputs

3.2.1 Vegetation Modification

As indicated in Section 2.1 it is expected that the subject land will be fully or partially cleared for development resulting in it being classified as low threat vegetation. As this only applies to Plot 3 within the subject land no modified vegetation plan has been prepared.

3.2.2 Bushfire Hazard Levels

A Bushfire Hazard Level Assessment provides a 'broadbrush' means of determining the potential intensity of a bushfire for a particular area. The bush fire hazard primarily relates to the vegetation on the site, the type and extent (area) of vegetation and its characteristics. The methodology for determining the bushfire hazard level is contained in the Guidelines for Planning in Bushfire Prone Areas (Section 4.1 and Appendix 2).

The bushfire hazard levels for the "developed" site are shown in Figure 4.

The subject land is expected to have a moderate hazard rating as this applies to land that is within 100 metres of vegetation of vegetation classified as a moderate or extreme hazard.

This complies with Clause 6.2(b) of State Planning Policy SPP3.7 Planning in Bushfire Prone Areas which states that any strategic planning proposal that will have on completion, have a **moderate BHL** and/or where BAL-12.5 to BAL-29 applies, may be considered for approval where it can be undertaken in accordance with policy measures 6.3, 6.4 or 6.5.



LEGEND

SUBJECT LAND —

VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject site) - - -

GEO REFERENCE +

HAZARD LEVEL

EXTREME RATING ■

MODERATE RATING ■

LOW RATING ■

The hazard ratings are based upon all of the subject land having low threat vegetation when it is developed.

Location Details: Austral Street Cuballing

Assessment Date: 25/09/2019

Prepared by: G Lush

Accreditation Level: Level 2

Accreditation Number: BPAD 27682

Accreditation Expiry Date: February 2020

Date of Aerial Photo: May 2017

FIGURE 4
BUSHFIRE HAZARD LEVEL
ASSESSMENT MAP



Job No 19-055
Rev A Description Preliminary

Date 08/10/2019



4.0 IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

4.1 Local Context

The relationship of the subject land to the townsite is shown in Figure 5.

The surrounding land is a mixture of urban, rural residential, community, conservation and rural land uses. There are large areas of bushland on the southern and western boundaries of the townsite.

The land use provisions for the subject land do not alter. The objectives for the Rural Townsite Zone include providing for a range of compatible uses within the town sites for a range of services, residential types, community and recreational facilities that may be found in a small country town. Given the location of the subject land a small distance away from the town centre, it is expected that it will be developed for residential uses.

The townsite is situated in two portions being east and west of the Great Southern Highway. The railway line to the east acts as a barrier for access, while there is a permeable local road network on the western side of the town. Local areas of bushland are upslope from the site with strategic firebreaks and fire service access routes.

The most efficient and cost effective fire management measure is to separate development from hazard areas. The greater the separation distance the lower the hazard or BAL rating for the development. As the subject land is bounded by Austral, Beeston and Alton Streets, these provide separation to the nearby hazard areas. This is further reinforced by:

- The land to the south being developed land managed as low threat vegetation; and
- The railway line providing a further 20m wide low fuel zone.

As documented in Table 2 there is a range of discretionary land uses which may be considered within the Rural Townsite Zone. These include potential vulnerable and high risk land uses which are described in the Guidelines as:

- Vulnerable land uses are uses where persons may be less able to respond in a bushfire emergency. This includes aged or assisted care, nursing homes, education centres, family day care centres, child care centres, and tourist accommodation.
- High risk land uses are those which contain materials which may intensify a bushfire including service stations, and fuel depots.

SPP3.7 Planning in Bushfire Prone Areas requires that vulnerable and high risk land uses have a Bushfire Management Plan prepared which may also include an emergency evacuation plan and/or risk assessment. As these uses are already (D) discretionary uses any application can have regard to the provisions of SPP3.7 including the preparation of a specific bushfire management and evacuation plan.

4.2 BAL Setbacks

SPP3.7 Planning in Bushfire Prone Areas has a presumption against development of land with a BAL-FZ or BAL-40 rating. The BAL setbacks commence from the edge of the classified hazard vegetation. A cleared site will still have a BAL-FZ/40 rating extending into to it from vegetation on an adjoining property or road reserve.

The minimum BAL setbacks for vegetation on flat land are shown in Table 3 with the BAL-29 setback highlighted.

Austral Street Cuballing

The proposed subdivision will have an R10 density coding with an average lot size of 1,000sqm and a minimum frontage of 20m. The R Codes provide for a minimum front setback of 7.5m, minimum setback to a secondary street of 3m and minimum rear setback of 6m.

These setbacks do not comply with the BAL-29 setbacks for Forest, Woodland and Scrub vegetation as shown in Table 3. This potentially becomes greater as:

- The R Codes allow for up to a 50 percent reduction in the front setback using averaging provisions;
- For side boundaries or corner lots; and
- Where any garage or carport is located within 6m of the dwelling then it is deemed to be an adjacent building under AS3959 and its BAL rating applies to the dwelling.

Clause 78D of the Local Planning Scheme Regulations requires that a development application is required for any development on a development site with a BAL-FZ/40 rating. In determining any application, the local government can require the dwelling to be setback so as to achieve a maximum of BAL-29 rating.

Alternatively, a Local development Plan can be used to prescribe where additional setbacks might be required. This is only likely to be an issue where the road verge vegetation is maintained or enhanced especially along Alton Street.

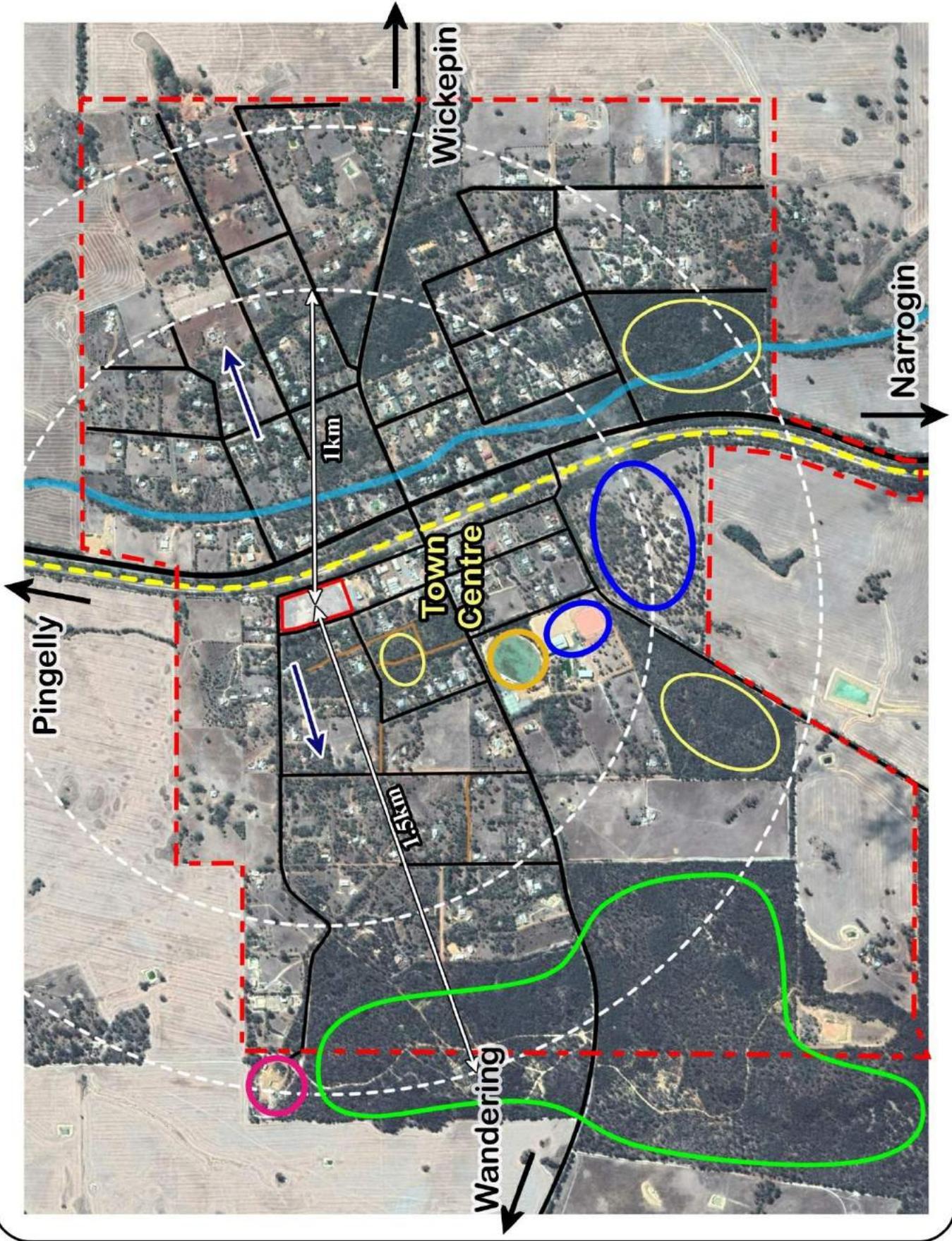
Table 3 BAL Setbacks

Vegetation Classification	Bushfire Attack Levels (BALs)				
	BAL - FZ	BAL - 40	BAL - 29	BAL - 19	BAL - 12.5
	Distance (m) of the site from the vegetation class				
	Flat Land and Upslope				
A Forest	< 16	16	21	31	42
B Woodland	< 10	10	14	20	29
C Shrubland	< 7	7	9	13	19
D Scrub	< 10	10	13	19	27
E Mallee/Mulga	< 6	6	8	12	17
F Rainforest	< 6	6	9	13	19
G Grassland	< 6	6	8	12	17
	Downslope >0 to 5 degrees				
A Forest	< 20	20	27	37	50
B Woodland	< 13	13	17	25	35
C Shrubland	< 7	7	10	15	22
D Scrub	< 11	11	15	22	31
E Mallee/Mulga	< 7	7	9	13	20
F Rainforest	< 8	8	11	17	24
G Grassland	< 7	7	9	14	20



FIGURE 5
SPATIAL ISSUES AND LOCAL CONTEXT

- LEGEND**
- SUBJECT LAND
 - TOWNSITE BOUNDARY
 - RAILWAY LINE
 - CUBALLING BROOK
 - UPSLOPE
 - CONSERVATION AREA
 - UCL
 - SPORTS GROUND
 - REGIONAL EQUESTRIAN CENTRE
 - WASTE DISPOSAL
 - LOCAL ACCESS ROAD
 - STRATEGIC FIREBREAK / ACCESS



5.0 ASSESSMENT AGAINST BUSHFIRE PROTECTION CRITERIA

5.1 Compliance Table

A summary of the compliance with the Bushfire Protection Criteria for the various planning stages is documented in Table 4.

A summary of the compliance with the Bushfire Protection Criteria is documented in Table 4. This demonstrates how the Criteria are expected to be complied with at the various planning stages being:

- The amendment to the Local Planning Scheme;
- A subdivision application; and
- A development application.

Demonstration of compliance with the Bushfire Protection Criteria would include a bushfire management plan prepared in conjunction with subdivision or development application.

6.0 RESPONSIBILITIES FOR IMPLEMENTATION AND MANAGEMENT OF THE BUSHFIRE MEASURES

These will be determined in the bushfire management plan prepared for any development application.

Austral Street Cuballing

Table 4 BPC Compliance

Requirements	Method of Compliance Acceptable solutions / Performance based solution	Proposed Bushfire Management Strategies	
		Local Planning Scheme Amendment	Development Application
Bushfire Management Plan			
The level of detail in the BMP reflects the relevant planning and design stages of the project.	BMP in accordance with Table 7 of the Guidelines: Bushfire Management Plan Section Checklist.	Confirmation of compliance with Performance Measures and Acceptable Solutions based upon final design including an implementation table and management responsibilities.	
Vulnerable Lane Use			
Proposed vulnerable land uses including tourist accommodation need special consideration.	Not applicable as there is no change to the current land use provisions.	Can require a BMP and risk evaluation plan to be lodged as part of any development application.	
High Risk Land Use			
Proposed high risk land uses need special consideration.	Not applicable as there is no change to the current land use provisions.	Can require a BMP and risk evaluation plan to be lodged as part of any development application.	
Bushfire Protection Criteria			
Element 1: Location	A1.1 Development location	The subject land is expected to have a moderate hazard level upon completion of development as the existing hazard vegetation will be cleared for development.	A BAL Assessment is required for any habitable development and this will confirm that specific development sites will have a maximum BAL-29 rating. Any potential conflict between the R10 Coding and BAL-29 setbacks can be addressed through a Bushfire Management Plan for the development, in conjunction with a development application or Local development Plan.
Element 2: Siting and design	A2.1 Asset protection zone (APZ)	The development area is large enough to provide an asset protection zone within the subject land due to the proposed setbacks of building from the boundaries.	Confirmation of the asset protection zone setbacks will occur when a BAL Assessment is done.

Austral Street Cuballing

Requirements	Method of Compliance Acceptable solutions / Performance based solution	Proposed Bushfire Management Strategies		
		Local Planning Scheme Amendment	Development Application	
Element 3: Vehicular access	A3.1	Two access routes	The site has access in multiple directions being: <ul style="list-style-type: none"> • Austral and Alton Street to the south; and • Beetson Street to the west. 	Confirm any additional access measures.
	A3.2	Public road	Not applicable as there are no subdivision roads.	Not applicable
	A3.3	Cul-de-sac (including a dead-end-road)	Not applicable as there are no cul-de-sacs in the development.	Not applicable
	A3.4	Battle-axe	Not applicable as there are no battle axe lots.	Not applicable
	A3.5	Private driveway longer than 50m.	Driveways may be longer than 50m depending upon the design of the development. It is noted that the land is relatively flat and so there is no issue with the gradient.	Any development application or associated Bushfire Management Plan would confirm compliance with the driveway specifications contained in Table 6 Column 3.
	A3.6	Emergency access way (EAW)	There is no proposed EAW.	Not applicable
	A3.7	Fire service access routes (FSAR)	There is no proposed FSAR	Not applicable
	A3.8	Firebreaks 3m wide to be provided on land greater than 0.5ha	This provision will depend upon the size of the lots in the final development. If treated as a single holding then a permitter firebreak is required. However, as the minimum lot size for R10 is 1,000sqm then no firebreak would be required.	The Shire's Bush Fire Notice will be applicable to any development which requires boundary firebreaks on land greater than 2,024m ² .

Austral Street Cuballing

Requirements	Method of Compliance Acceptable solutions / Performance based solution	Proposed Bushfire Management Strategies		
		Local Planning Scheme Amendment	Development Application	
Element 4: Water	A4.1	Reticulated areas	Subject land is connected to a reticulated water supply.	The location and capacity of hydrants can be confirmed as part of any development application.
	A4.2	Non-reticulated areas	Not applicable	
	A4.3	A4.3 Individual lots within non-reticulated areas.	Not applicable	

ATTACHMENT 5

RMECS

Contact: Mr Rod Munns
PO Box 516
NARROGIN WA 6312

R Munns Engineering Consulting Services
Email : rmecs@westnet.com.au
Ph : (08) 9881 2251
Mob : 0407 604 164

The Chief Executive Officer
Shire of Cuballing
PO Box 13
CUBALLING WA
6311

Date 31st January 2020

Dear Sir,

Re : Site Classification for Units on Lot 7 Cuballing

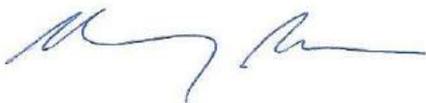
I confirm that on the 10th December 2019, I carried out an investigation of the soil on Lot 7 in the townsite of Cuballing – for future units to be constructed upon.

Three (3) testhole slots were excavated via an 8T Mini Excavator to targeted 1600 depth, which was achieved on all Testholes, except refusal was reached on Testhole #5 at a depth of 1000 due to a hard clay / shaley rock layer. The locations of these testholes on this vacant lot are shown on the attached marked up plan in Appendix A.

The soil profile was found to be consistent across the Lot, and consists of a thin layer of light brown coloured silty sand overlaying a deeper layer of light brown coloured clay, overlaying a layer of red / brown coloured shaley clay.

As per the soil test results shown in Appendix C attached, the potential expansiveness of this material is low and therefore the soil classification for this site is an "S".

Yours Sincerely



Rod Munns – BE (Civil)
R Munns Engineering Consulting Services

Appendix A – Soil Testhole Location Plan

Marked up Site Plan showing location of 2 x Soil Sample Testhole Locations.



Site Plan for Site Classification Soil Sampling on 3 Lots in Cuballing

0 12.5 25 50 Meters

Appendix B - Testhole Soil Sampling Report for Site Classification

Testhole #4 @ GPS Locn 516522 E, 6369167 N

The following soil profile was found:

0 – 250 : Topsoil

250 – 500 : Light Brown coloured Silty Sand (sample 4A taken from 450 depth)

500 – 1300 : Light Brown coloured Clay (sample 4B taken from 1000 depth)

1300 – 1800 : Red / Brown coloured Shaley Clay (sample 4C taken from 1500 depth)

Refusal was not reached at the 1800 excavated depth.

The photos below show the exploration testing for Testhole #4.



Site Photo showing Testhole #4 on Lot 7, Cuballing.



Testhole #4 – with number marking.



Testhole #4 – with staff showing soil profile depth.



Testhole #4 – showing sample excavation locations.



Testhole #4 – showing sample excavation locations.



Soil Sample bags 4A, 4B & 4C on ground above Testhole #4.

Testhole #5 @ GPS Locn 516537 E, 6369183 N

The following soil profile was found:

0 – 200 : Topsoil

200 – 550 : Light Brown coloured Silty Sand (sample 5A taken from 450 – 500 depth)

550 – 1000 : Light Brown coloured Clay (sample 5B taken from 900 - 1000 depth)

Refusal occurred at 1000 depth, due to a hard clay / shaley rock layer.

The photos below show the exploration testing for Testhole #5.



Testhole #5 – with excavated material



Testhole #5 – with number marking.



Testhole #5 – with staff showing soil profile depth.



Testhole #5 – showing sample excavation locations.



Testhole #5 – showing sample excavation locations.



Sample bags 5A & 5B on ground above Testhole #5.

Testhole #6 @ GPS Locn 516535 E, 6369205 N

The following soil profile was found:

0 – 250 : Topsoil

250 – 450 : Light Brown coloured Silty Sand (sample 6A taken from 400 - 450 depth)

450 – 900 : Light Brown coloured Clay (sample 6B taken from 800 - 900 depth)

900 – 1600 : Red / Brown coloured Shaley Clay (sample 6C taken from 1500 depth)

Refusal was not reached at the 1600 excavated depth.

The photos below show the exploration testing for Testhole #6.



Testhole #6 – with number marking.



Testhole #6 – with staff showing soil profile depth.



Testhole #6 – showing sample excavation locations.



Testhole #6 – showing sample excavation locations.



Sample bags 6A, 6B & 6C on ground above Testhole #6.

Appendix C - Soil Test Results & Classification



R MUNNS ENGINEERING CONSULTING SERVICES
PO BOX 516
KELLERBERRIN WA 6410
EMAIL: rmecs@westnet.com.au

Date: 16.12.2019
Amended: 23-12-2019

Reference No: Y587 S

RE: Site Classification on Samples Supplied from Units on Lot 7 in CUBALLING

As requested, we have carried out a site classification on the samples supplied by yourself from the above property. These sample locations are noted by you on the attached site sketch, page 2.

It is in our opinion that the site be raked over to remove any deleterious material that may occur and compacted. Then the site will be classified as 'S' according to AS 2870 - 2011, and all slab/footing details should be in accordance with this standard. We suggest no lawn or garden areas be placed around the outer walls to prevent undue wetting up of the underlying soils. Earthworks to be carried out in dry conditions only and in accordance with AS 3798 - 2007 – Guidelines on Earthworks of Commercial and Residential Developments. Any fill to be used on the site should consist of clean free flowing compacted sand.

The soil conditions included in this report are only indicative of the samples provided and if these soils vary when construction has commenced UTS Soiltec Pty Ltd needs to be informed as soon as possible.

Should you require any further information on any of the above, please contact us at your convenience.



K. Clements
(Geotechnical Consultant)



UTS soiltec

SITE SKETCH

PROJECT: Units on Lot 7 in CUBALLING

CLIENT: R MUNNS ENGINEERING CONSULTING SERVICES

DATE TESTED: 16.12.2019

REF No. Y587 S



Note:

- Diagram not to scale
- Soil zones beneath tested depth are not covered by this report.
- Hole locations are approximate only.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries

T 08 9271 0966 f 08 9471 7686 e admin@utssoiltec.com.au PO Box 183 Bayswater WA 6933 ABN 38 075 120 508

PAGE 2 OF 6



UTS soiltec

SITE PHOTOS & BORE LOGS SUPPLIED BY CLIENT

PROJECT: Units on Lot 7 Cuballing

CLIENT: R MUNNS ENGINEERING
CONSULTING SERVICES

DATE TESTED: 16.12.2019

REF No. Y587 S

Testhole # 4 @ GPS Locn 516522 E, 6369167 N

The following soil profile was found:

0 – 250mm: Topsoil

250 – 500mm: Light Brown coloured Silty Sand (sample 4A taken from 450 depth)

500 – 1300mm: Light Brown coloured Clay (sample 4B taken from 1000 depth)

1300 – 1800mm: Red / Brown coloured Shaley Clay (sample 4C taken from 1500 depth)

Refusal was not reached at the 1800 excavated depth.



Site Photo showing Testhole #4 on Lot 7, Cuballing.



Testhole #4 – with staff showing soil profile depth.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries

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PAGE 3 OF 6



UTS soiltec

SITE PHOTOS & BORE LOGS SUPPLIED BY CLIENT

PROJECT: Units on Lot 7 Cuballing

CLIENT: R MUNNS ENGINEERING
CONSULTING SERVICES

DATE TESTED: 16.12.2019

REF No. Y587 S

Testhole # 5 @ GPS Locn 516537 E, 6369183 N

The following soil profile was found:

0 – 200mm: Topsoil

200 – 550mm: Light Brown coloured Silty Sand (sample 5A taken from 450 – 500 depth)

550 – 1000mm: Light Brown coloured Clay (sample 5B taken from 900 - 1000 depth)

Refusal occurred at 1000 depth, due to a hard clay / shaley rock layer.



Testhole #5 – with excavated material



Testhole #5 – with staff showing soil profile depth.

TESTED BY: AC

CERTIFIED BY:



UTS soiltec

SITE PHOTOS & BORE LOGS SUPPLIED BY CLIENT

PROJECT: Units on Lot 7 Cuballing CLIENT: R MUNNS ENGINEERING CONSULTING SERVICES
DATE TESTED: 16.12.2019 REF No. Y587 S

Testhole # 6 @ GPS Locn 516535 E, 6369205 N

The following soil profile was found:

- 0 – 250mm: Topsoil
- 250 – 450mm: Light Brown coloured Silty Sand (sample 6A taken from 400 - 450 depth)
- 450 – 900mm: Light Brown coloured Clay (sample 6B taken from 800 - 900 depth)
- 900 – 1600mm: Red / Brown coloured Shaley Clay (sample 6C taken from 1500 depth)

Refusal was not reached at the 1600 excavated depth.



Testhole #6 – with number marking.



Testhole #6 – with staff showing soil profile depth.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries
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PAGE 5 OF 6



UTS soiltec

TEST RESULTS

PROJECT: Units on Lot 7 Cuballing CLIENT: R MUNNS ENGINEERING
CONSULTING SERVICES
DATE TESTED: 16-12-2019 REF No. Y587 S

SAMPLED FROM HOLE 6

DEPTH mm 1000

DESCRIPTION Sandy Clay

GRAVEL % 5

SAND % 51

SILT % 14

CLAY % < 5 μ 30

UNIFIED CLASSIFICATION SC

LIQUID LIMIT % 36

PLASTIC LIMIT % 17

PLASTICITY INDEX 19

LINEAR SHRINKAGE % 8.0

CLAY % < 2 μ 26

POTENTIAL
EXPANSIVENESS LOW

A.S. 2870 CLASSIFICATION
NO. 'S'

REMARKS:

TESTED BY: UTS

CERTIFIED BY:

PAGE 6 OF 6

RMECS

Contact: Mr Rod Munns
PO Box 516
NARROGIN WA 6312

R Munns Engineering Consulting Services
Email : rmecs@westnet.com.au
Ph : (08) 9881 2251
Mob : 0407 604 164

The Chief Executive Officer
Shire of Cuballing
PO Box 13
CUBALLING WA
6311

Date 31st January 2020

Dear Sir,

Re : Site Classification for Units on Lot 8 Cuballing

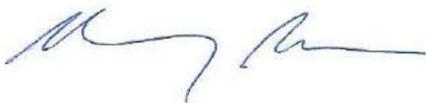
I confirm that on the 10th December 2019, I carried out an investigation of the soil on Lot 8 in the townsite of Cuballing – for future units to be constructed upon.

Three (3) testhole slots were excavated via an 8T Mini Excavator to targeted 1600 depth, which was only achieved on Testhole #2. Refusal was reached on Testhole #1 and Testhole #3 at depths of 950 and 1400 respectively due to a hard clay / shaley rock layer. The locations of these testholes on this vacant lot are shown on the attached marked up plan in Appendix A.

The soil profile was found to be consistent across the Lot, and consists of a thin layer of light brown coloured silty sand overlaying a deeper layer of light brown coloured clay.

As per the soil test results shown in Appendix C attached, the potential expansiveness of this material is low and therefore the soil classification for this site is an "S".

Yours Sincerely



Rod Munns – BE (Civil)
R Munns Engineering Consulting Services

Appendix A – Soil Testhole Location Plan

Marked up Site Plan showing location of 2 x Soil Sample Testhole Locations.



Site Plan for Site Classification Soil Sampling on 3 Lots in Cuballing

0 12.5 25 50 Meters

Appendix B - Testhole Soil Sampling Report for Site Classification

Testhole #1 @ GPS Locn 516487 E, 6369140 N

The following soil profile was found:

0 – 250 : Topsoil

250 – 500 : Light Brown coloured Silty Sand (sample 1A taken from 400-500 depth)

500 – 950 : Light Brown coloured Clay (sample 1B taken from 900-950 depth)

Refusal occurred at 950 depth, due to a hard clay / shaley rock layer.

The photos below show the exploration testing for Testhole #1.



Site Photo showing testholes across Lot 8 – Testhole #1 is in the foreground. Note the 8T Mini Excavator in the background.



Testhole #1 – with number marking.



Testhole #1 – with staff showing soil profile depth.



Testhole #1 – showing sample excavation locations.



Soil Sample bags 1A & 1B on ground above Testhole #1.

Testhole #2 @ GPS Locn 516521 E, 6369146 N

The following soil profile was found:

0 – 200 : Topsoil

200 – 450 : Light Brown coloured Silty Sand (sample 2A taken from 400-450 depth)

450 – 1650 : Light Brown coloured Clay (sample 2B taken from 1000 depth & sample 2C taken from 1500 depth)

Refusal was not reached at the 1650 excavated depth.

The photos below show the exploration testing for Testhole #2.



Testhole #2 – with excavated material



Testhole #2 – with number marking.



Testhole #2 – with staff showing soil profile depth.



Testhole #2 – showing sample excavation locations.



Sample bags 2A, 2B & 2C on ground above Testhole #2.

Testhole #3 @ GPS Locn 516557 E, 6369151 N

The following soil profile was found:

0 – 200 : Topsoil

200 – 400 : Light Brown coloured Silty Sand (sample 3A taken from 400-450 depth)

400 – 1400 : Light Brown coloured Clay (sample 3B taken from 900 depth & sample 3C taken from 1300 - 1400 depth)

Refusal occurred at 1400 depth, due to a hard clay / shaley rock layer.

The photos below show the exploration testing for Testhole #3.



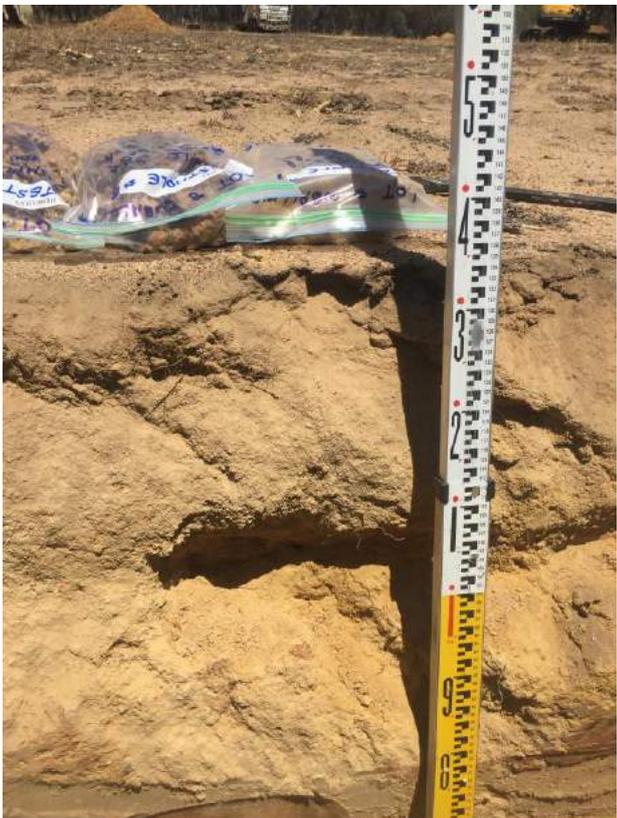
Testhole #3 – with excavated material



Testhole #3 – with number marking.



Testhole #3 – showing sample excavation locations.



Testhole #3 – showing sample excavation locations.



Sample bags 3A, 3B & 3C on ground above Testhole #3.

Appendix C - Soil Test Results & Classification



UTS soiltec

R MUNNS ENGINEERING CONSULTING SERVICES
PO BOX 516
KELLERBERRIN WA 6410
EMAIL: rmecs@westnet.com.au

Date: 16.12.2019

Reference No: Y586 S

RE: Site Classification on Samples Supplied from Units on Lot 8 CUBALLING

As requested, we have carried out a site classification on the samples supplied by yourself from the above property. These sample locations are noted by you on the attached site sketch, page 2.

It is in our opinion that the site be raked over to remove any deleterious material that may occur and compacted. Then the site will be classified as 'S' according to AS 2870 - 2011, and all slab/footing details should be in accordance with this standard. We suggest no lawn or garden areas be placed around the outer walls to prevent undue wetting up of the underlying soils. Earthworks to be carried out in dry conditions only and in accordance with AS 3798 - 2007 – Guidelines on Earthworks of Commercial and Residential Developments. Any fill to be used on the site should consist of clean free flowing compacted sand.

The soil conditions included in this report are only indicative of the samples provided and if these soils vary when construction has commenced UTS Soiltec Pty Ltd needs to be informed as soon as possible.

Should you require any further information on any of the above, please contact us at your convenience.



K. Clements
(Geotechnical Consultant)



UTS soiltec

SITE SKETCH

PROJECT: Units on Lot 8 CUBALLING

CLIENT: R MUNNS ENGINEERING CONSULTING SERVICES

DATE TESTED: 16.12.2019

REF No. Y586 S



Note:

- Diagram not to scale
- Soil zones beneath tested depth are not covered by this report.
- Hole locations are approximate only.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries

T 08 9271 0966 f 08 9471 7686 e admin@utsoiltec.com.au PO Box 183 Bayswater WA 6933 ABN 38 075 120 508

PAGE 2 OF 6



UTS soiltec

SITE PHOTOS & BORE LOGS SUPPLIED BY CLIENT

PROJECT: Units on Lot 8 Cuballing CLIENT: R MUNNS ENGINEERING CONSULTING SERVICES
DATE TESTED: 16.12.2019 REF No. Y586 S

Testhole #1 @ GPS Locn 516487 E, 6369140 N

The following soil profile was found:

- 0 – 250mm: Topsoil
 - 250 – 500mm: Light Brown coloured Silty Sand (sample 1A taken from 400-500 depth)
 - 500 – 950mm: Light Brown coloured Clay (sample 1B taken from 900-950 depth)
- Refusal occurred at 950 depth, due to a hard clay / shaley rock layer



Site Photo showing testholes across Lot 8 – Testhole #1 is in the foreground. Note the 8T Mini Excavator in the background.



Testhole #1 – with staff showing soil profile depth.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries

T 08 9271 0966 f 08 9471 7686 e admin@utssoiltec.com.au PO Box 183 Bayswater WA 6933 ABN 38 075 120 508

PAGE 3 OF 6



UTS soiltec

SITE PHOTOS & BORE LOGS ASSESSED BY CLIENT

PROJECT: Units on Lot 8 Cuballing CLIENT: R MUNNS ENGINEERING CONSULTING SERVICES
DATE TESTED: 16.12.2019 REF No. Y586 S

Testhole #2 @ GPS Locn 516521 E. 6369146 N

The following soil profile was found:

- 0 – 200mm: Topsoil
- 200 – 450mm: Light Brown coloured Silty Sand (sample 2A taken from 400-450 depth)
- 450 – 1650mm: Light Brown coloured Clay
(sample 2B taken from 1000 depth & sample 2C taken from 1500 depth)

Refusal was not reached at the 1650 excavated depth.



Testhole #2 – with excavated material



Testhole #2 – with staff showing soil profile depth.

TESTED BY: AC

CERTIFIED BY: *[Handwritten Signature]*



UTS soiltec

SITE PHOTOS & BORE LOGS ASSESSED BY CLIENT

PROJECT: Units on Lot 8 Cuballing CLIENT: R MUNNS ENGINEERING CONSULTING SERVICES
DATE TESTED: 16.12.2019 REF No. Y586 S

Testhole #3 @ GPS Locn 516557 E, 6369151 N

The following soil profile was found:

- 0 – 200mm: Topsoil
- 200 – 400mm: Light Brown coloured Silty Sand (sample 3A taken from 400-450 depth)
- 400 – 1400mm: Light Brown coloured Clay
(sample 3B taken from 900 depth & sample 3C taken from 1300 - 1400 depth)

Refusal occurred at 1400 depth, due to a hard clay / shaley rock layer.



Testhole #3 – with excavated material



Testhole #3 – showing sample excavation locations.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries

T 08 9271 0966 f 08 9471 7686 e admin@utssoiltec.com.au PO Box 183 Bayswater WA 6933 ABN 38 075 120 508

PAGE 5 OF 6



UTS soiltec

TEST RESULTS

PROJECT: Units on Lot 8 Cuballing CLIENT: R MUNNS ENGINEERING
CONSULTING SERVICES
DATE TESTED: 16.12.2019 REF No. Y586 S

SAMPLED FROM HOLE 2

DEPTH mm 1000

DESCRIPTION Silty Sand

GRAVEL % 9

SAND % 62

SILT % 11

CLAY % < 5 μ 18

UNIFIED CLASSIFICATION SC

LIQUID LIMIT % 42

PLASTIC LIMIT % 23

PLASTICITY INDEX 19

LINEAR SHRINKAGE % 10.0

CLAY % < 2 μ 11

POTENTIAL
EXPANSIVENESS LOW

A.S. 2870 CLASSIFICATION
NO. 'S'

REMARKS:

TESTED BY: UTS

CERTIFIED BY:

RMECS

Contact: Mr Rod Munns
PO Box 516
NARROGIN WA 6312

R Munns Engineering Consulting Services
Email : rmecs@westnet.com.au
Ph : (08) 9881 2251
Mob : 0407 604 164

The Chief Executive Officer
Shire of Cuballing
PO Box 13
CUBALLING WA
6311

Date 31st January 2020

Dear Sir,

Re : Site Classification for Units on Lot 90 Cuballing

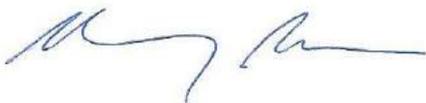
I confirm that on the 10th December 2019, I carried out an investigation of the soil on Lot 90 in the townsite of Cuballing – for future units to be constructed upon.

Three (3) testhole slots were excavated via an 8T Mini Excavator to targeted 1600 depth, which was achieved on all Testholes. The locations of these testholes on this vacant lot are shown on the attached marked up plan in Appendix A.

The soil profile was found to be consistent across the Lot, and consists of a thin layer of light brown coloured silty sand overlaying a deeper layer of light brown coloured clay, overlaying a layer of red / brown coloured shaley clay.

As can be seen from the soil testing results in Appendix C attached, the potential expansiveness of this material is low and therefore the soil classification for this site is an "S".

Yours Sincerely



Rod Munns – BE (Civil)
R Munns Engineering Consulting Services

Appendix A – Soil Testhole Location Plan

Marked up Site Plan showing location of 2 x Soil Sample Testhole Locations.



Site Plan for Site Classification Soil Sampling on 3 Lots in Cuballing

0 12.5 25 50 Meters

Appendix B - Testhole Soil Sampling Report for Site Classification

Testhole #7 @ GPS Locn 516473 E, 6369194 N

The following soil profile was found:

0 – 200 : Topsoil

200 – 450 : Light Brown coloured Silty Sand (sample 7A taken from 400 - 450 depth)

450 – 900 : Light Brown coloured Clay (sample 7B taken from 800 - 900 depth)

900 – 1600 : Red / Brown coloured Shaley Clay (sample 7C taken from 1500 depth)

Refusal was not reached at the 1600 excavated depth.

The photos below show the exploration testing for Testhole #7.



Site Photo showing Testhole #7 on Lot 90, Cuballing.



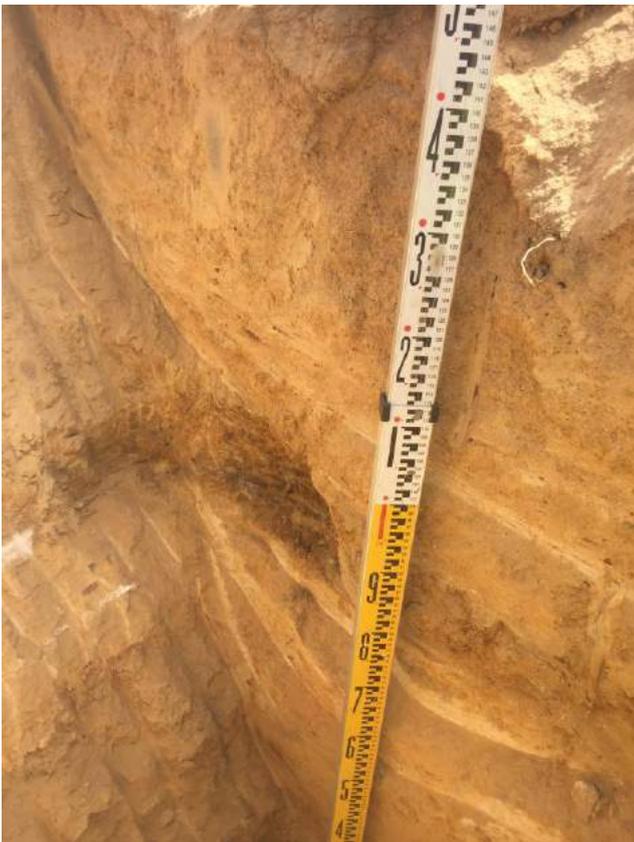
Testhole #7 – with number marking.



Testhole #7 – with staff showing soil profile depth.



Testhole #7 – showing sample excavation locations.



Testhole #7 – showing sample excavation locations.



Soil Sample bags 7A, 7B & 7C on ground above Testhole #7.

Testhole #8 @ GPS Locn 516491 E, 6369191 N

The following soil profile was found:

0 – 200 : Topsoil

200 – 450 : Light Brown coloured Silty Sand (sample 8A taken from 400 - 450 depth)

450 – 1600 : Light Brown coloured Silty Clay (sample 8B taken from 1000 depth & sample 8C taken from 1500 depth)

Refusal was not reached at the 1600 excavated depth.

The photos below show the exploration testing for Testhole #8.



Testhole #8 – with number marking.



Testhole #8 – with staff showing soil profile depth.



Testhole #8 – showing sample excavation locations.



Testhole #8 – showing sample excavation locations.



Sample bags 8A, 8B & 8C on ground above Testhole #8.

Testhole #9 @ GPS Locn 516477 E, 6369163 N

The following soil profile was found:

0 – 250 : Topsoil

250 – 450 : Light Brown coloured Silty Sand (sample 9A taken from 400 - 450 depth)

450 – 1100 : Light Brown coloured Clay (sample 9B taken from 1000 depth)

1100 – 1650 : Red / Brown coloured Shaley Clay (sample 9C taken from 1500 depth)

Refusal was not reached at the 1650 excavated depth.

The photos below show the exploration testing for Testhole #9.



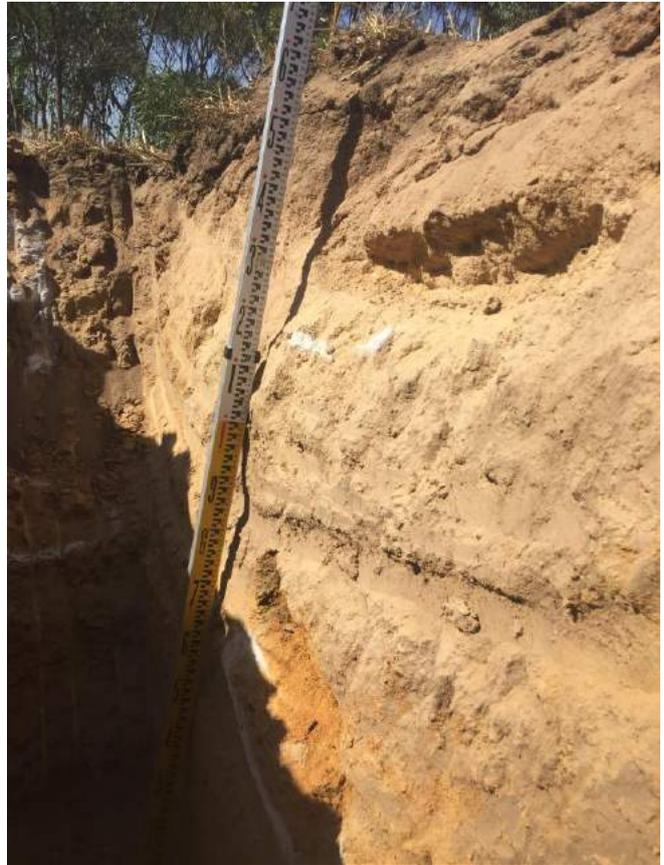
Site Photo showing Testhole #9 on Lot 90, Cuballing.



Testhole #9 - with number marking.



Testhole #9 – with staff showing soil profile depth.



Testhole #9 – showing sample excavation locations.



Testhole #9 – showing sample excavation locations.



Sample bags 9A, 9B & 9C on ground above Testhole #9.

Appendix C - Soil Test Results & Classification



UTS soiltec

R MUNNS ENGINEERING CONSULTING SERVICES
PO BOX 516
KELLERBERRIN WA 6410
EMAIL: rmecs@westnet.com.au

Date: 16.12.2019
Amended: 23.12.19

Reference No: Y588 S

RE: Site Classification on Samples Supplied from **Units in Lot 90 CUBALLING**

As requested, we have carried out a site classification on the samples supplied by yourself from the above property. These sample locations are noted by you on the attached site sketch, page 2.

It is in our opinion that the site be raked over to remove any deleterious material that may occur and compacted. Then the site will be classified as 'S' according to AS 2870 - 2011, and all slab/footing details should be in accordance with this standard. We suggest no lawn or garden areas be placed around the outer walls to prevent undue wetting up of the underlying soils. Earthworks to be carried out in dry conditions only and in accordance with AS 3798 - 2007 – Guidelines on Earthworks of Commercial and Residential Developments. Any fill to be used on the site should consist of clean free flowing compacted sand.

The soil conditions included in this report are only indicative of the samples provided and if these soils vary when construction has commenced UTS Soiltec Pty Ltd needs to be informed as soon as possible.

Should you require any further information on any of the above, please contact us at your convenience.



K. Clements
(Geotechnical Consultant)



UTS soiltec

SITE SKETCH

PROJECT: Units in Lot 90 CUBALLING CLIENT: R MUNNS ENGINEERING CONSULTING SERVICES

DATE TESTED: 16.12.2019 REF No. Y588 S



Note:

- Diagram not to scale
- Soil zones beneath tested depth are not covered by this report.
- Hole locations are approximate only.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries

T 08 9271 0966 f 08 9471 7686 e admin@utsoiltec.com.au PO Box 183 Bayswater WA 6933 ABN 38 075 120 508

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UTS soiltec

SITE PHOTOS & BORE LOGS SUPPLIED BY CLIENT

PROJECT: Units on Lot 90 Cuballing

CLIENT: R MUNNS ENGINEERING
CONSULTING SERVICES

DATE TESTED: 16.12.2019

REF No. Y588 S

Testhole # 7 @ GPS Locn 516473 E, 6369194 N

0 – 200mm: Topsoil

200 – 450mm: Light Brown coloured Silty Sand (sample 7A taken from 400 - 450 depth)

450 – 900mm: Light Brown coloured Clay (sample 7B taken from 800 - 900 depth)

900 – 1600mm: Red / Brown coloured Shaley Clay (sample 7C taken from 1500 depth)

Refusal was not reached at the 1600 excavated depth.



Site Photo showing Testhole #7 on Lot 90, Cuballing.



Testhole #7 – with number marking.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries

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UTS soiltec

SITE PHOTOS & BORE LOGS SUPPLIED BY CLIENT

PROJECT: Units on Lot 90 Cuballing_ CLIENT: R MUNNS ENGINEERING CONSULTING SERVICES

DATE TESTED: 16.12.2019 REF No. Y588 S

Testhole # 8 @ GPS Locn 516491 E, 6369191 N

The following soil profile was found:

0 – 200mm: Topsoil

200 – 450mm: Light Brown coloured Silty Sand (sample 8A taken from 400 - 450 depth)

450 – 1600mm: Light Brown coloured Silty Clay

(sample 8B taken from 1000 depth & sample 8C taken from 1500 depth)

Refusal was not reached at the 1600 excavated depth.



Testhole #8 – with number marking.



Testhole #8 – with staff showing soil profile depth.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries

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UTS soiltec

SITE PHOTOS & BORE LOGS SUPPLIED BY CLIENT

PROJECT: Units on Lot 90 Cuballing CLIENT: R MUNNS ENGINEERING CONSULTING SERVICES
DATE TESTED: 16.12.2019 REF No. Y588 S

Testhole # 9 @ GPS Locn 516477 E, 6369163 N

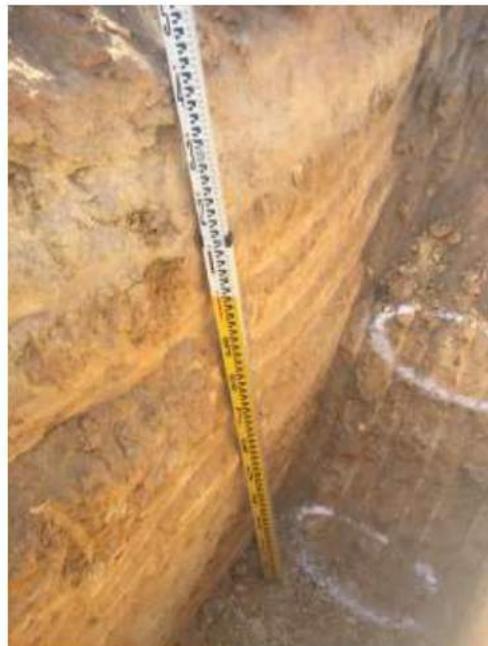
The following soil profile was found:

- 0 – 250mm: Topsoil
- 250 – 450mm: Light Brown coloured Silty Sand (sample 9A taken from 400 - 450 depth)
- 450 – 1100mm: Light Brown coloured Clay (sample 9B taken from 1000 depth)
- 1100 – 1650mm: Red / Brown coloured Shaley Clay (sample 9C taken from 1500 depth)

Refusal was not reached at the 1650 excavated depth.



Site Photo showing Testhole #9 on Lot 90, Cuballing.



Testhole #9 – with staff showing soil profile depth.

TESTED BY: AC

CERTIFIED BY:

Consultants to the civil, construction and housing industries

T 08 9271 0966 f 08 9471 7686 e admin@utssoiltec.com.au PO Box 183 Bayswater WA 6933 ABN 38 075 120 508

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UTS soiltec

TEST RESULTS

PROJECT: Units on Lot 90 Cuballing_ CLIENT: R MUNNS ENGINEERING
CONSULTING SERVICES
DATE TESTED: 16.12.2019 REF No. Y588 S

SAMPLED FROM HOLE 7

DEPTH mm 800-900

DESCRIPTION Sandy Clay

GRAVEL % 3

SAND % 45

SILT % 16

CLAY % < 5 μ 32

UNIFIED CLASSIFICATION SC

LIQUID LIMIT % 38

PLASTIC LIMIT % 17

PLASTICITY INDEX 21

LINEAR SHRINKAGE % 8.0

CLAY % < 2 μ 28

POTENTIAL
EXPANSIVENESS LOW

A.S. 2870 CLASSIFICATION
NO. 'S'

REMARKS:

TESTED BY: UTS

CERTIFIED BY: 