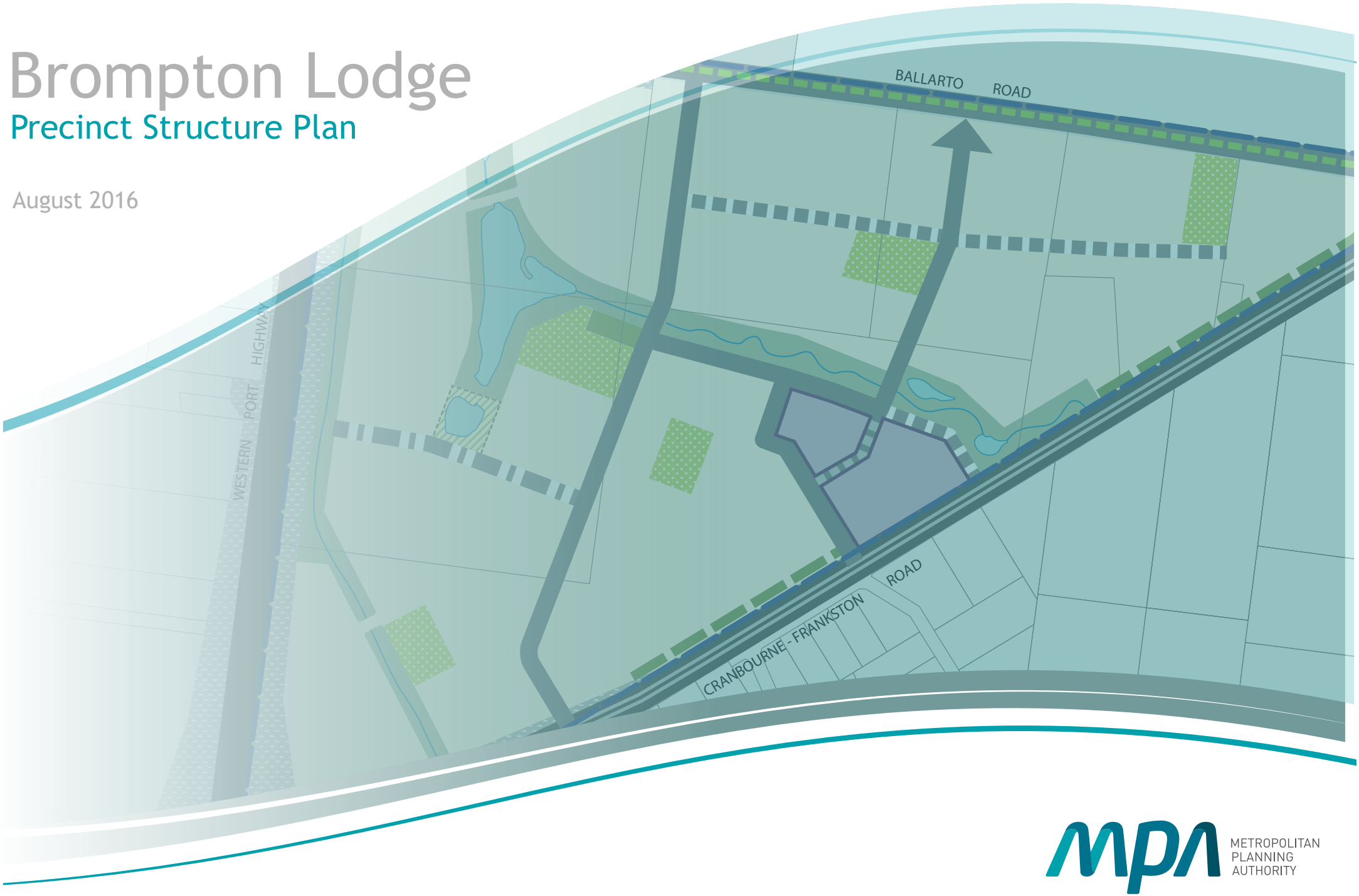
Brompton Lodge

Precinct Structure Plan

August 2016



METROPOLITAN PLANNING AUTHORITY

CONTENTS

1.0 INTRODUCTION 5

1.1 How to read this document 7
1.2 Land to which this PSP applies 7
1.3 Development contributions 7
1.4 Native Vegetation Precinct Plan 7
1.5 Background information 7

2.0 OUTCOMES 9

2.1 Vision 9
2.2 Objectives 11
2.3 Summary Land Budget 13

3.0 IMPLEMENTATION 15

3.1 Image, Character, Housing 15
3.2 Town Centre and Employment 19
3.3 Open Space 21
3.4 Biodiversity, Threatened Species & Bushfire Management 23
3.5 Transport and Movement 25
3.6 Integrated Water Management and Utilities 31
3.7 Precinct Infrastructure Plan and Staging 34

4.0 APPENDICES 38

APPENDIX A Property Specific Land Use Budget
APPENDIX B Local Town Centre Design & Principles
APPENDIX C Cross Sections
APPENDIX D Service Placement Guidelines
APPENDIX E Open Space Category Guide

TABLES

Table 1	Summary Land Use Budget	13
Table 2	Lot Size & Housing Type Guide	17
Table 3	Town Centre Hierarchy	19
Table 4	Anticipated Employment Creation	19
Table 5	Open Space Delivery Guide	22
Table 6	Stormwater Drainage & Water Quality Treatment Infrastructure	31
Table 7	Precinct Infrastructure Plan	35

PLANS

Plan 1	PSP Location & Features	4
Plan 2	Future Urban Structure	8
Plan 3	Land Budget	12
Plan 4	Image, Character & Housing	14
Plan 5	Open Space & Natural Systems	20
Plan 6	Road Network	24
Plan 7	Public Transport & Path Network	28
Plan 8	Intergrated Water Management & Utilities	30

FIGURES

Figure 1	Town Centre Concept Plan	18

Plan 1 - PSP Location and Features

Brompton Lodge Precinct Structure Plan

1.0 INTRODUCTION

The Brompton Lodge Precinct Structure Plan (the PSP) has been prepared by the Metropolitan Planning Authority (MPA) and the City of Casey, government agencies, service authorities and major stakeholders.

The PSP is a long-term plan for urban development. It describes how the land is expected to be developed, and how and where services are planned to support development.

The PSP:

- Sets out plans to guide the delivery of quality urban environments in accordance with the Victorian Government guidelines.
- Enables the transition of non-urban land to urban land.
- Sets the vision for how the land should be developed and the outcomes to be achieved.
- Outlines the projects required to ensure that future residents, visitors and workers within the area can be provided with timely access to services and transport necessary to support a quality and an affordable lifestyle.
- Sets out objectives, requirements and guidelines for land use, development and subdivision.
- Provides Government agencies, the Council, developers, investors and local communities with certainty about future development.

The PSP is informed by:

- The State Planning Policy Framework set out in the Casey Planning Scheme;
- The Growth Corridor Plans: Managing Melbourne's Growth (Growth Areas Authority, June 2012);
- The Local Planning Policy Framework of the Casey Planning Scheme;
- The Precinct Structure Planning Guidelines.

The following planning documents have been developed in parallel with the PSP to inform and direct the future planning and development of the Precinct:

- The Brompton Lodge Native Vegetation Precinct Plan (NVPP) sets out requirements for the protection and management of native vegetation within the PSP area;
- The Brompton Lodge Background Report (Background Report);
- The Brompton Lodge Development Contributions Plan (DCP) requires development proponents to make a contribution towards infrastructure required to support the development of the Precinct.

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

1.1 How to read this document

This structure plan guides land use and development where a planning permit is required under the Urban Growth Zone or other provision that references this structure plan.

A planning application and a planning permit must implement the outcomes of the Precinct Structure Plan. The outcomes are expressed as the vision and objectives.

Each element of the Precinct Structure Plan contains requirements, guidelines and conditions as relevant.

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 this structure plan. A requirement may reference a plan, table or figure in the structure plan.

Guidelines express how discretion will be exercised by the responsible authority in certain matters that require a planning permit. If the responsible authority is satisfied that an application for an alternative to a guideline implements the outcomes, the responsible authority may consider the alternative. A guideline may include or reference a plan, table or figure in the Precinct Structure Plan. Meeting these requirements and guidelines conditions will implement the outcomes of the Precinct structure plan.

Development must also comply with other Acts and approvals where relevant including the Aboriginal Heritage Act 2006.

Not every aspect of the land's use, development or subdivision is addressed in this structure plan. A responsible authority may manage development and issue permits as relevant under its general discretion.

1.2 Land to which this PSP applies

The PSP applies to approximately 107 hectares of land as shown on Plan 1. The PSP area is bounded by Cranbourne - Frankston Road to the south, the Western Port Highway to the west and the Ballarto Road reservation to the North.

Plan 1 identifies the key features of the land.

1.3 Development Contributions

Development proponents within the Brompton Lodge Precinct will be bound by the Brompton Lodge Development Contributions Plan (the DCP).

1.4 Native Vegetation Precinct Plan

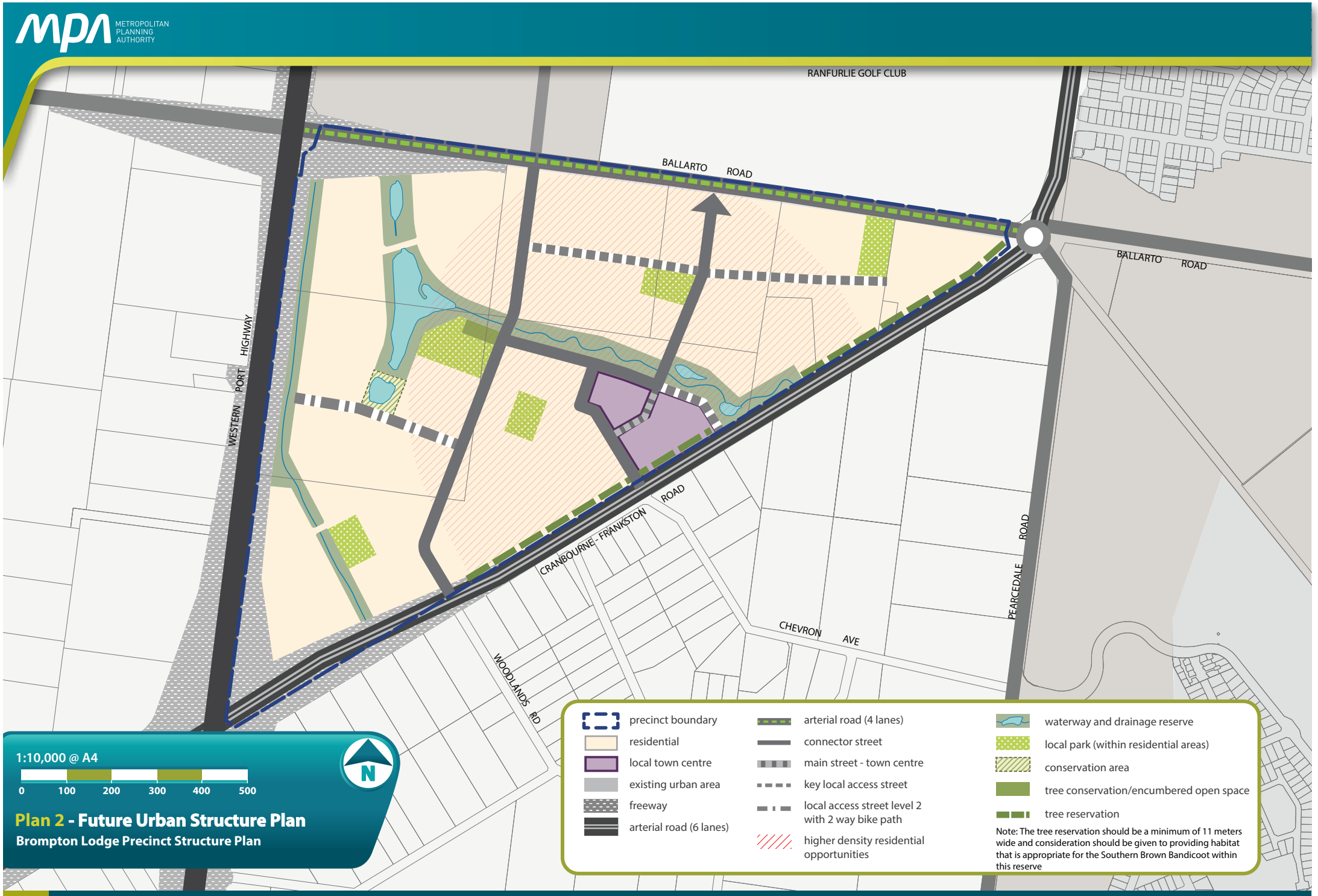
The Brompton Lodge Native Vegetation Precinct Plan (NVPP) has been prepared concurrently with the PSP. The NVPP identifies:

- Native vegetation which may be removed without a planning permit; and
- The offsets that must be provided by landowners wishing to commence works prior to removing the native vegetation which can be removed.

The NVPP is a separate document.

1.5 Background information

Background information on the PSP area including its local and metropolitan context, history, biodiversity, landform and topography, drainage, open space and community facilities are contained in background reports. This information has informed the preparation of the PSP.



Plan 2 - Future Urban Structure Plan

Brompton Lodge Precinct Structure Plan

2.0 OUTCOMES

2.1 Vision

The Brompton Lodge Precinct will be a model for sustainable, compact and mixed-use neighbourhoods. It will deliver a wide range of housing types and uses and in turn it will encourage a diverse local community. The neighbourhood will be an urban extension to the Cranbourne West Precinct Structure Plan area and will integrate cohesively with the urban neighbourhoods planned to the north of Ballarto Road and the surrounding rural residential development.

The Brompton Lodge Precinct will provide an urban form that will lay the foundation for a healthy, prosperous and sustainable local community. A permeable network of pedestrian friendly streets will connect the residents to areas of attractive open spaces and the Local Town Centre (LTC). This street pattern will create a walkable neighbourhood with a strong sense of urban character.

More compact housing types and a mixing of uses will occur adjacent to areas of high amenity and around the Local Town Centre. Local parks will link with the central wetlands via high quality streets, providing a central green 'spine' to the neighbourhood, showcasing and protecting the biodiversity of the area.

The street based Local Town Centre will provide daily services and local employment opportunities for Brompton Lodge residents and for those residing in the surrounding local neighbourhoods. The centre will include a compact urban square activated with cafés and restaurants creating a social setting and 'heart' for the community.

An interconnected network of dedicated cycle lanes and pedestrian pathways will create safe and convenient connections to this centre. This pathway network provides the opportunity for residents to access external destinations such as the recreational playing fields, schools and community facilities located within the Cranbourne West PSP area.

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

2.2 Objectives

	IDENTITY/ CHARACTER/ LANDSCAPE
O1	Provide a highly permeable and connected community that has attractive streetscapes and landscape treatments and a distinct neighbourhood character.
O2	Create an attractive urban environment that integrates the natural assets and landscape character of the internal waterway corridors and wetlands.
O3	Provide flexible open spaces that allow for the anticipated range of recreational needs of the community.
	HOUSING
O4	Provide a range of housing types to satisfy the needs of the new and evolving community and that achieves an average minimum of 19 dwellings per net developable hectare.
O5	Provide medium and higher density development in locations with high amenity, good access to public transport, community facilities and within proximity to the Local Town Centre.
O6	Ensure dwellings are not adversely impacted upon by existing agricultural uses by providing sufficient separation distance.
	NEIGHBOURHOOD STRUCTURE
O7	Embrace the future water bodies and lineal corridors as the green spines of the Precinct.
O8	Develop attractive landscape treatments along key roads and streets.
O9	Retain and enhance a consistent and sensitive landscape treatment along the length of Cranbourne - Frankston Road.
	TOWN CENTRE/EMPLOYMENT
O10	Provide a broad range of retailing and business activities to meet the local needs of the community.
O11	Ensure the integration of an urban scale civic space and high quality retail streetscapes within the design of the Local Town Centre.
O12	Encourage office, mixed use and home based businesses within and adjoining the Local Town Centre.

	BIODIVERSITY, NATURAL SYSTEMS & CULTURAL HERITAGE
O13	Create a landscape that integrates existing biodiversity, and supports new habitats within waterways and wetlands.
O14	Ensure that bushfire protection measures are considered in the layout and development of the local street network.
O15	Incorporate the conservation of significant aquatic habitat areas to be retained within the community.
	TRANSPORT & MOVEMENT
O16	Provide a network of dedicated cycle trails across the Precinct including the waterway corridor, connector roads and key local access street connections and the Ballarto Road reservation.
O17	Provide walking and cycling access to the adjoining communities.
O18	Provide an integrated, connected, legible and permeable street network that ensures connections across cadastral boundaries.
	INTEGRATED WATER MANAGEMENT & UTILITIES
O19	Deliver an integrated water management system that reduces reliance on reticulated potable water, increases the re-use of alternative water, minimises flood risk, ensures waterway health, and contributes towards a sustainable and green urban environment.
	PRECINCT INFRASTRUCTURE PLAN & STAGING
O20	Ensure pre-development property structure does not impede the realisation of cohesive and integrated neighbourhoods.
O21	Ensure that development staging is co-ordinated with the delivery of key local and state infrastructure.

Plan 3 - Land Budget Plan

Brompton Lodge Precinct Structure Plan

2.3 Summary Land Budget

The Net Developable Area (NDA) is established by deducting the land requirements for major roads, servicing, conservation and open space from the overall Precinct area. The estimated NDA for the Precinct is 78 hectares representing approximately 72% of the PSP area.

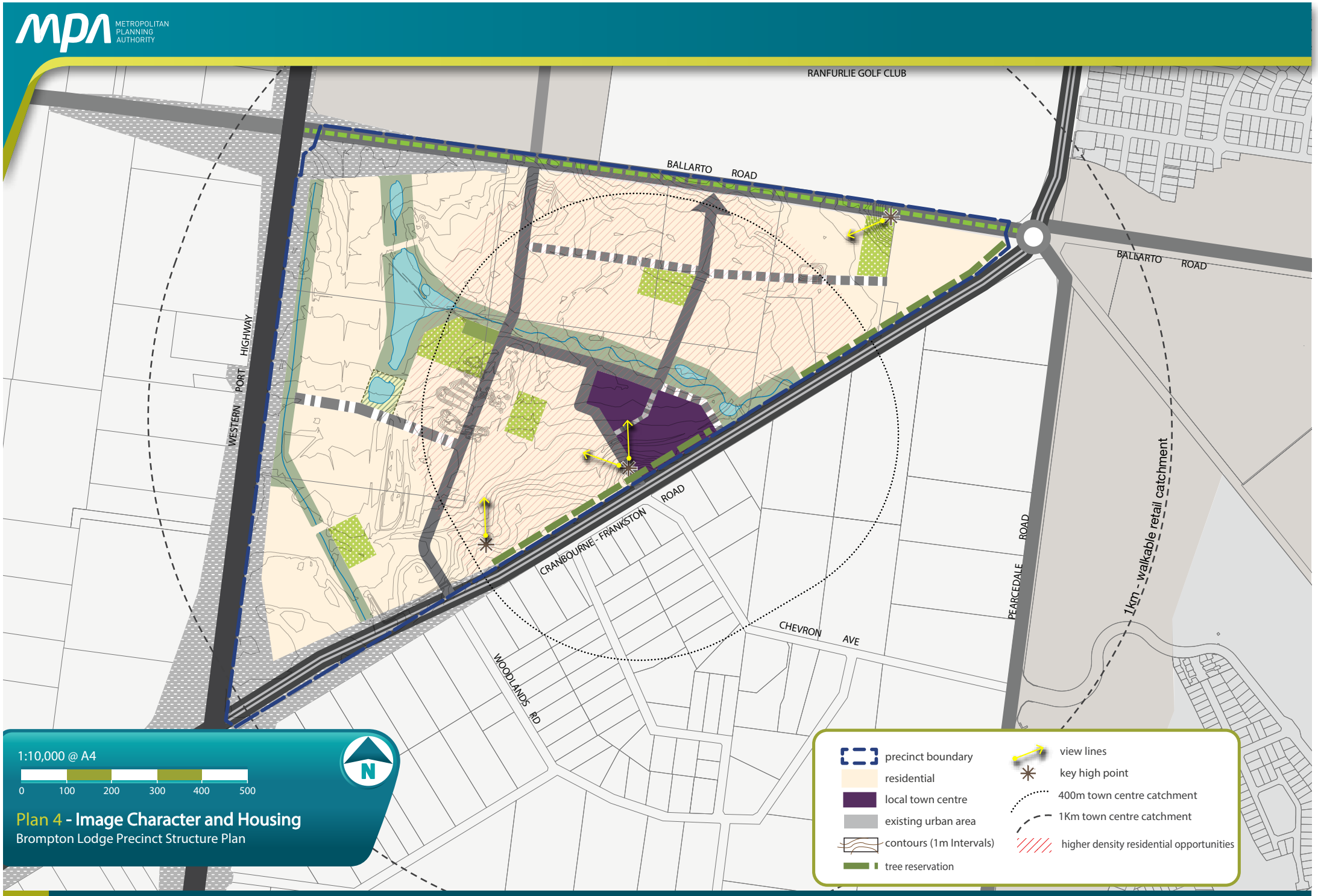
State planning policy currently aims to achieve a minimum of 15 dwellings per hectare of NDA. The PSP is expected to exceed the minimum dwelling density and yield an estimated 1,484 dwellings with an average dwelling density of 19 dwellings per hectare of NDA.

An average household size of 2.8 persons for conventional density housing (based on Victoria in Future 2012) is used to estimate the future population of the PSP area. On this basis the future population of the PSP is estimated to be approximately 4,156 people. The PSP is expected to also yield 369 ongoing jobs for future residents. The table opposite sets out the land area for various uses in the future urban structure.

Table 1 Summary Use Land Budget

DESCRIPTION	BROMPTON LODGE PSP		
	HECTARES	% OF TOTAL	% OF NDA
TOTAL PRECINCT AREA (ha)	107.82		
TRANSPORT			
Intersection flaring	3.82	3.54%	4.89%
Ballarto Road Widening	0.23	0.21%	0.30%
Proposed Westernport Highway Widening	9.78	9.07%	12.52%
Sub-total Transport	13.83	12.8%	17.71%
OPEN SPACE			
SERVICED OPEN SPACE			
Waterway and Drainage Reserve	10.79	10.00%	13.81%
Conservation Protected Habitat	0.67	0.62%	0.86%
Tree Reserve	0.25	0.23%	0.32%
Sub-total Serviced Open Space	11.71	10.86%	14.98%
CREDITED OPEN SPACE			
Local Network Park (Via Cl 52.01)	4.16	3.9%	5.32%
Sub-total Credited Open Space	4.16	3.9%	5.32%
Total All Open Space	15.87	14.7%	20.31%
TOTAL NET DEVELOPABLE AREA (NDA)Ha	78.12	72.46%	
NET DEVELOPABLE AREA - RESIDENTIAL (NDA - R)	78.12	72.46%	

DESCRIPTION	BROMPTON LODGE PSP		
RESIDENTIAL	NDA (HA)	DWELL / NDHA	DWELLINGS
Total Residential Yield Against NDA	78.12	19.0	1,484
Anticipated population @ 2.8 persons per dwelling			4,156



Plan 4 - Image Character and Housing

Brompton Lodge Precinct Structure Plan

3.0 IMPLEMENTATION

3.1 Image, Character, Housing

3.1.1 Image & Character

	REQUIREMENTS
R1	Street trees must be provided on both sides of all roads and streets (excluding laneways) at regular intervals appropriate to tree size at maturity and not exceeding the average intervals below unless otherwise agreed by the responsible authority: AVERAGE INTERVAL TREE SIZE 8 – 10 metres Small trees (less than 10 metre canopy) 10 – 12 metres Medium trees (10 – 15 metre canopy) 12 – 15 metres Large trees (Canopy larger than 15 metres)
R2	Trees in parks and streets must be: • Suitable for local conditions; and • Planted in modified and improved soil as required to support tree longevity.
R3	Street tree planting must use locally appropriate species and be consistent with any guidance provided on the relevant cross section within this Precinct Structure Plan unless otherwise approved by the responsible authority.
R4	Tree planting along existing/ future arterial roads must have regard to VicRoads Tree Planting Policy - February 2015

	GUIDELINES
G1	Streets should be orientated to maximise direct connections and views to key destinations such as the Local Town Centre, the central wetlands and neighbourhood parks.
G2	Subdivision design should respond to natural landforms, including significant hilltops and the wetland corridor.
G3	Development should enhance views to and from significant landscape and built features and ensure development does not detract from visual amenity of the area.
G4	Neighbourhood parks should be the focal point of each neighbourhood and each should have a distinct character with high quality design elements.
G5	Development should support the general native and indigenous landscape vision of the Precinct, with targeted use of exotic species, in local open spaces and as highlight plantings.
G6	Street trees should be used consistently across neighbourhoods to reinforce movement hierarchy and local character.
G7	A consistent suite of lighting and furniture should be used across neighbourhoods, appropriate to the type and role of street or public space, unless otherwise approved by the responsible authority.
G8	Trees in streets and parks should be larger species wherever space allows (to facilitate continuous canopy cover).

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

3.1.2 Housing

REQUIREMENTS	
R5	Lots must front (in order of priority where a lot fronts mutliple elements): • Waterways and and public open space; • Local access streets; • Connector roads; and • Arterial roads.
R6	Residential subdivision must deliver a broad range of lot size and dwelling types as follows: • Higher density lots/housing should be predominately provided: » In core 400m walkable catchments as shown on Plan 4 » Overlooking, abutting or within close proximity of Public Transport, Public Open Spaces, Activity Centres and Community Hubs » As part of a specialised housing project such as retirement living or an aged care facility • Within these areas higher density housing should be provided in a variety of forms such as apartments, terrace/townhouse development • Medium (300sqm-500sqm) and lower density lots/housing (=lots sizes >500sqm) should be provided outside the 400m walkable catchments in a variety of conventional stand-alone houses (different built forms are encouraged).
R7	Subdivision applications must include indicative concept layouts for any lots identified for the future development of medium density, high density, or integrated housing that suitably demonstrate: • Active interfaces with adjacent streets, open spaces and waterways; and • Safe and effective vehicle and pedestrian access and internal circulation, as appropriate.
R8	Development must appropriately respond to the future Principal Public Transport Network through the creation of opportunities for high-density residential development.

GUIDELINES	
G9	Residential subdivision stages should provide across each neighbourhood a broad range of lot sizes capable of accommodating a variety of housing types as described in Table 2
G10	Subdivision design should promote liveability through the creation of walkable neighbourhoods with accessibility to local services and facilities, through high urban design standards and neighbourhood character.
G11	Subdivision of land within a walkable distance of town centres and designated public transport routes should create a range of lot sizes suitable for the delivery of medium and higher density housing types.
G12	Specialised housing forms such as retirement living or aged care should be: • Integrated into the wider urban structure; • Located in close proximity to town centres and community hubs; • Accessible by public transport.

Table 2 Lot Size and Housing Type Guide

The following table provides an indication of the typical range of lot sizes that support the delivery of a broad range of housing types.

Housing types that may be supported	Lot Size Category (m^2)		
	Less than 300m^2	301-600m^2	More Than 600m^2
Small Lot Housing including townhouses and attached, semi-detached and detached houses	■		
Dual occupancies, duplexes	■	■	■
Detached houses		■	■
Multi-unit housing sites including terraces, row houses and villas		■	■
Stacked housing including apartments, shop top living and walk up flats			■

NOTES:

- The depiction of 'high density' residential to the north and west of the town centre is indicative.
- It does not preclude the remainder of the PSP area accommodating these high density residential uses, as per Requierment 6 of the PSP.

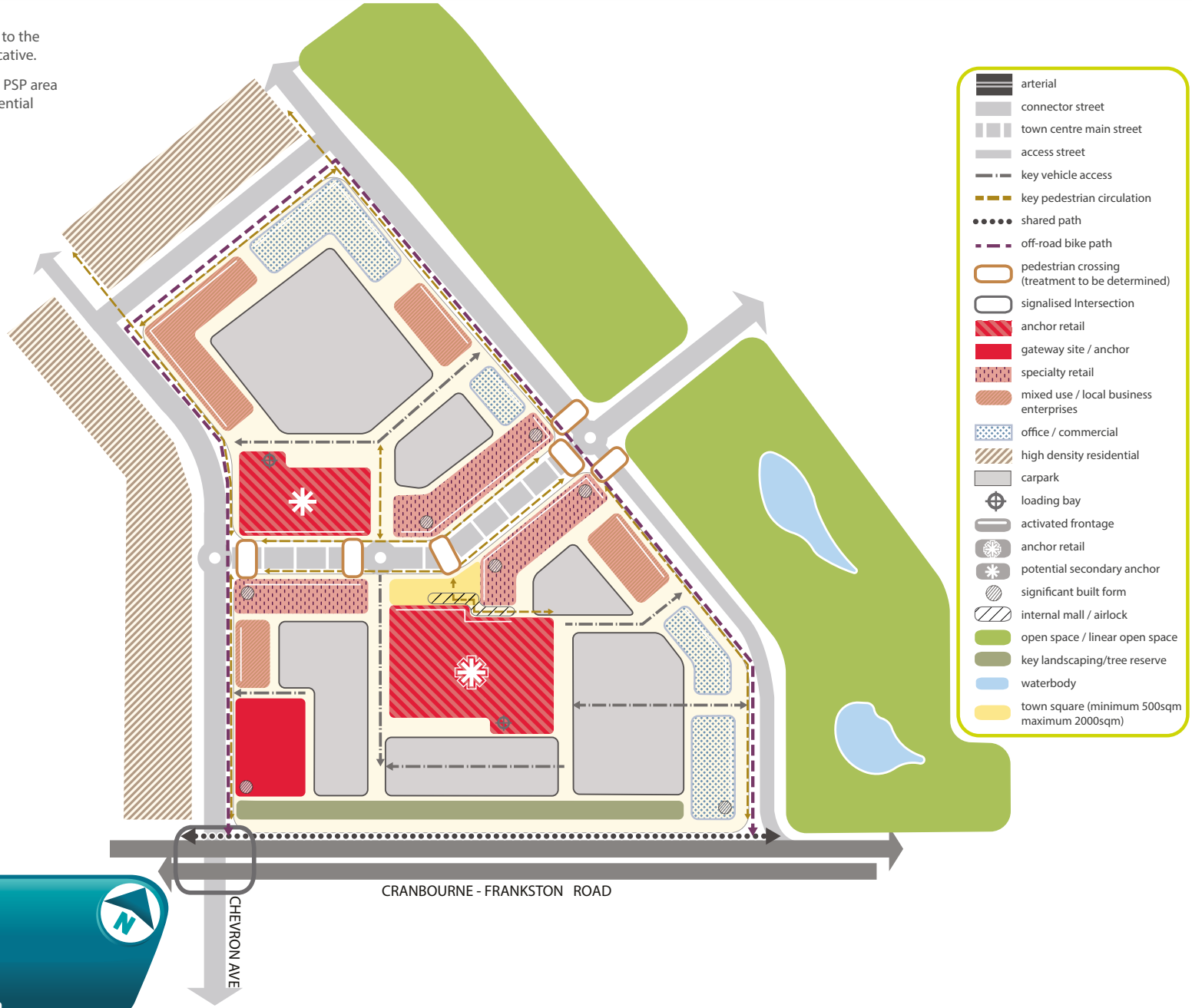


Figure 1 - Local Town Centre
Brompton Lodge Precinct Structure Plan

3.2 Town Centre and Employment

3.2.1 Local Town Centre

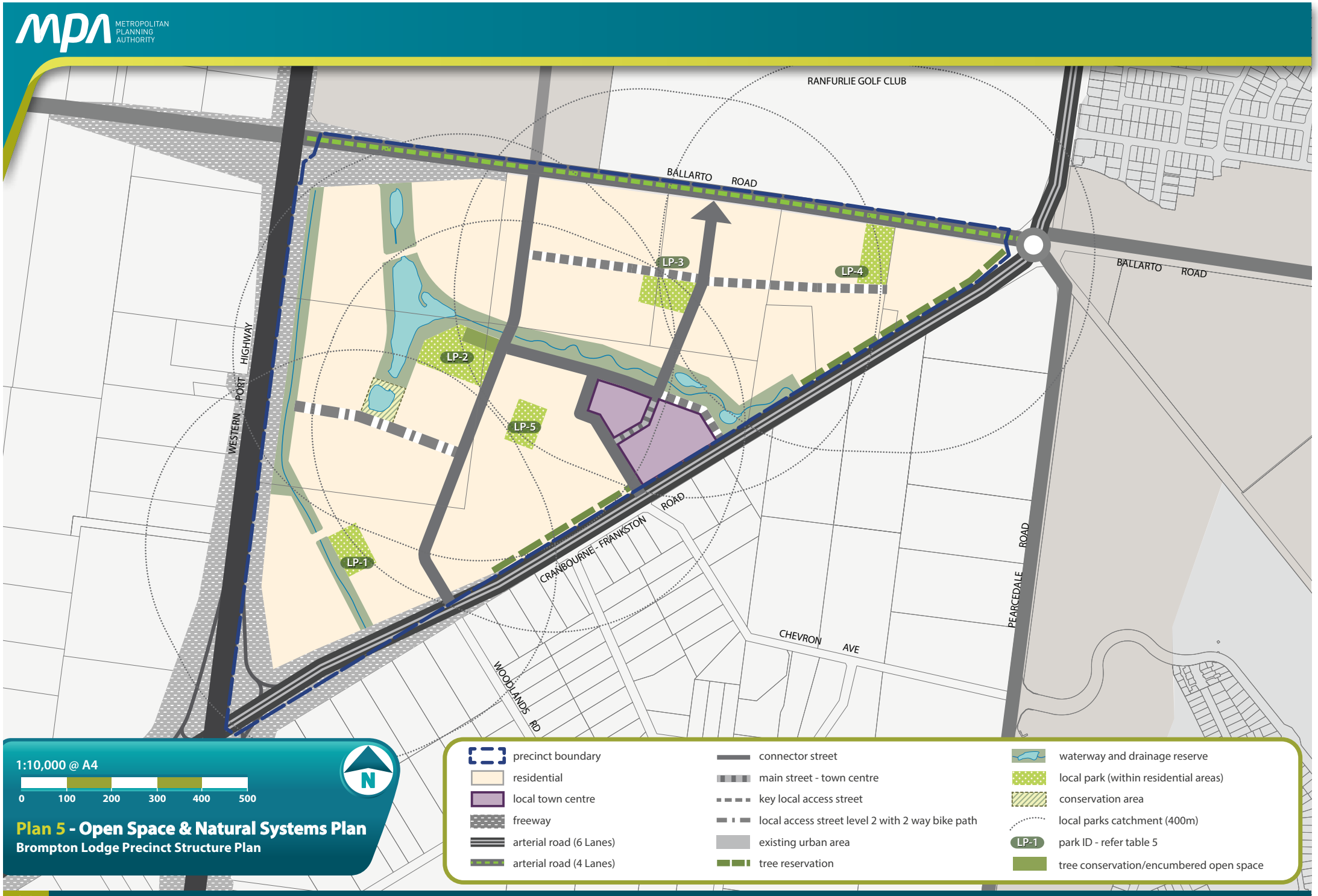
	REQUIREMENTS
R9	The use and development of the Local Town Centre (LTC) must be generally in accordance with the Local Town Centre Concept Plan shown in Figure 1 and must respond to the Local Town Centre Design Guidelines in Appendix C.
R10	The LTC design must consider the amenity of abutting residential neighbourhoods in the design of interfacing buildings.
R11	The LTC design must consider Crime Prevention Through Environmental Design (CPTED) and Safer Design Guidelines when addressing view lines and pedestrian spaces into and throughout the centre.
	GUIDELINES
G13	Blank walls along streets should be avoided. Blank walls should be treated to discourage graffiti.

Table 3 Town Centre Hierarchy

TOWN CENTRE	RETAIL FLOORSPACE	COMMERCIAL FLOORSPACE	LOCATION & ANCILLARY USES
Cranbourne-Frankston Road Local Town Centre	6,280m^2	1,700m^2	Located to service the Brompton Lodge PSP area, Low Density Residential community to the south. Also partially servicing Brookland Green and Settlers Run.

Table 4 Anticipated Employment Creation

LAND USE	MEASURE	JOBS	QUANTITY IN PSP	ESTIMATED JOBS
Retail	Jobs / 30sqm	1	6,280	209
Office/ Commercial	jobs/ 20 sqm	1	1,700	85
Home Based	jobs/ dwelling	0.05 per dwelling	1,484	75
Total Estimated				369



Plan 5 - Open Space & Natural Systems Plan
Brompton Lodge Precinct Structure Plan

3.3 Open Space

3.3.1 Open Space

	REQUIREMENTS
R12	All public landscaped areas must be designed to be robust and climatically appropriate, consistent with any local street tree or open space strategies.
R13	All parks must be located, designed and developed generally in accordance with the relevant description in Table 5 unless approved otherwise by the responsible authority. The area of the park may vary so long as it remains within the area range for its size category. Where a park is smaller than that outlined in the table, the land must be added to another park. Where a proposed park is larger than outlined in the table it may be accepted so long as it does not result in the removal of another park allocation.
R14	Where a local park shown on Plan 5 spans across multiple properties, the first development proponent to lodge a permit application must undertake a master plan for the entire park unless otherwise agreed by the responsible authority.
R15	Where a street frontage to a park is not provided, lots must: • Directly front the open space and allow for vehicular access via a rear laneway; • Allow for a primary point of access from a footpath or shared path of a minimum width of 1.5 metres along the frontage of the lot.
R16	Design and layout of waterway corridors and any other service open space must maximise the potential for integration of recreation uses, utility infrastructure and stormwater quality treatment assets, where this does not conflict with the primary function of the land.
R17	Any fencing of open space, whether encumbered or unencumbered, must be low scale and visually permeable to facilitate public safety and surveillance.
R18	Further to the public open space contribution required by Clause 52.01 of the Casey Planning Scheme, this provision sets out the amount of land to be contributed by each property in the Precinct and consequently where a cash contribution is required in lieu of land. For the purposes of Clause 52.01 a local park or town square in this PSP is public open space. A contribution must be made as follows: • Where public open space shown on the lot in Plan 5 and specified in Table 5 of this structure plan is equal to 5.32% of the lot's NDA that land must be transferred to Council at no cost to Council. • Where a public open space shown on the lot in Plan 5 and specified in Table 5 of this structure plan is equal to 5.32% or less than 5.32% of the lot's NDA: » the relevant land must be transferred to Council at no cost to Council; » a cash contribution is to be made to Council to bring the total public open space contribution to a value equal to 5.32% of NDA. • Where public open space shown on the land in Plan 5 and specified in Table 5 of this structure plan is greater than 5.32% of the lot's NDA, the relevant land must be transferred to Council at no cost to Council. In this case Council will compensate the landowner, at a time to be agreed, for the amount of land provided in excess of 5.32% but no greater than difference between 5.32% and the amount of land shown as local park on Plan 5. Refer to the Property Specific Land Budget (Appendix A) for detailed individual property open space areas and percentages specified by this PSP. A subdivider may provide additional public open space in a subdivision to the satisfaction of the responsible authority. There is no onus on Council, the responsible authority or any other party to provide compensation for public open space provided above that required by Clause 52.01 and this PSP.

R19	Parks must be a minimum of 70 metres in width and length.

	GUIDELINES
G14	Residential lots directly abutting open space must provide for primary point of access from a footpath or shared path proximate to the lot boundary.
G15	Open space design should establish an attractive urban environment with a strong sense of place through the provision of well designed landscaping of open spaces that integrate with the road and corridor networks.
G16	In addition to the pedestrian crossings shown on Plan 7, development proponents should provide waterway crossings at intervals no greater than 400 metres, to link paths with key destinations such as local parks and the town centre.
G17	Subject to being compatible with Table 5 and Appendix E parks and open space should contain extensive tree planting.
G18	A proponent delivering a master plan for a local park that traverses multiple property ownerships should consult with the landowners of parcels covered by the park to ensure an integrated design.

Table 5 Open Space Delivery Guide

PARK ID	AREA (HA)	PARK FUNCTION	DESCRIPTION	RESPONSIBILITY
LP1	0.6	Local	Neighbourhood	City of Casey
LP2	1.3	Local	Community Park	City of Casey
LP3	0.86	Local	Neighbourhood	City of Casey
LP4	0.80	Local	Neighbourhood	City of Casey
LP5	0.6	Local	Neighbourhood	City of Casey
Total	**4.16**			

Contributions toward active open space have been made towards external sportsfields at 10701 Cranbourne-Frankston Road within the Brompton Lodge Development Contributions Plan.

3.4 Biodiversity, Threatened Species & Bushfire Management

3.4.1 Biodiversity & Threatened Species

	GUIDELINES
G19	Where appropriate co-locate public recreation and open space areas to assist in buffering significant conservation reserves and waterways.
G20	Maximise public use and enjoyment of the linear open space network consistent with the requirements of the relevant public land manager.
G21	Where appropriate co-locate public open space areas with conservation areas and waterways to assist with their buffering.
G22	Drainage of stormwater wetlands should be designed to minimise the impact of urban stormwater on the biodiversity values of the conservation area.
G23	Planting adjacent to the conservation area, waterway corridors and retained indigenous vegetation should be indigenous species.
G24	Street trees and public open space landscaping should contribute to habitat for indigenous fauna species, in particular animals and birds that use trees as habitat.
G25	A revised Conservation Management Plan (CMP) must be prepared and approved by the Department of Environment, Land, Water and Planning (DELWP) regarding the conservation and management of the Dwarf Galaxias.
G26	Planting and landscaping within and adjacent to waterways, drainage reserves and the tree conservation reserve along Cranbourne-Frankston Road should include vegetation which would help support wildlife, particularly the Southern Brown Bandicoot.

Note:
The existing population of Dwarf Galaxias present on the site will be translocated to a new constructed wetland, located to the immediate South of the central wetland/ retarding basin (WLRB). This pond will be managed by the Owners Corporation.

3.4.2 Bushfire Management

	REQUIREMENTS
R20	For the purpose of Clause 56.06-7, the requirements of the relevant fire authority are, unless otherwise approved by the CFA: • Constructed roads must be a minimum of 7.3m trafficable width where cars park on both sides, or: » A minimum of 5.4m in trafficable width where cars may park on one side only; » A minimum of 3.5m width no parking and 0.5m clearance to structures on either side, and if this width applies, there must be passing bays of at least 20m long, 6m wide and located not more than 200m apart. • Roads must be constructed so that they are capable of accommodating a vehicle of 15 tonnes for the trafficable road width; • The average grade of a road must be no more than 1 in 7 (14.4% or 8.1°); • The steepest grade on a road must be no more than 1 in 5 (20% or 11.3°) with this grade continuing for no more than 50 metres at any one point; • Dips on the road must have no more than 1 in 8 grade (12.5% or 7.1°) entry and exit angle; and • Constructed dead end roads more than 60 metres in length from the nearest intersection must have a turning circle with a minimum radius of 8m (including roll over kerbs if they are provided).

Plan 6 - Road Network
Brompton Lodge Precinct Structure Plan

3.5 Transport and Movement

3.5.1 Road Network

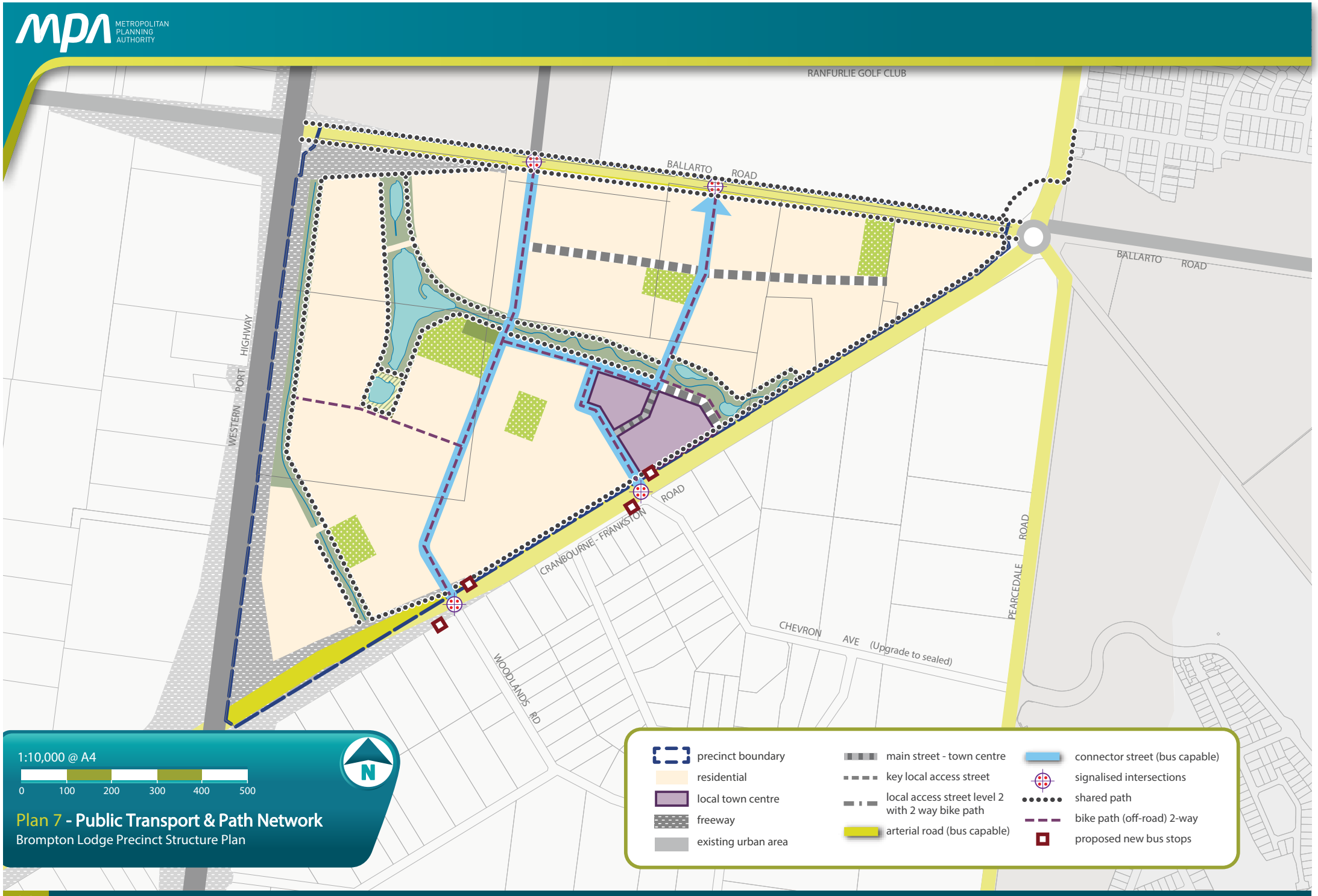
	REQUIREMENTS
R21	A frontage road must be provided where residential lots interface with Cranbourne-Frankston Road and Western Port Highway.
R22	Chevron Avenue must be constructed in accordance with the existing road treatment and include a shared path treatment.
R23	The connector road network must: • Provide for slow speed and permeable links; • Connect across arterial roads and traverses through the core of each square mile; • Facilitate efficient and direct pedestrian, cyclist, bus and vehicle movement; and • Efficiently link pedestrians and cyclists to jobs and the public transport system.
R24	Subdivision layouts must form a permeable street network that provides convenient access to local open space and allows for the effective integration with neighbouring properties.
R25	Where a single street spans across multiple properties that street may consist of multiple cross sections so long as a suitable transition has been allowed for between each. Where that street has already been constructed or approved for construction to a property boundary, the onus is on the development connecting into that street to adopt a consistent cross-section until that suitable transition can be made.
R26	Convenient and direct access to the connector road network must be provided through neighbouring properties where a property does not otherwise have access to the connector network or signalised access to the arterial road network, as appropriate.
R27	Vehicle access to lots fronting arterial roads must be provided from a service road, local frontage road or rear lane only, to the satisfaction of the coordinating road authority.
R28	Approximately 30% of local streets (including connector streets) within a subdivision must apply an alternative cross section to the 'standard' cross section for these streets outlined in Appendix D. Examples of potential variations are provided in Appendix D, however others are encouraged including but not limited to: • Varied street tree placement; • Varied footpath or carriageway placement; • Introduction of elements to create a boulevard effect; • Varied carriageway or parking bay pavement; and • Differing tree outstand treatments. For the purposes of this requirement, changes to street tree species between or within streets do not constitute a variation. Alternative cross sections must ensure that: • 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; and • Relevant minimum road reserve widths for the type of street (illustrated in Appendix D) are maintained, unless otherwise approved by the responsible authority.
R29	Configuration of vehicle access to lots from a public street must ensure that there is sufficient separation between crossovers to allow for a minimum of one on-street car park for every two residential lots.
R30	Where a lot is six metres or less in width, vehicle access must be via rear laneway, unless otherwise approved by the responsible authority.
R31	Development must positively address all waterways through the use of frontage roads or lots with a direct frontage to the satisfaction of Melbourne Water and the responsible authority.
R32	Any connector road or access street abutting a school must be designed to achieve slow vehicle speeds and provide designated pedestrian crossing points as required by the responsible authority.

	GUIDELINES
G27	Street layouts should be legible and provide multiple routes to key destinations, such as the Local Town Centre, to allow direct access for all modes of transport and assist with the dispersal of traffic.
G28	Use of cul-de-sacs should not detract from convenient pedestrian and vehicular connections.
G29	Intersections of local connector streets and arterial roads should be designed to facilitate the safe and convenient movement of all transport modes.
G30	The frequency of vehicular crossovers on widened verges (in excess of six metres) should be minimised through the use of a combination of: • Rear loaded lots with laneway acces; • Vehicular access from the side of a lot; • Combined or grouped crossovers; and • Increased lot width.
G31	Street block lengths should not exceed 240 metres to ensure a permeable and low speed environment for pedestrians, cyclists and vehicles is achieved.
G32	Slip lanes should be avoided in areas of high pedestrian activity and only be provided at any other intersection between connector roads and arterial roads where they are necessitated by high traffic volumes, to the satisfaction of the coordinating roads authority.

3.5.2 Walking and Cycling

	REQUIREMENTS
R33	Design of all streets and arterial roads must give priority to the requirements of pedestrians and cyclists by providing: • Footpaths of at least 1.5 metres on both sides of all streets and roads unless otherwise specified by the PSP; • Shared paths or bicycle paths where shown on Plan 7 or as shown on the relevant cross-sections in the Appendices or as specified by another requirement in the PSP; • Safe, accessible and convenient crossing points of connector roads and local streets at all intersections, key desire lines and locations of high amenity (e.g. town centre and open space); • Safe pedestrian crossings of arterial roads at all intersections, at key desire lines, and at regular intervals appropriate to the function of the road and public transport provision; • Pedestrian priority crossings on all slip lanes; and • Safe and convenient transition between on and off-road bicycle networks. All to the satisfaction of the coordinating roads authority and the responsible authority.
R34	On a construction or engineering plan approved under a subdivision permit, specification of any bicycle path on a connector road must also be to the satisfaction of Public Transport Victoria.
R35	Shared and pedestrian paths along waterways must: • Be delivered by development proponents consistent with the network shown on Plan 7; • Be above 1:10 year flood level with any crossing of the waterway designed to be above the 1:100 flood level to maintain hydraulic function of the waterway; • Be constructed to a standard that satisfies the requirements of Melbourne Water and the responsible authority. All to the satisfaction of Melbourne Water and the responsible authority.
R36	Bicycle parking facilities are to be provided by development proponents in convenient locations at key destinations such as parks and activity centres.
R37	The alignment of the off-road bicycle path must be designed for cyclists travelling up to 30 km/hr.
R38	Bicycle priority at intersections of minor streets and connector roads with dedicated off-road bicycle paths must be achieved through strong and consistent visual and physical cues and supportive directional and associated road signs.

	GUIDELINES
G33	Location of pedestrian and cycle paths should make the best use of opportunities for passive surveillance.
G34	Lighting should be installed along shared, pedestrian, and cycle paths linking key destinations, unless otherwise approved by the responsible authority.

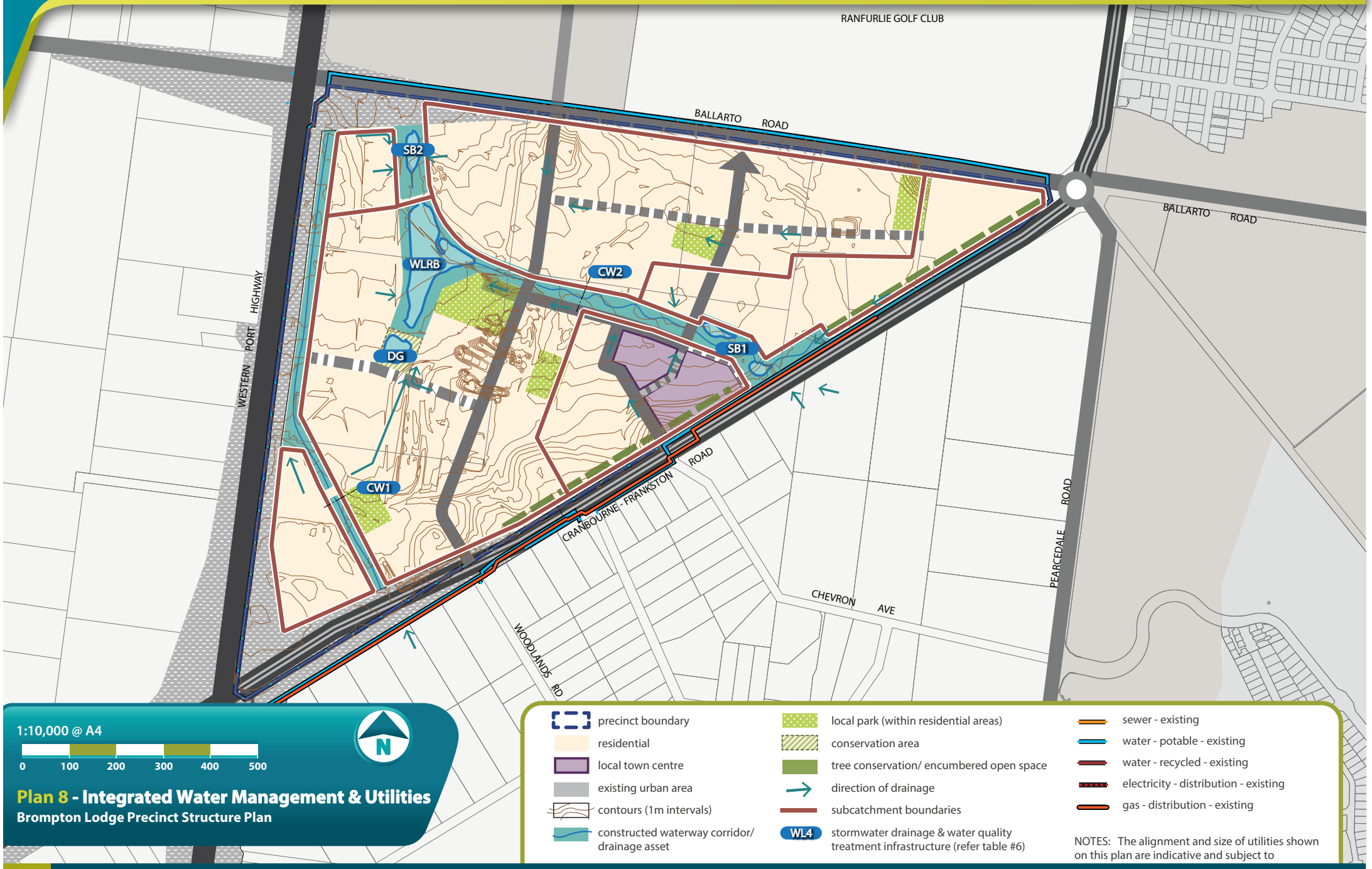


Plan 7 - Public Transport & Path Network

Brompton Lodge Precinct Structure Plan

3.5.3 Public Transport

	REQUIREMENTS
R39	Any roundabouts on roads shown as 'bus capable' on Plan 7 must be constructed to accommodate ultra-low-floor buses in accordance with the *Public Transport Guidelines for Land Use and Development*.
R40	The bus stop facilities must be designed as an integral part of town centres and activity generating land uses, such as schools, sports fields and employment areas.
R41	A road nominated on Plan 7 as a bus capable road must be constructed (including partial construction where relevant) in accordance with the corresponding cross section in the PSP and in accordance with the *Public Transport Guidelines for Land Use and Development.*



Plan 8 - Integrated Water Management & Utilities

Brompton Lodge Precinct Structure Plan

NOTES: The alignment and size of utilities shown on this plan are indicative and subject to

3.6 Integrated Water Management and Utilities

3.6.1 Integrated Water Management

	REQUIREMENTS
R42	Consistent with Clause 56.01-2 and Clause 56.07 of the Casey Planning Scheme, a subdivision of 60 or more lots must include an Integrated Water Management Plan.
R43	Development must meet or exceed best practice stormwater quality treatment standards prior to discharge to receiving waterways and as outlined on Plan 8, unless otherwise approved by Melbourne Water and the responsible authority.
R44	Final design and boundary of constructed waterways, waterway corridors, retarding basins stormwater quality treatment infrastructure and associated paths, boardwalks, bridges, and planting must be to the satisfaction of Melbourne Water and the responsible authority.
R45	Development staging must provide for the delivery of ultimate waterway and drainage infrastructure, including stormwater quality treatment. Where this is not possible, development proposals must demonstrate how any interim solution adequately manages and treats stormwater generated from the development and how this will enable delivery of an ultimate drainage solution, all to the satisfaction of Melbourne Water and the responsible authority.
R46	Stormwater conveyance and treatment must be designed in accordance with the relevant Development Services Scheme or drainage scheme to the satisfaction of Melbourne Water.
	GUIDELINES
G35	The design and layout of roads, road reserves, and public open space should optimise water use efficiency and long-term viability of vegetation and public uses through the use of Water Sensitive Urban Design (WSUD) initiatives.
G36	Where practical, development should include integrated water management initiatives to diversify water supply, reduce reliance on potable water and increase the utilisation of storm and waste water, contributing to a sustainable and green urban environment.
G37	Development should have regard to relevant policies and strategies being implemented by the responsible authority, Melbourne Water and South East Water, including any approved Integrated Water Management Plan.
G38	Where practical, integrated water management systems should be designed to: • Maximise habitat values for local flora and fauna species; and • Enable future harvesting and/or treatment and re-use of stormwater, including those options or opportunities outlined in Plan 8.
G39	Where practical, and where primary waterway, conservation or recreation functions are not adversely affected, land required for integrated water management initiatives (such as stormwater harvesting, aquifer storage and recharge, sewer mining) should be incorporated within the Precinct open space system as depicted on Plan 8, to the satisfaction of the responsible authority

Table 6 Stormwater Drainage and Water Quality Treatment Infrastructure

ID	LOCATION/ DESCRIPTION	AREA (HA) / AVE WIDTH	RESPONSIBILITY
WLRB	Wetland/retarding basin Central to PSP, adjacent to DG pond	3.27ha	Owners Corp (MWC Easement)
SB1	Sediment Basin Adjacent to town centre	1.20ha	Owners Corp (MWC Easement)
SB2	Sediment Basin North boundary of development	1.03ha	Owners Corp (MWC Easement)
DG POND	Dwarf Galaxias Conservation Area	0.67ha	Owners Corp
CW1	Constructed Waterway Western section of PSP	30m	Owners Corp (MWC Easement)
CW2	Constructed WAterway Centrally located waterway	45m	Owners Corp (MWC Easement)

MWC=Melbourne Water Corporation

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

3.6.2 Utilities

REQUIREMENTS	
R47	Before development commences on a property, functional layout plans are to be submitted of the road network showing the location of all: • Underground services; • Driveways/crossovers; • Street lights; and • Street Trees. A typical cross section of each street is also to be submitted showing above and below ground placement of services, street lights and trees. The plans and cross sections must demonstrate how services, driveways and street lights will be placed so as to achieve the road reserve width (consistent with the road cross sections outlined in this PSP) and accommodate the minimum level of street tree planting (as outlined in this PSP). If required, the plan and cross sections will nominate which services will be placed under footpaths or road pavement. The plans and cross sections are to be approved by the responsible authority and all relevant service authorities before development commences.
R48	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.
R49	All existing above ground electricity cables of less than 66kv voltage must be placed underground as part of the upgrade of existing roads.
R50	All new electricity supply infrastructure (excluding substations and cables of a voltage 66kv or greater) must be provided underground.
R51	Utilities must be placed outside of natural waterway corridors or on the outer edges of these corridors to avoid disturbance to existing native vegetation, significant landform features (e.g. rock outcrops) and heritage sites, to the satisfaction of Melbourne Water and the responsible authority.
R52	The developer must enter into an agreement with South East Water requiring the subdivision to be reticulated with a dual pipe recycled water system to provide for the supply of recycled water from a suitable source to all lots and open space reserves provided in the subdivision.
R53	Irrespective of whether South East Water has entered into an agreement as contemplated, any plan of subdivision must contain a restriction which provides that no dwelling or commercial building may be constructed on any lot unless the building incorporates dual plumbing for the use of recycled water in toilet flushing and garden watering should it become available.
R54	Trunk services are to be placed along the general alignments shown on Plan 8, subject to any refinements as advised by the relevant service authorities.
R55	New substations must be identified at the subdivision design response stage to ensure effective integration with the surrounding land uses and to minimise amenity impacts.
R56	Substations and other services must not be in public space or conservation land unless otherwise agreed by the responsible authority.
R57	Nature strips must be wide enough, and service conduits located so as to accommodate street trees and their likely root zone at reasonable maturity.

GUIDELINES	
G40	The design of subdivision electricity infrastructure should consider the practicality of removing existing above ground electricity lines in the local and arterial road network both within and abutting the subdivision and re-routing lines underground through the subdivision.
G41	Utility easements to the rear of lots should only be provided where there is no practical alternative.
G42	Above-ground utilities should be located outside of key view lines and screened with vegetation, as appropriate.
G43	Design and placement of underground services in new or upgraded streets should utilise the service placement guidelines outlined in Appendix D.

3.7 Precinct Infrastructure Plan and Staging

3.7.1 Precinct Infrastructure Plan

The Precinct Infrastructure Plan (PIP) at Table 7 sets out the infrastructure and services required to meet the needs of the proposed development within the Precinct. The infrastructure items and services are to be provided through a number of mechanisms including:

- Subdivision construction works by developers. Agreements under S173 of the *Planning and Environment Act 1987*.
- Utility service provider requirements.
- The *Brompton Lodge Development Contributions Plan*. Relevant development contributions from adjoining areas.
- Capital works projects by Council, State government agencies and non-government organisations.
- Works in Kind (WIK) projects undertaken by developers on behalf of Council or State government agencies.

Table 7 Precinct Infrastructure Plan

GROUP	PROJECT CATEGORY	PROJECT	WORKS DESCRIPTION	LEAD AGENCY	INCLUDED IN DCP
TRANSPORT					
Transport	Road	Ballarto Road construction	Land and construction - widening where required and construction of the first stage carriageways	City of Casey	YES
Transport	Road	Western Port Highway widening	Upgrade to freeway - Land aquired by PAO	VicRoads	NO
Transport	Road	Upgrade of Chevron Avenue	Upgrade of existing carriageway to an urban standard	City of Casey	YES
Transport	Intersection	Cranbourne-Frankston Road, Chevron Avenue and the North South Connector	Land for ultimate configuration and construction of interim signalised intersection	City of Casey	YES
Transport	Intersection	Cranbourne-Frankston Road, Woodlands Road and the North South Connector	Land for ultimate configuration and construction of signalised intersection	City of Casey	YES
Transport	Intersection	Ballarto Road and Woodlands Road	Purchase of land for intersection (ultimate treatment) **and construction or roundabout (interim) and pedestrian signals**	City of Casey	YES
Transport	Intersection	Ballarto Road and Eastern Connector	Purchase of land for intersection (ultimate treatment)	City of Casey	YES
Transport	Intersection	Ballarto Road and Western Port Highway	Construction of 4th leg of Highway to connector roundabout	City of Casey	YES
Transport	Intersection	Ballarto Road/Cranbourne-Frankston Road/Pearcedale Road	Construction of 5th leg of arterial to connector intersection (interim treatment)	City of Casey	YES
COMMUNITY FACILITIES					
Community	Community	Family and Children's Centre	Contribution towards land and construction of Family and Children's Centre at 1/630 Hall Road, Cranbourne West	City of Casey	YES
Community	Community	Community Centre	Contribution towards construction of the future integrated community centre in the Cranbourne West Activity Centre	City of Casey	YES
Community	Sports Reserve	Recreation facility	Contribution towards land and construction of a recreation facilitiy at 1070 Cranbourne-Frankston, Cranburne	City of Casey	YES

3.7.2 Development Staging

	REQUIREMENTS
R58	Staging of subdivisions must provide for the timely connection and delivery of the North South Connector between the Cranbourne West Growth Area and Cranbourne Frankston Road.
R59	Development staging must provide for the timely provision and delivery of: • Arterial road reservations; • Connector streets and connector street bridges; • Street links between properties, constructed to the property boundary; and • Connection of the on and off-road pedestrian and bicycle network.

	GUIDELINES
G44	Development staging will be determined largely by the development proposals on land within the Precinct and the availability of infrastructure services. Development applications should demonstrate: • How the development, to the extent practicable, will be integrated with adjoining developments, through the timely provision of connecting roads and walking/cycling paths. • Where development does not directly adjoin the urban edge, how local open space will be provided in the early stages of the development to provide new residents with amenity. • How sealed road access will be provided to each new allotment. • How any necessary trunk service extensions will be delivered, including confirmation of the agreed approach and timing by the relevant infrastructure/service provider.
G45	The early delivery of local parks and playgrounds is encouraged within each neighbourhood and may be delivered in stages.

3.7.3 Subdivision Works

	REQUIREMENTS
R60	Subdivision of land within the Precinct must provide and meet the total cost of delivering the following infrastructure: • Connector Roads and local streets • Local bus stop infrastructure (where locations have been agreed in writing by Public Transport Victoria; • Landscaping of all existing and future roads and local streets; • Intersection works and traffi management measures along arterial roads, connector streets, and local streets (except those included in the DCP); • Council approved fencing and landscaping (where required) along arterial roads; • Local shared, pedestrian and bicycle paths along local arterial roads, connector roads, utilities easements, local streets, waterways and within local parks including bridges, intersections, and barrier crossing points (except those included in the DCP); • Bicycle parking as required in this document; • Appropriately scaled lighting along all roads, major shared and pedestrian paths, and traversing public open space; • Basic improvements to local parks and open space (refer open space delivery below); • Local drainage system; • Local street or pedestrian path crossings of waterways and the electricity transmission line easement unless included in the DCP or outlined as the responsibility of another agency in the Precinct Infrastructure Plan; and • Infrastructure as required by utility service providers including water, sewerage, drainage (except where the item is funded through a Development Services Scheme), electricity, gas, and telecommunications.

R61	OPEN SPACE DELIVERY All public open space (where not otherwise provided via a Development Contributions Plan) must be finished to a standard that satisfies the requirements of the responsible authority prior to the transfer of the public open space, including but not limited to: • Removal of all existing and disused structures, foundations, pipelines, and stockpiles; • Clearing of rubbish and environmental weeds and rocks, levelled, topsoiled and grassed with warm climate grass (unless conservation reserve requirements dictate otherwise); • Provision of water tapping, potable and recycled water connection points; • Sewer, gas and electricity connection points must also be provided to land identified as a sports reserve or district level local park; • Trees and other plantings (drought tolerant unless approved by Council); • Vehicular exclusion devices (fence, bollards, or other suitable method) and maintenance access points; • Construction of minimum 1.5m wide pedestrian paths around the perimeter of the reserve, connecting and linking into any other surrounding paths or points of interest, except where shown as a shared paths on Plan 5; • Installation of park furniture including barbeques, shelters, tables, local scale play grounds and other local scale play elements such as half basketball courts and hit-up walls, rubbish bins and appropriate paving to support these facilities, consistent with the type of public open space listed in the Open Space Delivery Guide (APPENDIX E); and • Additionally, for town squares and urban parks – paving and planters, furniture including seating, shelters and bollards, tree and other planting, lighting, waterway and water tapping;

R62	Local sports reserves identified by a Development Contributions Plan must be vested in the relevant authority in a condition that enables: • Safe mowing using standard Council machinery. • Safe public use / access. Generally this may include: • Removal of loose surface / protruding rocks and built structures. • Targeted topsoiling of holes left by rocks and / or minor grading to create a safe and reasonably regular surface. • Bare, patchy and newly graded areas being seeded, top-dressed with drought resistant grass. Consistent with the *Brompton Lodge Development Contributions Plan*, where these works are not considered to be temporary works, these works are eligible for a works in kind credit against a landowner/developers DCP obligation. Works associated with adjacent road construction (e.g. earthworks for a road embankment) are not eligible for works in kind credit. Any embankments as a result of abutting road construction should have a maximum 1:6 gradient.

4.0 APPENDICES

APPENDIX A Property Specific Land Use Budget

		TRANSPORT							SERVICED OPEN SPACE			CREDITED OPEN SPACE	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
PSP PROPERTY ID	TOTAL AREA (HECTARES)	BALLARTO ROAD WIDENING	IN-01	IN-02	IN-03	IN-04	IN-05	PROPOSED WESTERNPORT HIGHWAY WIDENING	WATERWAY/DRAINAGE RESERVE	CONSERVATION (PROTECTED HABITAT)	TREE RESERVE	LOCAL PARKS		
1	15.26							3.23	3.49			0.00	8.55	56%
2	18.83				0.10			1.31	2.89	0.67	0.14	1.17	12.55	67%
3	40.17				0.95	0.60		5.24	3.86		0.11	1.33	28.07	70%
4	12.07	0.03	0.93						0.05			0.33	10.75	89%
5	8.34			0.87					0.00			0.53	6.93	83%
6	2.54								0.50			0.00	2.04	80%
7	6.77	0.06		0.14					0.00			0.80	5.77	85%
8	0.20								0.00			0.00	0.20	100%
9	3.65	0.15					0.24		0.00			0.00	3.26	89%
SUB-TOTAL	107.82	0.23	0.93	1.01	1.04	0.60	0.24	9.78	10.79	0.67	0.25	4.16	78.12	72.46%
TOTAL	**108**	**0.23**	**0.93**	**1.01**	**1.04**	**0.60**	**0.24**	**9.78**	**10.79**	**0.67**	**0.25**	**4.16**	**78.12**	**72%**

APPENDIX B Local Town Centre Design & Principles

Principle 1 Provide every neighbourhood with a viable Local Town Centre as a focus of the community with a fine grain, closely spaced distribution pattern	• Deliver a fine grain distribution pattern of highly accessible Local Town Centres generally on a scale of one Local Town Centre for every neighbourhood of 8,000 to 10,000 people. • Locate Local Town Centres with a distribution pattern of around one Local Town Centre for every square mile (2.58km^2) of residential development. • Deliver a network of economically viable Local Town Centres including a supermarket and supporting competitive local shopping business, medical, leisure, recreation and community needs while allowing opportunities for local specialisation.
Principle 2 Locate Local Town Centres on a connector street intersection with access to an arterial road and transit stop	• Locate the Local Town Centre on an arterial/connector intersection and ensure that the Local Town Centre is central to the residential catchment that it services while optimising opportunities for passing trade.
Principle 3 Locate Local Town Centres in an attractive setting so that most people live within a walkable catchment of a Local Town Centre and relate to the centre as the focus of the neighbourhood	• Ensure that 80-90% of households are within a 1km walkable catchment of a local or higher order Town Centre. • Locate Local Town Centres in attractive settings and incorporate natural or cultural landscape features such creeks and waterways, linear open space, pedestrian and cycle links and areas of high aesthetic value. • The design of the Local Town Centre should respect existing views and vistas to and from the Local Town Centre location.
Principle 4 Provide a full range of local community and other facilities including a supermarket, shops, medical and recreation uses	• Land uses should be located generally in accordance with the locations and general land use terms identified on the Local Town Centre Concept Plan. • The design of the Local Town Centre should facilitate development with a high degree of community interaction and provide a vibrant and viable mix of retail, recreation and community facilities. • The creation of land use precincts within the centre is encouraged to facilitate the clustering of uses. For example a 'medical precinct' where similar or synergistic uses should be sited together to promote stronger trading patterns. • The design of the Local Town Centre should also encourage a pattern of smaller scale individual tenancies and land ownership patterns within the Local Town Centre to attract investment and encourage greater diversity and opportunities for local business investment. • The Local Town Centre should generally be anchored by one full line supermarket and supported by specialty stores unless otherwise noted on the Local Town Centre Concept Plan. Supermarkets and other commercial or community anchors or secondary anchors within the Local Town Centre should be located diagonally opposite one another across the main street and/or town square to promote desire lines that maximise pedestrian movement within the public realm. • A small access mall that address a supermarket/other 'large box uses' may be considered as part of the overall design. Such access malls may have a limited number of internalised shops. The primary access to the mall should be from the main street and/or the town square. • Active building frontages should address the main street and town square to maximise exposure to passing trade, and promote pedestrian interaction. • Shopfronts should have varying widths and floor space areas to promote a diversity of trading opportunities throughout the Local Town Centre. • Flexible floor spaces (including floor to ceiling heights) should be incorporated into building design to enable localised commercial uses to locate amongst the activity of the Local Town Centre. • Mixed Use precincts should provide retail and/or office at ground level, and office, commercial and residential above ground level.

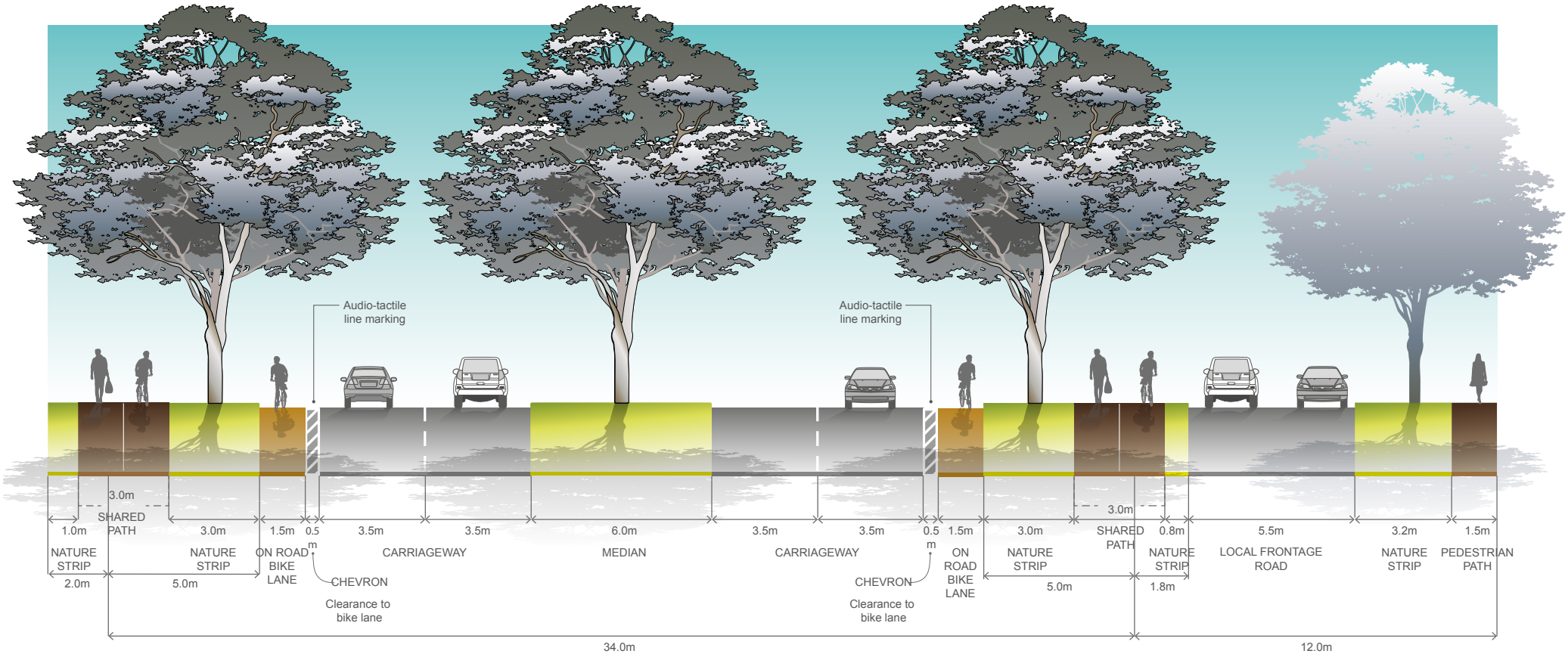
Principle 4 (continued)	• Childcare, medical centres and specialised accommodation (e.g. aged care/nursing home, student accommodation, and serviced apartments) should be located within the Local Town Centre and at the edge of the Local Town Centre to contribute to the activity of the centre and so these uses are close to the services offered by the centre. • Car parking areas should be located centrally to the site and to the rear and or side of street based retail frontages. • Car parking areas should be designed to accommodate flexible uses and allow for long term development opportunities. • Public toilets should be provided in locations which are safe and accessible and within the managed area of the property.
Principle 5 Focus on a public space as the centre of community life.	• A public space which acts as the central meeting place within the Local Town Centre must be provided. This public space may take the form of a town square, town park, public plaza space, public market place or a similar locally responsive option. • The public space should be located in a position where the key uses of the Local Town Centre are directly focuses on this public space to ensure that it is a dynamic and activated space. • The public space should be designed to function as the identifiable 'centre' or 'heart' with a distinctive local character for both the Local Town Centre and the broader residential catchment. • The public space should be designed as a flexible and adaptable space so that a range of uses can occur within this space at any one time. Such uses may include people accessing their daily shopping and business needs as well as providing a space where social interaction, relaxation, celebrations and temporary uses (such as stalls, exhibitions and markets) can occur. • The public space should be well integrated with pedestrian and cycle links around and through the Local Town Centre so that the public space acts as a 'gateway' to the activity of the centre.
Principle 5 (continued)	• The main public space or town square within the Local Town Centre should have a minimum area of 500sq m. Smaller public spaces which are integrated within the built form design, are surrounded by active frontages and facilitate high levels of pedestrian movement are also encouraged. • Footpath widths within and around the public space as well as along the main street should be sufficient to provide for pedestrian and mobility access as well as provide for outdoor dining and smaller gathering spaces
Principle 6 Integrate local employment and service opportunities in a business friendly environment	• A variety of employment and business opportunities should be planned through the provision of a broad mix of land uses and commercial activities. • A range of options and locations for office based businesses should be provided within the Local Town Centre. • Services and facilities to support home based and smaller businesses are encouraged within the Local Town Centre. • Appropriate locations for small office/home office ('SOHO') housing options which maximise the access and exposure to the activity of the Local Town Centre should be considered as part of the design process
Principle 7 Include a range of medium and high density housing and other forms of residential uses within and surrounding the Local Town Centre	• Medium and high density housing in and around the Local Town Centre is required to provide passive surveillance, contribute to the life of the centre and to maximise the amenity of the centre. • Medium and high density housing should establish in locations of high amenity around the Local Town Centre and be connected to the activity of the Local Town Centre through strong pedestrian and cycle links. • A range of housing types for a cross section of the community (such as retirement living) should be included in and around the Local Town Centre.

Principle 7 (continued)	• Specialised accommodation (such as aged/nursing care, student accommodation and serviced apartments) is encouraged at the edge of Local Town Centres with strong pedestrian and cycle links to the central activity area of the Town Centre. • The Local Town Centre design should avoid potential land use conflicts between residential and commercial uses by focusing on retail operations on the main street and around the town square and locating residential uses predominantly at the edge of the Local Town Centre and/or on upper levels. • Refer to the Small Lot Housing Code for further information about housing requirements for small lots around Local Town Centres.
Principle 8 Design the Local Town Centre to be pedestrian friendly and accessible by all modes including public transport, while enabling private vehicle access	• The Local Town Centre should be easily, directly and safely accessible for pedestrians, cyclists, public transport modes, private vehicles, service and delivery vehicles with priority given to pedestrian movement, amenity, convenience and safety. • The Local Town Centre should provide a permeable network of streets, walkways and public spaces that provide linkages throughout the centre and designated pedestrian crossing points. • The main street should be designed to comply with the relevant cross sections found within the Precinct Structure Plan. • A speed environment of 40km/h or less should be designed for the length of the main street. • Public transport infrastructure/ facilities should be planned for commuter friendly/convenient locations within the Local Town Centre • Bus stops should be provided in accordance with the Department of Transport Public Transport Guidelines for Land Use and Development, to the satisfaction of the Department of Transport. • Bicycle parking should be provided within the street network and public spaces in highly visible locations and close to pedestrian desire lines and key destinations. • Supermarket and other 'large format' buildings should not impede on the movement of people around the Local Town Centre. • Key buildings within the Local Town Centre should be located to encourage pedestrian movement along the length of the street through public spaces. • The design of buildings within the Local Town Centre should have a relationship with and should interface to the public street network. • Car parking areas should be designated to ensure passive surveillance and public safety through adequate positioning and lighting. • Car parking areas should be designed to provide dedicated pedestrian routes and areas of landscaping. • On street car parking should be provided either as parallel or angle parking to encourage short stay parking. • Car parking ingress and egress crossovers should be grouped and limited. • Car parking ingress or egress and car parking areas accommodating heavy vehicle movements should be designed to limit the pedestrian/vehicle conflict • Heavy vehicle movements (i.e. loading and deliveries) should be located to the rear and or side of street based retail frontage • Streets, public spaces and car parks should be well lit to Australian standards and with pedestrian friendly (generally white) light. Lighting should be designed to avoid unnecessary spill to the side or above. • All public spaces should respond appropriately to the design for mobility access principles

Principle 9 **Create a sense of place with high quality engaging urban design**	• Development should complement and enhance the character of the surrounding area by responding appropriately to key visual cues associated with the topography of the Local Town Centre location and its surrounds. • The Local Town Centre design should seek to minimise amenity and noise impacts resulting from the mix of uses by maintaining separation and transitional areas between retail and housing activities, such as open space, road networks and community facilities. • The design of each building should contribute to a cohesive and legible character for the Local Town Centre as a whole. • Sites in prominent locations (such as at key intersections, surrounding public spaces and terminating key view lines and vistas) should be identified for significant buildings or landmark structures. • The design of building frontages should incorporate the use of a consistent covered walkway or verandah to provide for weather protection. • The built form should define the main street and be aligned with the property boundary. • Street facades and all visible side or rear facades should be visually rich, interesting and well articulated and be finished in suitable materials and colours that contribute to the character of the Local Town Centre. • Corner sites, where the main street meets an intersecting and/or arterial road should: • Be designed to provide built form that anchors the main street to the intersecting road. This can be achieved through increased building height, scale and articulated frontages; • Incorporate either 2 storey building or 2 storey elements (such as awnings and roof lines); • Be developed to have a ground floor active frontage and active floor space component to the main street frontage; and • Not be developed for standard single storey fast food outcomes. • Materials and design elements should be compatible with the environment and landscape character of the broader precinct. • The supermarket and secondary anchors should have frontages that directly address the main street and/or town square so that the use integrates with and promotes activity within the main street and public spaces/thoroughfares. • Supermarkets or large format retail uses with a frontage to the main street should use clear glazing to allow view lines into the store from the street. (Planning permits for buildings and works should condition against the use of white washed windows, excessive window advertising and obtrusive internal shelving or 'false walls' offset from the glazing). • Secondary access to the supermarket from car parking areas should be considered where it facilitates convenient trolley access and does not diminish the role of the primary access from the main street and or town square. • Wrapping of car parking edges with built form, to improve street interface, should be maximised. • The design and siting of supermarkets and other 'large format retail uses' should provide an appropriate response to the entire public domain. This includes but is not limited to car parking areas, predominantly routes and streets. • Retail uses along street frontages should generally include access points at regular intervals to encourage activity along the length of the street. • Retail and commercial buildings within the Local Town Centre should generally be built to the property line. • Public spaces should be oriented to capture north sun and protect from prevailing winds and weather. • Landscaping of all interface areas should be of a high standard as an important element to complement the built form design. • Urban art should be incorporated into the design of the public realm. • Street furniture should be located in areas that are highly visible and close to or adjoining pedestrian desire lines/gathering spaces and designed to add visual interest to the Local Town Centre. • Wrapping of car parking edges with built form, to improve street interface, should be maximised • Car parking areas should provide for appropriate landscaping with planting of canopy trees and dedicated pedestrian thoroughfares. • Screening of centralised waste collection points should minimise amenity impacts with adjoining areas and users of the centre. • Where service areas are accessible from car parks, they should present a well designed and secure facade to public areas.

Principle 10 **Promote localisation, sustainability and adaptability**	• The Local Town Centre should promote the localisation of services which will contribute to a reduction of travel distance to access local services and less dependence on the car. • The Local Town Centre should be designed to be sympathetic to its natural surrounds by: • Investigating the use of energy efficient design and construction methods for all buildings; • Including Water Sensitive Urban Design principles such as integrated stormwater retention and reuse (e.g. toilet flushing and landscape irrigation); • Promoting safe and direct accessibility and mobility within and to and from the Local Town Centre; • Including options for shade and shelter through a combination of landscape and built form treatments; • Ensuring buildings are naturally ventilated to reduce the reliance on plant equipment for heating and cooling; • Promoting passive solar orientation in the configuration and distribution of built form and public spaces; • Grouping waste collection points to maximise opportunities for recycling and reuse; • Promoting solar energy for water and space heating, electricity generation and internal and external lighting; • Investigating other opportunities for the built form to reduce greenhouse gas emissions associated with the occupation and the ongoing use of buildings; • Encourage building design which can be adapted to accommodate a variety of uses over time; and • Ensure the Local Town Centre has an inbuilt capacity for growth and change to enable adaptation and the intensification of uses as the needs of the community evolve.

APPENDIX C Cross Sections



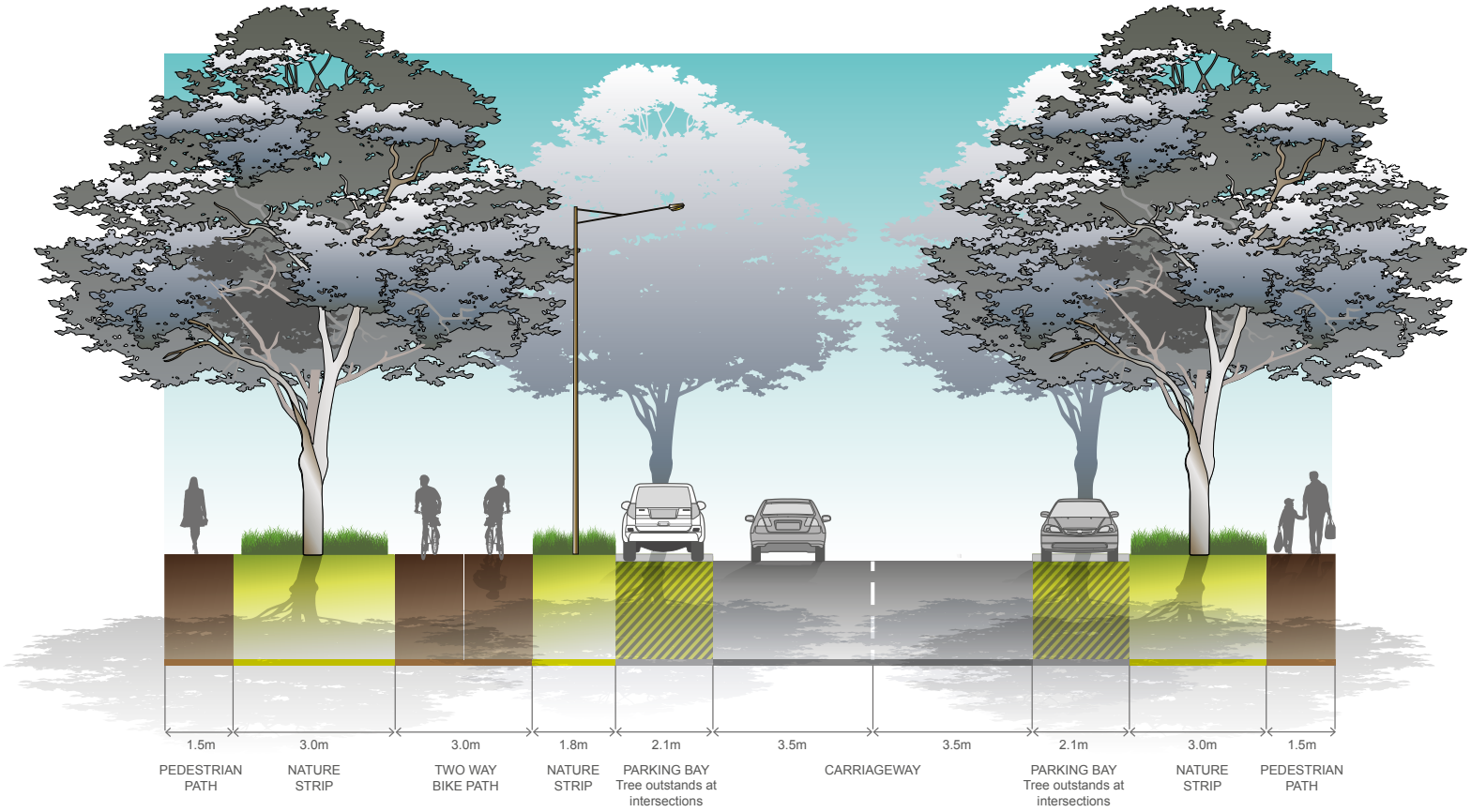
Cross Section 1

Secondary Arterial Road
(34.0m) - 4 lane - 60 km/h

METROPOLITAN PLANNING AUTHORITY

NOTES:

- Includes typical residential interface both sides
- Minimum street tree mature height 15 metres
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb (refer Engineering Design and Construction Manual for Subdivision in Growth Areas, April 2011).

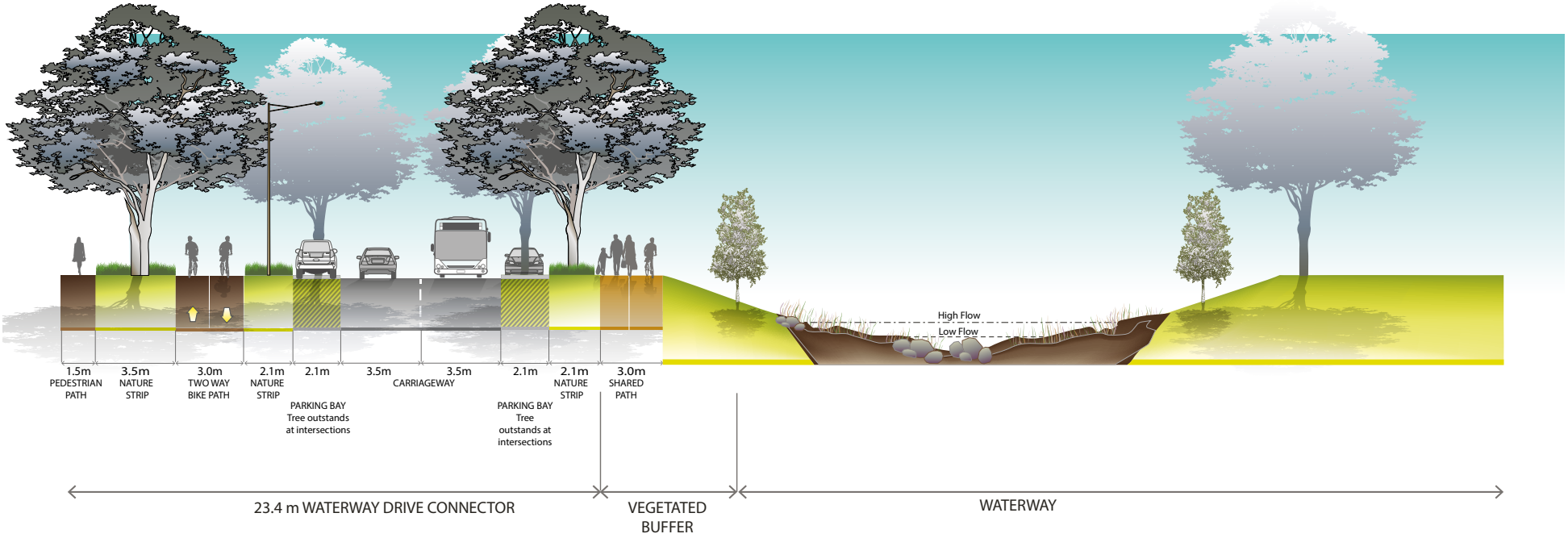


Cross Section 2

Connector Street (25.0m)

NOTES:

- Minimum street tree mature height 15 metres.
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Are
- Where roads abut school drop-off zones and thoroughfares, 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.

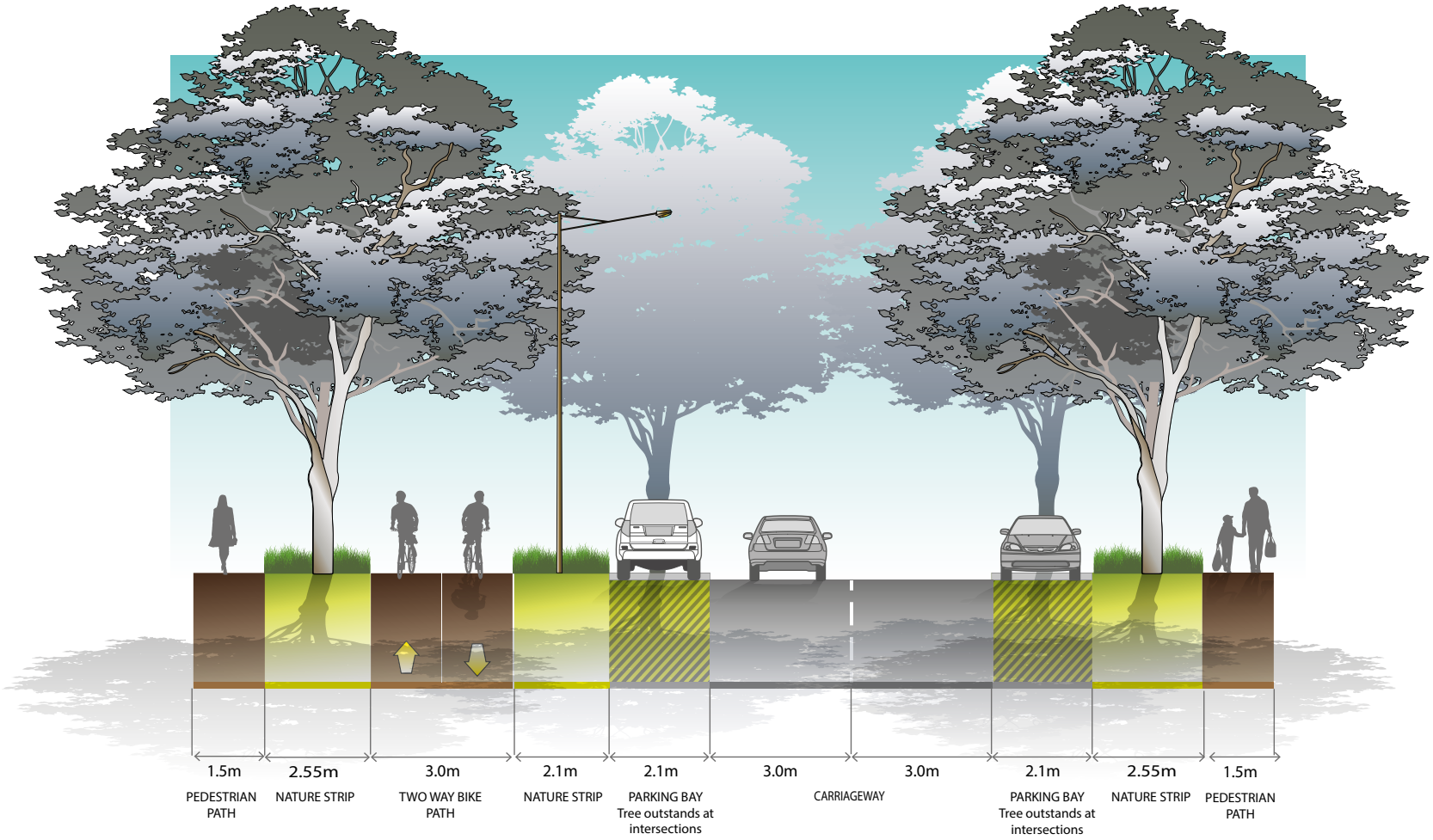


Cross Section 3

Waterway Drive Connector (23.4 m)

Waterway Drive Connector:

- A range of tree heights are encouraged. Large canopy trees (at least 15m in height) are sought where appropriate.

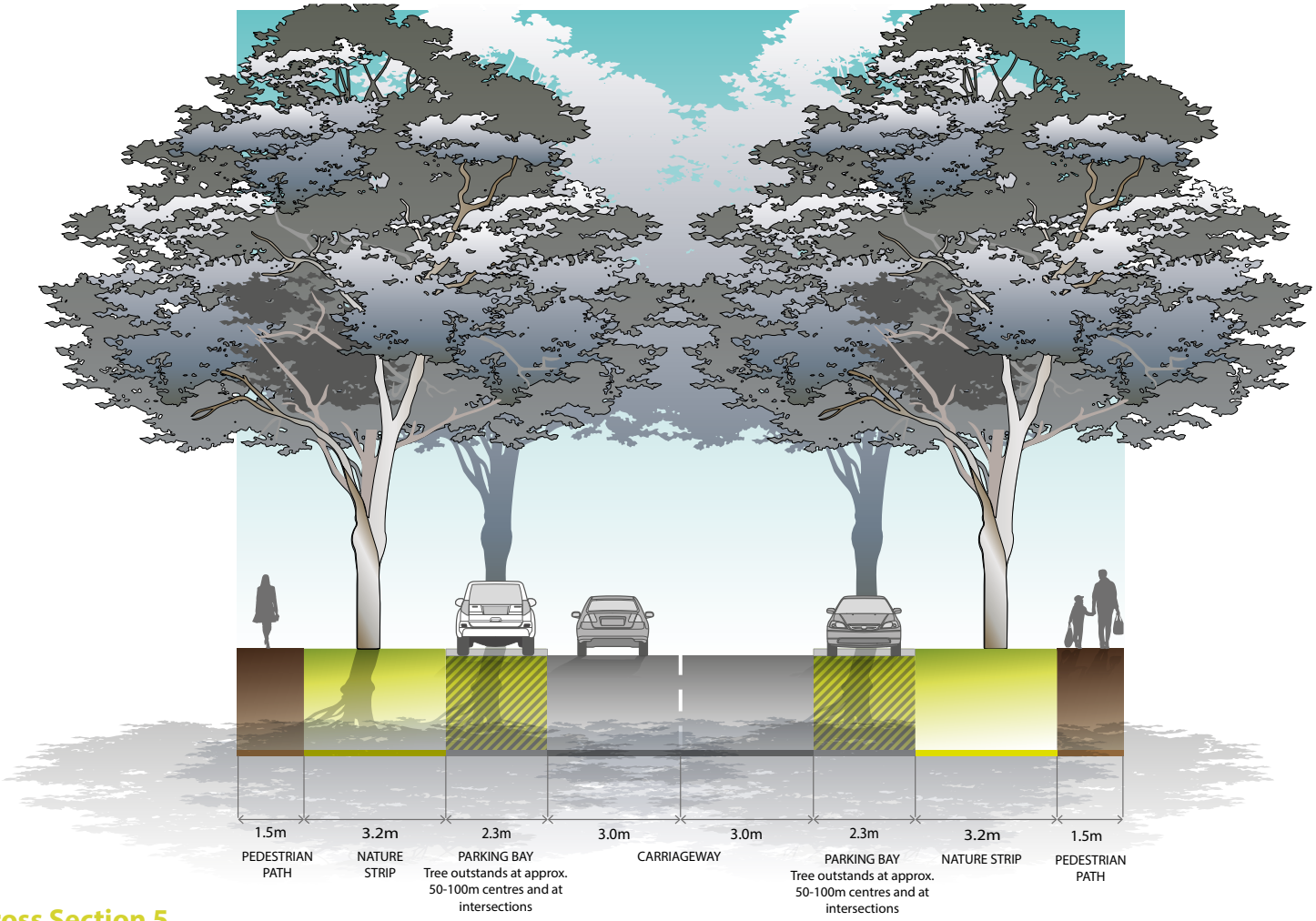


Cross Section 4

Local Access Street Level 2 (23.4m) with 2 way bike path 2000-3000 VPD

NOTES:

- A range of tree heights are encouraged. Large canopy trees (at least 15m in height) are sought where appropriate.
- All kerbs are to be B2 Barrier Kerb
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority

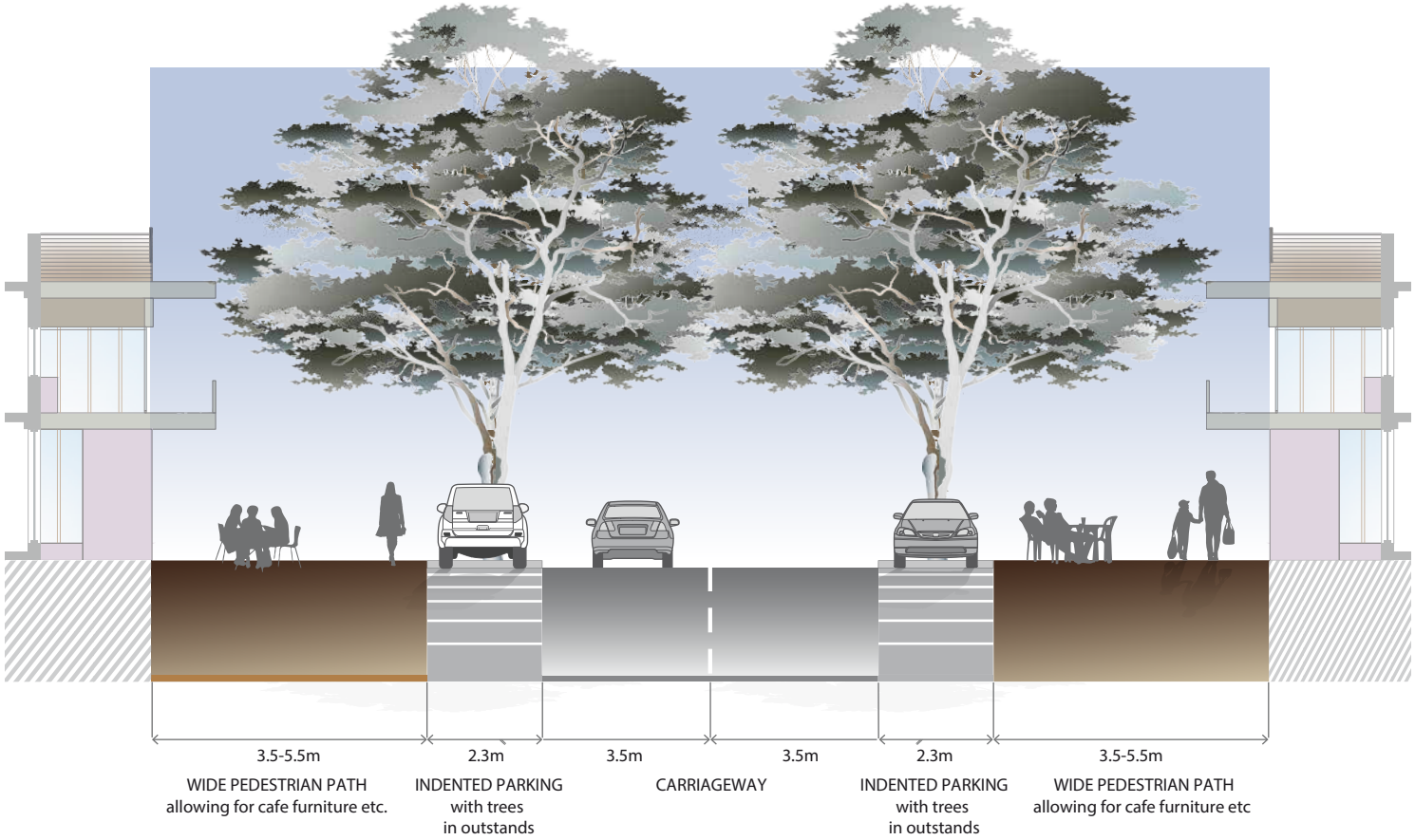


Cross Section 5

Local Access Level 2 (20m)

NOTES:

- A range of tree heights are encouraged. Large canopy trees (at least 15m in height) are sought where appropriate.
- All kerbs are to be B2 Barrier Kerb
- Verge widths may be reduced where roads but open space with the consent of the responsible authority.

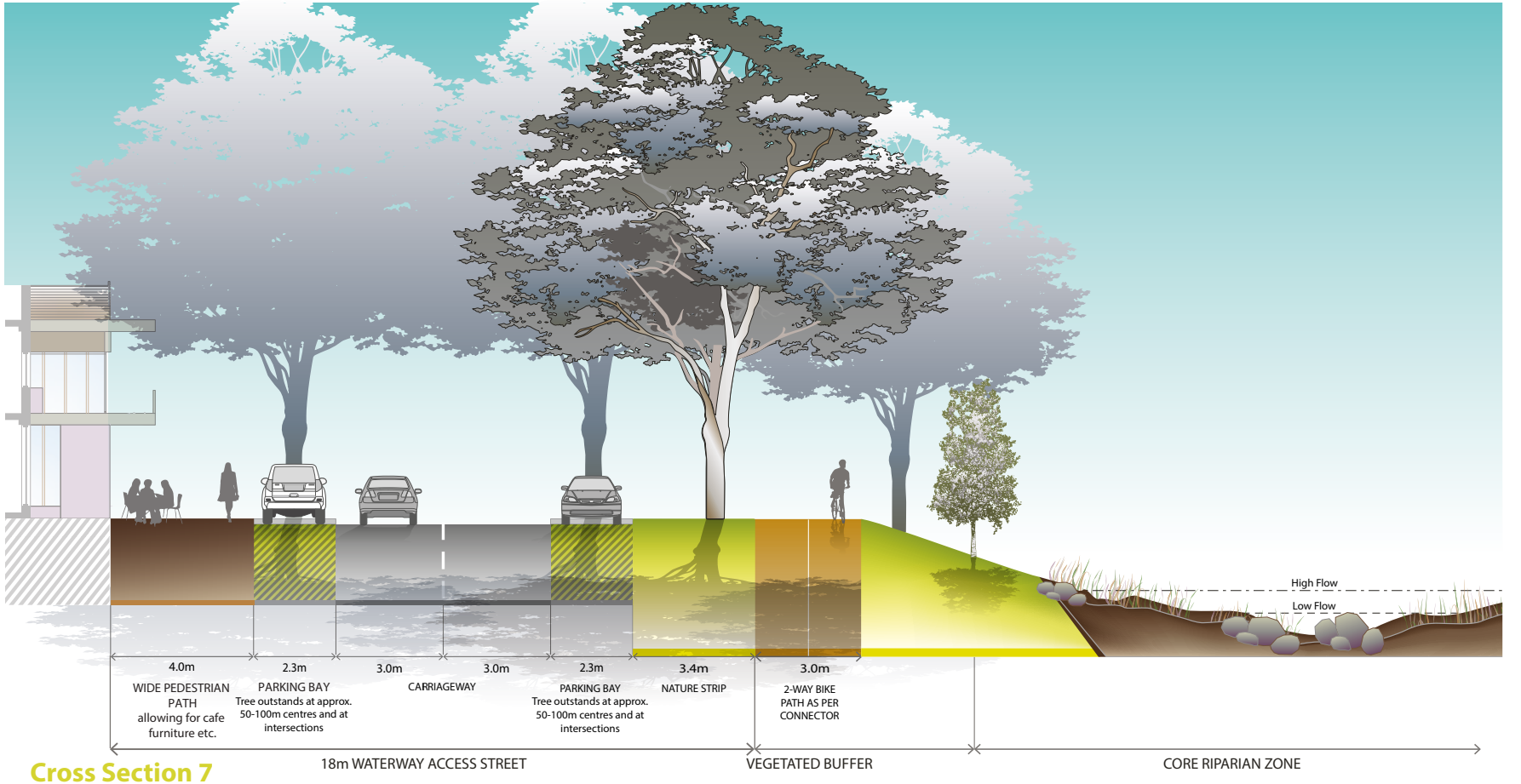


Cross Section 6

Retail Main Street (20-24m)

NOTES:

- A range of tree heights are encouraged. Large canopy trees (at least 15m in height) are sought where appropriate.

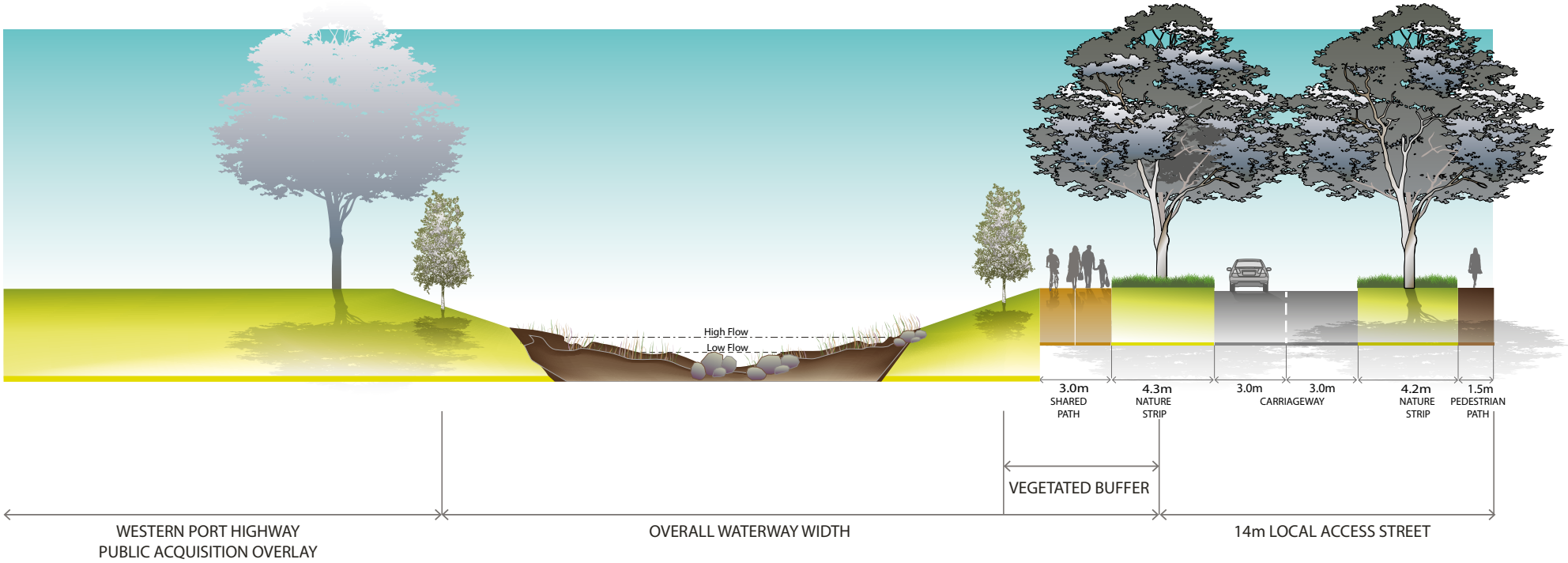


Cross Section 7

Waterway Access Level 2 Street (18m)

NOTES:

- A range of heights are encouraged. Large canopy trees (at least 15m in height) are sought where appropriate

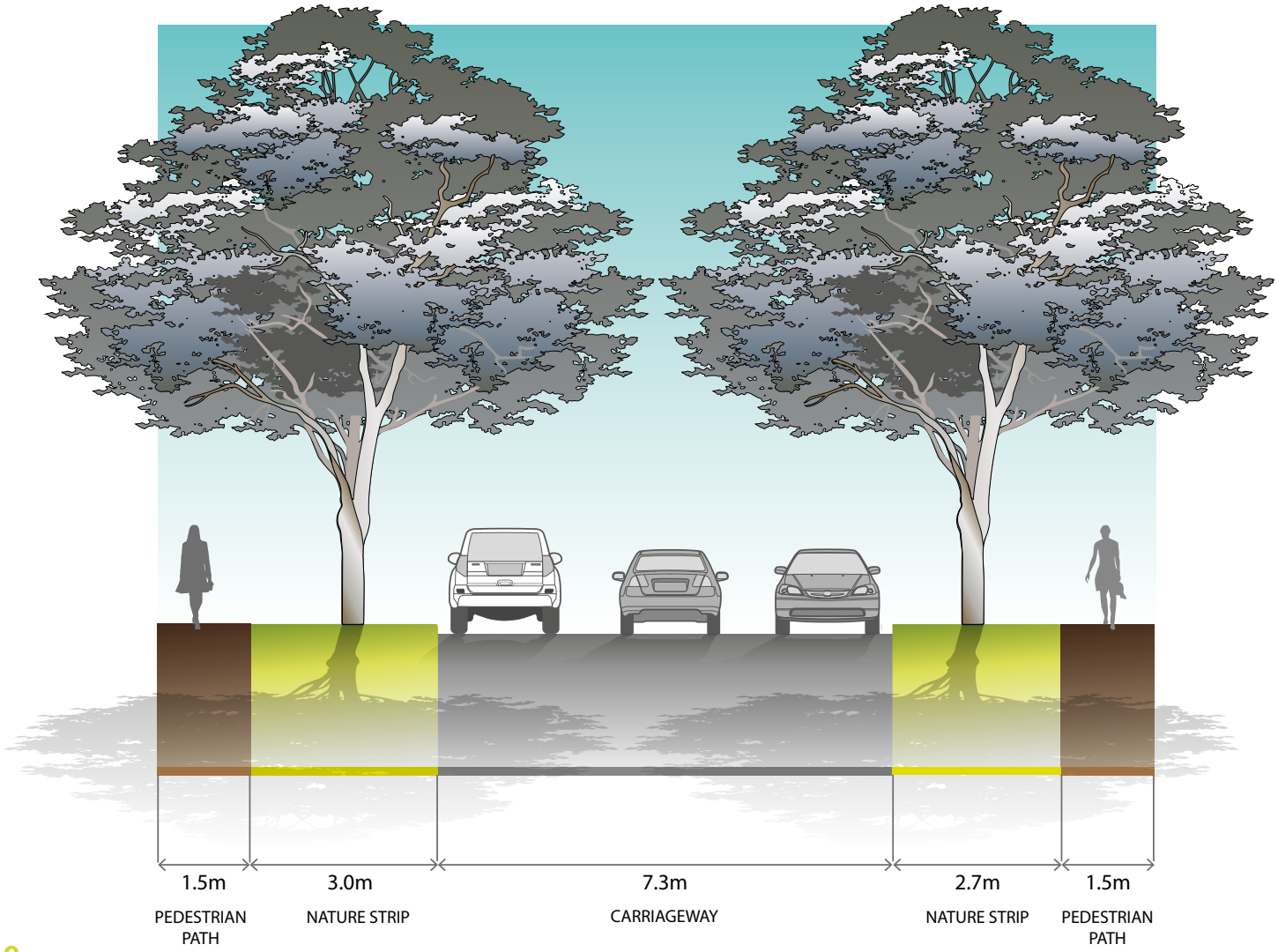


Cross Section 8

Westernport Highway Interface

Westernport Highway Interface:

- Minimum street tree mature height 15 metres

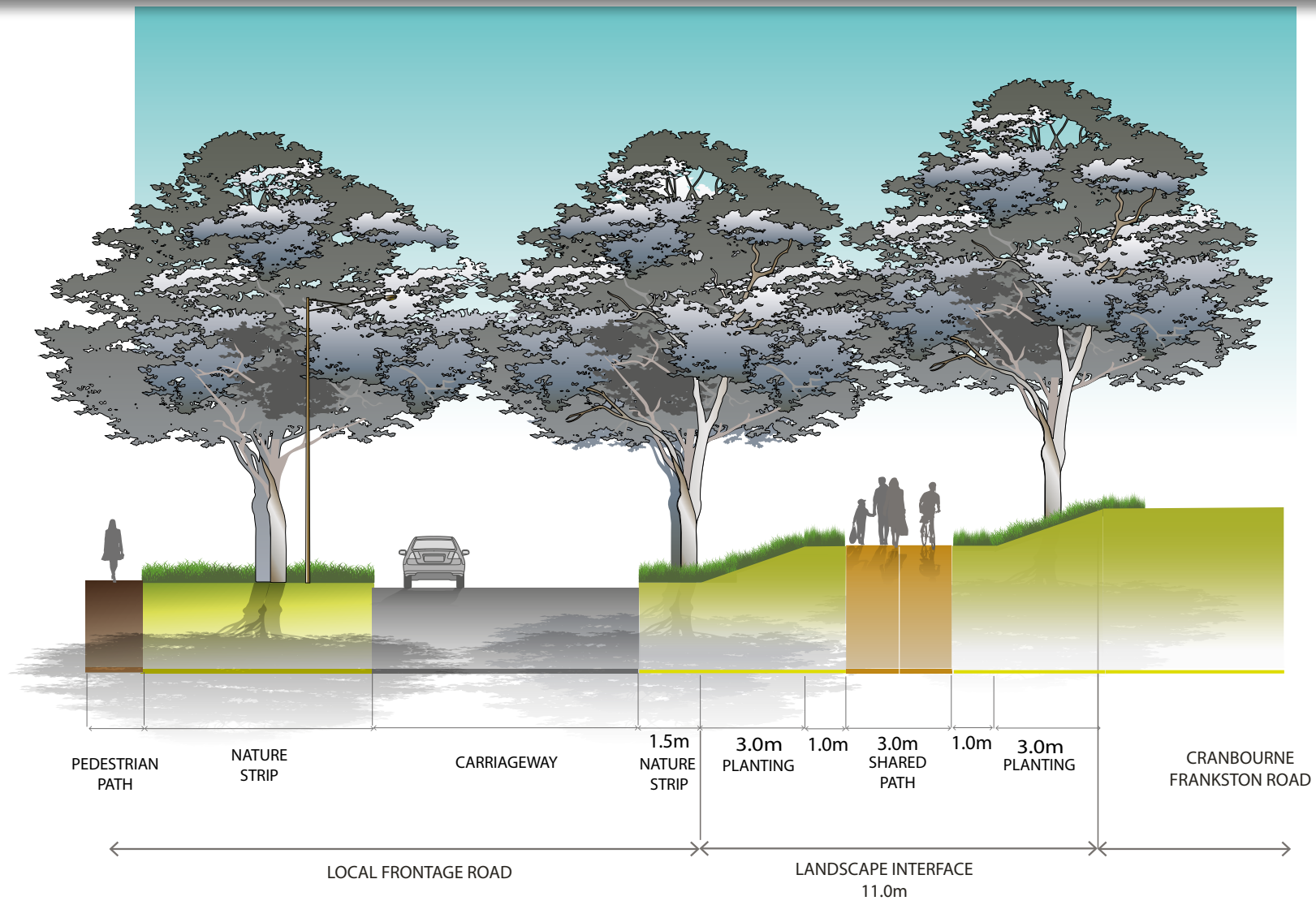


Cross Section 9

Local Access Level 1 (16m)

NOTES:

- Minimum street tree mature height 12 metres
- Kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

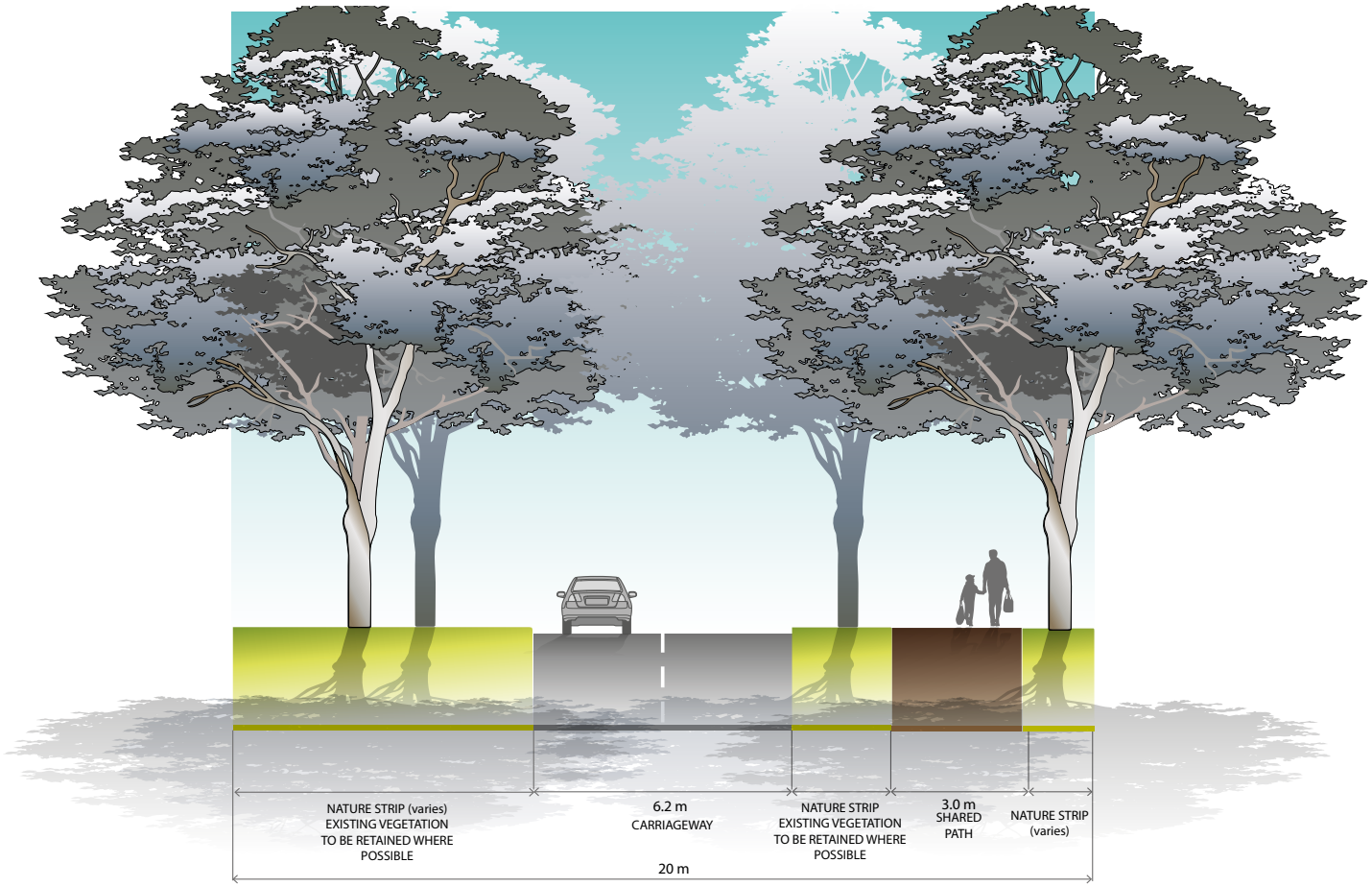


Cross Section 10

Cranbourne- Frankston Road Landscape Interface (11 m)

NOTES:

- Gradient for tree planting with understory shrubs should be no less than 1:3 grade
- Gradient for tree planting with grass should be no less than 1:6 grade
- Shrubs should be no greater than 1m in height to ensure sight lines are maintained from Cranbourne-Frankston Road



Cross Section 11

Chevron Avenue (20m)

NOTES:

- Swales adjacent the road pavement cater for drainage rather than kerb and channel
- Nature strip widths may vary along the road reserve to allow for protection of existing vegetation and to accommodate the 3.0 metre shared path
- Existing vegetation to be retained where possible

APPENDIX D Service Placement Guidelines

STANDARD ROAD CROSS SECTIONS

Figures 003 and 004 in the Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011) outline placement of services for a typical residential street environment. This approach is appropriate for the majority of the 'standard' road cross sections outlined in Appendix C containing grassed nature strips, footpaths and road pavements.

NON-STANDARD ROAD CROSS SECTIONS

- To achieve greater diversity of streetscape outcomes in Melbourne's growth areas, which enhances character and amenity of these new urban areas, non-standard road cross sections are required. Non-standard road cross sections will also be necessary to address local needs, such as fully sealed verges for high pedestrian traffic areas in town centres and opposite schools. This PSP contains suggested non-standard 'variation' road cross sections, however other non-standard outcomes are encouraged.
- For non-standard road cross sections where service placement guidance outlined in Figure 003 and 004 in the Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011) is not applicable, the following service placement guidelines will apply.

	UNDER PEDESTRIAN PAVEMENT	UNDER NATURE STRIPS	DIRECTLY UNDER TREES[1]	UNDER KERB	UNDER ROAD PAVEMENT	WITHIN ALLOTMENTS	NOTES
SEWER	Preferred	Possible	Possible	No	Possible	Possible[3]	
POTABLE WATER	Possible[4]	Preferred	Preferred	No	No	No	Can be placed in combined trench with gas
RECYCLED WATER	Possible[4]	Preferred	Preferred	No	No	No	
GAS	Possible[4]	Preferred	Preferred	No	No	No	Can be placed in combined trench with potable water
ELECTRICITY	Preferred[4]	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
FTTH/TELCO	Preferred[4]	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
DRAINAGE	Possible	Possible	Possible	Preferred	Preferred	Possible[3]	
TRUNK SERVICES	Possible	Possible	Possible	Possible	Preferred	No	

NOTES
1 Trees are not to be placed directly over property service connections
2 Placement of services under road pavement is to be considered when service cannot be accommodated elsewhere in road reserve. Placement of services beneath edge of road pavement/parking bays is preferable to within traffic lanes
3 Where allotment size/frontage width allows adequate room to access and work on a pipe
4 Where connections to properties are within a pit in the pedestrian pavement/footpath

GENERAL PRINCIPLES FOR SERVICE PLACEMENT	• Place gas and water on one side of road, electricity on the opposite side; • Place water supply on the high side of road; • Place services that need connection to adjacent properties closer to these properties; • Place trunk services further away from adjacent properties; • Place services that relate to the road carriageway (eg. drainage, street light electricity supply) closer to the road carriageway; • Maintain appropriate services clearances and overlap these clearances wherever possible.

Open Space Delivery Guidelines

Local Open Space

Pocket Parks

Pocket parks are small intimate spaces that can provide incidental and spontaneous recreation and relaxation such as sitting, resting and eating lunch within a short safe walking distance of residents and workers. In built up or planned urban renewal areas, they will likely incorporate increased hard and / or high standard soft landscaping to accommodate more intensive use.
Pocket parks will also complement the role of neighbourhood parks and may sometimes be designed to have a neighbourhood park role (including a play space), again often when associated with built up areas where land may be at a premium.
Guidance:

- Typical size = <0.2ha
- Indicative catchment = 200-400m safe walking distance / 2-5 minute walk
- Indicative stay length = <0.5hr

Neighbourhood Parks

Neighbourhood parks are typically small to medium in size and primarily provide opportunities for informal and opportunistic (passive) recreation, relaxation or play for local residents within a short safe walking distance. Such reserves typically include basic facilities including seats, walking paths and a small play space, and may also incorporate natural and heritage features.
In built up areas, the role, function and importance of these spaces may increase and therefore they may carry more intensive infrastructure to support greater use. In this way, neighbourhood parks can
complement the role of pocket parks.

Guidance:

- Typical size = 0.2-1.2ha
- Indicative Catchment = 400m safe walking distance / 5 minute walk (potentially closer in high density areas)
- Indicative Stay length = 0-1hr

Community Park

Community parks are typically medium sized and can provide more diverse facilities and landscape characteristics that supports a greater range of informal (passive) recreation, relaxation or play opportunities for short to medium time periods. Sometimes, facilities for organised club based sports (active) recreation may

In built up areas, the role, function and importance of these spaces may increase and therefore they may carry more intensive infrastructure to support greater use.
Community parks will function as the neighbourhood park for residents who are within approximately 400m of these spaces.

Guidance:

- Typical Size = 1.2-5ha
- Indicative Catchment = 800m safe walking distance / 10 minute walk
- Indicative Stay length = 0.5-2hrs

District Parks

District Parks are typically medium to larger parks that serve a suburban scale catchment. They are accessible via longer walks, short cycle rides and / or short vehicle trips. These parks will often be planned and designed primarily to accommodate organised club based sports (active) recreation. However, they may also include natural and heritage features and should also provide for informal (passive) recreation and longer stay social gatherings. Infrastructure within these parks may also support staging of community events.
District parks will function as the neighbourhood park for residents who are within approximately 400m of these spaces.

Guidance:

- Typical Size = 5-15ha
- Indicative Catchment = 1-1.2km safe walking distance / 15-20 minute walk / 5 minute bike ride
- Indicative Stay length = 1-4+ hours

METROPOLITAN
PLANNING
AUTHORITY