



URBIS

1055 BRUXNER HIGHWAY, GOONELLABAH URBAN DESIGN REPORT

PREPARED FOR

NIMBLE ESTATES PTY LTD

2 NOVEMBER 2022

EXECUTIVE SUMMARY

This urban design report has been prepared by Urbis to accompany a Request for Planning Proposal (Planning Proposal) to amend the Lismore Local Environmental Plan 2012 (LLEP) to enable mixed use development of land referred to as 1055 Bruxner Highway, Goonellabah (the site) comprising residential, employment and public open space lands.

This report has been prepared to outline a master plan vision that guides the potential future development of the site. The preparation of this master plan has been informed by:

- Background planning context analysis to ensure alignment with strategic positioning of the subject site, and
- Assessment of existing urban context to ascertain potential constraints and opportunities that might impact the potential layout of the site.

The master plan proposes a village that is safe, convenient and diverse. Meanwhile, the residents will live with easy access to jobs, amenities and services with the offering of employment opportunities and a new local centre. The village will celebrate the natural assets through the delicate conservation of the Tucki Tucki Creek corridor and its tributaries, offering the community with generous recreation opportunities while promoting biodiversity.

The master plan proposes:

- 5.48ha of low-density residential,
- 5.21ha of medium density residential,
- 2.76ha of commercial development,
- 0.5ha of village centre, and
- 23.27ha of industrial development.



Figure 1 Indicative Masterplan

URBIS STAFF RESPONSIBLE FOR THIS REPORT:

| | |
|-----------------------|------------------------------------|
| Director: | Carlos Frias |
| Project Team: | Chang Liu, Cynthia Du |
| Project Code: | P0040564 |
| Reference: | RPT_1055BruxnerHwyLismore_UDReport |
| Version: | Rev A |
| Report Status: | DRAFT FOR REVIEW |
| Date: | Nov 2022 |

We acknowledge Aboriginal and Torres Strait Islanders as the traditional custodians of all the lands throughout Australia. We recognise and respect the connection to their land, cultural heritage and community, and we pay respects to their Elders past, present and emerging.

© Urbis 2022

This publication is subject to copyright. Except as permitted under the Copyright Act 1968, no part of it may in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) be reproduced, stored in a retrieval system or transmitted without prior written permission. Enquiries should be addressed to the publishers.

URBIS.COM.AU

PROJECT BACKGROUND

Nimble Estates Pty Ltd engaged Urbis to prepare an urban design report for the site located at 1055 Bruxner Hwy, Goonellabah.

Flood disaster in 2022 arose an urgent need for safe housing supplies in Lismore.

The subject site is a flood-free vacant land well-serviced by Bruxner Highway with convenient access to Lismore and Goonellabah town centres. It is zoned for RU1 Primary Production uses. The proximity to existing services and flood-free nature offer the site with opportunities to accommodate potential residential and employment growth, which will require a re-zoning of current planning controls.

This report will investigate the urban context of the subject site and set out a vision that will support the re-zoning of the land.

PURPOSE OF THIS REPORT

This report sets out an master plan for the site as well as the background urban and planning context investigations that informed the development of this master plan.

This includes:

- An overview of strategic planning policy and statutory planning controls.
- Analysis of the urban context.
- An understanding of the site specific opportunities and constraints for redevelopment.
- Identification of key directions for the site to inform the vision of the site.

CONTENTS

| | |
|----------------------------|----|
| EXECUTIVE SUMMARY | 2 |
| INTRODUCTION | 6 |
| STRATEGIC CONTEXT | 12 |
| STRATEGIC CONTEXT | 13 |
| URBAN CONTEXT ANALYSIS | 22 |
| INDICATIVE MASTERPLAN | 38 |
| PROPOSED ZONING AMENDMENTS | 57 |



INTRODUCTION



SITE LOCATION

The subject site is located along Bruxner Highway, providing convenient connections to other close-by centres and facilities. Major destinations in the vicinity include:

- Goonellabah Local Centre, which provides schools, sports facilities, and supermarkets, (2km west of subject site, 6 minute drive);
- Lismore Town Centre that offers a variety of services and facilities including schools, hospitals, retails and jobs, (8km west of subject site, 10 minute drive); and
- Southern Cross University providing jobs and education opportunities (5.2km west of subject site, 10 minute drive).

LEGEND

- Subject Site
- B60 Bruxner Hwy
- University
- Town Centre
- Neighbourhood Centre
- Railway Station

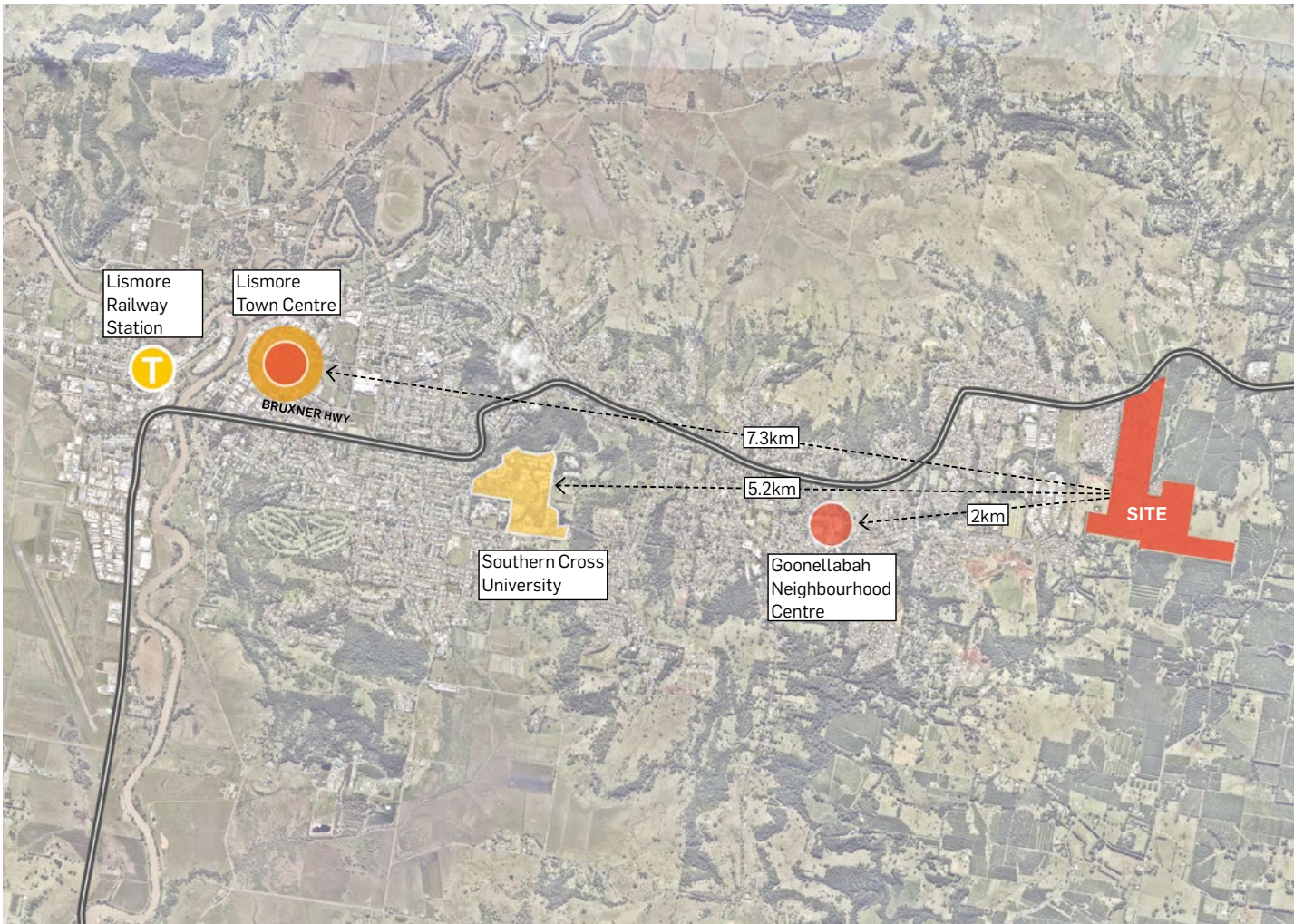


Figure 2 Location Plan

SITE DESCRIPTION

The subject site is located at 1055 Bruxner Highway, Goonellabah within Lismore Local Government Area (LGA).

The site has a total area of 75.14 ha and is comprised of following lots:









- Lot 42 DP 868366
- Lot 1 DP 957677

Key feature of the subject site's immediate context could be summarised as below:

- It sits within a rural landscape setting with Macadamia farms to the east and south, low rise residential lands to the west and, a cluster of industrial lands to the southwest.
- The site is bounded by two roads:
 - Bruxner Highway by the northern boundary,
 - Oliver Avenue along the western boundary, which is disjointed by land west of the subject site but is proposed to be connected in the future, and
 - No roads along the eastern boundary. However, a north-south running Alphadale Road is identified approximately 400m away.

The subject site is primarily vacant and is featured with:

- Tucki Tucki Creek traversing east-west across the site, and several tributaries running north-south,
- Sparse trees across the site with the exception of denser bushlands along the western boundary,
- Significant slopes with multiple ridgelines running in different directions,
- An approximate of 1.9 ha of land has been acquired as a part of land swap with the neighbouring site (Lot 1 DP 1185234), and
- The site is not affected by flood.

| LEGEND | |
|---|-------------------------------|
|  | Site Boundary |
|  | Existing Road |
|  | Cadastre |
|  | Creek |
|  | Existing Low Residential Area |
|  | Existing Industrial Area |
|  | Swap Land |
|  | Macadamia Farm |



De-Husking
Shed

Macadamia
Farm

Existing
Low Density
Residential Area

Existing
Industrial Area

Land Swap

SITE

OLIVER AVENUE

BRUXNER HWY

ALPHADALE ROAD

Figure 3 Site Description

1:10,000 @ A3
0 10 20 30 40 50

SITE PHOTOS





STRATEGIC CONTEXT



STRATEGIC CONTEXT

Planning in NSW is underpinned by a series of cascading strategic planning documents which align land use, transport and infrastructure between three tiers of government and across State agencies for the first time in a generation.

This is supported by site specific planning controls which are prepared in alignment with strategic planning objectives and guide development and design outcomes at a detailed level.

Together these documents set out the existing and future context along with development and design considerations to inform future development outcomes on a site.

This section of the document provides an overview of the Strategic and Site Specific Planning context relevant to the site for the this Planning Proposal. Applicable documents are as follows:

- Flooding History of Lismore

Strategic Planning Directions:

- North Coast Regional Plan 2036
- Lismore City Action Plan
- Lismore LSPS
- Lismore Growth Management Strategy
- Review of Lismore's Land Use Management Strategy

Local Planning Controls:

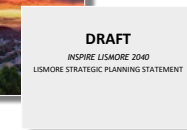
- Lismore LEP 2012
- Lismore DCP 2012
- Nearby Planning Activities



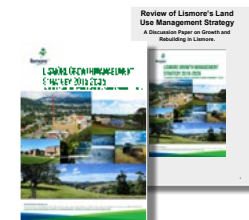
North Coast Regional Plan 2036



Lismore City Action Plan



Lismore LSPS



Lismore Growth Management Strategy/
Review of Lismore's Land Use Management Strategy

PLANNING DOCUMENTS

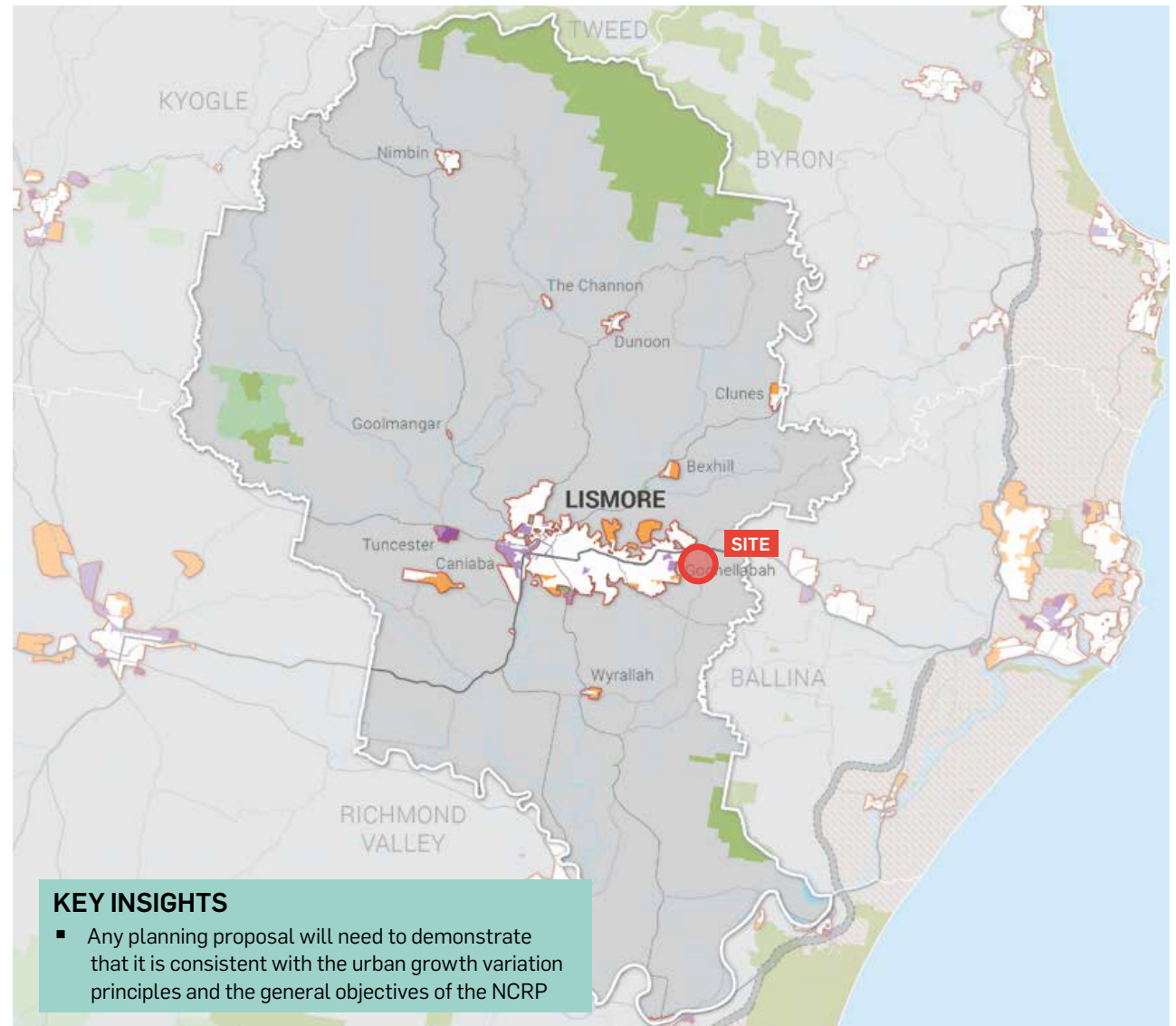
NORTH COAST REGIONAL PLAN 2036

The North Coast Regional Plan (NCRP) is the overarching framework for the management of growth on the NSW North Coast, including in Lismore. The NCRP intends to identify and promotes a settlement pattern that protects existing environmental values and natural resources while utilising and developing the existing network of major urban centres, reinforcing village character and requiring efficient use of existing services and major transport routes.

The plan sets out 4 goals for the region, and "Goal 4: Great housing choice and lifestyle options" lists several directions regarding the delivery of housing. It sets a minimum target of 3,350 additional new dwellings for Lismore by the year 2036. The NCRP also established mapped urban growth areas on land identified as suitable to cater to the region's housing needs.

However, the subject site is outside of the NCRP urban growth area boundaries. Notwithstanding, Direction 1 of the NCRP acknowledges that land outside the growth areas may be suitable to accommodate growth and outlines the appropriate process for rezoning land located outside of the urban growth area:

"There may be a need to vary the urban growth areas as new information becomes available or to correct anomalies. Any variations must be in accordance with the Urban Growth Area Variation Principles (Appendix A) and will need to be considered and justified through a strategic planning or rezoning process."



LISMORE CITY ACTION PLAN

A key objective of the North Coast Regional Plan 2036 was the development of Regional City Action Plans for the North Coast regional cities of Coffs Harbour, Port Macquarie, Lismore, and Tweed.

The plan is based on the delivery of the following five goals:

- Goal 1: Live
- Goal 2: Work & Learn
- Goal 3: Meet
- Goal 4: Play & Protect
- Goal 5: Move

The RCAP also establishes 18 objectives to achieve these goals via a coordinated approach to land-use planning and infrastructure delivery. Key relevance to the subject site include:

- Objective 1: Support community aspirations for greater housing diversity and choice.
- Objective 3: Strengthen resilience to natural hazards and climate change.
- Objective 7: Deliver local jobs through the city's employment lands and industry sectors.

LISMORE LSPS

The Inspire Lismore 2040 - Local Strategic Planning Statement (LSPS) is the core strategic land use planning document for Lismore. It integrates a range of existing land use planning policies and related initiatives already underway, including the Growth Management Strategy, Economic Development Strategy, and Biodiversity Management Strategy.

Key relevance to the site include:

- Planning Priority 1: Growth is consolidated around Lismore city, its CBD, and villages.
- Planning priority 8: Consolidate existing industries and support their continued growth.
- Planning Priority 12: Protect and improve productive agricultural land and other natural resources.

LISMORE GROWTH MANAGEMENT STRATEGY

The Lismore Growth Management Strategy 2015-2035 (GMS) was adopted by Lismore City Council on 12 May 2015 and was conditionally approved by the Department of Planning and Environment on 11 August 2015.

The GMS identifies land suitable for future housing, and commercial and industrial development. It identifies Goonellabah as the preferred choice for new residences with 85% of Lismore's dwelling approvals for the ten years to 2013 occurring in Goonellabah due to its conductivity to Lismore CBD, the beaches, and Pacific Highway.

Also, it mentions that *"The expansion of industrial zoned land in Goonellabah would be advantageous as it is not flood-prone, is close to Ballina Road and the Bruxner Highway and a lack of suitable sites has been a restriction on securing investment in some instances."*

"Rural land to the east is constrained by topography and potential competition for the land to be used for residential development in the future. Council will explore opportunities for the land to be zoned for industrial uses as they arise."

FLOODS IN LISMORE

It has been calculated that 3045 residential, commercial and industrial buildings were directly affected by above floor inundation when the catastrophic flood event hit the region on February 28, 2022. It caused untold physical, social and emotional damage to communities in the affected areas.

Historically, Lismore bloomed around the river trade, timber and agricultural industries. While supplying the town with convenient transport by water, the river also brings significant flood impact to the area.

In 1954 and 1974 Lismore also experienced very severe flooding, creating major problems for the community. Following the 1974 flood, the government of the day commissioned a number of studies to consider ways to overcome Lismore's flood problems. **The then government assisted with the purchase of land at Goonellabah to create a new commercial area, which is next to the subject site.**

Following the 1989 flood, the concept of having levee to protect the CBD was again investigated and decided that it was both practical and financially feasible to construct a limited levee around south and central Lismore. However, in March 2017, the Lismore flood levee was overtopped for the first time, followed by a series of even worse flood events in 2022.

Source:

Review of Lismore Use Management Strategy - A Discussion Paper on Growth and Rebuilding in Lismore.

"A short history of flooding in Lismore", <https://lismore.nsw.gov.au/a-short-history-of-flooding-in-lismore>, Lismore City Council



Figure 4 2022 Lismore Flood

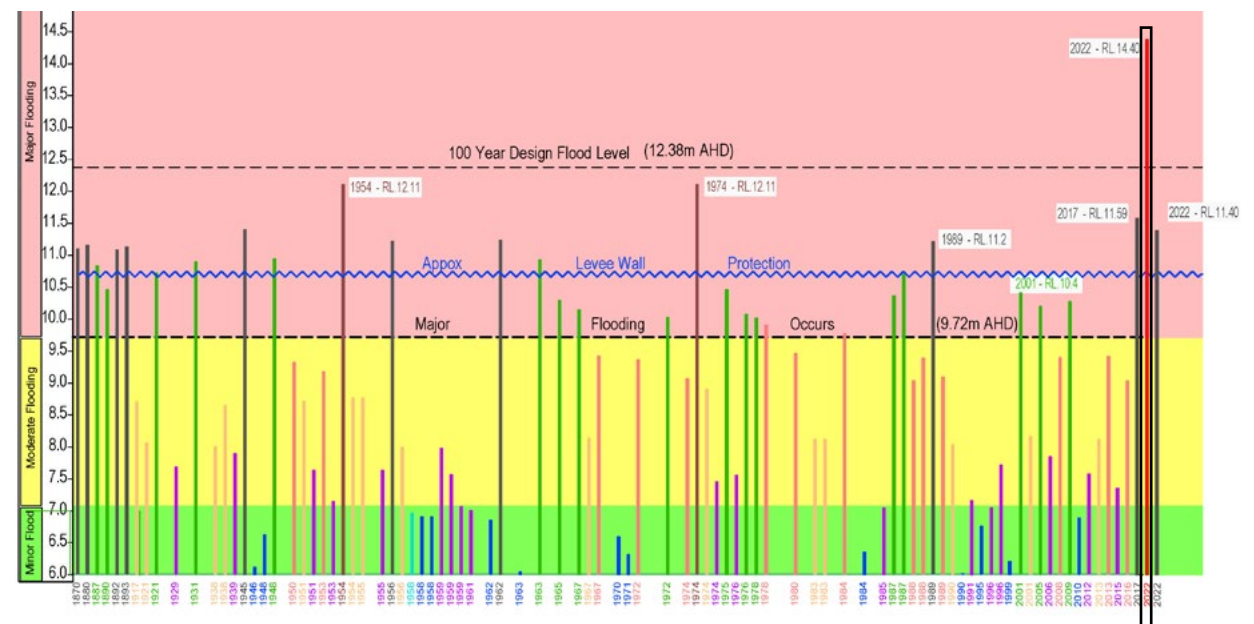


Figure 5 History of Lismore Floor Events (1870-2022)

2022 Flood

LISMORE GROWTH AND REALIGNMENT STRATEGY

The Lismore Growth Management Strategy 2015-2035 (LGMS) was scheduled for a periodic review in 2022, however, the recent devastating floods in Lismore have triggered a significant re-imagining and realignment of Lismore growth to facilitate the relocation of homes and businesses to areas free of potential future flooding.

As a result, Lismore's growth the Lismore Growth and Realignment Strategy (LGRS) has been prepared and is intended to be formalised as an addendum to Lismore's Local Strategic Planning Statement. The LGRS identifies land that is suitable for future housing, commercial and industrial purposes by ensuring future growth areas are consistent with the planning priorities identified in the LSPS. The growth areas identified in the LGRS are strategically selected in areas that have minimal constraints and can be adequately serviced by necessary and appropriate infrastructure.

Specifically, the future growth areas are located outside the Probable Maximum Flood event extent and generally have a slope of less than 33%. Identification in the LGMS is the first step in the planning process to change or intensify the use of the land in the growth areas.

The LGRS clearly identifies the site in Figure 6 "Oliver Avenue Potential Residential / Mixed Use Area" and on Figure 7 "Potential extension area of the Goonellabah Industrial Precinct" as demonstrated.

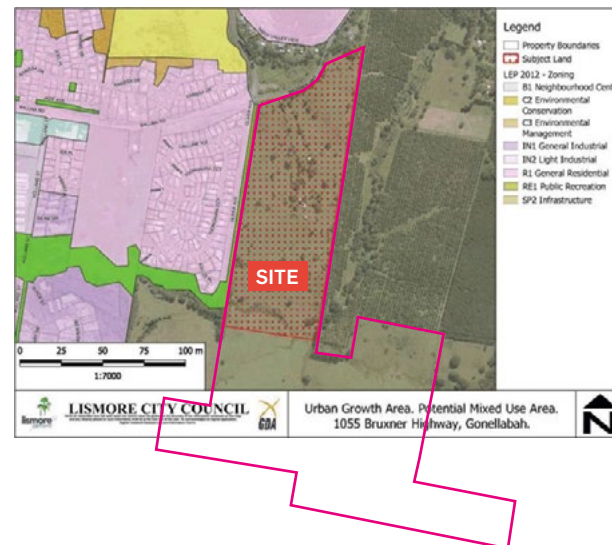


Figure 6 Site as identified on the Oliver Avenue Potential Residential / Mixed Use Area Map.

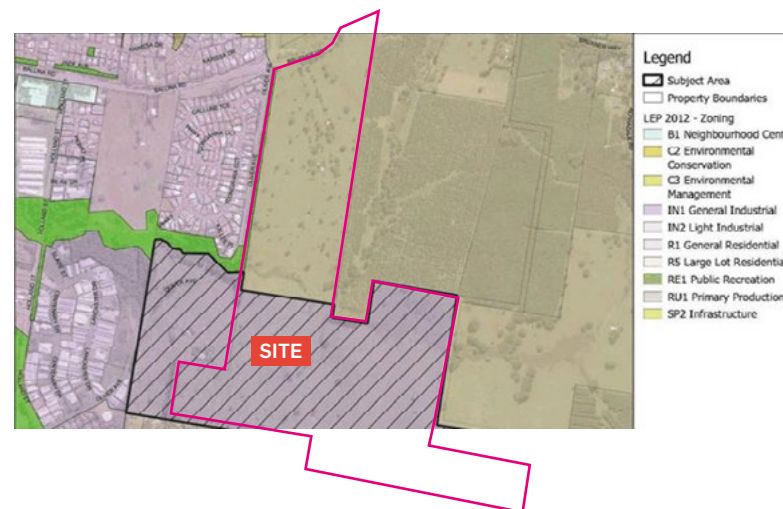


Figure 7 Site as identified on the Potential expansion of the Goonellabah Industrial precinct map

KEY INSIGHTS

- This Planning Proposal facilitates Council's identified desire to re-align Lismore's growth and relocate housing, businesses, and industries on flood-free and unencumbered land.

LISMORE LEP 2012

Lismore Local Environmental Plan 2012 (LLEP 2012) is the primary environmental planning instrument that applies to the site. The core planning controls likely to impact its future development potential are outlined below.

| ELEMENT | APPLICABLE CONTROLS |
|--------------------|---|
| Zoning | RU1 - Primary Production |
| Permitted Uses | <p>Permitted without consent</p> <p>Environmental protection works; Extensive agriculture; Forestry; Home occupations; Home occupations (sex services); Intensive plant agriculture</p> <p>Permitted with consent</p> <p>Airstrips; Animal boarding or training establishments; Aquaculture; Boat launching ramps; Boat sheds; Building identification signs; Business identification signs; Camping grounds; Caravan parks; Cellar door premises; Cemeteries; Community facilities; Dual occupancies; Dwelling houses; Ecotourist facilities; Environmental facilities; Extractive industries; Farm buildings; Flood mitigation works; Garden centres; Helipads; Home-based child care; Home businesses; Home industries; Information and education facilities; Intensive livestock agriculture; Jetties; Kiosks; Landscaping material supplies; Mooring pens; Open cut mining; Plant nurseries; Recreation areas; Recreation facilities (outdoor); Restaurants or cafés; Roads; Roadside stalls; Rural industries; Rural supplies; Tourist and visitor accommodation; Turf farming; Water recreation structures</p> |
| Lot Size | 40ha |
| Height of Building | N/A |

KEY INSIGHTS

- The site falls within RU1 Primary Production Zones, which does not allow for major residential developments.
- The neighbouring site to the west is zoned as R1, IN1 and RU1, which allow for residential and employment developments.
- The site to the east is zoned as RU1, which is likely to remain as farmland.

ZONE

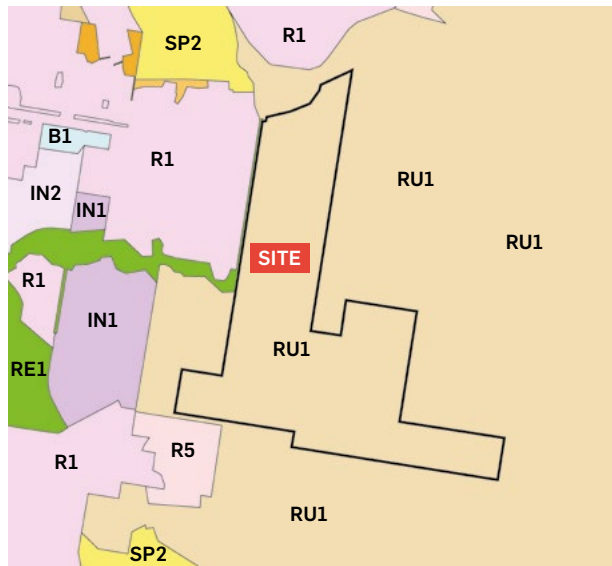


Figure 8 Land Zoning Map

LEGEND

| | |
|-----|-----------------------|
| B1 | Neighbourhood Centre |
| IN1 | General Industrial |
| R1 | General Residential |
| R5 | Large Lot Residential |
| RE1 | Public Recreation |
| RU1 | Primary Production |
| SP2 | Infrastructure |

HEIGHT



Figure 9 Height Of Building Map

LEGEND

| |
|-------|
| I 8.5 |
|-------|

LOT SIZE

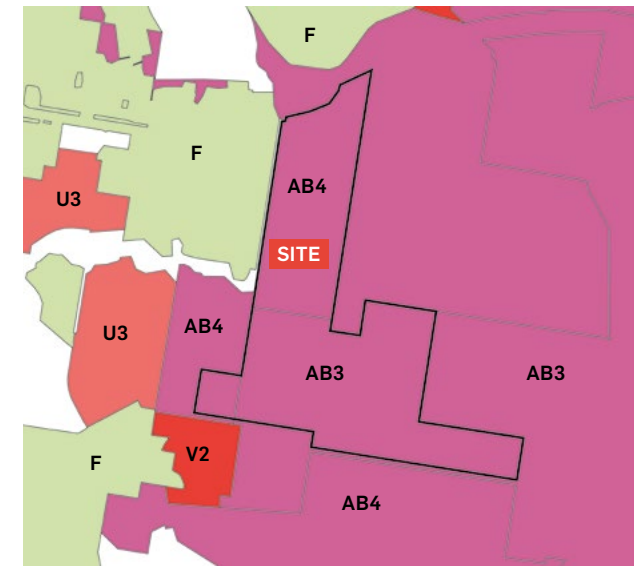


Figure 10 Minimum Lot Size Map

LEGEND

| | |
|-----|---------------------|
| AB3 | 20ha |
| AB4 | 40ha |
| F | 400 m ² |
| U3 | 1500 m ² |
| V2 | 2500 m ² |

LISMORE DCP 2012

Lismore Development Control Plan (the DCP) provides detailed development guidelines relevant to the site and design of future development. The core controls likely to impact the future development of the subject site for residential or industrial land are outlined below.

KEY INSIGHTS

- Development on the subject will need to consider keep consistent with the desired future character of the surrounding context.

| ELEMENT | APPLICABLE CONTROLS |
|---|---|
| Chapter 11 Buffer areas | <p>This chapter seeks to minimise land use conflicts between potentially incompatible land uses through the establishment of appropriate buffer areas.</p> <p>Given the planning proposal seeks approval for residential and industrial zoned land adjoining one and other and agricultural land to the east and south, the following buffer distances apply:</p> <p>Intensive Plant Agriculture – Horticulture:</p> <ul style="list-style-type: none"> The DCP recommends an “80m dwelling setback, including a “biological buffer” of minimum width of 30m” As per the above clause, this setback is applicable to “dwellings”. As such, it does not apply to the southern industrial lots. <p>Macadamia Dehusking:</p> <ul style="list-style-type: none"> The DCP recommends 300m from residential development. From a review of the aerial image, this is not applicable. <p>Grazing Land:</p> <ul style="list-style-type: none"> The DCP recommends “residential dwelling sites adjoining grazing land should have a 30m setback. Infill residential development zoned R1, R2 and RU5 are exempt from this requirement.” Not applicable as the residential portion of the site adjoins intensive plant agriculture. <p>Industrial Development:</p> <ul style="list-style-type: none"> Where industrial development adjoins residential development the following landscaping buffers apply: Light Industries to residential: Minimum 10m. Preferred: 20m General Industries to residential: Minimum 20m. Preferred: 40m Based on the ILP the riparian corridor should be sufficient to satisfy this buffer distance. |
| Chapter 13: Crime Prevention | <p>This Chapter contains the factors to be considered when planning and designing a new development to ensure that crime prevention is a key consideration in urban design.</p> |
| Chapter 22: Water Sensitive Design | <p>Water Sensitive design is a multidisciplinary approach for integrating land use and water management (water supply, stormwater, wastewater and groundwater) planning, with the aim of minimising the impacts of development on the natural water cycle. The main emphasis of this Chapter is stormwater management and water supply.</p> |

NEARBY PLANNING ACTIVITIES

We have reviewed the NSW Planning Portal (<https://www.planningportal.nsw.gov.au/ppr>) and identified one Planning Proposal lodged in the vicinity of the site.

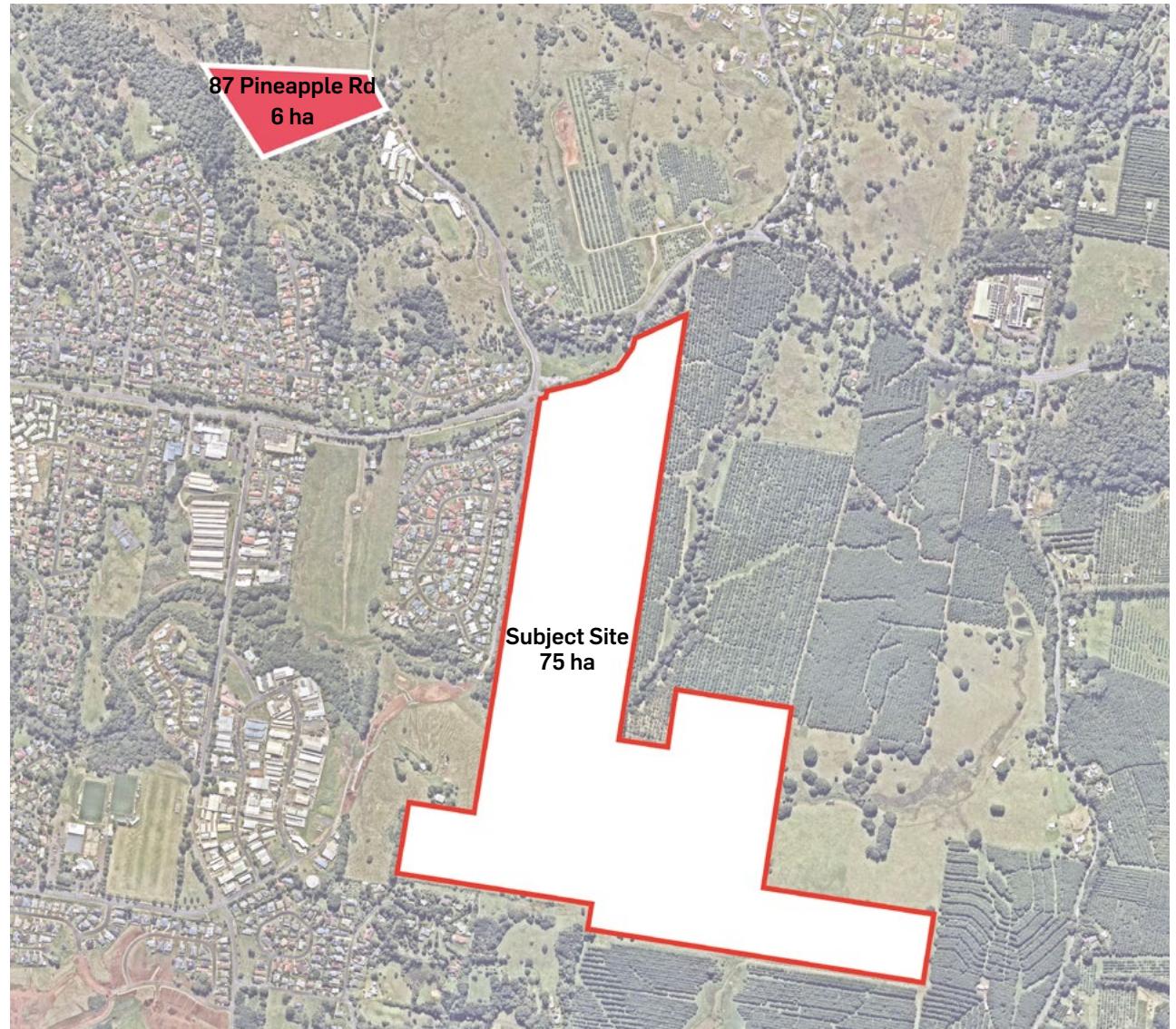
Lismore LEP 2012 Am #15 - Rezone land at 87 Pineapple Rd, Goonellabah


The approved planning proposal was successful in rezoning part of Lot 5 DP 253464, 87 Pineapple Rd, Goonellabah, from RU1 Primary Production to R1 General Residential. The proposal also amended the Lismore LEP 2012 to apply a 400m² minimum lot size and 8.5m maximum building height to the land being rezoned.

The rezoned land has an area of approximately 60,000 sqm and it is likely to yield 30 lots.

KEY INSIGHTS

- The scale of this planning proposal site (87 Pineapple Road) is not comparable to the subject site. Hence there are limited implications to the development potential of the subject site.





URBAN CONTEXT ANALYSIS

"Character is what makes an area distinctive. It is the translation of land use and built form, the local economy, public realm and private spaces and the tradition and history of Aboriginal and non-Aboriginal cultures, intrinsically linked to individual places. Character is fluid and reflected by people who value and influence the places they are connected to in different ways."

Source: NSW Local Character and Place Guideline

Understanding and nurturing the unique identity of each place, whilst also meeting the existing and future needs of our communities, will ensure we create places, neighbourhoods and cities that are healthy, responsive, integrated, equitable and resilient.

NSW Government in partnership with the NSW Government Architect have prepared a series of guidelines to assist in understanding local character and place.

This section of the report presents the local urban context character and place analysis considering the existing, emerging and desired future character planned for the site. It includes:

- Local Context Analysis;
- Topography Analysis;
- Landscape and Natural Asset Analysis;
- Movement Analysis;
- Surrounding Uses Analysis; and
- Based on the analysis, a consolidated analysis of site opportunities and constraints.










LOCAL CONTEXT

Figure 11 indicates an overlay of key local destinations, 10 minute driving radius from Lismore Town Centre, LEP flood planning zones and lands that currently allow for residential development.

This overlay suggests that, Bruxner Highway is a major movement spine that links multiple key local activity nodes including: Lismore Town Centre, Southern Cross University, Goonellabah Town Centre and beyond; and this suggests that, better access to Bruxner Highway brings easier connection to local services, amenities and jobs.

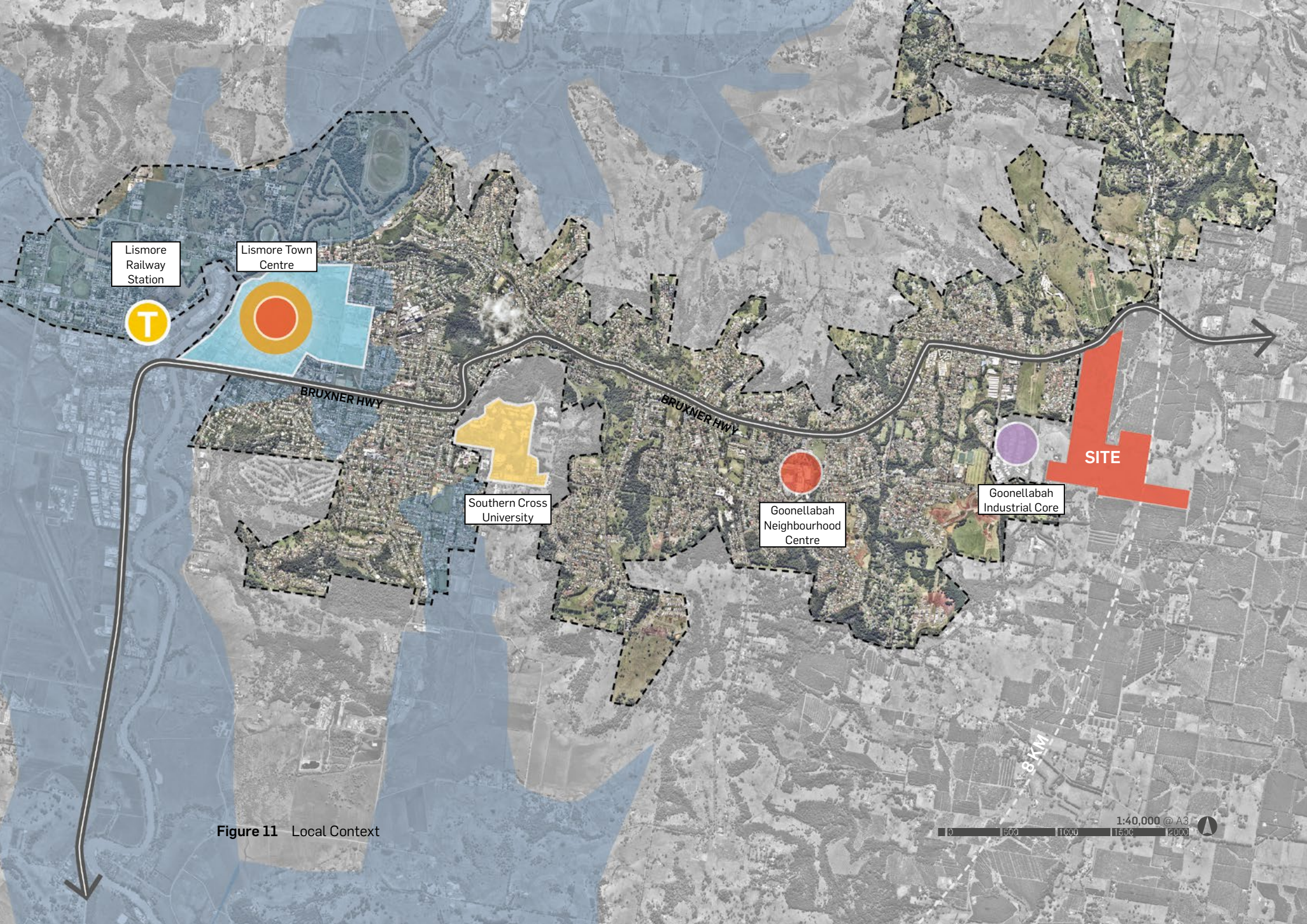
Following the flooding events in 2022, there is a growing need for finding flood-free lands to either accommodate future residential growth, or re-locate existing flood-prone residents.

The Flood Planning Area indicates that the entire Lismore Town Centre might be subject to the impact of flood. And most of the current flood-free lands allowing residential development within the 10min Lismore Town Centre catchment are either taken up, or located away from Bruxner Highway, making access to local destinations difficult.

| LEGEND | |
|---|--|
|  | Subject Site |
|  | B60 Bruxner Hwy |
|  | University |
|  | Town Centre |
|  | Neighbourhood Centre |
|  | Industrial Core |
|  | Railway Station |
|  | Lands Currently Allowing For Residential Development |
|  | Flood Planning Zone |

KEY INSIGHTS

- Based on above, current zoning potentially allows for limited amount of additional residential development within the area. Hence there is a need to investigate areas outside of the current residential-allowing land that is flood-free and easily accessible to local destinations to accommodate future residential growth or re-location.
- The subject site presents a great opportunity for residential development as it is predominantly vacant and it's not currently impacted by floods. Also, its proximity to Bruxner Highway enables commuters to reach most of local amenities, services and jobs within 10 minutes.



Lismore
Railway
Station

Lismore Town
Centre



BRUXNER HWY

Southern Cross
University



BRUXNER HWY

Goonellabah
Neighbourhood
Centre



Goonellabah
Industrial Core



SITE

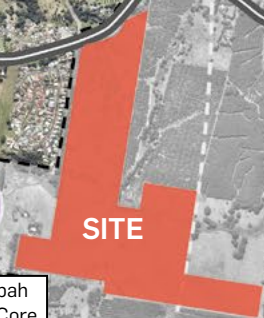


Figure 11 Local Context

1:40,000 @ A3
0 500 1000 1500 2000



TOPOGRAPHY AND LAND FORM

The subject site sits on an undulating land featured with slopes mostly greater than 10% . The sloping land forms a valley-like character with two high points on northern and southern portions of the site and sharply fall southwards and northwards respectively to Tucki Tucki Creek corridor, which traverses across the centre of the site.

SLOPE ANALYSIS

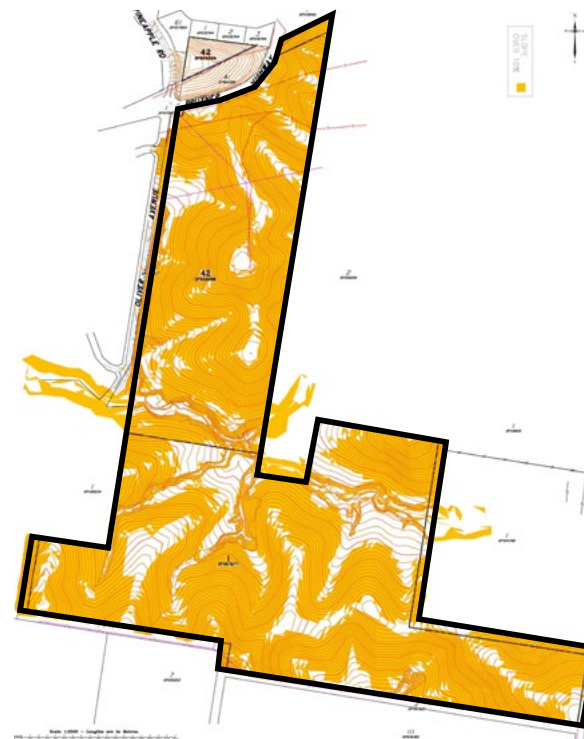
- Slopes Greater than 10%**
Slopes below 10% is most suitable for walking.
- Slopes Greater than 15%**
Slopes greater than 15% might be difficult for road grading.

TOPOGRAPHY AND LAND FORM

- ✱ **Local Low Points** ✱ **Local High Points**
- ➔ **Direction of Falls**
- There is one local high point at the northern part of the site and another one on the southern site boundary, both at RL175.
- The terrain falls sharply towards local low point at the centre of the site to RL140 within Tucki Tucki Creek corridor.
- Ridgelines**
Multiple ridgelines runs at different directions across the site.

KEY INSIGHTS

- Future developments should respond to the sloping topography to minimise cut and fill.
- The proposed roads should follow the trends of ridgelines.



Slope Greater Than 10%
Source: Aarian Pty Ltd Atf



Slope Greater Than 15%

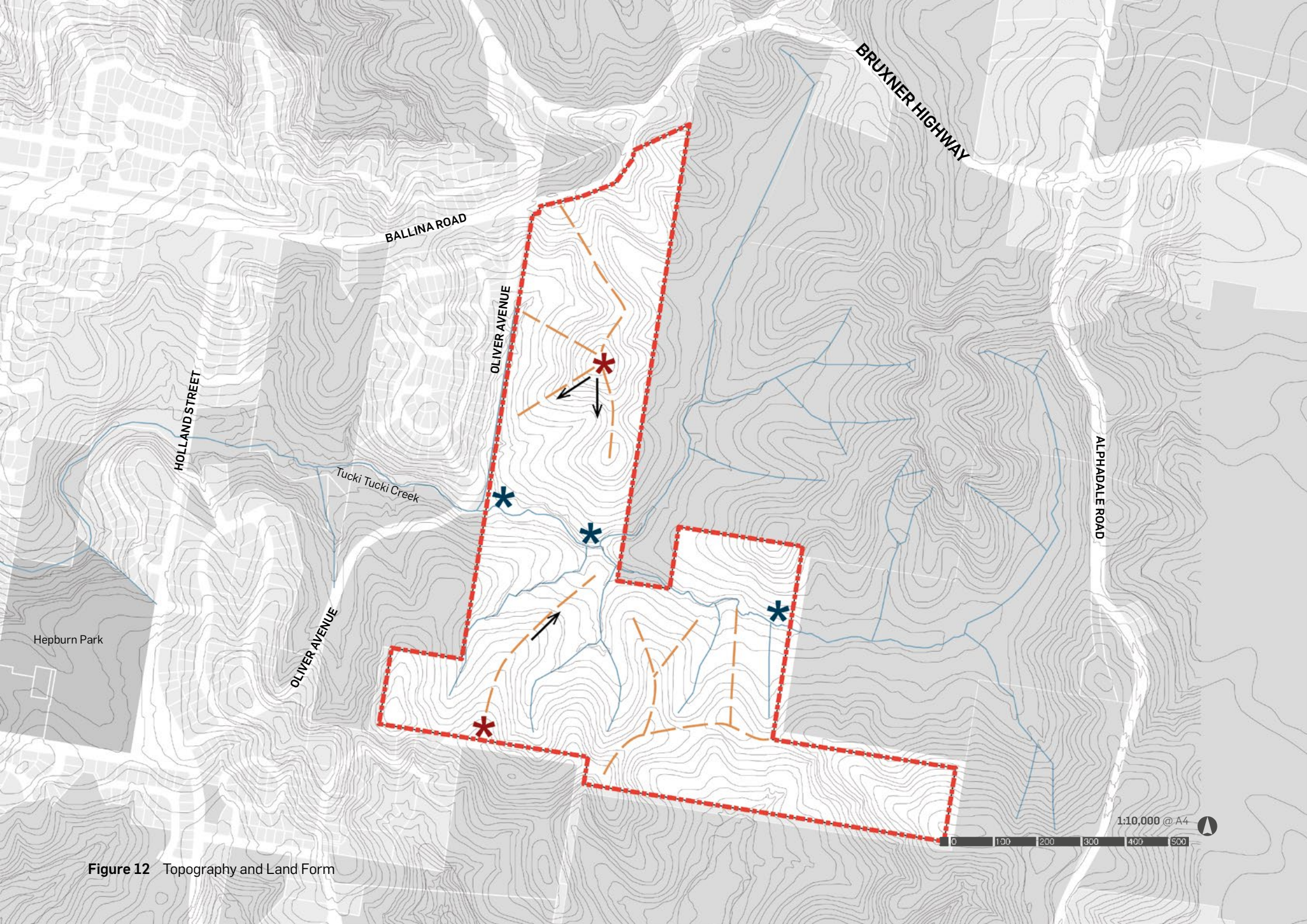


Figure 12 Topography and Land Form

ECOLOGICAL CONSTRAINTS

The subject site is predominantly vacant with Tucki Tucki Creek traversing east-west across the site and several tributaries running north-south. The existing trees are sparsely scattered across the site with the exception of a cluster along Oliver Avenue, which appears to form part of tributaries' corridor.

ECOLOGICAL CONSTRAINTS

Trees

- Retention value of the sparsely located trees is pending on arborist's study.

NSW Biodiversity Values Mapping

- The map identifies land with high biodiversity value that is particularly sensitive to impacts from development and clearing. The main creek corridor and the vegetation along the western boundary are highlighted with high biodiversity value. Clearing of the identified site will require the preparation of Biodiversity Development Assessment Report (BDAR).



Waterways Within The Site

- Tucki Tucki Creek is an Order 3 Stream, and it will require a 30m buffer on each side of the creek bed.
- The tributaries will require a 10m buffer on each side of the creek bed.

Buffered Corridor of Tucki Tucki Creek

KEY INSIGHTS

- The existing trees should be retained where possible.
- Tucki Tucki Creek and its corridor has the potential to bring landscape and recreational opportunity to future developments.



Trees within the Site



Trees along Oliver Avenue



Macadamia Farms

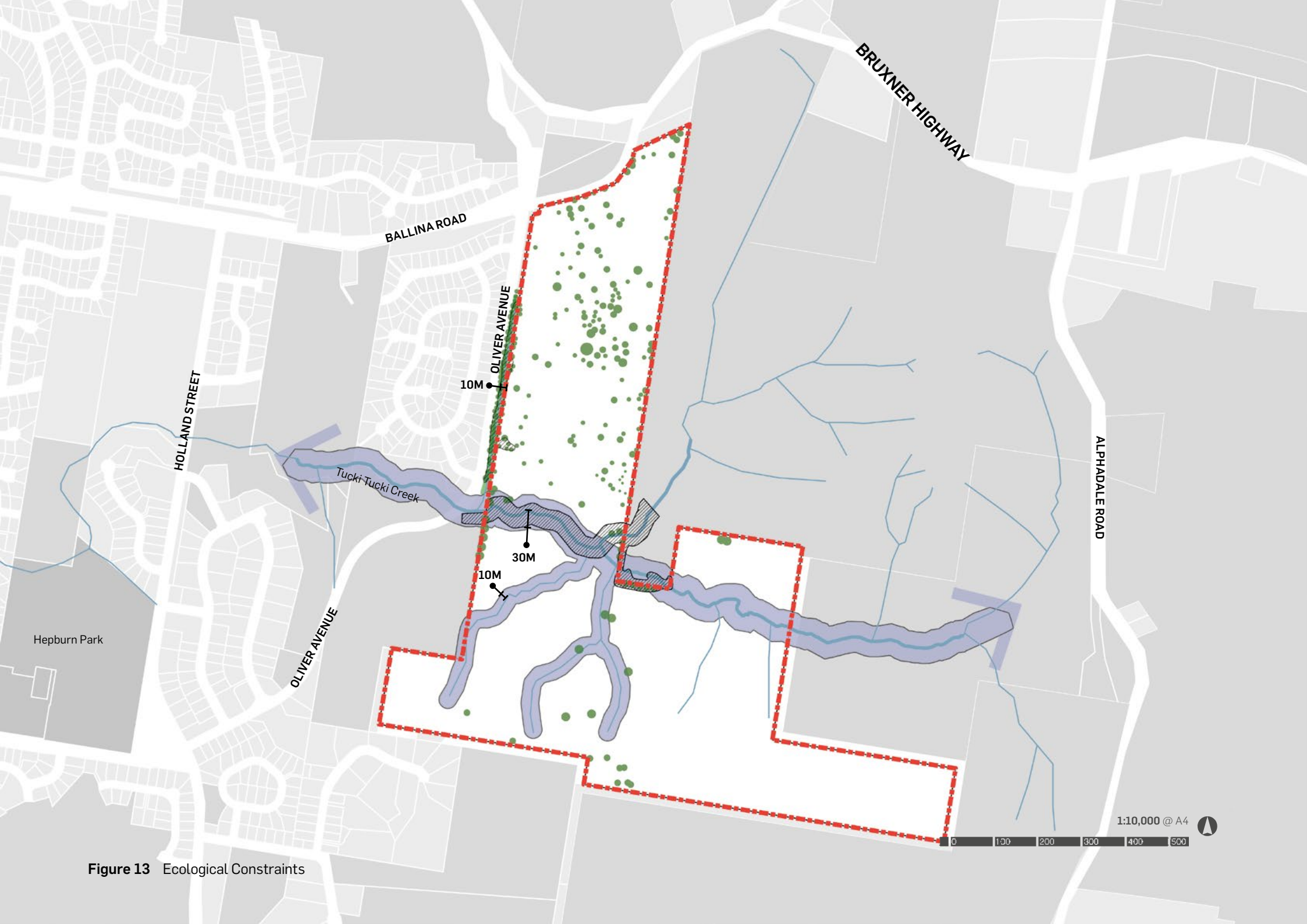


Figure 13 Ecological Constraints

SURROUNDING USES

The site is faced with different uses in the immediate context.

SURROUNDING USES

Low Density Residential



- Land to the northwest of the site is featured with low density residential houses.
- It is noted that none of these houses are fronting Oliver Avenue and they are accessed from Toongahra Cirt instead.

Industrial Land



- The land to the immediate south-west of the site up to Oliver Avenue is vacant.
- Existing industrial land is found to the west side of Oliver Avenue.

Macadamia Farms



- Macadamia Farms occupy lands to the east and south of the subject site



Residential developments require 80m buffer zone from the farm boundaries (Lismore DCP 2012).



A husking shed is noted around 150m northeast of the site, and a 300m buffer is commonly suggested to mitigate the noise impact for residential developments.

KEY INSIGHTS

- Future developments should be sympathetic and considerate to the immediate surrounding uses.
- The buffer zones required by Macadamia Farms could potentially used as open spaces.

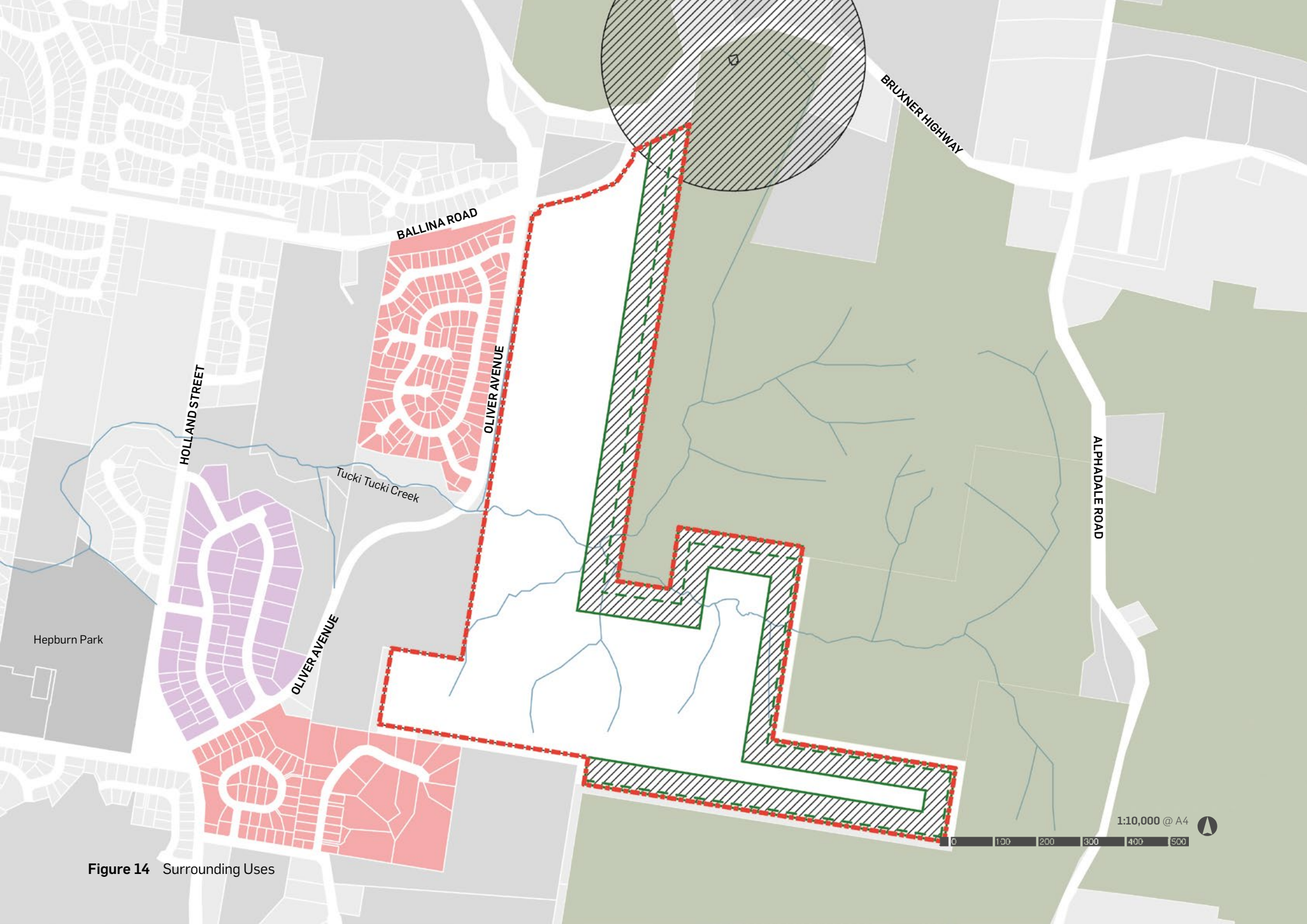


Figure 14 Surrounding Uses

MOVEMENT NETWORK

The northern and western site boundaries are bounded by roads, and they are:

- Bruxner Highway to the north, and
- Oliver Avenue to the west.

SURROUNDING ROADS

Highway



Bruxner Highway is a classified road stretching along the entire length of the northern site boundary.

Major Local Roads



- Alphadale Road is approximately 400m to the east and could not be directly accessed from the site.
- Oliver Avenue is a disjointed road lying along the western site boundary, and it is proposed to be connected in the future. It is noted that a 1.9 ha land to the west of the site has been acquired by the proponent and this will facilitate a potential connection to Oliver Avenue.

KEY INSIGHTS

- Bruxner Highway is a classified road with limited opportunity for direct residential access and new intersections.
- Eastern side of Oliver Avenue - North is heavily vegetated and there is limited opportunity for direct residential access.
- The land swap enables a connection to Oliver Avenue - South.
- There is a potential to propose a connection to Alphadale Road in the future.

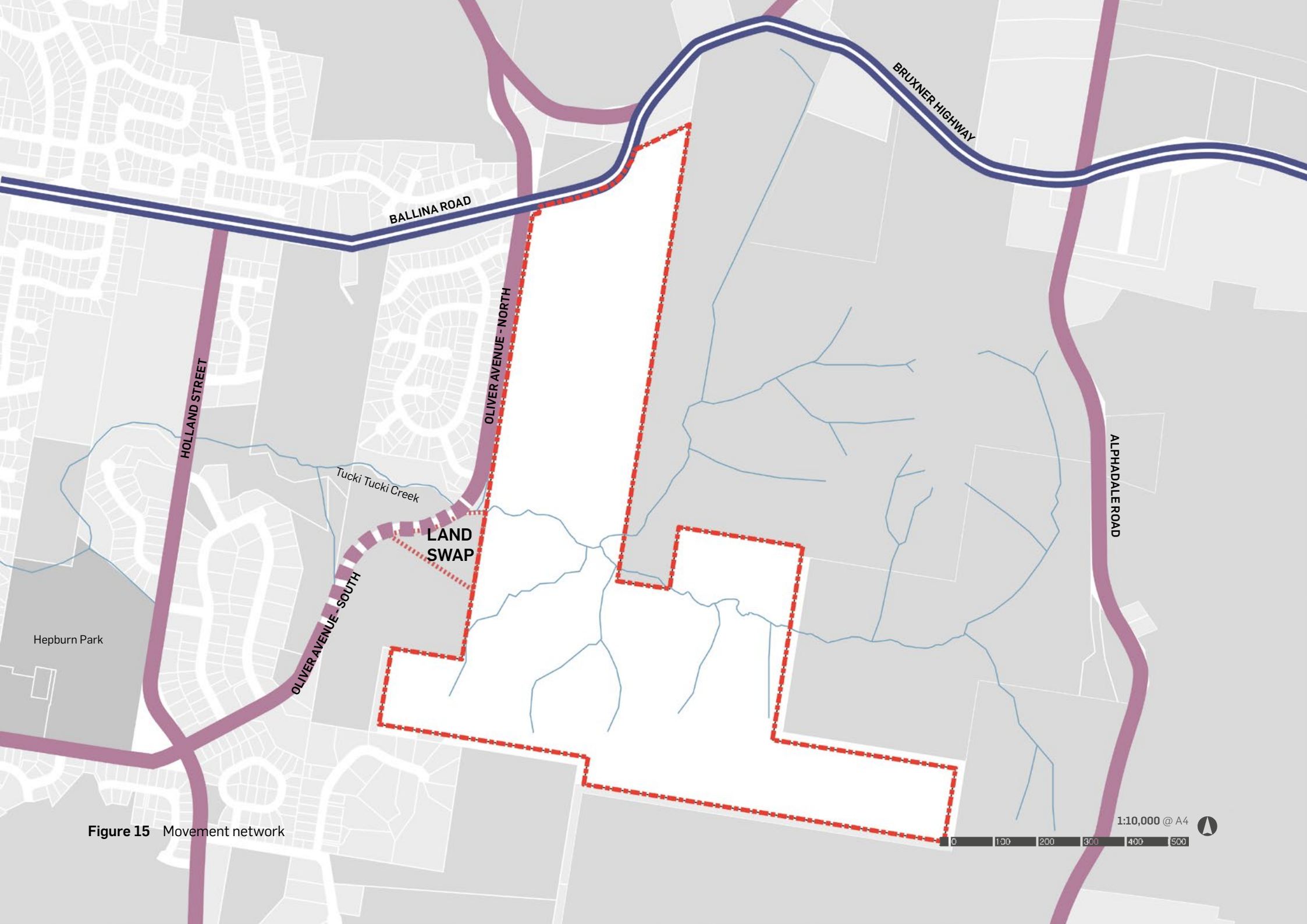




Figure 15 Movement network

SITE OPPORTUNITIES AND CONSTRAINTS



The analysis in previous sections suggest a series of constraints, and these also indicate the development opportunities of the site.
Consolidated constraints and opportunities are listed as below:

SURROUNDING ROADS

Constraints



- **Highway**
As a classified highway, there are limited opportunities for direct site access.
- **Major Local Roads**
Most of the local roads are far away from the site.




Opportunities

- **Potential Road Extensions**
 - The land swap will allow a road connection to Oliver Avenue - South. There is an opportunity further south for another future road extension.
 - There is a potential to establish connection to Alphadale Road in the long term.
- **Pedestrian Crossing Across the Creek**




SURROUNDING USES

Constraints

- **Low Density Residential**
Low density residential to the west of Oliver Avenue - North.
- **Industrial**
Existing Goonellabah industrial sites to the west of Oliver Avenue - South.




- **Macadamia Farm**
Macadamia Farms will have setback requirements for future adjoining developments
- **Vegetated Spray Buffer**
All developments should provide at least 30m setback from the Macadamia Crops
- **Residential Buffer To Macadamia Farms**
The residential developments need to provide 80m setback to Macadamia Farms.

Opportunities


- **Potential Village-Focused Development**
Village-focused development (residential and village centre) is recommended on the northern site as a sympathetic response to the existing residential lands west of Oliver Avenue - North. 80m buffer will be required from Macadamia Farms.
- **Potential Employment-Focused Development**
Employment-focused development is recommended on the southern site as extension from existing Goonellabah Industrial Area. 30m Spray buffer will be required from the Macadamia Farms.
- **Potential Commercial-Focused Development**
Commercial-focused development is recommended along the southern edge of Tucki Tucki Creek to leverage the landscape amenity.

ECOLOGICAL

Constraints

- **Existing Trees**
The trees are sparsely scattered within the site, with the exception of a cluster along Oliver Avenue - North. The existing trees should be retained where possible.
- **Waterways**
The subject site is predominantly vacant with Tucki Tucki Creek traversing east-west across the site and several tributaries running north-south.
- **Riparian Zone**
Tucki Tucki Creek is a Stream Order 3 waterway and 30m riparian corridor is proposed from the top of bank.

Opportunities

- **Waterways**
Tucki Tucki corridor could provide recreation and biological value to the future residents. Also it could also function as a buffer between residential and employment zones.

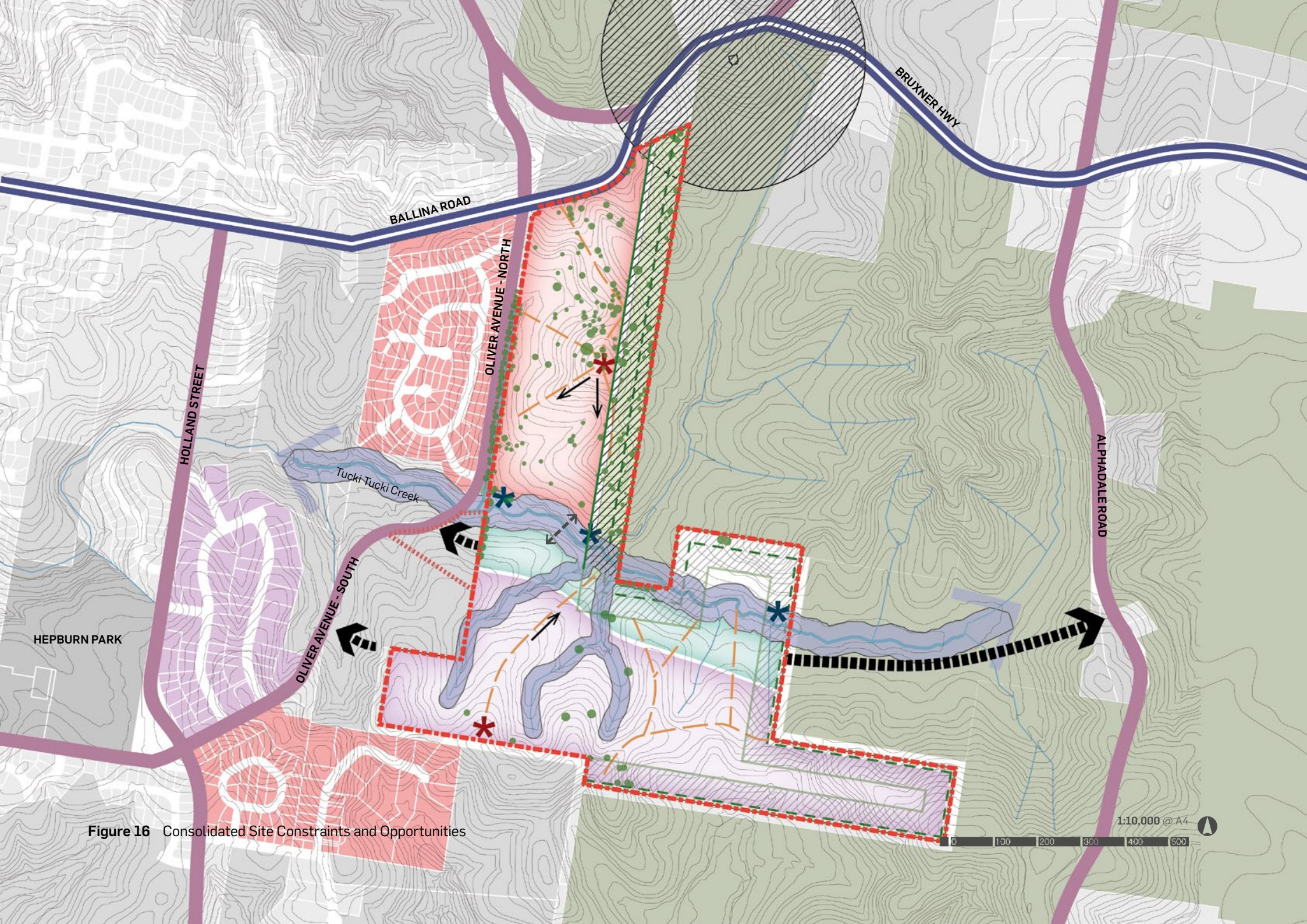


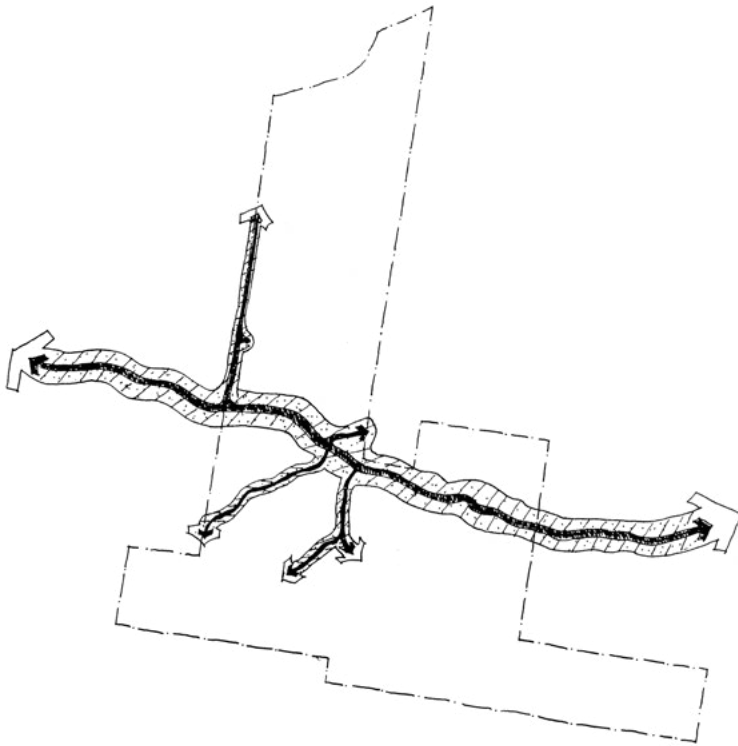
Figure 16 Consolidated Site Constraints and Opportunities

1:10,000 @ A4



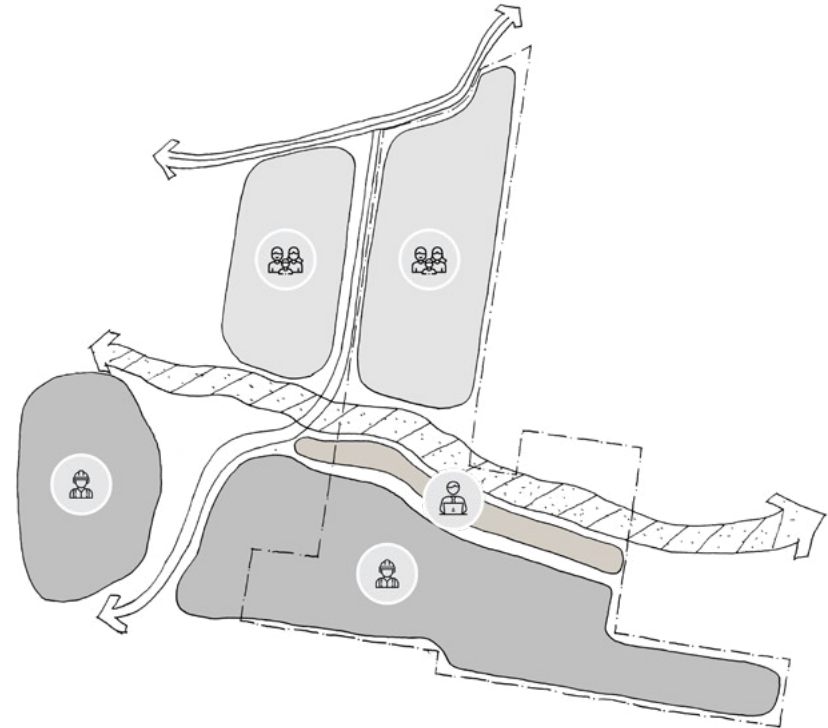
KEY DIRECTIONS

RESPECT ECOLOGICAL ASSET



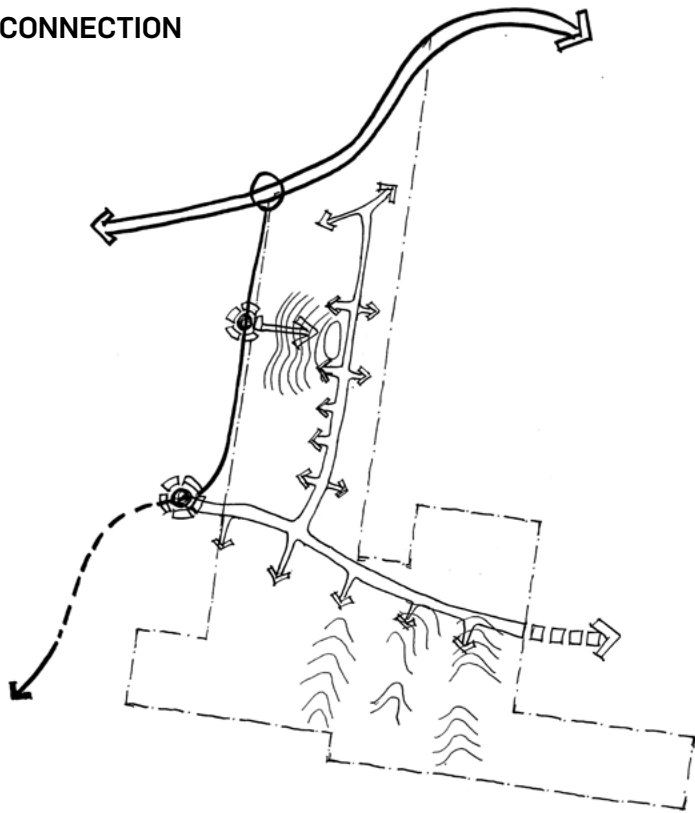
- Protect the Tucki Tucki Creek corridor and its tributaries and potentially utilise the existing riparian corridor for recreation uses.

LAND USE



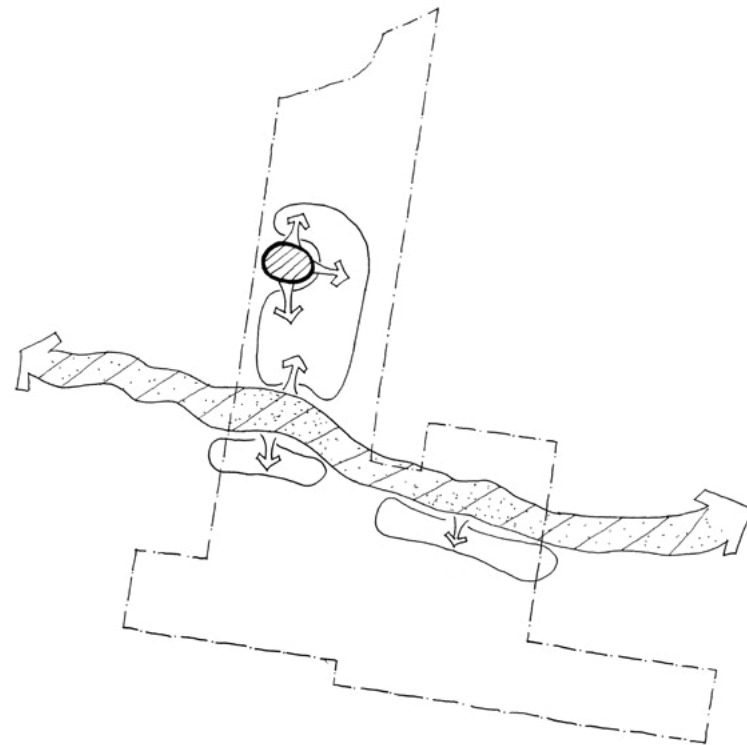
- Respond to existing context by consolidating similar land use zones.
- Utilise the riparian corridor to separate the residential and industrial areas.

CONNECTION



- Provide a series of local street to connect the site to its surrounding context.
- Follow the ridgeline to minimise earthworks.

ACTIVATION



- Create an activity hub to enhance the activity/liveability within the site.
- Accommodate density in the right location to better utilise the site amenities.

INDICATIVE MASTERPLAN



VISION

The new neighbourhood will provide people with homes that are safe, convenient and diverse. The residents could live with easy access to jobs, amenities and services.

The village will celebrate the natural assets through the delicate conservation of the Tucki Tucki Creek corridor and its tributaries, offering the community with recreation opportunities while promoting biodiversity.

A new vibrant village centre is located at the heart of the neighbourhood to service a wider community and establish a greater sense of place.

A variety of housing choices will support the future growth with a mix of housing to attract a wide range of demographics. Sufficient buffers are also provided to adjacent farms to minimise the amenity impacts of agricultural operation.

Generous employment opportunities are offered as an extension of the existing Goonellabah Employment Area, and this could also enable the residents to work and live in a self-contained village.





INDICATIVE MASTER PLAN

The master plan envisions a village where the natural environment is well integrated with the built development.

A new centre is proposed at the heart of the village and offers the community with retail, recreation and employment opportunities. Uses and densities are carefully arranged across the site to maximise the utilisation of the new village centre and landscape assets while being sympathetic with the existing neighbourhood:

- Residential developments are located to the north of Tucki Tucki creek in response to the existing residential zones west of Oliver Avenue.
- Medium density residential lots are proposed near the new centre and close to the riparian corridor to leverage the built and natural amenities.
- Employment uses are proposed to the south of Tucki Tucki Creek as an extension of the existing Goonellabah Employment Area, and the land to the west will also have the potential for employment developments in the future.
- Commercial development is proposed along the southern edge of Tucki Tucki Creek corridor to leverage the valuable landscape asset, and
- A pedestrian connection is suggested across the creek to integrate the site for better connections within the locality.



BIRD-EYE VIEW LOOKING SOUTH

LAND USE PRINCIPLES

The proposed plan has 5 main land use categories:








- Medium density residential,
- Low density residential,
- Village centre,
- Commercial and
- Employment.

The future residential lands will be supported by access to major road, green space and locally provided jobs. Meanwhile, the industrial lands will become the extension of the existing Goonellabah Employment Area, which is consistent with the key principles from LGRS and this will also be underpinned by its proximity to major roads, amenities and emerging population. The commercial development will stretch along the creek corridor to better leverage the natural amenity.

Uses and densities are carefully arranged across the site to maximise the utilisation of the new village centre and landscape assets while being sympathetic with the existing neighbourhood:

- Medium density residential lots are proposed near the new centre and close to the riparian corridor to leverage the built and natural amenities.
- Commercial lots are proposed along the southern edge of the riparian corridor and this will provide opportunities to incorporate outdoor dining, and recreational uses to activate the creek edge, and
- Pedestrian connection is suggested across and along the creek to integrate the site for better connections within the locality.

Below is an overview of the land use mix of the site.

| LAND USE MIX | | | |
|---|----------------------------|-----------------|----------------|
| | | | |
|  | | Site Boundary | |
|  | | Active Frontage | |
| DEVELOPABLE LANDS | | AREA (HA) | % OF SITE AREA |
| Residential Lands | | 10.69 | 14.2% |
|  | Medium Density Residential | 5.21 | 6.9% |
|  | Low Density Residential | 5.48 | 7.3% |
| Village Centre | | 0.50 | 0.7% |
|  | Local Centre | 0.50 | 0.7% |
| Employment Lands | | 26.03 | 34.6% |
|  | Commercial | 2.76 | 3.7% |
|  | Industrial | 23.27 | 31.0% |
| TOTAL | | 37.22 | 49.5% |



VIEW FROM SOUTHERN TRIBUTARY CORRIDOR LOOKING TOWARDS INDUSTRIAL LOTS



VIEW TO LOCAL CENTRE FROM OLIVER AVENUE

HOUSING DIVERSITY

The master plan supports a mix of housing, catering for the needs of wide range of demographics.

LEGEND

— Site Boundary

Residential Lands

Medium Density Residential Lots

Medium density residential lots are provided around the village centre and riparian corridor.

Low Density Residential Lots

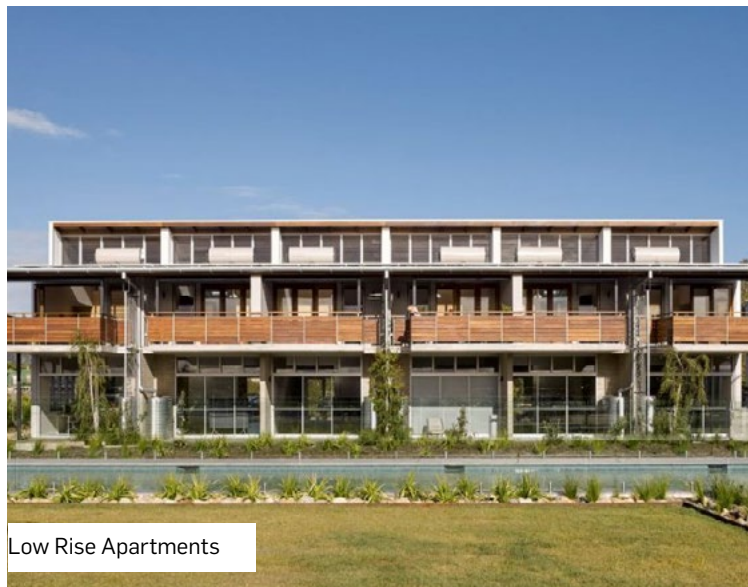
Low density residential lots at the north of the site closer to Bruxner Highway.



Detached Housing



Detached Housing



Low Rise Apartments



Terraces (Medium density residential lot)

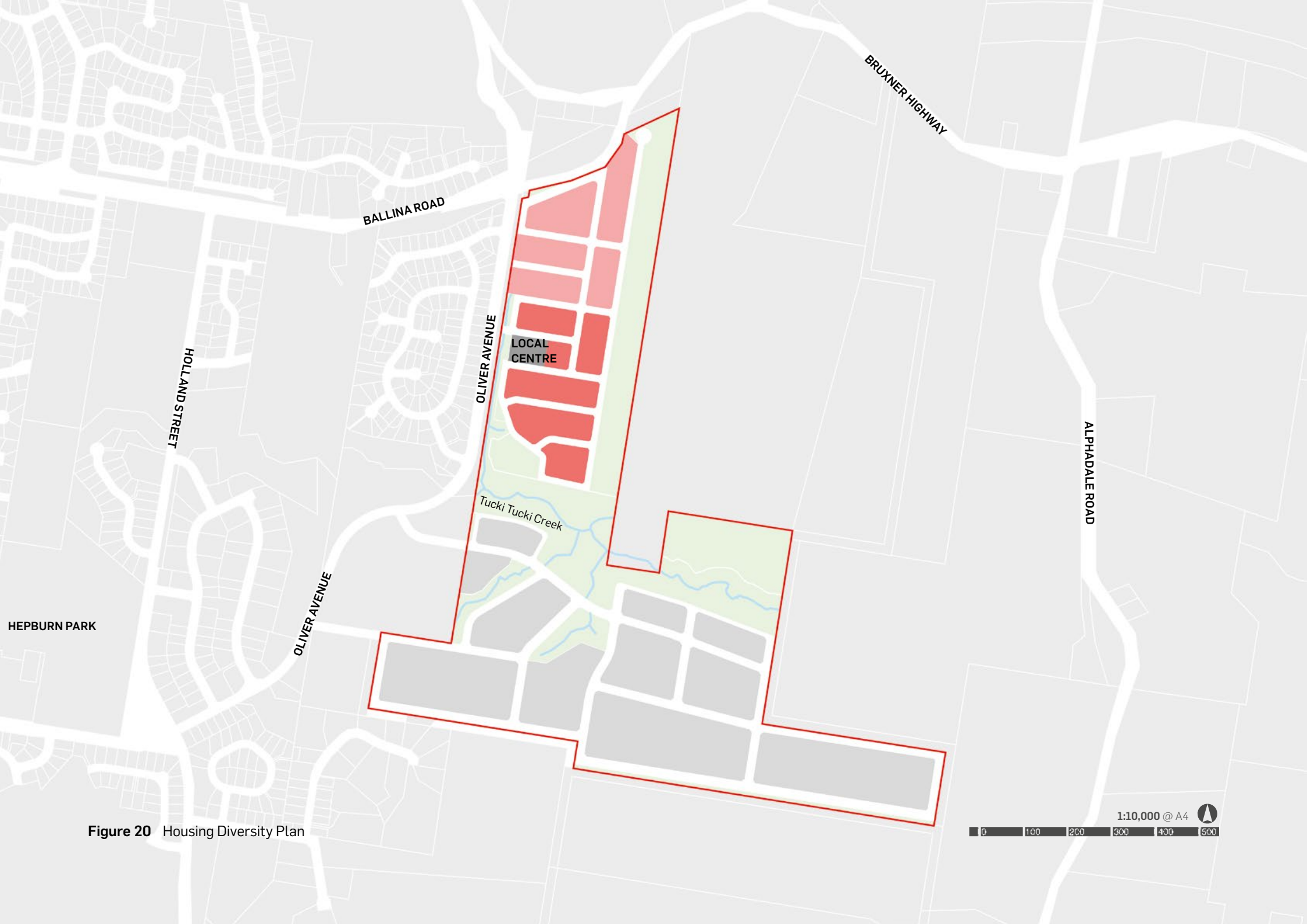


Figure 20 Housing Diversity Plan

MOVEMENT NETWORK

The indicative movement network aims to provide legible, connected and pedestrian/cyclist friendly connection. The movement network could be categorised as below:

| MOVEMENT NETWORK | |
|------------------|---|
| Road Network | |
| <div></div> | Local Street - Residential (16m reserve) The residential local road will provide access off Oliver Avenue and connections within the northern part of the site. |
| <div></div> | Local Perimeter Street - Residential (13m reserve) |
| <div></div> | Local Street - Industrial (20m reserve) The industrial local road will provide access off Oliver Avenue and connections within the southern part of the site. The road reserve is wider to allow for larger trucks. |
| <div></div> | Local Street - Industrial Future Extension |
| <div></div> | Local Perimeter Street - Industrial (17m reserve) |
| <div></div> | Fire trail (8m) A minimum of 8m wide of clearance is reserved for safe, reliable and unobstructed passage for fire trucks. |

| <div></div> | Proposed Access |
|--------------------------|---|
| Active Transport Network | |
| <div></div> | Pedestrian Walking Trail Walking trails are provided along riparian corridor to leverage the amenity of the creek. |
| <div></div> | Pedestrian/Cyclist Bridge A pedestrian/cyclist bridge is provided across the creek to provide connections between northern and southern portions of the site. Also, a pedestrian/cyclist bridge could incur less impact on the riparian corridor than a vehicular bridge. |
| LEGEND | |
| <div></div> | Site Boundary |

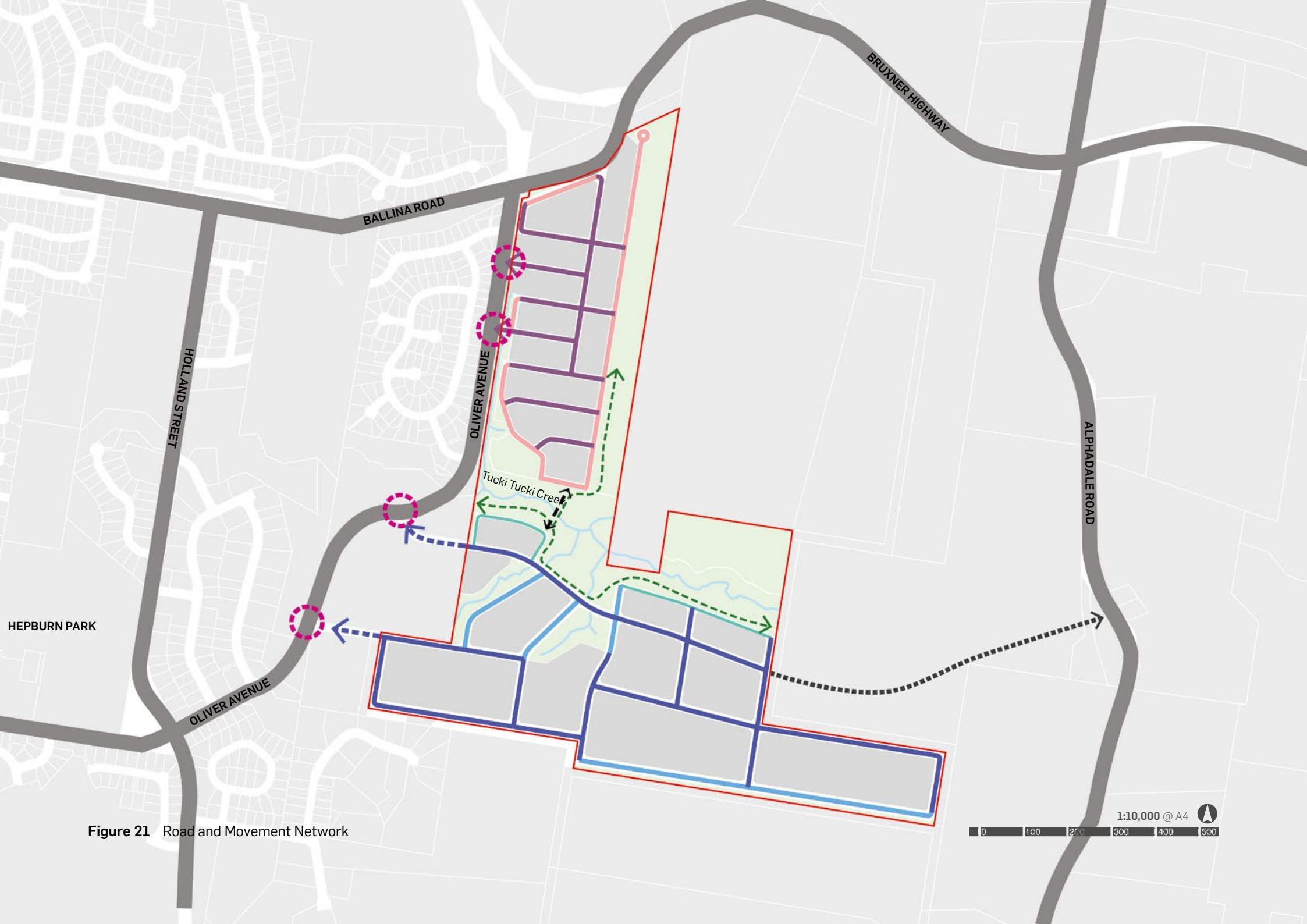
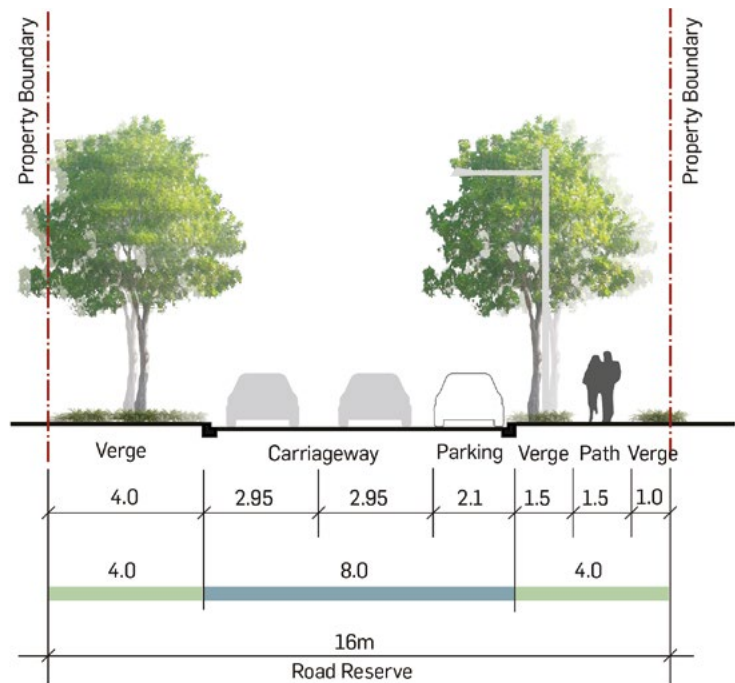


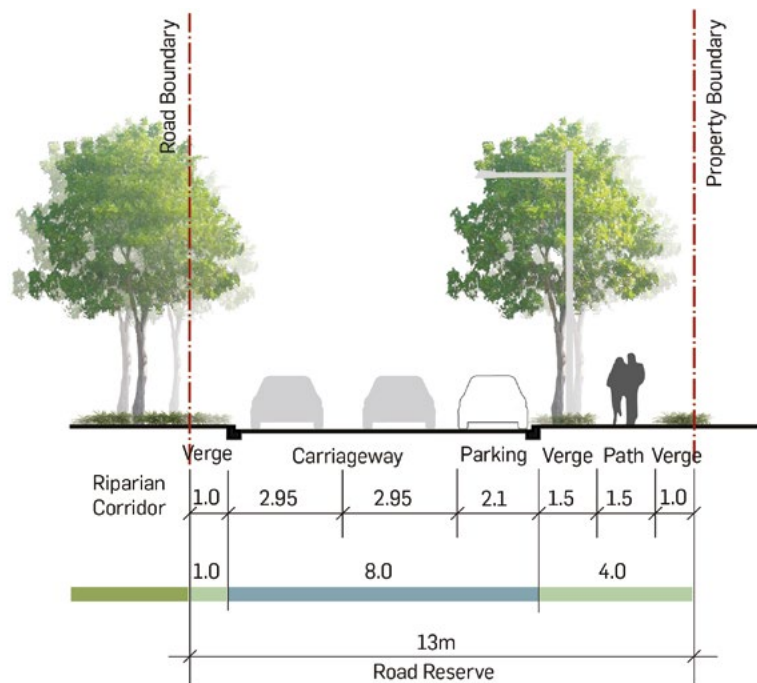
Figure 21 Road and Movement Network

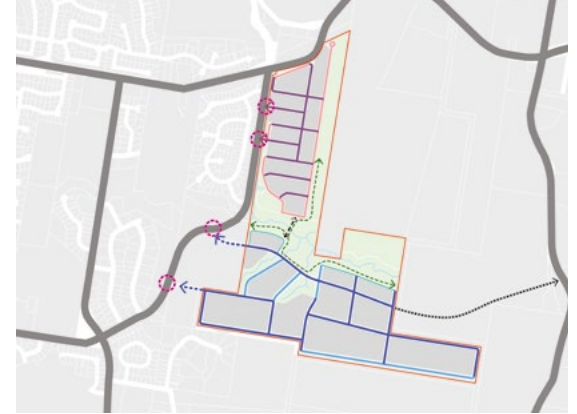
INDICATIVE STREET SECTIONS

Local Street - Residential (16m reserve)

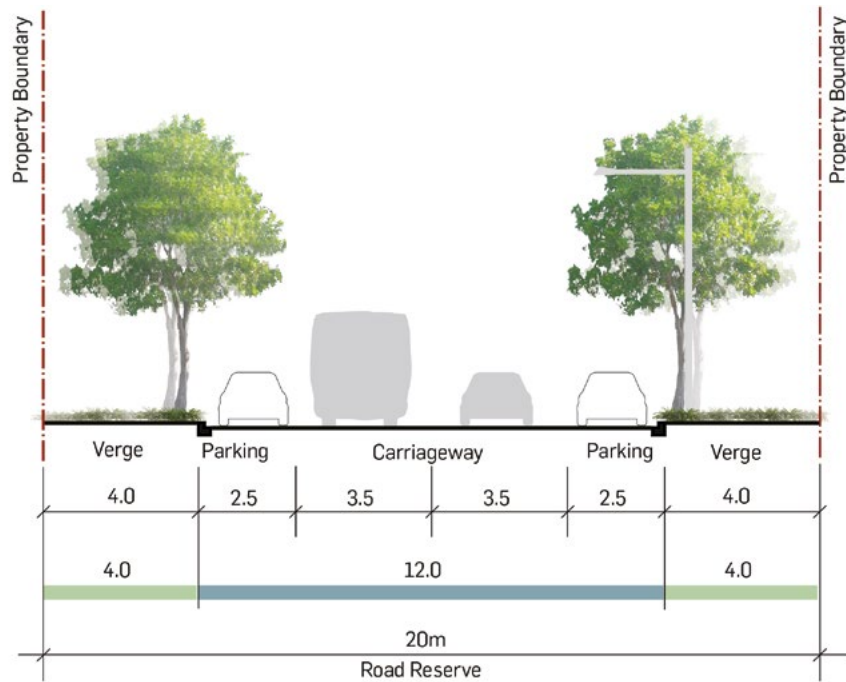


Local Perimeter Street - Residential (13m reserve)

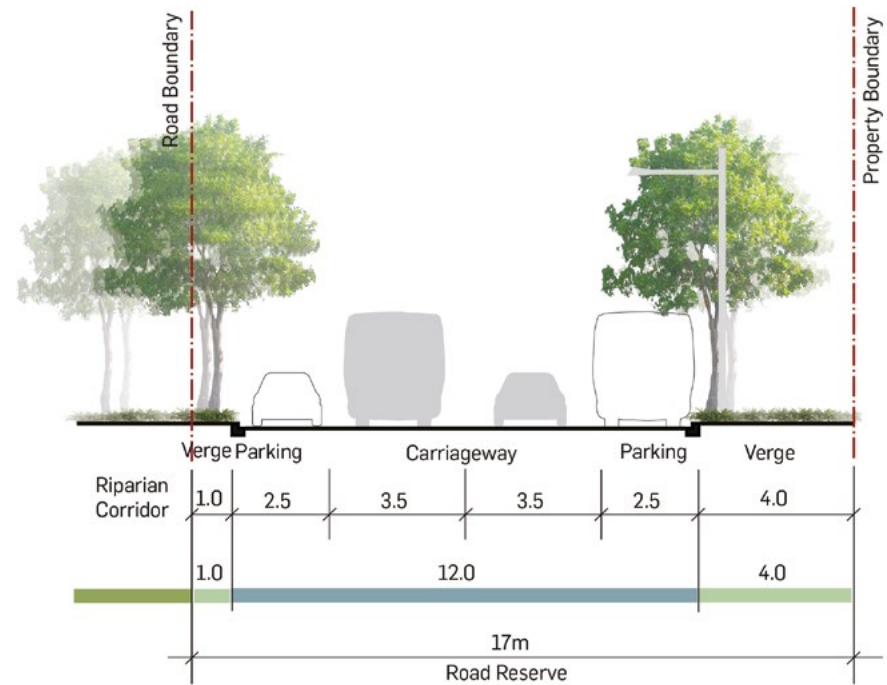




Local Street - Industrial (20m reserve)



Local Perimeter Street - Industrial (17m reserve)



1:2,00 @ A4



GREEN AND BLUE NETWORK

The plan proposes 21.9 hectares of green space with the majority being Riparian Corridors and Macadamia Farm buffer zones.








| GREEN AND BLUE NETWORK | | | |
|---|---|-----------|----------------|
|  | Site Boundary | | |
|  | Potential Active Open Space | | |
| Landscape | | AREA (HA) | % OF SITE AREA |
| | Riparian Corridor | | |
|  | The riparian zone aims to preserve the ecological value of Tucki Tucki Creek and its tributaries while offering potential passive recreational opportunities by providing walking/ cycling trails on both sides of the creek. | 11.84 | 16.1% |
| | Ecological Buffer | | |
|  | <ul style="list-style-type: none">The Macadamia Farm buffer zones are located along the eastern boundary adjoining the neighbouring macadamia farm to keep the future residential developments away from agricultural operations. Also, there are opportunities to incorporate active open spaces within the buffer zone.One larger detention basin location is suggested along the northern edge of the Riparian Corridor. The basin site could be used as green space providing landscaping amenity to nearby residents. | 6.52 | 8.7% |
| | Ecological Reserve | | |
|  | No developments have been proposed on the land northeast of the creek (OS-1), and it will be retained as an ecological reserve. | 3.54 | 4.7% |
| | Potential Basin | | |
|  | Subject to further engineering study, 8 potential detention basin locations are identified across the subject site. | | |
| | NSW Biodiversity Values Mapping | | |
|  | The master plan has been designed to minimise impacts on biodiversity. However, there are minor intrusions along Oliver Avenue for road access, and this will be further investigated in further detailed design stages. | | |
| TOTAL | | 21.9 | 29.5% |



Figure 22 Green and Blue Network Plan



VIEW OVER THE PEDESTRIAN BRIDGE TO COMMERCIAL BUILDINGS SOUTH OF TUCKI TUCKI CREEK



ECOLOGICAL BUFFER ALONG THE EASTERN SITE BOUNDARY



BIRD-EYE VIEW LOOKING NORTH

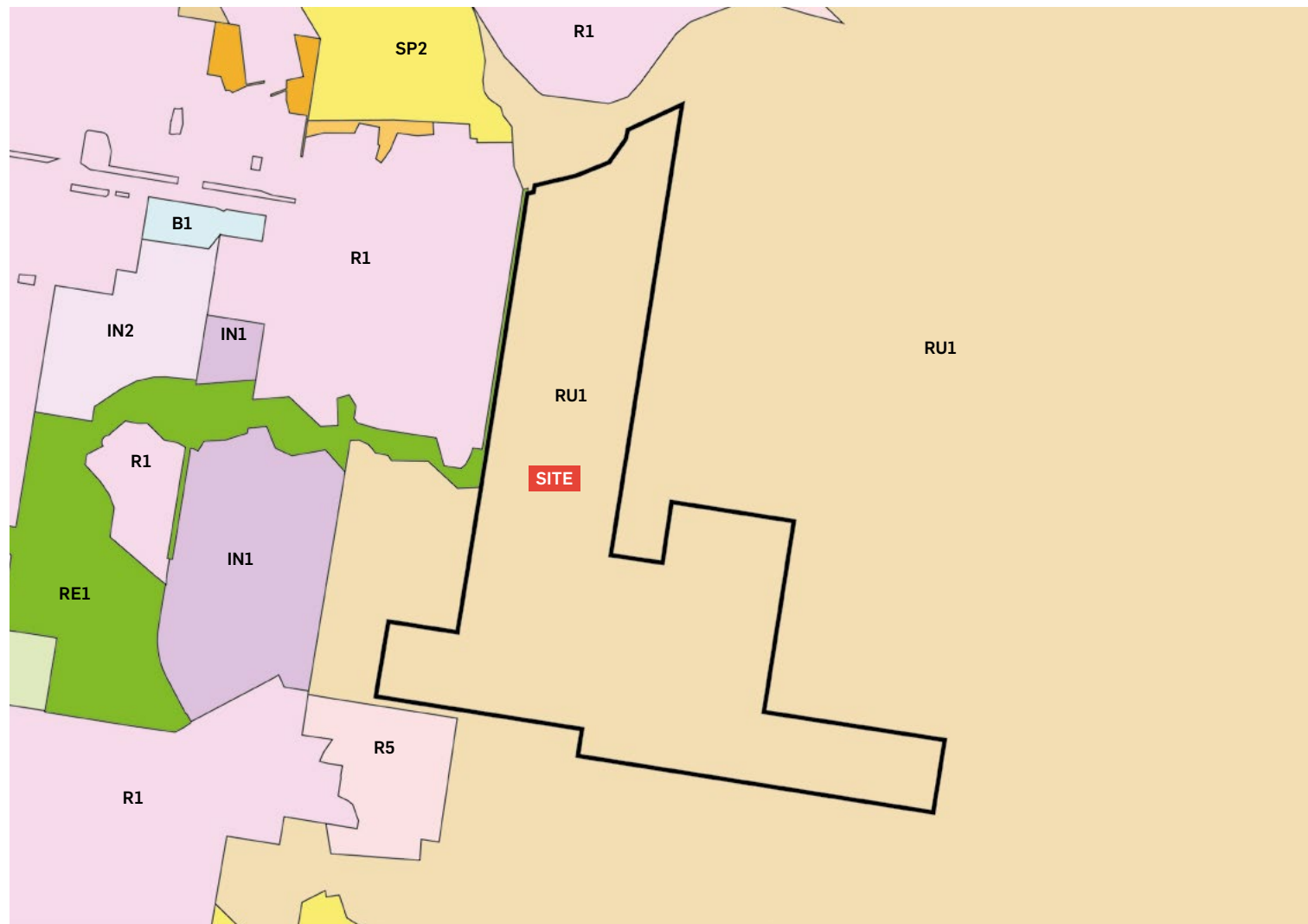
PROPOSED ZONING AMENDMENTS



EXISTING ZONING

LEGEND

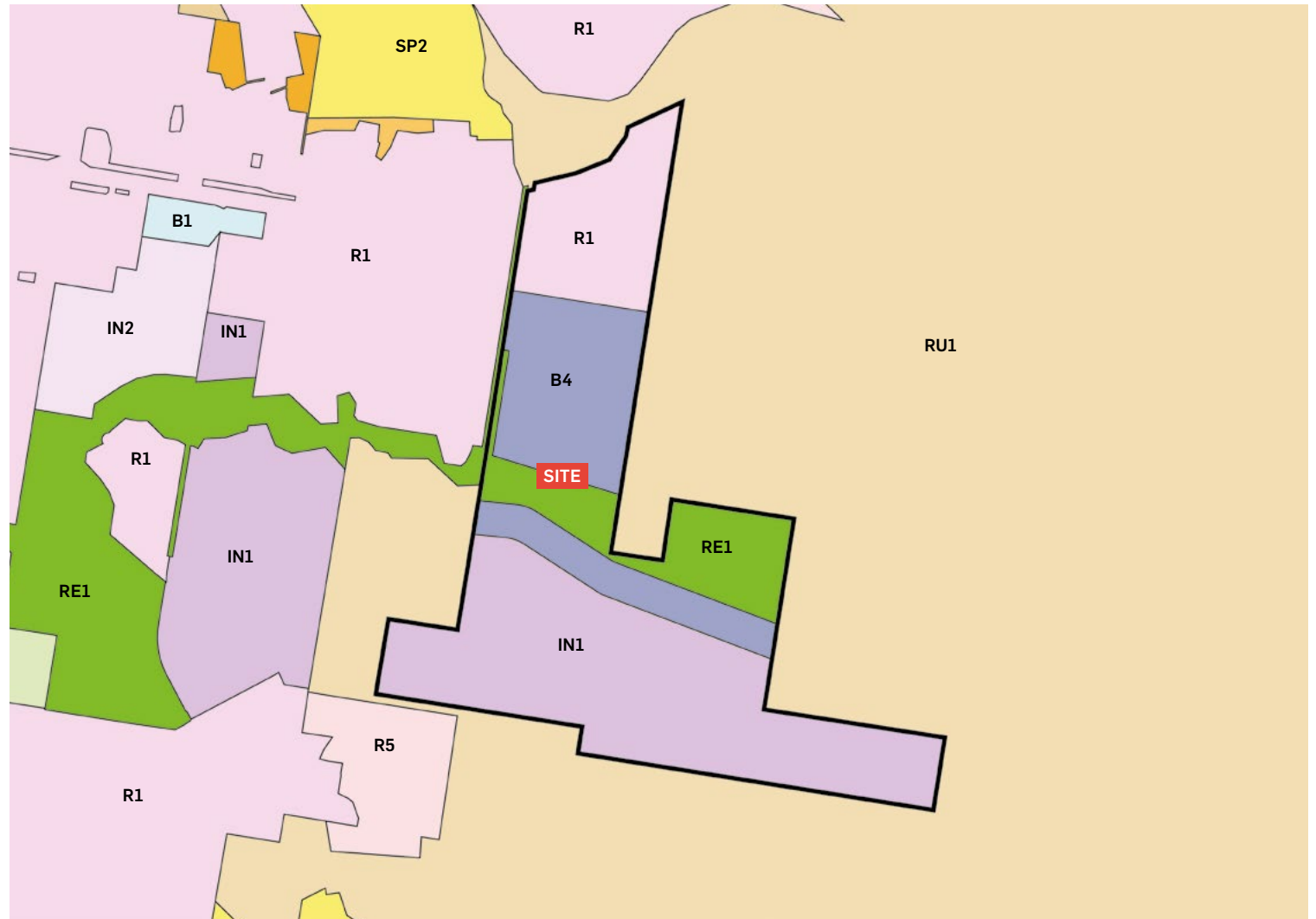
- B1 Neighbourhood Centre
- IN1 General Industrial
- R1 General Residential
- R5 Large Lot Residential
- RE1 Public Recreation
- RU1 Primary Production
- SP2 Infrastructure



PROPOSED ZONING

LEGEND

- Site Boundary
- B4 Mixed Use
- B1 Neighbourhood Centre
- IN1 General Industrial
- R1 General Residential
- R5 Large Lot Residential
- RE1 Public Recreation
- RU1 Primary Production
- SP2 Infrastructure



1:15,000 @ A4

0 200 400 600 800



**EXISTING
HEIGHT OF BUILDING**



LEGEND

8.5

PROPOSED HEIGHT OF BUILDING

LEGEND

- Site Boundary
- I - 8.5
- N - 13








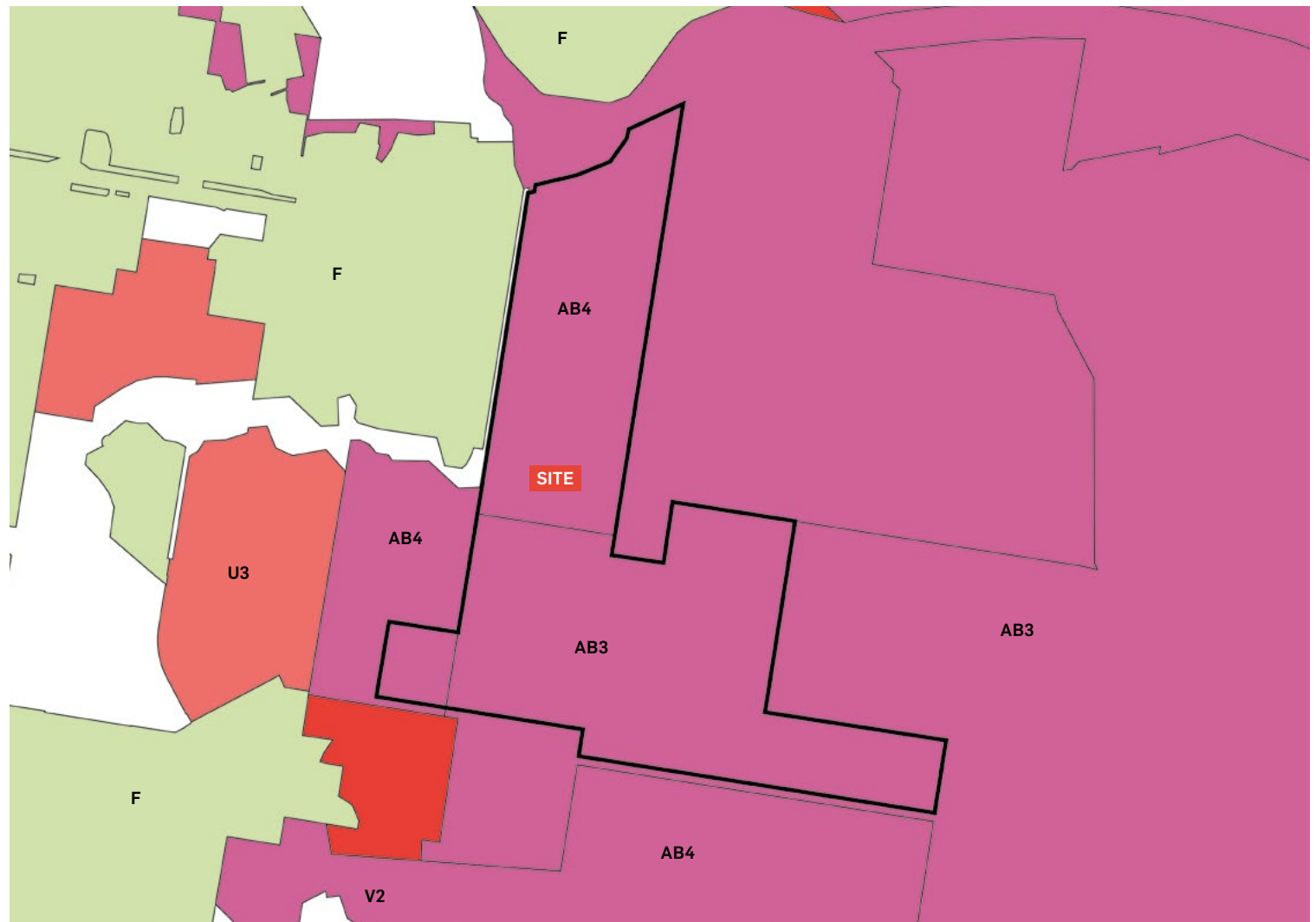
1:15,000 @ A4



EXISTING MINIMUM LOT SIZE

LEGEND

| | |
|---|------------------------|
|  | AB3 20ha |
|  | AB4 40ha |
|  | F 400 m ² |
|  | U3 1500 m ² |
|  | V2 2500 m ² |



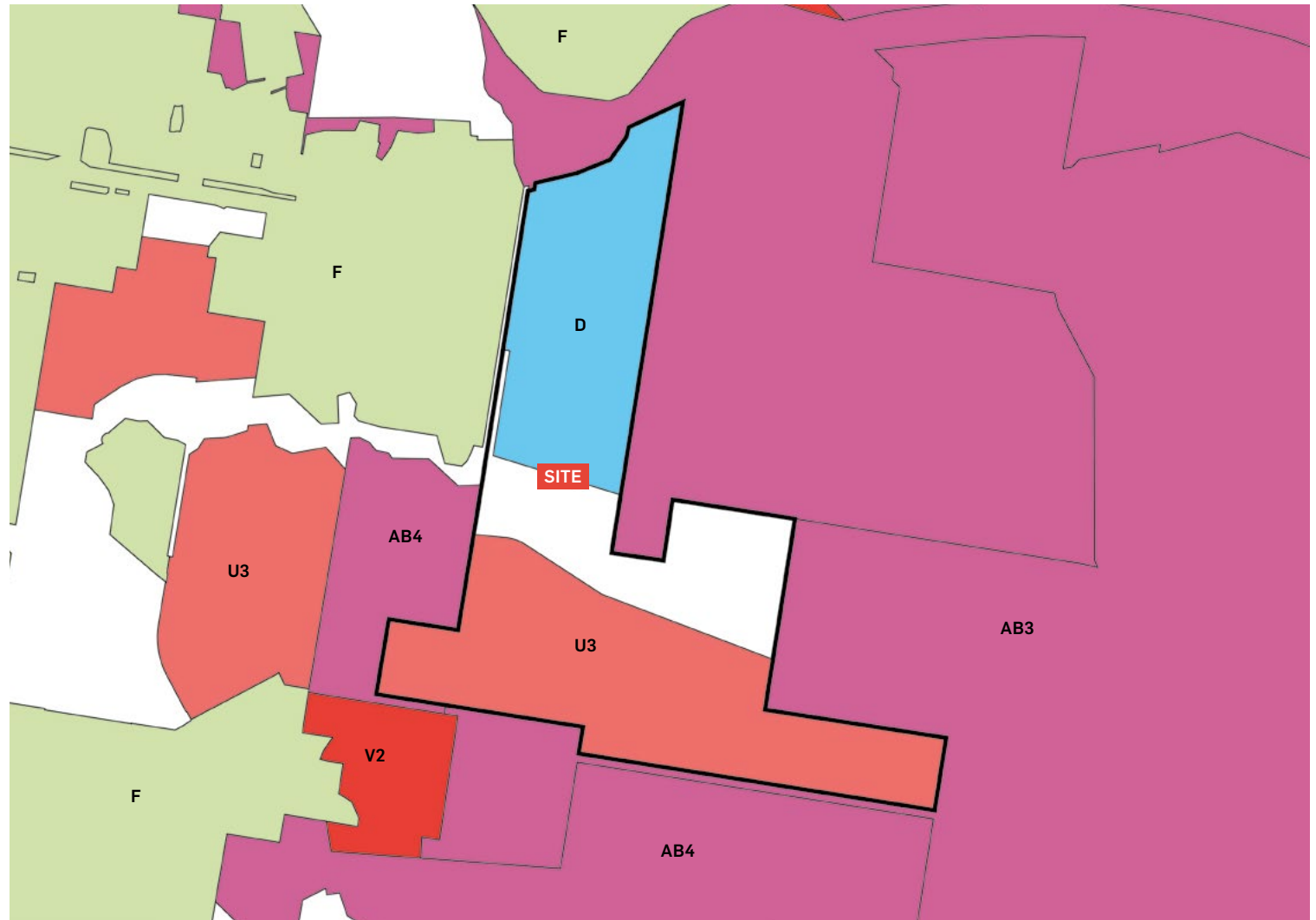
1:15,000 @ A4



PROPOSED MINIMUM LOT SIZE

LEGEND

- Site Boundary
- AB3 20ha
- AB4 40ha
- D 300 m²
- F 400 m²
- U3 1500 m²
- V2 2500 m²



1:15,000 @ A4

0 200 400 600 800



