Ballarat North

Precinct Structure Plan



September 2026

Victorian Planning Authority

VICTORIA State Government | Department of Transport and Planning

ACKNOWLEDGEMENT OF COUNTRY

The Victorian Planning Authority proudly acknowledges Victoria's Aboriginal community and their rich culture and pays respect to their Elders past and present.

We acknowledge Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely.

We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life and how this enriches us.

We embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.

The land, skies and waters that make up the Ballarat North precinct and its surrounds are Wadawurrung Country.

We acknowledge the Wadawurrung People as the Traditional Owners of the land to which this Precinct Structure Plan applies. The Wadawurrung People are represented by the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC).

We acknowledge the Wadawurrung People as the Aboriginal Traditional Owners of their unceded Country. We acknowledge their ongoing connection to this land, and we pay our respects to their Elders past and present.

We thank Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC) for their engagement throughout this project.



Description of artwork

Aaron (Gunaikurnai) 'Movements Between the Five Clans' 2019, acrylic on canvas.

'The tracks are going between the five clans of the Gunaikurnai and the hands are the symbols of my spirit travelling around the campsites.'

This artwork was created through programs provided by the Torch. The Torch provides art, cultural and arts industry support to Indigenous offenders and ex-offenders in Victoria. The Torch aims to reduce the rate of re-offending by encouraging the exploration of identity and culture through art programs to define new pathways upon release.

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1.0 CONTEXT

1.1 How to read this document

The precinct structure plan (PSP) guides land use and development where a planning permit is required under the Urban Growth Zone (Clause 37.07 of the Ballarat Planning Scheme), or any other provision of the Ballarat Planning Scheme that references this PSP.

Part 1 – Context

Part 1 contains the contextual overview of the PSP document and the function of individual components as well as infrastructure contributions required to deliver the precinct.

Part 2 – PSP outcomes

Part 2 contains the outcomes this PSP is seeking to achieve.

A planning application and subsequent planning permit must implement the outcomes of the PSP.

The outcomes are expressed as:

- The **Vision**, the overarching unique place-based outcome intended for this PSP.
- The **Purpose**, how the PSP will facilitate the vision for the precinct.
- The **Objectives**, place-based objectives to achieve the vision and purpose for the precinct.

Part 3 – Implementation

Part 3 contains the strategic land use context and place-making elements to be implemented for the precinct and responds to each of the six 20-minute neighbourhood hallmarks.

Each hallmark is implemented according to the following sub-structure:

- **PSP objectives:** The PSP identifies a set of place-based objectives to achieve the vision and purpose for the precinct. These provide the guidance required to achieve the specific outcomes sought for each of the six hallmarks within the precinct.
- **PSP implementation and delivery:** The PSP provides guidance in the form of plans, tables and diagrams to help with interpretation and implementation of the requirements and guidelines.
- **PSP requirements:** Requirements are implementation actions that must be adhered to in developing the land. Where they are not demonstrated in a permit application, requirements will usually be included as a condition on a planning permit whether or not they take the same wording as in the PSP. The responsible authority may consider alternatives only where flexibility has been provided in the specific requirement. A requirement may reference a plan, table or figure in the PSP.
- **PSP guidelines:** Guidelines express how discretion will be exercised by the responsible authority in certain matters that require a planning permit. The responsible authority may consider an alternative to a guideline if it is satisfied that an application for an alternative, achieves the objective/s. A guideline may include or reference a plan, table or figure in the PSP.

Any objective, requirement or guideline applies to the whole PSP, and not just to the hallmark under which it is nested. Meeting these requirements and guidelines will implement the vision, purpose and objectives of the PSP.

Part 4: Appendices

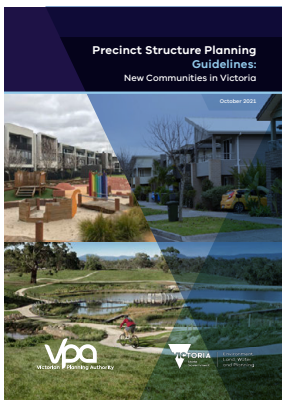
Part 4 contains the technical and administrative information required to support the implementation of the strategic land use context and place-making elements of the PSP. It includes tables, plans, diagrams and definitions. These include:

- precinct infrastructure plan and table
- summary land use budget and property-specific land use budget
- cross-sections
- activity centre design principles and design outcomes
- glossary of terms.

Not every aspect of land use, development or subdivision is addressed in this PSP. A responsible authority may manage development and issue permits as relevant under its general discretion. The *Generally in Accordance Guidance Note* is available on the VPA website to provide direction in the application of discretion where a PSP applies.

Development must comply with all other relevant legislation and approvals including:

- *Planning and Environment Act 1987* (VIC)
- *Subdivision Act 1988* (VIC)
- *Building Act 1993* (VIC)
- *Heritage Act 2017* (VIC)
- *Aboriginal Heritage Act 2006* (VIC)
- *Environment Protection and Biodiversity Conservation Act 1999* (CTH).



▲

PSP Guidelines refers to the ***Precinct Structure Planning Guidelines: New Communities in Victoria***, available on the VPA website

1.2 Function of the PSP

The function of the PSP is to:

- Provide the planning conditions for private industry delivery
- Identify and where appropriate, provide the strategic justification for shared funding for a diverse range of open spaces and community infrastructure
- Ensure development will generate the necessary population to support investment in critical infrastructure.

1.3 Regional context

Ballarat is a major regional city within Wadawurrung Country in Victoria and is located approximately 100 kilometres west of Melbourne, Victoria. The population of Ballarat is expected to grow by 31,200 people from 2021 to 2036 (Victoria in Future, 2023) making it the second-largest growing municipality in regional Victoria behind Greater Geelong. The future growth of Ballarat is supported by its status as Regional City with significant growth potential in the *Central Highlands Regional Growth Plan* (2014).

Additional housing will be required in Ballarat to provide homes for the growing population.

The Northern Growth Area is located north of the Ballarat city centre and the Western Freeway. It is bounded to the east by Midland Highway and Miners Rest and Howe Street to the west. The Northern Growth Area is separated into two areas:

- The **core area**: approximately 571 hectares, south of Cummins Road
- The **expanded area**: approximately 272 hectares, north of Cummins Road.

The Ballarat North PSP applies to the core area of the Northern Growth Area. The PSP is one of the identified regional greenfield projects in *Plan for Victoria*, listed as a priority planning project in *Victoria's Housing Statement – The decade ahead 2024-2034* to support delivery of a sustainable supply of greenfield land to provide homes and jobs across Victoria. The PSP's proximity to the Ballarat city centre supports its strategic status as a future growth area to provide homes and jobs closer to the existing services and amenities Ballarat offers.

The Ballarat North precinct is located approximately seven kilometres northwest of the Ballarat CBD and directly east of Miners Rest township and Macarthur Park estate. To the south, the precinct is abutted by the vegetated Ballarat North Wastewater Treatment Plant and bordered by the Western Freeway, the main route connecting Ararat to Melbourne via Ballarat. The eastern boundary is formed by the Midland Highway, which links Ballarat city centre and nearby town of Creswick. Gillies Road runs through the centre of the precinct. These major routes, extending from central Ballarat and Wendouree allow easy accessibility to and from the site.

Ballarat Airport is approximately three kilometres southwest of the precinct. The Numbers-above (N-above) contours from Ballarat Airport flight paths extend into a small area in the southwest corner of the precinct.

Planning for the expanded area will be subject to a separate amendment. An indicative future urban structure for the expanded area which is subject to change is shown in **Appendix 6**.

1.4 Precinct features

The land in the precinct is generally characterised as undulating, largely cleared landscape of fields and paddocks, with some rural living blocks and a private agricultural educational campus (Ballarat Grammar). There is also a small pocket of industry on the east side of Gillies Road, opposite the well-treed grounds of the Ballarat North Wastewater Treatment Plant.

Ballarat North's significant landmark is the distinctive Mount Rowan, which straddles the northwestern boundary of the PSP. The Ballarat Town Common is another well-known local feature which has history as a common area for inhabitants of Ballarat to de-pasture cattle and horses in the late 19th century. The precinct also includes the former Wendouree landfill site which was capped in 1987.

The main branch of Burrumbeet Creek, which contains threatened aquatic flora and fauna species, also traverses the southern part of the precinct with a tributary in the east of the precinct (below Olliers Road). The Burrumbeet Creek and adjacent vegetation provides habitat for native frogs, reptiles, aquatic mammals (platypus and rakali) and birds local to the study area and dispersing throughout the landscape. There are existing wetlands in the precinct, particularly in the west of the precinct near the Burrumbeet Creek and around the Ballarat Town Common. These wetlands include habitat for Matters of National Environmental Significance (MNES) listed under the *Environment Protection and Biodiversity Conservation Act 1999*, including the critically endangered 'Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains' ecological community, and threatened flora species such as Stiff Groundsel and River Swamp Wallaby-grass. There are extensive Victorian, Australian, Indigenous and Exotic revegetated trees serving as windbreaks throughout the precinct.

1.5 Cultural and historical context

1.5.1 Cultural context

The PSP is located within Wadawurrung Country. Wadawurrung People are recognised as the Traditional Owners of their lands and waters across greater Ballarat. The Registered Aboriginal Party (RAP) for the precinct area is Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC).

The *Paleert Tjaara Dja, Let's make Country good together 2020-2030 – Wadawurrung Country Plan* expresses how Wadawurrung see Country being cared for and managed. The plan includes information on Wadawurrung Country and culture. It provides principles, values, threats, programs and strategies to care for Wadawurrung Country.

1.5.2 Historical context

There are no existing places or entries in the PSP that are recorded on:

- World Heritage List
- Commonwealth Heritage List
- National Heritage List
- Victorian Heritage Register
- Victorian Heritage War Inventory
- Register of the National Estate.

There are three entries on the Victorian Heritage Inventory (VHI) within the PSP. These are historical archaeological sites greater than 75 years old. The entries are:

- *Mount Rowan Mullock Heap 1*
- *Mount Rowan House Remains*
- *Former House Site, Wyndholm Park*.

There are five places proposed for inclusion in the Schedule to the Heritage Overlay in the Ballarat Planning Scheme:

- *Homestead*, 103 Olliers Road, Mount Rowan
- *Bernera Homestead*, 88 Olliers Road, Mount Rowan
- *Hawthorn Park*, 112 Olliers Road, Mount Rowan
- *Hawthorn Farm*, 134 Gillies Road, Mount Rowan
- *Basalt Remnant*, 15 Sims Road, Mount Rowan.

There is one Dutch elm tree within the PSP included in the National Trust of Australia (Victoria) Heritage Register and the City of Ballarat Exceptional Tree Register. The Dutch elm is included within the proposed extent of the Heritage Overlay for *Hawthorn Farm*.

There is one identified heritage site (*Hayshed*) at Noble Court that is not proposed for heritage protection.

Further information on the VHI entries and the sites of significance where a Heritage Overlay is proposed are available in the *Ballarat North PSP Historical (Post-Contact) Heritage Assessment* (RBA, July 2024), which can be viewed here: **https://vpa.vic.gov.au/project/ballarat-north/**

1.6 Strategic policy context

This PSP is informed by:

- The Planning Policy Framework set out in the Ballarat Planning Scheme
- The Central Highlands Regional Growth Plan
- Plan for Victoria
- The **Precinct Structure Planning Guidelines: New Communities in Victoria** (VPA, 2021).

1.7 Ballarat North Development Contributions Plan (DCP)

This PSP is supported by the Ballarat North Development Contributions Plan (DCP), that has been developed in parallel with the PSP to inform and direct the future planning and development of the precinct. The DCP:

- Is a separate document incorporated into the Ballarat Planning Scheme and implemented through the Development Contributions Plan Overlay (DCPO).
- Requires development proponents to contribute to infrastructure required to support the future community.
- Sets out the requirements for infrastructure funding across the precinct.

1.8 Ballarat North Native Vegetation Precinct Plan (NVPP)

The Ballarat North Native Vegetation Precinct Plan (the NVPP) has been prepared concurrently with the PSP. The NVPP identifies:

- native vegetation to be protected,
- native vegetation that can be removed, destroyed or lopped without a planning permit; and
- the offsets that must be sourced by landowners, prior to the removal of native vegetation mapped for removal as per the NVPP.

The statutory basis for the NVPP is Clause 52.16 of the Ballarat Planning Scheme. The NVPP is incorporated into the Ballarat Planning Scheme under Clause 72.04 (Incorporated documents) and is a separate document to the Ballarat North Precinct Structure Plan.

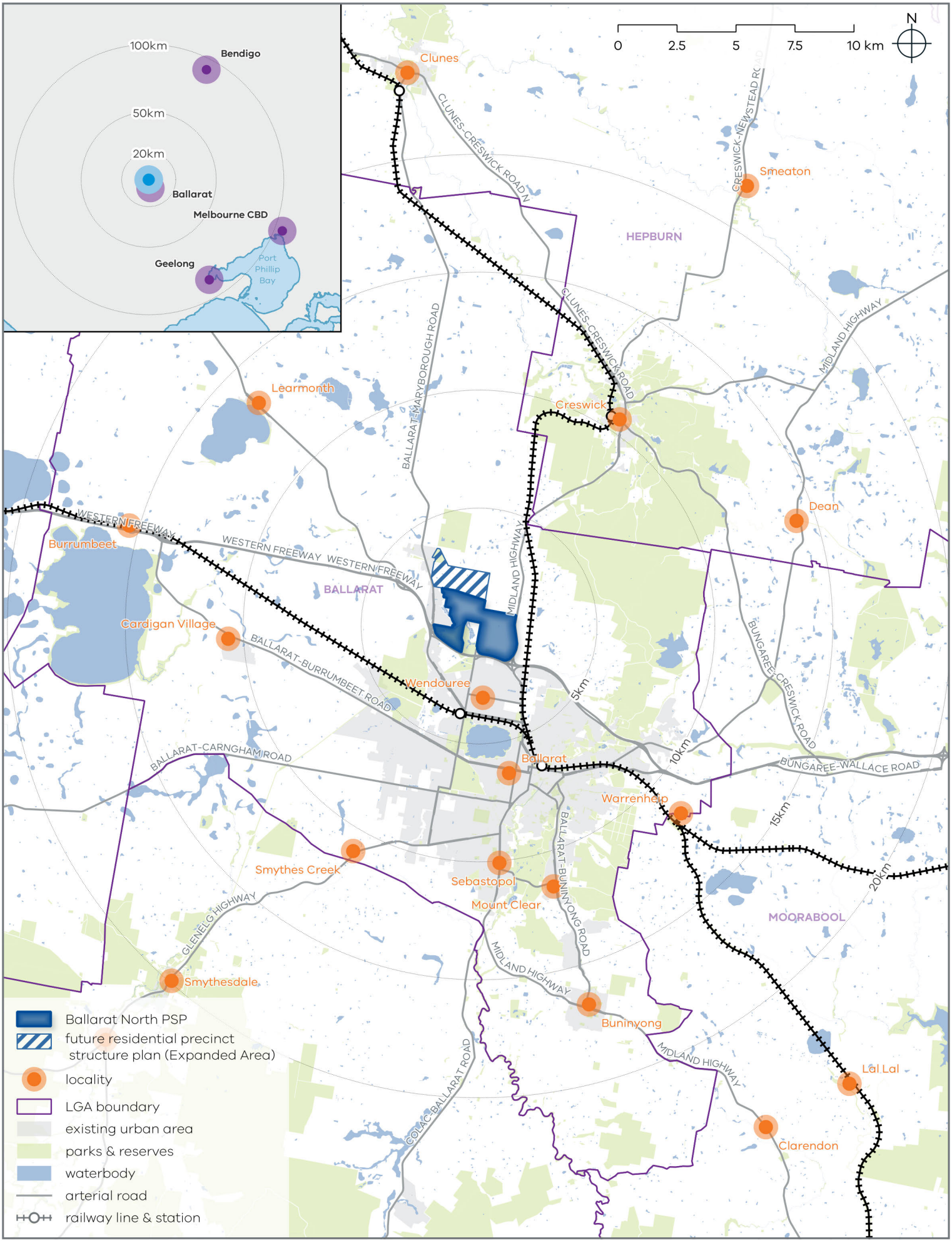
1.9 Background information

The *Ballarat North PSP Background Report* provides detailed background information relating to the precinct, including its strategic and local context, physical attributes and provides a detailed account of the VPA's spatial planning for the precinct.

The Background Report summarises considerations and research that have informed the preparation of the PSP. This includes the key findings from the PSP technical studies for matters such as drainage, transport, utilities, economics, and community facilities. The technical studies can be viewed at: **https://vpa.vic.gov.au/project/ballarat-north/**

Plan 1 - Regional Context

Ballarat North Precinct Structure Plan



2.0 PSP OUTCOMES

2.1 PSP vision

The Ballarat North PSP envisions a thriving residential community shaped by a combination of unique landscapes, rich local heritage, and aspirations for a more connected and sustainable community, planned around a cohesive network of green spaces.

The Ballarat Town Common will remain protected, along with Mount Rowan, which stands as a significant landmark and represents the cultural history of the Wadawurrung people. Both will be preserved for their natural beauty for future generations and will integrate elements of intangible and tangible cultural heritage in partnership with Traditional Owners.

Education and community hubs will emerge within the residential areas, emphasising the importance of community and learning. Housing will cater to a variety of needs and preferences, with a focus on delivering diverse housing types for a wide range of households.

Green linkages, featuring trees and pedestrian-friendly routes will be central to the design of the neighbourhood. This will promote internal and external connections to new schools, community facilities, playgrounds, and other amenities to deliver the essential infrastructure that the community needs. Conservation and protection of biodiversity along Burrumbeet creek will be a feature of the precinct.

Infrastructure development will prioritise safe roads, public transport, cycling routes, and pedestrian routes. This will ensure effective connectivity within and outside of the precinct.

Environmental initiatives will include the conservation of native vegetation and other habitat values, improvement and protection of Burrumbeet Creek, and application of Biodiversity Sensitive Urban Design principles to achieve nature positive outcomes at subdivisions. Other environmental initiatives will include embracing an integrated water management approach and advanced stormwater management to protect and manage flood risks and improve drainage in the precinct.

Sustainability will be a guiding principle, with net zero energy ambitions and urban heat responses supporting community resilience to climate change impacts. Neighbourhoods and buildings will be designed to deliver sustainability outcomes including walkable neighbourhoods, electric vehicle use, planting of canopy trees and water sensitive urban design – all supporting the long term liveability and amenity of the precinct.

Figure 1 summarises how Ballarat North measures against the performance targets based on the PSP Guidelines. The metrics including total numbers and percentage in Figure 1 are rounded.

Figure 1 – Ballarat North PSP performance summary

571
hectares

294 ha
net developable area

1,059
Jobs (est.)

16,368
residents (est.)

5,846
dwellings (est.)

LAND USE SUMMARY

residential	50.59%
activity centre	0.84%
transport	2.71%
community	0.31%
education	4.77%
open space	40.43%
other	0.34%

4
schools
- 2 government primary
- 1 government secondary
- 1 non-government

1
neighbourhood centre & jobs hub

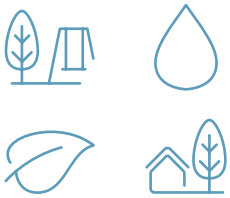
2
community facilities

8.60 ha
local parks

2
sports reserves

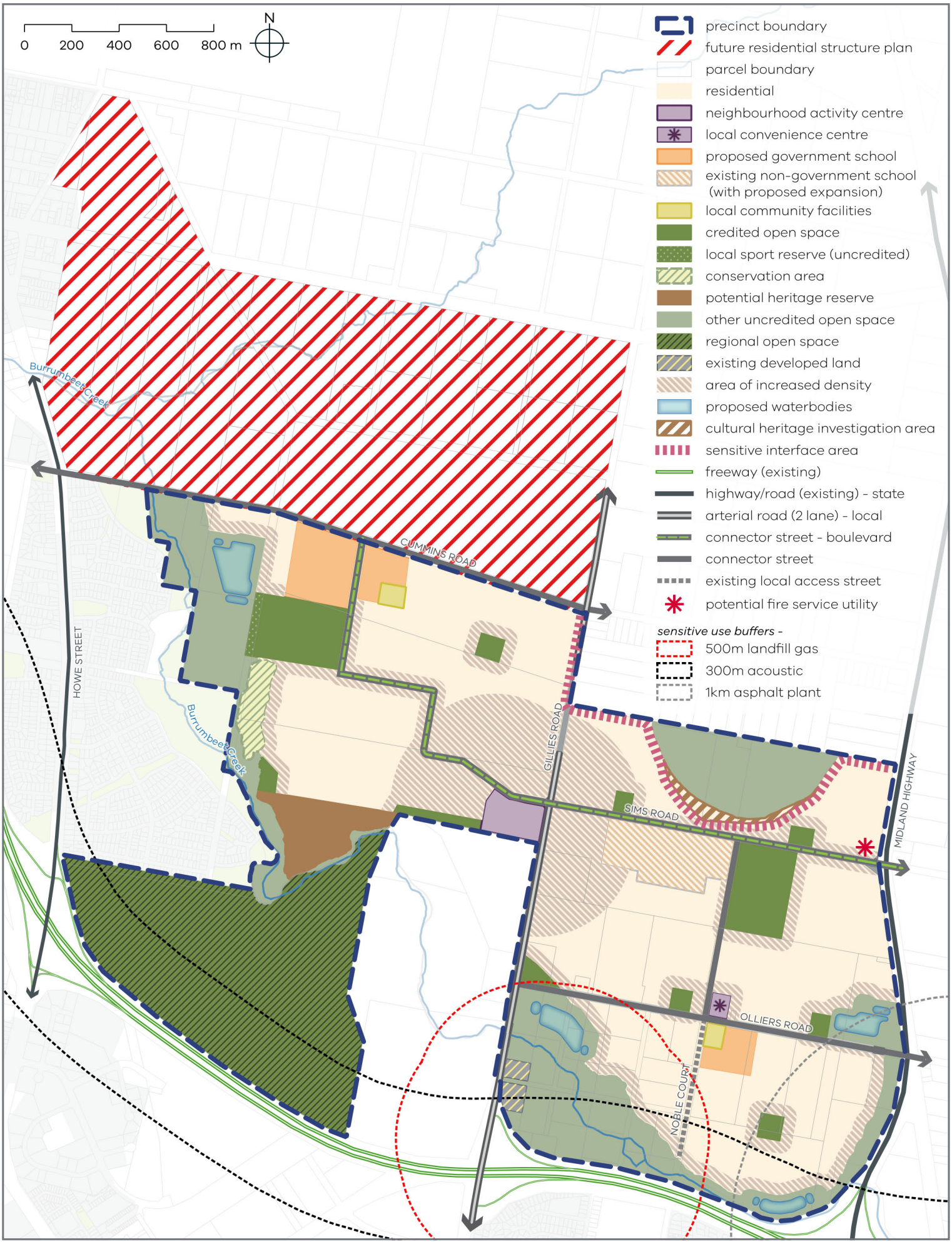
Viable densities	Target No.	PSP targets	achieved	target
	T1	Dwelling density per NDHA in amenity areas	**25**	30
	T2	Dwelling density per NDHA across the PSP	**20**	20
		Other performance targets **T3** Housing diversity **T4** Affordable housing		

Safe, accessible & well connected			achieved %	target %
	T9	Public transport in walking distance	**94**	95
		Other performance targets **T5** Arterial road network **T6** Off-road cycle paths **T7** Footpaths **T8** Pedestrian and cyclist crossing		

	Target No.	PSP targets	achieved %	target %
High quality public realm				
	**T11**	Minimum open space targets		
		– Total residential credited open space	**9**	10
		– Local residential park	**3**	3-5
		– Sports reserve	**6**	5-7
		– Employment local park	**n/a**	2
	T12	Open space in walking distance		
		– Dwellings within 800m of sports reserve or open space	**100**	100
		– Dwellings within 400m of local park	**99**	95
		Other performance targets **T13** Tree canopy coverage **T14** Passively irrigated street trees **T15** Good solar orientation **T16** Conservation areas **T17** Integrated water management solutions		
Services & destinations				
	**T18**	Education & community facilities in walking distance		
		– Dwellings within 800m of government primary school	**74**	70
		– Dwellings within 3,200m of government secondary school	**100**	100
		– Dwellings within 800m of community hub	**77**	80
		– Dwellings within 800m of health facility	**100**	80
Thriving local economies				
	**T19**	Activity centre in walking distance	**87**	80-90
Infrastructure coordination				
		**Other performance targets** **T20** Basic & essential infrastructure		

Plan 2 - Place Based Plan

Ballarat North Precinct Structure Plan



3.0 IMPLEMENTATION

3.1 Implementation Notes

1. **Open Space terminology** – The PSP term 'local parks' corresponds to 'neighbourhood parks', and 'sports reserve' corresponds to 'district parks' in the *City of Ballarat's Open Space Strategy* (March 2008).
2. **Flexible wetland and retarding basin design (progressive certainty)** - Any change to the size, type, staging or location of drainage assets (including wetlands and retarding basins; waterways & drainage; and sediment basins), will be considered by the responsible authority as being generally in accordance with the PSP if those drainage assets achieve the required performance standards, including any relevant updates to flood modelling for the Burrumbeet Creek and are approved by the responsible authority, having regard to any comments from the relevant Catchment Management Authority.

   Should the land required for the delivery of the wetlands & retarding basins; waterways and drainage; and sediment basin assets be reduced after the PSP has been gazetted, then that surplus land may be used and developed in accordance with the applied zoning of that land under Schedule 3 of the Urban Growth Zone. Any increases in NDHA are subject to Section 5.1 of the Ballarat North Development Contributions Plan which sets out the process for changes to the land use budget.

3.2 Viable densities



3.2.1 Objectives – Viable densities

OBJECTIVES

O1	To facilitate subdivision and development that contributes to delivery of increased density and diversity of housing options.
O2	To inform an estimated target for voluntary provision of affordable housing, including social housing, in accordance with affordable housing policy, evidence and guidance.
O3	To ensure landscape, waterways, and topographical features are utilised to guide the pattern of development.

3.2.2 Requirements and guidelines - Viable densities

REQUIREMENTS

R1	Subdivision for residential development must be generally in accordance with the **Plan 3 – Housing** and **Table 1 – Housing density and diversity** to the satisfaction of the responsible authority. Subdivisions that can demonstrate how target densities can be achieved over time will be considered.
R2	Street frontage to connector streets and the open space network (including waterway reserve, open space or utilities easement functioning as open space), must be provided unless otherwise agreed with the responsible authority. If it is not provided, lots must: – directly front the open space and allow for vehicular access via a rear laneway – allow for a primary point of access from the footpath of a minimum width of 1.5 metres along the frontage of the lot. Shared driveways and mews may be considered to the satisfaction of the responsible authority.

REQUIREMENTS

R3	Development along the "sensitive interface area" shown on **Plan 3 – Housing**, must provide an appropriate visual transition to existing rural living properties and Mount Rowan to the satisfaction of the responsible authority. Interface treatments may include but are not limited to vegetated buffers, wider lot frontages or larger lot sizes.
R4	Subdivision and development within the "cultural heritage investigation area" shown on **Plan 3 – Housing** must be consistent with a Cultural Heritage Management Plan approved under the *Aboriginal Heritage Act 2006*.
R5	Earthworks, retaining structures and embankments must be carefully and sensitively designed to transition gradually into natural contours, and retaining walls over 1 metre must be avoided along the street edge to the satisfaction of the responsible authority. Where retaining walls are to be positioned along the boundary of private property and public land, they must be entirely within private land.

GUIDELINES

G1	Residential subdivisions within areas nominated for increased density should demonstrate how a minimum of three housing typologies can be achieved. Where a residential subdivision is of a scale unsuitable to support three housing typologies, the subdivision may rely on other typologies within the area if the proposed development will contribute to housing diversity in the vicinity.
G2	Residential development that makes a contribution towards meeting the estimated precinct demand for affordable housing, including social housing, referenced in **Table 3 – Estimated affordable housing demand guidance**, for the Ballarat North precinct should be encouraged. This can also include affordable private market housing.
G3	Affordable housing, including social housing, where provided should be encouraged in areas where services, public transport and community facilities will be provided.
G4	Affordable housing, including social housing, where provided should consider meeting the needs of the local community including housing type, size and income ranges.
G5	Subdivision and dwellings should be designed to respond to the natural topography of the site, avoiding the use of retaining walls and excessive cut-and-fill where possible. This may include: – Split level designs – Large and wider lot sizes – Single and double storey components that respond to the slope of the land.
G6	Any proposed works on a site, including but not limited to the installation of retaining walls, should be designed to minimise impact on the amenity of adjoining lots and consider the implication on the drainage requirements for all lots.
G7	Specialised housing forms, such as retirement living, or aged care should: – Respond to and integrate with adjoining development, avoiding inactive interfaces and blank facades to the public street network. – Be located within 'amenity areas' as shown on **Plan 3 – Housing** – Be accessible by public transport – Not present a barrier to movement through the surrounding road and pedestrian movement network.
G8	Housing abutting open spaces and linear links should: – Integrate open spaces into the design of subdivisions; – Accommodate rear-loaded laneways to avoid garages and accessways fronting open space; – Provide a clear delineation between public and private spaces; and – Provide opportunities for passive surveillance and pedestrian activities along laneways.
G9	Street network layouts should be designed to support good solar orientation on lots.
G10	Street networks should direct views to the summit of Mount Rowan, surrounding hills, waterways and public open space.

Table 1 – Housing density and diversity

AMENITY AREA	
Housing catchment area	Land shown as "amenity area" on **Plan 3 – Housing**.
Target density	Average of 25 dwellings or more per NDHa
Target typologies	**Typologies** To support delivery of diverse housing outcomes in areas of increased density, applicable planning applications should enable opportunities to deliver at least three (3) different housing typologies. The mix of dwelling typologies should include, but is not limited to: – Owners' corporation/strata title apartments (2+ storeys) – Integrated developments (2+ storeys) – Small lot front/rear-loaded townhouse (1-3 storeys) – Small lot front loaded duplex (1-2 storeys) – Semi-detached house & land (1-2 storeys) **Decision guidance** – Low to mid-rise developments should be prioritised around schools and the periphery of areas of increased density. – Higher density developments should be limited to activity centres. To ensure appropriate scales are achieved, these developments can be interspersed with other medium density products. – Small Lot Housing Code products should be located abutting areas of increased density, however the provision of higher densities (and associated housing typologies) should be safeguarded in future waves of development. – Social and affordable housing and key worker accommodation should be located around key destination hubs and close to the bus capable road network.
BALANCE AREA	
Housing catchment area	All land shown as "balance area" on **Plan 3 – Housing**.
Target density	Average of 17 dwellings or more per NDHa
Target typologies	**Typologies** To support delivery of diverse housing outcomes in balance areas, applicable planning applications should enable opportunities to deliver at least two (2) different housing typologies. The mix of dwelling typologies should include, but is not limited to: – Conventional front-loaded house & land (1-2 storeys) – Small lot front loaded duplex (1-2 storeys) – Semi-detached house & land (1-2 storeys) – Small lot front/rear-loaded townhouse (1-3 storeys) – Integrated developments (2+ storeys)
Decision guidance	Higher density products (e.g. attached town houses and Small Lot Housing Code products etc.) should be located in areas adjacent to areas of increased density, or where it can be demonstrated that a positive contribution will be made to the planned neighbourhood character and emerging place identity.

Table 2 – Dwelling yields

Housing Catchment Area	NDHA	Dwellings/NDHA	No. of Dwellings
Amenity Area	107	25	2,675
Balance area	186	17	3,170
TOTAL	**294**	**-**	**5,846**
Anticipated population at 2.8 persons per dwelling			**16,368**

Note: Figures are independently rounded from source data. Totals are calculated from unrounded figures and may appear inconsistent if recalculated manually based on rounded values shown.

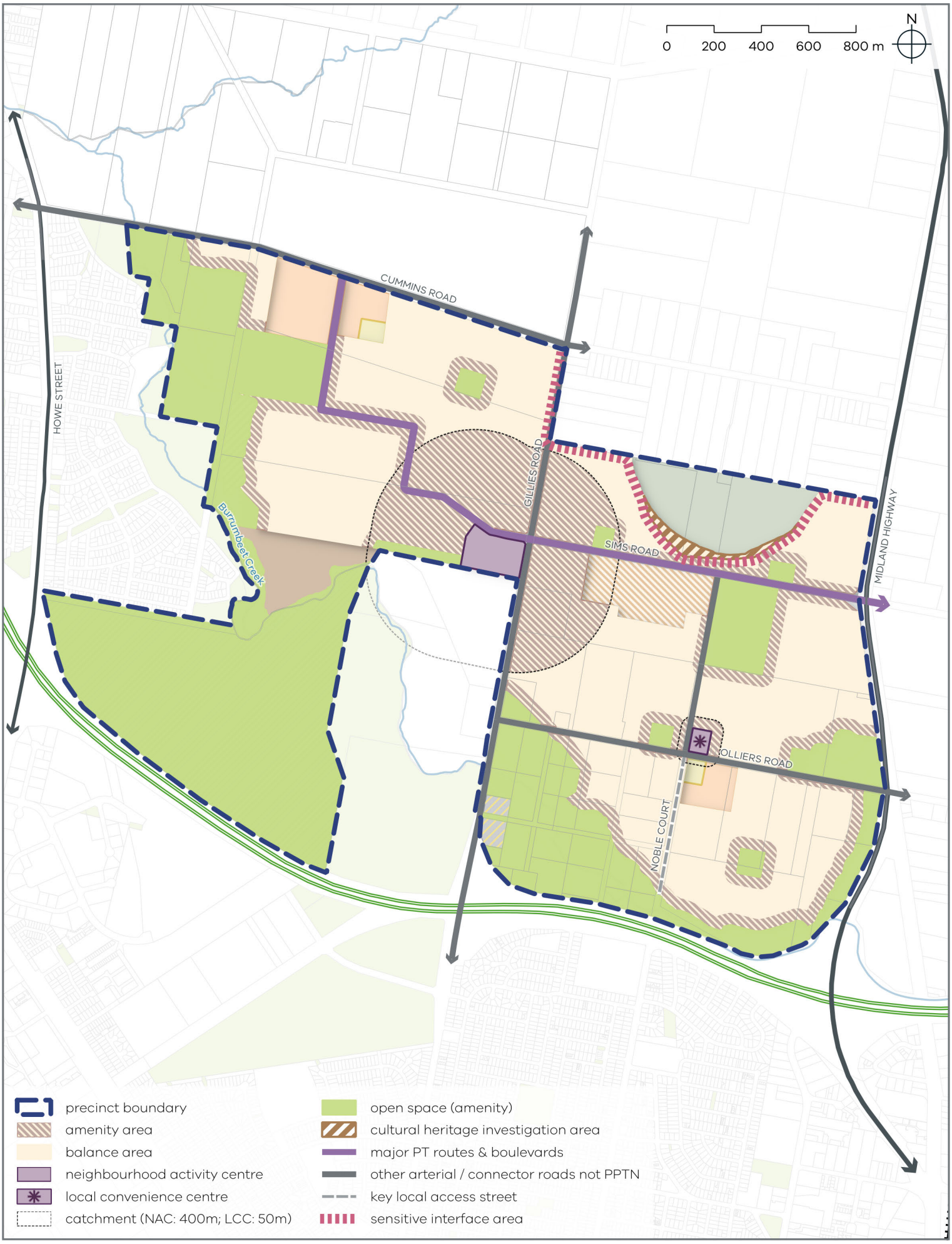
Table 3 – Estimated affordable housing demand guidance

	Affordable Housing
% of total dwellings	13%

	Subsidised Market Housing	Social Housing
% of total dwellings	2%	11%

Plan 3 - Housing

Ballarat North Precinct Structure Plan



3.3 Safe, accessible and well-connected

3.3.1 Objectives – Safe, accessible and well-connected

OBJECTIVES

O4	To deliver a safe, accessible, well-designed and well-connected walkable and cyclable neighbourhoods.
O5	To establish strong, safe, well-designed and accessible connections to key destinations, including: – Neighbourhood activity centre – Local activity centres/convenience centres – Community facilities – Schools – Open space.
O6	To ensure that the precinct supports active and public transport use and encourages an increased uptake of sustainable transport by providing appropriate infrastructure.

3.3.2 Requirements and guidelines – Safe, accessible and well-connected

REQUIREMENTS

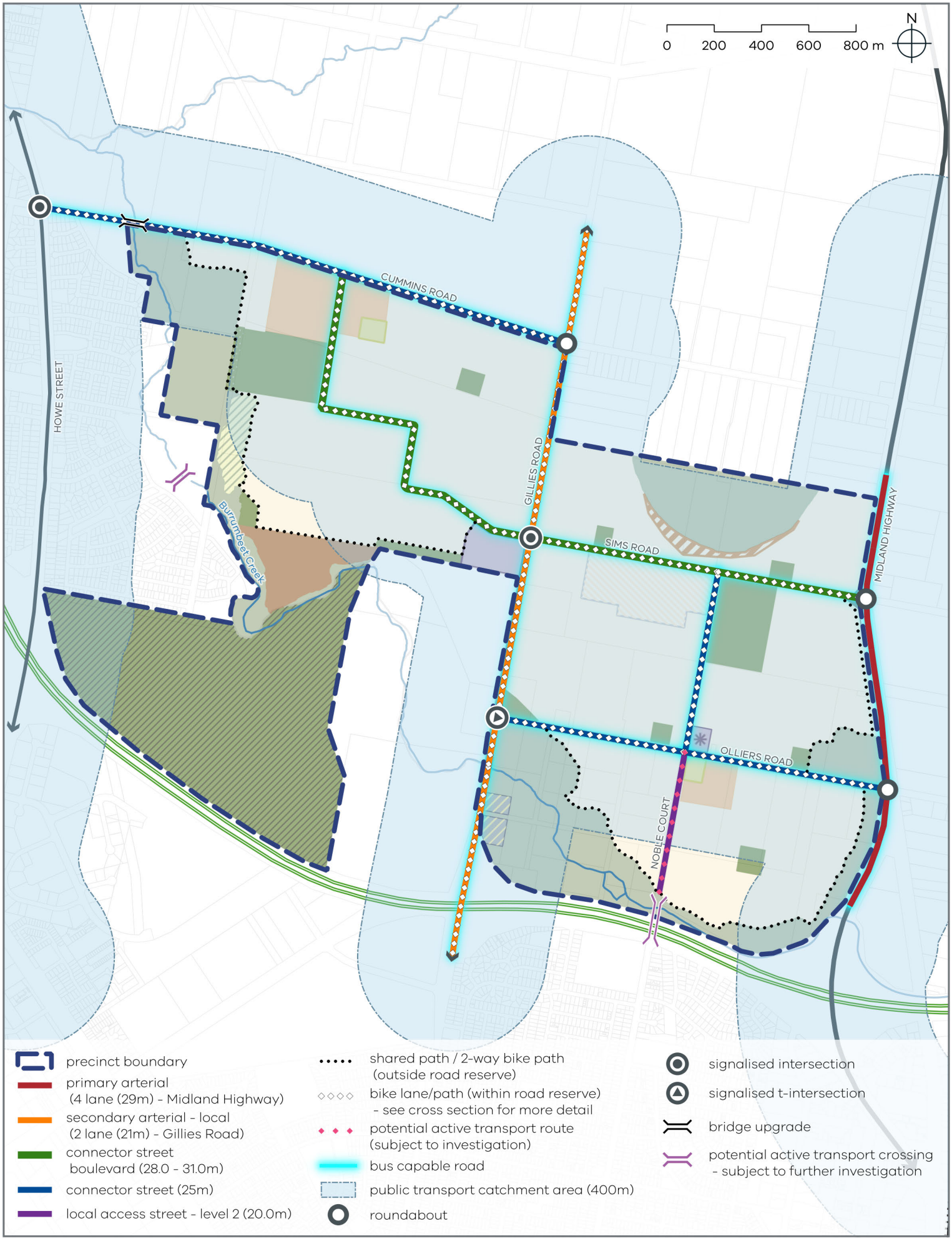
R6	All streets and roads must be designed and developed generally in accordance with the relevant cross sections in **Appendix 5 – Road cross sections** unless otherwise agreed by the responsible authority.
R7	Pedestrian and cyclist crossings must be provided every 400–800m, where appropriate, along secondary arterial (local) roads, waterways, and any other accessibility barriers.
R8	Design of all subdivisions, streets and arterial roads must provide: – A permeable, direct and safe street network prioritising walking and cycling, particularly walking and cycling to schools, activity centres, community facilities and open space. – Safe and convenient crossing points of connector roads and local streets at all intersections and on key desire lines as well as crossing waterways. – Safe pedestrian crossings of arterial roads at all intersections, at key desire lines, and on regular intervals appropriate to the function of the road and public transport provision. – Safe and convenient transition between on and off road bicycle networks – Convenient access to regional and local points of interest and destinations for effective integration with neighbouring properties, parkland and sports reserves. – Direct and convenient walking access to public transport services.
R9	Subdivision applications for the neighbourhood activity centre or local convenience centre must include a transport plan to the satisfaction of the responsible authority.
R10	Direct lot access to the Midland Highway must not be provided.
R11	Direct lot access to Gillies Road must not be provided unless otherwise agreed by the responsible authority.
R12	Developers must coordinate with adjoining landowners to ensure an appropriate design and timely delivery of non DCP connector roads to the satisfaction of the responsible authority.

GUIDELINES

G11	A variety of cross sections may be considered with agreement from the responsible authority for local streets, to create differentiation, sense of place and neighbourhood character. Alternative cross sections should ensure that: – Sufficient provision is made for street tree planting to achieve 30% canopy tree coverage in the public realm. – Minimum required carriageway dimensions are maintained to ensure safe and efficient operation of emergency vehicles on all streets as well as buses on connector streets. – The performance characteristics of standard cross sections as they relate to pedestrian and cycle use are maintained. – Relevant minimum road reserve widths for the type of street are maintained.
G12	Developers may be required to deliver some connector road works, or an appropriate interim solution, extending past their immediate frontage only where necessary to enable safe access to their land, taking into consideration a Transport Impact Assessment to the satisfaction of the responsible authority.
G13	Alternative cross sections for arterial roads may be considered where supported by a movement and place assessment completed in accordance with the matrix methodology in Module 1 in *Movement and Place in Victoria* (Department of Transport, 2019). The alternative cross section should achieve a road design that is appropriate to: – the transport function for all modes – surrounding land uses – user experience. All to the satisfaction of the relevant road authority and the responsible authority.
G14	Where alternative cross-sections have been implemented, they should provide for off-road bicycle paths on all connector streets and arterial roads.
G15	Alternative footpath or shared path approaches may be used where they enhance walkability and permeability and respond to the purpose of the place and character of the urban form to the satisfaction of the responsible authority.
G16	Larger reserves should have circuit paths that feed into the network of trails and walking paths.
G17	A minimum of 5% of all off-street parking provided for non-residential subdivision or development exceeding 5,000 square metres should have EV charging infrastructure and signage installed. This must be shown on a plan submitted as part of any permit application. Unless otherwise approved in writing by the responsible authority, at least 20% of all off-street parking spaces (or a minimum of one space) should be capable of supporting the provision of an EV charging outlet for public use.

Plan 4 - Movement Network

Ballarat North Precinct Structure Plan



3.4 High-quality public realm

3.4.1 Objectives – High-quality public realm

OBJECTIVES

O7	Contribute to the long-term conservation of significant flora and fauna species through: – creation, protection, restoration and enhancement of habitat – maintenance of passage for fauna – management of hydrological flows – minimisation of utility corridors within conservation areas.
O8	To ensure that development within the public realm provides sufficient canopy tree coverage to support cooler and greener neighbourhoods.
O9	To provide an accessible and connected network of local parks, open space and recreation opportunities that meet the needs of the community.
O10	To develop sustainable systems for water, drainage and wastewater that: – protect, conserve, and improve biodiversity, waterways and other natural resources – maintains or enhances the safety, health and wellbeing of people and property – enable water sensitive urban design outcomes.
O11	To encourage a strong sense of place through the identification, retention and celebration of places of post-contact and Aboriginal cultural heritage significance within the precinct. This includes maintaining and enhancing environmental and landscape features.
O12	Increase community resilience to bushfire by ensuring bushfire hazards are identified and bushfire risk is reduced to an acceptable level.

3.4.2 Requirements and guidelines - High-quality public realm

REQUIREMENTS

R13	Canopy tree coverage within the public realm must achieve a minimum of 30% (excluding areas dedicated to biodiversity or native vegetation conservation).
R14	A landscape plan must provide landscape design that: – specifies tree species (preferably indigenous) which are suitable to the local climate and soil conditions – implements integrated water management and water sensitive design outcomes. – implements biodiversity sensitive urban design outcomes. All to the satisfaction of the responsible authority.
R15	A Stormwater Management Plan must include Integrated Water Management solutions consistent with **Plan 6 – Water**.
R16	Stormwater runoff from the development must meet the performance objectives of the Environment Protection Authority's *Urban stormwater management guidelines (Publication 1739.1)* prior to discharge to receiving waterways and as outlined on **Plan 6 – Water**, unless otherwise approved by the Catchment Management Authority and the responsible authority.
R17	Public open spaces that are vegetated must be passively irrigated unless otherwise agreed with the responsible authority.
R18	Any subdivision or development of land adjoining Mount Rowan's cultural landscape values shown in **Plan 5 – Public Realm** must have regard to the cultural/heritage significance of the site and provide a sensitive interface with appropriate scaled development, proportion and materials, to the satisfaction of the responsible authority.
R19	Vegetation within bushfire hazard areas shown on **Plan 7 – Bushfire** must be managed to the relevant vegetation threat level unless otherwise agreed by the responsible authority and relevant fire authority.

REQUIREMENTS

R20	Development adjoining bushfire hazards shown on **Plan 7 – Bushfire** must be setback in accordance with the corresponding bushfire hazard designations to the satisfaction of the responsible authority and relevant fire authority and as outlined in *Ballarat North PSP - Bushfire Development Report* (August 2025).
R21	Subdivision adjoining a bushfire hazard area must include a publicly accessible perimeter road unless otherwise agreed by the responsible authority and relevant fire authority.
R22	Any vegetation located in a setback required for bushfire purposes must be managed in accordance with the following requirements, unless otherwise agreed by the responsible authority and relevant fire authority: – Grass must be short cropped and maintained during the declared fire danger period. – All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period. – Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building. – Plants greater than 10 centimetres in height must not be placed within 3 metres of a window or glass feature of the building. – Shrubs must not be located under the canopy of trees. – Individual and clumps of shrubs must not exceed 5 square metres in area and must be separated by at least 5 metres. – Trees must not overhang or touch any elements of a building.
R23	Landscape design and plant selection in open spaces, including waterways and drainage corridors, must mitigate bushfire risk to the satisfaction of the responsible authority.

GUIDELINES

G18	Canopy trees should provide for shade in summer once at maturity to the satisfaction of the responsible authority.
G19	Alternative irrigation may be considered where it can be demonstrated through a comprehensive alternative plan (such as an Integrated Water Management Plan) that passive irrigation is either unnecessary or inferior to the proposed alternative (for example, recycled water irrigation of street trees in mandated recycled water areas).
G20	Movement corridors for local fauna and adjacent land uses should be designed and managed sensitively (such as use of wildlife sensitive lighting) in accordance with a management plan, and to enhance community access and experience of the conservation and landscape value areas.
G21	Drainage assets (such as wetlands and retarding basins) and public open space areas should be located adjacent with the conservation area and waterways to provide a buffer to development where appropriate to the satisfaction of the responsible authority.
G22	Stormwater quality runoff proposals that exceed the performance objectives of the *EPA 1739.1 Urban stormwater management guidance* are highly encouraged and may be considered to the satisfaction of the responsible authority.
G23	Subdivision applications involving development adjacent to land in a heritage overlay should be sited and designed to protect the significance of the heritage place. This can include: – Retain original or significant landscaping (including planting with direct links or association with the heritage place and / or remnant indigenous trees); – Protecting, where possible and allowing the interpretation of archaeological features; and – Retaining and respecting significant views to and from the heritage place.
G24	Work with the responsible authority to provide public art within publicly accessible areas of future subdivisions, such as open spaces, forecourts, or laneways, to support high quality urban design outcomes.
G25	Provide opportunities for public art, signage, and interpretive installations that acknowledge Wadawurrung Country in consultation with the Registered Aboriginal Party.
G26	Encourage the use of Wadawurrung language for street and neighbourhood names in partnership with the Registered Aboriginal Party.

GUIDELINES

G27	Aboriginal cultural heritage should be recognised through the design of public places, infrastructure and interpretive installations. Opportunity should be explored through cultural heritage interpretation trails along public path networks in areas of known historic cultural history or areas of Aboriginal cultural heritage significance.
G28	New open space provided within the "potential heritage reserve" may be considered as credited local open space where it can be demonstrated that the open space is: – Accessible to the public at all times. – Designed and embellished to a standard commensurate with other credited local open space in the PSP, to the satisfaction of the responsible authority. – Does not compromise equitable distribution of open space in the precinct or reduce the percentage of dwellings within 400 metres of a local park.
G29	All fencing adjoining bushfire hazard areas shown on **Plan 7 – Bushfire** should be made from non-combustible materials.
G30	Lots adjoining bushfire hazards shown on **Plan 7 – Bushfire** should allow for the provision of a static water supply of 2,500 litres for personal firefighting where practical.
G31	Subdivision should include a network of streets that provide multiple evacuation routes away from bushfire risks and areas of bushfire hazard.
G32	Where a setback is required from a bushfire hazard, the setback should be provided on public land where practical.

Table 4 – Open space delivery

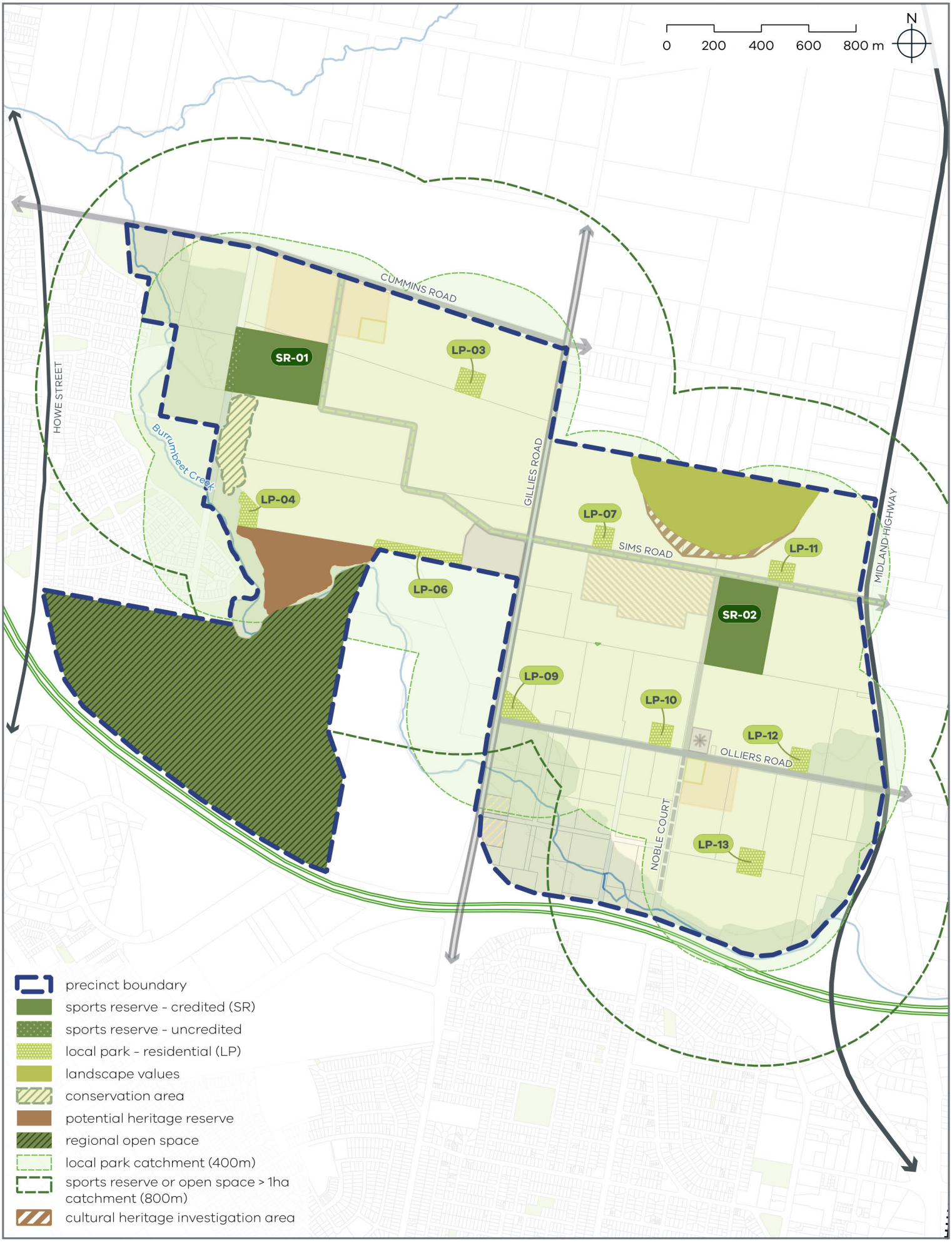
PARK ID	AREA (HA)	TYPE	LOCATIONAL ATTRIBUTES	RESPONSIBILITY
ACTIVE OPEN SPACE				
SR-01	10.51 (0.85 ha of SR-01 is within a redundant road reservation)	Sports Reserve	Multi-Purpose Sports Reserve adjoining proposed government secondary school site with lights, pavilion, playground and ancillary facilities.	City of Ballarat
SR-02	9.26	Sports Reserve	Multi-Purpose Sports Reserve with lights, pavilion, playground and ancillary facilities.	City of Ballarat
LOCAL PARKS				
LP-03	1.10	Local Park	Standard Local Park west of Gillies Road	City of Ballarat
LP-04	0.87	Local Park	Standard Local Park abutting potential heritage reserve	City of Ballarat
LP-06	1.46	Local Park	Linear Open Space abutting interface with Wastewater Treatment Plant	City of Ballarat
LP-07	0.70	Local Park	Standard Local Park abutting Sims Road	City of Ballarat
LP-09	1.00	Local Park	Standard Local Park within amenity buffer on corner of Olliers Road and Gillies Road	City of Ballarat
LP-10	0.80	Local Park	Standard Local Park abutting Olliers Road	City of Ballarat
LP-11	0.80	Local Park	Standard Local Park abutting Sims Road	City of Ballarat
LP-12	0.76	Local Park	Standard Local Park abutting Olliers Road	City of Ballarat
LP-13	1.10	Local Park	Standard Local Park south of Olliers Road	City of Ballarat

Table 5 – Water infrastructure

DRAINAGE SCHEME			
ASSET ID	**AREA (HA)**	**ASSET TYPE**	**RESPONSIBILITY**
WL-01 (NWM)	8.58	Retarding basin / wetland	City of Ballarat
WL-03 (CS)	6.51	Retarding basin / wetland	City of Ballarat
WL-04 (SEN)	4.87	Retarding basin / wetland	City of Ballarat
WL-05 (SES)	3.69	Retarding basin / wetland	City of Ballarat
DR-01	4.33	Constructed waterway	City of Ballarat

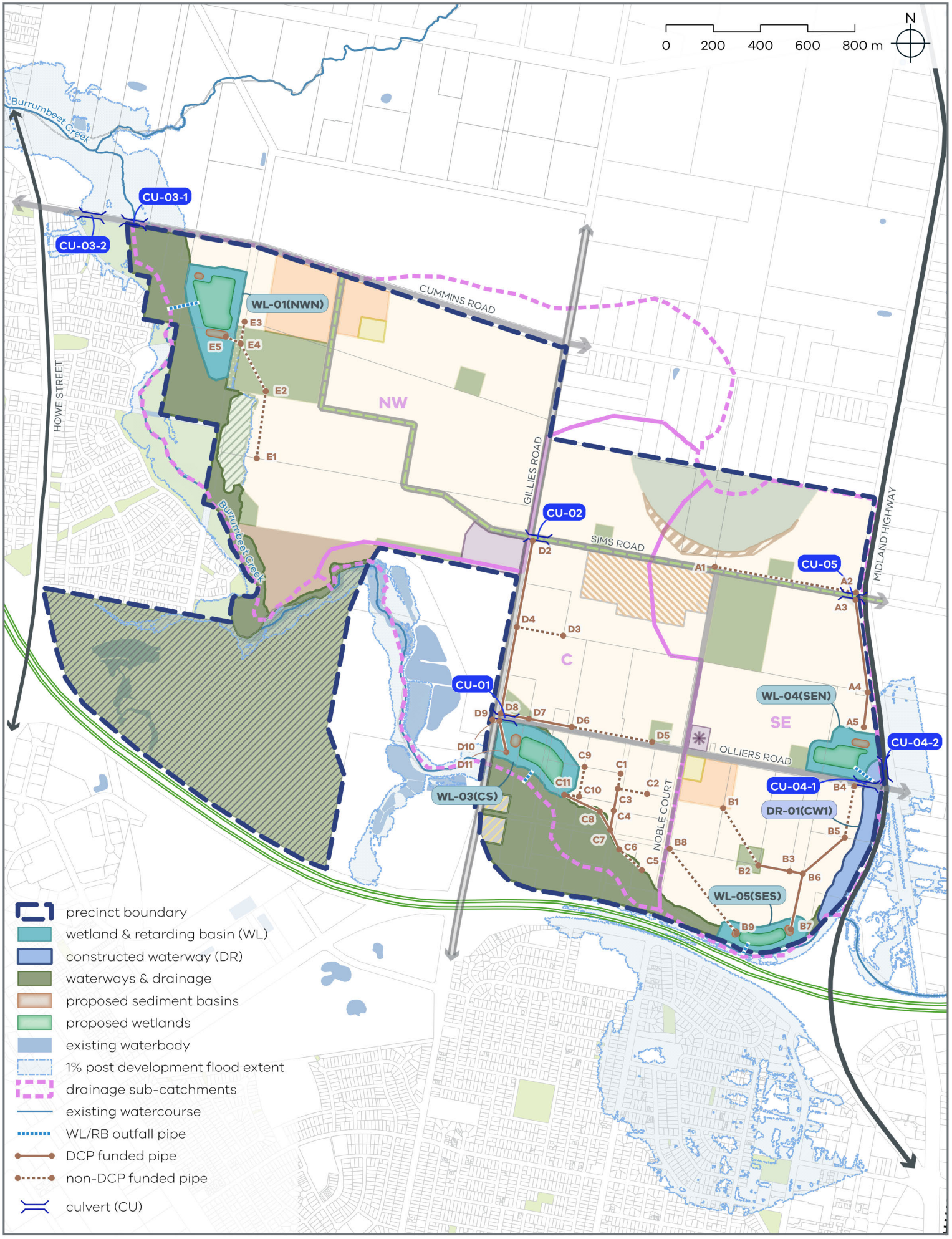
Plan 5 - Public Realm

Ballarat North Precinct Structure Plan



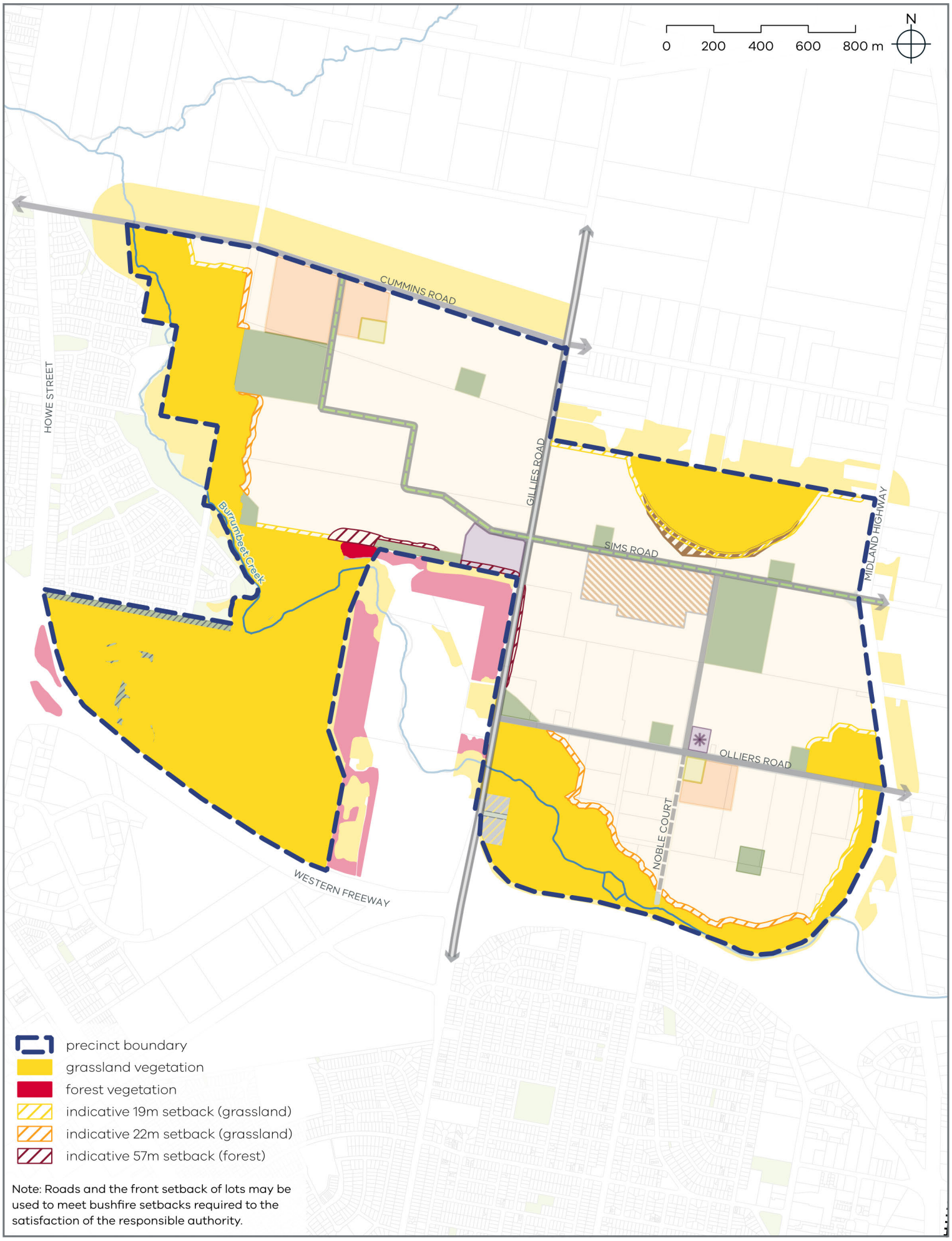
Plan 6 - Water

Ballarat North Precinct Structure Plan



Plan 7 - Bushfire

Ballarat North Precinct Structure Plan



Note: Roads and the front setback of lots may be used to meet bushfire setbacks required to the satisfaction of the responsible authority.

3.5 Services and destinations

3.5.1 Objectives – Services and destinations

OBJECTIVES

O13	To facilitate education and community infrastructure that provides for: – a range of education, community and cultural services that meet the needs of the community – adaptable, shared, co-located and/or integrated facilities.
O14	To provide convenient access to everyday community and social needs, services, and spaces.

3.5.2 Requirements and guidelines – Services and destinations

REQUIREMENTS

R24	Proposed government school sites must have a minimum of two road frontages (three preferred), one of which must be a bus-capable connector road. All roads fronting school sites must be wide enough to simultaneously accommodate safe and efficient: – Pedestrian movement. – Two-way traffic and cycling movement. – Student drop-off zones, and indented parking of cars and buses.
R25	Any lot created for a proposed government school site must be designed and serviced to the satisfaction of Department of Education.
R26	Any lot created for a proposed government school site must be designed to ensure it is outside bushfire hazard areas to the satisfaction of the Department of Education.
R27	Any connector road or access street abutting a community or education facility must be designed to achieve slow vehicle speeds and provide designated pedestrian crossing points in the vicinity of the school site.

GUIDELINES

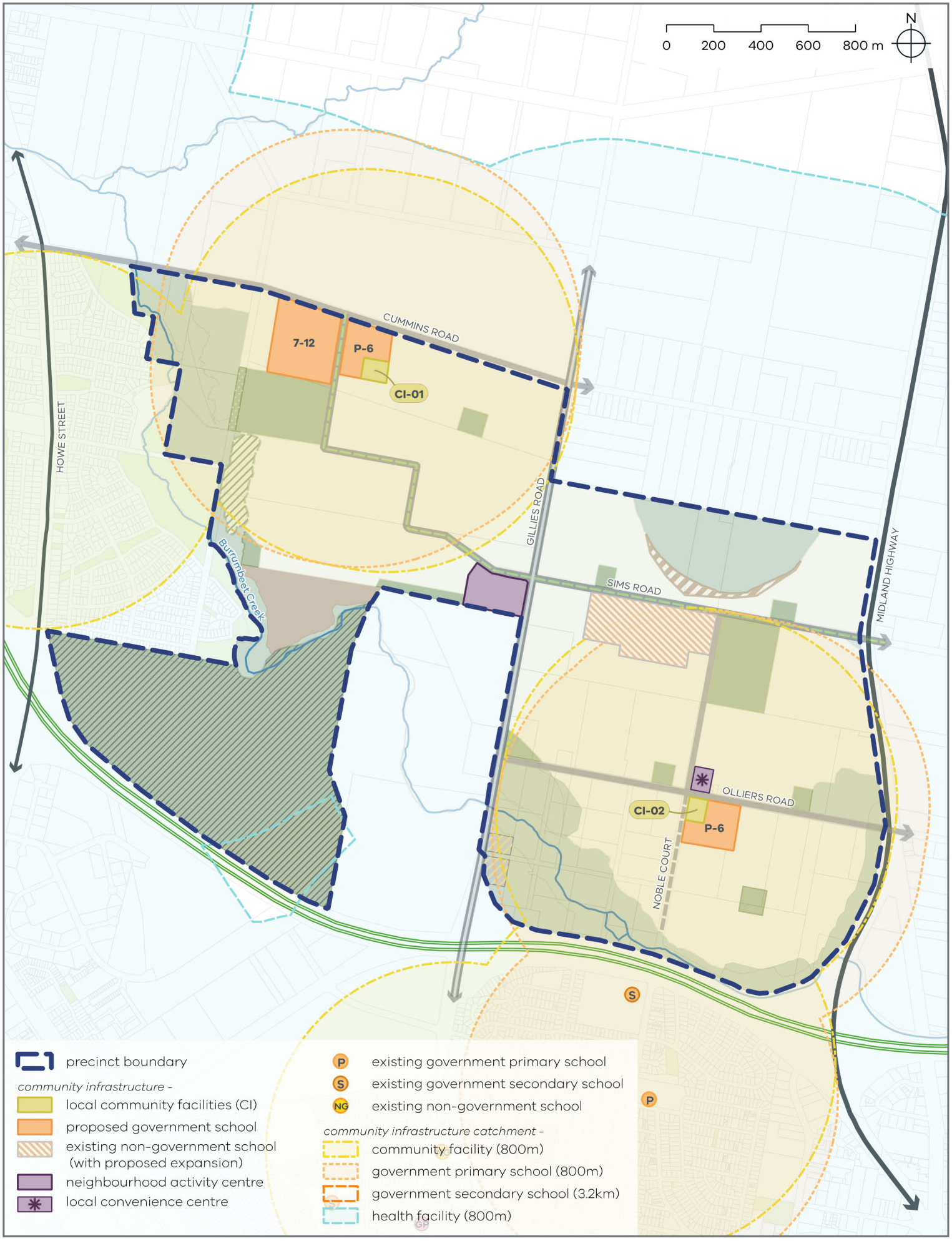
G33	Education facilities, community facilities and sports reserves should: – Be co-located – Be accessible by active and public transport routes – Provide an address to the street, with legible entry and exit – Integrate with other community facilities, activity centres and/or open space – Accommodate a range of users – Promote social interaction and a sense of place – Be designed with adaptable spaces that can be modified to respond to changing community needs and demands – Include any natural or heritage features that exist on site.
G34	Community and recreation infrastructure, schools, and sporting reserves which are co-located should facilitate out of hours use and be designed to maximise efficiencies through: – the sharing of car parking and other complementary infrastructure – street activation and permeability – safe pedestrian and cyclist access.
G35	Childcare centres and medical centres should be within or nearby community hubs or activity centres.
G36	Social services that support the needs of the community, including educational, community or civic infrastructure, should be located within the community infrastructure catchment shown on **Plan 8 – Community Infrastructure**.

GUIDELINES

G37	Where the responsible authority is satisfied that land shown as a potential non-government school site is unlikely to be used for a non-government school, the land may be used for an alternative purpose which is generally in accordance with the PSP and consistent with the provisions of the applied zone. The responsible authority must verify the need for the potential school with the education provider by referring to the Background Report and Community Infrastructure Assessment of the subject PSP area. Further guidance on this can be found in the VPA's '*Non-government School Planning Guidance Note*'.
G38	Alterations to the layout of community facilities and open space as illustrated in **Plan 8 – Community Infrastructure** may be considered to the satisfaction of the relevant responsible authorities. Where the alterations may impact a proposed government school site, the alterations must be to the satisfaction of the Department of Education.

Plan 8 - Community Infrastructure

Ballarat North Precinct Structure Plan



3.6 Thriving local economies

3.6.1 Objectives– Thriving local economies

OBJECTIVES

O15	To support a diverse and sustainable economy in Ballarat North and meet changing economic, climate and social needs by delivering: – Activity centres that provide a mixture of retail, commercial, residential and services that cater to the needs of the community – Housing that is easily accessible to a range of employment opportunities.
O16	To ensure that retail and commercial focused facilities and spaces feature location and design qualities that make them inviting, attractive, and safe places to work and visit from adjacent residential neighbourhoods.
O17	To support retail uses that integrates with local heritage values.

3.6.2 Requirements and guidelines – Thriving local economies

REQUIREMENTS

R28	Land use and development within the activity centres shown on **Plan 9 – Employment and Activity Centres** must: – be generally in accordance with **Table 6 – Activity centre hierarchy** – provide an appropriate design response to **Table 10 – Activity centre design principles and design outcomes**. Unless otherwise approved by the responsible authority.
R29	Where a heritage asset is to be used for a commercial business, the proposal must ensure it is integrated into a commercial setting with appropriate densities and surrounding built form to support its viability as a commercial centre and as a space for public enjoyment.

GUIDELINES

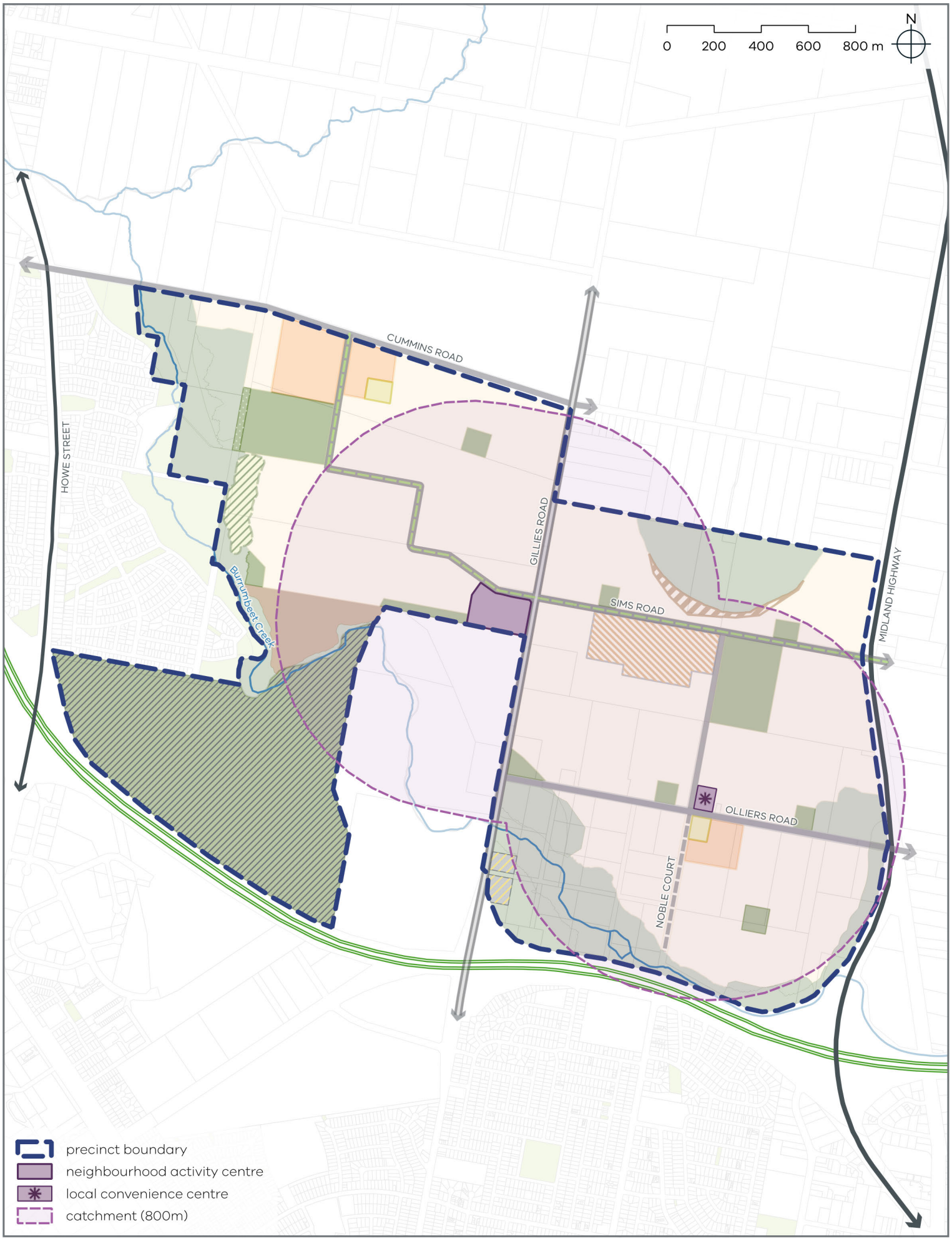
G39	Adaptive re-use of heritage buildings for commercial purposes is encouraged.
G40	Two storey built-form is encouraged where practical.

Table 6 – Activity centre hierarchy

Activity centre hierarchy					
Neighbourhood Activity Centre (NAC)					
Located centrally within the precinct, the neighbourhood activity centre (NAC) is to service all residents within the precinct and meet their day-to-day retail and community needs. The NAC will provide for two standard full-line supermarkets and a third mid-sized supermarket, along with speciality retail and commercial floor space. Higher density residential and mixed-use development is envisaged to support the NAC.					
Spatial Requirements					
Land area (Ha)	**4.0**	**Commercial floor space (m²)**	**2,000**	**Retail floor space (m²)**	**13,820**
Eastern Local Convenience Centre (LCC)					
The eastern local convenience centre (LCC) would play an ancillary role to support the central NAC by providing convenience shopping and other services to their respective local population base. These will typically include: – *retail specialty shops including food catering (café, restaurant, takeaway, etc.)* – *small green grocers and other fresh food retailers (bakery, butcher, etc.)* – *retail services (hairdresser, beauty salons)* – *potential for convenience pharmacies or other health services.* *Non-retail specialties (real estate agents, lawyers, accountants) may also fill shopfront space.*					
Spatial Requirements					
Land area (Ha)	**0.8**	**Commercial floor space (m²)**	**1,000**	**Retail floor space (m²)**	**2,070**

Plan 9 - Employment & Activity Centres

Ballarat North Precinct Structure Plan



3.7 Infrastructure coordination

3.7.1 Objectives – Infrastructure coordination

OBJECTIVES

O18	To plan for development that leverages existing and planned infrastructure.
O19	To facilitate the development of neighbourhoods and buildings that respond to the impacts of climate change, align with emission reduction targets and facilitate environmentally sustainable and climate resilient housing.
O20	To plan for an integrated water management system that contributes towards a sustainable and green urban environment by: – Reducing reliance on reticulated potable water – Increasing the re-use of alternative water through stormwater harvesting and water recycling – Supporting and enhancing impacts on biodiversity values – Increasing provision of permeable surfaces.
O21	To ensure development is staged in an orderly manner that is consistent with the planning and delivery of necessary infrastructure.
O22	To facilitate the use of renewable energy across the precinct.
O23	To coordinate the early delivery of diverse community and recreational infrastructure that supports healthy, connected and socially resilient emerging communities.

3.7.2 Requirements and guidelines – Infrastructure coordination

REQUIREMENTS

R30	Staging of infrastructure and development must be generally in accordance with **Plan 10 – Infrastructure and Development Staging** and **Table 7 – Precinct Infrastructure**, and must provide for the timely provision and delivery of infrastructure to the satisfaction of the responsible authority.
R31	Infrastructure and development staging must provide for the delivery of ultimate waterway and drainage infrastructure, including stormwater quality treatment and consider opportunities for early establishment of waterways to the satisfaction of the responsible authority. Where this is not possible, staged development proposals must demonstrate how any interim solutions: – adequately manages flows – treats stormwater generated from the development – enable delivery of an ultimate drainage solution – avoid or mitigate the risk of soil erosion and water and waterway degradation from sodic and/or dispersive soils. All to the satisfaction of the water authority/retailer and the responsible authority.
R32	Land identified as sports reserve on **Plan 8 – Community Infrastructure** and required to be delivered as identified in a DCP or separate agreement must be vested in the relevant authority in the following condition: – Free from all existing disused structures, foundations, pipelines, stockpiles, rubbish, environmental weeds, rocks and soil contamination – Reasonably graded and/or topsoiled to create a safe and regular surface with a maximum 1:6 gradient – Seeded and top-dressed with drought-resistant grass in bare, patchy and newly-graded areas.

REQUIREMENTS

R33 Subdivision of land within the PSP must provide for and meet the cost for all local infrastructure, other than that provided for within the Precinct DCP. This includes, but is not limited to:

- All roads not provided by the Precinct DCP
- Local bus stop infrastructure on all bus capable roads (where locations have been agreed in writing by Head, Transport for Victoria)
- Landscaping, including canopy tree planting of all existing and future roads and local streets for a minimum establishment period of 24 months
- Intersection works and traffic management measures along arterial roads, connector streets, and local streets
- Council approved fencing and landscaping (where required) along arterial roads and reserves
- Pedestrian and bicycle paths along local roads, connector roads, utilities easements, local streets, waterways and within local parks including bridges, intersections, and barrier crossing points
- Bicycle parking facilities
- Electric vehicle charging stations
- Appropriately scaled lighting (including wildlife friendly lighting) along all roads, major shared bicycle, and pedestrian paths, and traversing public open space
- Local drainage system, including land and works for water services (i.e. pressure reducing stations) and water sensitive urban design (WSUD) features
- Construction of culverts for waterway crossings of boulevard connector streets, connector streets and local streets
- Provision of water tapping, potable and recycled water connection points for any potential open space
- Infrastructure as required by utility service providers including water, sewerage, electricity, and telecommunications.

R34 All public open space must be finished to a standard that satisfies the requirements of the responsible authority prior to the transfer of the public open space, including but not limited to:

- Removal of all existing and disused structures, foundations, pipelines, stockpiles and contaminated soil
- Basic levelling including the supply and spread of minimum 75 mm topsoil and subsoil if required on the proposed areas of open space to provide a stable free draining surface
- Clearing of rubbish, weeds, and rocks, levelled, topsoiled, and grassed with warm climate grass (unless conservation reserve requirements dictate otherwise)
- Provision of water tapping, potable and recycled water connection points
- Sewer and electricity connection points must also be provided to land identified as sports reserve and local reserves
- Planting of trees and shrubs (with drought tolerant species)
- Adequate protection of existing trees that are to be retained including exclusion zones
- Vehicular exclusion devices (preferably vegetative or may be fence, bollards, or other suitable method)
- Maintenance access points
- Construction of pedestrian and bicycle paths around the perimeter of the reserve, connecting and linking into any other surrounding paths or points of interest
- Installation of park furniture including barbeques, shelters, tables, local scale playgrounds and other local scale play elements such as half basketball courts and hit-up walls, skate parks with associated amenities, rubbish bins and appropriate paving to support these facilities, consistent with the type of public open space.

R35 Where an inter-parcel connection is intended or indicated in the PSP, streets must be constructed to property boundaries at the relevant stage of development required or approved by the responsible authority. Provision should be made for temporary vehicle turning until the inter-parcel connection is delivered.

REQUIREMENTS

R36	Drainage from stormwater infrastructure must be designed to support and enhance impacts on biodiversity values, particularly habitat for matters of national environmental significance located within conservation areas.
R37	Utilities and other infrastructure must not traverse conservation areas and waterway corridors identified in **Plan 5 – Public Realm** and **Plan 6 – Water**. Where services cannot avoid crossing or being located within a conservation area or waterway corridor, they must be located to avoid disturbance to identified environmental values.
R38	Final designs and boundaries of constructed wetlands, retarding basins, stormwater quality treatment infrastructure, and associated paths, boardwalks, bridges, and planting, must be to the satisfaction of the responsible authority.
R39	Above-ground utilities (such as electricity substations, sewer pump stations, telecommunications facilities and overhead powerlines) must be identified at the subdivision design stage to ensure effective integration with the surrounding neighbourhood. This includes meeting requirements for mobile telecommunications infrastructure under the Commonwealth Telecommunication in New Developments (TIND) Policy. Land required to accommodate the infrastructure must not be counted as contributing to open space requirements specified in **Table 8 – Summary land use budget** and **Table 9 – Parcel-specific land use budget**.
R40	All new electricity supply infrastructure (excluding substations and cables with voltage 66kv or greater) must be provided underground.

GUIDELINES

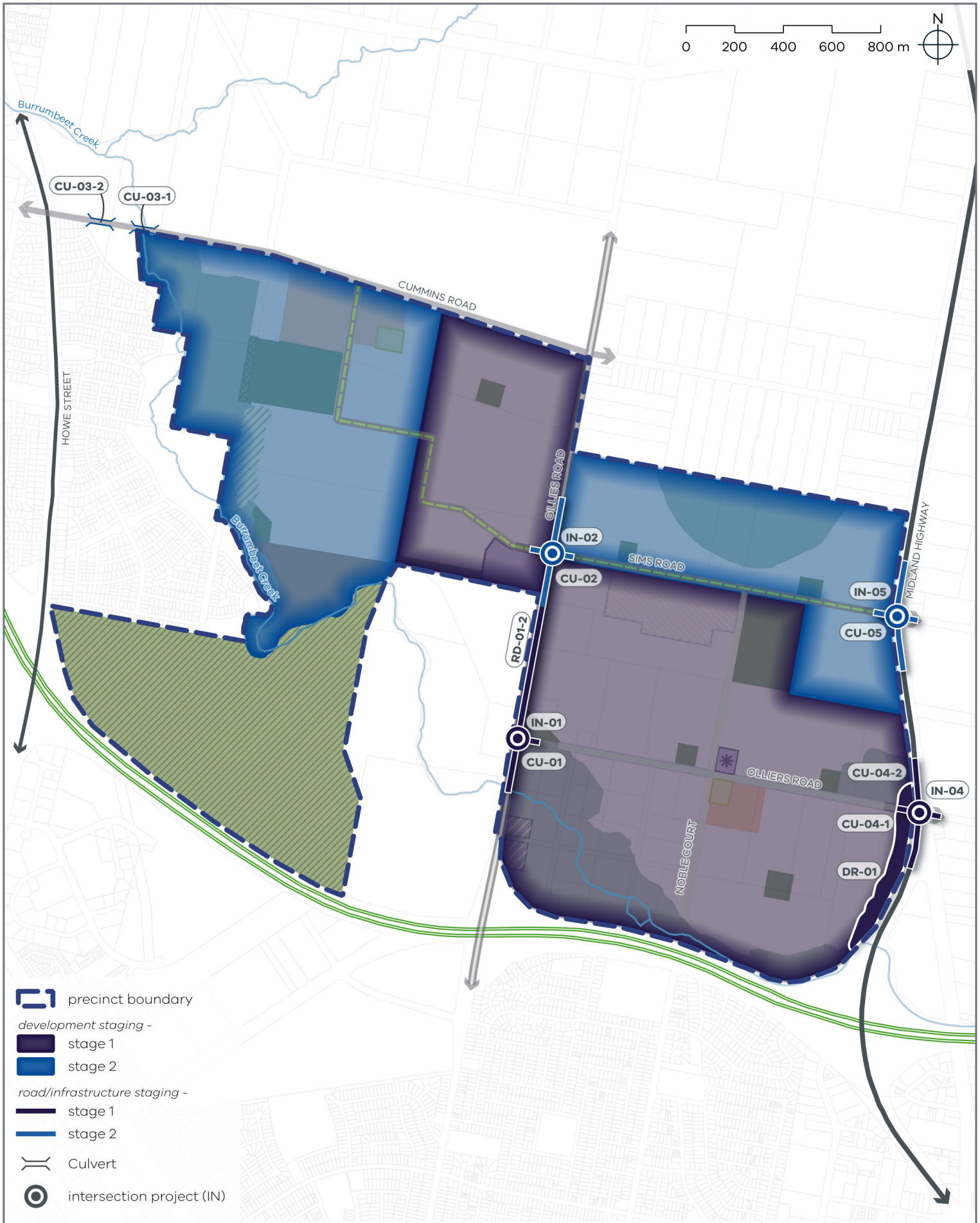
G41	Design and location of underground services should be guided by **Plan 12 – Precinct Infrastructure Plan**.
G42	All new above-ground utilities, including temporary utilities, should be located outside of areas allocated for open spaces, key view lines, and screened with vegetation, to the satisfaction of the responsible authority.
G43	Out-of-sequence development may be considered with an agreement between a developer and the impacted infrastructure providers and where it does not impose unreasonable additional burden on infrastructure providers.
G44	Where practical, integrated water management systems should be designed to: – Maximise habitat values and connections for local flora and fauna species. – Protect and manage habitat for Matters of National Environmental Significance, particularly within conservation areas, in relation to water quality and suitable hydrological regimes (both surface and groundwater).
G45	Development should demonstrate a reduced reliance on potable water through the use of alternative design features (such as water sensitive urban design) that increase the utilisation of fit-for-purpose alternative water sources such as storm water, rainwater and recycled water (if available).
G46	Trunk services should be placed as advised by the relevant servicing authorities.
G47	Where primary waterway, conservation or recreation functions are not adversely affected, land required for integrated water management initiatives (such as stormwater harvesting, aquifer storage and recovery, sewer mining) should be incorporated within the precinct open space system as depicted on **Plan 6 – Water**.
G48	Provision of neighbourhood scale renewable energy generation and storage within the precinct is recommended to achieve net zero emissions targets, this includes but is not limited to battery storage and virtual power plants for excess renewable energy produced.
G49	Applications should consider a range of integrated water management options to the satisfaction of the responsible authority. Potential integrated water management options may include but are not limited to: – rainwater tanks on all commercial and residential lots – local stormwater harvesting to irrigate open spaces – passive irrigation of trees in the public realm – household driveways and roofs connected to raingardens.

GUIDELINES

G50	All planning permit applications for subdivisions should demonstrate how the proposal complies with each of the elements of the Sustainable Subdivision Framework prepared by the Council Alliance for a Sustainable Built Environment, including how the proposal will meet the elements concerning civil construction unless otherwise agreed by the responsible authority.
G51	Constructed waterway project DR-01 and culvert projects CU-04-1 and CU-04-2 identified in **Plan 10 – Infrastructure and Development Staging** as Stage 1 infrastructure should be delivered as early in the development sequence as practicable to enable drainage outfall from WL-04 to the satisfaction of the responsible authority.

Plan 10 - Infrastructure Development & Staging

Ballarat North Precinct Structure Plan



Note: If an assessment prepared in support of a planning permit application identifies that infrastructure is required earlier than indicated by this staging plan, the responsible authority reserves the right to require that infrastructure be provided accordingly.

4.0 APPENDICES

Appendix 1: Environmental Constraints 41

Appendix 2: Precinct infrastructure 42

Appendix 3: Summary land use budget & parcel-specific land use budget 47

Appendix 4: Activity centre design principles and design outcomes 53

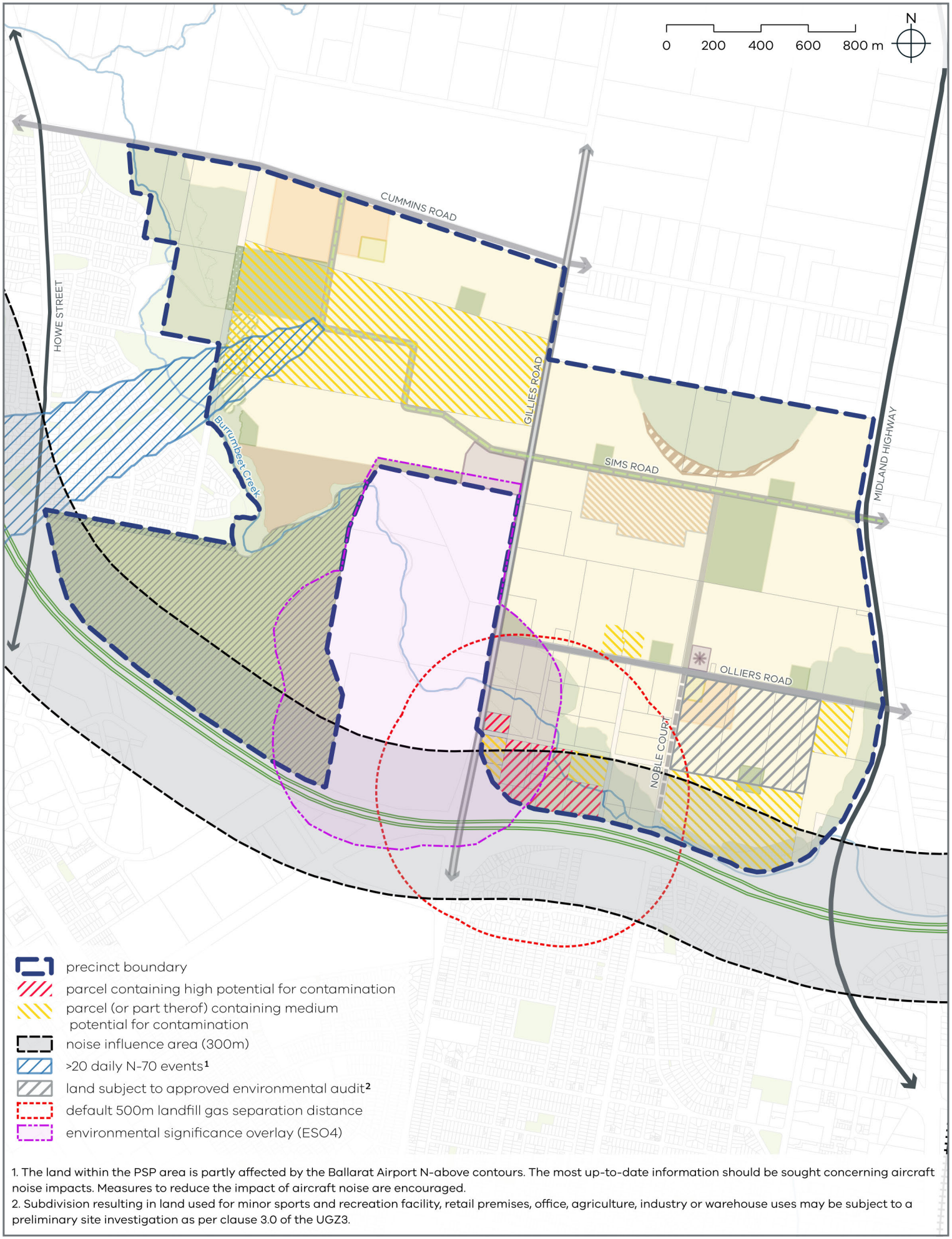
Appendix 5: Road cross sections 55

Appendix 6: Expanded area framework plan 61

Appendix 7: Glossary of terms 62

Plan 11 - Environmental Constraints

Ballarat North Precinct Structure Plan



1. The land within the PSP area is partly affected by the Ballarat Airport N-above contours. The most up-to-date information should be sought concerning aircraft noise impacts. Measures to reduce the impact of aircraft noise are encouraged.
2. Subdivision resulting in land used for minor sports and recreation facility, retail premises, office, agriculture, industry or warehouse uses may be subject to a preliminary site investigation as per clause 3.0 of the UGZ3.

Plan 12 - Precinct Infrastructure Plan

Ballarat North Precinct Structure Plan



Note: IN-06, IN-03, RD-01-3, BR-02, BR-03 and all non-DCP funded pipes are not funded by the Ballarat North DCP.

Table 7 – Precinct infrastructure

CATEGORY	PIP REF NO.	TITLE	DESCRIPTION	LEAD AGENCY	COMPONENT INCLUDED IN DCP			TIMING	APPORTIONMENT FUNDING SOURCE	APPORTIONMENT TO THE DCP
					ULTIMATE LAND	INTERIM CONSTRUCTION	ULTIMATE CONSTRUCTION			
Roads										
Road	RD-01-2	Urbanisation of Gillies Road (between Olliers Road and Sims Road)	Land and construction of Gillies Road (between Olliers Road and Sims Road)	City of Ballarat	Yes	No	Yes	Medium	Development	100%
Road	RD-01-3	Urbanisation of Gillies Road (North of Sims Road)	Land and construction of Gillies Road (North of Sims Road)	City of Ballarat	No	No	No	Long	External (expanded area)	0%
Road	RD-02	Duplication of Midland Highway (Southern section)	Land and construction of Midland Highway duplication (Southern section)	City of Ballarat	Yes	No	Yes	Short	Development	100%
Road	RD-03	Cummins Road upgrades (Road over culvert)	Land and construction of Cummins Road upgrades (Road over culvert)	City of Ballarat	Yes	No	Yes	Long	Development & external (expanded area)	50%
Intersections										
Intersection	IN-01	Gillies Road and Olliers Road Intersection	Land and construction of Gillies Road and Olliers Road Intersection	City of Ballarat	Yes	No	Yes	Short	Development	100%
Intersection	IN-02	Gillies Road and Sims Road Intersection	Land and construction of Gillies Road and Sims Road Intersection	City of Ballarat	Yes	No	Yes	Medium	Development	100%
Intersection	IN-03	Gillies Road and Cummins Road Intersection	Land and construction of Gillies Road and Cummins Road Intersection	City of Ballarat	No	No	No	Long	External (expanded area)	0%
Intersection	IN-04	Midland Highway and Olliers Road Intersection	Land and construction of Midland Highway and Olliers Road Intersection	City of Ballarat	Yes	No	Yes	Short	Development	100%
Intersection	IN-05	Midland Highway and Sims Road Intersection	Land and construction of Midland Highway and Sims Road Intersection	City of Ballarat	Yes	No	Yes	Medium	Development	100%
Intersection	IN-06	Howe Street and Cummins Road Intersection	Land and construction of Howe Street and Cummins Road Intersection	City of Ballarat	No	No	No	Long	External (expanded area)	0%
Bridges										
Bridge	BR-02	Pedestrian Bridge at Malahide Drive over Burrumbeet Creek	Land and construction of Pedestrian Bridge at Malahide Drive over Burrumbeet Creek	City of Ballarat	No	No	No	Long	External	0%
Bridge	BR-03	Pedestrian and Active Transport Bridge at Noble Court over Western Freeway	Land and construction of Pedestrian and Active Transport Bridge at Noble Court over Western Freeway	City of Ballarat	No	No	No	Long	External	0%

					COMPONENT INCLUDED IN DCP					
CATEGORY	PIP REF NO.	TITLE	DESCRIPTION	LEAD AGENCY	ULTIMATE LAND	INTERIM CONSTRUCTION	ULTIMATE CONSTRUCTION	TIMING	APPORTIONMENT FUNDING SOURCE	APPORTIONMENT TO THE DCP
Culverts										
Culvert	CU-01	Olliers Road Culvert at IN-01	Construction of Olliers Road Culvert at IN-01	City of Ballarat	Yes	No	Yes	Short	Development	100%
Culvert	CU-02	Sims Road Culvert at IN-02	Construction of Sims Road Culvert at IN-02	City of Ballarat	Yes	No	Yes	Medium	Development	100%
Culvert	CU-03-1	Cummins Road Culvert at RD-03 over Burrumbeet Creek	Construction of Cummins Road Culvert at RD-03 over Burrumbeet Creek	City of Ballarat	Yes	No	Yes	Long	Development & external (expanded area)	50%
Culvert	CU-03-2	Cummins Road Culvert at RD-03 west of Burrumbeet Creek	Construction of Cummins Road Culvert at RD-03 west of Burrumbeet Creek	City of Ballarat	Yes	No	Yes	Long	Development & external (expanded area)	50%
Culvert	CU-04-1	Olliers Road Culvert at IN-04	Construction of Olliers Road Culvert at IN-04	City of Ballarat	Yes	No	Yes	Short	Development	100%
Culvert	CU-04-2	Midland Highway Culvert at IN-04	Construction of Midland Highway Culvert at IN-04	City of Ballarat	Yes	No	Yes	Short	Development	100%
Culvert	CU-05	Sims Road Culvert at IN-05	Construction of Sims Road Culvert at IN-05	City of Ballarat	Yes	No	Yes	Medium	Development	100%
Community infrastructure										
Community Infrastructure	CI-01	Level 2 Community Facility	Land and construction of Level 2 Community Facility	City of Ballarat	Yes	No	Yes	Long	Development	100% land 80% construction
Community Infrastructure	CI-02	Level 1 Community Facility	Land and construction of Level 1 Community Facility	City of Ballarat	Yes	No	Yes	Short	Development	100% land
Community Infrastructure	SR-01	Sports Reserve (Northwest)	Land and construction of Sports Reserve (Northwest)	City of Ballarat	Yes	No	Yes	Long	Development	100% land 50% construction
Community Infrastructure	SR-02	Sports Reserve (Southeast)	Land and construction of Sports Reserve (Southeast)	City of Ballarat	Yes	No	Yes	Short	Development	100%
Community Infrastructure	SP-01	Sports Pavilion within SR-01	Land and construction of Sports Pavilion within SR-01	City of Ballarat	NA	No	Yes	Long	Community	100%
Community Infrastructure	SP-02	Sports Pavilion within SR-02	Land and construction of Sports Pavilion within SR-02	City of Ballarat	NA	No	Yes	Short	Community	100%

					COMPONENT INCLUDED IN DCP					
CATEGORY	PIP REF NO.	TITLE	DESCRIPTION	LEAD AGENCY	ULTIMATE LAND	INTERIM CONSTRUCTION	ULTIMATE CONSTRUCTION	TIMING	APPORTIONMENT FUNDING SOURCE	APPORTIONMENT TO THE DCP
Drainage										
Wetland and Retarding Basin	WL-01	Wetland & Retarding Basin (NWN)	Land and construction of Wetland & Retarding Basin (NWN)	City of Ballarat	Yes	No	Yes	Medium	Development	100%
Wetland and Retarding Basin	WL-03	Wetland & Retarding Basin (CS)	Land and construction of Wetland & Retarding Basin (CS)	City of Ballarat	Yes	No	Yes	Short	Development	100%
Wetland and Retarding Basin	WL-04	Wetland & Retarding Basin (SEN)	Land and construction of Wetland & Retarding Basin (SEN)	City of Ballarat	Yes	No	Yes	Short	Development	100%
Wetland and Retarding Basin	WL-05	Wetland & Retarding Basin (SES)	Land and construction of Wetland & Retarding Basin (SES)	City of Ballarat	Yes	No	Yes	Short	Development	100%
Constructed Waterway	DR-01	Constructed waterway	Construction of Constructed waterway	City of Ballarat	Yes	No	Yes	Short	Development	100%
Drainage pipes	A 3-4	Drainage Pipe A 3-4	Construction of Drainage Pipe A 3-4	City of Ballarat	Yes	No	Yes	Medium	Development	100%
Drainage pipes	A 4-5	Drainage Pipe A 4-5	Construction of Drainage Pipe A 4-5	City of Ballarat	Yes	No	Yes	Short	Development	100%
Drainage pipes	B 2-3	Drainage Pipe B 2-3	Construction of Drainage Pipe B 2-3	City of Ballarat	Yes	No	Yes	Short	Development	100%
Drainage pipes	B 3-6	Drainage Pipe B 3-6	Construction of Drainage Pipe B 3-6	City of Ballarat	Yes	No	Yes	Short	Development	100%
Drainage pipes	B 5-6	Drainage Pipe B 5-6	Construction of Drainage Pipe B 5-6	City of Ballarat	Yes	No	Yes	Short	Development	100%
Drainage pipes	B 6-7	Drainage Pipe B 6-7	Construction of Drainage Pipe B 6-7	City of Ballarat	Yes	No	Yes	Short	Development	100%
Drainage pipes	C 3-4	Drainage Pipe C 3-4	Construction of Drainage Pipe C 3-4	City of Ballarat	Yes	No	Yes	Short - Medium	Development	100%
Drainage pipes	C 4-7	Drainage Pipe C 4-7	Construction of Drainage Pipe C 4-7	City of Ballarat	Yes	No	Yes	Short - Medium	Development	100%
Drainage pipes	C 6-7	Drainage Pipe C 6-7	Construction of Drainage Pipe C 6-7	City of Ballarat	Yes	No	Yes	Short - Medium	Development	100%
Drainage pipes	C 7-8	Drainage Pipe C 7-8	Construction of Drainage Pipe C 7-8	City of Ballarat	Yes	No	Yes	Short - Medium	Development	100%
Drainage pipes	C 8-11	Drainage Pipe C 8-11	Construction of Drainage Pipe C 8-11	City of Ballarat	Yes	No	Yes	Short - Medium	Development	100%

					COMPONENT INCLUDED IN DCP					
CATEGORY	PIP REF NO.	TITLE	DESCRIPTION	LEAD AGENCY	ULTIMATE LAND	INTERIM CONSTRUCTION	ULTIMATE CONSTRUCTION	TIMING	APPORTIONMENT FUNDING SOURCE	APPORTIONMENT TO THE DCP
Drainage pipes	D 2-4	Drainage Pipe D 2-4	Construction of Drainage Pipe D 2-4	City of Ballarat	Yes	No	Yes	Medium	Development	100%
Drainage pipes	D 4-8	Drainage Pipe D 4-8	Construction of Drainage Pipe D 4-8	City of Ballarat	Yes	No	Yes	Short	Development	100%
Drainage pipes	D 6-7	Drainage Pipe D 6-7	Construction of Drainage Pipe D 6-7	City of Ballarat	Yes	No	Yes	Short	Development	100%
Drainage pipes	D 7-8	Drainage Pipe D 7-8	Construction of Drainage Pipe D 7-8	City of Ballarat	Yes	No	Yes	Short	Development	100%
Drainage pipes	D 10-11	Drainage Pipe D 10-11	Construction of Drainage Pipe D 10-11	City of Ballarat	Yes	No	Yes	Short	Development	100%

Note: Short = <5 years (Stage 1 Infrastructure), Medium = 5-10 years, Long = 10+ years

Plan 13 - Land Use Budget

Ballarat North Precinct Structure Plan

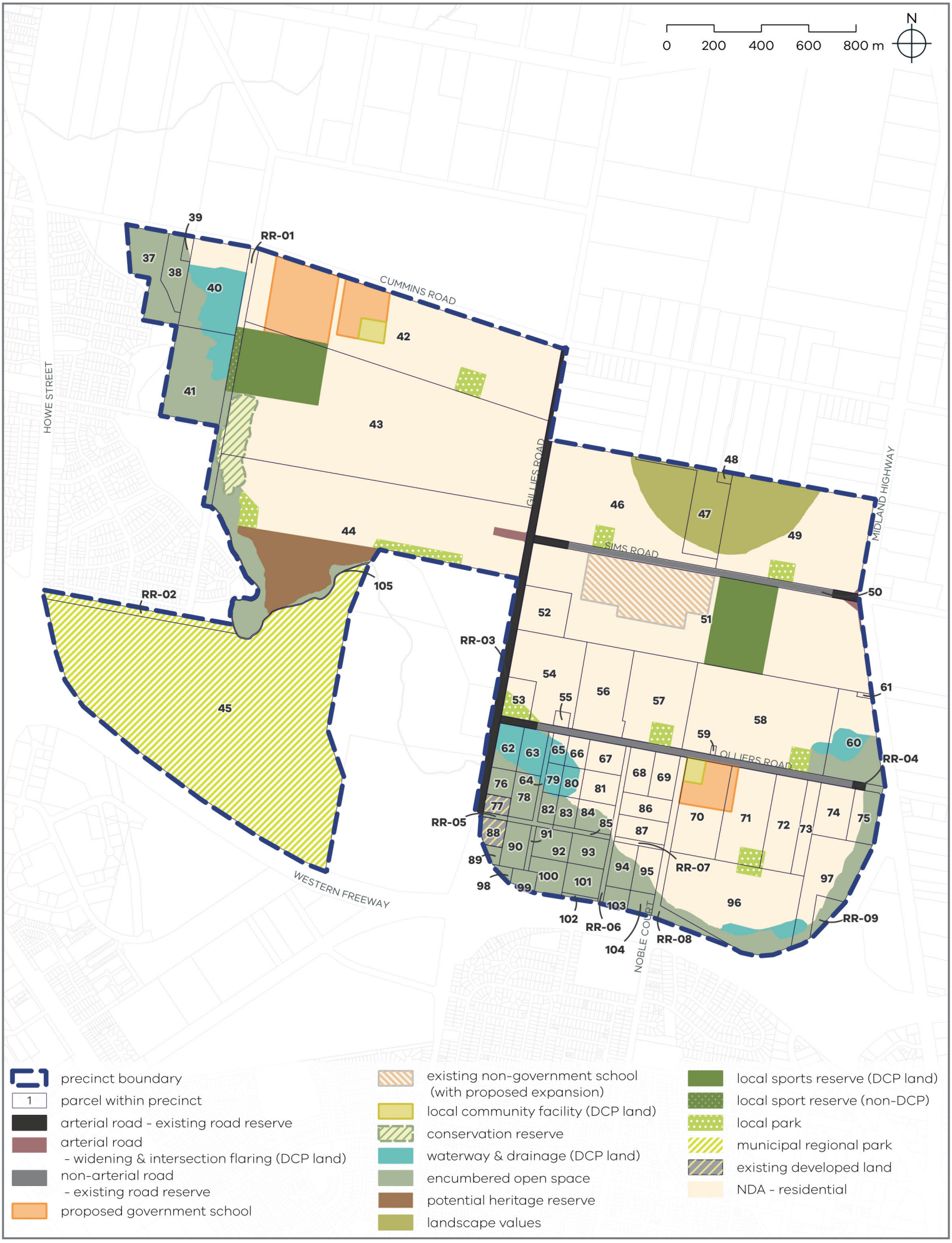


Table 8 – Summary land use budget

DESCRIPTION	AREA (HA)	% OF TOTAL	% OF NDA
TOTAL PRECINCT AREA (ha)	**570.62**		
TRANSPORT			
Arterial Road - Existing road reserve	7.15	1.25%	2.44%
Arterial Road - Widening and intersection flaring (DCP land)	0.73	0.13%	0.25%
Non-Arterial Road - Existing road reserve	7.60	1.33%	2.59%
SUB-TOTAL TRANSPORT	**15.48**	**2.71%**	**5.27%**
COMMUNITY & EDUCATION			
Proposed Government School	15.45	2.71%	5.26%
Existing Non-Government School	11.78	2.06%	4.01%
Local Community Facility (DCP land)	1.77	0.31%	0.60%
SUB-TOTAL COMMUNITY & EDUCATION	**29.00**	**5.08%**	**9.88%**
OPEN SPACE			
SERVICE OPEN SPACE			
Conservation reserve	4.17	0.73%	1.42%
Waterway and drainage (DCP land)	15.92	2.79%	5.43%
Encumbered open space	62.00	10.87%	21.12%
Potential heritage reserve	10.38	1.82%	3.54%
Local Sports Reserve (non-DCP)	0.85	0.15%	0.29%
Landscape values	19.52	3.42%	6.65%
SUB-TOTAL SERVICE OPEN SPACE	**112.84**	**19.78%**	**38.45%**
CREDITED OPEN SPACE			
Local sports reserve (DCP land)	18.92	3.32%	6.45%
Local network park (via Cl 53.01)	8.60	1.51%	2.93%
SUB-TOTAL CREDITED OPEN SPACE	**27.52**	**4.82%**	**9.38%**
REGIONAL OPEN SPACE			
Municipal open space	90.35	15.83%	30.78%
SUB-TOTAL REGIONAL OPEN SPACE	**90.35**	**15.83%**	**30.78%**
TOTAL ALL OPEN SPACE	**230.71**	**40.43%**	**78.61%**
OTHER			
Existing Developed Land	1.92	0.34%	0.66%
SUB-TOTAL OTHER	**1.92**	**0.34%**	**0.66%**
TOTAL NET DEVELOPABLE AREA – (NDA) Ha	**293.51**	**51.44%**	
NET DEVELOPABLE AREA – RESIDENTIAL (NDAR) Ha	**293.51**	**51.44%**	

Note: Totals may reflect minor discrepancies, as the underlying source data is calculated to more than two decimal places and has been rounded for presentation.

Table 9 – Parcel-specific land use budget

Detailed information on the developable area for each property is included in the property-specific land budget with each PSP.

Parcel ID	Total Area (ha)	TRANSPORT			COMMUNITY/EDUCATION			SERVICE OPEN SPACE						CREDITED OPEN SPACE		REGIONAL OPEN SPACE	OTHER	Total Net Developable Area (Hectares)	Net Developable Area % of Property
		Arterial Road - Existing Road Reserve	Arterial Road - Widening and Intersection Flaring (DCP land)	Non-Arterial Road - Existing Road Reserve	Proposed Government School	Existing Non-Government School	DCP Community Facilities	Conservation Reserve	Waterway and Drainage (DCP land)	Encumbered Open Space	Potential Heritage Reserve	Local Sports Reserve (non DCP)	Landscape Values	Local Sports Reserve (DCP land)	Local Network Park (via CI 53.01)	Municipal Open Space (council funded)	Existing Developed Land		
37	4.77	-	-	-	-	-	-	-	-	4.77	-	-	-	-	-	-	-	0.00	0.00%
38	2.50	-	-	-	-	-	-	-	-	2.50	-	-	-	-	-	-	-	0.00	0.00%
39	0.41	-	-	-	-	-	-	-	-	0.21	-	-	-	-	-	-	-	0.19	47.15%
40	9.11	-	-	-	-	-	-	-	4.90	1.57	-	-	-	-	-	-	-	2.64	28.95%
41	9.45	-	-	-	-	-	-	-	1.83	7.62	-	-	-	-	-	-	-	0.00	0.00%
42	41.00	-	-	-	11.82	-	0.97	-	-	-	-	-	-	0.11	1.10	-	-	27.00	65.86%
43	63.03	-	-	-	0.13	-	-	2.57	-	0.09	-	-	-	9.55	-	-	-	50.69	80.42%
44	52.59	-	0.49	-	-	-	-	1.34	-	6.12	10.35	-	-	-	2.34	-	-	31.95	60.76%
45	87.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87.90	-	0.00	0.00%
46	25.68	0.00	0.03	0.01	-	-	-	-	-	-	-	-	5.42	-	0.70	-	-	19.53	76.06%
47	5.49	-	-	-	-	-	-	-	-	-	-	-	4.86	-	-	-	-	0.64	11.61%
48	0.25	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	0.00	0.00%
49	24.61	-	0.02	-	-	-	-	-	-	-	-	-	8.99	-	0.80	-	-	14.80	60.12%
50	4.28	0.79	-	3.48	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00%
51	50.70	-	0.19	-	-	11.78	-	-	-	-	-	-	-	9.26	-	-	-	29.46	58.12%
52	3.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.80	100.00%
53	2.03	-	-	-	-	-	-	-	-	-	-	-	-	-	0.91	-	-	1.12	55.16%
54	8.85	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09	-	-	8.77	99.02%
55	0.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41	100.00%
56	7.63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.63	100.00%

Parcel ID	Total Area (ha)	TRANSPORT			COMMUNITY/EDUCATION			SERVICE OPEN SPACE						CREDITED OPEN SPACE		REGIONAL OPEN SPACE	OTHER	Total Net Developable Area (Hectares)	Net Developable Area % of Property
		Arterial Road - Existing Road Reserve	Arterial Road - Widening and Intersection Flaring (DCP land)	Non-Arterial Road - Existing Road Reserve	Proposed Government School	Existing Non-Government School	DCP Community Facilities	Conservation Reserve	Waterway and Drainage (DCP land)	Encumbered Open Space	Potential Heritage Reserve	Local Sports Reserve (non DCP)	Landscape Values	Local Sports Reserve (DCP land)	Local Network Park (via CI 53.01)	Municipal Open Space (council funded)	Existing Developed Land		
57	10.01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.80	-	-	9.21	92.01%
58	22.57	-	-	-	-	-	-	-	0.24	0.67	-	-	-	-	0.76	-	-	20.90	92.60%
59	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08	100.00%
60	7.32	-	-	-	-	-	-	-	1.48	3.02	-	-	-	-	-	-	-	2.81	38.46%
61	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.11	100.00%
62	2.01	-	-	-	-	-	-	-	1.52	0.48	-	-	-	-	-	-	-	0.00	0.00%
63	2.02	-	-	-	-	-	-	-	1.88	0.14	-	-	-	-	-	-	-	0.01	0.33%
64	1.18	-	-	-	-	-	-	-	0.41	0.73	-	-	-	-	-	-	-	0.04	3.56%
65	0.87	-	-	-	-	-	-	-	0.59	-	-	-	-	-	-	-	-	0.28	32.50%
66	1.14	-	-	-	-	-	-	-	0.19	-	-	-	-	-	-	-	-	0.94	83.18%
67	1.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.99	100.00%
68	2.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.04	100.00%
69	2.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.03	100.00%
70	7.74	-	-	-	2.92	-	0.80	-	-	-	-	-	-	-	-	-	-	4.02	51.93%
71	7.74	-	-	-	0.58	-	-	-	-	-	-	-	-	-	0.67	-	-	6.50	83.92%
72	5.40	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08	-	-	5.32	98.61%
73	2.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.33	100.00%
74	3.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.25	100.00%
75	2.50	-	-	-	-	-	-	-	-	1.43	-	-	-	-	-	-	-	1.07	42.73%
76	1.22	-	-	-	-	-	-	-	-	1.22	-	-	-	-	-	-	-	0.00	0.00%
77	0.81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.81	0.00	0.00%
78	2.03	-	-	-	-	-	-	-	0.04	1.99	-	-	-	-	-	-	-	0.00	0.00%

Parcel ID	Total Area (ha)	TRANSPORT			COMMUNITY/EDUCATION			SERVICE OPEN SPACE						CREDITED OPEN SPACE		REGIONAL OPEN SPACE	OTHER	Total Net Developable Area (Hectares)	Net Developable Area % of Property
		Arterial Road - Existing Road Reserve	Arterial Road - Widening and Intersection Flaring (DCP land)	Non-Arterial Road - Existing Road Reserve	Proposed Government School	Existing Non-Government School	DCP Community Facilities	Conservation Reserve	Waterway and Drainage (DCP land)	Encumbered Open Space	Potential Heritage Reserve	Local Sports Reserve (non DCP)	Landscape Values	Local Sports Reserve (DCP land)	Local Network Park (via Cl 53.01)	Municipal Open Space (council funded)	Existing Developed Land		
79	0.87	-	-	-	-	-	-	-	0.85	0.03	-	-	-	-	-	-	-	0.00	0.00%
80	1.13	-	-	-	-	-	-	-	0.80	-	-	-	-	-	-	-	-	0.33	29.09%
81	2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.00	100.00%
82	0.88	-	-	-	-	-	-	-	0.02	0.85	-	-	-	-	-	-	-	0.00	0.00%
83	1.13	-	-	-	-	-	-	-	0.02	0.97	-	-	-	-	-	-	-	0.15	12.84%
84	1.97	-	-	-	-	-	-	-	-	1.20	-	-	-	-	-	-	-	0.77	39.21%
85	0.49	-	-	-	-	-	-	-	-	0.49	-	-	-	-	-	-	-	0.00	0.00%
86	2.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.02	100.00%
87	2.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.02	100.00%
88	1.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.11	0.00	0.00%
89	0.40	-	-	-	-	-	-	-	-	0.40	-	-	-	-	-	-	-	0.00	0.00%
90	2.03	-	-	-	-	-	-	-	-	2.03	-	-	-	-	-	-	-	0.00	0.00%
91	0.39	-	-	-	-	-	-	-	-	0.39	-	-	-	-	-	-	-	0.00	0.00%
92	1.97	-	-	-	-	-	-	-	-	1.97	-	-	-	-	-	-	-	0.00	0.00%
93	2.00	-	-	-	-	-	-	-	-	2.00	-	-	-	-	-	-	-	0.00	0.00%
94	2.02	-	-	-	-	-	-	-	-	1.52	-	-	-	-	-	-	-	0.50	24.92%
95	2.02	-	-	-	-	-	-	-	-	0.75	-	-	-	-	-	-	-	1.27	62.86%
96	18.06	-	-	-	-	-	-	-	0.90	3.02	-	-	-	-	0.36	-	-	13.77	76.28%
97	7.13	-	-	-	-	-	-	-	0.24	2.21	-	-	-	-	-	-	-	4.68	65.61%
98	0.28	-	-	-	-	-	-	-	-	0.28	-	-	-	-	-	-	-	0.00	0.00%
99	0.77	-	-	-	-	-	-	-	-	0.77	-	-	-	-	-	-	-	0.00	0.00%
100	1.92	-	-	-	-	-	-	-	-	1.92	-	-	-	-	-	-	-	0.00	0.00%

Parcel ID	Total Area (ha)	TRANSPORT			COMMUNITY/EDUCATION			SERVICE OPEN SPACE						CREDITED OPEN SPACE		REGIONAL OPEN SPACE	OTHER		
		Arterial Road - Existing Road Reserve	Arterial Road - Widening and Intersection Flaring (DCP land)	Non-Arterial Road - Existing Road Reserve	Proposed Government School	Existing Non-Government School	DCP Community Facilities	Conservation Reserve	Waterway and Drainage (DCP land)	Encumbered Open Space	Potential Heritage Reserve	Local Sports Reserve (non DCP)	Landscape Values	Local Sports Reserve (DCP land)	Local Network Park (via CI 53.01)	Municipal Open Space (council funded)	Existing Developed Land	Total Net Developable Area (Hectares)	Net Developable Area % of Property
101	1.99	-	-	-	-	-	-	-	-	1.99	-	-	-	-	-	-	-	0.00	0.00%
102	0.19	-	-	-	-	-	-	-	-	0.19	-	-	-	-	-	-	-	0.00	0.00%
103	0.82	-	-	-	-	-	-	-	-	0.82	-	-	-	-	-	-	-	0.00	0.00%
104	0.90	-	-	-	-	-	-	-	-	0.90	-	-	-	-	-	-	-	0.00	0.00%
105	0.56	-	-	-	-	-	-	-	-	0.53	0.03	-	-	-	-	-	-	0.00	0.00%
SUB-TOTAL	**547.94**	**0.79**	**0.73**	**3.49**	**15.45**	**11.78**	**1.77**	**3.92**	**15.91**	**57.78**	**10.38**	**-**	**19.52**	**18.92**	**8.60**	**87.90**	**1.92**	**289.08**	**52.76%**
ROAD RESERVES																			
RR-01	3.46	-	-	-	-	-	-	0.25	0.02	1.26	-	0.85	-	-	-	-	-	1.09	31.43%
RR-02	2.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.45	-	0.00	0.00%
RR-03	5.74	5.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00%
RR-04	4.96	0.62	-	4.10	-	-	-	-	-	0.23	-	-	-	-	-	-	-	0.00	0.00%
RR-05	0.22	-	-	-	-	-	-	-	-	0.22	-	-	-	-	-	-	-	0.00	0.00%
RR-06	1.39	-	-	-	-	-	-	-	-	0.58	-	-	-	-	-	-	-	0.82	58.58%
RR-07	0.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.46	100.00%
RR-08	2.91	-	-	0.0013	-	-	-	-	-	1.15	-	-	-	-	-	-	-	1.75	60.37%
RR-09	1.09	-	-	-	-	-	-	-	-	0.78	-	-	-	-	-	-	-	0.31	28.30%
SUB-TOTAL	**22.68**	**6.36**	**-**	**4.11**	**-**	**-**	**-**	**0.25**	**0.02**	**4.22**	**-**	**0.85**	**-**	**-**	**-**	**2.45**	**-**	**4.42**	**19.50%**
TOTAL	**570.62**	**7.15**	**0.73**	**7.60**	**15.45**	**11.78**	**1.77**	**4.17**	**15.92**	**62.00**	**10.38**	**0.85**	**19.52**	**18.92**	**8.60**	**90.35**	**1.92**	**293.51**	**51.44%**

Appendix 4 – Activity centre design principles and design outcomes

Table 10 – Activity centre design principles and design outcomes

DESIGN PRINCIPLES	DESIGN OUTCOMES
These are the intended design elements that should be featured in the design and layout of activity centres within the precinct. *NOTE: The design principles should link or respond to objectives and design outcomes of relevant local and state policies and strategies. This includes but not limited to, the Urban Design Guidelines of Victoria and the Ballarat Planning Scheme.*	These are supporting design outcomes that contribute to the achieving of the respective design principle. This is not an exhaustive list. Other methods to apply the design principle may be considered, to the satisfaction of the responsible authority.
PRINCIPLE 01 Must emphasise the role of activity centres and convenience centres as focal points for retail, commercial/office, hospitality and community services.	– The neighbourhood activity centre (NAC) should provide for a mix of uses, ensuring that retail and/or office and commercial are prioritised at ground level and any residential above ground level. – Services provided in the local convenience centre (LCC) should complement day-to-day services within the NAC. – Development blocks should be designed to suit and be adaptable to a variety of land uses.

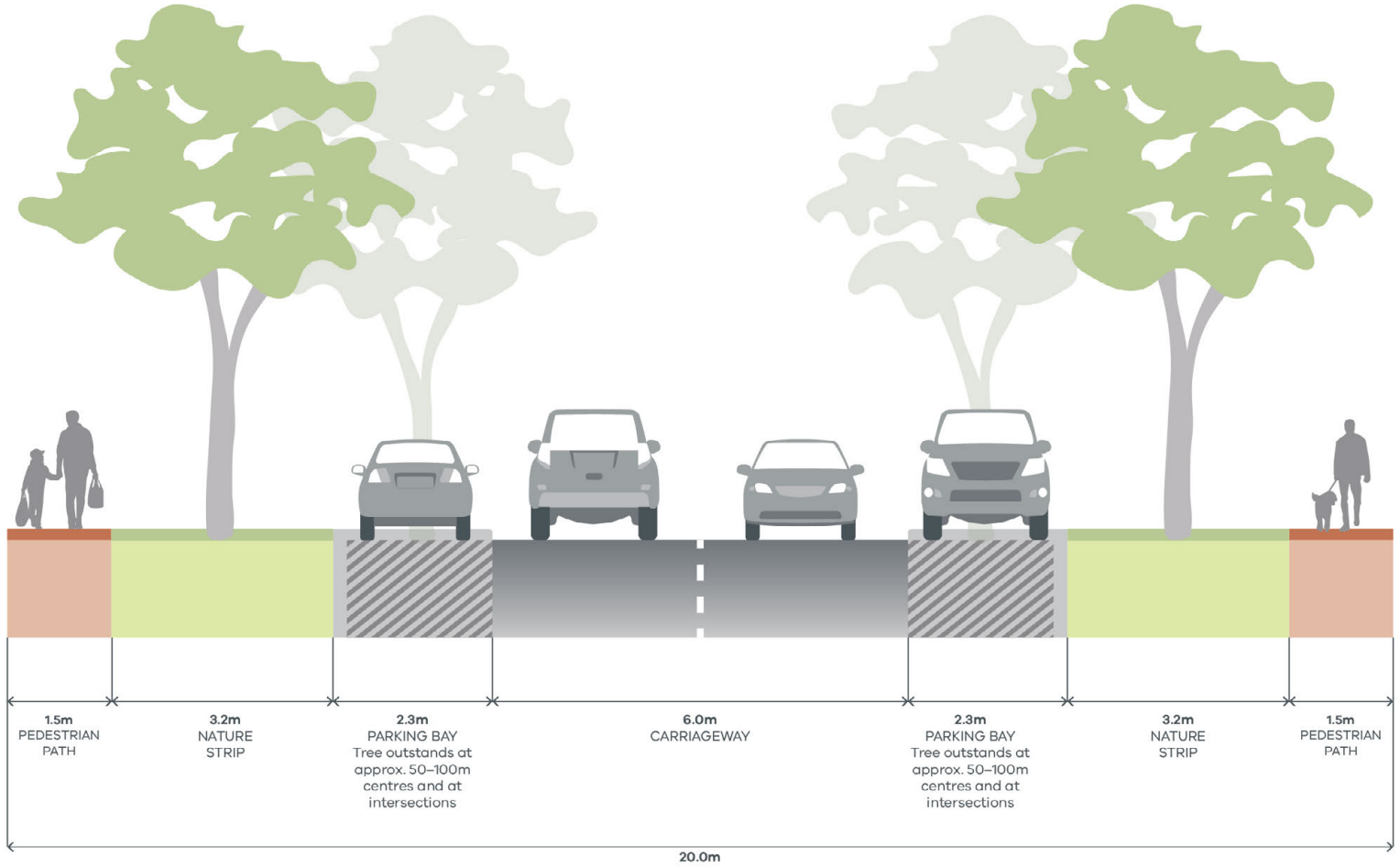
PRINCIPLE 02
 	
Activity centres/convenience centres must be accessible by all modes of transport and well-connected to adjacent neighbourhoods with streets designed to encourage safe, slow-speed movement that prioritises people over vehicles.
	– Prioritise pedestrian and cycling movements with physical separation, reduced speed environments and safe crossing points.
	– Bus stops should be provided to the satisfaction of the Department of Transport and Planning.
	– Safe and secure bicycle parking should be provided within the street network and public spaces in highly visible locations and close to pedestrian desire lines and key destinations.
	– Transport plans should map the network for each mode, nominate speed zones, specify traffic management and parking measures for each land use, and cross-reference the PSP and relevant guidelines where relevant.
	– Car parking areas should:
	  – be located centrally to the site and to the rear and or side of street-based retail frontages.
	  – ensure passive surveillance and public safety through adequate positioning and lighting.
	  – provide dedicated pedestrian routes and areas of landscaping.
	  – group or minimise access crossovers.
	  – not visually dominate public spaces or key landmarks.
	  – provide public EV charging.

DESIGN PRINCIPLES	DESIGN OUTCOMES
PRINCIPLE 03	
Built form in the activity centre must enable spaces that are attractive, safe for pedestrians and adaptable to the surrounding streetscape context.	– Provide for public spaces that attracts diverse users and can be used as gathering space for various leisure and community activities. – Locate public amenities and recreational facilities in accessible and active areas. – Service areas should be provided via rear or side laneways where possible or screened from the public realm. – New development should allow for appropriate level of solar access to public spaces. – Use a variety of materials and finishes that make a positive contribution to streetscapes. – The urban structure of the centres should allow for increased density development, active street frontages with zero street setbacks (where appropriate), safe public spaces, convenient pedestrian access to facilities and transport connections and high amenity provision including greening/landscaping. – Streets, public spaces, and car parks should be well lit to Australian Standards and with pedestrian friendly (white) light. Lighting should be designed to avoid unnecessary spill to the side or above.
PRINCIPLE 04	
The activity centre/convenience centre must integrate with the surrounding neighbourhood and its local character.	– Landscape features, street furniture and urban art should be provided to contribute to local character and facilitate a unique sense of place, recognising and celebrating local cultural heritage. – Development should respond to surrounding site features, including the waterways, open space areas and other points of interest to retain ties to the stories of place, establish views and connections to key landmark features and provide appropriate interfaces.
PRINCIPLE 05	

Must facilitate a climate resilient and healthy urban environment for community to access and live in.	– Provide landscaping and canopy trees for shading and passive cooling, which also contribute to 30% canopy tree coverage in the public realm.
	– New developments are to incorporate:
	  – integrated water management systems and water sensitive urban design, such as use of alternative water supply through stormwater harvesting and water recycling
	  – roof colours and building materials that support urban cooling
	  – building design and operations that are highly energy efficient and are low in embodied carbon.
	– Essential retail and fuel / EV charging facilities should be located on connector or arterial roads for community access during extreme weather events.
	– At grade car park greater than 15 bays should incorporate solar shade covering a minimum 80% of open car parking with all energy produced connected to the development and/or electricity distribution network for use.

Streetscape Cross Section - Ballarat North PSP

Local Access Street Level 2 (20m)

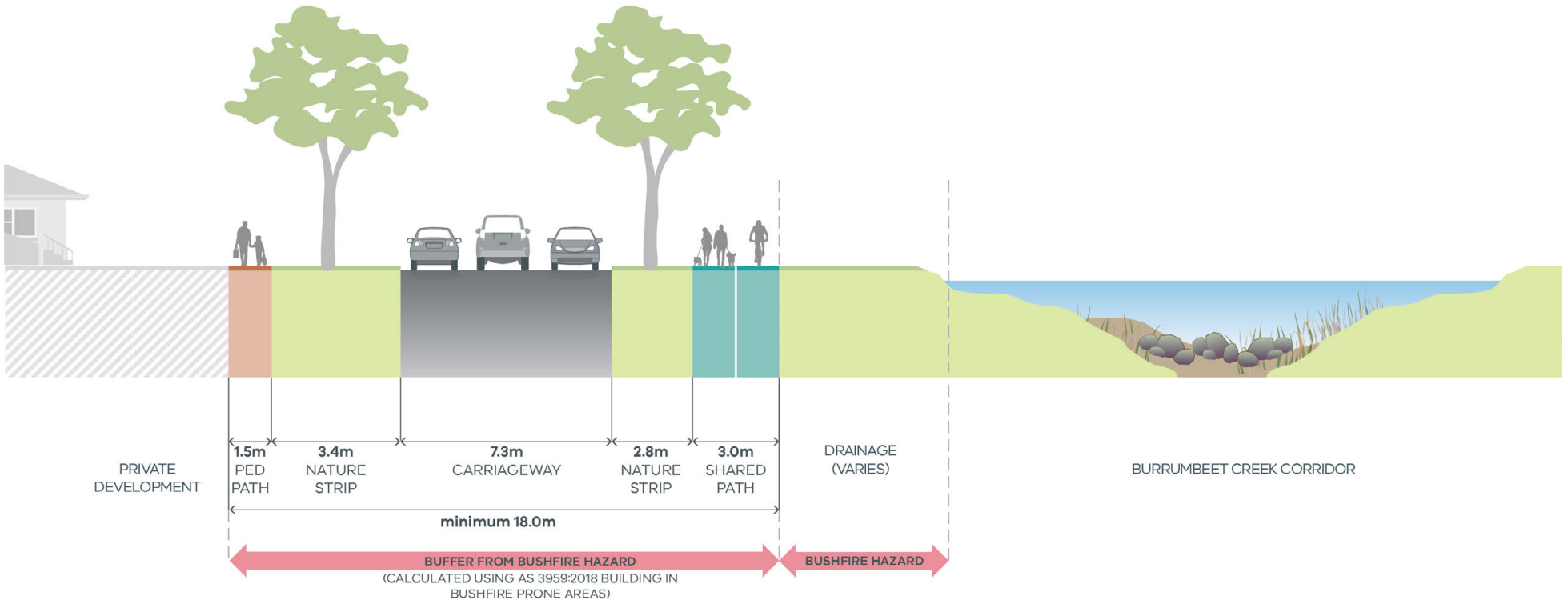


NOTES:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb.
- Verge widths may be reduced where roads abut open space within the consent of the responsible authority.

Streetscape Cross Section - Ballarat North PSP

Local Access Street Burrumbeet Creek Interface (minimum 18m)

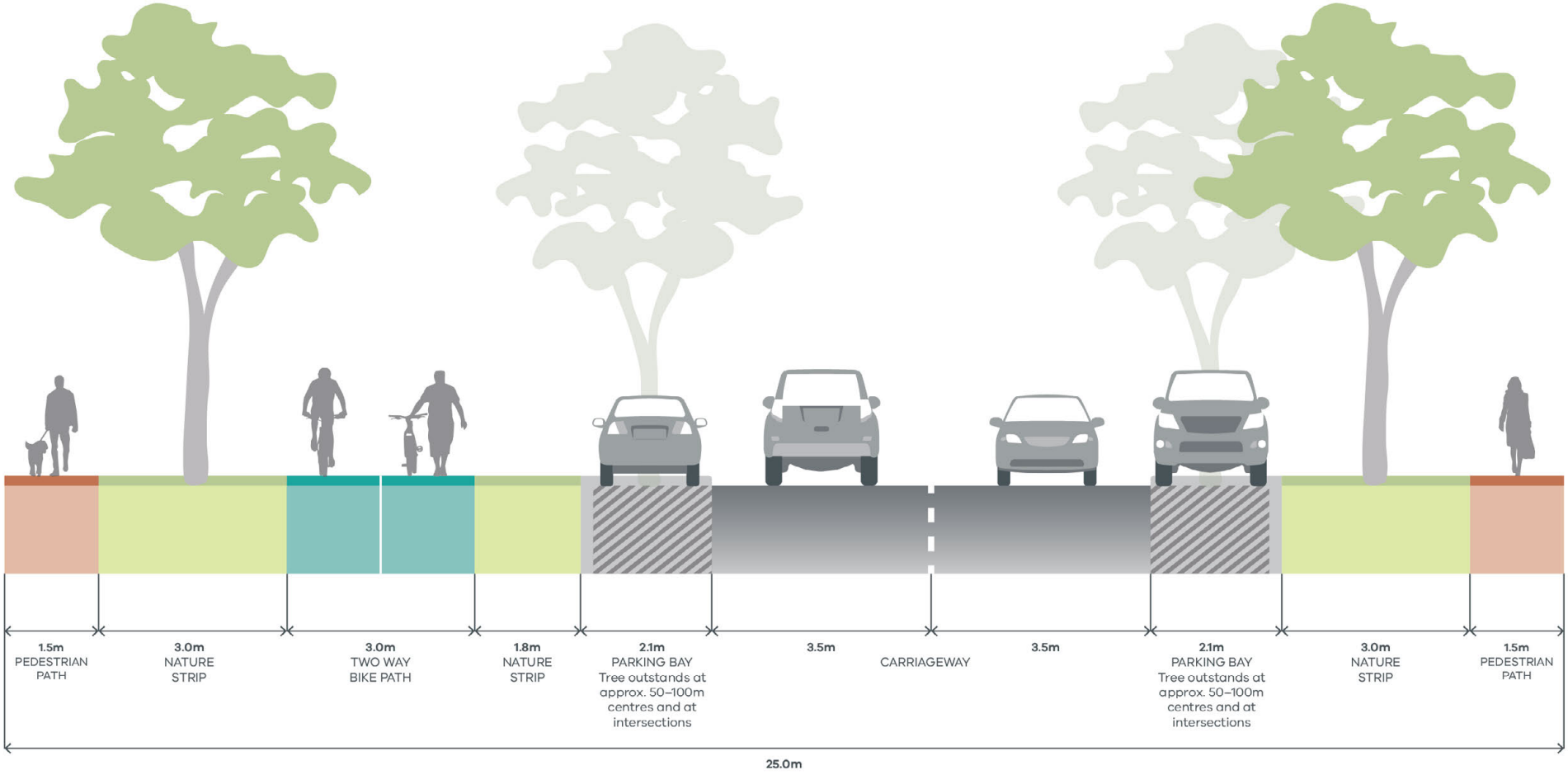


NOTES:

- Minimum street tree mature height 12 metres.
- Road reserve width may be reduced to include shared path within drainage reserve, subject to functional design being to the satisfaction of the responsible authority.

Streetscape Cross Section - Ballarat North PSP

Connector Street (25m)

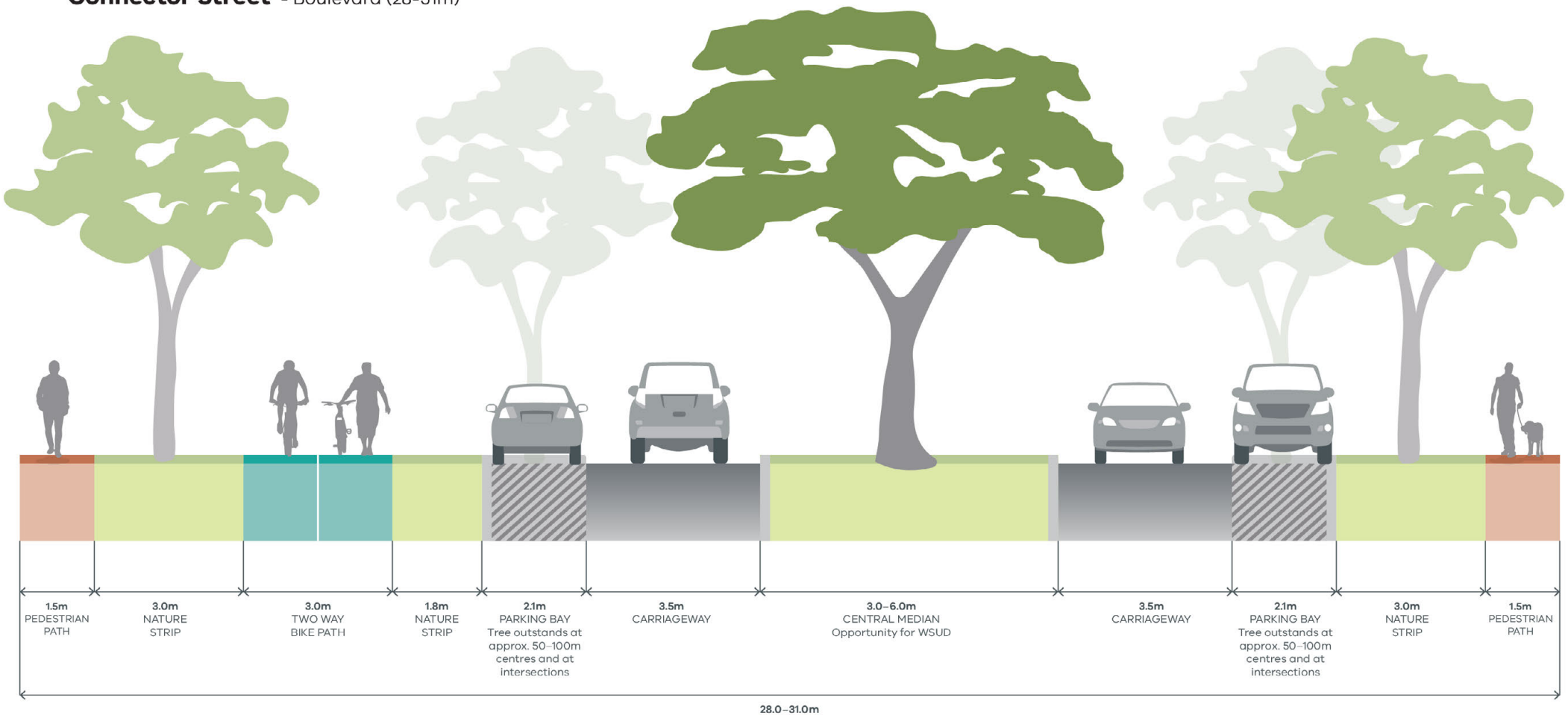


NOTES:

- Minimum street tree mature height 15 metres.
- All kerbs are to be B2 Barrier Kerb.
- Where roads abut school drop-off zones and throughfares, additional path width should be considered. Canopy tree planting must be incorporated into any additional pavement.
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.
- Variation to indicative cross-section may include water sensitive urban design (WSUD) outcome. These could include but are not limited to bioretention tree planter systems and/or median bioretention swales. Such variations must be to the satisfaction of the responsible authority.

Streetscape Cross Section - Ballarat North PSP

Connector Street - Boulevard (28-31m)

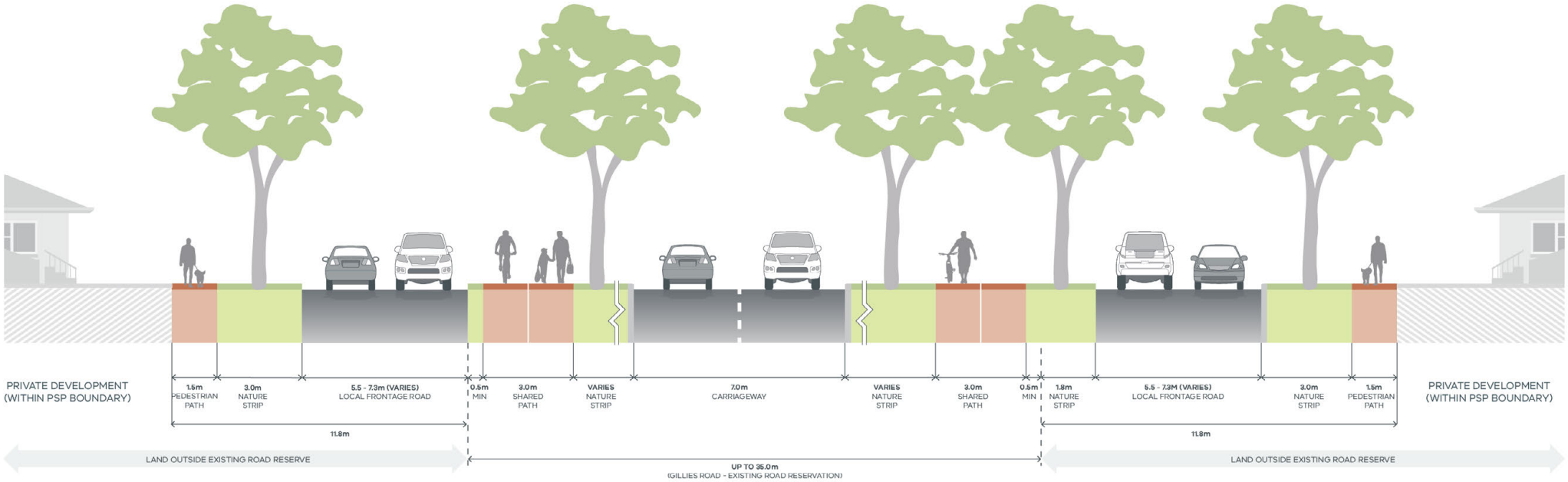


NOTES:

- Include a central median with large canopy trees to create a boulevard effect. Trees are to be centrally planted in median.
- Refer to City of Ballarat Land Scape Design Manual (latest version) for guidance on topsoil used in central medians.
- In areas where high pedestrian volumes are expected (e.g. around schools and town centres), additional path width and crossing points should be considered. Canopy tree planting must be incorporated into additional paved area.
- Kerb to central median is to be SM2 semi-mountable kerb.
- Depending on the location of breaks in the median, provide intermediate pedestrian crossing points to accommodate mid-block crossings.
- Variations to indicative cross-section may include water sensitive urban design (WSUD) outcome. These could include but are not limited to bioretention tree planter systems and/or median bioretention swales. Such variations must be to the satisfaction of the responsible authority.

Streetscape Cross Section - Ballarat North PSP

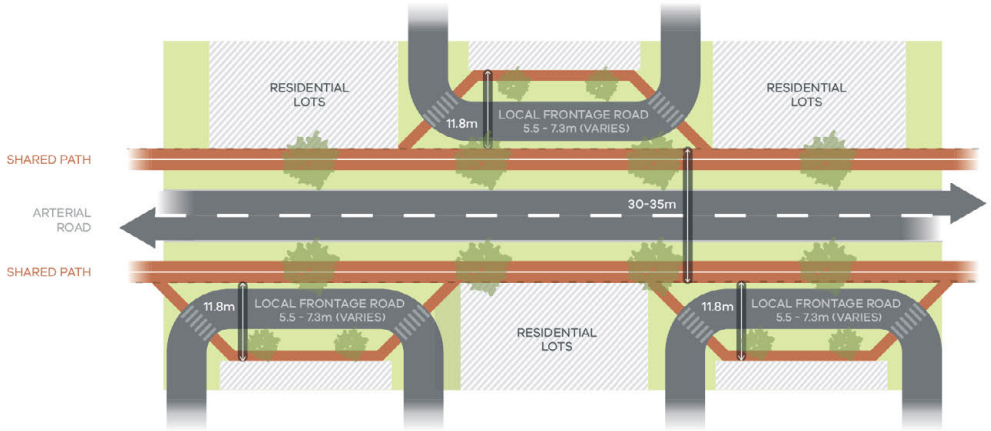
Secondary Arterial 60km/h - 2 Lane - Gillies Road (up to 35.0m reservation)



NOTES:

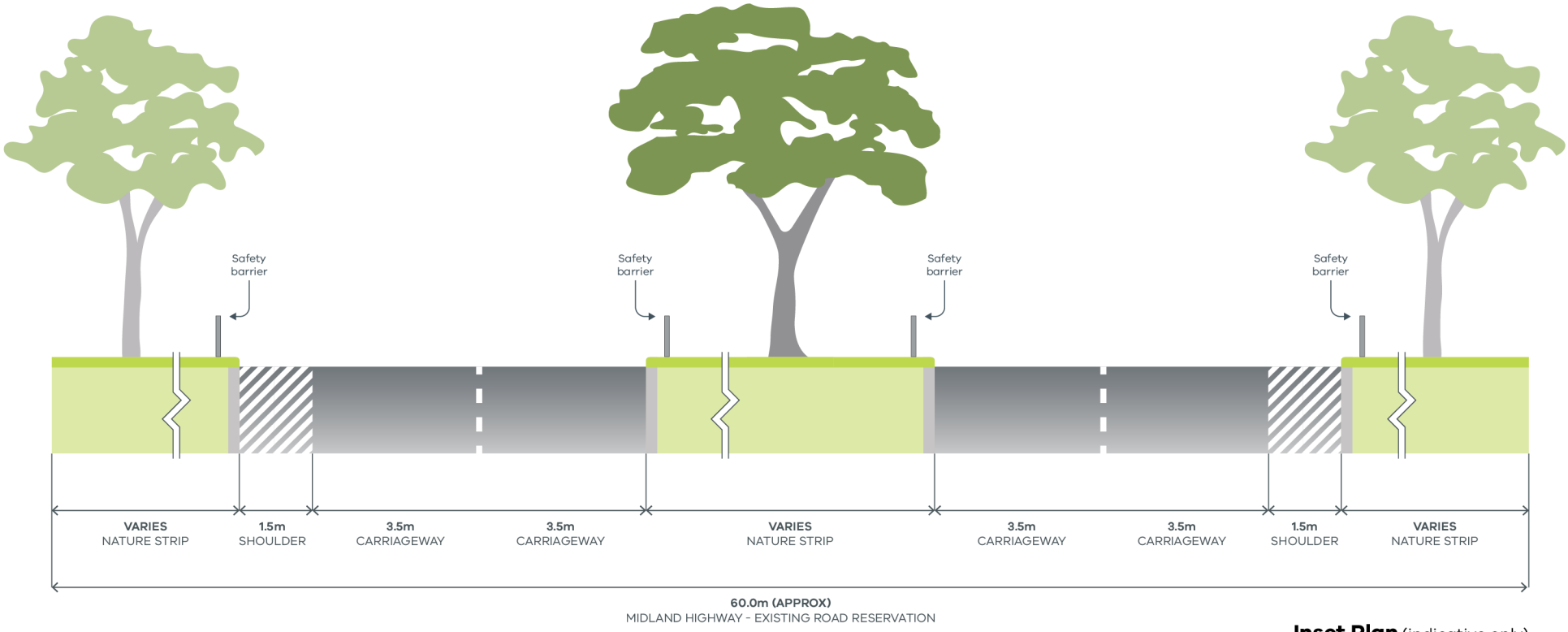
- Includes typical residential interface where within the PSP boundary.
- Minimum street tree mature height 15 metres.
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb.
- Cross section indicative, final location of infrastructure and landscaping to be developed at detailed design stage.
- Variations to indicative cross-section may include water sensitive urban design (WSUD) outcomes. These could include but are not limited to bioretention tree planter systems and/or median bioretention swales. Such variations must be to the satisfaction of the responsible authority.
- Shared path north of Olliers Road intersection must be developed within the existing road reserve and:
  - must be located on development side (both sides where appropriate)
  - may also be provided on non-development side subject to satisfaction of the responsible authority.
- Shared path south of Olliers Road intersection to be located on west side of Gillies Road Reserve, subject to further investigation and approval by the responsible authority.

Inset Plan (indicative only)

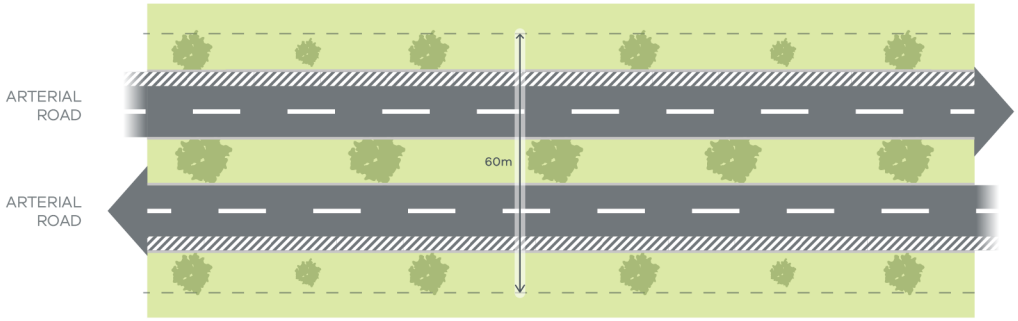


Streetscape Cross Section - Ballarat North PSP

Primary Arterial 80km/h - 4 Lane - Midland Highway (existing 60m reservation)



Inset Plan (indicative only)

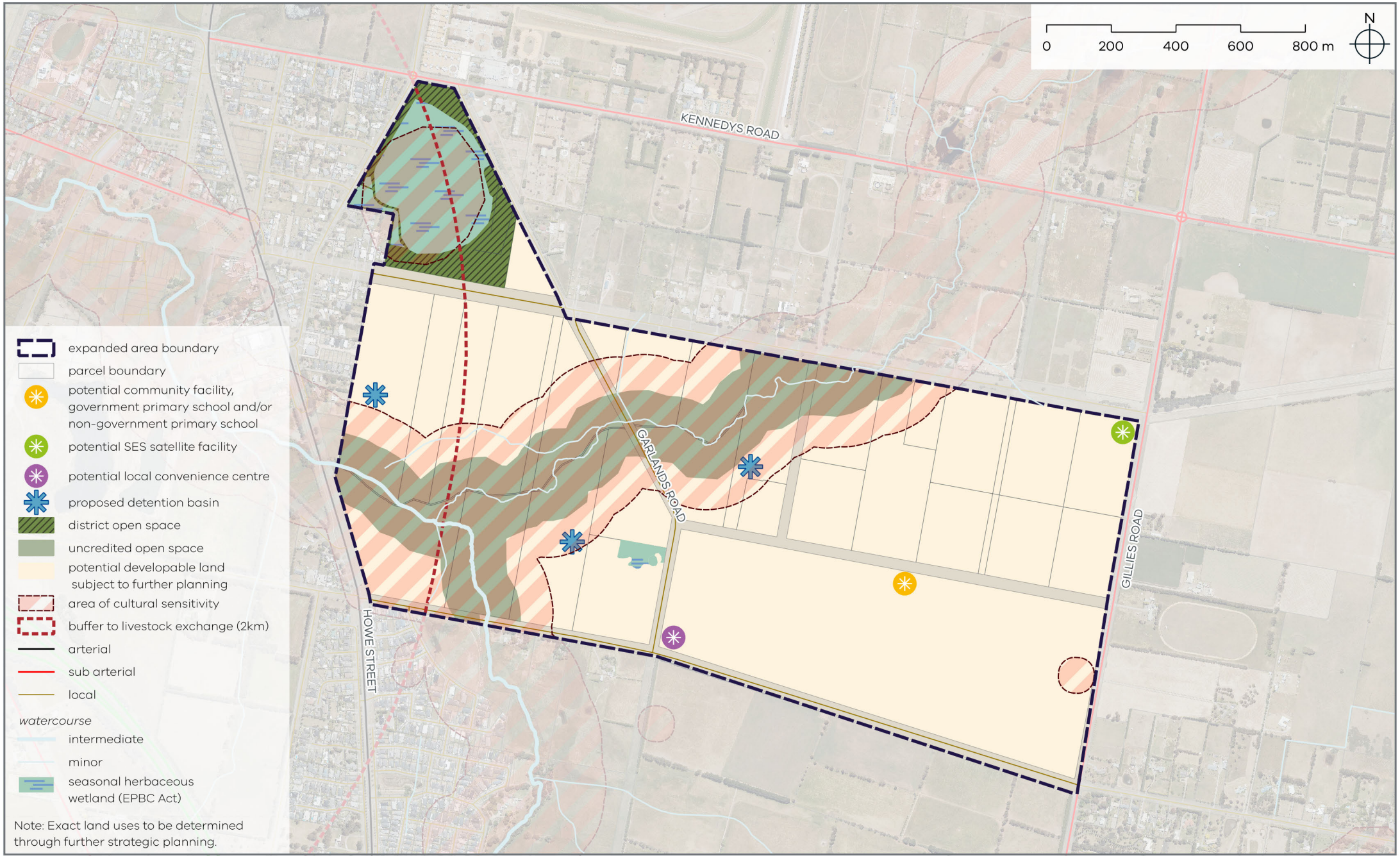


NOTES:

- Minimum street tree mature height 15 metres.
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb
- See VicRoads Tree Planting Policy. Large trees within the road reserve to be protected by safety barriers where required.

Appendix 6 – Expanded area framework plan

Ballarat North Expanded Area



Appendix 7 – Glossary of terms

Term	Definition
Activity centre	Provides the focus for services, employment and social interaction. They are where people shop, work, meet, relax and live. Usually well-serviced by public transport, they range in size and intensity of use.
Affordable housing	Has the same meaning as Section 3AA of the *Planning and Environment Act 1987*.
Biodiversity sensitive urban design (BSUD)	An approach to planning and development that integrates biodiversity values, and aims to mitigate the detrimental impacts of urbanisation, such as habitat loss and fragmentation. This approach also facilitates positive human-nature experiences.
Canopy tree cover	The total area of a tree's foliage (which comprises of the layer of leaves, branches, and stems) that covers the ground when viewed from above.
Canopy tree	A tree which has an average potential canopy of foliage of 6.4m in diameter or greater at maturity in the summer months.
Co-location	Adjoining land uses to enable complementary programs, activities, and services as well as shared use of resources and facilities, for example, siting schools and sporting fields together.
Community infrastructure	Infrastructure provided by government or non-government organisations for accommodating a range of community support services, programs, and activities. This includes: – facilities for education and learning (e.g. government and non-government schools, universities, adult learning centres) – early years (e.g. preschool, maternal and child health, childcare) – health and community services (e.g. hospitals, aged care, doctors, dentists, family and youth services, specialist health services) – community (e.g. civic centres, libraries, neighbourhood houses) – arts and culture (e.g. galleries, museums, performance space) – sport, recreation and leisure (e.g. swimming pools) – justice (e.g. law courts) – voluntary and faith (e.g. places of worship) – emergency services (e.g. police, fire and ambulance stations).
Encumbered land	Land that is constrained for development purposes, including easements for power/transmission lines, sewer, gas, waterways/drainage; retarding basins/ wetlands; landfill; conservation, protected vegetation and heritage areas. This land may be used for a range of activities (e.g. walking trails, sports fields) and is not credited. However, regard is taken to the availability of encumbered land when determining the open space requirement.
Frontage	The road alignment at the front of a lot. If a lot abuts two or more roads, the one to which the building, or proposed building faces.
Governor in Council Order	'Governor in Council' is an important process through which the government of the day implements aspects of its business. As the name suggests, Governor in Council is a body that comprises the Governor as Chair and members of the Executive Council. A Governor in Council Order forms part of the definition of affordable housing under the Act. The Order specifies the income ranges for very low, low and moderate-income households for affordable housing that is not social housing.
Gross developable area	Total precinct area excluding encumbered land, arterial roads and other roads with four or more lanes.

Term	Definition
Housing density (gross)	The number of houses divided by gross developable area.
Housing density (net)	The number of houses divided by net developable area.
Key worker	An employee who provides a vital service, especially in the essential services, health, or education sectors.
Linear open space network	Corridors of open space, mainly along waterways that link together forming a network.
Land use budget table	A table setting out the total precinct area, gross developable area, net developable area and constituent land uses proposed within the precinct.
Local centre	An activity centre smaller than a neighbourhood activity centre which may include a small limited-line supermarket or convenience store.
Native Vegetation Precinct Plan (NVPP)	A plan, as specified in Clause 52.16 of the Victoria Planning Provisions, relating to native vegetation within a defined area that may form part of the precinct structure plan. Native vegetation precinct plans are incorporated into local planning schemes and listed in the schedule to Clause 52.16. A native vegetation precinct plan can form part of a precinct structure plan.
Neighbourhood activity centre	Activity centres that are an important community focal point and have a mix of uses to meet local needs. Accessible to a viable user population by walking, cycling and by local bus services and public transport links to one or more principal or major activity centres. This should be of sufficient size to accommodate a supermarket.
Net Developable Area (NDA)	Land within a precinct available for development. This excludes encumbered land, arterial roads, railway corridors, government schools and community facilities and public open space. It includes lots, local streets, and connector streets. Net developable area may be expressed in terms of hectare units (i.e. NDHa).
Passive open space	Open space that is set aside for parks, gardens, linear corridors, conservation bushlands, nature reserves, public squares and community gardens that are made available for passive recreation, play and unstructured physical activity including walking, cycling, hiking, revitalisation, contemplation and enjoying nature.
Principal public transport network	Incorporated document *Principal Public Transport Network 2017* (Victorian Government, 2017), and *Principal Public Transport Network Area Maps* (Victorian Government, August 2018).
Public open space	Land that is set aside in the precinct structure plan for public recreation that incorporates active and passive open space.
Sensitive response	A design or engineered response that does not significantly contrast with the existing landform.
Social housing	Social housing as defined by the *Housing Act 1983* (Vic) means the following housing (other than under the **Victorian Affordable Housing Programs**): a. **public housing** b. housing owned, controlled or managed by a **participating registered agency**. A type of rental housing that is provided and/or managed by the government or by a not-for-profit organisation. Social housing is an overarching term that covers both public housing and community housing.
Unencumbered	Land that is not constrained by uses required to enable development (including easements for power/transmission lines, sewer, gas, waterways/ drainage; retarding basins/wetlands; landfill; conservation protection vegetation and heritage areas).

Term	Definition
Water sensitive urban design (WSUD)	A sustainable water management approach that aims to provide water quality, flood management and green landscapes. Key principles include: – minimising water-resistant areas. – recharging natural groundwater aquifers (where appropriate) by increasing the amount of rain absorbed into the ground encouraging onsite reuse of rain and incorporation of rain gardens. – encouraging onsite treatment to improve water quality, and removing pollution and using temporary rainfall storage (retarding basins/ wetlands) to reduce the load on drains. – encouraging onsite treatment to improve water quality. – removing pollution and using temporary rainfall storage (retarding basins/wetlands) to reduce the load on drains.



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