Bannockburn South East

Precinct Structure Plan



July 2026

Victorian Planning Authority

VICTORIA State Government | Department of Transport and Planning

ACKNOWLEDGEMENT OF COUNTRY

The Bannockburn East Precinct Structure Plan area is the traditional Country of the Wadawurrung People. We acknowledge the Wadawurrung People as the Traditional Owners and custodians of Wadawurrung Country, and pay our respects to their Elders past and present.

We acknowledge their continuing connection to and care for this land, waters and skies, and recognise their inherent right to speak and make decisions for Country.

We recognise the long-lasting, far-reaching and intergenerational consequences of colonisation and dispossession, and that the impacts of these continue today. In the past planning for this precinct has not been undertaken with the input of First Peoples, and through this Plan we seek to build genuine partnership with the Wadawurrung People to support self-determination and better outcomes for First Peoples.

We also acknowledge the diversity of First Peoples' communities associated with this Country, and the hard work of many generations of First Peoples who have fought for their rights to be recognised.

First Peoples' self-determination is a human right enshrined in the United Nations' *Declaration on the Rights of Indigenous Peoples*. Victoria's early land use planning and development laws and processes disregarded the input, interests, rights, and perspectives of First Peoples. During the implementation of this Plan, we encourage the responsible authority to work in partnership with Traditional Owners to acknowledge this.



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

This Precinct Structure Plan (PSP) guides land use and development where a planning permit is required under the Urban Growth Zone at Clause 37.07 of the Golden Plains Planning Scheme (Scheme), or any other provision of the Scheme that references this PSP.

Part 1: Context

The first part 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

The second part outlines the outcomes the PSP seeks to achieve.

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

The outcomes are expressed as:

- The **Vision**, which is the overarching unique place-based outcome intended for this PSP.
- The **Purpose**, which sets out how the PSP will deliver on the vision for the precinct.
- The **Objectives**, place-based objectives to achieve the vision and purpose for the precinct.

Part 3: Implementation

The third part 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**.

Note: The VPA has consolidated two hallmarks to create one hallmark for this PSP: *Connect people to jobs, higher-order services and thriving local economies*.

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. A responsible authority may consider alternative strategies to achieve the vision and objectives. Alternative strategies must demonstrate how they will achieve the vision and objectives of the PSP.
- **PSP implementation and delivery:** The PSP provides guidance in the form of requirements, plans, tables and diagrams to help with understanding how to implement the strategies.
- **Place-based requirements:** PSP requirements 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 structure plan. A requirement may reference a plan, table or figure in the structure plan.

– **Place-based guidelines:** The PSP 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, implements the outcomes. 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

This section 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 will generally comprise of a series of tables and plans. These include:

– Precinct infrastructure plan and table.
– Summary land use budget and parcel-specific land use budget.
– Cross-sections.
– Design outcomes for Bruce Creek open space and the utilities easement.
– 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 applicable Acts and approvals, e.g. the *Environment and Biodiversity Conservation Act 1999* or the *Aboriginal Heritage Act 2006*, among others.

Purpose of the PSP

The purpose of the PSP is to activate the PSP outcomes by:

– Providing the planning conditions for private industry delivery.
– Identifying and, where appropriate, providing the shared funding for a diverse range of open spaces and community infrastructure.
– Ensuring planning permit applications will generate the necessary population to support investment in critical infrastructure.

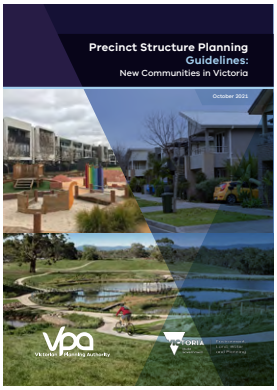
1.2 Regional context

Bannockburn is a peri-urban town located between Geelong (approximately 18km northeast) and Melbourne (75km southwest). Located in Golden Plains Shire, it is part of the Geelong Regional Alliance group of councils (G21).

Bannockburn sits between the Midland Highway and the Gheringhap–Maroona Freight Railway, making it a strategic gateway connecting Geelong to the west of the state, and to a lesser extent Melbourne. As the largest urban centre in Golden Plains, Bannockburn supports a network of southern townships in the Shire including Teesdale, Inverleigh, Lethbridge, Batesford and Gheringhap.

The *Bannockburn Growth Plan* (2021) identified the delivery of the South East Precinct as a priority to contribute to the short- and medium-term housing supply within Golden Plains Shire. The precinct is one of several growth areas identified in Bannockburn.

The *G21 Regional Growth Plan* (2013) identifies Bannockburn as a Regional Centre within the North West Gateway of the G21 region. The *G21 Regional Growth Plan* acknowledges Bannockburn's provision of larger lifestyle lots and relatively affordable housing options as a major drawcard for growth in the area. Settlements such as Bannockburn play an important role in supporting surrounding rural communities and productive farming activity.



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

1.3 Precinct features

The Bannockburn South East Precinct is bounded by existing residential areas, including lower-density areas to the north, farmland identified for future growth areas to the east, farmland identified for future growth areas to the west opposite Bruce Creek and rural land uses to the south opposite the freight railway.

Plan 1 – Precinct Features illustrates the existing precinct features that guide and influence the future urban structure of the precinct:

- **Bruce Creek** – Located along the western border of the precinct, it is known for its high cultural, landscape and ecological values. It provides an opportunity to protect and enhance biodiversity and Wadawurrung living cultural heritage, while managing bushfire risk.
- **Crown land** – There is a portion of Crown Land within the precinct to the north-west along Bruce Creek. No development is proposed in this area.
- **Railway** – Forms a hard southern boundary to the precinct and presents some barriers to future connectivity. It is part of the Gheringhap to Maroona freight railway line. There is an existing at-grade level crossing at Burnside Road and existing culverts under the railway. The railway is owned by VicTrack and managed by the Australian Rail Track Corporation.
- **Existing roads** – There are opportunities to extend north–south connections via Burnside Road and Levy Road.
- **Utilities line easement** – Bisects the precinct from east to west. While this is a physical barrier it also presents an opportunity to enhance active links and accommodate appropriate uses within and around the easement.
- **Chicken hatchery and breeder farm** – A chicken hatchery is located 50 metres off the precinct's southern boundary at 499 Burnside Road. A breeder farm is approximately 420m from the precinct.
- **Slopes** – The precinct is predominantly flat with a gentle slope towards Bruce Creek, which has a varied grade.
- **Stony Rises** – Identified for its moderate archaeological sensitivity and for likely containing artefact scatters and stone arrangements. It may be protected and reserved for passive recreation to the east of the precinct.
- **Amphitheatre** – An open landscape to the south of the Bruce Creek, which holds significant cultural value.
- **Gheringhap Employment Precinct** – Approximately 6km from the Bannockburn South East precinct. It will provide local employment opportunities for future residents.

1.4 Wadawurrung cultural context

The Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC) is the Registered Aboriginal Party (RAP) for and on behalf of the Wadawurrung People. The Wadawurrung People are recognised as the Traditional Owners of their lands and waters from the Great Dividing Range in the north to the coast in the south, from the Werribee River in the East and along the Surf Coast in the west.

The VPA has consulted with WTOAC and the traditional owners of the land to help ascertain the important cultural values that signify the precinct.

1.5 Post-contact heritage

The land has primarily been used for farming and agricultural purposes.

Bannockburn South East does not contain registered/listed post-contact heritage sites.

Historically, agricultural activity has both transformed, and utilised geological features within the study area, and more broadly in the geographic region. The alluvial soils found within proximity of named and unnamed waterways naturally attracted the early European settlers with more productive soils and access to water. Repeated ploughing and grazing activity have transformed much of the study area, with the removal of trees and levelling of fields influencing subtle landscape changes. Historic settlers also generally found that 'Stony Rises' interfered with efforts to operate farm machinery and often sought to remove such obstacles wherever possible. However, the presence of surface or near surface basalt provided a ready resource for the construction of dry stone walls in the region.

The pastoral settlers of the 1830s and 1840s modified the landscape in a variety of ways, including the clearing of vegetation to create open pastures and the construction of 'home stations' which were occupied by the run holder or appointed manager.

Bannockburn South East is relatively close to the earliest track/roadway linking the area to pastoral stations east and west of present-day Bannockburn.

Present-day Burnside Road was surveyed as early as 1878, however does not appear to have been constructed as a formed road until the 1920s.

The Gheringhap–Maroona railway line is located immediately south of the study area. Officially opened in 1913, it was primarily constructed to provide a direct transport route for agricultural produce from the Wimmera and Northern Mallee regions.

1.6 Strategic policy context

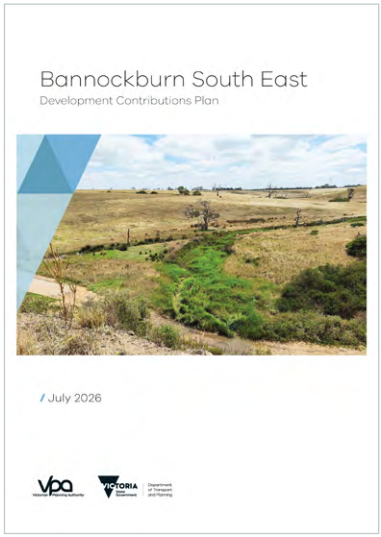
This PSP is informed by:

- The Planning Policy Framework set out in the Scheme
- The Bannockburn Growth Plan (VPA, May 2021)
- Plan for Victoria
- G21 Regional Growth Plan
- The Precinct Structure Planning Guidelines: New Communities in Victoria (VPA, 2021)
- Applying the PSP Guidelines in regional areas guidance note (VPA, 2021)
- *Bruce's Creek Master Plan* (2009)

1.7 Development Contributions Plan (DCP)

This PSP is supported by the *Bannockburn South East Development Contributions Plan* (the DCP) and is incorporated into the Scheme.

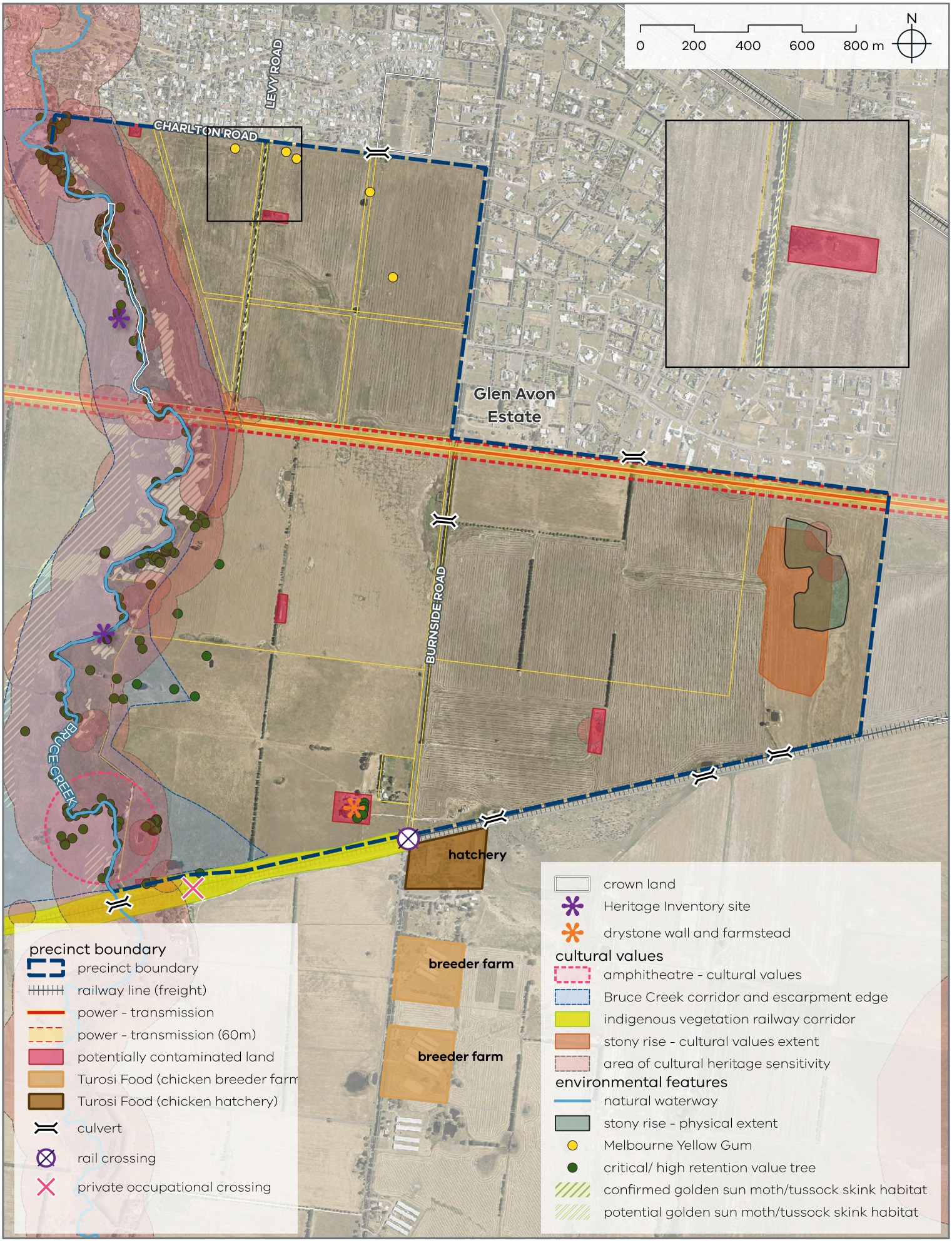
The DCP sets out the essential infrastructure requirements and expected contributions arrangements delivered as part of the development permit process.



Bannockburn South East Development Contributions Plan

Plan 1 – Precinct Features

Bannockburn South East Precinct Structure Plan



2.0 PSP OUTCOMES

2.1 PSP vision

Bannockburn is on Wadawurrung Country. The precinct will recognise Wadawurrung culture, heritage and values by responding to and designing for identified cultural heritage places, waterways, environs, vantage and viewing points, flora and fauna that make up Wadawurrung Country.

The PSP seeks to preserve areas of Aboriginal importance such as the Bruce Creek corridor and the Stony Rises in the east as well as trees of Aboriginal and environmental significance within the precinct. Wadawurrung values and stories will be embedded into open spaces, trails and community places.

Bruce Creek is known for its ecological, landscape and intrinsic cultural values. It will be protected and enhanced to form an open space, environmental and active transport spine for the precinct, with pedestrian and cycling paths, wayfinding, storytelling and recreational facilities. The unique biodiversity within the Bruce Creek corridor will be conserved to be enjoyed by the future community. The location of any infrastructure across the creek will be codesigned with the Wadawurrung Traditional Owners Aboriginal Corporation.

Integrated water management (IWM) is an important consideration for the precinct to develop in a manner that is sensitive to the water cycle and contributes towards enhancing environmental flows and systems, protects downstream impacts on the Barwon River and the Ramsar-listed Lake Connewarre, considers alternative water use, urban amenity, storm water management, and supports a liveable, sustainable and healthy community in Bannockburn for future generations.

New community master planning will incorporate built form that is consistent with Bannockburn's treasured open rural township character, while also delivering on sustainable development outcomes. The precinct will have a lower average density than other growth areas such as in Geelong and include a diverse range of high quality, well-designed housing typologies and urban amenity. Design and development of new neighbourhoods and open spaces will prioritise addressing flood risk, bushfire risk and the management of stormwater.

Embedding sustainability outcomes across the planning and development process including in design, transport, open space and water management will help in creating an ecologically sensitive and resilient community and ensure that residents can build important social and place based connections. These connections will be strengthened by the precinct's network of attractive open spaces, waterways and off-road paths, connecting people to places of amenity and employment.

The precinct's network of paths will ensure that it is walkable and cyclable in areas of high canopy cover and encourage the use of active transport options on a wide network interlinking with Bruce Creek and the existing township to the north. This will connect schools, recreation spaces, community hubs and the new local town centre by way of active transport and green corridors that attract community life, events and cultural expression.

A new local town centre will be located on an attractive east–west link road, which will define a northern and southern neighbourhood as identified in the *Bannockburn Growth Plan*. The northern neighbourhood will have a strong connection to the existing Bannockburn town centre and its social and economic infrastructure. The southern neighbourhood will be focused towards a new vibrant community with access to the new local town centre, new community facilities and key links to Bruce Creek. A new east–west link road will cross Bruce Creek via a bridge crossing and connect to the Midland Highway to protect existing traffic routes such as High Street in Bannockburn's town centre from being overwhelmed and to provide linkages to employment and the Geelong region.

2.2 PSP purpose

1. Place Wadawurrung cultural values at the centre of the precinct by recognising and protecting areas of cultural significance.
2. Encourage an urban form that integrates with and supports Bannockburn's rural character and lifestyle.
3. Create a healthy pedestrian and cycling-friendly community by providing an interconnected active transport network linking the existing township and key destinations in the precinct, including schools, the local town centre and Bruce Creek.
4. Protect Bruce Creek's ecological, landscape and intrinsic cultural values from the impacts of urbanisation and population growth in accordance with the Bruce Creek Master Plan.
5. Support the timely delivery of key transport, community and drainage infrastructure by identifying the staging of the precinct.
6. Provide destinations and services to support a liveable neighbourhood anchored by a strong local town centre and community hubs.
7. Deliver a diverse and affordable housing mix including social housing and targeted areas of denser typologies in proximity to services and high-amenity open spaces.

Plan 2 – Place-based Plan

Bannockburn South East Precinct Structure Plan

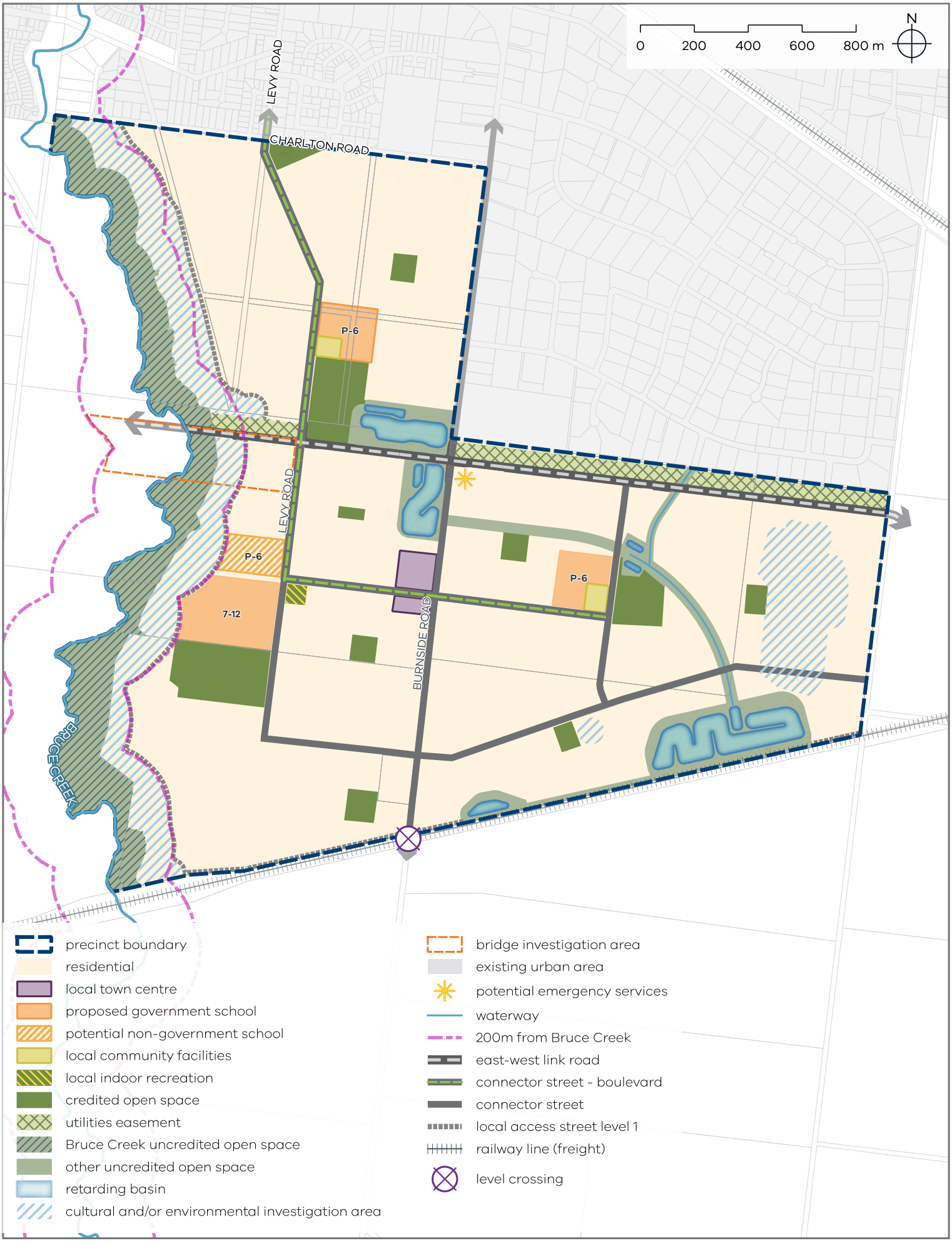


Figure 1 summarises how Bannockburn South East measures against the performance targets based on the *PSP Guidelines*. The metrics including total numbers and percentage are rounded.

Figure 1 – PSP performance summary

LAND USE SUMMARY

residential	72.16%
activity centre	0.51%
transport	1.98%
community	0.39%
education	3.50%
open space	21.46%

524
hectares

382 ha
net developable area

750
jobs (est.)

16,749
residents (est.)

5,677
dwellings (est.)

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

1
neighbourhood centre & jobs hub

3
community facilities

7.69 ha
local parks

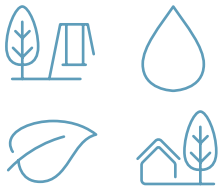
3
sports reserves

	Target No.	PSP targets	achieved %	target %
Viable Densities				
	T1	**Dwelling density per NDHA in amenity areas**	**17**	30
	T2	**Dwelling density per NDHA across the PSP**	**15**	20
		Other performance targets*		
		T3 Housing diversity		
		T4 Affordable housing		
Safe, Accessible & Well-connected				
	T9	**Public transport in walking distance**	**91**	95
		Other performance targets*		
		T5 Arterial road network		
		T6 Off-road cycle paths		
		T7 Footpaths		
		T8 Pedestrian & cyclist crossings		

***** Targets achieved at the planning permit stage

Connect People to Jobs & Higher Order Services	Target No.	PSP targets	achieved %	target %
		**Other performance targets***		
		T10 Job density		

High Quality Public Realm



T11	**Minimum open space targets**		
	Total residential credited open space	**6**	10
	Local residential park	**2**	3–5
	Sports reserve	**4**	5–7
	Employment local park	**n/a**	2
T12	**Open space in walking distance**		
	Dwellings within 800m of sports reserve or open space greater than 1 hectare	**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	**72**	70
	Dwellings within 3,200m of government secondary school	**100**	100
	Dwellings within 800m of community hub	**69**	80
	Dwellings within 800m of health facility	**100**	80

Thriving Local Economies



T19	**Activity centre in walking distance**	**47**	80–90

Infrastructure Coordination



	Other performance targets*		
	T20 Basic & essential infrastructure		

***** Targets achieved at the planning permit stage

3.0 GENERAL NOTES

General Note 1 – the cultural and/or environmental investigation area

If any part of the cultural and/or environmental investigation area is confirmed to be developable by the responsible authority, the density applied to this area is 14 dwellings per net developable hectare.

General Note 2 – Final location and design of uses adjacent to the cultural and/or environmental investigation area

Any change to the location or shape of the schools, indoor recreation centre, streets or sports reserve (SR-03) adjacent to the cultural and/or environmental investigation area as a consequence of the need to be consistent with the Bruce Creek Conservation Management Plan or an approved Cultural Heritage Management Plan, may be considered by the responsible authority as being generally in accordance with the PSP, if the revised design response achieves the relevant PSP objectives and performance standards to the satisfaction of the responsible authority.

Should the location or configuration of these elements be altered from the PSP location or configuration post-gazettal of this PSP, then the land within the existing designation of the elements may be used and developed in accordance with the applied zoning of that land under Schedule 1 of the Urban Growth Zone.

General Note 3 – Eastern cultural and/or environmental investigation area

Any change to the location of PSP elements (such as the passive park or streets) that is required to be consistent with an approved Cultural Heritage Management Plan, may be considered by the responsible authority to be generally in accordance with the PSP, if the revised design response achieves the relevant PSP objectives and performance standards to the satisfaction of the responsible authority.

General Note 4 – Protection of Aboriginal cultural heritage

A permit for subdivision, land use, buildings or works may vary from the layout shown in plans or diagrams contained in this PSP, where that variation is necessary to protect or respond to Aboriginal cultural heritage and the responsible authority is satisfied that the alternative layout meets the relevant PSP objectives, requirements and guidelines.

General Note 5 – Land reserved for east–west link road

The ultimate cross section for the east–west link road as per Cross Section 1 in Appendix 4 – Standard road cross sections is 32m wide. 26m is expected to be outside of the utilities easement.

4.0 IMPLEMENTATION

4.1 Viable densities

4.1.1 Objectives

Table 1 – Place-based objectives – viable densities

OBJECTIVES		IMPLEMENTATION TOOLS
O1	Facilitate a diversity of housing types that promote choice and a sense of place for residents at a density that strengthens neighbourhood character, and supports employment and community uses within the Bannockburn South East Precinct.	R1, R2, R3, G1, G3, G4, G5
O2	Ensure that development appropriately responds to the cultural and/or environmental investigation area as shown in Plan 2 – Place-based Plan.	R2, R3, R4, R5
O3	To facilitate a mechanism for the voluntary provision of affordable housing.	G2, G3, G4

4.1.2 Requirements and guidelines

Table 2 – Requirements and guidelines – Viable densities

REQUIREMENTS	
R1	Subdivision for residential development must be generally in accordance with Plan 3 – Housing, and Table 3 – Housing density and diversity, to the satisfaction of the responsible authority. Densities lower than targets specified in Table 3 – Housing density and diversity, may be considered if it can be demonstrated that the market for housing at the target density is not sufficiently mature.
R2	Subdivision design must respond to the existing precinct features and surrounding uses, in particular: – Areas of ecological and cultural significance, such as the Bruce Creek corridor. – Any current and future Victorian Aboriginal Heritage Register Places. – Existing high and critical retention value trees and Melbourne Yellow Gums. – Existing and future drainage and waterway areas. – Character and heritage, including existing structures and dry stone walls. – Future Bruce Creek bridge crossing and east–west link road. – Rural interfaces and utilities easement.
R3	Subdivision must facilitate passive surveillance to adjoining open space, landscape values areas, and waterway corridors.
R4	Subdivision and development within the cultural and/or environmental investigation area adjacent to the Bruce Creek uncredited open space, as shown on Plan 3 – Housing, must be: – Consistent with any relevant approved Conservation Management Plan. – Consistent with a Cultural Heritage Management Plan approved under the *Aboriginal Heritage Act 2006*. – Designed to adequately mitigate bushfire risk.

REQUIREMENTS

R5	Subdivision and development within the property containing the stony rise to the east of the precinct as shown in Plan 1 – Precinct Features and Plan 2 – Place-based Plan, must be assessed and the extent of the stony rise and the developable area identified. The assessment must demonstrate that developable area is: – Designed to minimise impacts on biodiversity values, particularly habitat for matters of national environmental significance as defined under the *Environmental Protection and Biodiversity Conservation Act 1999*. – Consistent with a Cultural Heritage Management Plan approved under the *Aboriginal Heritage Act 2006*, where applicable.

GUIDELINES

G1	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
G2	Applications for residential subdivision and development that contribute to meeting the target of 6.5 per cent minimum of affordable housing generally in accordance with the *Golden Plains Shire Council Social and Affordable Housing Policy* (2023) and *Bannockburn South East Social and Affordable Housing Strategy* (Urbanxchange, August 2023) is encouraged.
G3	Social and affordable housing and key worker housing should be in high amenity areas close to services and community facilities and provide for a range of housing typologies to meet demonstrated local needs generally in accordance with Table 3 – Housing density and diversity.
G4	Where affordable housing is provided, consideration should be given to meeting the needs of different income ranges and household sizes.
G5	Applications for residential subdivision and development should consider how it meets dwelling yields at Table 4 – Dwelling yields.

Table 3 – Housing density and diversity

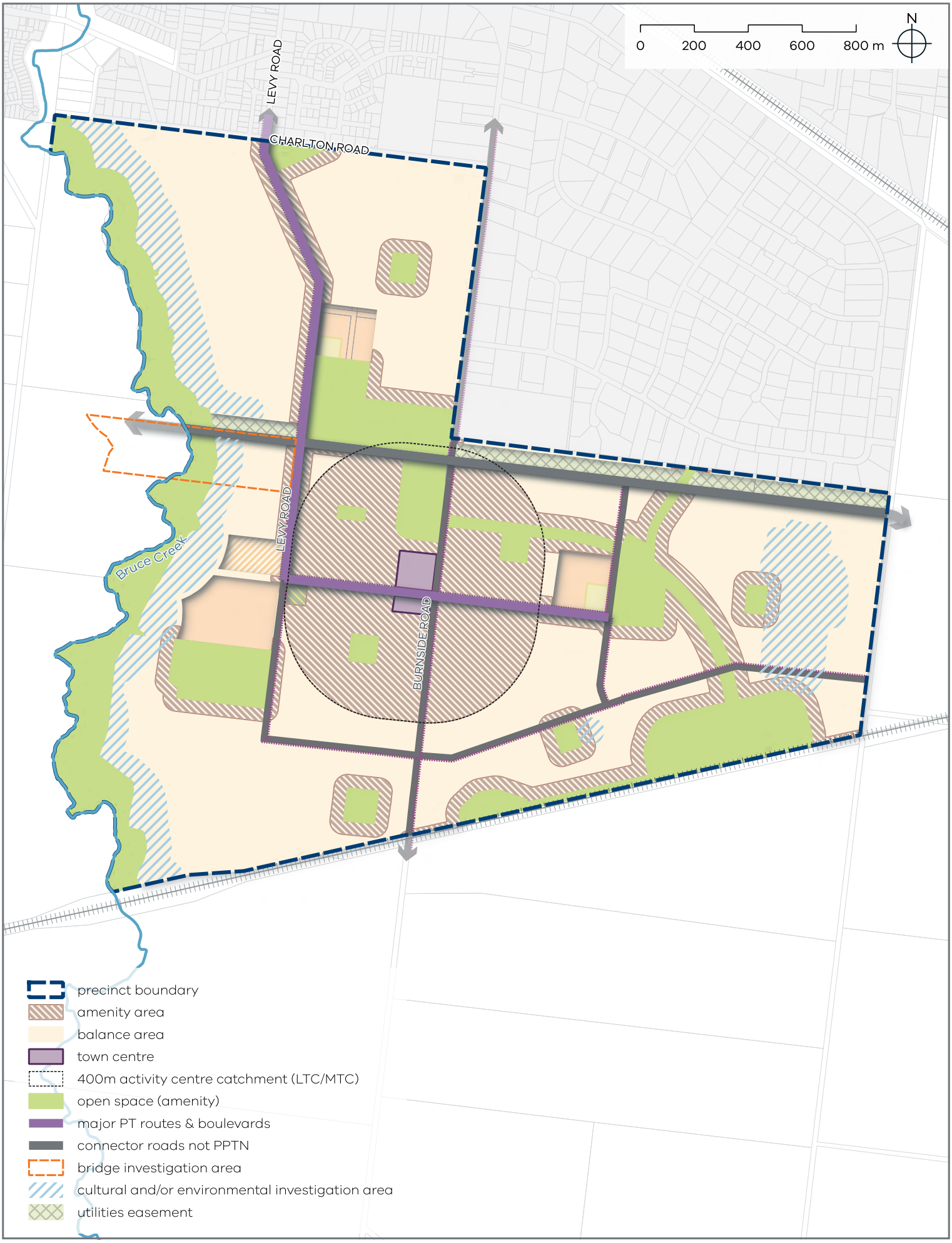
Amenity area	
Housing catchment area	Applies to land which is located within 400m walkable catchments of activity centres and train stations, and 50m walkable catchment of open space and the Principal Public Transport Network or similar.
Target density	Average of 17 dwellings or more per net developable hectare (NDHa).
Target typologies	**Character statement** Development will have a modest scaled urban neighbourhood character, characterised by buildings up to three storeys in height. Mixed typologies will be applied throughout the amenity areas to help create a sense of place, provide visual transition in built form, create view corridors and provide appropriate interfaces with other catchments areas. **Typologies** To support delivery of diverse housing outcomes in amenity areas, the PSP and applicable planning applications should enable opportunities to deliver at least three different housing typologies. The mix of dwelling typologies should include, but is not limited to: – Attached townhouse development. – Semi-detached/duplex-style development (e.g. Small Lot Housing Code products). – Detached traditional style housing. – Retirement living.
Balance area	
Housing catchment area	Applies to land which is located outside of the nominated amenity area/s.
Target density	Average of 14 dwellings or more per NDHa.
Target typologies	**Character statement** Development will have a suburban neighbourhood character featuring buildings up to three storeys in height. Housing will generally comprise detached and semi-detached typologies, however more intensive forms of development such as terraced homes and attached townhouses may be provided in certain locations (e.g. interfaces with amenity areas). **Typologies** To support delivery of diverse housing outcomes in balance areas, the PSP and applicable planning applications should enable opportunities to deliver at least two different housing typologies. The mix of dwelling typologies should include, but is not limited to: – Attached townhouse development – Semi-detached/duplex style development (i.e. Small Lot Housing Code products) – Detached traditional style housing – Semi-detached/detached low-rise social and affordable housing – Retirement living.

Table 4 – Dwelling yields

Housing catchment area	NDHA	Dwellings/NDHA	No. of dwellings
Amenity area	121.6	17.0	2,068
Balance area	257.8	14.0	3,610
TOTAL	**382.2**	**14.9**	**5,677**
Anticipated population at 2.95 persons per dwelling			**16,749**

Plan 3 – Housing

Bannockburn South East Precinct Structure Plan



4.2 Safe, accessible and well-connected

4.2.1 Objectives

Table 5 – Objectives – Safe, accessible and well-connected

OBJECTIVES		IMPLEMENTATION TOOLS
O4	Deliver a network for roads, active transport and public transport that is permeable and integrated.	R6, R7, R8, R9, R10, R12, G6, G7, G8, G9, G10
O5	Establish a safe, accessible and efficient movement network which supports community access to existing and future services and destinations while enhancing Bannockburn's character.	R7, R8, R9, R10, R11, G6, G7, G8, G10
O6	Facilitate the provision of land for the long term delivery of a higher order east–west road that relieves traffic from Bannockburn High Street and balances its movement and place function.	R9, R10 & G7
O7	Deliver walking and cycling connections to Bannockburn and the precinct's key destinations, such as the existing town centre, future local town centre, community facilities, schools, open spaces and Bruce Creek.	R6, R7, R8, R9, R10, R12, G6, G7, G8, G9, G10

4.2.2 Requirements and guidelines

Table 6 – Requirements and guidelines – Safe, accessible and well-connected

REQUIREMENTS	
R6	Connector roads and local streets must be designed and developed generally in accordance with the relevant cross sections in Appendix 4 – Standard road cross sections unless otherwise agreed by the responsible authority.
R7	Pedestrian and cyclist crossings must be provided generally in accordance with those indicated in Plan 4 – Movement Network & Public Transport.
R8	Pedestrian and cyclist crossings must be provided every 400–800m, where appropriate, along the east–west link road, rail lines, waterways, and any other accessibility barriers.
R9	Design of all subdivisions, streets and the east–west link road must provide: – A permeable, direct and safe street network prioritising walking and cycling, particularly walking and cycling to schools. – 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 the east–west link road 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.
R10	The requirements at Appendix 7 for the Bridge Investigation Area must be met. The Bridge Investigation Area represents a potential location for a bridge crossing of Bruce Creek as informed by the *Bannockburn South East Bridge Feasibility Assessment* (Jacobs, April 2025). Final siting and design will be determined through consultation with the Registered Aboriginal Party (RAP) and compliance with the *Aboriginal Heritage Act 2006* and all relevant statutory requirements.

REQUIREMENTS

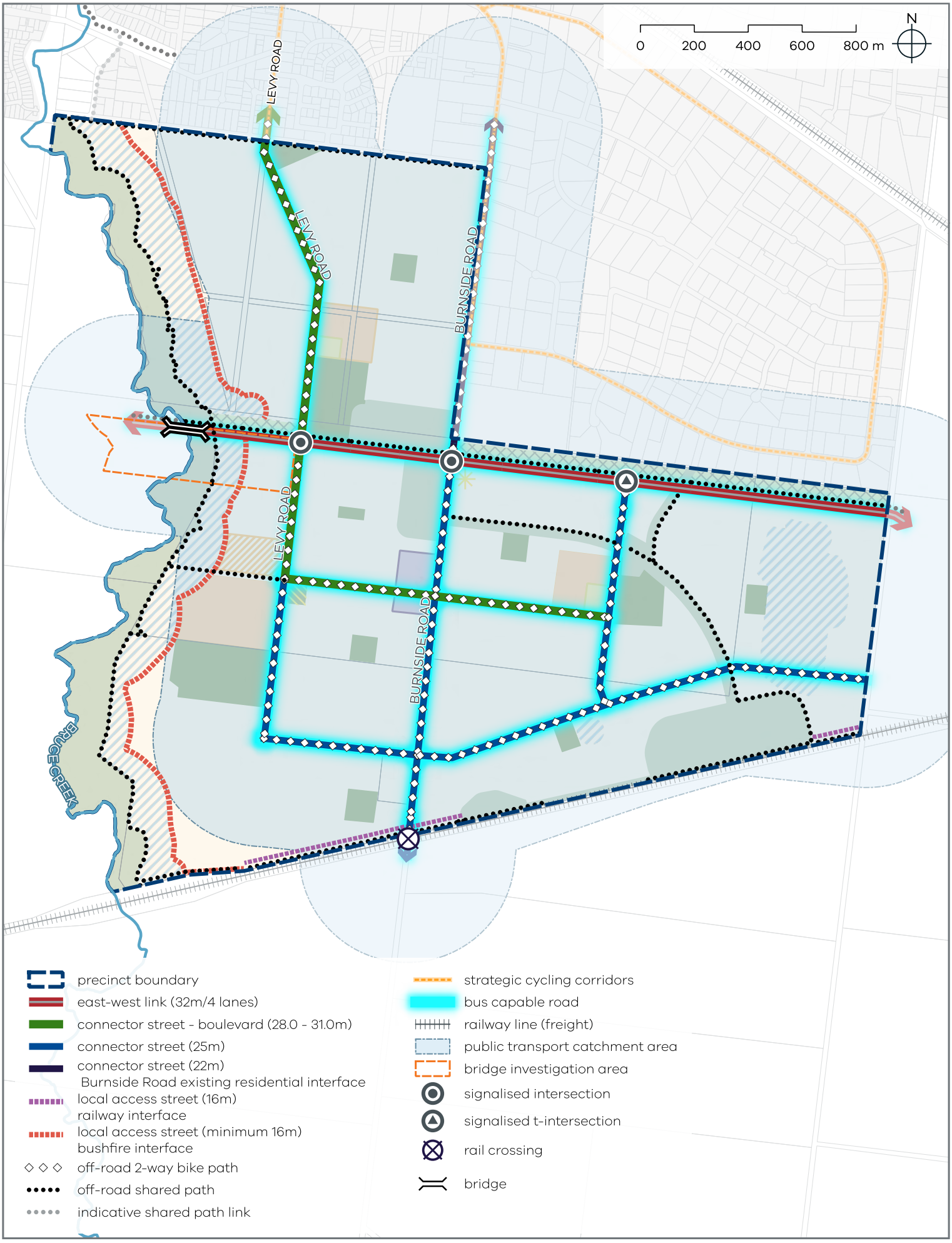
R11	The design and construction of any bridge crossing of Bruce Creek must: – Be designed to minimise impacts on biodiversity values, particularly habitat for matters of national environmental significance as defined under the *Environmental Protection and Biodiversity Conservation Act, 1999*. – Be consistent with any relevant approved Conservation Management Plan. – Be consistent with the document titled *Growling Grass Frog Crossing Design Standards* (DELWP, 2017). – Be consistent with any Cultural Heritage Management Plan (CHMP) approved under the *Aboriginal Heritage Act 2006* for the land. – Meet the objectives of Corangamite Catchment Management Authority's *Waterway Crossing Performance Objectives*. – Be consistent with the Bruce Creek Master Plan.
R12	The delivery of a shared path must be provided to interface with Bruce Creek.

GUIDELINES

G6	A variety of cross sections should be used in subdivision layouts 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.
G7	Where alternative cross-sections have been implemented, they should provide for off-road bicycle paths on all connector streets and the east–west link road.
G8	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.
G9	Waterway crossings should be provided at intervals no greater than 400m or corresponding with all perpendicular through-roads or pedestrian and cycle paths, where possible.
G10	Street layouts should provide multiple convenient routes via direct off-road active network paths to major destinations such as local parks, sporting reserves, community facilities, major and neighbourhood activity centres, local town centres, train/bus interchanges and significant employment areas both within the precinct and in surrounding areas.

Plan 4 – Movement Network & Public Transport

Bannockburn South East Precinct Structure Plan



4.3 Connect people to jobs, higher order services and thriving local economies

4.3.1 Objectives

Table 7 – Objectives – Connect people to jobs and higher order services

OBJECTIVES		IMPLEMENTATION TOOLS
O8	Strengthen Bannockburn's local and regional economy and create opportunities for new businesses and a variety of local jobs.	R13, R14, R15, G11, G12
O9	Deliver a high amenity local town centre that can adapt and evolve over time to cater to the daily needs of surrounding residents and reflects Bannockburn's sense of identity and local character.	R13, R14, G11, G12
O10	Ensure that the hierarchy is maintained between the local town centre and the primacy of the existing Bannockburn Town Centre.	R13, R14
O11	Facilitate the delivery of local jobs.	R13, R14, G11, G12

4.3.2 Requirements and guidelines

Table 8 – Requirements and guidelines – Connect people to jobs and higher order services

REQUIREMENTS	
R13	Subdivision and development involving the delivery and design of the local town centre shown on Plan 5 – Employment and Activity Centres must: – Appropriately reflect and cater for the anticipated needs of the community. – Complement the planned activity and community-related outcomes in adjoining neighbourhoods. – Provide convenient, walkable access to everyday retail and commercial needs and services.
R14	A local town centre must be developed generally in the location shown on Plan 5 – Employment and Activity Centres, with: – Direct access to a connector road – Direct access to walking paths, cycling paths and bus capable roads. – Concealed and integrated carparking
R15	The subdivision must provide a diverse range of lot sizes to accommodate the needs of a range of commercial businesses and industries, where applicable.

GUIDELINES

G11 Complementary land uses should be located adjacent to existing or future local town centre. These may include:

- Medical centres.
- Convenience shops.
- Food and drink premises.

G12 Environmentally sustainable principles and initiatives should be considered in the design of commercial buildings including (but not limited to):

- Integrated Water Management for onsite storage and re-use.
- Solar panels and associated battery storage.
- Electrical vehicle charging.
- Climate cooling through building design.
- Shade and cooling of open air car parks.

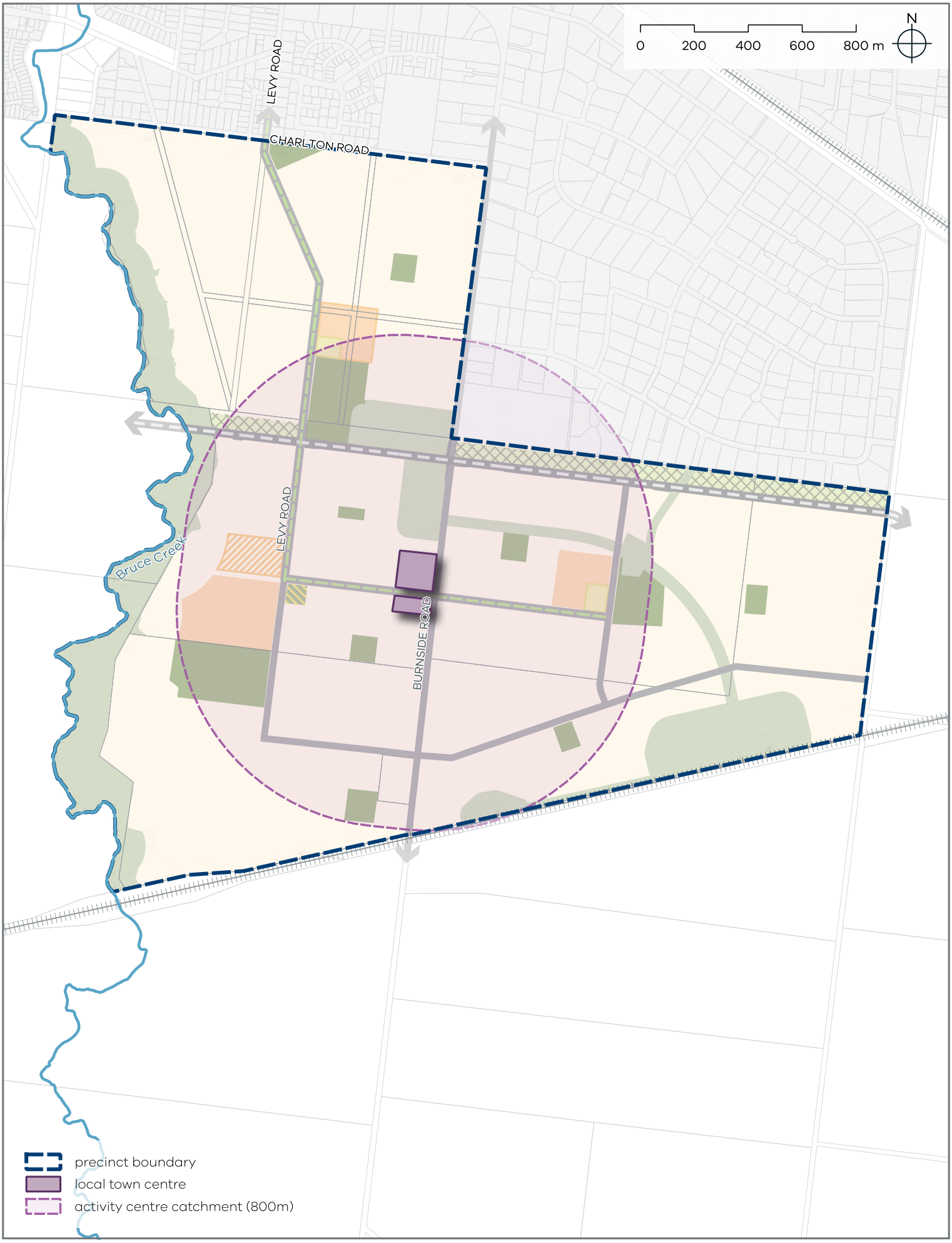
Refer to Appendix 3 – Local town centre performance requirements & guidelines.

Table 9 – Employment generation table

Land use	NDHA (ha)	Estimated jobs
Education and other community facilities	20.46	Up to 390
Local town centre	2.70	360
TOTAL	**26.30**	**750**

Plan 5 – Employment and Activity Centres

Bannockburn South East Precinct Structure Plan



4.4 High quality public realm

4.4.1 Objectives

Table 10 – Objectives – High quality public realm

OBJECTIVES		IMPLEMENTATION TOOLS
O12	Promote safe, functional and enjoyable streetscapes, local parks, and sports reserves and recreation facilities that cater to a diversity of people and ages.	R16, R25, R34, R35, R36, R37, G13, G19, G20, G22, G23, G24, G25, G26, G28, G29, G31
O13	Deliver an accessible and integrated network of local parks, sports reserves and recreation facilities that meet the needs and aspirations of the new community with adaptable, flexible and multi-use designs.	R36, R37, R38, G22, G23, G25.
O14	Contribute to the protection and integration of areas of Wadawurrung cultural heritage and living cultural values through the urban form and open space network and encourage suitable interpretations of these values throughout subdivision design.	R18, R37, R38, R39, G21, G28, G29, G30, G31, G32, G33, G34.
O15	Contribute to the long-term conservation of significant flora and fauna species through habitat protection, maintenance of passage for fauna, and the management of urban stormwater flows.	R16, R,17, R18, R19, R27, R30, R34, R38, R39, G18, G19, G20, G21, G25, G27, G28, G29, G33.
O16	Ensure the retention and establishment of trees through responsive layout of lots, streets and open spaces.	R16, R17, R25, R29, G13, G19,G24, G25, G29
O17	Facilitate safe, resilient, water sensitive, environmentally sustainable urban environments that respond to climate change and other hazards.	R20, R21, R22, R23, R24, R25, R26, R27, R28. R29, R30, R31, R32, R34, G14, G15, G16, G17, G19, G26, G35, G36
O18	Develop sustainable water supply, drainage and wastewater systems that protect, conserve, and improve biodiversity, waterways and other natural resources and maintains or enhances the safety, health and wellbeing of people and property.	R27, R29, R31, R33, R34, G19, G28, G35, G36
O19	Increase community resilience to bushfire by ensuring bushfire hazards are identified and bushfire risk is reduced to an acceptable level.	R20, R21, R22, R23, R24, R25, R26, G14, G15, G16, G17
O20	Promote an integrated and high quality open space and conservation outcome for the Bruce Creek corridor.	R17, R18, R19, R38, R39, G18, G20, G21, G27, G28, G29, G30, G31, G34

4.4.2 Requirements and guidelines

Table 11 – Requirements and guidelines – High quality public realm

REQUIREMENTS

R16	Significant trees and habitat areas (*Melbourne Yellow Gums, High/Critical Retention Trees and Golden Sun Moth/Tussock Skink Habitat*) identified in Plan 6 – Public Realm must be retained and protected to the satisfaction of the responsible authority.
R17	Applications must demonstrate how the proposed development will avoid and minimise impacts on biodiversity values, particularly habitat for matters of national environmental significance in the *Environment Protection and Biodiversity Conservation Act 1999* to the satisfaction of the responsible authority.
R18	Any biodiversity conservation area to be vested in the relevant authority must be finished to a standard that satisfies the requirements of that authority. Works required prior to the transfer include: – Clearing of rubbish and weeds. – Completion of essential repairs to and stabilisation of any structures. – Installation of any fencing required to ensure public safety. – Any works carried out must be consistent with any relevant approved Cultural Heritage Management Plan and/or Conservation Management Plan.
R19	Public lighting must be designed and baffled to prevent light spill and glare within and adjacent to Bruce Creek, unless otherwise agreed by the Department of Energy, Environment and Climate Action.
R20	Vegetation within bushfire hazard areas shown on Plan 8 – Bushfire must be managed to the relevant vegetation threat level unless otherwise agreed by the responsible authority and relevant fire authority.
R21	Development adjoining bushfire hazards shown on Plan 8 – 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 *Bannockburn South East PSP – Bushfire Assessment* (January 2025), unless otherwise agreed with the responsible authority and relevant fire authority
R22	Subdivision adjoining a bushfire hazard area must include a publicly accessible perimeter road unless otherwise agreed by the responsible authority and relevant fire authority.
R23	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 10m of a building, flammable objects must not be located close to the vulnerable parts of the building. – Plants greater than 10cm in height must not be placed within 3m 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 5m. – Trees must not overhang or touch any elements of a building.
R24	This requirement does not apply to perimeter roads in bushfire designated areas. Street planting in these locations must be of a species to the satisfaction of the responsible authority in consultation with the relevant fire authority.

REQUIREMENTS

R25	Canopy tree coverage within the public realm must achieve a minimum of 30% (excluding areas dedicated to biodiversity or native vegetation conservation). The responsible authority and the relevant fire authority may choose to waive this requirement for perimeter roads adjoining bushfire hazard areas. Street planting in these locations must be of a species to the satisfaction of the responsible authority in consultation with the relevant fire authority
R26	Any lot created for a future government or non-government school must be capable of accommodating a building envelope that achieves the setbacks from classified vegetation required under S43C2 of the National Construction Code 2022 (or as updated) to the satisfaction of the responsible authority in consultation with the relevant fire authority.
R27	A landscape plan must implement integrated water management and water sensitive design outcomes to the satisfaction of the responsible authority.
R28	Stormwater runoff from development must meet the objectives of the *Urban Stormwater – Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999)*, and *EPA Urban Stormwater Publication 1739.1* (or as amended) (including achieving the General Environmental Duty described within) prior to discharge to receiving waterways and as outlined in Plan 7 – Water, where reasonably practicable unless otherwise approved by Corangamite Catchment Management Authority and the responsible authority. Proposals that exceed the performance objectives are highly encouraged and can be considered, all to the satisfaction of Corangamite Catchment Management Authority and the responsible authority.
R29	Passive irrigation of street trees must be provided, unless otherwise agreed by the responsible authority. 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).
R30	The final layout, boundaries and design of constructed wetlands, retarding basins, stormwater quality treatment infrastructure, and associated paths, boardwalks, bridges, and planting, must include appropriate treatments to provide protection for dispersive soils where these are present and be designed to the satisfaction of Corangamite Catchment Management Authority and the responsible authority, and must mitigate the risk of erosion from sodic and dispersive soils.
R31	Stormwater conveyance and treatment must be designed generally in accordance with the final stormwater drainage concept, Plan 7 – Water, such that: – Overland flow paths and piping within road reserves will be connected and integrated across property/parcel boundaries. – Corangamite Catchment Management Authority and the responsible authority freeboard requirements for overland flow paths will be adequately contained within the road reserves and waterways.

REQUIREMENTS

R32	The risk of erosion of sodic and/or dispersive soils must be avoided or mitigated. Potential management methods may include but are not limited to: – Widening the buffer distances between the core riparian zone and the outside vegetated buffers that allows sufficient tolerances for channel migration. – Diversion of water away from sodic and/or dispersive materials. – Minimising potential convergence and/or ponding of surface flows – Compacting to reduce pore spaces and minimise water movement through material. – Physical and chemical soil ameliorants. – Maintenance of topsoil across undisturbed land, preferably with grasses to provide surface soil stability and root anchorage. – Minimise the amount of time land is exposed (e.g., by staging development). – Ensure that culverts and drains excavated into dispersive subsoils are capped with non-dispersive topsoil, gypsum stabilised and vegetated.
R33	Stormwater drainage infrastructure may be constructed in the cultural and/or environmental 32ea on Plan 7 – Water, provided that the responsible authority is satisfied with the design: – Minimises impacts on biodiversity values, particularly habitat for matters of national environmental significance *Environment Protection and Biodiversity Conservation Act 1999*. – Is consistent with the document titled *Growling Grass Frog Habitat Design Standards* (DELWP, 2017). – Is consistent with a Cultural Heritage Management Plan approved under the *Aboriginal Heritage Act 2006*. – Is consistent with any relevant erosion management plan is approved by the responsible authority.
R34	Constructed drainage waterways are to be designed generally in accordance with Plan 10 – Infrastructure and Development Staging, unless otherwise agreed with the responsible authority. Waterways must, to the satisfaction of the responsible authority: – Provide safe drainage and flood protection. – Incorporate sufficient setbacks or buffers from built infrastructure such as roads and residential and commercial uses to safeguard the ecological function and values of the waterway. – Protect environmental, cultural values and enhance urban amenity values.
R35	Dry stone walls must be retained unless otherwise agreed by the responsible authority. Dry stone walls to be retained must: – Be situated within a public open space or road reserve to the satisfaction of the responsible authority. – Have a suitable landscape interface. – Be checked by a suitably qualified dry stone wall expert for any loose stones that are to be reinstated in the wall in secure positions. – Be incorporated into subdivision design to minimise disturbance to the walls (e.g. utilisation of existing openings for vehicle and pedestrian access).
R36	Prior to subdivision of land containing the high voltage utilities easement, a concept plan for the easement must be prepared, which demonstrates high quality amenity, open space and development outcomes corresponding with the list of considerations found in Appendix 6 – Utilities easement design outcomes easement design outcomes to the satisfaction of the responsible authority.
R37	Wadawurrung cultural heritage and historic heritage sites (e.g. drystone walls and the farmstead) must be recognised through the design of public places, infrastructure and interpretive installations.

REQUIREMENTS

R38	Subdivisions that include the Bruce Creek corridor must have regard to Appendix 5 – Bruce Creek open space outcomes, Bruce Creek Open Space Design Outcomes to the satisfaction of the responsible authority.
R39	For land within 200 metres of the centre line of Bruce Creek, the requirements at Appendix 7 – Requirements for Bridge Investigation Area, Bruce Creek Conservation Management and Conservation Area Concept Plan for the Bruce Creek Conservation Management Plan and Conservation Area Concept Plan must be met.

GUIDELINES

G13	Canopy trees should have an average canopy of foliage of at least 6.4m in diameter at maturity in summer. Where this cannot be achieved because of local climate and soil conditions, a suitable species should be selected which closest achieves suitable canopy cover, to the satisfaction of the responsible authority. Achieve of a minimum 30% canopy tree coverage within the public realm must still be met.
G14	All fencing adjoining bushfire hazard areas shown on Plan 8 – Bushfire should be made from non-combustible materials.
G15	Lot design adjoining bushfire interface, shown on Plan 8 – Bushfire should allow for the provision of a static water supply of 2,500L for personal firefighting where practical.
G16	Subdivision should include a network of streets that provide multiple evacuation routes away from bushfire risks and areas of bushfire hazard. Setbacks within private allotments can be used for bushfire setbacks where there is appropriate vegetation management.
G17	Where a setback is required from a bushfire hazard, the setback should be provided on public land additional to the Bruce Creek uncredited open space where practical.
G18	Movement corridors for local fauna and adjacent land uses should be designed and managed sensitively to facilitate fauna movement in accordance with a management plan.
G19	The design and layout of roads, road reserves and public open space should optimise water use efficiency and long-term viability of vegetation, tree canopy and public landscaped areas through use of water sensitive urban design initiatives and opportunities for IWM.
G20	Opportunities should be provided for the community to access and experience conservation areas while acknowledging the primary purpose of these areas is to protect and manage threatened species and vegetation communities.
G21	Revegetate relevant land within the Bruce Creek Conservation Area to restore and enhance the Natural Temperate Grasslands and ensure protection of extant biodiversity values.
G22	Alternative locations and configurations for local parks shown on Plan 6 – Public Realm, may be considered subject to: – Open space being retained within the same landownership. unless otherwise agreed with the affected landowners. – Not diminishing the quality or usability of the space. – Not adversely affecting walkable accessibility of the network. – Not adversely affecting the overall diversity of the precinct's open space network.
G23	The open space network should: – Include a range of open space typologies and sizes in accordance with Table 12 – Open space delivery and Plan 6 – Public Realm. – Maximise the amenity and value of open space through shared paths, trails, interpretive features and other recreational elements.
G24	Where practicable, low and moderate arboricultural value trees (excluding designated weed species) should be considered for retention, protected and enhanced, and indigenous revegetation undertaken to provide habitat and movement corridors for local fauna.

GUIDELINES

G25	Open space and landscape in the public realm should ensure that street trees have adequate root zone space free from infrastructure or utilities.
G26	Incorporate opportunities for alternative energy, where practical such as solar lighting, wind trees and neighbourhood batteries into streetscapes and the public realm.
G27	Drainage assets 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.
G28	Drainage assets adjacent to Bruce Creek in areas of Aboriginal Cultural Heritage Sensitivity should be located and designed in collaboration with the Wadawurrung. The design process should include consideration of the following: – Rehabilitation, protection and creation of habitat values, including for threatened species such as Growling Grass Frog. – Contributing towards a resilient, clean and healthy system of rivers and waterways. – Ensuring cultural flows are maintained and maximising opportunities for cultural and economic access to water.
G29	Significant flora and fauna species should be integrated into the open space network in a way that: – Respects and incorporates Wadawurrung values and aspirations. – Maximises passive amenity values. – Builds opportunities for the community to connect with the landscape and embeds passive educational outcomes. – Reflects the *Growling Grass Frog Habitat Design Standards 2017*. – Ensures ongoing viability of habitat and maximises habitat connectivity.
G30	The open space network should respond to the values of adjoining areas of Wadawurrung cultural value and significance, including but not limited to the Bruce Creek corridor and area of Stony Rises.
G31	Significant elements of the landscape and built form should be used as focal points for view lines along streets. Elements may include hill tops, ridge lines, prominent vegetation and other landmarks. Special consideration should be given to maintaining visual connectivity to landscape features that are important to Wadawurrung relationships to the precinct, such as the Barrabool Hills including Mount Moriac, Mount Gnarwarre and Mount Pollock.
G32	Wadawurrung should be invited to placename new precinct features (e.g. constructed waterways, roads, trails and open spaces).
G33	Dependent on the outcomes and cultural value findings of the relevant Cultural Heritage Management Plans (CHMPs) and/or other cultural heritage investigations, open space outcomes within the areas of Stony Rises and Bruce Creek should be designed to: – Prioritise indigenous vegetation restoration and renourishment. – Maximise significant view lines to and from features within the precinct, and features of significance across Wadawurrung Country. – Integrate with the wider open space and active transport network.
G34	Opportunities 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 sensitivity (e.g. Bruce Creek), in consultation with relevant stakeholders. Signage or interpretive opportunities should be integrated into the public realm to contribute to the knowledge and understanding of the local area's Aboriginal cultural and historic cultural history.

GUIDELINES

G35 Development should demonstrate a reduced reliance on potable water using alternative design features such as stormwater collection, and recycled water. In particular, the use of lot scale rainwater tanks plumbed for internal reuse (e.g. toilets).

G36 Applications should consider a range of IWM options as indicated in Plan 7 – Water and Figure 2 – Integrated water management opportunities to provide for urban amenity and meet the vision and objectives of the Bannockburn Integrated Water Management Plan. Potential IWM options may include but are not limited to:

- Rainwater tanks on all commercial and residential lots.
- Passive irrigation of trees in the public realm, include all streets and public open space.
- Stormwater reuse for public open space.
- Kerb cut-out installation around public open space.
- Enablement of infiltration wetlands to be installed.

Table 12 – Open space delivery

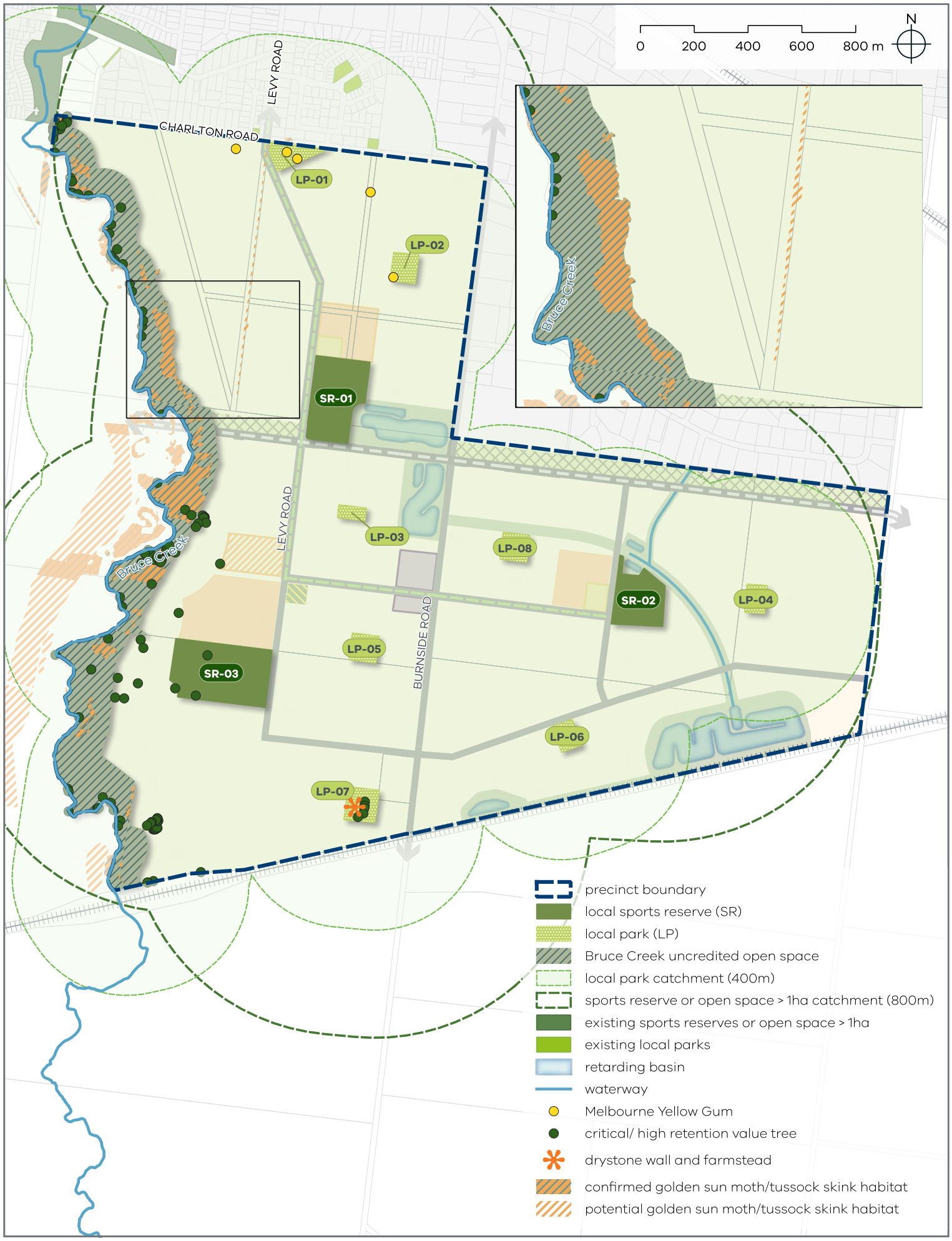
Park ID	Area (ha)	Local attributes	Responsibility
Active open space – local sports reserve			
SR-01	5.62	Co-located with northern primary school, partially within utilities easement (0.86ha of 5.62ha)	Golden Plains Shire
SR-02	3.53	Co-located with the eastern primary school and constructed waterway	Golden Plains Shire
SR-03	7.61	South of the Levy Road extension, co-located with a secondary school and abutting the Bruce Creek corridor	Golden Plains Shire
Local parks			
LP-01	1.24	Corner of Levy Road and Charlton Road at north of precinct, includes multiple extant Melbourne Yellow Gums	Golden Plains Shire
LP-02	1.00	Local park to the north with an extant Melbourne Yellow Gum	Golden Plains Shire
LP-03	0.48	Local park between Levy Road and RBWL1B	Golden Plains Shire
LP-04	0.76	Eastern local park	Golden Plains Shire
LP-05	1.00	Local park in south/centre of precinct	Golden Plains Shire
LP-06	0.80	Local park in southeast of precinct on corner of future connector routes	Golden Plains Shire
LP-07	1.41	Local park near southern precinct boundary, including many extant indigenous trees and a historic farmstead with drystone walls	Golden Plains Shire
LP-08	1.00	Local park south of constructed waterway	Golden Plains Shire
Indoor recreation			
IR-01	0.60	On central connector spine, co-located with secondary school, sports reserve and potential non-government primary school	Golden Plains Shire

Table 13 – Water infrastructure

Drainage Scheme			
Asset ID	**Area (ha)**	**Asset type**	**Responsibility**
RBWL1A	6.53	Retarding basin / wetland	Golden Plains Shire
RBWL1B	4.63	Retarding basin / wetland	Golden Plains Shire
RBWL2	13.84	Retarding basin / wetland	Golden Plains Shire
RBSB3	0.23	Retarding basin / sediment basin	Golden Plains Shire
RBSB4	0.39	Retarding basin / sediment basin	Golden Plains Shire
RBSB5	0.36	Retarding basin / sediment basin	Golden Plains Shire
RBSB6	2.00	Retarding basin / sediment basin	Golden Plains Shire
WW-01	5.72	Constructed waterway	Golden Plains Shire
WW-02	0.82	Constructed waterway	Golden Plains Shire
DR-01	24.27	Drainage pipe	Golden Plains Shire
DR-02	0.00	Drainage outfall	Golden Plains Shire
DR-03	0.00	Drainage pipe	Golden Plains Shire
DR-04	0.00	Bruce Creek open space reserve	Golden Plains Shire
CU-01	0.00	Culvert	Golden Plains Shire
CU-02	0.00	Culvert	Golden Plains Shire

Plan 6 – Public Realm

Bannockburn South East Precinct Structure Plan



Plan 7 – Water

Bannockburn South East Precinct Structure Plan

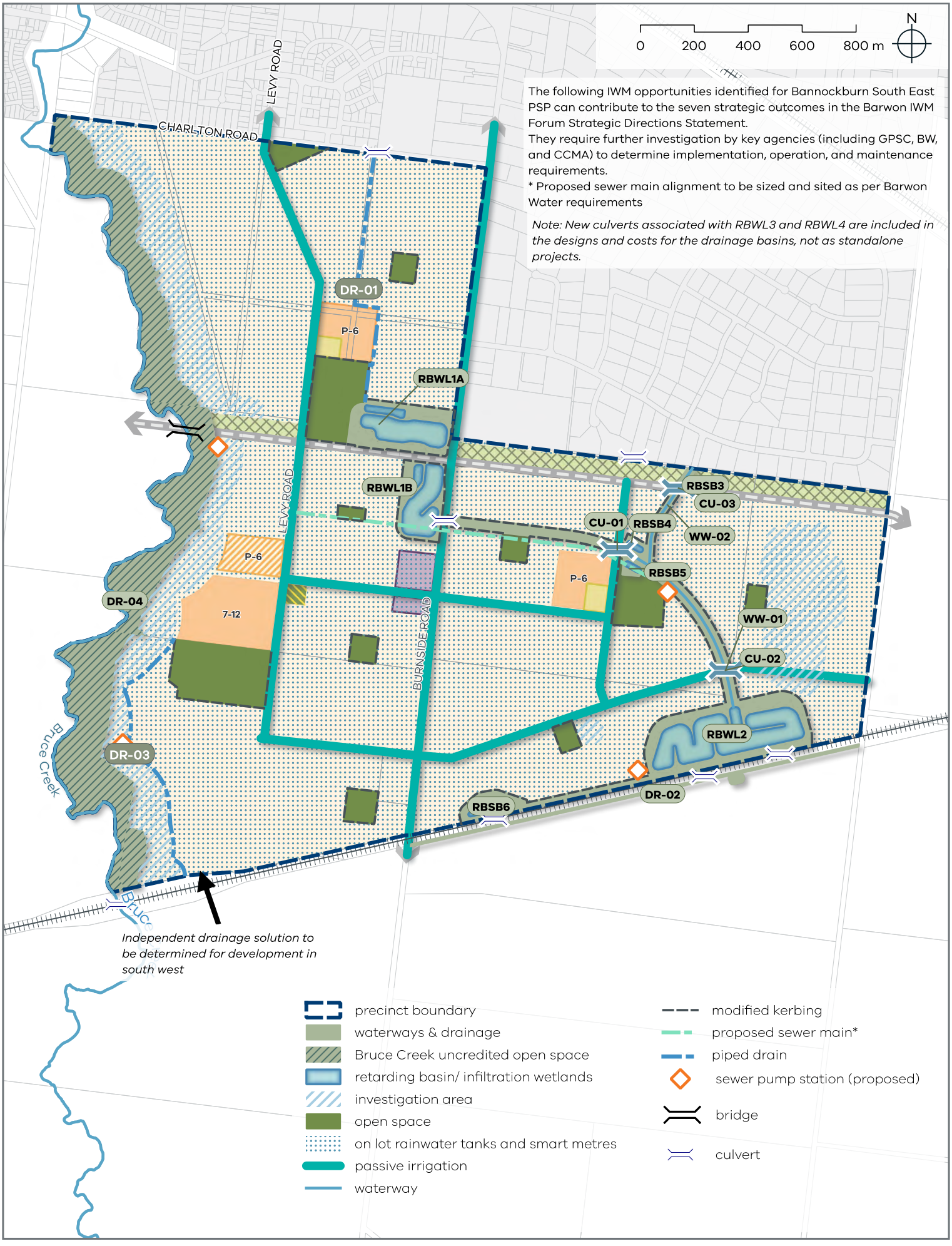


Figure 2 – Integrated water management opportunities

Safe, secure, and affordable supplies in an uncertain future

- Lot-scale rainwater and stormwater harvesting (households)
- Smart meters for residents (BW)



Healthy and valued urban, agricultural, rural and green landscapes

- Passive irrigation of street trees (GPSC)
- Stormwater harvesting for open space irrigation (GPSC/BW)
- Modified kerbing to allow passive irrigation of open space (GPSC)



Effective and affordable wastewater systems

- Recycled water for open space irrigation (GPSC/BW)



Traditional Owner and community values reflected in place-based planning

- Location of infrastructure across Bruce Creek is co-designed with the Wadawurrung Traditional Owners Aboriginal Corporation



Healthy and valued waterways and marine environments

- Stormwater infiltration via Water Sensitive Urban Design assets and infiltration wetlands (GPSC)



Jobs, economic growth and innovation

- Water to support jobs and economic growth



Opportunities are optimised to manage existing and future flood risks and impacts

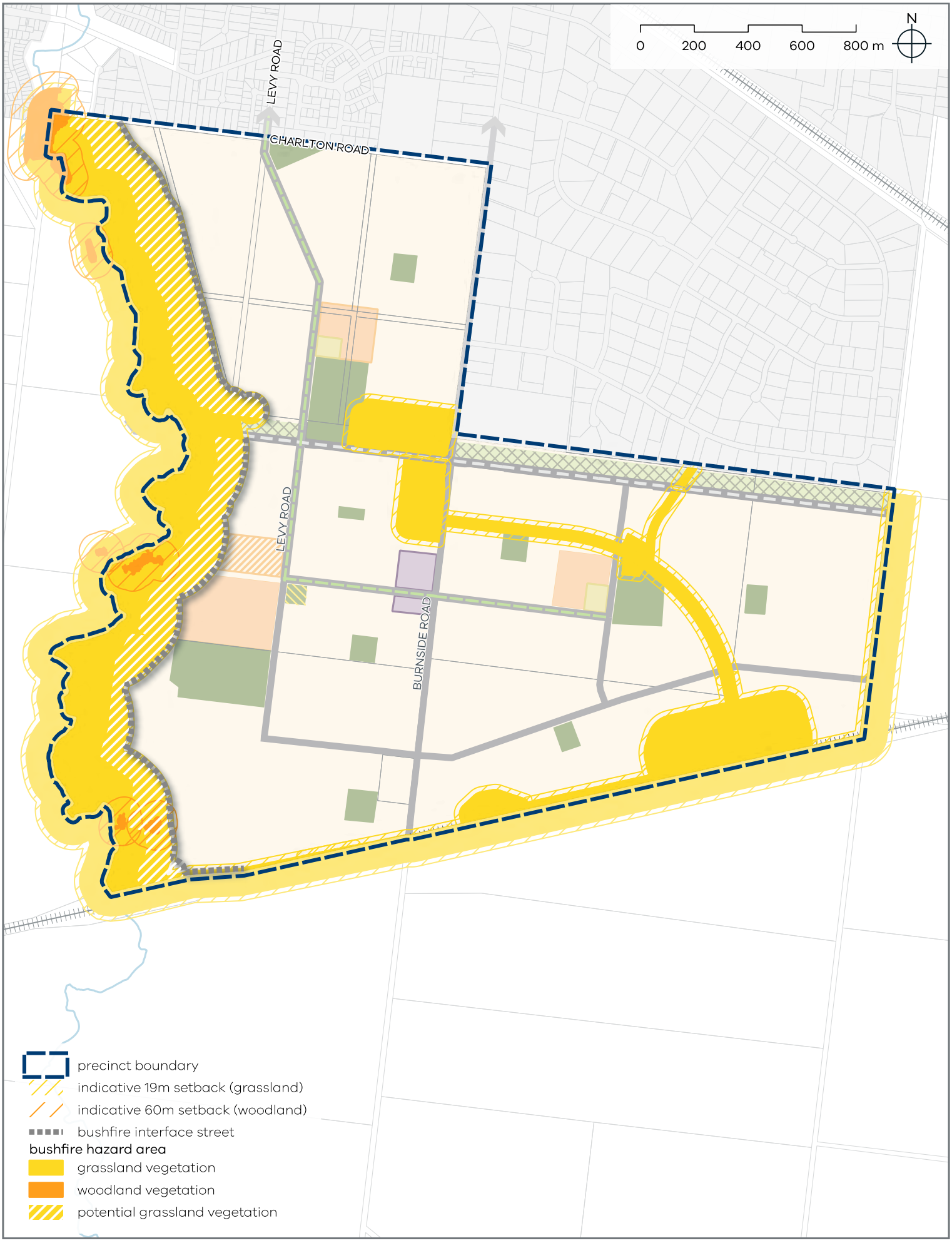
- Flood mitigation via the Bannockburn South East Drainage Strategy (GPSC/CCMA)



BW	Barwon Water
GPSC	Golden Plains Shire Council
CCMA	Corangamite Catchment Management Authority

Plan 8 – Bushfire

Bannockburn South East Precinct Structure Plan



4.5 Services and destinations

4.5.1 Objectives

Table 14 – Objectives – Services and destinations

OBJECTIVES		IMPLEMENTATION TOOLS
O21	To support education and community infrastructure and facilities that cater for multiple social needs, and that are located to equitably and efficiently maximise their accessibility and shared use with adjoining precincts and the broader region.	R40, R41, R42, G37, G39, G38, G40, G41, G42, G43
O22	To facilitate development of shared-use facilities by co-locating schools and community facilities with sporting reserves adjacent to the Local Town Centre and facilitating the appropriate and timely delivery of local community infrastructure and services.	R42, G37, G38, G41, G42, G43

4.5.2 Requirements and guidelines

Table 15 – Requirements and guidelines – Services and destinations

REQUIREMENTS	
R40	Education facilities must have a minimum of two road frontages (three preferred), with one connector road abutting the school with a road easement wide enough to allow for school bus movement while accommodating on-street parking, adequate drop off and pick up zones, and two-way traffic movement
R41	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.
R42	Subdivision and development involving the delivery of government school sites must be undertaken in accordance with the criteria specified in the *Victorian Government School Site Selection Criteria Toolbox* (Department of Education, April 2025). Any lot created for a government school site or proposals to modify the location of the proposed government schools from the incorporated PSP must be to the satisfaction of the Department of Education.

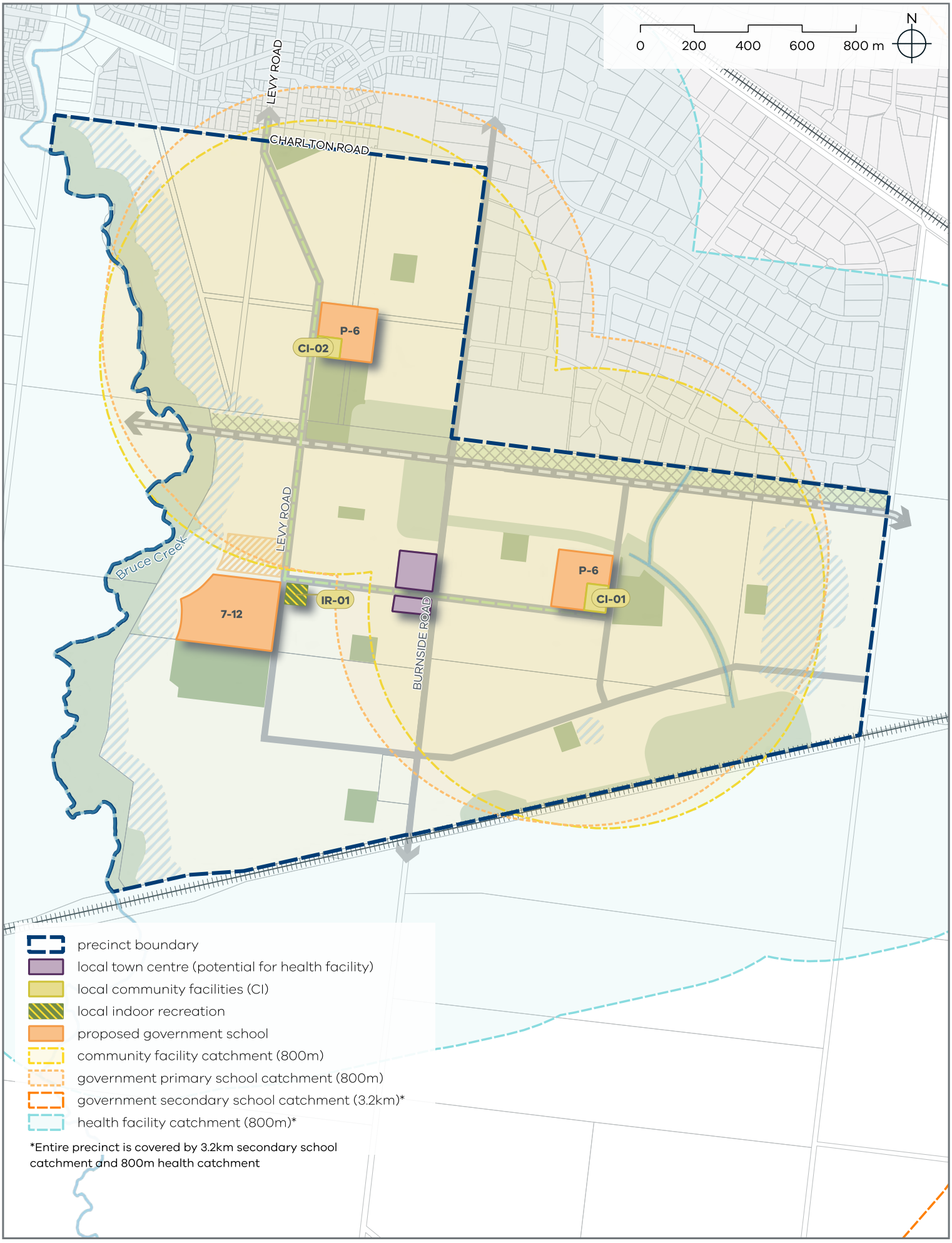
GUIDELINES	
G37	The design of community facilities and infrastructure should cater towards and supports various user needs to promote inclusivity.
G38	The incorporation of landscaping and design treatments should reflect local character and community needs.
G39	Where the responsible authority is satisfied that land shown as a non-government school site is unlikely to be used for a school at ultimate development of the PSP, that land must be used for an alternative purpose that is compatible with the surrounding land uses and the provisions of the applied zone. Justification should be provided in accordance with the VPAs guidance note titled *Development of Non-Government School Sites for an Alternative Purpose*.
G40	Emergency services should have access to the arterial road network to maximise coverage and reduce response times.
G41	Social services that support the needs of the community should be provided within the walkable catchment shown on Plan 9 – Community infrastructure.

GUIDELINES

G42	Social services that support the needs of the community should be provided simultaneously with the delivery of affordable housing.
G43	Community facilities, schools and sports reserves which are co-located should be designed to: – Maximise efficiencies through the sharing of car parking and other complementary infrastructure. – Maximise direct access and permeability for pedestrians and cyclists through and between facilities. – Apply a user-centred approach to ensure these spaces are accessible, flexible, safe and intuitive to create a positive experience for the community.

Plan 9 – Community infrastructure

Bannockburn South East Precinct Structure Plan



4.6 Infrastructure coordination

4.6.1 Objectives

Table 16 – Objectives – Infrastructure coordination

OBJECTIVES		IMPLEMENTATION TOOLS
O23	To identify and guide the timely staging and delivery of infrastructure and development, encourage leveraging of existing and planned infrastructure.	R43, R44, R45, R46, G44, G45, G46
O24	To facilitate development that: – Is adapted and resilient to climate related hazards. – Supports the transition to net zero greenhouse gas emissions. – Encourages renewable energy generation, storage and distribution. – Reduces the urban heat island effect. – Minimises waste generation and supports resource recovery and circular economy principles. – Conserves potable water.	G46, G47, G48

4.6.2 Requirements and guidelines

Table 17 – Objectives – Services and destinations

REQUIREMENTS	
R43	Sequencing of infrastructure development must be generally in accordance with the Plan 10 – Infrastructure and Development Staging, unless otherwise agreed by the responsible authority.
R44	Delivery of underground services must be coordinated, located, and bundled (utilising common trenching) to facilitate the planting of trees and other vegetation within road verges where practical.
R45	Above ground utilities must be identified at the subdivision design stage to ensure effective integration with the surrounding neighbourhood, to minimise amenity impacts and be designed to the satisfaction of the relevant authority. Where that infrastructure is intended to be in public open space, the land required to accommodate that infrastructure will not be counted as contributing to public open space requirements specified and will be in addition to the areas designated in Appendix 2 – Summary & parcel-specific land use budget.
R46	The responsible authority can consider interim drainage solutions where it can be demonstrated that the interim drainage will not prejudice the implementation of drainage shown in the ultimate strategy.

GUIDELINES

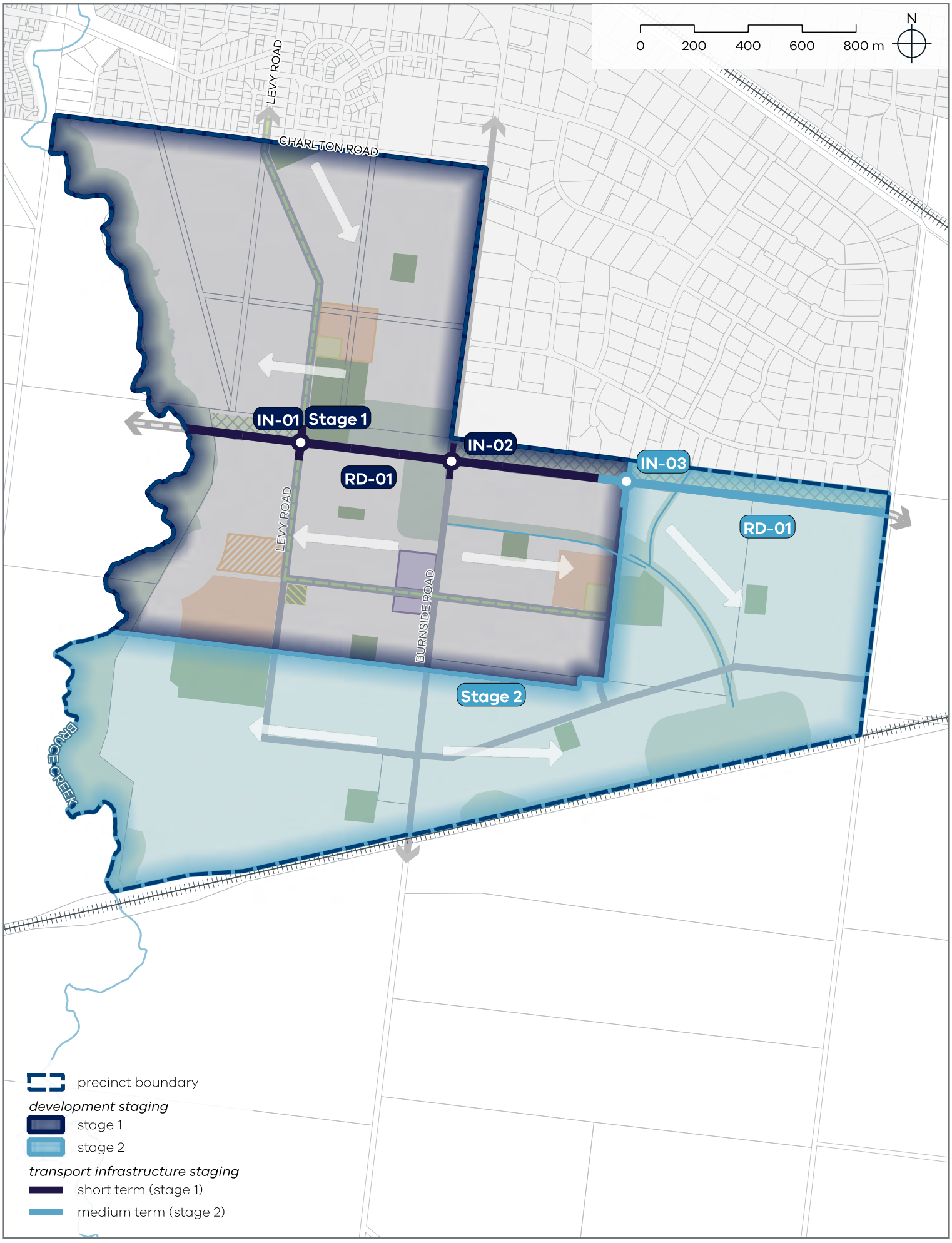
G44	Out-of-sequence development should only be by negotiation and agreement between a developer and the impacted infrastructure providers and not impose unreasonable additional burden on infrastructure providers.
G45	Development staging should have regard to: – Proximity to existing or proposed development fronts or serviced land. – Proximity to significant existing public transport infrastructure or public transport service. – Proximity to existing or committed community infrastructure, such as schools. – Proximity to new or existing road infrastructure. – Its role in facilitating delivery of the above infrastructure. – The presence of Eastern Grey Kangaroos, with staging planned to avoid landlocking. Staging that meets alternative criteria to the above may be considered by the responsible authority where an applicant satisfactorily demonstrates that development will not be isolated from basic and essential infrastructure and services, as identified in Plan 10 – Infrastructure and Development Staging.
G46	Prioritise the consolidation and placement of utilities outside of the cultural and/or environmental investigation area as shown on Plan 2 – Place-based Plan. Where the placement of utilities cannot avoid crossing the cultural and/or environmental investigation area it must be located to avoid disturbance to existing waterway values, native vegetation, areas of strategic importance to Growling Grass Frog and cultural heritage sites, to the satisfaction of the responsible authority.

G47	Development should consider Environmentally Sustainable Development principles, such as the inclusion of, but not limited to:
	– Material re-use and recycling (use of materials with reduced embodied energy).
	– Electrical self-generation, car charge schemes, smart grids, microgrids and battery storage.
	– Use of tools such as Built Environment Sustainability Scorecard (BESS) and Sustainable Subdivisions Framework (Council Alliance for a Sustainable Built Environment).
	– Measures that reduce the urban heat island effect.
	– Waste management initiatives.
	– Smart meters and power point tracking.
	– Flywheel energy storage systems in commercial, community and school settings.
	– Development that facilitates the reduction of environmental impacts and resource use through:
	  – Public realm design and connectivity.
	  – Facilitation of alternative energy generation systems.
	– Access to public and integrated active transport networks.

G48	Rooftop solar and battery storage facilities should be included for homes, commercial, community and school buildings, where practical to the satisfaction of the network distributor.

Plan 10 – Infrastructure and Development Staging

Bannockburn South East Precinct Structure Plan



5.0 APPENDICES

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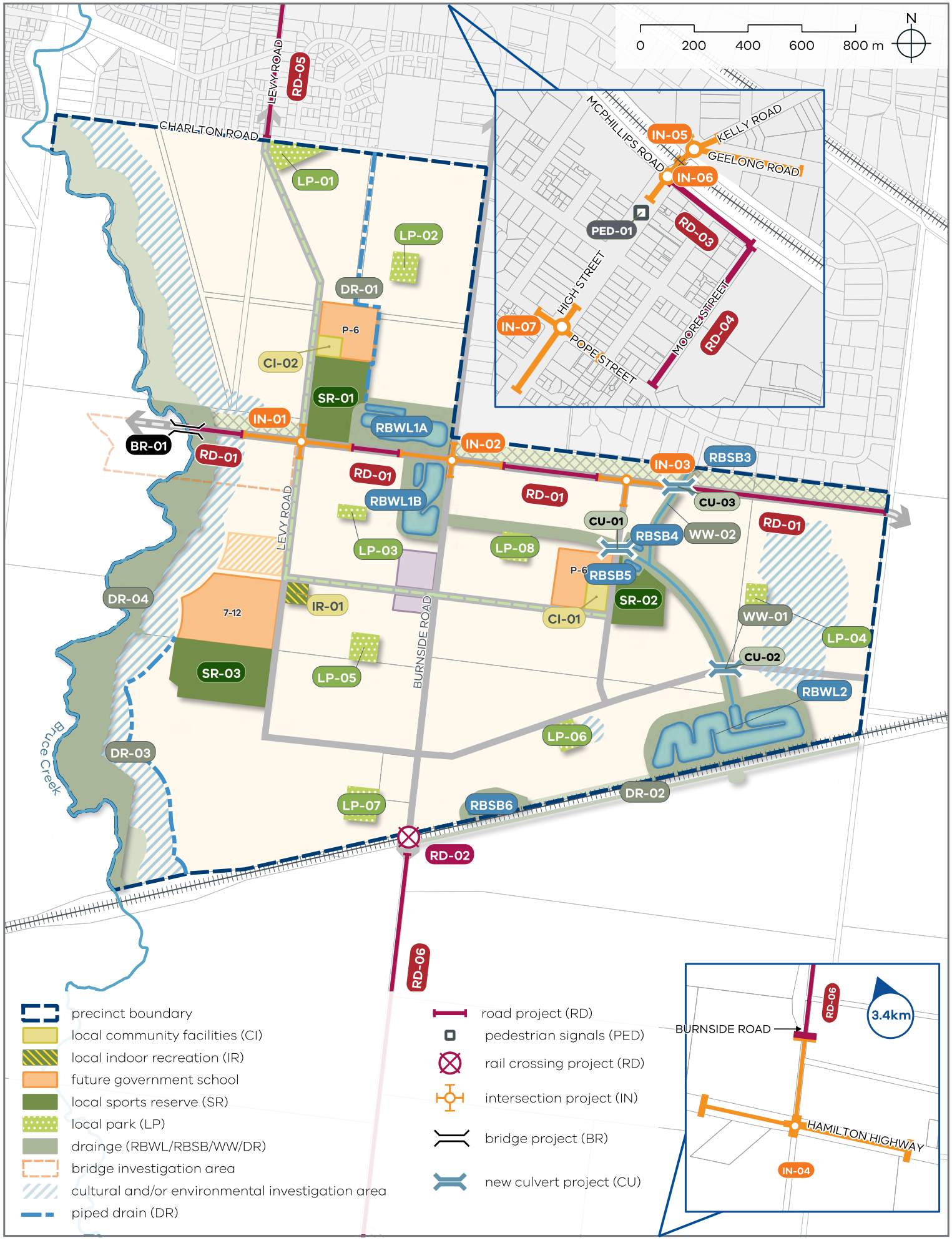

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CHARLTON ROAD
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RD-05
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SR-01
RBWL1A
IN-01
BR-01
RD-01
IN-02
RD-01
RBWL1B
LEVY ROAD
LP-03
LP-08
IN-03
RBSB3
CU-03
CU-01
RBSB4
WW-02
RD-01
P-6
RBSB5
SR-02
CI-01
WW-01
LP-04
CU-02
RBWL2
DR-04
7-12
IR-01
SR-03
LP-05
BURNSIDE ROAD
LP-06
DR-03
Bruce Creek
LP-07
RBSB6
DR-02
RD-02
RD-06
MCPHILLIPS ROAD
IN-05
KELLY ROAD
GEELONG ROAD
IN-06
PED-01
RD-03
HIGH STREET
IN-07
POPE STREET
MOORE STREET
RD-04
precinct boundary
local community facilities (CI)
local indoor recreation (IR)
future government school
local sports reserve (SR)
local park (LP)
drainage (RBWL/RBSB/WW/DR)
bridge investigation area
cultural and/or environmental investigation area
piped drain (DR)
road project (RD)
pedestrian signals (PED)
rail crossing project (RD)
intersection project (IN)
bridge project (BR)
new culvert project (CU)
BURNSIDE ROAD
RD-06
3.4km
HAMILTON HIGHWAY
IN-04

Table 18 – Precinct infrastructure

PIP REF NO.	TITLE	DESCRIPTION	LEAD AGENCY	COMPONENT INCLUDED IN DCP			TIMING	APPORTIONMENT FUNDING SOURCE	APPORTIONMENT
				ULTIMATE LAND	INTERIM CONSTRUCTION	ULTIMATE CONSTRUCTION			
Road projects									
RD-01	East–west Link Road (Interim)	Purchase of land for ultimate (4 lane) east–west link road	Golden Plains Shire Council	Yes	No	No	M–L	Development	100%
RD-012	Burnside Road level crossing upgrade	Upgrades to Burnside Road rail level crossing	Golden Plains Shire Council	Yes	No	Yes	S–L	Development	100%
RD-03	McPhillips Road upgrade	Upgrades to McPhillips Road between High Street and Moore Street	Golden Plains Shire Council	Yes	No	Yes	S–L	Development	100%
RD-04	Moore Street upgrade	Upgrades to Moore Street between McPhillips Road and Pope Street	Golden Plains Shire Council	Yes	No	Yes	S–L	Development	100%
RD-05	Levy Road upgrade	Upgrades to Levy Road between Charlton Road and Burnside Road	Golden Plains Shire Council	Yes	No	Yes	S–L	Development	100%
RD-06	Burnside Road upgrades (south)	Upgrades to Burnside Road between RD-02 and IN-04	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
Intersection projects									
IN-01	Levy Road / Future East–west Link Road Intersection	Purchase of land for ultimate 4-way intersection (Levy Road/future east–west link road)	Golden Plains Shire Council	Yes	No	No	M–L	Development	100%
IN-02	Burnside Road / Future East–west Link Road Intersection	Purchase of land for ultimate 4-way intersection (Burnside Road/future east–west link road) and construction of interim 4-way intersection (Burnside Road/future east–west link road)	Golden Plains Shire Council	Yes	Yes	No	S–M	Development	100%
IN-03	Future Connector / Future East–west Link Road Intersection	Purchase of land for ultimate 3-way intersection (future connector/future east–west link road)	Golden Plains Shire Council	Yes	No	No	M–L	Development	100%
IN-04	Burnside Road / Hamilton Highway Intersection	Construction of roundabout (Burnside Road/Hamilton Highway)	Golden Plains Shire Council	Yes	No	Yes	S–L	Development	100%
IN-05	High Street / Geelong Road / Kelly Road Intersection	Construction to upgrade the existing roundabout at High Street/Geelong Road/Kelly Road and to widen the High Street railway crossing	Golden Plains Shire Council	Yes	No	Yes	S–L	Development	100%
IN-06	McPhillips Road / High Street Intersection	Construction of a left-in left-out intersection	Golden Plains Shire Council	Yes	No	Yes	S–L	Development	100%
IN-07	Pope Street / High Street Intersection	Construction of 4-way signalised intersection (Pope Street/High Street)	Golden Plains Shire Council	Yes	No	Yes	S–L	Development	100%

				COMPONENT INCLUDED IN DCP					
PIP REF NO.	TITLE	DESCRIPTION	LEAD AGENCY	ULTIMATE LAND	INTERIM CONSTRUCTION	ULTIMATE CONSTRUCTION	TIMING	APPORTIONMENT FUNDING SOURCE	APPORTIONMENT
Bridge projects									
BR-01	East–west Link Road Bridge	Construction of interim (2 lane) bridge	Golden Plains Shire Council	Yes	No	No	L	Development	100% (land) 0% (construction)
Pedestrian crossing projects									
PED-01	Signalised Pedestrian Crossing at High Street	Construction of a pedestrian operated signal across High Street between McPhillips Road and Milton Street	Golden Plains Shire Council	Yes	No	Yes	S–L	Development	100%
Community facilities									
CI-01	Level 2 Community Centre	Purchase of land for level 2 community facility and construction of level 2 community facility	Golden Plains Shire Council	Yes	No	Yes	M	Development	100%
CI-02	Level 1 Community Centre	Purchase of land for level 1 community facility and construction of level 1 community facility	Golden Plains Shire Council	Yes	No	Yes	M	Development	100%
Indoor recreation facilities									
IR-01	Indoor Recreation Centre (2 court)	Purchase of land for 2 court indoor recreation facility and construction of 2 court indoor recreation facility	Golden Plains Shire Council	Yes	No	Yes	M	Development (land) Community (construction)	100% (land) 75% (construction)
Sports reserves									
SR-01	Sports Reserve (partially within transmission easement)	Purchase of land for sports reserve, construction of sports reserve and construction of pavilions	Golden Plains Shire Council	Yes	No	Yes	M	Community (pavilions) and Development (land and other construction)	100%
SR-02	Sports Reserve	Purchase of land for sports reserve, construction of sports reserve and Construction of pavilions	Golden Plains Shire Council	Yes	No	Yes	M	Community (pavilions) and Development (land and other construction)	100%
SR-03	Sports Reserve	Purchase of land for sports reserve, construction of sports reserve and construction of pavilions	Golden Plains Shire Council	Yes	No	Yes	L	Community (pavilions) and Development (land and other construction)	100%

				COMPONENT INCLUDED IN DCP					
PIP REF NO.	TITLE	DESCRIPTION	LEAD AGENCY	ULTIMATE LAND	INTERIM CONSTRUCTION	ULTIMATE CONSTRUCTION	TIMING	APPORTIONMENT FUNDING SOURCE	APPORTIONMENT
Retarding basin/wetland									
RBWL1A	Retarding basin/ Wetland	Purchase of land and construction for retarding basin/wetland	Golden Plains Shire Council	Yes	No	Yes	S	Development	100%
RBWL1B	Retarding basin/ Wetland	Purchase of land and construction for retarding basin/wetland	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
RBWL2	Retarding basin/ Wetland	Purchase of land and construction for retarding basin/wetland	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
RBW3	Sediment basin	Purchase of land and construction for sediment basin	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
RBWL4	Sediment basin	Purchase of land and construction for sediment basin	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
RBWL5	Sediment basin	Purchase of land and construction for sediment basin	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
RBWL6	Sediment basin	Purchase of land and construction for sediment basin	Golden Plains Shire Council	Yes	No	Yes	M–L	Development	100%
Constructed waterway projects									
CU-03	Constructed waterway	Purshcase of land and construction of constructed waterway	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
CU-03	Constructed waterway	Purshcase of land and construction of constructed waterway	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
Drainage									
DR-01	Drainage pipe	Construction of underground pipe	Golden Plains Shire Council	Yes	No	Yes	S	Development	100%
DR-02	Drainage outfall	Purchase of land drainage outfall south of precinct	Golden Plains Shire Council	Yes	No	Yes	M–L	Development	100%
DR-03	Drainage pipe	Construction of underground pipe	Golden Plains Shire Council	Yes	No	Yes	M–L	Development	100%
DR-04	Bruce Creek open space reserve	Purchase of land for open space and drainage	Golden Plains Shire Council	Yes	No	Yes	M–L	Development	100%
Culverts									
CU-01	Culvert	Construction of cultvert under new connector road	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
CU-02	Culvert	Construction of cultvert under new connector road	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%
CU-03	Culvert	Construction of cultvert under east–west link road	Golden Plains Shire Council	Yes	No	Yes	S–M	Development	100%

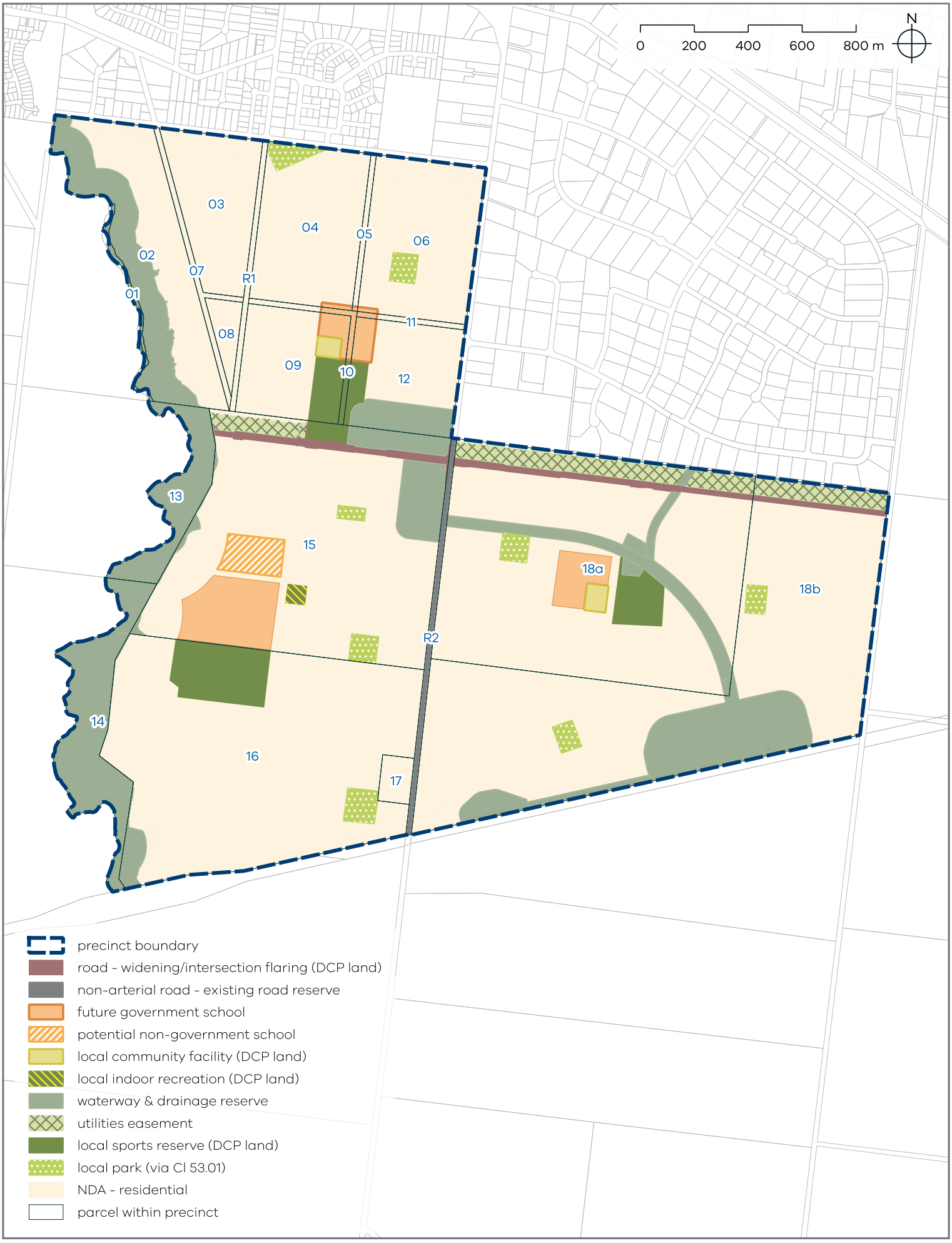

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18a
18b
R1
R2
precinct boundary
road - widening/intersection flaring (DCP land)
non-arterial road - existing road reserve
future government school
potential non-government school
local community facility (DCP land)
local indoor recreation (DCP land)
waterway & drainage reserve
utilities easement
local sports reserve (DCP land)
local park (via Cl 53.01)
NDA - residential
parcel within precinct

Table 19 – Summary land use budget

DESCRIPTION	AREA (HA)	% OF TOTAL	% OF NDA
TOTAL PRECINCT AREA (ha)	**524.00**		
Transport			
Road – widening/intersection flaring (DCP land)	7.36	1.40%	1.92%
Burnside Road – existing road reserve	3.05	0.58%	0.80%
Sub-total Transport	**10.40%**	**2.0%**	**2.72%**
Community & education			
Proposed government school	15.40	2.94%	4.03%
Potential non-government school	3.00	0.57%	0.78%
Local community facility (DCP land)	1.46	0.28%	0.38%
Local indoor recreation (DCP land)	0.60	0.11%	0.16%
Sub-total education	**20.46**	**3.9%**	**5.4%**
Open space			
Uncredited open space			
Waterway and drainage reserve	75.18	14.35%	19.67%
Utilities easements	11.33	2.16%	2.96%
Sub-total uncredited open space	**86.51**	**16.51%**	**22.64%**
Credited open space			
Local sports reserve (DCP land)	16.76	3.2%	4.39%
Local network park (via CL53.01)	7.70	1.5%	2.01%
Sub-total credited open space	**24.46**	**4.7%**	**6.40%**
Total all open space	**110.97**	**21.2%**	**29.04%**
TOTAL NET DEVELOPABLE AREA – NDA Ha	**382.18**	**72.93%**	

Table 20 – Parcel-specific land use budget

Parcel ID	Total area (ha)	Transport	Community & education				Open space				Total net developable area (hectares)	Net developable area % of property	Total contribution land (hectares)
		Road – widening/ intersection flaring (DCP land)	Proposed government school	Potential non-government school	DCP community facilities	Local indoor recreation (DCP land)	Waterway and drainage reserve	Utilities easements	Local sports reserve (DCP land)	Local network park (via CL 53.01)			
1	0.85	–	–	–	–	–	0.85	–	–	–	0.00	0.00%	0.85
2	30.26	–	–	–	–	–	12.72	–	–	–	17.54	57.97%	12.72
3	15.82	–	–	–	–	–	-	–	–	–	15.82	100.00%	0.00
4	22.53	–	0.19	–	–	–	–	–	–	1.24	21.10	93.65%	1.43
5	1.18	–	0.03	–	–	–	–	–	–	–	1.15	97.12%	0.03
6	23.96	–	0.13	–	–	–	–	–	–	1.00	22.83	95.30%	1.13
7	2.42	–	-	–	–	–	–	–	–	–	2.42	100.00%	0.00
8	2.54	–	-	–	–	–	–	–	–	–	2.54	100.00%	0.00
9	15.54	–	1.18	–	0.66	–	–	–	2.67	–	10.93	70.36%	4.61
10	1.63	–	0.60	–	–	–	–	–	0.49	–	0.54	33.43%	1.08
11	0.82	–	0.15	–	–	–	–	–	–	–	0.67	81.56%	0.15
12	16.37	–	1.22	–	–	–	–	-	1.30	–	9.94	60.70%	6.43
13	8.48	–	–	–	–	–	–	–	–	–	0.00	0.00%	8.48
14	15.17	–	–	–	–	–	–	–	–	–	0.00	0.00%	15.17
15	81.92	2.87	8.40	3.00	–	0.60	7.85	1.98	1.07	1.48	54.67	66.74%	25.27
16	84.84	–	–	–	–	–	1.69	–	7.61	1.41	74.13	87.38%	10.71
17	2.03	–	–	–	–	–	–	–	–	–	2.03	100.00%	0.00
18a	91.76	3.19	3.50	–	0.80	–	7.67	6.35	3.53	1.00	65.72	71.63%	19.69
18b	100.79	1.30	–	–	–	–	16.85	3.00	–	1.57	78.07	77.46%	19.72
R1	2.06	–	–	–	–	–	–	–	–	–	–	100.00%	0.00
R2	3.05	–	–	–	–	–	–	–	–	–	–	0.00%	0.00
Total PSP	**524.00**	**7.36**	**15.40**	**3.00**	**1.46**	**0.60**	**75.18**	**11.33**	**16.76**	**7.70**	**382.17**	**72.93%**	**127.46**

Appendix 3 – Local town centre performance requirements & guidelines

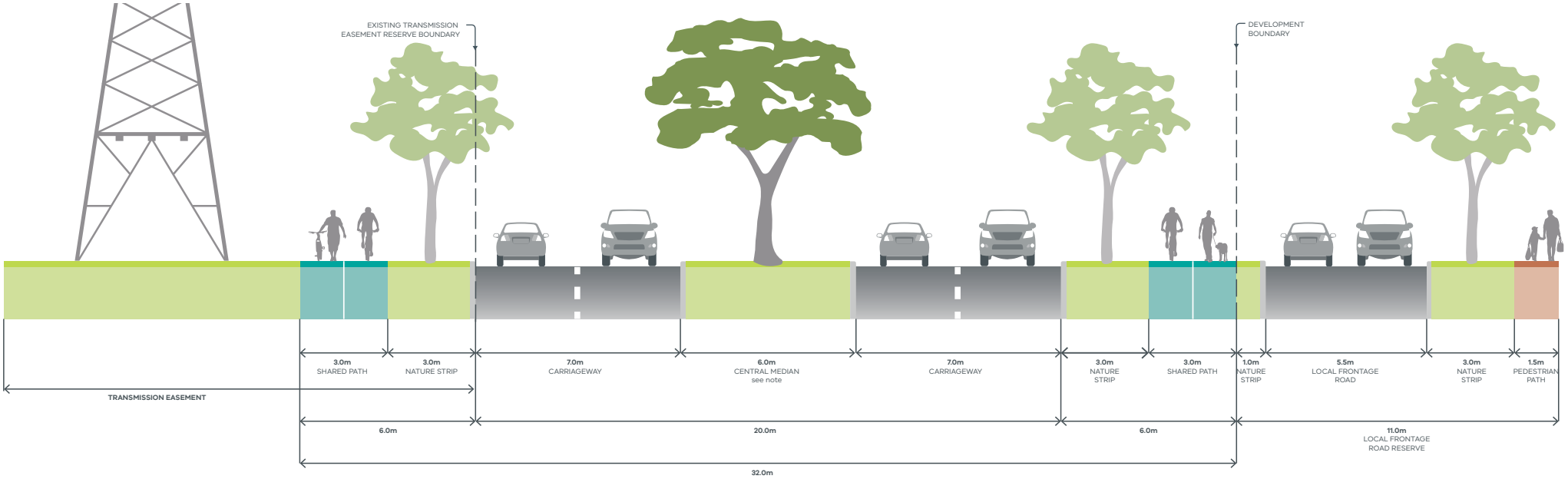
Table 21 – Local town centre performance requirements and guidelines

Performance requirements	Performance guidelines
Must address all relevant elements of the Urban Design Guidelines of Victoria.	Development should result in a walkable, pedestrian-focused, mixed-use urban neighbourhood. Development should be structured to seamlessly integrate with surrounding land including the wetlands, waterways, and neighbourhoods. Development should be structured to create physical and visual connections with surrounding features and points of interest to reinforce the sense of place and identity. Development should prioritise active transport and facilitate the provision of safe and direct off-road walking and cycling connections.
Must provide an area of 2.7 net developable hectares for the provision of the Local Town Centre. The land area may be reduced at the discretion of the council.	Development should provide a retail floor space of 7,650 square metres. Development should deliver a compact, walkable street and block pattern. Development should include a high intensity, activated spine of retail and employment opportunities. Development should include a centrally located civic plaza or public space that provides a clear point of focus for the retail core. Development should include car parking that is concealed and well-integrated.
Promote ecologically sustainable development	Development should include climate resilient design such as: – Minimise urban heat island effect through light roofs and minimising hardscaped surfaces. – Orient buildings to ensure passive heating, cooling and ventilation. – Solar photovoltaic technology on buildings. – Minimise gas connections. – High amount of vegetation and canopy cover, shelter and shading. – Water sensitive urban design and passive irrigation. Development should: – Group waste collection points to maximise opportunities for recycling and reuse. – Consider the lifecycle of materials including embodied carbon. – Use construction practices that use recycled materials. Development should support zero and low emissions transport: – Provision for electric vehicle charging infrastructure and future-proofing for electric vehicles. – Bicycle parking facilities and supporting infrastructure and space for additional bike parking and facilities.

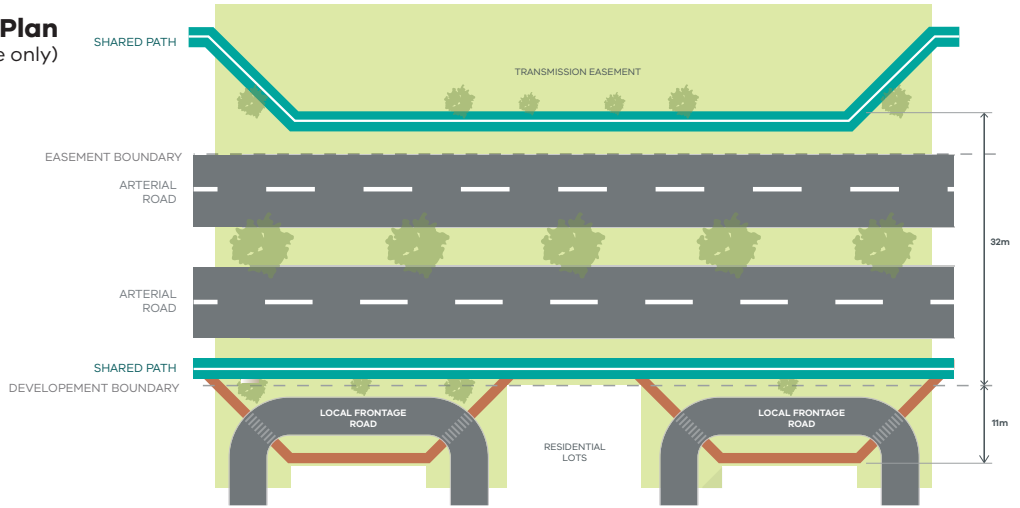
Appendix 4 – Standard road cross sections

Streetscape Cross Section - Bannockburn South East PSP

East - West Link Road 4 Lane (32m)



Inset Plan
(indicative only)

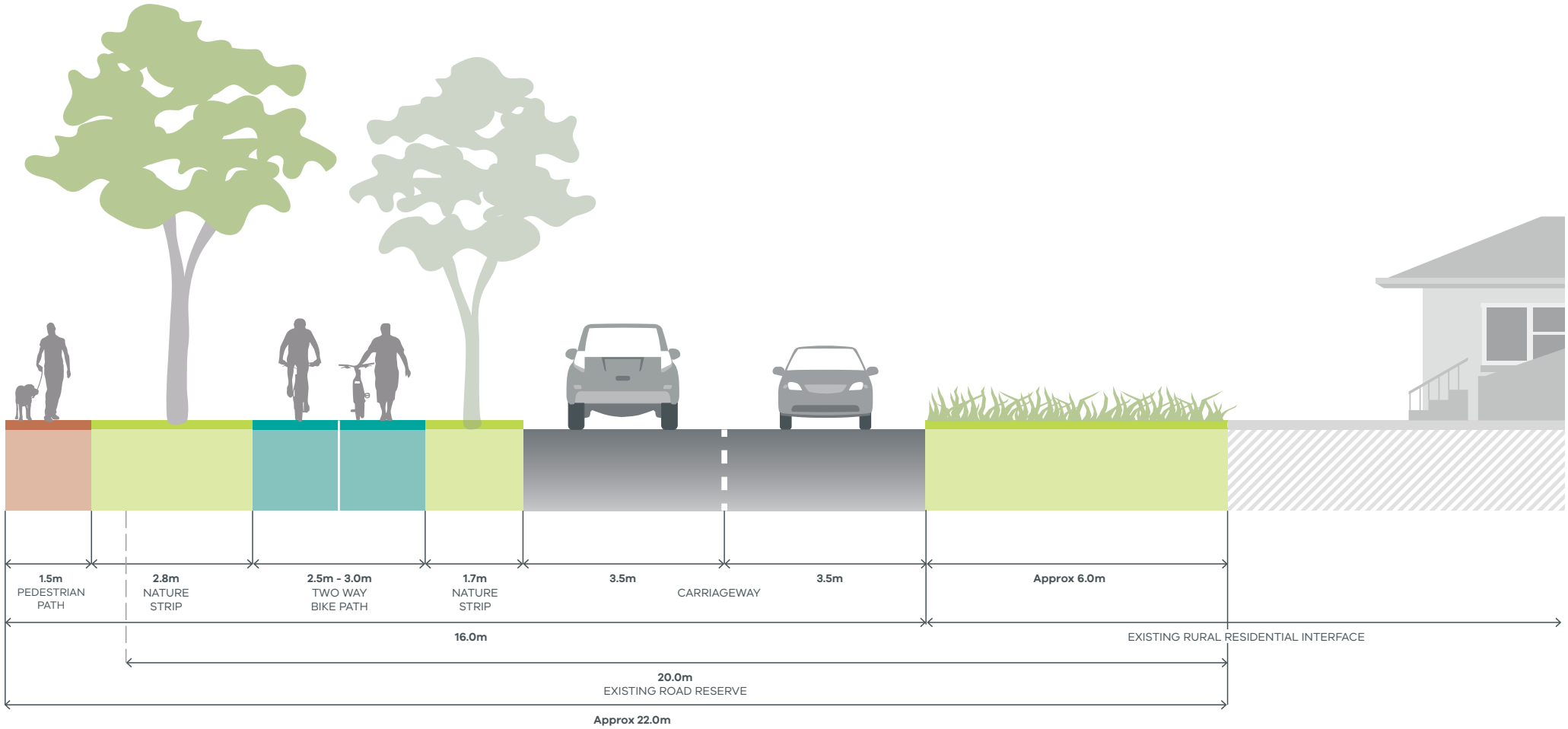


NOTES:

- Includes typical residential interface both sides.
- Minimum street tree mature height 15 metres.
- 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.
- For the purpose of defining land take for the ultimate east west link road and designing a future interface with development.

Streetscape Cross Section - Bannockburn South East PSP

Connector Street (22m) Burnside Road Existing Residential interface (north of transmission easement)

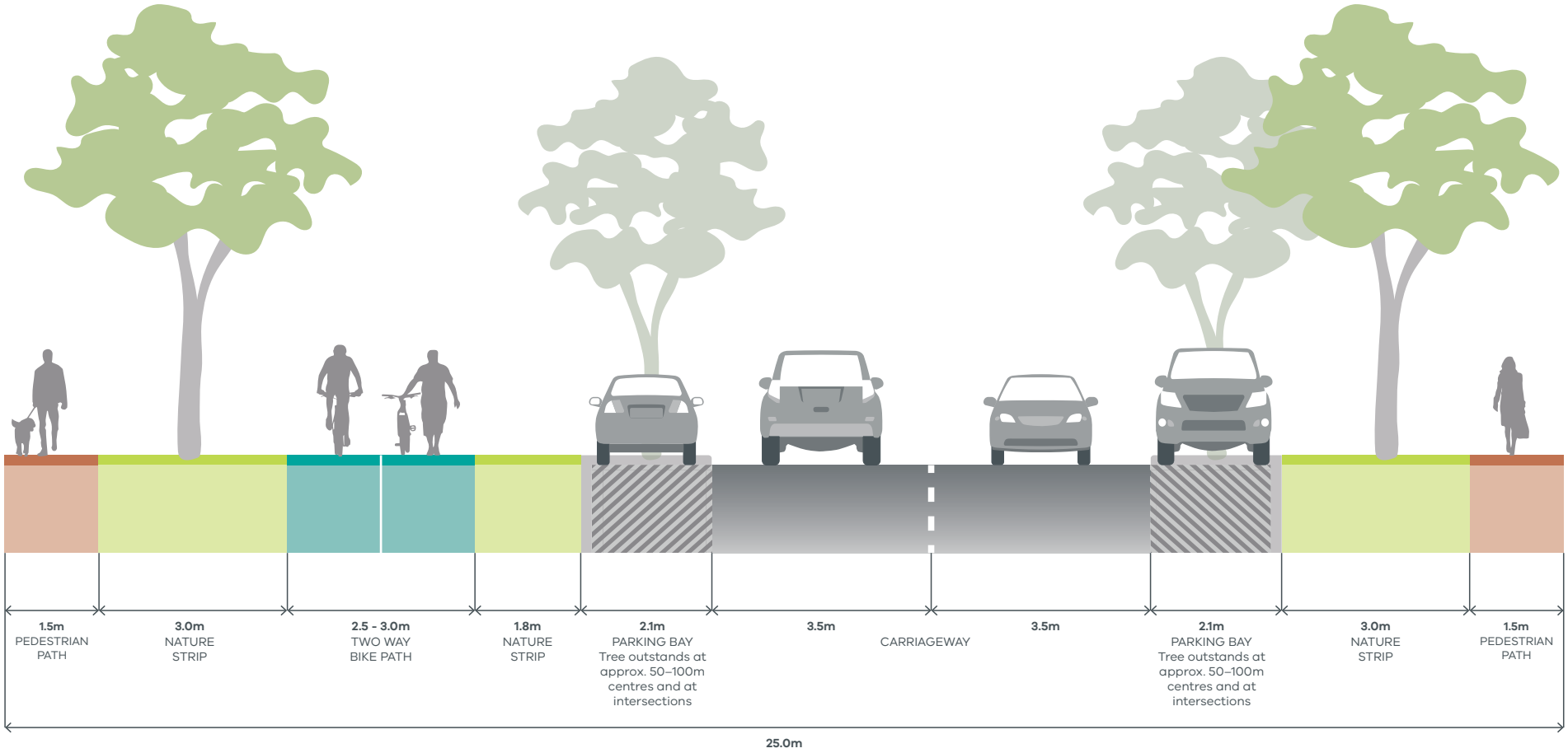


NOTES:

- Minimum street tree mature height 15 metres.
- 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

Connector Street (25m)

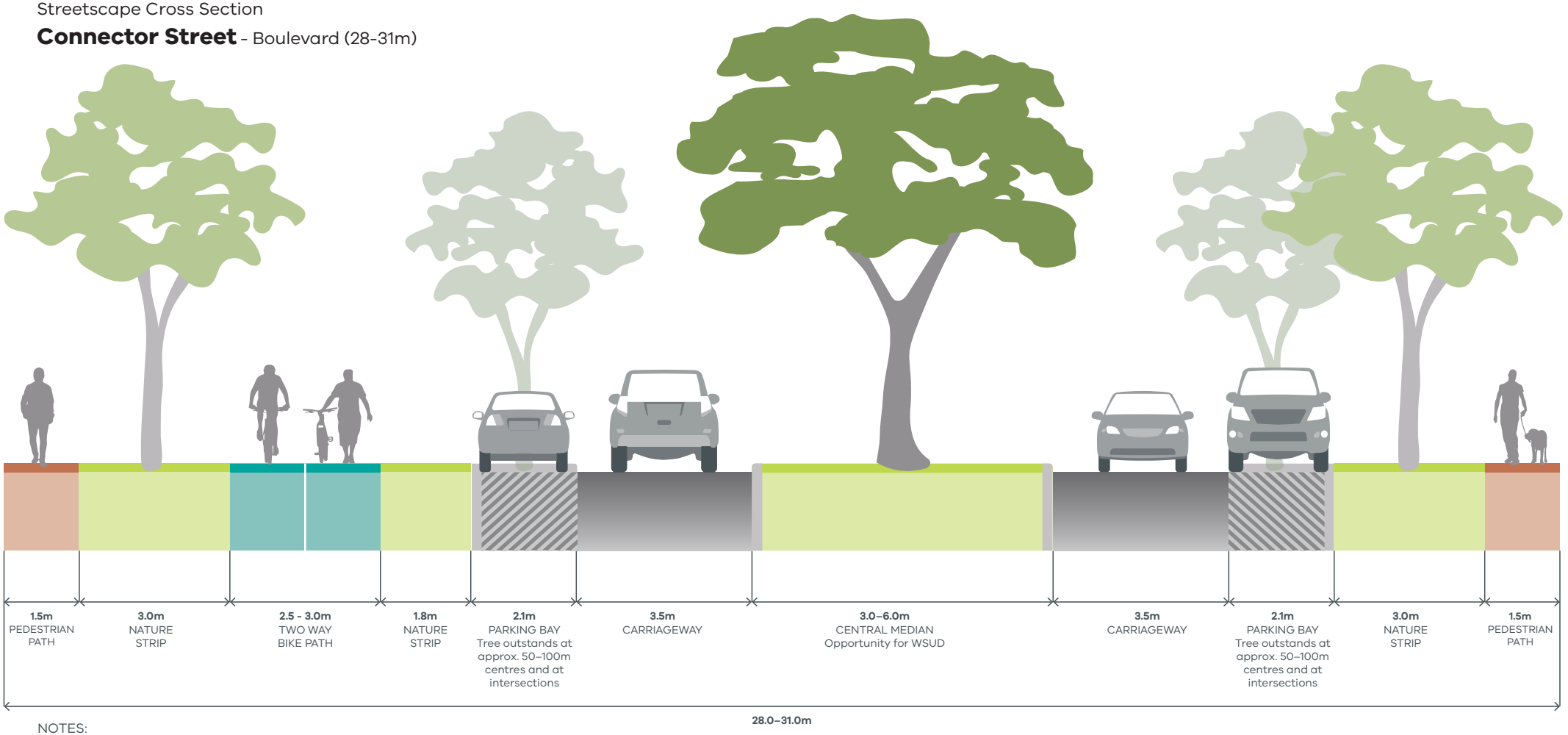


NOTES:

- Minimum street tree mature height 15 metres.
- All kerbs are to be B2 Barrier Kerb.
- Where roads abut school drop-off zones and throughfares, grassed nature strip should be replaced with pavement. 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.
- Parking lanes are to remain at 2.1m.

Streetscape Cross Section

Connector Street - Boulevard (28-31m)

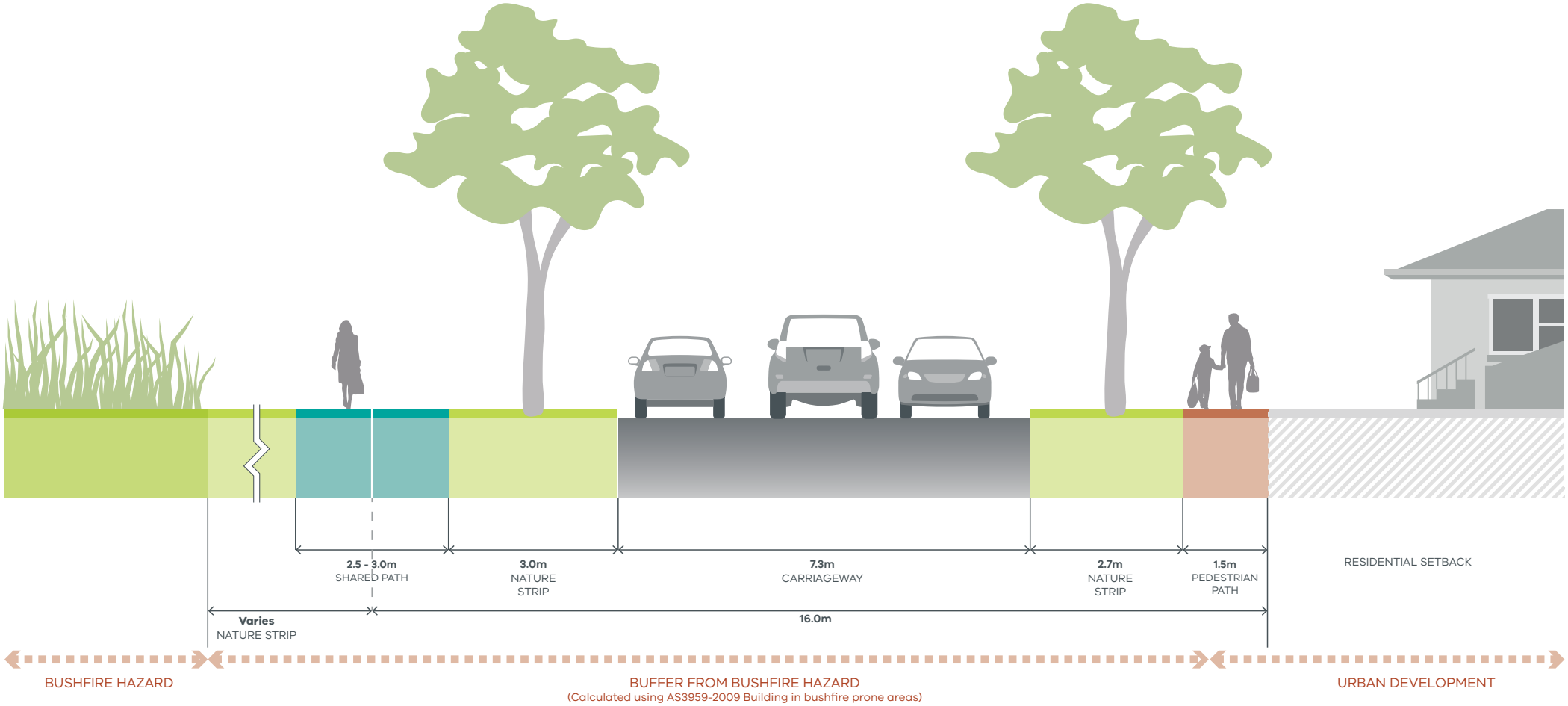


NOTES:

- Include a central median with large canopy trees to create a boulevard effect. Trees are to be centrally planted in median.
- Topsoil used in central medians is to be sandy loam, with a minimum depth of 200mm. The surface of medians is to be free-draining with a minimum cross fall of 2%, and is to be planted with warm season grasses.
- In areas where high pedestrian volumes are expected (e.g. around schools and town centres), central medians should be paved with harder wearing surfaces such as granitic sand or other pavements. Canopy tree planting must be incorporated into additional paved area.
- Any garden beds in central medians are to be offset 1.5m from back of kerb.
- 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.
- An alternative boulevard treatment can be achieved through a wider verge on one side capable of accommodating a double row of canopy trees.
- Variations to indicative cross-section may include water sensitive urban design (WSUD) outcome. These could includebut are not limited to bioretention tree planter systems and/or median bioretention swales. Such variations must be to the satisfaction of the responsible authority.
- Parking lanes are to remain at 2.1m.

Streetscape Cross Section - Bannockburn South East PSP

Local Access Street Bushfire interface (16m with varied nature strip)

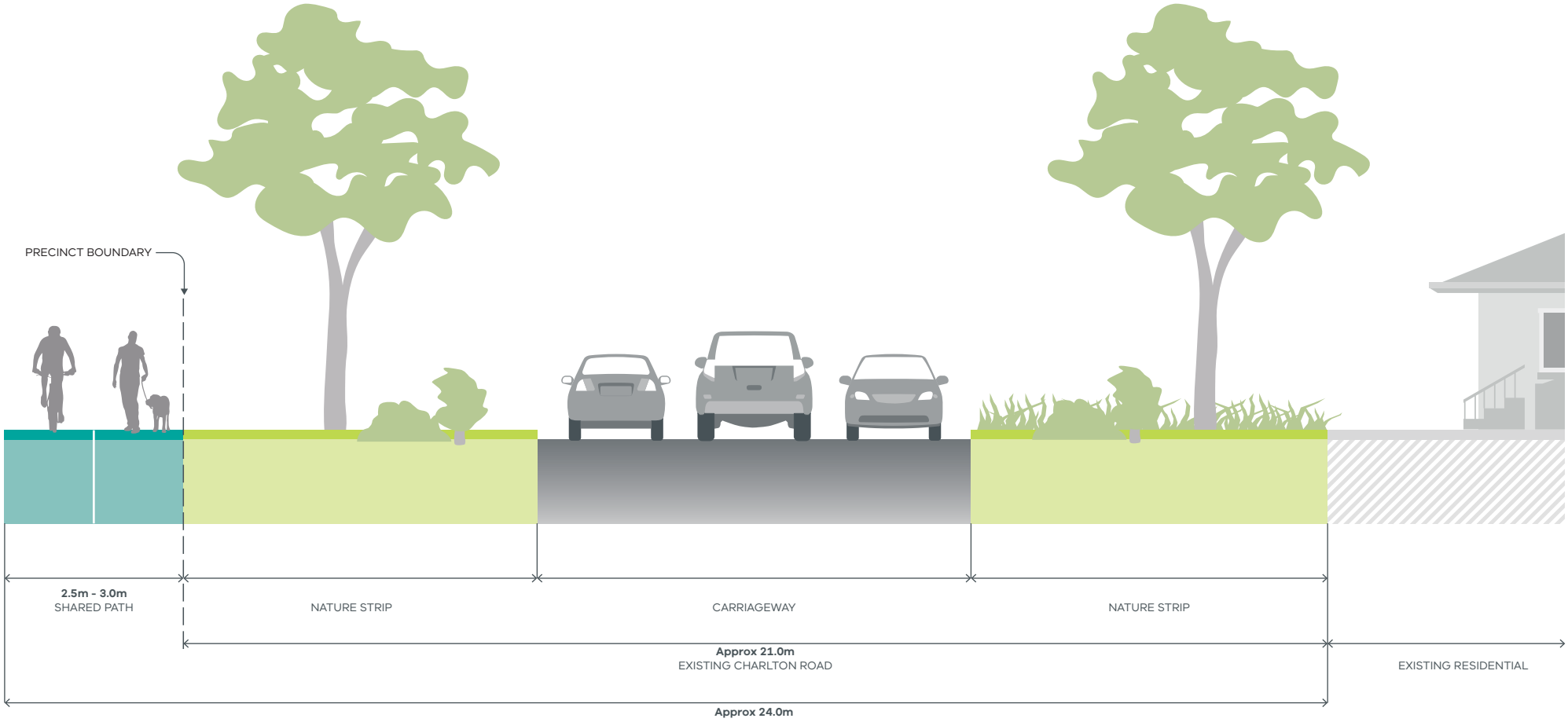


NOTES:

- Where the required buffer is greater than the road reserve, the buffer may comprise the front setback in conjunction with vegetation management
- Shared path may be accommodated within the variable nature strip outside the 16m street section

Streetscape Cross Section - Bannockburn South East PSP

Connector Street (24m) Existing Residential interface (Charlton Road)

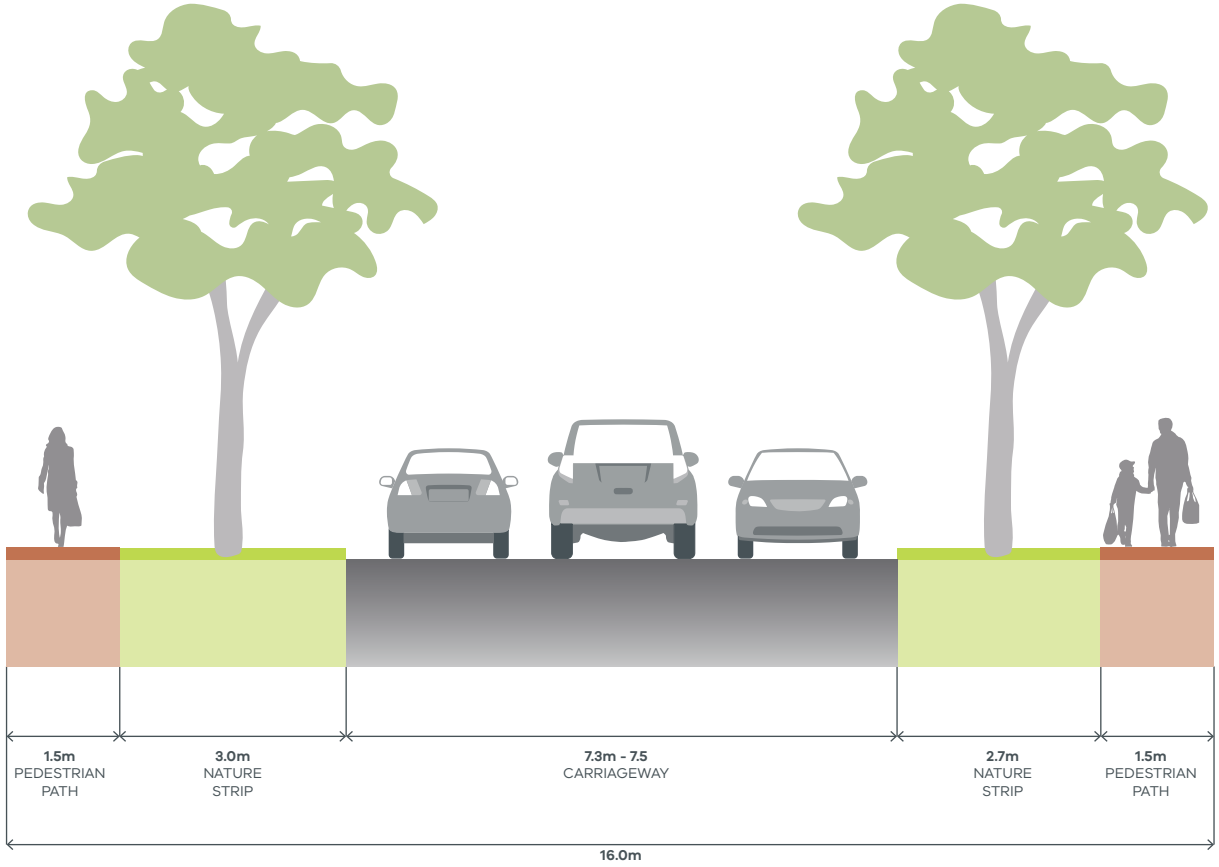


NOTES:

- Minimum street tree mature height 15 metres.
- Shared path should ensure connections to current and future crossing points, paths and bus stands..

Streetscape Cross Section

Local Access Street Level 1 (16m)

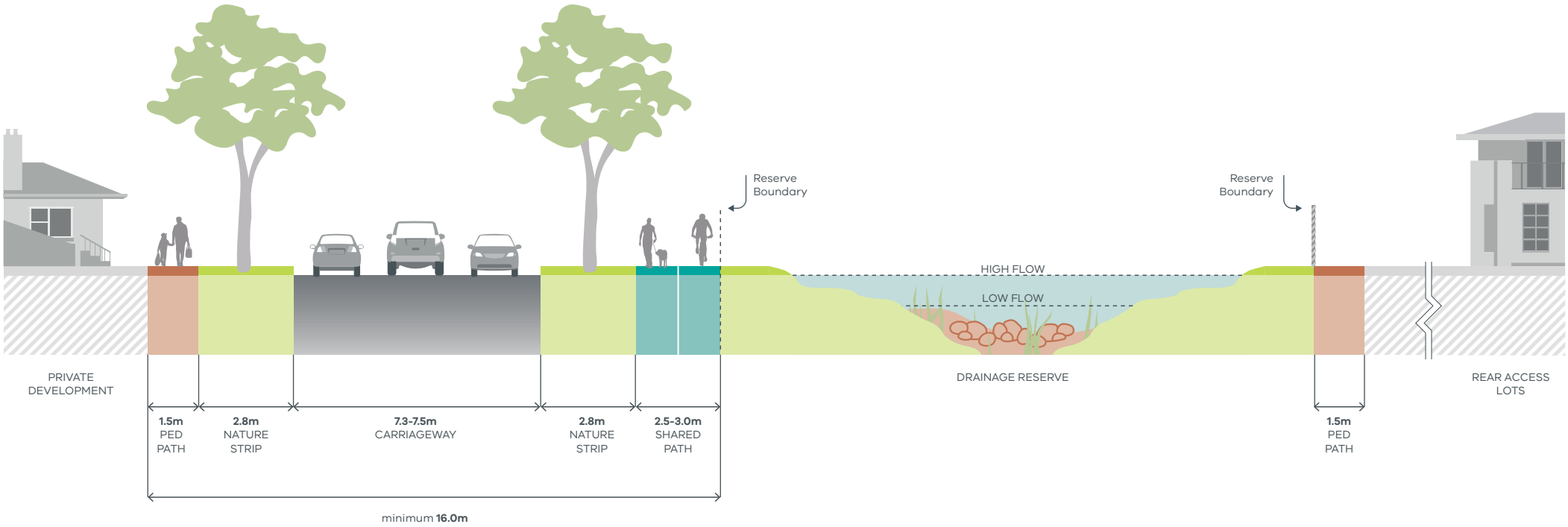


NOTES:

- Minimum street tree mature height 15 metres.
- All kerbs are to be B2 Barrier Kerb.

Streetscape Cross Section - Bannockburn South East PSP

Local Access Street Constructed Waterway Interface (minimum 16m)

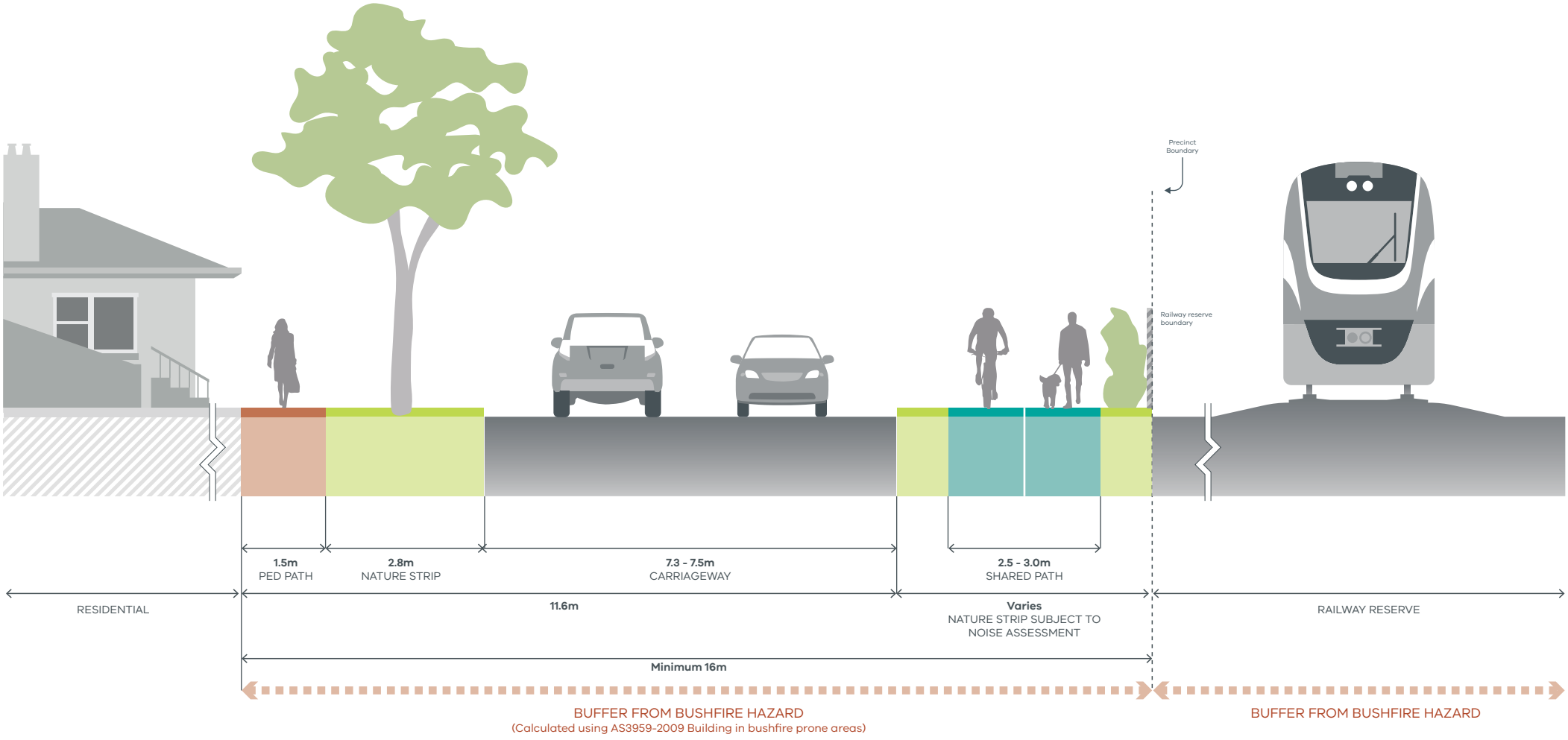


NOTES:

- Waterway widths are subject to Council approval
- Waterway should be fronted by either local street or rear loaded residential lots. Houses should not back onto or side directly to the reserve
- Minimum street tree mature height 15 metres

Streetscape Cross Section - Bannockburn South East PSP

Local Access Street Railway Interface (16m)

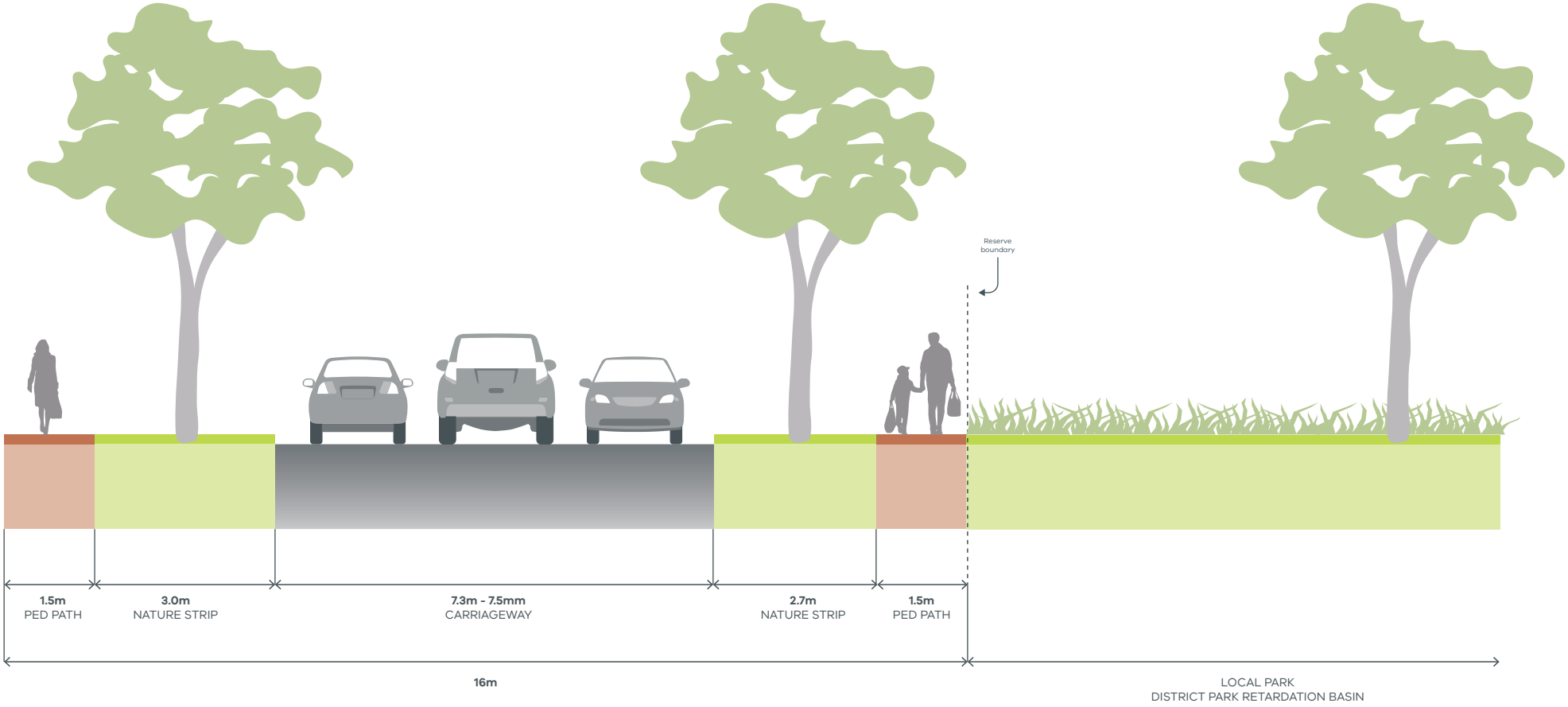


NOTES:

- Refer to Australian Railway Track Corporation standards
- A shared path may be located in the nature strip adjacent the railway reserve subject to approval by the responsible authority
- Fencing to the railway reserve boundary is to be visually transparent

Streetscape Cross Section - Bannockburn South East PSP

Local Access Park and Retardation Interface Street (16m)



NOTES:

- Minimum street tree mature height 15 metres
- Verge widths maybe reduced where roads abut open space with the consent of the responsible authority

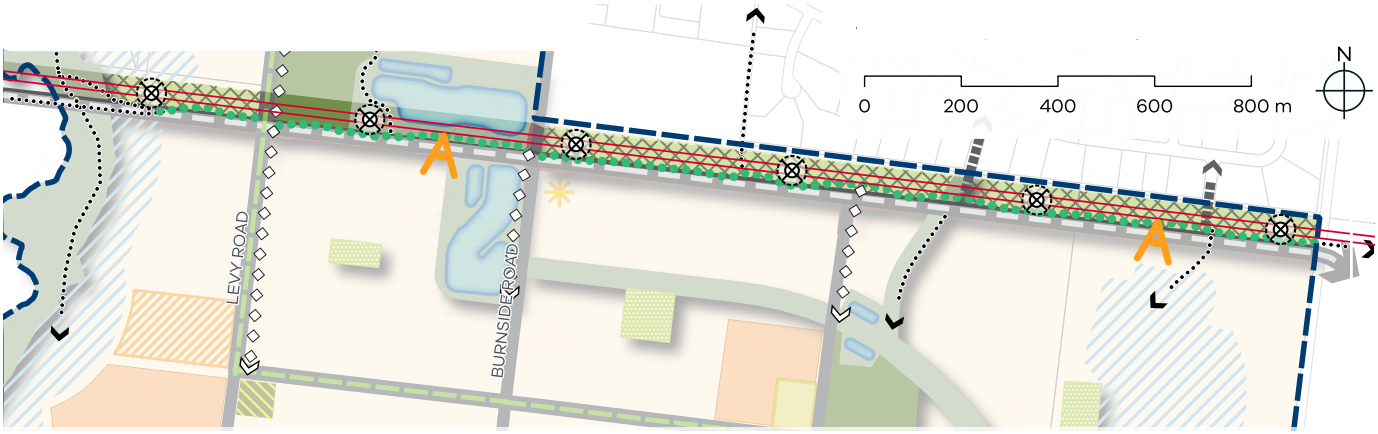
Appendix 5 – Bruce Creek open space outcomes

Objective	Outcomes
Protect and enhance habitat values	– Avoid degradation of existing Ecological Vegetation Classes. – Any public paths or infrastructure, including but not limited to drainage infrastructure, must be designed and located to avoid or minimise disturbance to vegetation, Tree Protection Zones and Growling Grass Frog habitat. – To ensure habitat values are enhanced and protected, if tree removal is permitted by council, it will be in accordance with the tree removal hierarchy within the *Golden Plains Shire Tree Protection and Management Policy* (May 2023) including but not limited to retaining trunks, large branches or stumps for habitat and amenity.
Mitigate bushfire risk	– Ensure revegetation and landscaping is sensitive to bushfire considerations and avoids reclassifying areas to higher risk landscapes. – Provide a suitable landscape/road interface and buffer between corridor and development. – Design paths, trails and maintenance vehicle access to facilitate fuel reduction and ecological burning to reduce fire risk and encourage ecological diversity
Protect sites of historic and cultural heritage	– Ensure the design of active transport network avoids allowing direct pedestrian access to sensitive sites of cultural heritage significance, based on findings and recommendations as part of future Cultural Heritage Management Plan preparation. – Avoid works that would require ground disturbance in proximity to sites of significance unless otherwise agreed by the Registered Aboriginal Party and responsible authority.
Respect and incorporate Wadawurrung cultural values	– Protect the open nature of the amphitheatre – prioritise revegetation and avoid uses such as built structures and shared paths. – Avoid areas of sensitivity such as artefact sites – Prioritise habitat restoration and revegetation to protect key threatened species
Nominate suitable path and trail locations	– Locate intensive commuter type cycleways at edge of corridor in flat and unconstrained land. – Locate shared path network to prioritise less constrained land, ensure accessibility and ease of use and provide connections to the creek landscape. – Locate walking/jogging/cycling paths closer to the creek line, avoiding the most constrained land where possible. – Identify and locate maintenance vehicle access through the reserve.
Nominate suitable locations for creek crossing points	– Locate higher order cycle/pedestrian crossings where there are clear paths of lesser constrained land. – Potential to locate lower order boardwalk/pedestrian crossings in more constrained areas.
Identify locations suitable for facilities and recreational activities	– Prioritise unconstrained land within the corridor for credited open space, potentially including facilities such as public toilets, playgrounds etc. – Potential for low impact structures such as picnic areas in low constraint areas, particularly those with visual amenity.

Objective	Outcomes
Ensure open space is deliverable and function in both the short- and long-term	– Area defined as creek corridor should make sense regarding title boundaries. – Pathway networks and facilities should not be limited to one parcel to ensure functionality of the corridor is not limited in the shorter term. – Any public paths or infrastructure, including but not limited to drainage infrastructure must be designed and located to avoid or minimise disturbance to vegetation including, Tree Protection Zones and Growling Grass Frog habitat.

Appendix 6 – Utilities easement design outcomes

Figure 3 – High Level Utilities Easement Concept



Open space and development outcomes for the utilities easement should:

- Be in accordance with standards and guidelines set out in *A guide to living with transmission line easements* (Ausnet) and permissions set out in Table 22.
- Prioritise active transport connectivity, both on an east–west and north–south axes
- Ensure visual and transport continuity on an east–west axis.
- Encourage the effective use of encumbered land for high quality passive and active open space, including encouraging passive surveillance, permeable frontages and activity.
- Consider innovative practices in areas such as urban agriculture, microgrids and integrated water management.
- Consider Wadawurrung connections to Country and opportunities to embed cultural values and practices within open space outcomes.
- Retain and build on significant sightlines to features such as the Barrabool Hills and Mount Gnarwarre.
- Consider the potential role for open space in preserving, enhancing and providing connectivity for biodiversity and habitat values.
- Consider transport links to existing uses, while ensuring the safe and effective function of the proposed east–west link road is prioritised.
- Provide a diversity of open space uses and outcomes, including but not limited to dog parks, bike tracks, playgrounds and sports and recreation.

precinct boundary

transmission pylon

transmission clearance (30m)

viewlines to Barrabool Hills and Mount Gnarrwarre

waterways & drainage

power line

potential off-road shared path

potential off-road shared path (east–west road)

potential local access street

potential off-road 2-way bike path

Appendix 7 – Requirements for Bridge Investigation Area, Bruce Creek Conservation Management and Conservation Area Concept Plan

Bridge Investigation Area

A permit must not be granted for the subdivision of land within the 'Bridge investigation area' shown on Plan 2 – Place-based Plan for buildings and works within that area, unless the responsible authority is satisfied that the permitted subdivision, building, or works will not prejudice the future construction or delivery of a bridge over Bruce Creek.

Bruce Creek Conservation Management Plan

A permit must not be granted to subdivide land within 200 metres of the centreline of the Bruce Creek until a Bruce Creek Conservation Management Plan (CMP) has been prepared for the length of the Bruce Creek within the precinct boundary, to the satisfaction of the responsible authority. Before making a decision, the responsible authority must, as relevant, consult with the Department of Energy, Environment and Climate Action (DEECA) and the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC).

The CMP must include the following, unless otherwise agreed by the responsible authority:

- Consolidated information on the existing conditions of the waterway and adjoining land, including Growling Grass Frog, Golden Sun Moth, Tussock Skink and Victorian Grassland Earless Dragon survey records.
- An assessment of Growling Grass Frog, Golden Sun Moth, Tussock Skink and Victorian Grassland Earless Dragon habitat.
- A response to the relevant objectives, requirements and guidelines in the incorporated PSP.
- A response to the escarpment, such that urban development is appropriately set back from the escarpment to protect its landscape quality.
- A determination of the boundary between land required for conservation in addition to that already designated as Bruce Creek uncredited open space and land suitable for urban development, if relevant. The land required for conservation will be defined as the Bruce Creek Conservation Area.
- Identification of suitable locations for public access points, walking paths/trails, and passive recreation, if appropriate.
- Identification of suitable locations for water management assets and associated infrastructure, if appropriate.
- Guidance on protecting and enhancing terrestrial habitats in accordance with *Growling Grass Frog Habitat Design Standards* (DEECA, 2017).
- Actions for the rehabilitation of significant habitat, including future land ownership and commitments.
- Advice regarding approvals under the *Flora and Fauna Guarantee Act 1988, Wildlife Act 1975* and *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) and compensatory mechanisms, if required.

The CMP must be consistent with any relevant approved Cultural Heritage Management Plan prepared under the *Aboriginal Heritage Act 2006*.

The CMP must be consistent with any relevant decision made by the Minister under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth).

The CMP may be prepared and approved in stages, provided that:

- Each stage corresponds to land under a single ownership or coordinated ownership group
- Each stage demonstrates alignment with the overall ecological objectives for Bruce Creek and how that stage can be integrated with adjacent CMP stages to create a generally consistent response across the CMP area
- Each stage includes a statement clarifying the scope of the EPBC Act referral obligations, limited to land under the applicant's ownership and recommends coordination with adjacent landowners

A permit granted to subdivide land must be consistent with a CMP approved under this schedule.

The CMP may be amended to the satisfaction of the responsible authority, provided relevant requirements in this clause are addressed and provided relevant consultation has occurred.

A permit may be granted before a CMP is prepared where:

- The subdivision is required to create a lot for land to be vested in a public authority; or
  - The responsible authority is satisfied that the land within 200 metres of the centreline of the Bruce Creek is expected to be further subdivided; and
  - An agreement pursuant to section 173 of the *Planning and Environment Act 1987* is registered on the lot within 200 metres of the centreline of the Bruce Creek, requiring the preparation of the required CMP before any further subdivision of that lot occurs.

Bruce Creek Conservation Area Concept Plan

A permit must not be granted to subdivide land within 200 metres of the centreline of the Bruce Creek until a Conservation Area Concept Plan (Concept Plan) has been prepared to the satisfaction of the responsible authority. Before making a decision, the responsible authority must, as relevant, consult with DEECA and the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC).

The Concept Plan must include the following, unless otherwise agreed with the responsible authority:

- The boundary of the Bruce Creek Conservation Area as defined by the approved Bruce Creek CMP
- Native vegetation, as indicated by the *Existing Ecological Conditions Report* (EHP, 2022)
- Records of Matters of National Environmental Significance (MNES) and state significance
- Location of scattered trees
- Location of existing and proposed infrastructure, including roads, buildings, river/creek crossings, shared trails and services, etc.
- Public access points, walking paths and shared trails (if known). Public access arrangements may be shown in the Concept Plan where known; however, where possible, these arrangements should generally be determined by the future land manager, Golden Plains Shire Council and the approved Bruce Creek CMP.
- A Conservation Interface Plan (Interface Plan) showing the location of:
  - Land uses, such as sealed roads, paths, parks, and open space (the width of roads and paths must be shown). The conservation area boundary is fenced to exclude vehicles, to the satisfaction of the responsible authority, while allowing pedestrian and maintenance access where required.
  - Fences, bollards, paths or other forms of delineation between the conservation area and adjacent house lots in exceptional cases where there is no road proposed between the conservation area and adjacent house lots.
  - Adjacent house lots, showing the direction of frontage. Development must front onto the conservation area (i.e. there should be no side or back fences abutting the conservation area).
- The Interface Plan must also demonstrate:
  - Street and path lighting adjacent to the conservation area is baffled to cast light away from the conservation area
  - Traffic-calming treatments (where practicable) to mitigate wildlife–vehicle collision risk on roads that adjoin, intersect or transect conservation areas
  - All necessary fire breaks are located outside of the conservation area.
  - The conservation area must be protected by an appropriate traffic barrier, which should be detailed on the Interface Plan.
  - How a shared path can be delivered in stages, generally within an adjacent street reserve, along the length of the interface.
  - The location of street plantings must ensure there is no tree shading of native grasslands or wetlands within the conservation area. Where shading is likely to occur, trees should not be planted within 10m of a conservation area boundary and should not be any species that could act as an environmental weed.
  - The location and design of any drainage infrastructure.

A permit may be granted before a Concept Plan is prepared where:

- The subdivision is required to create a lot for land to be vested in a public authority; or
- The responsible authority is satisfied that the land within 200 metres of the centreline of the Bruce Creek is expected to be further subdivided; and
- An agreement pursuant to section 173 of the *Planning and Environment Act 1987* is registered on the lot within 200 metres of the centreline of the Bruce Creek, requiring the preparation of the required Concept Plan before any further subdivision of that lot occurs.

Appendix 8 – Glossary

Term	Definition
200 metres of Bruce Creek	200 metres as measured from the centre line of Bruce Creek.
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	Defined under the *Planning and Environment Act 1987* as housing, including social housing, that is appropriate for the needs of very low, low or moderate income households.
Bruce Creek corridor and escarpment edge	Area identified as per Figure 9-1 of the *Bannockburn South East PSP Cultural Values Assessment* (Unearthed Heritage) December 2021.
Bruce Creek uncredited open space	Undevelopable land around Bruce Creek due to environmental and/or cultural considerations.
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 at least 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 facility	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), and – Emergency services (e.g. police, fire and ambulance stations).
Encumbered land or uncredited 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.

Term	Definition
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.
Gross developable area	Total precinct area excluding encumbered land, arterial roads and other roads with four or more lanes.
Housing density (gross)	The number of houses divided by gross developable area.
Housing density (net)	The number of houses divided by net developable area.
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 town centre	An activity centre smaller than a neighbourhood activity centre which may include a small limited-line supermarket or convenience store plus non-retail uses.
Net developable area (NDA) or hectare (NDHa)	Land within a precinct available for development. This excludes encumbered land, arterial roads, railway corridors, government and non-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.
Social housing	Social housing as defined by the *Housing Act 1983* 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.
Subsidised market housing	Housing (rented or owned) which is made available to households at below market rates through subsidies (eligibility criteria set out in the *Housing Act 1983*).
Cultural and/ or environmental investigation area	Land shown on Plan 2 – Place-based Plan that is potentially developable subject to approvals that consider cultural heritage, biodiversity and risk of erosion.
Water sensitive urban design	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.



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