RIVERDALE

PRECINCT STRUCTURE PLAN

SEPTEMBER 2014
Amended May 2022

METROPOLITAN PLANNING AUTHORITY

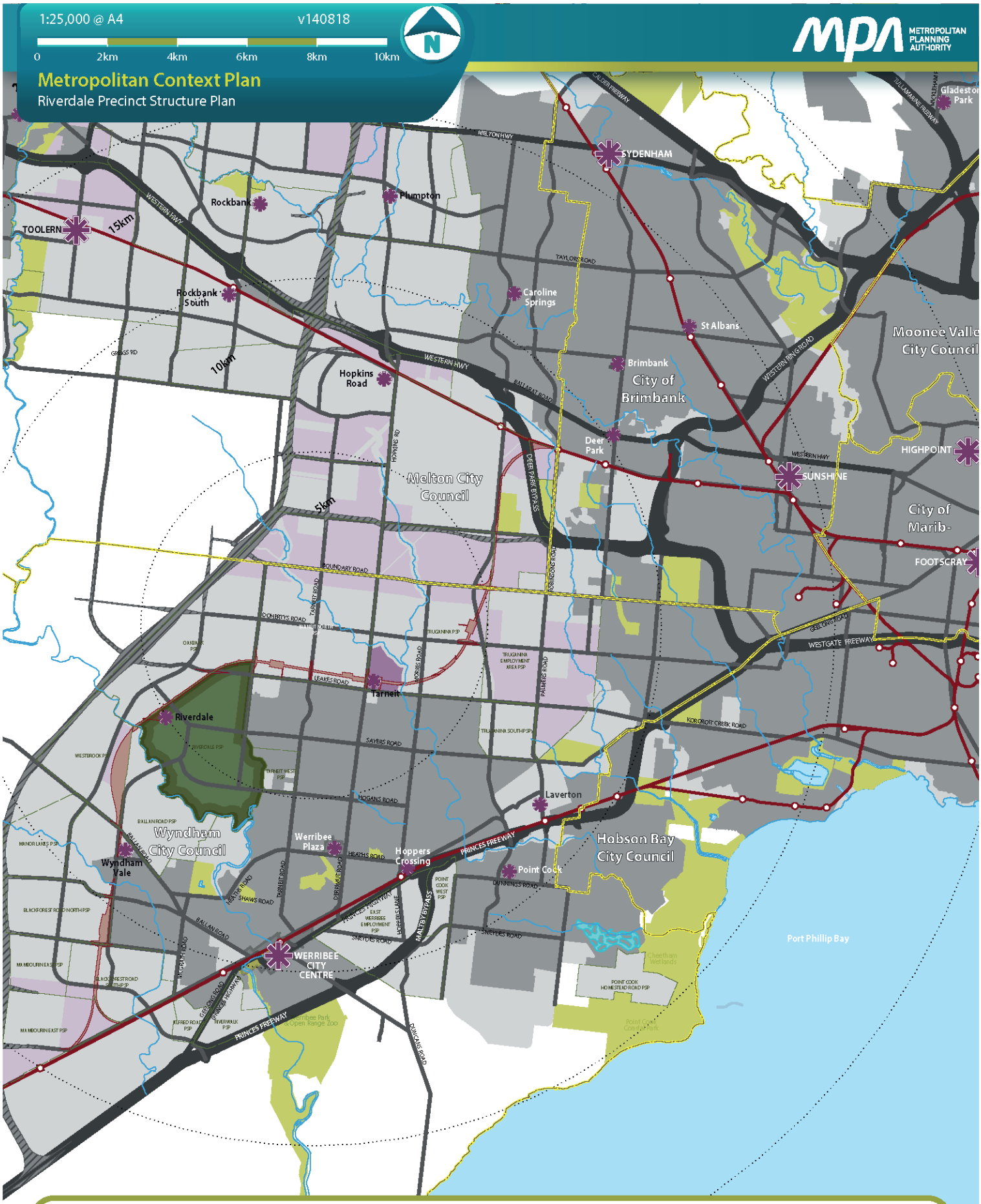
TABLES

FIGURES

Version	Amendment	Date	Description of changes
1	VC213	May 2022	Amendment to Biodiversity Condition

Note: Any reference to the Growth Areas Authority (GAA) or the Metropolitan Planning Authority (MPA) in this document is a reference to the Victorian Planning Authority established under section 4 of the *Victorian Planning Authority Act 2017*

CONTENTS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Metropolitan Context Plan
Riverdale Precinct Structure Plan
MPA METROPOLITAN PLANNING AUTHORITY
SYDENHAM
Plumpton
Rockbank
TOOLERN
15km
Rockbank South
Caroline Springs
St Albans
Brimbank
City of Brimbank
Moonee Valley City Council
Hopkins Road
10km
Deer Park
HIGHPOINT
SUNSHINE
Melton City Council
5km
City of Marib-
FOOTSCRAY
Tarneit
Riverdale
Laverton
Wyndham City Council
Wyndham Vale
Werribee Plaza
Hoppers Crossing
Point Cook
Hobson Bay City Council
WERRIBEE CITY CENTRE
Port Phillip Bay
WESTGATE FREEWAY
PRINCES FREEWAY
WESTERN HIGHWAY
MELTON HWY
BOUNDARY ROAD
CHRISTIES ROAD
LEAKES ROAD
SAYERS ROAD
HOGANS ROAD
HEATHS ROAD
SHAWS ROAD
BALLAN ROAD
SNEYDES ROAD
DUNNINGS ROAD
KOROROIT CREEK ROAD
TAYLORS ROAD
BALLARAT ROAD
DEER PARK BYPASS
WESTERN RING ROAD
MANTLY BYPASS
precinct area
existing urban area
future urban area
principal town centre
major town centre
employment areas
public parkland
outer metropolitan ring
regional rail link
arterial road network
rail line & station
waterways
municipal boundary

1.0 INTRODUCTION

The Riverdale Precinct Structure Plan (the PSP) has been prepared by the Metropolitan Planning Authority in consultation with the Wyndham City Council, 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 listed below.
- Enables the transition from non-urban land to urban land.
- Sets the vision for how land should be developed, illustrates the future urban structure and describes the outcomes to be achieved by the future development.
- Outlines projects required to ensure that the future community, visitors and workers within the area are provided with timely access to services and transport infrastructure necessary to support a quality, 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.
- Addresses the requirements of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999) in accordance with an endorsed program under Part 10.

The PSP is informed by:

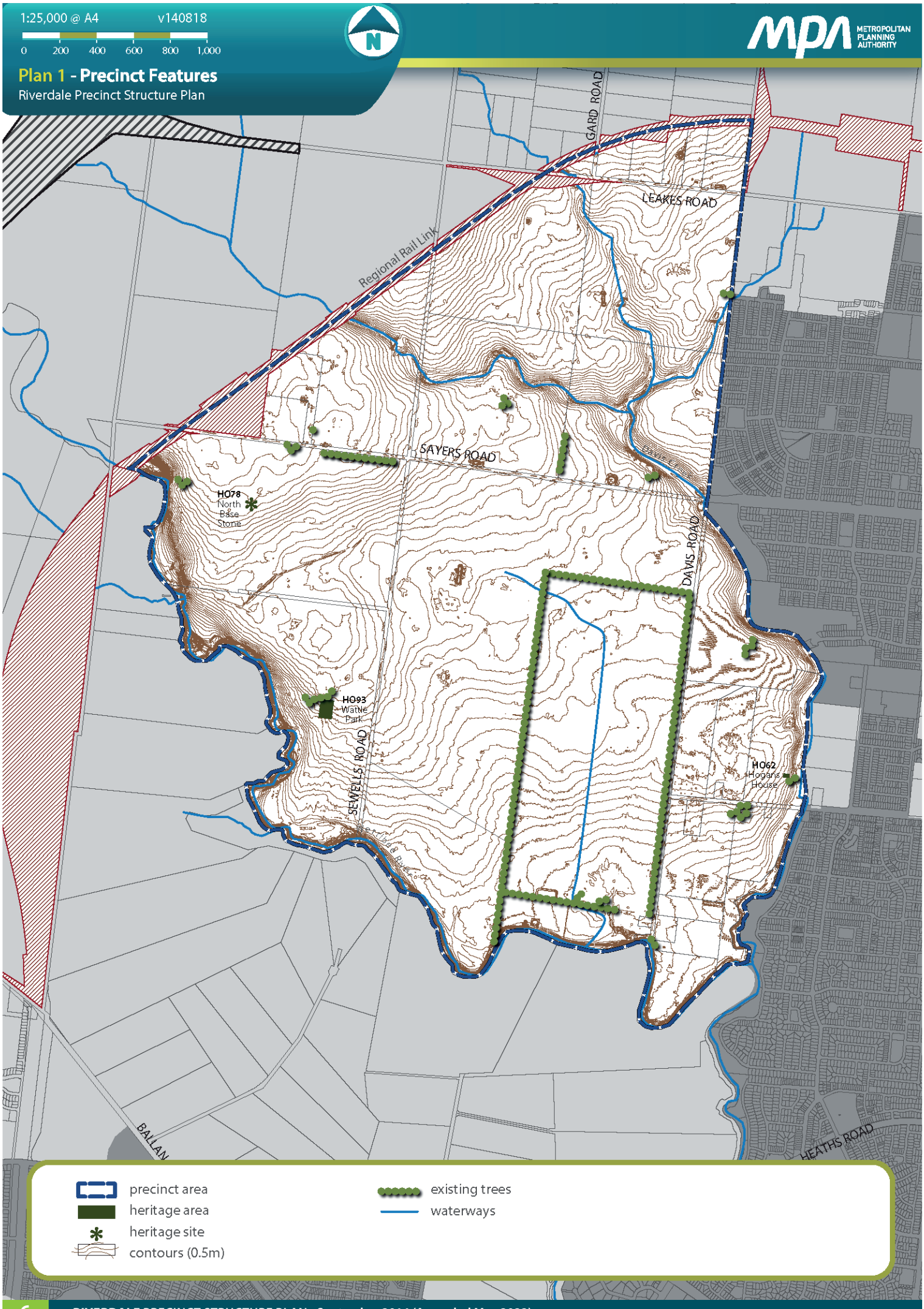
- State Planning Policy Framework set out in the Wyndham Planning Scheme and the Precinct Structure Planning Guidelines.
- Local Planning Policy Framework of the Wyndham Planning Scheme.
- Growth Corridor Plans: Managing Melbourne's Growth (Growth Areas Authority, June 2012).
- Wyndham North Development Contributions Plan (the DCP) which sets out the requirements for development proponents to make a contribution toward infrastructure required to support the development of the precinct
- Biodiversity Conservation Strategy and Sub-regional Species Strategy for Melbourne's Growth Areas (Department of Environment & Primary Industries, 2013)*.
- Local policy including: Landscape Context Guidelines (2013), Wyndham North Heritage Strategy (2012), Wyndham Social Infrastructure Plan 2040 (2012), Quality Community Plan (2007), Community Health, Wyndham City Plan 2013 – 2017 (2013) and Wellbeing and Safety Plan 2010 – 2013 (2010).

*On 5 September 2013 an approval under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) was issued by the Commonwealth Minister for Environment, Heritage and Water. The approval applies to all actions associated with urban development in growth corridors in the expanded Melbourne 2010 Urban Growth Boundary as described in page 4 of the Biodiversity. Conservation Strategy for Melbourne's Growth Corridors (Department of Environment and Primary Industries, 2013). The Commonwealth approval has effect until 31 December 2060. The approval is subject to conditions specified at Annexure 1 of the Approval.

Provided the conditions of the EPBC Act approval are satisfied individual assessment and approval under the EPBC Act is not required.

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

- Wyndham North Development Contributions Plan that applies the requirements for development proponents to make a contribution toward infrastructure required to support the development of the precinct.
- Wyndham North PSP Background Report (Background Report).
- Conservation Management Plan for Conservation Area 14 - Growling Grass Frog Corridors (South) which sets out the management requirements for areas protected for the Growling Grass Frog.
- Conservation Management Plan for Conservation Area 12 - Sewells Road Reserve which sets out the management requirements for areas protected for the Spiny Rice-flower.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Plan 1 - Precinct Features
Riverdale Precinct Structure Plan
METROPOLITAN PLANNING AUTHORITY
GARD ROAD
LEAKES ROAD
Regional Rail Link
SAYERS ROAD
HO78
North Base Stone
DAVIS ROAD
HO93
Wattle Park
SEWELLS ROAD
HO62
Hogans House
BALLAN
HEATHS ROAD
precinct area
heritage area
heritage site
contours (0.5m)
existing trees
waterways

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 another provision in the Wyndham Planning Scheme 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 structure plan.

Conditions in this PSP must be included in a permit as relevant.

Development that meets these requirements, guidelines and conditions will be considered to implement the outcomes of the precinct structure plan.

Development must also comply with other Acts and approvals where relevant e.g. the Environment Protection and Biodiversity Conservation Act 1999 in the case of biodiversity or the Aboriginal Heritage Act 2006 in the case of cultural heritage amongst others.

Not every aspect of the use, development or subdivision of land 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 1,106 hectares of land as shown on Plan 1 and on Wyndham Planning Scheme maps as Schedule 11 to the Urban Growth Zone.

The PSP area is generally defined by the Regional Rail Link to the north, Davis Road in the north-east, Davis Creek in the south-east, and the Werribee River in the south and west.

Davis Creek and three tributaries as well as an additional overland flow path run through the precinct toward the Werribee River.

The majority of the PSP area is within Tarneit, however land the north of Leakes Road is technically known as Mount Cottrell.

Plan 1 identifies the key features of the land.

1.3 Background Information

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

1.4 Development Contributions Plan

Development proponents within the Riverdale precinct are be bound by the Wyndham North Development Contributions Plan ("the DCP"), incorporated into the Wyndham Planning Scheme. The DCP sets out requirements for infrastructure funding across the wider Wyndham North region.

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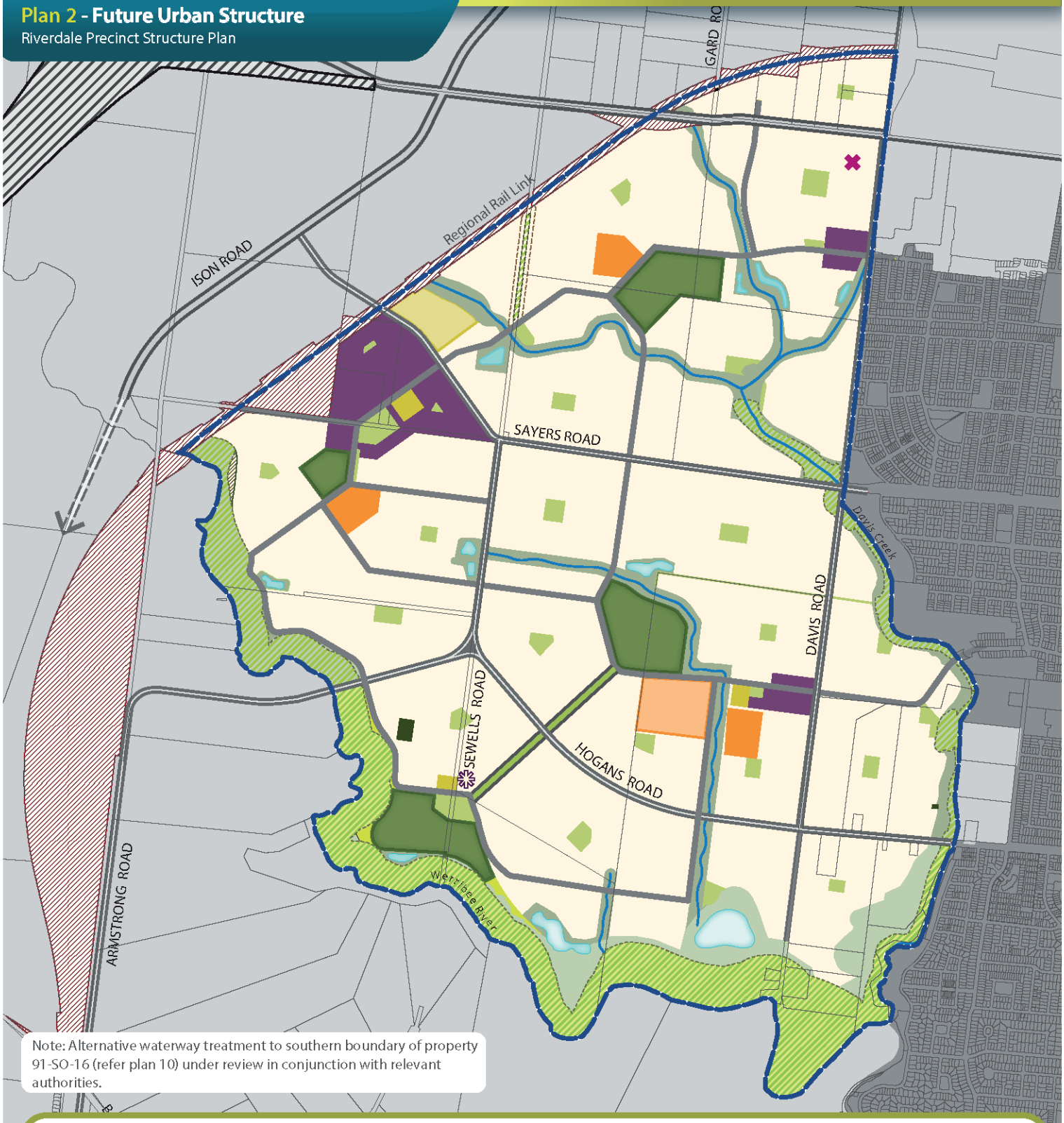
Plan 2 - Future Urban Structure

Riverdale Precinct Structure Plan



Note: Alternative waterway treatment to southern boundary of property 91-SO-16 (refer plan 10) under review in conjunction with relevant authorities.

- precinct area
- town centre
- local convenience centre
- residential
- potential government secondary school
- potential government primary school
- community facilities
- indoor recreation facility
- possible emergency services hub
- local sports reserve (unencumbered)
- local parks (unencumbered)
- drainage open space (encumbered)
- proposed werribee township regional park (unencumbered)
- proposed werribee township regional park – drainage (encumbered)
- proposed werribee township regional park – GGF conservation area (encumbered)
- conservation area (encumbered)
- conservation area buffer (20m)
- heritage
- sensitive interface
- waterway
- drainage assets (encumbered)
- outer metropolitan ring
- primary arterial road
- secondary arterial road
- boulevard connector street
- connector street
- rail corridor
- existing urban
- future urban

2.0 OUTCOMES

2.1 Vision

The Riverdale precinct is characterised by open views, strong linear stands of trees, and waterways winding toward the Werribee River, which dominates the southern precinct boundary. The rich character of the landscape is the foundation of the new urban structure.

The river and environs will become a corridor of open space that protects important environmental values and provides recreational and regional connectivity. New neighbourhoods and town centres will be formed on the edge of the creeks and tributaries that run southward and connect to the river. Providing connections between waterways, retained windrows and varying streetscapes of boulevards, avenues, and meandering waterside drives integrate east-west and form an expansive network of paths.

Significant biodiversity values will be protected and enhanced within the Growling Grass Frog Conservation Area which extends along the Werribee River and Davis Creek, which may also be accessible to the community to allow appreciation of these values.

The substantial public investment in the Regional Rail Link is a catalyst for change and driving force behind growth across the corridor. The PSP capitalises on this investment through the creation of a transit-ready major town centre that intensifies uses around the potential future Riverdale station station. The centre, will be the central hub of activity and gateway to the precinct, providing inter-metropolitan connections the Priority Public Transport Network and eventually the railway, as well as retail, entertainment, recreation, business opportunities and a variety of local jobs.

Two local town centres will complement the services of the major hub with additional retail and employment opportunities, each centred on a main street and public space.

The town centres, public transport infrastructure, and the expansive integrated network of open space will lead to a greater variety of housing choices and price points across a highly diverse precinct.

2.2 OBJECTIVES

	OBJECTIVES
O1	Recognise the history, heritage and character of the Werribee Plains in a new urban environment through the protection of natural waterway corridors, retention of significant vegetation, habitat and the promotion of heritage.
O2	To create an urban landscape that integrates with the existing biodiversity, cultural heritage, drainage and landscape values within the precinct including the Werribee River conservation area and the Sewells Road Reserve conservation area.
O3	Capitalise on the significant opportunities of the local context, including the Regional Rail Link, the western employment corridor, and extensive intra-metropolitan motorway connections.
O4	Ensure pre-development property structure does not impede the realisation of cohesive and integrated neighbourhoods.
O5	Deliver an integrated network of local parks, sports reserves and community infrastructure that meets the needs of the new community.
O6	Achieve a diversity of streetscape and open space outcomes to enhance local character and amenity.
O7	Establish a landscape of connecting canopies along streets, parks and waterways.
O8	Ensure that no residents need to cross arterial roads, railway lines or waterways to access a local park.
O9	Develop a slow-speed and permeable connector road network that links across arterial roads and traverses through the core of each square mile.
O10	Build a high-density and transit-oriented neighbourhood focussed on the proposed future railway station site.
O11	Promote greater housing choice through the delivery of a range of lots capable of accommodating a variety of dwelling typologies.

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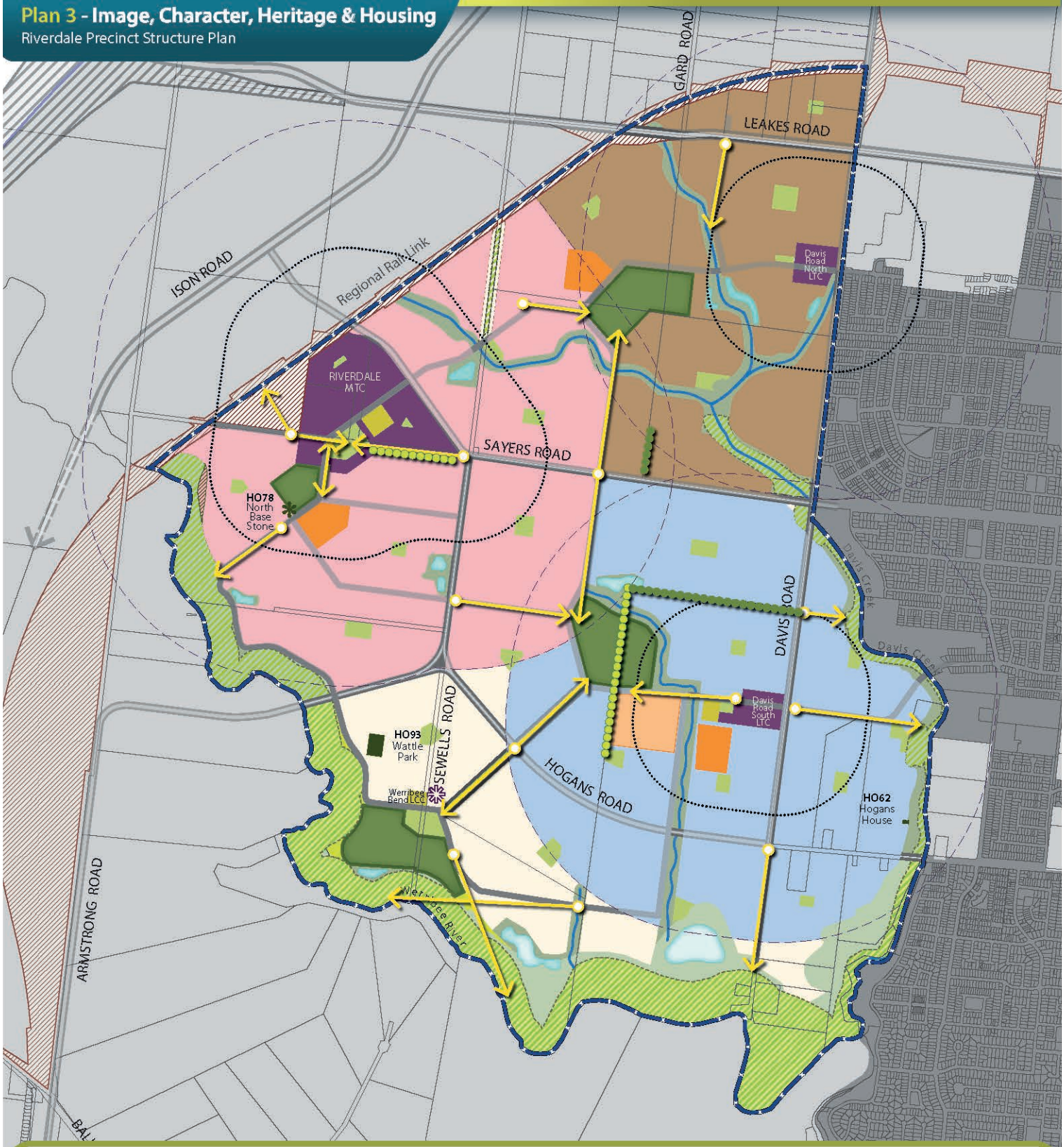
Plan 3 - Image, Character, Heritage & Housing

Riverdale Precinct Structure Plan



- precinct area
- town centre
- local convenience centre
- primary walking catchment (town centre)
- potential government secondary school
- potential government primary school
- indoor recreation facility
- community facilities
- local sports reserve (unencumbered)
- local parks (unencumbered)
- drainage open space (encumbered)
- proposed werribee township regional park (unencumbered)
- proposed werribee township regional park – drainage (encumbered)
- proposed werribee township regional park – GGF conservation area (encumbered)
- heritage area
- heritage site
- conservation area (encumbered)
- existing trees to be retained
- existing trees with potential for retention
- view lines
- waterways
- 400m town centre catchment
- 1km town centre catchment

O12	Leverage off the amenity offered by waterways, open space and town centres to deliver medium and high density housing options.
O13	Deliver sufficient residential densities within a walkable catchment to support vibrant and viable town centres.
O14	Develop a series of town centres, each with a civic focus and an ability to adapt and evolve with the community.
O15	Ensure the design of town centres is conducive to a range of commercial enterprises including start-up, small, and home-based businesses.
O16	Deliver an integrated water management system that encourages reduced reliance on reticulated potable water, encourages the re-use of alternative water, minimises flood risk, ensures waterway health and contributes toward a sustainable and green urban environment.
O17	Ensure that development staging is co-ordinated with the delivery of key local and state infrastructure.
O18	To plan for the long term conservation of significant heritage, vegetation and fauna habitat areas in the Werribee River conservation area and the Sewells Road Reserve conservation area.
O19	Deliver a minimum of 12,070 new homes (16 dwellings residential net developable hectare overall precinct average).

3.0 IMPLEMENTATION

3.1 IMAGE, CHARACTER, HERITAGE & 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 the Wyndham Street Tree Policy, Subdivision Landscape Works Standards and Specifications Manual and any guidance provided on the relevant cross section within this Precinct Structure Plan.
R4	Connector roads and access streets must be aligned to create views and direct connections to waterways and open space, as shown on Plan 3.
	GUIDELINES
G1	Street networks within subdivisions should be designed to maximise the number of connections and direct views to waterways, open space and town centres.
G2	Significant elements of the landscape and built form should be used as focal points for view lines along streets. Elements may include items such as public buildings and landmarks.
G3	Retained windrows and significant trees should be located within the public domain, including parks and road reserves unless otherwise approved by the responsible authority.
G4	Street trees should be used consistently across neighbourhoods to reinforce movement hierarchy and local character.
G5	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.
G6	Trees in streets and parks should be larger species wherever space allows (to facilitate continuous canopy cover).

3.1.2 Housing

	REQUIREMENTS
R5	Residential subdivisions must deliver a broad range of lot sizes capable of accommodating a variety of housing types.
R6	Residential subdivision applications must demonstrate how they will contribute to the satisfaction of minimum housing yields in broad town centre catchments as described on Plan 3 and Table 2.
R7	Development must appropriately respond to the potential future railway station site and future Principle Public Transport Network (PPTN) through the creation of opportunities for high-density residential development.
R8	Lots must front or side: • Waterways and public open space. • Conservation areas. • Connector roads. • Arterial roads. • The railway line.
R9	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 space and waterways. • Safe and effective vehicle and pedestrian access and internal circulation, as appropriate.
R10	If land shown as 'sensitive interface' on Plan 2 is developed for residential purposes, a sensitive interface is to be provided to the Werribee River waterway / Growling Grass Frog Conservation Area corridor to the satisfaction of Melbourne Water. This interface is to provide a frontage road adjacent the corridor for all new allotments (rather than allotments with direct frontage) and is to minimise the visual and built form impact of development.
	GUIDELINES
G7	Residential subdivision should provide across each neighbourhood a broad range of lot sizes capable of accommodating a variety of housing types as described in Table 1.
G8	Subdivision of land within a walkable distance of town centres, train stations, potential future station sites, and designated public transport routes should create a range of lot sizes suitable for the delivery of medium and / or higher density housing types listed in Table 1.
G9	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.
	CONDITIONS
C1	Subdivision permits that allow for the creation of a lot of less than 300 square metres. Any permit for subdivision that allows the creation of a a lot less than 300 square metres must contain the following conditions: • Prior to the certification of the plan of subdivision for the relevant stage, a plan must be submitted for approval to the satisfaction of the responsible authority. The plan must identify the lot that will include a restriction on title allowing the use of the provisions of the Small Lot Housing Code incorporated pursuant to Clause 81 of the Wyndham Planning Scheme. • The plan of subdivision submitted for certification must identify whether type A or type B of the Small Lot Housing Code applies to each lot to the satisfaction of the responsible authroity.

Table 1. Housing type by lot size

The following table provides an example of the typical housing types that might be provided on a range of lot sizes that support the housing diversity objectives.

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 town houses and attached, semi-detached and detached houses)			
Dual occupancies, including duplex			
Detached housing			
Multi-unit housing sites (including terraces, row houses and villas)			
Stacked housing (including apartments and walk-up flats)			

Table 2. Housing delivery guide

The following table is intended to provide statutory planners with guidance on the required lot yields across the precinct to underpin the viability of town centres and support the broader town centre objectives (O12, O13).

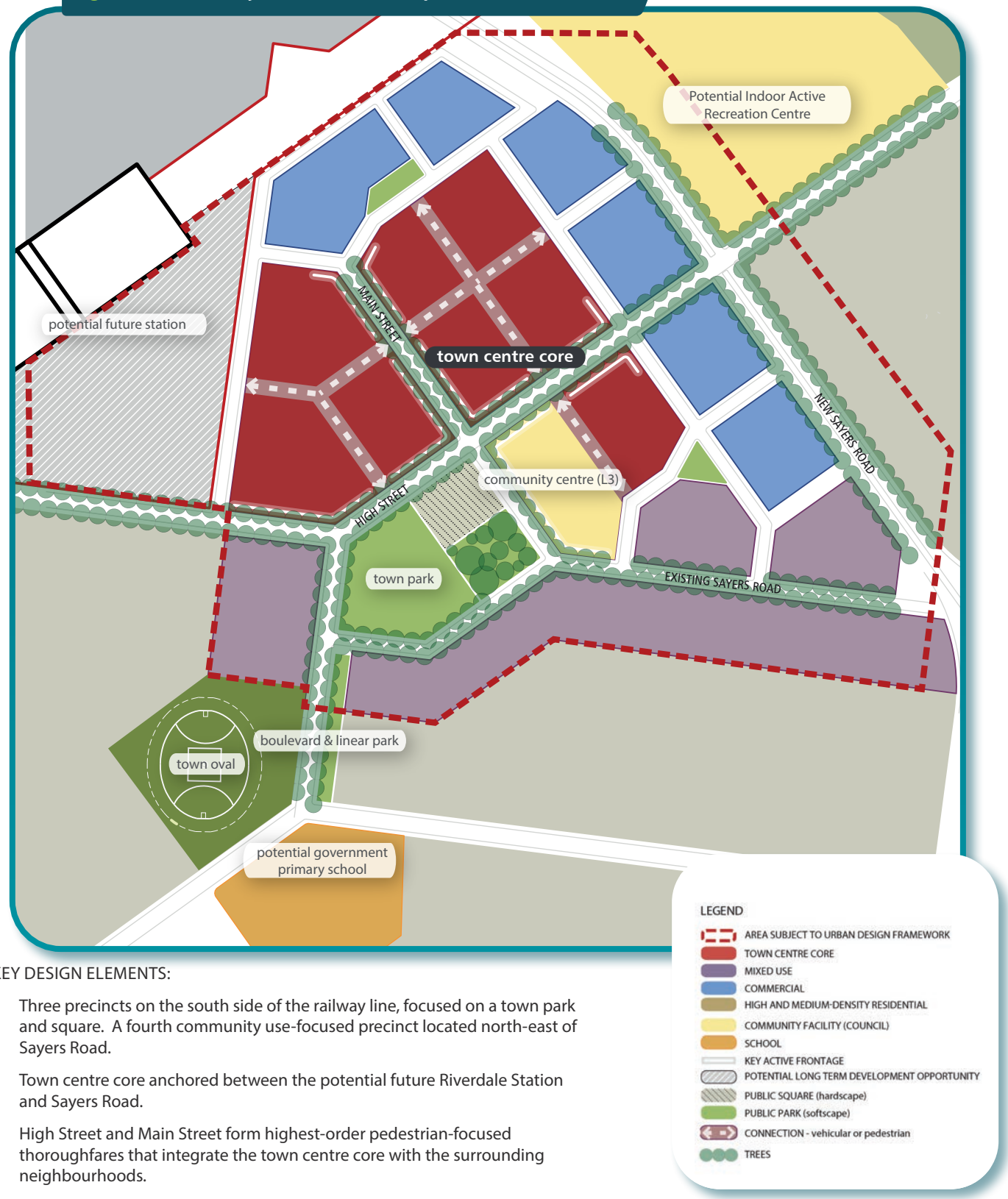
CATCHMENT	HOUSING TARGET (85% OF OPPORTUNITY)
Riverdale major town centre	3,700 dwellings
Davis Road South local town centre	3,740 dwellings
Davis Road North local town centre	2,450 dwellings

3.1.3 Heritage

	REQUIREMENTS
R11	Development of land close to retained heritage items must ensure that heritage becomes a prominent component of the urban structure and conveniently accessible to the wider community.

3.2 Town Centres and Employment

Figure 1 Riverdale Major Town Centre Concept



KEY DESIGN ELEMENTS:

- Three precincts on the south side of the railway line, focused on a town park and square. A fourth community use-focused precinct located north-east of Sayers Road.
- Town centre core anchored between the potential future Riverdale Station and Sayers Road.
- High Street and Main Street form highest-order pedestrian-focused thoroughfares that integrate the town centre core with the surrounding neighbourhoods.
- Linear park to create significant boulevard linking the core south toward the Werribee River.
- Sayers Road to be designed with boulevard cross section that includes canopy trees within the median and verges.
- Permeable layout of flexible blocks that suit a variety of land uses and allow viable short-term development as well as efficient long-term evolution.
- Retail focused on public streets.

KEY DESIGN ELEMENTS:

- 8,000m2 retail floor space (without a planning permit)
- One major and one minor retail anchor
- 2,900m2 village green
- Main street lined with specialty retail and mixed use linking Davis Road to village green
- Transit plaza on corner of Davis Road and the main street to act as a major stop on the PPTN network.
- Opportunities for cafes and bars around transit plaza and interfacing with the tributary of Davis Creek.
- Opportunities for office, commercial, service industry, and showrooms on northern side of the main street, fronting Davis Road.
- Landscaping along the main street to reinforce centre character.

Figure 2 **Davis Road North Local Town Centre**

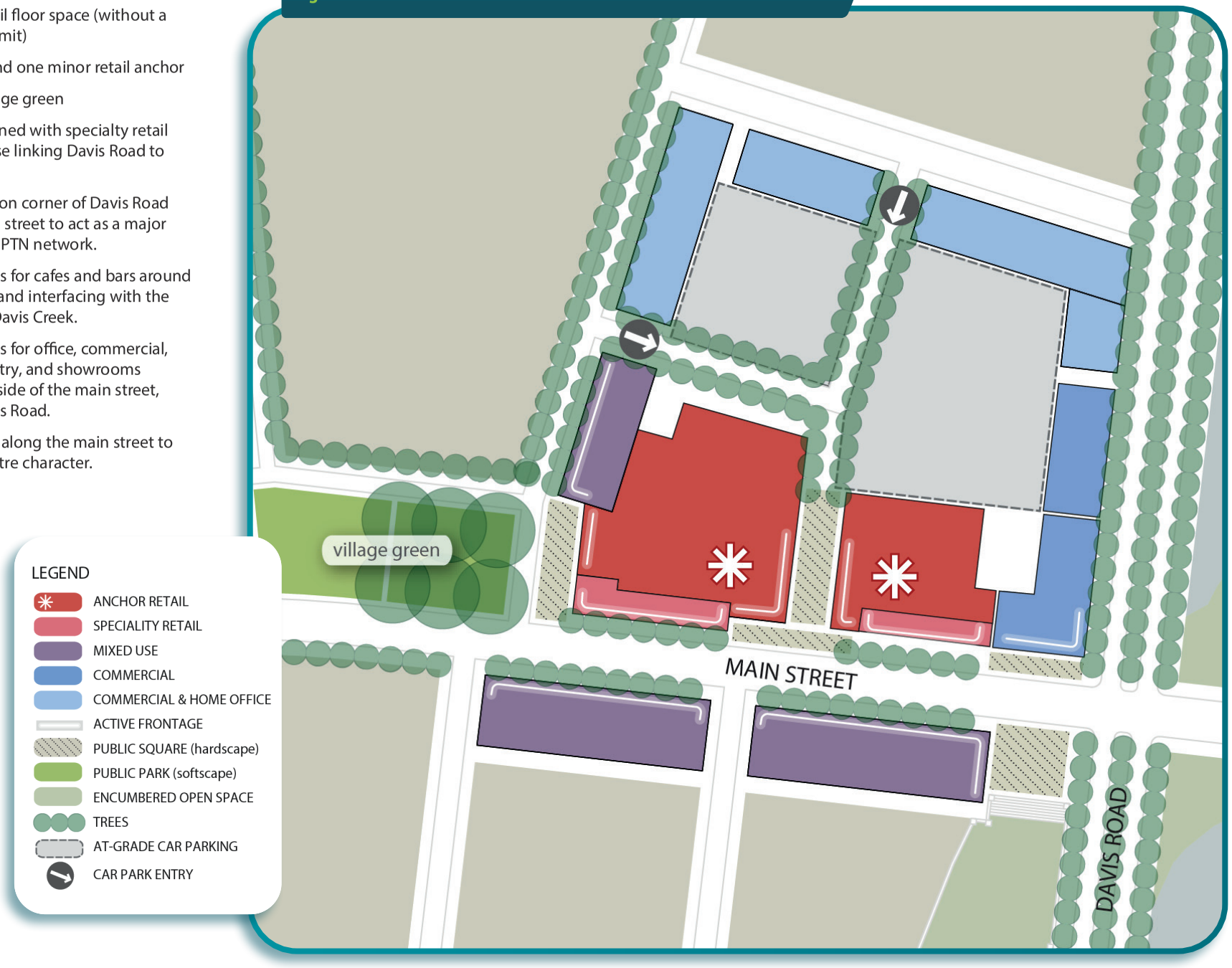
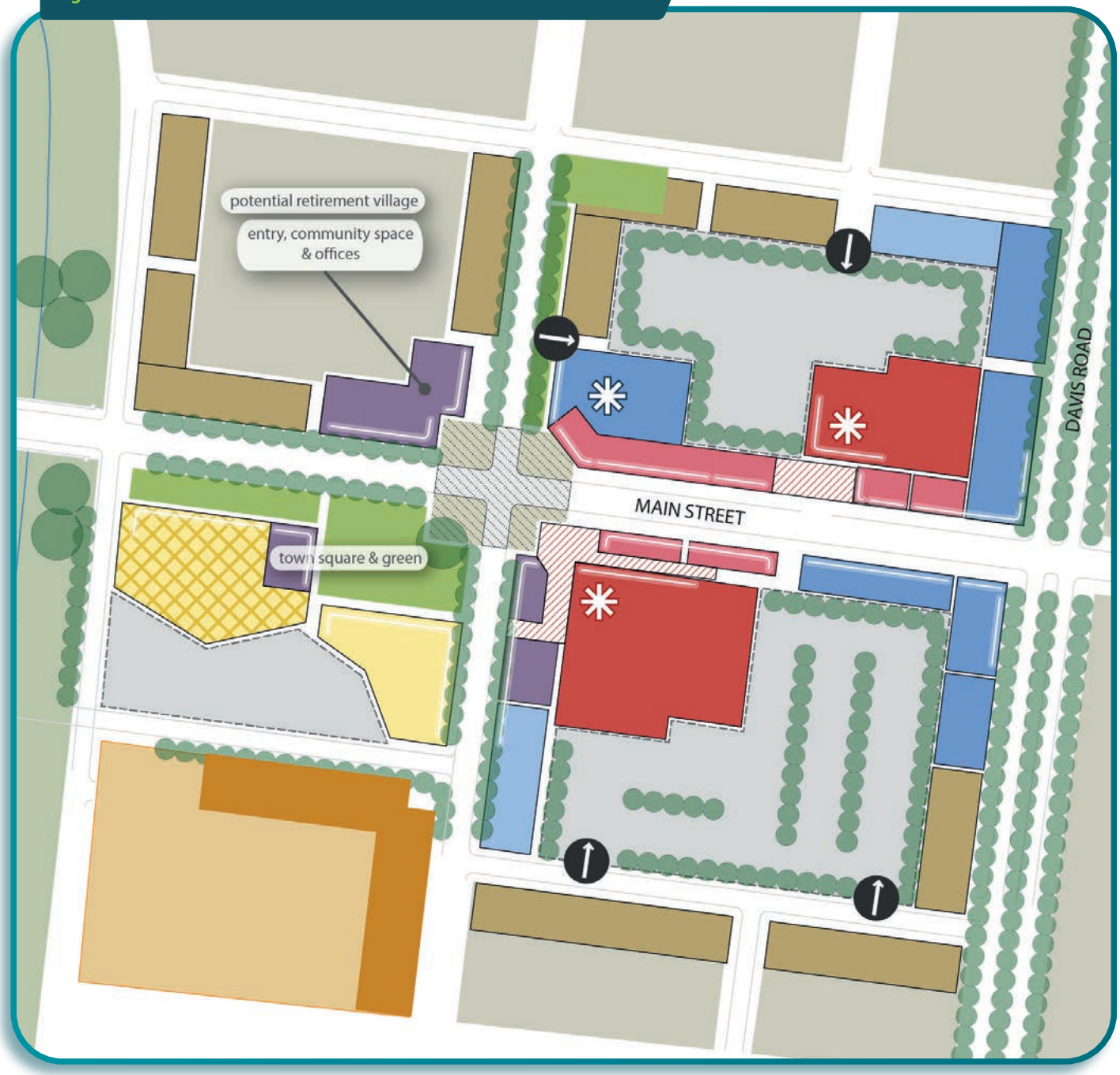


Figure 3 Davis Road South Local Town Centre



KEY DESIGN ELEMENTS:

- 10,000m2 retail floor space (without a planning permit)
- One major and one minor retail anchor
- 3,000m2 town square and green.
- Main street lined with specialty retail and mixed use linking Davis Road to village green
- Urban-style Level 2 community centre integrated with public space and main street.
- Central intersection along the main street styled as a shared space to encourage pedestrian activity across and throughout the town centre.
- Potential to integrate retirement village into the main street and broader centre structure.
- Opportunities for office, commercial, service industry, and showrooms at eastern end of the main street and fronting Davis Road.
- Landscaping along the main street to reinforce centre character.

LEGEND

- ANCHOR RETAIL
- SPECIALITY RETAIL
- MIXED USE
- COMMERCIAL
- COMMERCIAL & HOME OFFICE
- HIGH-DENSITY RESIDENTIAL
- MEDIUM-DENSITY RESIDENTIAL
- COMMUNITY FACILITY (council)
- POTENTIAL COMMUNITY FACILITY (private)
- SCHOOL
- ACTIVE FRONTAGE
- COVERED PLAZA WITH ANCHOR RETAIL
- PUBLIC SQUARE (hardscape)
- PUBLIC PARK (softscape)
- SHARED SPACE - threshold treatment at intersection
- ENCUMBERED OPEN SPACE
- TREES
- AT-GRADE CAR PARKING
- CAR PARK ENTRY

3.2.1 Riverdale Major Town Centre

REQUIREMENTS

An Urban Design Framework Plan (UDF) must be prepared in consultation with the Metropolitan Planning Authority and approved by the Responsible Authority for the Riverdale Major Town Centre. The UDF applies to land within the boundary shown in Figure 1.

The UDF must address the following:

- A response to the Major Town Centre concept (Figure 1), related information included within Appendix B, and the vision and objectives set out in this PSP.
- Types and distribution of land uses appropriate to the centre's role and function of the centre and its surroundings.
- The area, location, and integration of public facilities, including a library, community centre, aquatic centre and indoor active recreation facility.
- The integration of the potential future train station into the wider centre, including the design and location of station entries and platforms, the associated bus interchange and commuter car parking.
- The relationship to and expansion of town centre uses on the northern side of the railway line.
- Connection to and relationship with the Werribee River and Davis Creek Tributary.
- Staging and integration across various land ownerships within the town centre area.
- Access arrangements for arterial roads including additional signalised intersections or other appropriate traffic controls.
- The design of the realigned Sayers Road grade separation and connectivity both along and across / under it.
- Feedback received following consultation with infrastructure agencies including VicRoads and PTV.

R12

- Any relevant activity centre strategies and design guidelines prepared by the Victorian Government or Wyndham City Council.

Specifically, the UDF must:

- Demonstrate how the design of the centre:
  - o Integrates and connects with surrounding residential neighbourhoods;
  - o Allows for long-term evolution and growth;
  - o Maximises the opportunities of its location within the western corridor and incorporates the principles of Transit-Oriented Development;
  - o Minimises the potentially negative impacts of infrastructure barriers including the railway line and realigned Sayers road grade separation; and
  - o Capitalises on its location adjacent the Werribee River and around a potential future train station and bus interchange .
- Outline the intended staging and indicative timing of development.
- Set out clear and specific strategies, actions, and guidelines for the development of the centre that may be used as an assessment tool for future development applications within the centre.
- Set out clear hierarchies for access including pedestrian, bicycle, public transport, private vehicles required setbacks, restraints on intrusion on others' privacy and on
- Set out provisions for car parking including the location and design of parking areas and a demonstration of how off-street car parking has been minimised through efficiencies in the shared use of off-street facilities.
- Set out arrangements for the provision of service areas for deliveries and waste disposal, including access for larger vehicles and measures to minimise the impact of these uses on pedestrian priority zones within the activity centre and on adjoining neighbourhoods.
- Identify proposed access for bus services and bus priority measures where appropriate.
- Include an overall landscape concept

All to the satisfaction of the Metropolitan Planning Authority and responsible authority.

3.2.2 Local Town Centres

	REQUIREMENTS
R13	Land use and development within each Local Town Centre must respond to the relevant concept plan shown in Figures 2 and 3.
R14	Development within Local Town Centres must address the design principles and performance criteria outlined in Appendix B.

3.2.3 Local Convenience Centres

	REQUIREMENTS
R15	Local Convenience Centres may be developed proximate the locations shown on Plan 2 and consistent with the guidance provided in Table 3. Any Local Convenience Centre development must be located on a connector road.
R16	Provision of retail floor space within a local convenience centre must not exceed 4,000sqm (without a planning permit).
R17	Development within Local Convenience Centres must have regard to the design principles and performance criteria for Local Town Centres outlined in Appendix B, as appropriate.
	GUIDELINES
G10	Development of any Local Convenience Centre should be proximate an open space or community hub.
G11	The design of any Local Convenience Centre should: • Provide for a mix of tenancies. • Incorporate a range of uses including retail, offices and medium and high density residential. • Locate any servicing infrastructure or car parking to the rear or centre of the allotment in a manner that protects the amenity of the surrounding neighbourhood.

Table 3. Town Centre Hierarchy

TOWN CENTRE	RETAIL FLOOR SPACE	LOCATION AND ANCILLARY USES
Riverdale major town centre	25,000 m2	On southern side of the Sayers Road extension, adjacent the potential future Riverdale station. Includes community centre and indoor recreation centre with scope for additional community facilities to be incorporated. Commercial & showroom uses to front Sayers Road. Centre design should also create opportunities for development of high-density housing.
Davis Road North local town centre	8,000 m2	On western side of Davis Road, north of the Davis Creek tributary. Forms node on PPTN network.
Davis Road South local town centre	10,000 m2	Between Davis Road and waterway. Includes community centre and primary school.
Werribee Bend local conveninece centre	4,000 m2	Proximate the end of connector boulevard. Hub incorporates local sporting reserve and community centre.

Table 4. Anticipated employment creation in precinct

LAND-USE BASED EMPLOYMENT	MEASURE	JOBS	QTY. IN PRECINCT	ESTIMATED JOBS
Community centre (Level 1)	Jobs / centre	10	1	10
Community centre (Level 2)	Jobs / centre	10	1	10
Community centre (Level 3)	Jobs / centre	10	1	10
Primary school	Jobs / school	40	3	120
Secondary school	Jobs / school	90	1	90
Retail	1 job / 30 sqm	0.03	47,000	1,410
Commercial mixed-use	1 job / 20 sqm	0.05	10,400	520
Home-based business	Jobs / Dwelling	0.05	12,070	604
TOTAL				2,774

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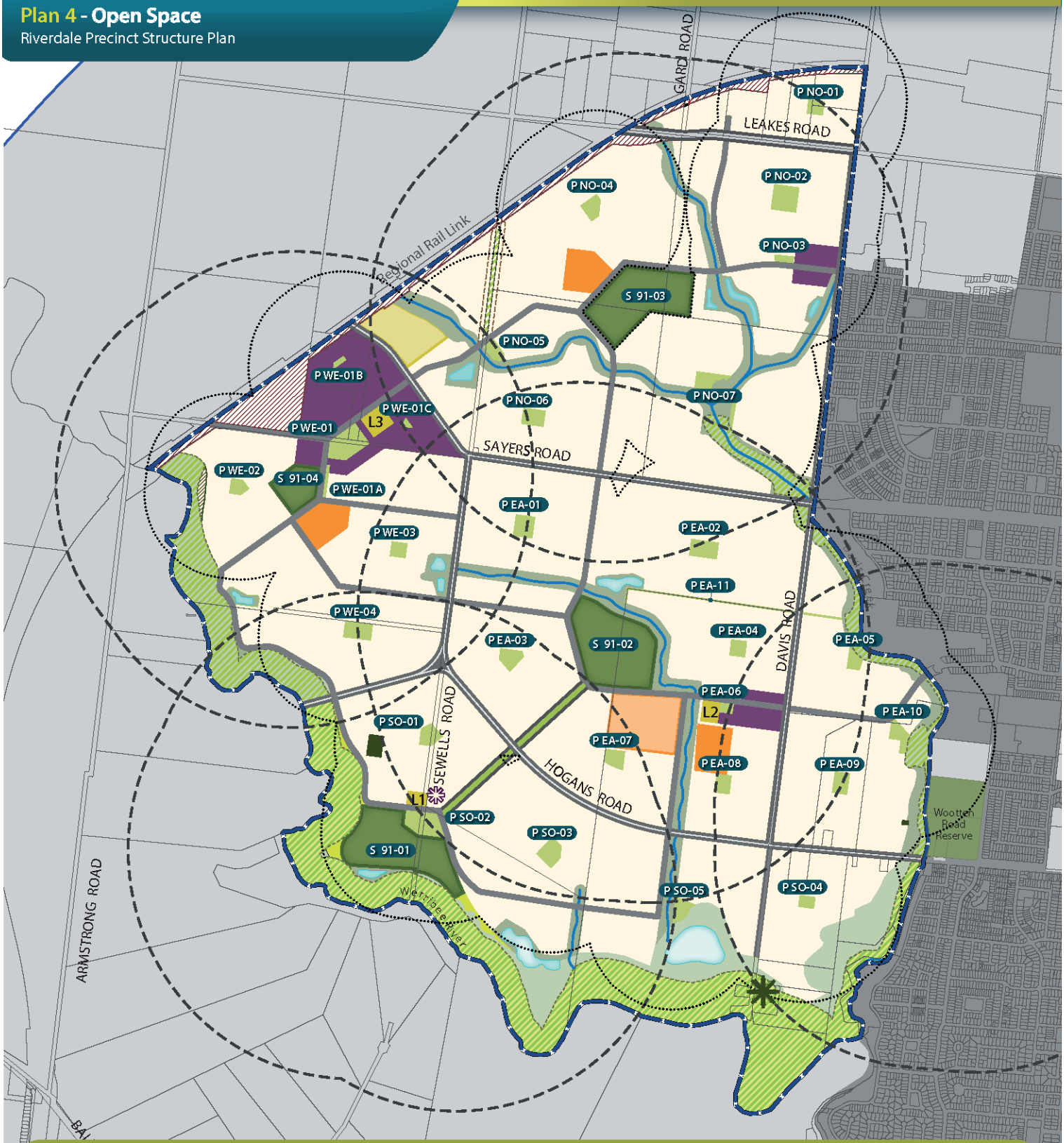
0 200 400 600 800 1,000

Plan 4 - Open Space

Riverdale Precinct Structure Plan



- precinct area
- local sports reserve
- local sports reserve catchment (1000m)
- local parks
- local park catchment (400m)
- indoor recreation facility
- drainage open space (encumbered)
- proposed werribee township regional park (unencumbered)
- proposed werribee township regional park – drainage (encumbered)
- proposed werribee township regional park – GGF conservation area (encumbered)
- heritage area
- conservation area (encumbered)
- waterways
- possible regional open space vistor facility node
- P EA-02 park ID - refer table 5
- community centre
- L3 community centre level

3.3 OPEN SPACE AND COMMUNITY FACILITIES

3.3.1 Open Space

	REQUIREMENTS
R18	All public landscaped areas must be designed and constructed to enable practical maintenance and planted suitable to the local climate and soil conditions.
R19	All parks must be located, designed and developed in accordance with the relevant description in Table 5 unless otherwise approved 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.
R20	Where a local park shown on Plan 4 spans across multiple properties, the first development proponent to lodge a permit application for land containing the park must prepare an indicative concept master plan for the entire park to the satisfaction of the responsible authority, unless otherwise agreed by the responsible authority.
R21	Design and layout of waterway corridors and other encumbered open space must maximise the potential for the integration of recreation uses, utility infrastructure and stormwater quality treatment assets, where this does not conflict with the primary function of the land.
R22	Any fencing of open space, whether encumbered or unencumbered, must be low scale and visually permeable to facilitate public safety and surveillance.
R23	Further to the public open space contribution required by Clause 52.01 of the Wyndham 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 of this precinct structure plan is equal to 3% of the lot's NDA that land must to be transferred to Council at no cost to Council. • Where a public open space shown on the lot in Plan 5 of this precinct structure plan is equal to 3% or less than 3% of the lot's NDA: » the relevant land must be transferred to Council at no cost to Council » a cash contribution must to be made to Council to bring total public open space contribution to a value equal to 3% of NDA. • Where a public open space shown on the land in Plan 5 of this precinct structure plan is greater than 3% 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 3% but no greater than difference between 3% and the amount of land shown as local park on Plan 5. Refer to the Property Specific Land Budget for detailed individual property open space land areas and percentages specified by this precinct structure plan. The responsible authority may alter the distribution of public open space as shown in this precinct structure plan provided the relevant vision and objectives of this precinct structure plan are met. 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 provide above that required by Clause 52.01 and this precinct structure plan.
	GUIDELINES
G12	Residential lots directly abutting open space must provide for a primary point of access from footpath or shared path proximate to the lot boundary.
G13	Sports reserves should be developed consistent with Figures 4 - 7 unless an alternative master plan is approved by the responsible authority.
	CONDITIONS
C2	Conditions for subdivision or building and works permits where land is required for public open space Land required for public open space as a local or district park, as set out in the Riverdale Precinct Structure Plan or the Wyndham North Development Contributions Plan, must be transferred to or vested in Council at no cost to Council unless the land is funded by the Wyndham North Development Contributions Plan.

3.3.2 Community Facilities and Education

	REQUIREMENTS
R24	Where the Responsible Authority is satisfied that land shown as a non-government school site is unlikely to be used for a non-government school, that land may be used for an alternative purpose which is generally consistent with the surrounding land uses and the provisions of the applied zone.
R25	Schools and community centres must be designed to front and be directly accessed from a public street with car parks located away from the main entry.
	GUIDELINES
G14	School sites should be provided with three street frontages where practicable.
G15	Any educational or community infrastructure not shown on Plan 2 should be located within or proximate to a major town centre, local town centre or an existing community hub, as appropriate.
G16	Any private childcare, medical or similar facility should be located proximate to the Major Town Centre, any Local Town Centre, Local Convenience Centres, or nominated community hub, as appropriate.
G17	Community facilities which are located in a town centre should be designed to maximise efficiency of land use through the sharing and overall reduction of car parking spaces.
G18	Community facilities, schools, and sports reserves which are co located should be designed to maximise efficiencies through the sharing of car parking spaces and other complementary infrastructure.
G19	The indicative layout of community facilities, schools, and open space as illustrated in Plan 2 may be altered where approved by the responsible authority.

Table 5. Open space delivery guide

The following table sets out the open space provision expected to be delivered within the PSP area. The table is linked to Appendix F, Open Space Delivery Guide.

PARK ID	SIZE	LOCAL PARK TYPE	LOCATION & OTHER ATTRIBUTES	RESPONSIBILITY
P WE-01	2.00	Urban park	Large urban park centrally located within major town centre.	WC
P WE-01A	0.23	Linear park	Linear park linking within a widened verge on eastern side of connector street. Links and creates view line between civic space P WE-01 with urban sports reserve S 91-04. Should be fronted by rear-loaded buildings on eastern side to avoid driveway crossovers.	WC
P WE-01B	0.13	Urban Park	Small passive park within major town centre. Amenity node for higher-density housing.	WC
P WE-01C	0.11	Urban Park	Small passive park within major town centre. Amenity node for higher-density housing product.	WC
P WE-02	0.54	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P WE-03	0.50	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P WE-04	1.00	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P SO-01	0.74	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P SO-02	1.80	District (Large)	Incoropated into the larger Werribee Bend sporting reserve, adjacent the community centre and local convenience centre. Exact size and location within the immediate area is flexible.	WC
P SO-03	0.94	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P SO-04	0.39	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC

PARK ID	SIZE	LOCAL PARK TYPE	LOCATION & OTHER ATTRIBUTES	RESPONSIBILITY
P SO-05	0.70	Neighbourhood (Medium)	Located adjacent to Werribee Township Regional Park at termination of Davis Road. Acts as an activity node along the regional park boundary.	WC
P EA-01	0.90	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P EA-02	1.00	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P EA-03	0.77	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P EA-04	0.54	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P EA-05	0.65	Neighbourhood (Medium)	Located adjacent Davis Creek.	WC
P EA-06	0.30	Urban park	Located as the focus of Davis Road South local town centre. Adjacent major anchors and community centre.	WC
P EA-07	0.70	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P EA-08	0.60	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P EA-09	0.70	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P EA-10	0.80	Neighbourhood (Medium)	Located adjacent Davis Creek, at the end of the connector street linking to the Davis Road South local town centre.	WC
P EA-11	0.70	Linear park	Linear open space including retained windrow	WC
P NO-01	0.49	Neighbourhood (Small)	Located as shown on Plan 4 with 0.2266 Ha on property 91-NO-09, 0.1317 Ha on property 91-NO-10 and 0.1317 Ha on property 91-NO-11.	WC
P NO-02	1.35	Neighbourhood	Generally located as shown on Plan 4, central to surrounding neighbourhood. May be provided as a number of smaller parks.	WC
P NO-03	0.29	Urban park	Located at the western end of main street adjoining Davis Road North local town centre.	WC
P NO-04	0.68	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P NO-05	0.62	Neighbourhood (Medium)	Located adjacent waterway.	WC
P NO-06	0.78	Neighbourhood (Medium)	Generally located as shown on Plan 4, central to surrounding neighbourhood.	WC
P NO-07	1.14	District (Large)	Located across confluence of Davis Creek tributaries. Inclusion of waterway corridor within park will produce a large district park.	WC
S 91-01	12.55	Local sports reserve	Located adjacent Growling Grass Frog Conservation Area and forming part of the Werribee River open space corridor	WC
S 91-02	13.09	Local sports reserve	Located as shown on Plan 4, at the termination of four connector roads, adjacent the Davis Road South local town centre.	WC
S 91-03	11.79	Local sports reserve	Located across property 91-NO-02, 91-NO-03 and 91-NO-05. Provides an open space link between the two tributaries of Davis Creek.	WC
S 91-04	3.77	Local sports reserve	Urban sports reserve containing a single oval/sporting field, with a community use focus	WC
		Conservation	Sewells Road Reserve Conservation Area in existing Sewells Road reserve.	TBC
		Conservation	Werribee River and Davis Creek Growling Grass Frog Conservation Area.	TBC
		Regional Park	Werribee Township Regional Park providing large passive parkland and visitor facilities	DEPI / PV

Park size: Small = 0.25 – 0.50Ha, Medium = 0.5 – 1.2Ha, Large = 1.2 + Ha
WC = Wyndham City, DEPI = Department Environment & Primary Industries, PV = Parks Victoria, TBC = To be confirmed

Figure 4 S-91-01 Sports Reserve Concept

Figure 5 S-91-02 Sports Reserve Concept

Figure 6 S-91-03 Sports Reserve Concept

Figure 7 S-91-04 Sports Reserve Concept

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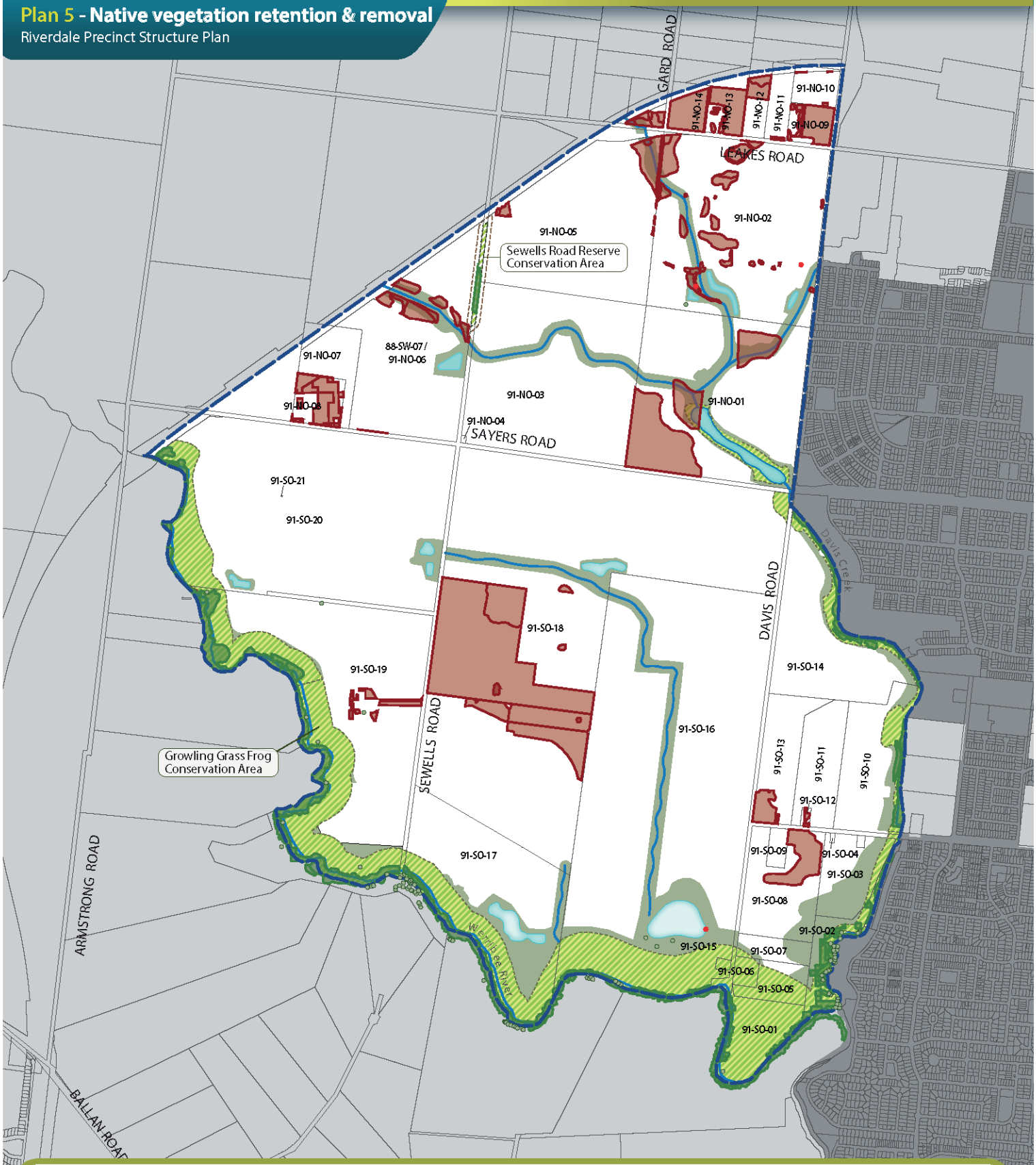
Plan 5 - Native vegetation retention & removal

Riverdale Precinct Structure Plan



- precinct area
- native vegetation to be protected
- native vegetation that can be removed
- scattered trees to be protected
- scattered trees that can be removed
- conservation area (area to which Conservation Management Plan applies)
- 90-NE property boundary & number
- waterways
- drainage open space

3.4 BIODIVERSITY, THREATENED SPECIES AND BUSHFIRE MANAGEMENT

3.4.1 Biodiversity and Natural Systems

	REQUIREMENTS
R26	Development within any Conservation Area must be in accordance with the Concept Plan and Interface Cross Section in Appendix G and H and the relevant Conservation Management Plan to the satisfaction of the Department of Environment & Primary Industries (DEPI).
R27	Design, baffle and locate adjoining lighting to minimise light spill and glare adjacent to a conservation area unless otherwise agreed by the Department of Environment and Primary Industries.
R28	A 20m buffer zone is to be provided around all edges of the Sewells Road Reserve Conservation Area. The buffer zone is to exclude buildings but may include roads, paths, nature strips, public open space and drainage infrastructure. A frontage road is to be provided between the conservation area and adjacent development in accordance with the cross section in Appendix H. Frontage roads are to contain street trees of indigenous species and no street trees are to be planted on the Conservation Area side of these roads. Frontage roads are not to include plant species that could behave as environmental weeds including vigorous rhizomatic grasses.
R29	Where there is no separation between the Growling Grass Frog conservation area and urban development by a road, development must face the conservation area.
R30	Prior to the commencement of any subdivision, buildings or works within a conservation area a Construction Environment Management Plan must be approved to the satisfaction of the responsible authority and the Department of Environment and Primary Industries.
R31	Prior to the commencement of any subdivision, a Kangaroo Management Plan must be approved in respect to the land that the permit relates, to the satisfaction of the Department of Environment and Primary Industries.
R32	Any permit granted for land within Conservation area No. 12, Western Growth Corridor, Sewells Road Reserve, Truganina, as described in the Biodiversity Conservation Strategy for Melbourne's Growth Corridors (The State of Victoria Department of Environment and Primary Industries, June 2013) ('the BCS'), must contain a condition that prevents the permit from having force and effect until the Minister administering the Environment Protection and Biodiversity Act 1999 (Cth) ('EPBC Act') has agreed, pursuant to Condition 4 of the 5 September 2013 EPBC Act approval for "All action associated with urban development in the Western growth corridor...", to a conservation area boundary generally in accordance with the incorporated Riverdale Precinct Structure Plan. Following the Minister's agreement as decribed above this condition need no longer be included in a permit. Where the Minister's agreement is not forthcoming, the conservation area as described in the BCS applies for the purpose of this precinct structure plan.
	GUIDELINES
G20	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.
G21	Planting adjacent to conservation areas, waterway corridors and retained indigenous vegetation should be indigenous species.
G22	Where appropriate co-locate public open space areas with conservation areas and waterways to assist with their buffering.
G23	Where located adjacent or nearby each other, design and construct local parks to maximise integration with conservation areas.
G24	Drainage of stormwater wetlands should be designed to minimise the impact of urban stormwater on the biodiversity values of the conservation area.
G25	The Sewells Road Reserve Conservation Area is to be fenced to provide protection of Spiny Rice Flower habitat and other grassland biodiversity values. Fences are to be 1.2m in height and provide access to any paths shown on the Concept Plan in Appendix H.

Kangaroo management

A permit granted for subdivision of land must include the following conditions:

C3

Before the certification of the plan of subdivision, a Kangaroo Management Plan must be approved by the Secretary to the Department of Environment and Primary Industries. Once approved the plan will be endorsed by the responsible authority and form part of the permit.

The endorsed Kangaroo Management Plan must be implemented to the satisfaction of the responsible authority.

Fencing of conservation areas

A permit granted to subdivide land where works are required to carry out the subdivision, or a permit granted to construct a building or carry out works, on land including or abutting a conservation area as shown in the Riverdale Precinct Structure Plan, must including the following condition:

Amended by VC213

C4

Prior to the commencement of development, a conservation area fencing plan must be submitted to and approved by the Secretary to the Department of Environment, Land, Water, and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987) (**Secretary**) to ensure the conservation area is adequately protected.

The fencing plan must contain the following:

-The boundaries of any conservation area, and the location of any scattered tree and the boundaries of any patch of native vegetation within the conservation area;

- Location and alignment of temporary protection fencing showing the following minimum distance from the element to be protected:

ELEMENT	DISTANCE
Conservation area	0.5 metres
Scattered tree	12 x Diameter at a height of 1.3 metres
Patch of native vegetation	2 metres

- The timing of installation and removal of temporary protection fencing;
- The timing of installation of permanent fencing;
- Location and details of ongoing maintenance vehicle access points;
- The type of temporary and permanent fencing including materials, heights and spacing of uprights;
- Frequency of inspections and rectification works for temporary protection fencing.

Once approved the plan will form part of the permit and must be implemented to the satisfaction of the Secretary to the Department of Environment, Land, Water and Planning and the Responsible Authority.

Stockpiles, fill, machinery, vehicle parking, excavation and construction activity of any kind must not be bought into, or be undertaken within the area to be fenced except with prior written consent from the Department of Environment, Land, Water and Planning.

Correct alignment of protective fencing

Buildings and works must not commence until written evidence that protection fencing has been erected in accordance with the approved Conservation Area Fencing Plan is provided by a suitably qualified land surveyor to the Secretary to the Department of Environment, Land, Water, and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987) (**Secretary**), and the Secretary confirms it is satisfied by the evidence.

Construction environmental management plan

A planning permit to subdivide land, construct a building, or construct or carry out works on or within 50 metres of land shown as a conservation area in the incorporated Riverdale Precinct Structure Plan must include the following condition:

Amended by VC213

C5

Before works start, a Construction Environmental Management Plan consistent with *DELWP requirements for Construction Environmental Management Plans* (Department of Environment, Land, Water and Planning, November 2020) under the Melbourne Strategic Assessment must be submitted to and approved by the Secretary to the Department of Environment, Land, Water and Planning, (as constituted under Part 2 of the *Conservation, Forests and Lands Act 1987*) and the responsible authority, demonstrating how impacts to the conservation area will be mitigated during works. Once approved the plan will form part of the permit and must be implemented to the satisfaction of the Secretary and the responsible authority.

Salvage and translocation

Amended by VC213

C6

Prior to the commencement of development, a salvage inquiry form must be submitted to the Secretary to the Department of Environment, Land, Water, and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987) (**Secretary**), and where required the Secretary must be permitted to access the land to conduct salvage operations, in accordance with the requirements of the Salvage and Translocation Protocol for Melbourne's Growth Corridors (Department of Environment, Land, Water and Planning, 2018).

Security of conservation land

A permit to subdivide land containing a 'conservation area' as shown in the Riverdale Precinct Structure Plan must include the following condition:

The owner of the land must, as part of the plan of subdivision (or the first plan of subdivision submitted for registration, in the case of any staged subdivision), create the 'conservation area' as a separate lot or reserve. The boundaries of the lot or reserve on the plan of subdivision are subject to the prior satisfaction of the Secretary to the Department of Environment, Land, Water and Planning as constituted under Part 2 of the Conservation, Forests and Lands Act 1987 (**Secretary**). The owner must further secure the conservation area, by causing that lot or reserve to be vested, transferred, or protected in perpetuity in one of the following ways:

Amended by VC213 **C7**

- Prior to a statement of compliance being issued for the plan of subdivision (or, in the case of a staged subdivision, the plan of subdivision or masterplan which implements the first stage of the subdivision), enter into an agreement under section 173 of the Planning and Environment Act 1987 by which the owner agrees to transfer ownership of the conservation area to, or to vest the conservation area in, the Minister responsible for section 5 of the Crown Land (Reserves) Act 1978, the Council or Melbourne Water . The transfer or vesting must either be for no or nominal consideration. The Secretary and the person or body to whom the land is to be transferred or vested must also be a party to the agreement. The terms of the agreement must include that the owner pays the reasonable costs of the other parties to the agreement that were incurred for the preparation, execution, and registration of the agreement. The owner must cause the agreement to be registered prior to lodgement of the plan of subdivision for registration; or

- Prior to a statement of compliance being issued for the plan of subdivision (or, in the case of a staged subdivision, the plan of subdivision or masterplan which implements the first stage of the subdivision), enter into an agreement with the Secretary under section 69 of the Conservation, Forests and Lands Act 1987, which provides for the conservation and management of the conservation area by or on behalf of the owner in perpetuity. The terms of the agreement must include that the owner pays the reasonable costs of the Secretary incurred for the preparation, execution, and registration of the agreement. The owner must cause the agreement to be registered prior to lodgement of the plan of subdivision for registration.

The requirement to include the above condition does not apply if the permit applicant provides the responsible authority with a statement in writing from the Secretary, as constituted under Part 2 of the Conservation, Forests and Lands Act 1987, that the condition is not required because the Secretary is satisfied that either:

- the land containing the conservation area is expected to be further subdivided and a further planning permit will be required for that subdivision (to which the above condition requirement will apply); or

- the conservation area has been or will be otherwise secured in perpetuity.

Land management plan for conservation area

A permit to subdivide land containing a conservation area as shown in the Riverdale Precinct Structure Plan must include the following condition:

Prior to the commencement of development, a land management plan for the conservation area land must be prepared by a suitably qualified consultant, submitted to, and approved by the Secretary to the Department of Environment, Land, Water, and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987) (**Secretary**). The land management plan must outline how the biodiversity values for the land identified in the *Biodiversity Conservation Strategy for Melbourne's Growth Corridors* (Department of Environment and Primary Industries 2013) will be maintained, managed, and improved, including:

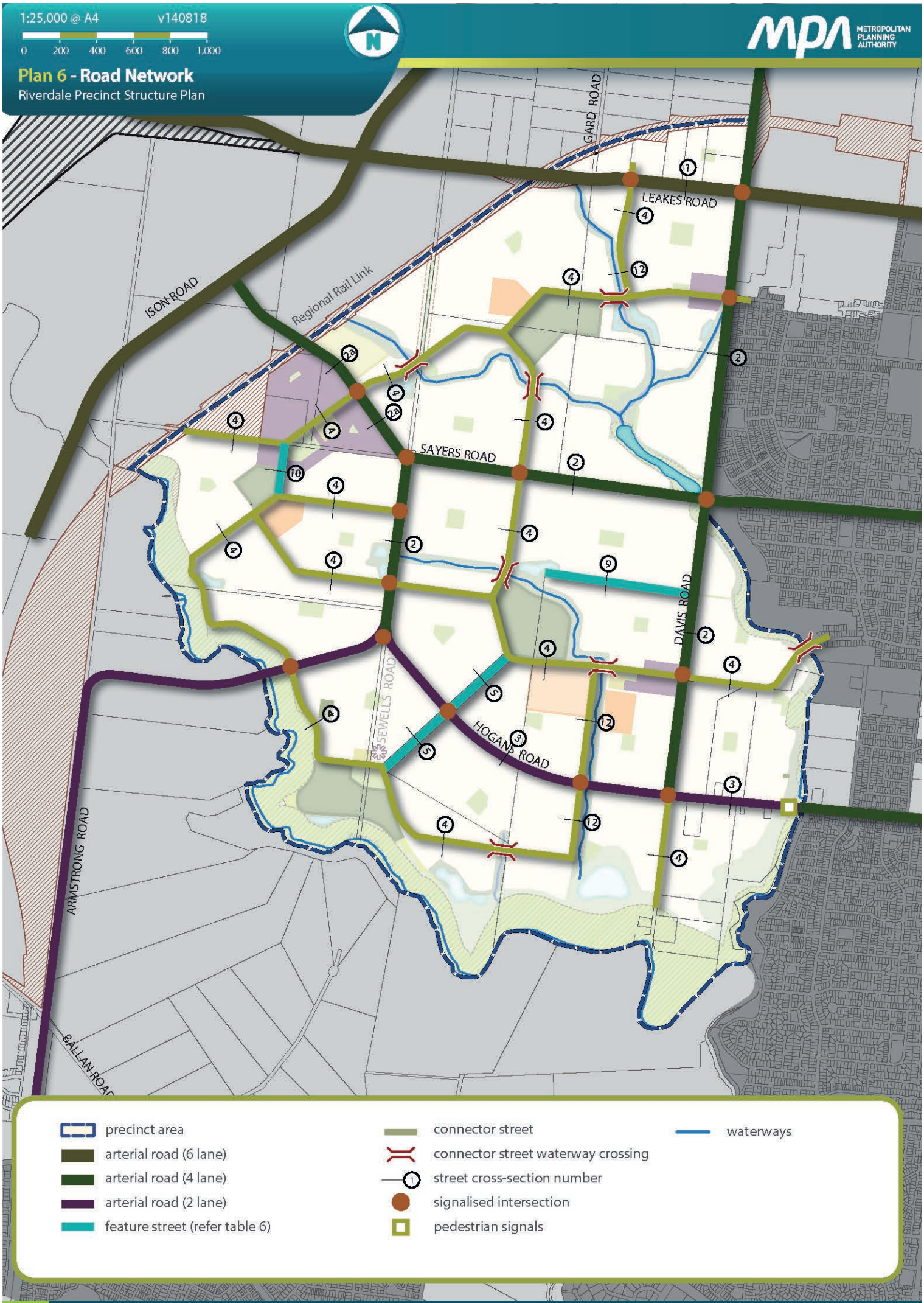
Inserted by VC213 **C8**

- How environmental weeds will be managed up until the securing of the conservation area.

- How any revegetation will be undertaken in coordination with weed management activities to prevent re-colonisation of weed species.

- How rubbish and hazards will be removed, and any contaminated material managed up until the securing of the conservation area.

Once approved the plan will form part of the permit and must be implemented to the satisfaction of the Secretary and the responsible authority.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1,000
Plan 6 - Road Network
Riverdale Precinct Structure Plan
METROPOLITAN PLANNING AUTHORITY
GARD ROAD
LEAKES ROAD
ISON ROAD
Regional Rail Link
SAYERS ROAD
DAVIS ROAD
SEWELLS ROAD
HOGANS ROAD
ARMSTRONG ROAD
BALLAN ROAD
precinct area
arterial road (6 lane)
arterial road (4 lane)
arterial road (2 lane)
feature street (refer table 6)
connector street
connector street waterway crossing
street cross-section number
signalised intersection
pedestrian signals
waterways

3.4.2 Bushfire Management

	REQUIREMENTS
R33	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 8.1º). • The steepest grade on a road must be no more than 1 in 5 (20% or 11.3º) 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 7.1º) entry and exit angle. • 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 curbs if they are provided).
R34	Before the commencement of works for a stage of subdivision, a Construction Management Plan that addresses Bushfire Risk Management must be submitted to and approved by the responsible authority and the CFA. The Construction Management Plan must specify, amongst other things: • Measures to reduce the risk from fire within the surrounding rural landscape and protect residents from the threat of fire. • A separation buffer, consistent with the separation distances specified in AS3959-2009, between the edge of development and non-urban areas. • How adequate opportunities for access and egress will be provided for early residents, construction workers and emergency vehicles.

3.5 TRANSPORT AND MOVEMENT

3.5.1 Street Network

	REQUIREMENTS
R35	Subdivision layouts must form a permeable local street network that provides convenient access to local open space and allows for the effective integration with neighbouring properties.
R36	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 C. 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 does not constitute a variation. All 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. • Relevant minimum road reserve widths for the type of street (illustrated in Appendix C) are maintained, unless otherwise approved by the responsible authority.

R37	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.
R38	Convenient and direct access to the connector street 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.
R39	Vehicle access to lots fronting arterial roads must be provided from a service road, local road or rear lane only, to the satisfaction of the road authority.
R40	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.
R41	Where a lot is six metres or less in width, vehicle access must be via rear laneway, unless otherwise approved by the responsible authority.
R42	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.
R43	Frontage roads are to be the primary interface provided between development and the Regional Rail Link reserve shown on Plan 2. Public open space and allotments with direct frontages may be provided as a minor component of the rail reserve interface.
R44	Any connector street 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.
R45	Where a connector street crosses a waterway on Plan 6 on (Property 91-NO-02, 91-NO-03, 91-NO-06, 91-SO-14, 91-SO-16, 91-SO-17 and 91-SO-18) the developer(s) must construct a connector street bridge prior to the issue of statement of compliance for the first stage of residential subdivision on the second side of the waterway to be developed, whether or not that residential subdivision directly abuts the waterway.
R46	Unless proper and orderly urban road access has already been provided to Lot 2 on PS701129 (property no. 91-NO-05), a permit for subdivision of Lot 2 on LP142708 (property no. 91-NO-03) must ensure that the whole of the north-south connector street described on the land in this precinct structure plan is shown on a plan of subdivision submitted for certification under the Subdivision Act 1988 as a road reserve vesting in the municipal council no later than the plan of subdivision containing the 310th lot proposed for subdivision on Lot 2 on LP142708 to the satisfaction of the responsible authority.
R47	Unless arrangements have been made, to the satisfaction of the responsible authority, for the construction of that part of the north-south connector street on property no. 91-NO-03 that lies between the southern foot of the bridge over the waterway on the land and the boundary of property no. 91-NO-05, a permit for subdivision of either property no. 91-NO-03 or 91-NO-05 must: • provide for the construction of the street and bridge; or • include a requirement that the owner of the land under permit enter into an agreement under Section 173 of the Planning and Environment Act 1987 prior to the certification of a plan of subdivision to contribute towards the construction of the bridge; or • enter into any other arrangements to facilitate the completion of the street and bridge; to the satisfaction of the responsible authority. The owner of the land under the permit must pay the reasonable costs of the preparation and execution of the Section 173 Agreement.

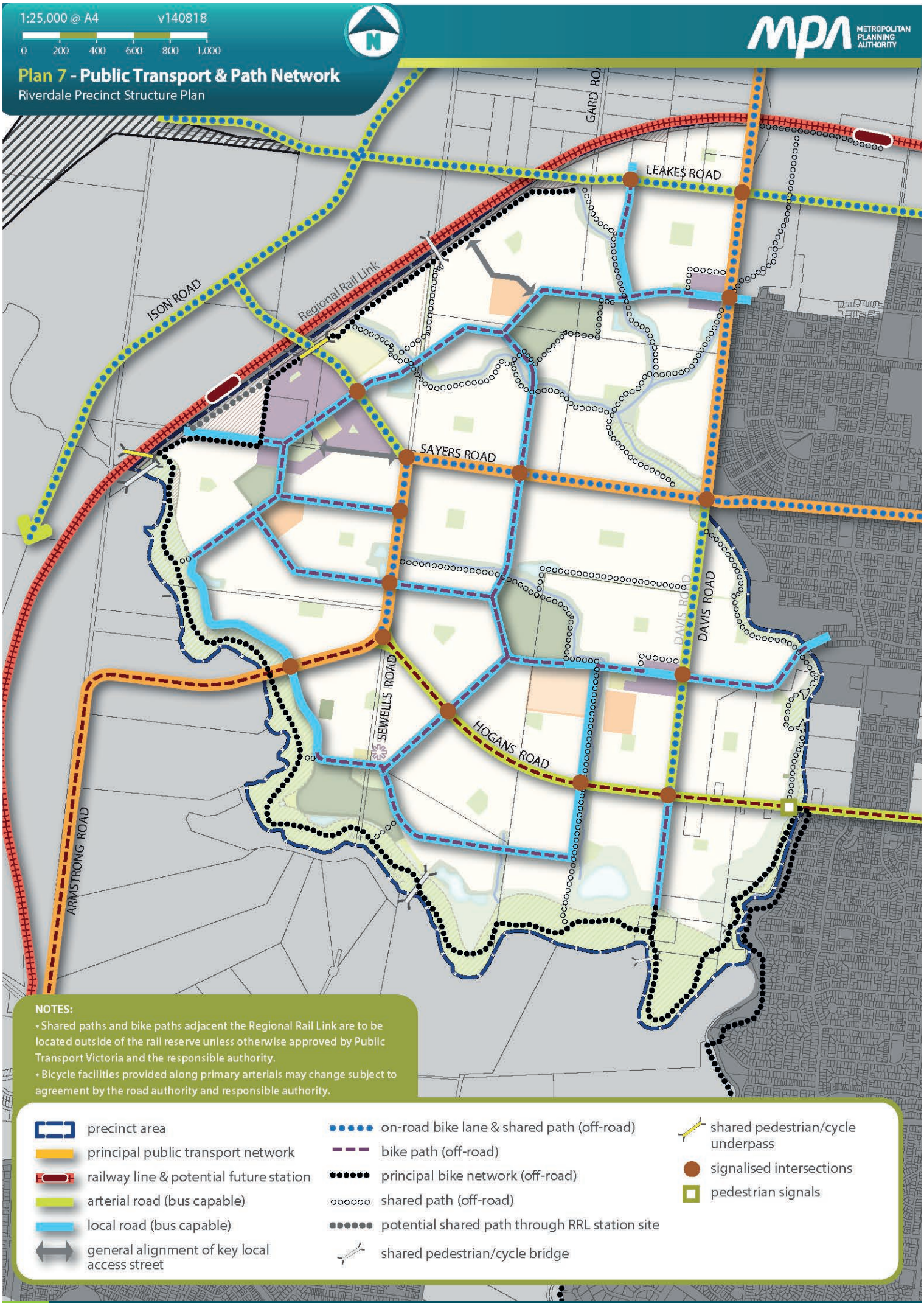
GUIDELINES

G26	Street layouts should provide multiple convenient routes to major destinations such as the proposed future Riverdale railway station site, the Riverdale major town centre, the two local town centres, and the arterial road network.
G27	Street block lengths should not exceed 240 metres to ensure a permeable and low speed environment for pedestrians, cyclists, and vehicles is achieved.
G28	Culs-de-sac should not detract from convenient pedestrian and vehicular connections.
G29	Slip lanes should be avoided in areas of high pedestrian activity and only be provided at any other intersection between connector streets and arterial roads where they are necessitated by high traffic volumes, to the satisfaction of the coordinating roads authority.

G30	The frequency of vehicular crossovers on widened verges (a verge in excess of six metres) should be minimised by the use of a combination of: • Rear loaded lots with laneway access. • Vehicular access from the side of a lot. • Combined or grouped crossovers. • Increased lot widths.
G31	Streets should be the primary interface between development and waterways. Public open space and lots with a direct frontage may be provided as a minor component of the waterway interface. Where lots with direct frontage are provided, they should be set back up to 5.0 metres from the waterway corridor to provide pedestrian and service vehicle access, to the satisfaction of Melbourne Water and the responsible authority.
	CONDITIONS
C9	Conditions for subdivision or building and works permits where land is required for road widening • Land required for road widening including right of way flaring for the ultimate design of any intersection within an existing or proposed local road must be transferred to or vested in Council at no cost to the acquiring agency unless funded by the Wyndham North Development Contributions Plan.

Table 6. Feature streets

CROSS SECTION	DESCRIPTION	WIDTH (M)	PLANTING
9	Existing windbreak along northern boundary of property 91-SO-16 (refer plan 10) retained in central median, linking sporting reserve S 91-02 with Davis Creek. New infill tree planting where needed to achieve continuous windbreak/tree canopy along street.	TBC	Existing Dwarf Sugar Gum (Eucalyptus cladocalyx 'Nana'), grass or mulch beneath
10	Wider verge on east side (19.1m) to form strong boulevard comprising three rows of trees and linear open space linking civic open space WE-01 and sporting reserve S 91-04. Hard paved opposite verge as interface with retail and high density housing.	35.7m	Exotic trees eg. London Plane (Platanus x acerifolia) and under planting
5	Central median (2.5m) with single row of trees linking sporting reserve S 91-02 with sporting reserve S 91-01 and Werribee River. At Hogans Road street terminates at node of passive open space. This node is to be a focus for large feature indigenous tree planting.	27.5m	Indigenous feature trees eg. Werribee Blue Box (Eucalyptus baueriana ssp Thalassina), River Red Gum (Eucalyptus camaldulensis)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Plan 7 - Public Transport & Path Network
Riverdale Precinct Structure Plan
MPA METROPOLITAN PLANNING AUTHORITY
GARD RO
LEAKES ROAD
ISON ROAD
Regional Rail Link
SAYERS ROAD
DAVIS ROAD
DAVIS ROAD
SEWELLS ROAD
HOGANS ROAD
ARMSTRONG ROAD
NOTES:
• Shared paths and bike paths adjacent the Regional Rail Link are to be located outside of the rail reserve unless otherwise approved by Public Transport Victoria and the responsible authority.
• Bicycle facilities provided along primary arterials may change subject to agreement by the road authority and responsible authority.
precinct area
principal public transport network
railway line & potential future station
arterial road (bus capable)
local road (bus capable)
general alignment of key local access street
on-road bike lane & shared path (off-road)
bike path (off-road)
principal bike network (off-road)
shared path (off-road)
potential shared path through RRL station site
shared pedestrian/cycle bridge
shared pedestrian/cycle underpass
signalised intersections
pedestrian signals

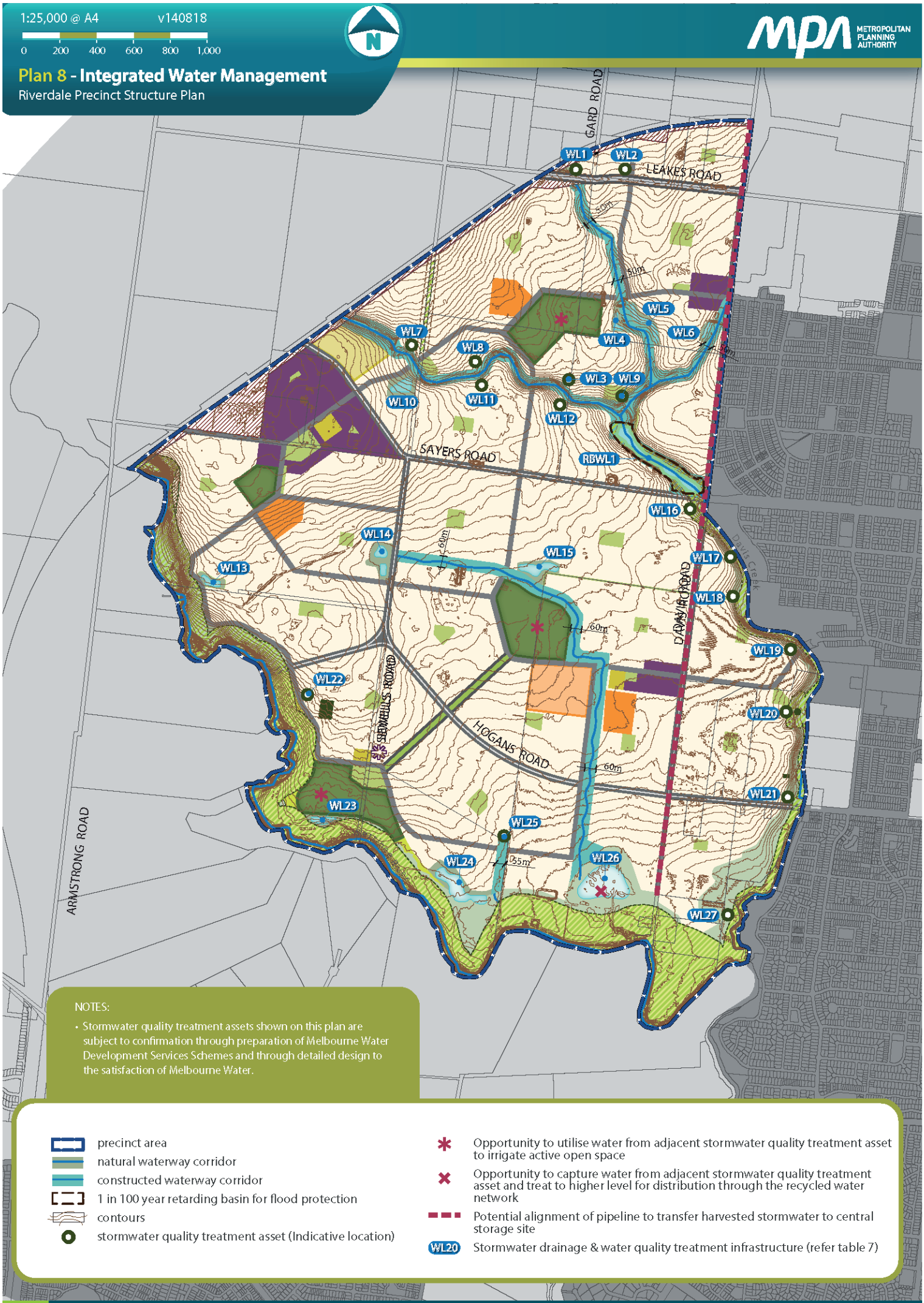
3.5.2 Public Transport

	REQUIREMENTS
R48	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.
R49	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.

	CONDITIONS
C10	Public transport Unless otherwise agreed by Public Transport Victoria, prior to the issue of a Statement of Compliance for any subdivision stage, bus stop hard stands with direct and safe pedestrian access to a pedestrian path must be constructed: • In accordance with the Public Transport Guidelines for Land Use and Development; and compliant with the Disability Discrimination Act – Disability Standards for Accessible Public Transport 2002. • At locations approved by Public Transport Victoria, at no cost to Public Transport Victoria, and to the satisfaction of Public Transport Victoria.

3.5.3 Walking and Cycling

	REQUIREMENTS
R50	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 specified by another requirement in the PSP. • Safe and convenient crossing points of connector roads and local streets at all intersections and on key desire lines. • Safe pedestrian crossings of arterial roads at all intersections, at key desire lines, and on regular intervals appropriate to the function of the road and public transport provision. • Pedestrian priority crossings on all slip lanes. • Safe and convenient transition between on and off-road bicycle networks. All to the satisfaction of the coordinating roads authority and the responsible authority.
R51	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 maintain hydraulic function of the waterway. • Be constructed to a standard that satisfies the requirements of Melbourne Water. • Where a shared path is to be delivered on one side of a minor waterway as outlined in Plan 7, a path is also to be delivered on the other side of the waterway but may be constructed to a lesser standard, such as granitic gravel or similar granular material. All to the satisfaction of Melbourne Water and the responsible authority.
R52	Bicycle parking facilities are to be provided by development proponents in convenient locations at key destinations such as parks and activity centres.
R53	Design and construction of any paths, trails, or infrastructure located within the Werribee River open space corridor must be consistent with the Werribee River Shared Trail Strategy, the Concept Plan in Appendix G, the relevant Conservation Management Plan and any relevant approved Cultural Heritage Management Plan.
R54	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.
R55	The alignment of off-road bicycle paths must be designed for cyclists travelling up to 30km/h.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Plan 8 - Integrated Water Management
Riverdale Precinct Structure Plan
METROPOLITAN PLANNING AUTHORITY
GARD ROAD
LEAKES ROAD
SAYERS ROAD
HOGANS ROAD
ARMSTRONG ROAD
DAVIS CREEK ROAD
SHEMELLS ROAD
Davis Creek
WL1
WL2
WL3
WL4
WL5
WL6
WL7
WL8
WL9
WL10
WL11
WL12
RBWL1
WL13
WL14
WL15
WL16
WL17
WL18
WL19
WL20
WL21
WL22
WL23
WL24
WL25
WL26
WL27
60m
55m
NOTES:
• Stormwater quality treatment assets shown on this plan are subject to confirmation through preparation of Melbourne Water Development Services Schemes and through detailed design to the satisfaction of Melbourne Water.
precinct area
natural waterway corridor
constructed waterway corridor
1 in 100 year retarding basin for flood protection
contours
stormwater quality treatment asset (Indicative location)
Opportunity to utilise water from adjacent stormwater quality treatment asset to irrigate active open space
Opportunity to capture water from adjacent stormwater quality treatment asset and treat to higher level for distribution through the recycled water network
Potential alignment of pipeline to transfer harvested stormwater to central storage site
WL20
Stormwater drainage & water quality treatment infrastructure (refer table 7)

3.6 INTEGRATED WATER MANAGEMENT & UTILITIES

3.6.1 Integrated Water Management

	REQUIREMENTS
R56	Consistent with Clause 56.01-2 and Clause 56.07 of the Wyndham Planning Scheme, a subdivision application of 60 or more lots must include an Integrated Water Management Plan.
R57	Development must meet or exceed best practice stormwater quality treatment standards prior to discharge to receiving waterways as outlined on Plan 8, unless otherwise approved by Melbourne Water and the Responsible Authority.
R58	Where a waterway is shown as 'natural' on Plan 8, development works must: • Not encroach past the waterway corridor defined in the PSP, unless otherwise agreed by the responsible authority and Melbourne Water. • Minimise earthworks and impact on the existing landform of the waterway. • Retain existing vegetation as part of waterway landscaping. All to the satisfaction of Melbourne Water and the Responsible Authority.
R59	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.
R60	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.
	GUIDELINES
G32	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.
G33	Where practical, development should include integrated water management initiatives to reduce reliance on potable water and increase the utilisation of storm and waste water, contributing to a sustainable and green urban environment.
G34	Development should have regard to relevant policies and strategies being implemented by the Responsible Authority, Melbourne Water and the City West Water, including any approved Integrated Water Management Plan.
G35	Where practical, integrated water management systems should be designed to: • Maximise habitat values for local flora and fauna species. • Enable future harvesting and/or treatment and re-use of stormwater, including those options or opportunities outlined in Plan 8.
G36	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, etc) should be incorporated within the Precinct open space system as depicted on Plan 4, to the satisfaction of the responsible authority.

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Table 7. Stormwater Drainage and Water Quality Treatment Infrastructure (as shown on Plan 8)

ID	DESCRIPTION	AREA (HA)	RESPONSIBILITY
RBWL1	Retarding basin containing stormwater quality treatment assets	6.80	Melbourne Water (retarding basin) Wyndham City (stormwater quality treatment assets)
WL1	Stormwater quality treatment asset	0.20	Wyndham City
WL2	Stormwater quality treatment asset	0.37	Wyndham City
WL3	Stormwater quality treatment asset	0.45	Wyndham City
WL4	Stormwater quality treatment asset	1.40	Melbourne Water
WL5	Stormwater quality treatment asset	0.87	Wyndham City
WL6	Stormwater quality treatment asset	0.50	Wyndham City
WL7	Stormwater quality treatment asset	0.59	Wyndham City
WL8	Stormwater quality treatment asset	0.80	Wyndham City
WL9	Stormwater quality treatment asset	0.38	Wyndham City
WL10	Stormwater quality treatment asset	1.90	Wyndham City
WL11	Stormwater quality treatment asset	0.72	Wyndham City
WL12	Stormwater quality treatment asset	0.93	Wyndham City
WL13	Stormwater quality treatment asset	0.83	Wyndham City
WL14	Stormwater quality treatment asset	1.60	Melbourne Water
WL15	Stormwater quality treatment asset	1.84	Melbourne Water
WL16	Stormwater quality treatment asset	0.41	Wyndham City
WL17	Stormwater quality treatment asset	0.41	Wyndham City
WL18	Stormwater quality treatment asset	0.51	Wyndham City
WL19	Stormwater quality treatment asset	0.88	Wyndham City
WL20	Stormwater quality treatment asset	0.84	Wyndham City
WL21	Stormwater quality treatment asset	1.00	Wyndham City
WL22	Stormwater quality treatment asset	0.52	Wyndham City
WL23	Stormwater quality treatment asset	1.05	Melbourne Water
WL24	Stormwater quality treatment asset	2.18	Melbourne Water
WL25	Stormwater quality treatment asset	0.28	Wyndham City
WL26	Stormwater quality treatment asset	2.68	Melbourne Water
WL27	Stormwater quality treatment asset	0.89	Wyndham City

Responsibility for stormwater drainage and water quality treatment infrastructure to be agreed between Melbourne Water and Wyndham City.

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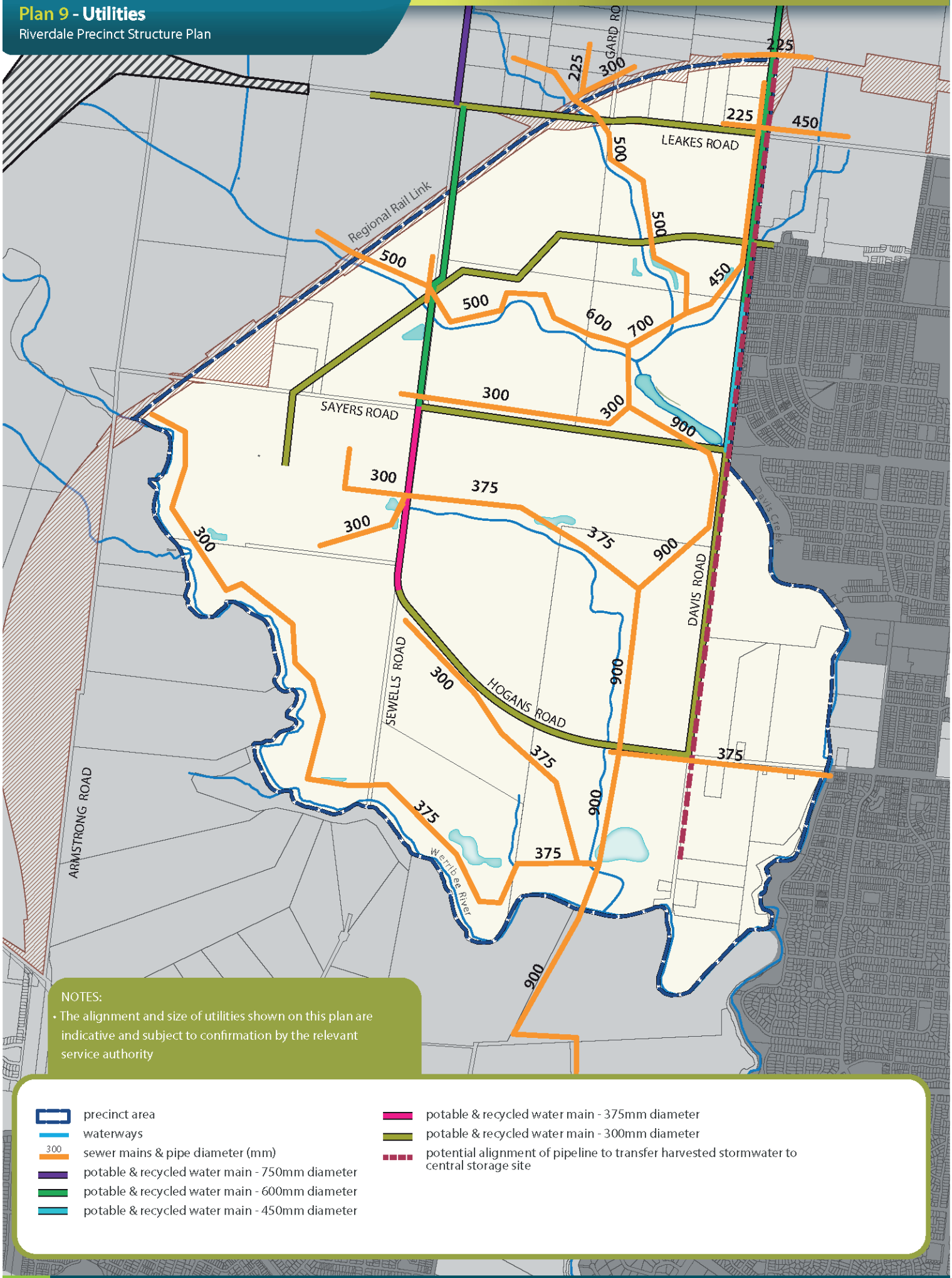
Plan 9 - Utilities

Riverdale Precinct Structure Plan



NOTES:

- The alignment and size of utilities shown on this plan are indicative and subject to confirmation by the relevant service authority

- precinct area
- waterways
- 300 sewer mains & pipe diameter (mm)
- potable & recycled water main - 750mm diameter
- potable & recycled water main - 600mm diameter
- potable & recycled water main - 450mm diameter
- potable & recycled water main - 375mm diameter
- potable & recycled water main - 300mm diameter
- potential alignment of pipeline to transfer harvested stormwater to central storage site

3.6.2 Utilities

	REQUIREMENTS
R61	Trunk services are to be placed along the general alignments shown on Plan 9, subject to any refinements as advised by the relevant service authorities.
R62	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 • 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.
R63	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.
R64	All existing above ground electricity cables of less than 66kv voltage must be placed underground as part of the upgrade of existing roads.
R65	All new electricity supply infrastructure (excluding substations and cables of a voltage of 66kv or greater) must be provided underground.
R66	Above ground utilities must be identified at the subdivision design stage to ensure effective integration with the surrounding neighbourhood and to minimise amenity impacts, and be designed to the satisfaction of the relevant authority. Where that infrastructure is intended to be located in public open space, the land required to accommodate that infrastructure will not be counted as contributing to open space requirements classified under Clause 52.01 or within the Wyndham North DCP.
R67	Utilities must be placed outside any conservation areas shown on Plan 5. Utilities must be placed outside of natural waterway corridors or on the outer edges 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.
	GUIDELINES
G37	Above ground utilities should be located outside of key view lines and screened with vegetation, as appropriate.
G38	Design and placement of underground services in new or upgraded streets should utilise the service placement guidelines outlined in Appendix E.
G39	Utility easements to the rear of lots should only be provided where there is no practical alternative.

3.7 INFRASTRUCTURE DELIVERY & STAGING

3.7.1 Subdivision Works by Developers

	REQUIREMENTS
R68	Subdivision of land within the precinct must provide and meet the total cost of delivering the following infrastructure: • Connector streets 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 traffic management measures along arterial roads, connector streets, and local streets. • Council approved fencing and landscaping (where required) along arterial roads. • Local shared, pedestrian and bicycle paths along local arterial roads, connector roads, 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 unless included in the DCP or outlined as the responsibility of another agency in the Precinct Infrastructure Plan. • Infrastructure as required by utility services providers including water, sewerage, drainage (except where the item is funded through a Development Services Scheme), electricity, gas, and telecommunications. • Shared path adjacent or within the rail reserve as shown on Plan 7. • The Werribee River Shared Trail and connections to it.
R69	Open space delivery All public open space (where not otherwise provided via a Development Contributions Plan) must be finished to a standard to the satisfaction of the Responsible Authority, prior to the transfer of the space to Council including but not limited to: • Removal of all existing disused structures, foundations, pipelines or stockpiles. • Cleared 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 to land identified as a sports reserve or district level local park. • Trees and other plantings (drought tolerant unless otherwise approved by Council). • Vehicle 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 path on Plan 7. • Installation of park furniture including BBQs, shelters, tables, local scale playgrounds and other local scale play elements such as ½ 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 F). • 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.

R70	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 Wyndham North DCP, 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.
R71	Any heritage site or conservation area to be vested in the relevant authority must be done so in a standard that satisfies the requirements of that authority. Works required prior to the transfer include, but may not be limited to: • Clearing of rubbish and weeds. • Essential repairs to and stabilisation of any structures. • Any fencing required to ensure the safety of the public. Any works carried out must be consistent with any relevant Cultural Heritage Management Plan and Conservation Management Plan.

3.7.2 Development Staging

REQUIREMENTS	
R72	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. • Connection of the on- and off-road pedestrian and bicycle network.
R73	Streets must be constructed to property boundaries where an inter-parcel connection is intended or indicated in the structure plan, by any date or stage of development required or approved by the responsible authority.
GUIDELINES	
G40	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.

PRECINCT INFRASTRUCTURE PLAN

The Precinct Infrastructure Plan (PIP) at Table 8 sets out the infrastructure and services required to meet the needs of 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.
- Agreement under Section 173 of the Act.
- Utility service provider requirements.
- The Wyndham North DCP.
- 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 8. Precinct infrastructure plan

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING S=0-5 YEARS M=5-10 YEARS L=10 YEARS +	INCLUDED IN DCP	DCP REFERENCE NO.
Road projects						
Road	Davis Road (Lamington Drive to RRL)	4 lane arterial road (ultimate), road widening to form 34 metre reserve	Wyndham City	S L	Yes (interim)* No (ultimate)	RD-91-01
Road	Davis Road (Hogans Road to Sayers Road)	4 lane arterial road (ultimate), road widening to form 34 metre reserve	Wyndham City	S L	Yes (interim)* No (ultimate)	RD-91-02
Road	Armstrong Road (Sewells Road to Werribee River)	2 lane arterial road (ultimate), creation of new road reserve	Wyndham City	M L	Yes (interim)* No (ultimate)	RD-91-03
Road	Sewells Road (Sayers Road to Hogans Road)	4 lane arterial road (ultimate), road widening to form 34 metre reserve	Wyndham City	M L	Yes (interim)* No (ultimate)	RD-91-04
Road	Hogans Road (Existing reserve - Davis Road to Davis Creek)	2 lane arterial road (ultimate), creation of new road reserve	Wyndham City	S L	Yes (interim)* No (ultimate)	RD-91-05
Road	Hogans Road (Extension from Davis Road to Sewells Road)	2 lane arterial road (ultimate), creation of new road reserve	Wyndham City	M L	Yes (interim) No (ultimate)	RD-91-06
Road	Sayers Road (Existing Reserve - Davis Road to Sewells Road)	4 lane arterial road (ultimate), road widening to form 34 metre reserve	Wyndham City	S L	Yes (interim)* No (ultimate)	RD-91-07
Road	Sayers Road - Road Realignment to RRL	4 lane arterial road (ultimate), creation of new road reserve	Wyndham City	M L	Yes (interim) No (ultimate)	RD-91-08
Road	Leakes Road (Davis to RRL)	6 lane arterial road (ultimate), road widening to form 41 metre reserve	Wyndham City (interim) VicRoads (ultimate)	S L	Yes (interim) No (ultimate)	RD-91-09
Bridge and culvert projects						
Bridge	Sayers Road bridge over Regional Rail Link	Road bridge over Regional Rail Link	Wyndham City	M L	Yes (interim) No (ultimate)	BR-91-02
Bridge	Armstrong Road bridge over Werribee River	Road bridge over Werribee River	Wyndham City	M L	Yes (interim) No (ultimate)	BR-91-03
Bridge	Hogans Road bridge over Davis Creek	Road bridge over Davis Creek	Wyndham City	S L	Yes (interim) No (ultimate)	BR-91-04
Culvert	Hogans Road culvert crossing	Culvert crossings of waterways	Wyndham City	M L	Yes (interim) No (ultimate)	CU-91-01
Culvert	Davis Road culvert crossing	Culvert crossings of waterways	Wyndham City/ Melbourne Water	S	No	-
Bridge	Pedestrian bridge	Pedestrian bridge over the Regional Rail Link	Wyndham City	M-L	Yes	BR-91-01
Bridge	Pedestrian bridge	Shared use (pedestrian and cycle) bridge over Werribee River between Armstrong Road and Davis Road	Wyndham City	L	Yes	BR-91-05
Bridge	Pedestrian bridge	Shared use (pedestrian and cycle) bridge over Werribee River at the end of Davis Road	DEPI / PV	L	No	-

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING S=0-5 YEARS M=5-10 YEARS L=10 YEARS +	INCLUDED IN DCP	DCP REFERENCE NO.
Bridge	Pedestrian bridge	Shared use (pedestrian and cycle) bridge over Werribee River adjacent the railway line	State	L	No	-
Intersection projects						
Intersection	Leakes Road / North-South Connector	Signalised 4-way intersection	Wyndham City (interim) VicRoads (ultimate)	S-M L	Yes (interim) No (ultimate)	IN-91-01
Intersection	Leakes Road / Davis Road	Signalised 4-way intersection	Wyndham City (interim) VicRoads (ultimate)	S L	Yes (interim) No (ultimate)	IN-91-02
Intersection	Davis Road / East-West Connector (Northern)	Signalised 4-way intersection	Wyndham City	S L	Yes (interim) No (ultimate)	IN-91-03
Intersection	Sayers Road / North-South Connector (Western)	Signalised 4-way intersection	Wyndham City	M L	Yes (interim) No (ultimate)	IN-91-04
Intersection	Sayers Road / Sewells Road	Signalised Y-intersection	Wyndham City	S-M L	Yes (interim) No (ultimate)	IN-91-05
Intersection	Sayers Road / North-South Connector (Eastern)	Signalised 4-way intersection	Wyndham City	S L	Yes (interim) No (ultimate)	IN-91-06
Intersection	Davis Road / Sayers Road	Signalised 4-way intersection and culvert crossing of Davis Creek	Wyndham City	S L	Yes (interim) No (ultimate)	IN-91-07
Intersection	Sewells Road / East-West Connector (Northern)	Signalised T-intersection	Wyndham City	M L	Yes (interim) No (ultimate)	IN-91-08
Intersection	Sewells Road / East-West Connector (Southern)	Signalised 4-way intersection	Wyndham City	M L	Yes (interim) No (ultimate)	IN-91-09
Intersection	Armstrong Road / East-West Connector	Signalised 4-way intersection	Wyndham City	M L	Yes (interim) No (ultimate)	IN-91-10
Intersection	Armstrong Road / Sewells Road / Hogans Road	Signalised Y-intersection	Wyndham City	M L	Yes (interim) No (ultimate)	IN-91-11
Intersection	Hogans Road / North-South Connector Boulevard	Signalised 4-way intersection	Wyndham City	M L	Yes (interim) No (ultimate)	IN-91-12
Intersection	Hogans Road / North-South Connector (Eastern)	Signalised 4-way intersection	Wyndham City	M L	Yes (interim) No (ultimate)	IN-91-13
Intersection	Davis Road / Hogans Road	Signalised 4-way intersection	Wyndham City	S L	Yes (interim) No (ultimate)	IN-91-14
Intersection	Davis Road / East-West Connector (Southern)	Signalised 4-way intersection	Wyndham City	S L	Yes (interim) No (ultimate)	IN-91-15
Pedestrian signals	Hogans Road at Davis Creek	Signliased pedestrian crossing	Wyndham City	S L	Yes (interim) No (ultimate)	IN-91-16
Community facilities						
Community	Children's Centre (Level 1)	Multipurpose community centre including kindergarten rooms	Wyndham City	S-M	Yes	CO-91-01

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING S=0-5 YEARS M=5-10 YEARS L=10 YEARS +	INCLUDED IN DCP	DCP REFERENCE NO.
Community	Multi-purpose Community Centre (Level 2)	Multipurpose community centre including kindergarten rooms and maternal child health	Wyndham City	S-M	Yes	CO-91-02
Community	Multi-purpose Community Centre (Level 3)	Multipurpose community centre including kindergarten rooms and maternal child health	Wyndham City	S-M	Yes	CO-91-03
Community	Library	Land and construction of library	Wyndham City	M	Yes (land) No (construction)	CO-91-04
Community	Indoor recreation facilitiy	Land and construction for indoor recreation facility	Wyndham City	S-M	Yes (land) No (construction)	IS-91-01
Community	Government Primary School	Land and construction of government primary school	DEECD	S-M	No	-
Community	Government Primary School	Land and construction of government primary school	DEECD	S-M	No	-
Community	Government Primary School	Land and construction of government primary school	DEECD	S-M	No	-
Community	Government Secondary School	Land and construction of government secondary school	DEECD	S-M	No	-
Open Space						
Sporting reserve	S 91-01 - Werribee River Reserve	Land and construction of sporting reserve	Wyndham City	S-M	Yes	S-91-01
Sporting reserve	S 91-02 - Central Reserve	Land and construction of sporting reserve	Wyndham City	S-M	Yes	S-91-02
Sporting reserve	S 91-03 - Northern Reserve	Land and construction of sporting reserve	Wyndham City	S-M	Yes	S-91-03
Sporting reserve	S 91-04 - Western Reserve	Land and construction of sporting reserve	Wyndham City	S-M	Yes	S-91-04
Regional park	Werribee Township Regional Park	Future regional park and associated facilities	DEPI / PV	L	No	-
Other infrastructure						
Transport	Potential future station	Train station associated with major town centre and pedestrian crossing of railway line	PTV	L	No	-
Transport	Werribee River shared trail	Shared trail along the Werribee River from the railway line to Hogans Road	Wyndham City	L	No	-
Transport	Bus services	Delivery of bus servcies	PTV	M-L	No	-

PTV = Public Transport Victoria, DEECD = Department of Education & Early Childhood Development, DEPI = Department of Environment & Primary Industries

* = Priority project in the Wyndham North DCP

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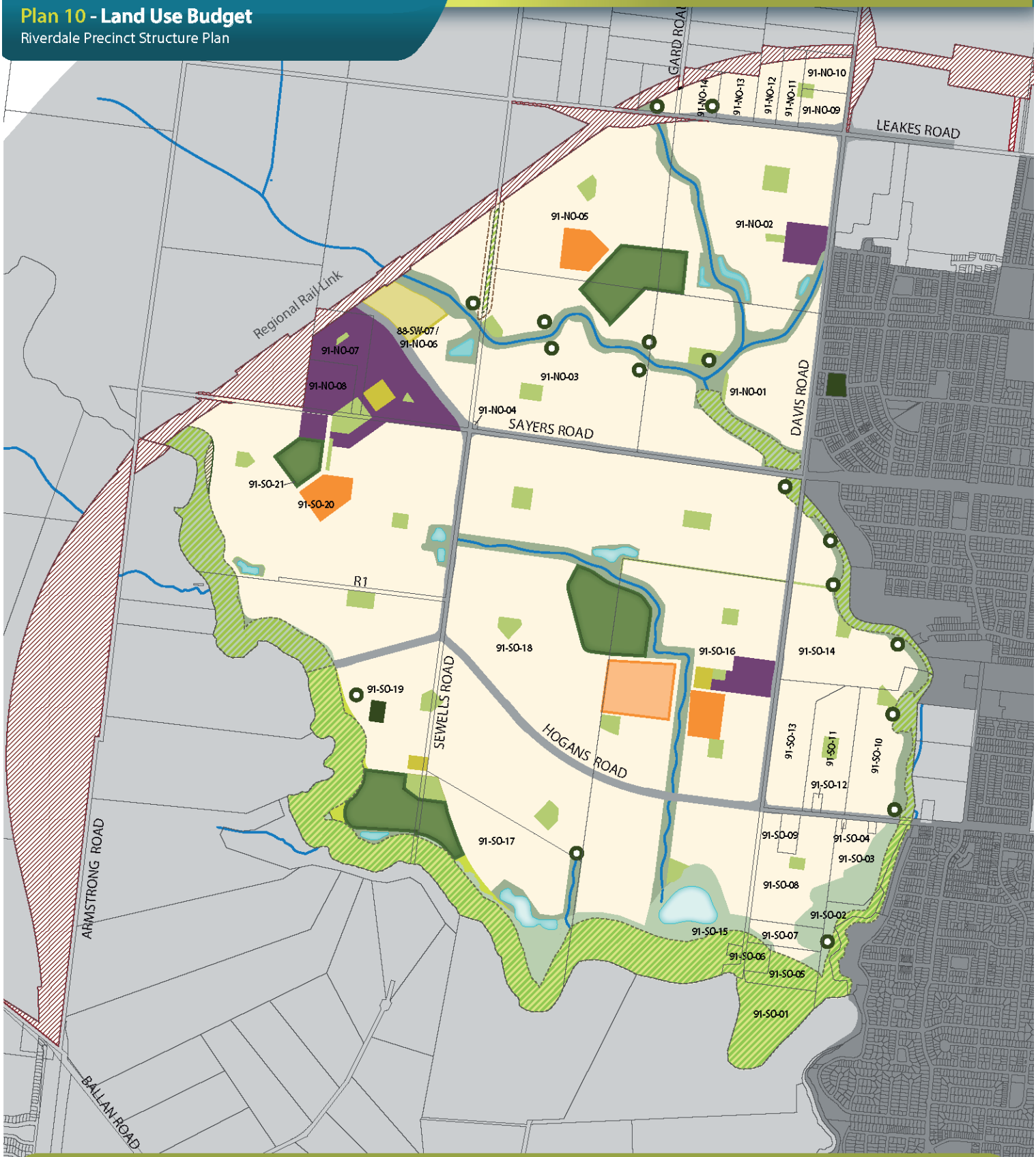
Plan 10 - Land Use Budget

Riverdale Precinct Structure Plan



- precinct area
- town centre
- residential
- potential government secondary school
- potential government primary school
- community facilities
- indoor recreation facility
- arterial roads
- rail corridor
- local sports reserve (unencumbered)
- local parks (unencumbered)
- drainage open space (encumbered)
- proposed werribee township regional park (unencumbered)
- proposed werribee township regional park – drainage (encumbered)
- proposed werribee township regional park – GGF conservation area (encumbered)
- conservation area (encumbered)
- heritage
- waterways
- stormwater quality treatment asset (Indicative location - refer Table 10 for land area)
- existing urban
- future urban
- 91-NO property boundary & number (refer table 10)

APPENDICES

APPENDIX A - LAND BUDGET

The Net Developable Area (NDA) is established by deducting the land requirements for community facilities, public and private education facilities, arterial roads and open space (active and passive) from the Total Precinct Area. The NDA for the Riverdale Precinct is 735 hectares which equates to approximately 66% of the PSP area.

The land budget shows that the PSP will a yield approximately 12,070 dwellings with an average density of approximately
16.4 dwellings per Net Developable Hectare (NDHa).

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 at approximately 33,797 residents.

The PSP is also expected to yield 2,744 jobs for future residents.

See Plan 10: Land Use Budget, Table 9 Summary Land Use Budget and Table 10 Property Specific land Use Budget.

Table 9. Summary land use budget

DESCRIPTION	HECTARES	% OF PRECINCT	% OF NDA
TOTAL PRECINCT AREA (ha)	1,106.25	100%	
TRANSPORT			
New Arterial Roads / Widening	35.32	3.19%	4.80%
Existing Other Road Reserve Not Available for Development	2.44	0.22%	0.33%
Railway Reserve	20.25	1.83%	2.75%
SUB-TOTAL	58.01	5.24%	7.89%
EDUCATION & COMMUNITY			
Government Education	18.90	1.71%	2.57%
Community Centres	2.60	0.24%	0.35%
Indoor Sports	6.00	0.54%	0.82%
SUB-TOTAL	27.50	2.49%	3.74%
OPEN SPACE			
SERVICE OPEN SPACE			
Drainage - Waterways, Retardation & Wetlands	94.52	8.54%	12.86%
Drainage - Stormwater Quality Treatment Asset*	9.41	0.85%	1.28%
Growling Grass Frog Conservation Area (where applicable)	114.57	10.36%	15.58%
Other Conservation	0.98	0.09%	0.13%
Heritage (Post Contact)	1.30	0.12%	0.18%
SUB-TOTAL	220.79	19.96%	30.03%
CREDITED OPEN SPACE			
Sports Reserves	41.20	3.72%	5.60%
Local Parks (Residential)	22.06	1.99%	3.00%
SUB-TOTAL	63.25	5.72%	8.60%
REGIONAL OPEN SPACE (Future acquisition)			
Metropolitan Park (DEPI acquisition)	1.50	0.14%	0.20%
SUB-TOTAL	1.50	0.14%	0.20%
SUB-TOTAL ALL OPEN SPACE	**285.54**	**25.81%**	**38.84%**
TOTAL NET DEVELOPABLE AREA (NDA) Ha	**735.20**	**66.46%**	

Estimated Dwelling Yield and Population			
DISCRIPTION	PSP 1091 Riverdale		
	NDA-R (Ha)	Dwell / NDHa-R	Dwellings
Totals - Residential Yield against NDHa-R	735.20	16.42	12,070
Anticipated Population @2.8 PP Dwelling			33,797

*Note: Drainage - stormwater quality treatment assets are shown on plan 8 and 10 as symbols.

Notes:

The detailed land budget included in this Appendix clearly sets out the NDA for every property included in the PSP. The NDA will not be amended to respond to minor changes to land budgets that may result from the subdivision process for any other reason than those stated above, unless the variation is agreed to by Responsible Authority.

The land budget has been prepared to reflect current advice from Melbourne Water regarding land required for drainage assets as part of the preparation of draft Development Services Schemes (DSS) for the PSP area (refer Table 7). The land required for DSS drainage assets may be subject to minor refinement though the subdivision process.

The land budget has been prepared consistent with the Melbourne Water Development Services Scheme to allow for best practice water quality treatment. The DSS may allow for alternative water quality treatment solutions, subject to Melbourne Water approval.

The preparation of this PSP has been based on an Aboriginal Cultural Heritage Assessment of a 'Standard' level. Any additional areas of Aboriginal cultural heritage significance identified through the preparation of Cultural Heritage Management Plans for individual properties are to be incorporated into the open space network (where this does not have a significant impact on open space distribution and useability), otherwise additional land will need to be provided on individual properties for the retention of areas of significance.

Table 10. Property-specific land use budget

		TRANSPORT					EDUCATION & COMMUNITY				SERVICE OPEM SPACE						CREDITED OPEN SPACE			REGIONAL OPEN SPACE (FUTURE ACQUISITION)			
PSP PROPERTY ID	TOTAL AREA (HA)	NEW ARTERIAL ROADS / WIDENING	DERRIMUT ROAD PAO	EXISTING OMR ROAD RESERVE (NOT AVAILABLE FOR DEVELOPMENT)	EXISTING OTHER ROAD RESERVE NOT AVAILABLE FOR DEVELOPMENT	RAILWAY RESERVE	GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	COMMUNITY CENTRES	INDOOR SPORTS	DRAINAGE - WATERWAYS, RETARDATION & WETLANDS	DRAINAGE - STORMWATER QUALITY TREATMENT ASSET*	GROWLING GRASS FROG CONSERVATION AREA (WHERE APPLICABLE)	OTHER CONSERVATION	HERITAGE (POST CONTRACT)	UTILITIES EASEMENTS	SPORTS RESERVES	LOCAL PARKS (RESIDENTIAL)	LOCAL PARKS (EMPLOYMENT)	METROPOLITAN PARK (DEPI ACQUISITION)	REGIONAL SPORTS RESERVE (COUNCIL ACQUISITION)	TOTAL NET DEVELOPABLE AREA (NDA) (HECTARES)	TOTAL NDA AS % OF TOTAL PROPERTY
PSP 1091 - RIVERDALE																							
PROPERTIES																							
91-NO-01	63.453	1.871	-	-	-	-	-	-	-	-	9.032	-	5.308	-	-	-	-	1.140	-	-	-	46.10	72.66%
91-NO-02	67.890	1.350	-	-	-	0.099	-	-	-	-	8.035	0.500	-	-	-	-	2.633	1.640	-	-	-	53.63	79.00%
91-NO-03	63.517	1.144	-	-	-	-	-	-	-	-	5.811	2.900	-	-	-	-	3.482	1.370	-	-	-	48.81	76.85%
91-NO-04	0.089	0.049	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	45.51%
91-NO-05	55.049	-	-	-	-	3.532	3.500	-	-	-	1.370	-	-	-	-	-	5.673	0.677	-	-	-	40.30	73.20%
91-NO-06	47.653	3.284	-	-	-	2.839	-	-	-	6.000	5.865	0.590	-	-	-	-	-	0.242	-	-	-	28.83	60.51%
91-NO-07	7.600	0.038	-	-	-	0.505	-	-	-	-	-	-	-	-	-	-	-	0.447	-	-	-	6.61	86.98%
91-NO-08	5.487	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.209	-	-	-	5.28	96.19%
91-NO-09	4.061	0.611	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.227	-	-	-	3.22	79.38%
91-NO-10	3.556	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.132	-	-	-	3.42	96.30%
91-NO-11	3.507	0.223	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.132	-	-	-	3.15	89.87%
91-NO-12	3.166	0.219	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.95	93.07%
91-NO-13	4.052	0.455	-	-	-	-	-	-	-	-	-	0.185	-	-	-	-	-	-	-	-	-	3.41	84.21%
91-NO-14	3.145	0.242	-	-	-	-	-	-	-	-	-	0.185	-	-	-	-	-	-	-	-	-	2.72	86.43%
91-NO-15	1.193	-	-	-	-	-	-	-	-	-	0.279	0.200	-	-	-	-	-	-	-	-	-	0.71	59.83%
91-SO-01	11.680	-	-	-	-	-	-	-	-	-	-	-	11.680	-	-	-	-	-	-	-	-	0.00	0.00%
91-SO-02	5.590	-	-	-	-	-	-	-	-	-	2.249	-	3.341	-	-	-	-	-	-	-	-	0.00	0.00%
91-SO-02a	1.800	-	-	-	-	-	-	-	-	-	-	-	1.800	-	-	-	-	-	-	-	-	0.00	0.00%
91-SO-03	11.048	-	-	-	-	-	-	-	-	-	5.495	-	1.094	-	-	-	-	-	-	-	-	4.46	40.36%
91-SO-03a	0.886	-	-	-	-	-	-	-	-	-	-	-	0.886	-	-	-	-	-	-	-	-	0.00	0.00%
91-SO-04	0.099	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.10	100.00%
91-SO-05	5.278	-	-	-	-	-	-	-	-	-	0.561	-	3.890	-	-	-	-	-	-	-	-	0.83	15.68%
91-SO-06	1.620	-	-	-	-	-	-	-	-	-	0.043	-	1.578	-	-	-	-	-	-	-	-	0.00	0.00%
91-SO-07	4.051	-	-	-	-	-	-	-	-	-	1.631	-	0.208	-	-	-	-	-	-	-	-	2.21	54.61%
91-SO-08	17.337	0.052	-	-	-	-	-	-	-	-	1.900	-	-	-	-	-	-	0.392	-	-	-	14.99	86.48%
91-SO-09	1.692	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.69	100.00%
91-SO-10	20.509	0.279	-	-	-	-	-	-	-	-	2.861	1.840	3.578	-	0.447	-	-	0.766	-	-	-	10.74	52.36%
91-SO-11	11.808	0.212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.700	-	-	-	10.90	92.27%
91-SO-12	0.400	0.059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.34	85.32%
91-SO-13	12.221	0.274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.95	97.76%
91-SO-14	32.341	0.116	-	-	-	-	-	-	-	-	2.318	1.800	4.476	-	0.155	-	-	0.686	-	-	-	22.79	70.47%
91-SO-15	0.365	-	-	-	-	-	-	-	-	-	-	-	0.365	-	-	-	-	-	-	-	-	0.00	0.00%
91-SO-16	161.454	4.655	-	-	-	-	11.900	-	0.800	-	23.413	-	16.889	-	-	-	5.399	3.187	-	-	-	95.21	58.97%
91-SO-17	49.771	-	-	-	-	-	-	-	-	-	10.465	-	15.029	-	-	-	3.608	0.931	-	0.613	-	19.13	38.43%
91-SO-18	186.532	4.365	-	-	-	-	-	-	-	-	7.990	0.690	0.833	-	-	-	7.693	4.072	-	-	-	160.89	86.25%
91-SO-19	91.019	2.197	-	-	-	-	-	-	0.470	-	1.597	0.520	32.679	-	0.701	-	8.567	2.101	-	0.892	-	41.30	45.37%
91-SO-20	108.139	1.087	-	-	-	1.104	3.500	-	1.200	-	3.279	-	9.829	-	-	-	3.769	2.250	-	-	-	82.12	75.94%
91-SO-21	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.004	-	-	-	-	0.00	0.00%
SUB-TOTAL	1069.06	22.78	0.00	0.00	0.00	8.08	18.90	0.00	2.47	6.00	94.19	9.41	113.46	0.00	1.30	0.00	40.83	21.30	0.00	1.504	0.00	728.84	

		TRANSPORT					EDUCATION & COMMUNITY				SERVICE OPEM SPACE						CREDITED OPEN SPACE			REGIONAL OPEN SPACE (FUTURE ACQUISITION)		TOTAL NET DEVELOPABLE AREA (NDA) (HECTARES)	TOTAL NDA AS % OF TOTAL PROPERTY
PSP PROPERTY ID	TOTAL AREA (HA)	NEW ARTERIAL ROADS / WIDENING	DERRIMUT ROAD PAO	EXISTING OMR ROAD RESERVE (NOT AVAILABLE FOR DEVELOPMENT)	EXISTING OTHER ROAD RESERVE NOT AVAILABLE FOR DEVELOPMENT	RAILWAY RESERVE	GOVERNMENT EDUCATION	NON-GOVERNMENT EDUCATION	COMMUNITY CENTRES	INDOOR SPORTS	DRAINAGE - WATERWAYS, RETARDATION & WETLANDS	DRAINAGE - STORMWATER QUALITY TREATMENT ASSET*	GROWLING GRASS FROG CONSERVATION AREA (WHERE APPLICABLE)	OTHER CONSERVATION	HERITAGE (POST CONTRACT)	UTILITIES EASEMENTS	SPORTS RESERVES	LOCAL PARKS (RESIDENTIAL)	LOCAL PARKS (EMPLOYMENT)	METROPOLITAN PARK (DEPI ACQUISITION)	REGIONAL SPORTS RESERVE (COUNCIL ACQUISITION)		
OTHER (ROAD & RAIL RESERVES)																							
RAILWAY RESERVE	11.677	-	-	-	-	11.677	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00%
LEAKES ROAD	2.177	-	-	-	2.177	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00%
GARD ROAD	0.336	-	-	-	0.265	0.070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00%
SAYERS ROAD	5.796	3.415	-	-	-	0.309	-	-	-	-	-	-	-	-	-	-	-	0.331	-	-	-	1.74	30.04%
DAVIS ROAD	7.424	5.402	-	-	-	0.040	-	-	-	-	0.144	-	0.829	-	-	-	-	-	-	-	-	1.01	13.58%
HOGANS ROAD	1.481	1.481	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00%
SEWELLS ROAD	6.653	2.210	-	-	-	0.078	-	-	0.130	-	0.179	-	0.282	0.984	-	-	0.372	0.426	-	-	-	1.99	29.95%
R1	1.648	0.027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.62	98.37%
SUB-TOTAL	37.19	12.54	0.00	0.00	2.44	12.17	0.00	0.00	0.13	0.00	0.32	0.00	1.11	0.98	0.00	0.00	0.37	0.76	0.00	0.00	0.00	6.36	
PSP 1091 TOTAL	**1106.25**	**35.32**	**0.00**	**0.00**	**2.44**	**20.25**	**18.90**	**0.00**	**2.60**	**6.00**	**94.52**	**9.41**	**114.57**	**0.98**	**1.30**	**0.00**	**41.20**	**22.06**	**0.00**	**1.50**	**0.00**	**735.20**	**66.46%**

*Note: Drainage - stormwater quality treatment assets are shown on plan 8 and 10 as symbols.

APPENDIX B - TOWN CENTRE DESIGN PRINCIPLES

LOCAL TOWN CENTRES

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 (2.58km2) 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. • Locate the Local Town Centre with future railway stations or other forms of transit stops to benefit the Local Town Centre, to offer convenience for public transport passengers, and to minimise walking distance between transit stops and the town centre core. • Other Local Town Centre locations may be considered where the location results in the Local Town Centre being central to the residential catchment that it serves and/or the location incorporates natural or cultural landscape features such as rivers and creeks, tree rows, topographic features or other heritage structures which assist in creating a sense of place.
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. • 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. • 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. • 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 direct linkages throughout the centre, particularly to transit stops and to designated 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 frontages • 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.
	• 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. • Mechanical plant and service structure roofs should be included within roof lines or otherwise hidden from view. • Align roads and locate buildings and public spaces to increase the visibility of station sites and provide direct sightlines to future station sites to maximise opportunities for casual/informal surveillance. • Encourage future stations to incorporate a high quality of design and landscaping to provide a focal point for the town centre and better integrate with the adjoining land use.

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; and
	  • 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.
	• 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.

Part 2 – Riverdale major town centre

Guidance for the preparation of an urban design framework

Overview

The Riverdale major town centre is intended to develop into an important cluster of retail, employment and residential uses servicing the northern corridor of the municipality. The design of the centre should build on the opportunity created by its location with access to the Priority Public Transport Network, arterial road network, the potential future Riverdale Station and one of Wyndham's most important assets in the Werribee River.

Given its position in the regional activity-centre hierarchy, Riverdale will be an important destination for:

- Business services.
- Shopping.
- Entertainment.
- Community, government, and non-government services.
- Medical and healthcare services.

Further, with Wyndham City Council as one of the key landholders, the Riverdale centre has been identified as a location for significant municipal investment over the long term.

The broad range of land uses and functions are targeted to create local job opportunities. In addition, the centre has the capacity to deliver new dwellings across a full spectrum of medium and high density housing types.

Structurally the centre should be based on a permeable grid of active, landscaped streets that integrate with the adjacent residential neighbourhoods and connect further south to the Werribee River.

Overall, this design of Riverdale major town centre must appropriately respond to the significance of its context and maximise the value of government investment in the Regional Rail Link. To this end, an important factor will be a clear demonstration of its ability to grow, evolve, and diversify with the surrounding community to ensure that the centre can meet its full potential.

Precincts

The major town centre is divided into four precincts, as depicted in Figure 1 of this PSP.

The precincts are characterized by their predominant land uses, structure, and relationships to infrastructure and amenity.

Town centre core

The town centre core covers 10 hectares and will be the primary area for retail and entertainment functions. The core is intended to be transit-oriented, sitting alongside Sayers Road which forms part of the Priority Public Transport Network, and the potential future Riverdale station. The precinct should be structured on a permeable grid of public streets with blocks configured to optimize flexibility for a broad range of land uses over the short, medium, and long term. A town park forms the central focus of the wider centre.

Any urban design framework should demonstrate how the proposal creates opportunities for multi-level mixed use development and consolidation and intensification to deliver a range of high-density housing types.

The access to local amenity and employment opportunities and wider metropolitan connectivity means the Riverdale major town centre will be a significant opportunity for the municipality in the long-term realization of alternative housing types largely missing from the local area.

Land uses
• Up to 25,000m2 of retail floor space (without a planning permit). • Retail includes, but is not limited to – supermarkets, department stores, specialty shops, general shops. • Entertainment – cinemas, function & reception centres. • Food & drink premises - restaurants, cafes, bars, and pubs. • Accommodation – short-stay, serviced apartments, hotels. • Mixed use: o Active ground-floor uses that include both retail and office. o Upper floor commercial, residential and accommodation. • Community uses. • Places of assembly.

Sayers Road & railway precinct

The Sayers Road and railway precinct wraps around the northern and western edges of the town centre core, bound by Sayers Road and the regional rail link. Over the long-term it is intended to become an employment based hub that complements the retail focus of the town centre core with complementary services that capitalize on the exposure and accessibility opportunities created by Sayers Road and in the long-term the potential future Riverdale station.

Residential uses should only be introduced over the long-term above ground level as part of large mixed-use developments.

Land uses
• Retail – bulky goods & showrooms (Sayers Road interface only) • Commercial. • Office. • Trade. • Health & complimentary services. • Educational campuses. • Accommodation – short-stay, serviced apartments, hotels. • Mixed use – lower floor commercial with upper floor residential.

Southern interface precinct

The southern interface precinct makes the transition from the urban character of the town centre core to the softer environs of the Werribee River. The precinct and wider residential neighbourhood should be structured to maximise the connections between the town centre and the river. Landscaped streets, shared paths, and an integrated network of small open spaces should create a pedestrian oriented environment that makes the most of the opportunity to deliver a diverse range of housing outcomes at higher densities.

Proximate the town centre core development should be built to the street, include active ground floor uses and positively address the town park as the major civic element within the centre.

Land uses
• Residential – high and medium density. • Mixed use – lower floor commercial with upper floor residential. • Office (proximate town centre core only)

Northern community precinct

The northern community precinct has been identified by Wyndham City Council as a place of significant long-term investment in municipal-level facilities. Wyndham Social Infrastructure Plan 2040 notes that possible outcomes for the area include an aquatic centre and athletics track, other sporting facilities, community centres, a health precinct, and potentially some housing outcomes. The broader details of the proposal will be refined through a master planning process undertaken by Council. As part of the preparation of an urban design framework for the Riverdale major town centre, this master plan should be considered.

The target residential yield for the precinct will be determined through the Council master planning process. Any future plan should include opportunities for high and medium density residential development.

Land uses
• Community facilities • Residential – high & medium density • Mixed use – lower floor commercial with upper floor residential.

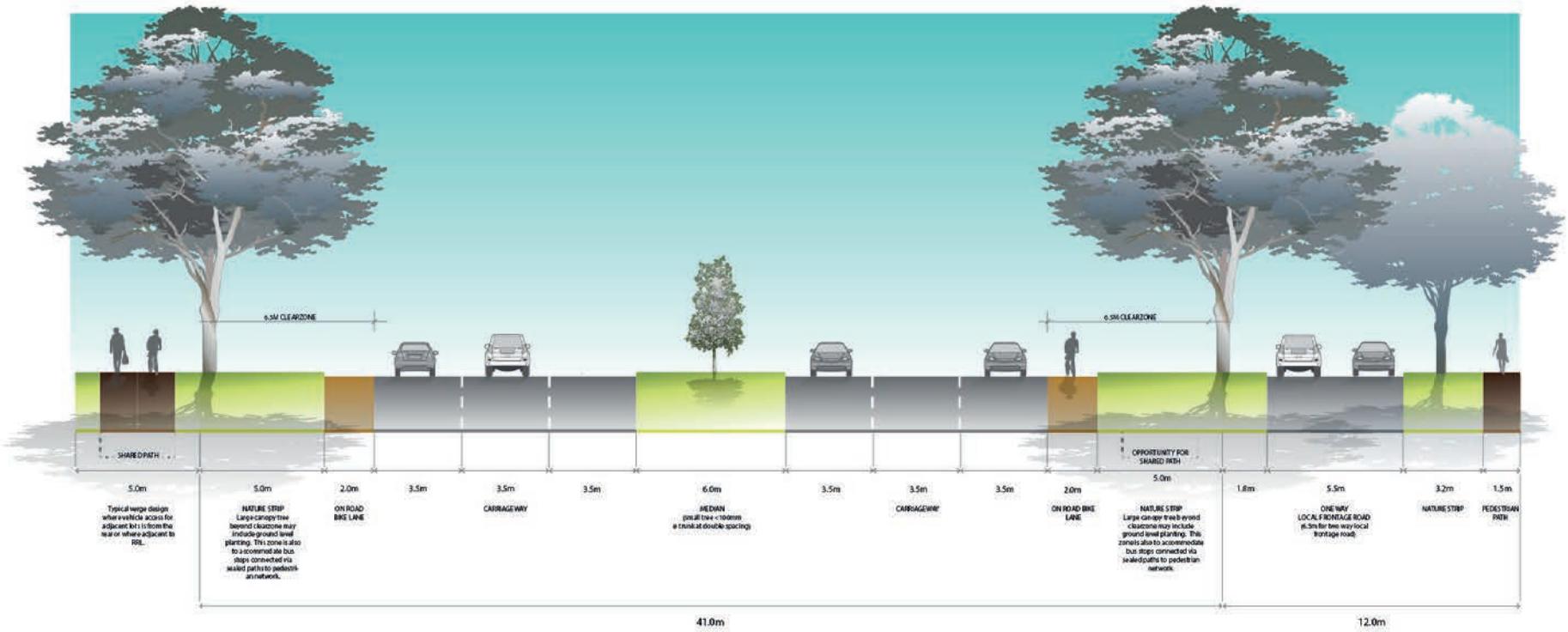
Design criteria

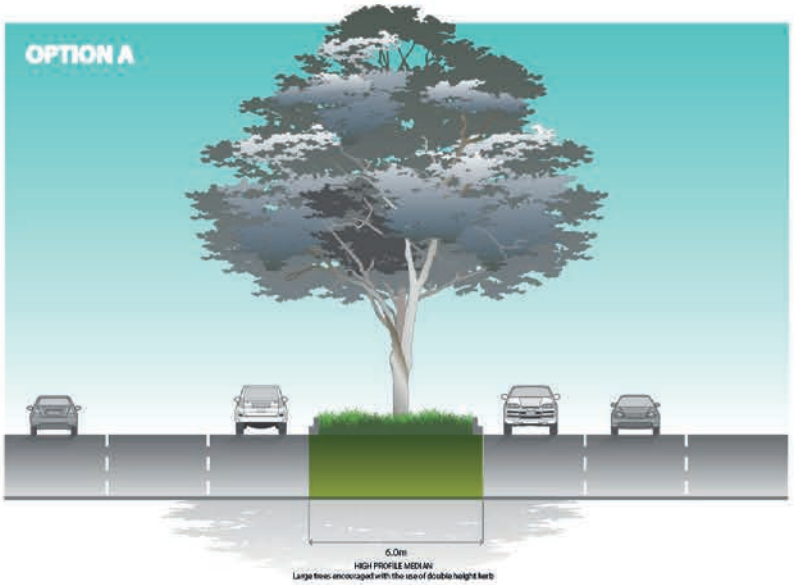
The design criteria and organizing elements listed in this appendix must be addressed through any future urban design framework. The major town concept plan (Figure 1) provides an overview of the intentions behind these criteria and elements as well as an indication of how they might be achieved.

General organizing elements

- Three precincts on the south side of the railway line, focused on a town park and square.
- A fourth community use-focused precinct located north-east of Sayers Road.
- Town centre core anchored between the potential future Riverdale Station and Sayers Road.
- High Street and Main Street form highest-order pedestrian-focused thoroughfares that integrate the town centre core with the surrounding neighbourhoods.
- Linear park to create significant boulevard linking the core south toward the Werribee River.
- Sayers Road to be designed with boulevard cross section that includes canopy trees within the median and verges.
- Permeable layout of flexible blocks that suit a variety of land uses and allow viable short-term development as well as efficient long-term evolution.
- Retail focused on public streets.

Additional design guidance
Within the town centre core and Sayers Road and railway precinct, street blocks should generally form a regular grid of approximately 200 x 100 metres, appropriate to the land uses listed in precinct descriptions.
Laneways and pedestrian walkways should be used to provide a further layer of permeability.
Where larger floor-plate uses are proposed buildings should be designed such that a similar level of public permeability is provided.
Within all other precincts, street block sizes should be flexible and capable of supporting a range of lot and building types, appropriate to the land uses listed in the precinct descriptions.
Within the town centre core, land uses and buildings should be configured such that an active frontage is presented to all public streets.
Orientation of blocks should maximise connections and views between the town centre core, town park, and potential future Riverdale train station.
Street blocks accommodating restricted retail and bulky goods retail must be designed in such a way that the sites represent efficient redevelopment opportunities for higher-density commercial and residential uses should the market develop.
The existing Sayers Road reserve should be retained as a key pedestrian and cyclist connection to neighbourhoods east of the centre.
Where a proposed land use is not viable at the time of application, the lot, block, and street layout should be designed to ensure that it is not precluded from being realised in the future.
Car parking should be situated to the side and rear of allotments with primary pedestrian access to buildings provided from public streets.
Initial stages of development within the town centre core and Sayers Road and railway precinct should demonstrate long-term opportunities for high-density commercial and residential development.
The town centre core should be designed to allow for the long term expansion into and integration with the potential future Riverdale Station.
Retail should be focused on public streets, with the primary focus being the main street and high street.





Primary Arterial 6 lane (41m)

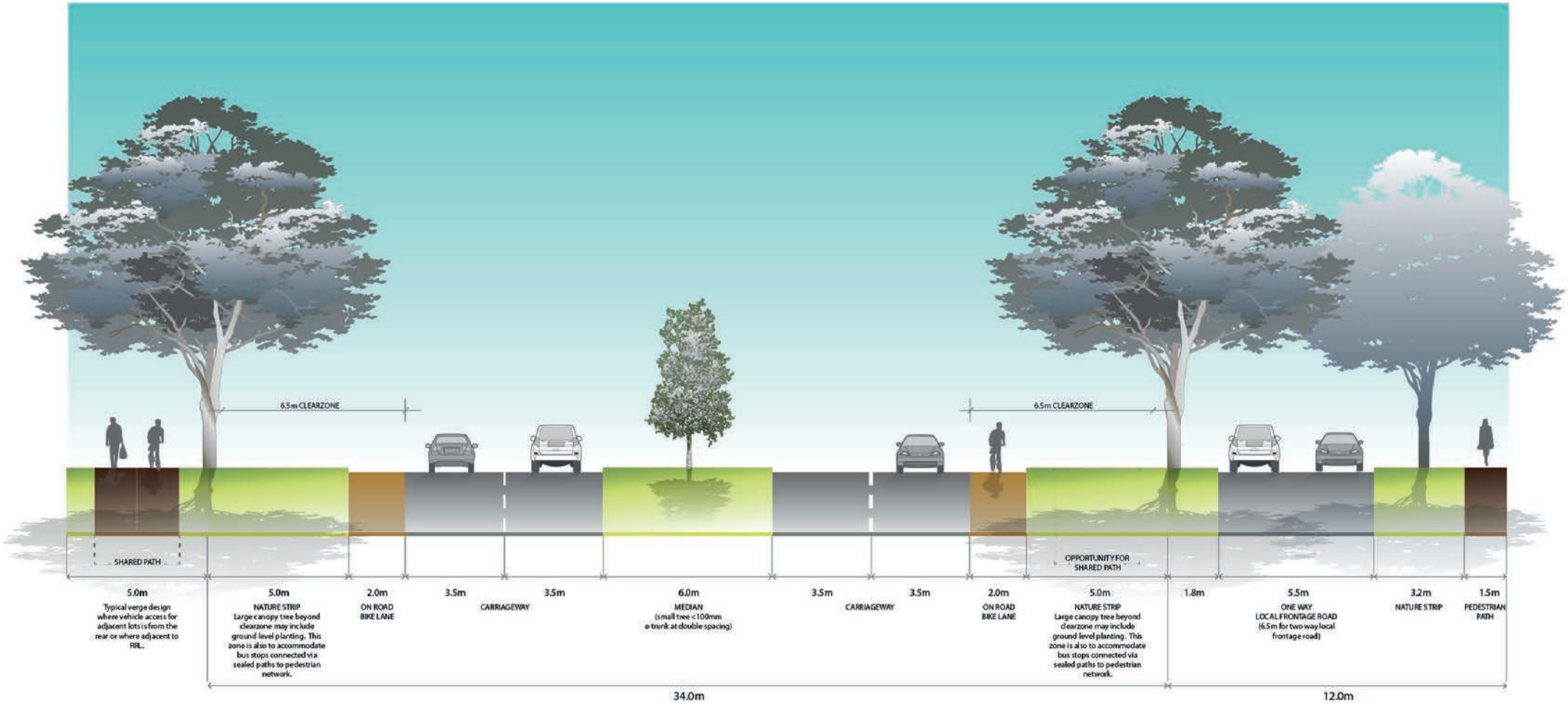
Cross Section 1 - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813

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 as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- 6.5m Clearzone assumes 80km/hr speed limit - where required clearzones are to be consistent with VicRoads guidelines
- Option A (60km/hr) – opportunity for high profile barrier kerb in strategic locations such as adjacent town centres or significant parkland, to enable large canopy tree planting



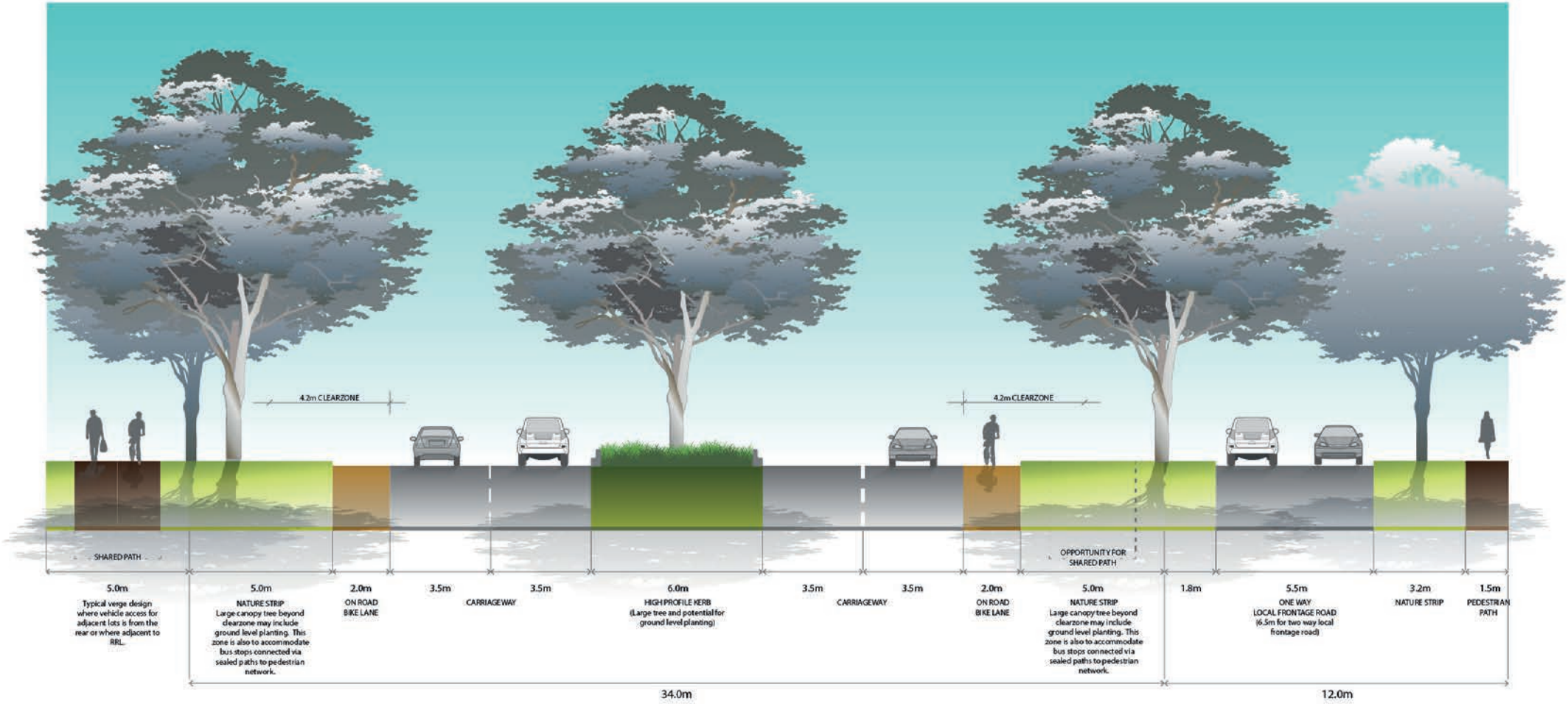
Secondary Arterial Road 4 lane (34m)

Cross Section 2 - Riverdale Precinct

v140813

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 as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- 6.5m Clearzone assumes 80km/hr speed limit - where required clearzones are to be consistent with VicRoads guidelines



Secondary Arterial 4 lane (34m) High Profile Kerb to Median

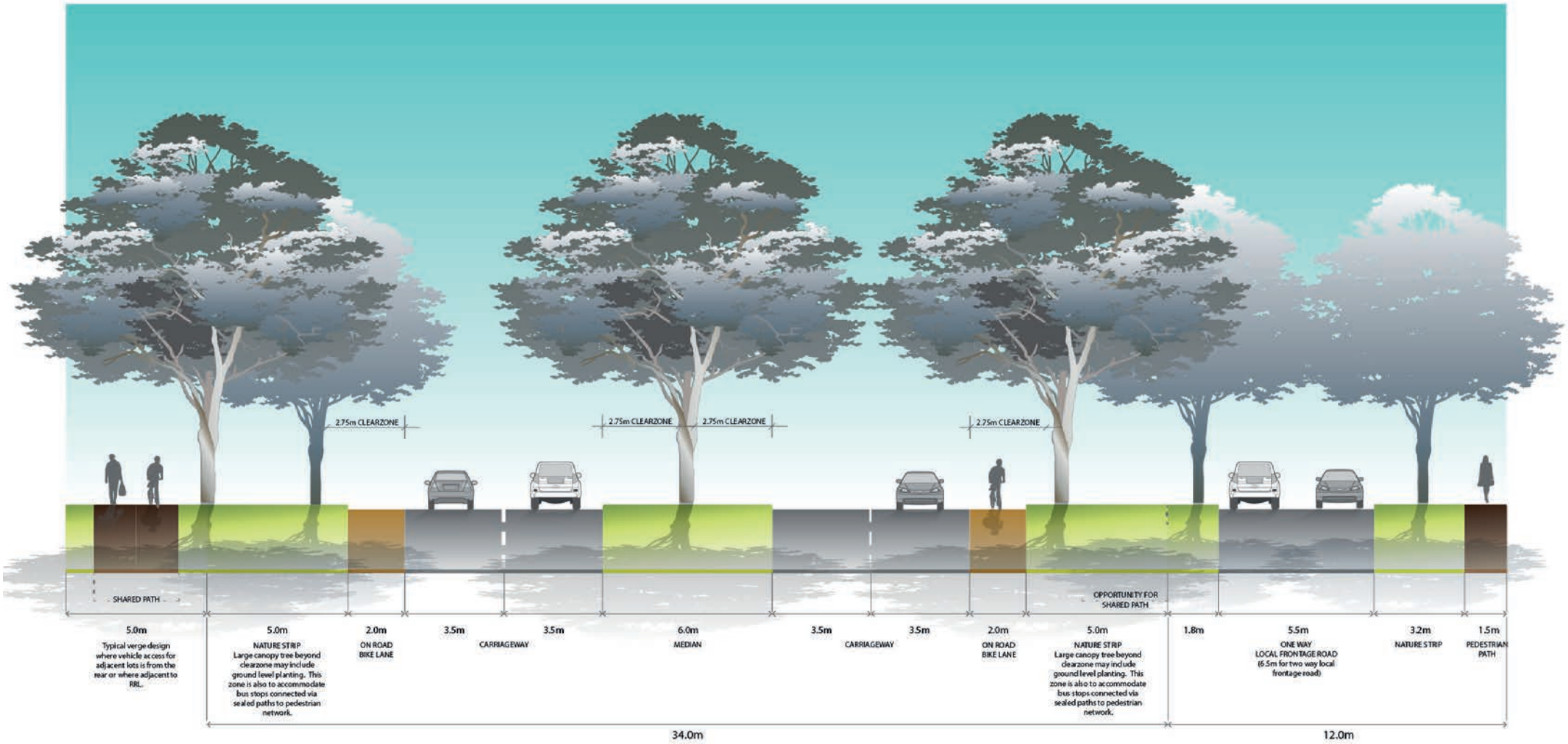
Cross Section 2a - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813

NOTES:

- 60km/hr – enables large canopy trees to median and increased tree planting to verge
- Cross section treatment subject to detailed design approval by the responsible authority



NOTES:

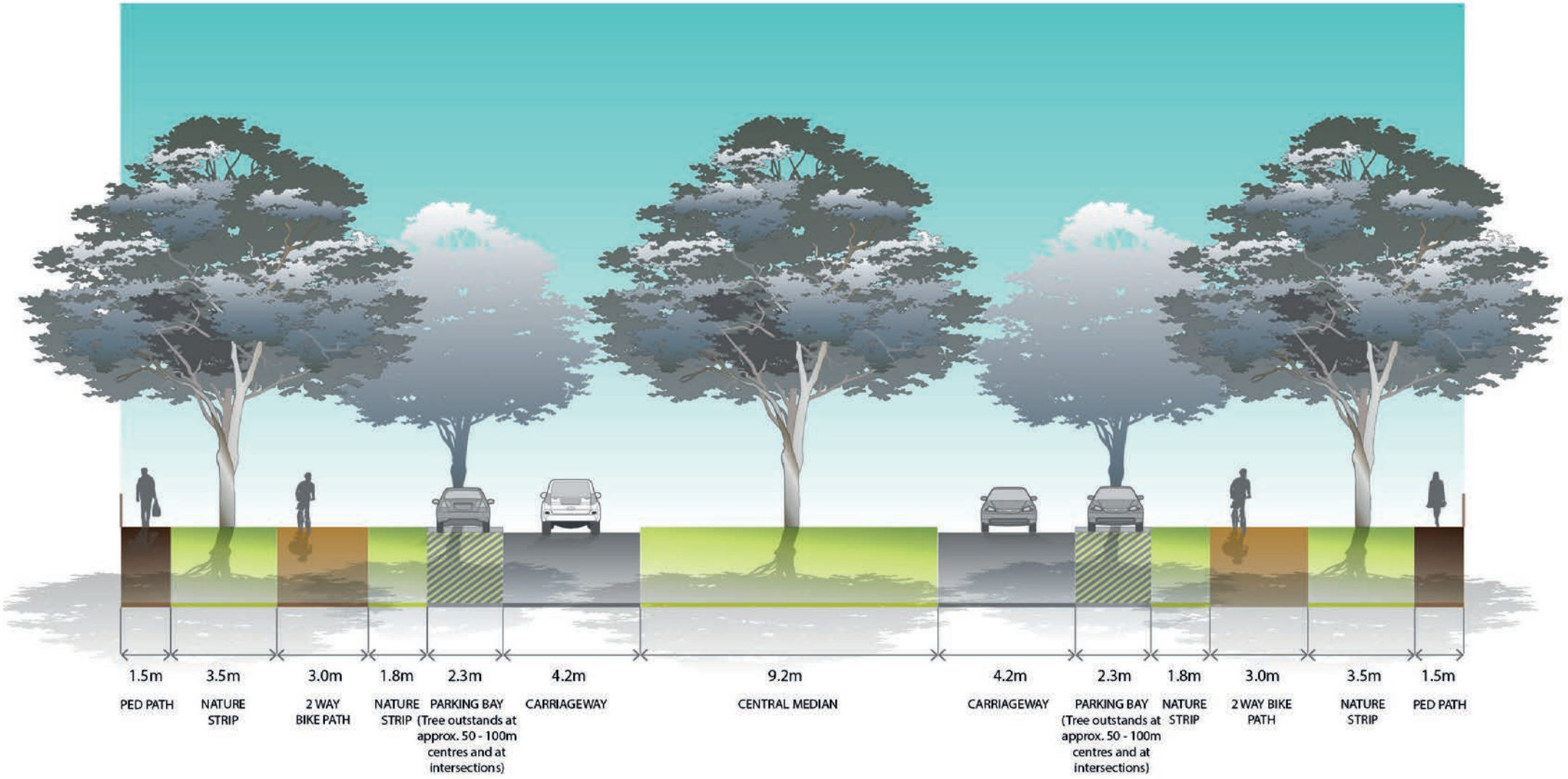
- 60km/hr – adoption of reduced clear zones enables significant increase in tree planting without need for high profile kerb
- Cross section treatment subject to detailed design approval by the responsible authority

Secondary Arterial 4 lane (34m) Modified Clear Zone

Cross Section 2b - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813



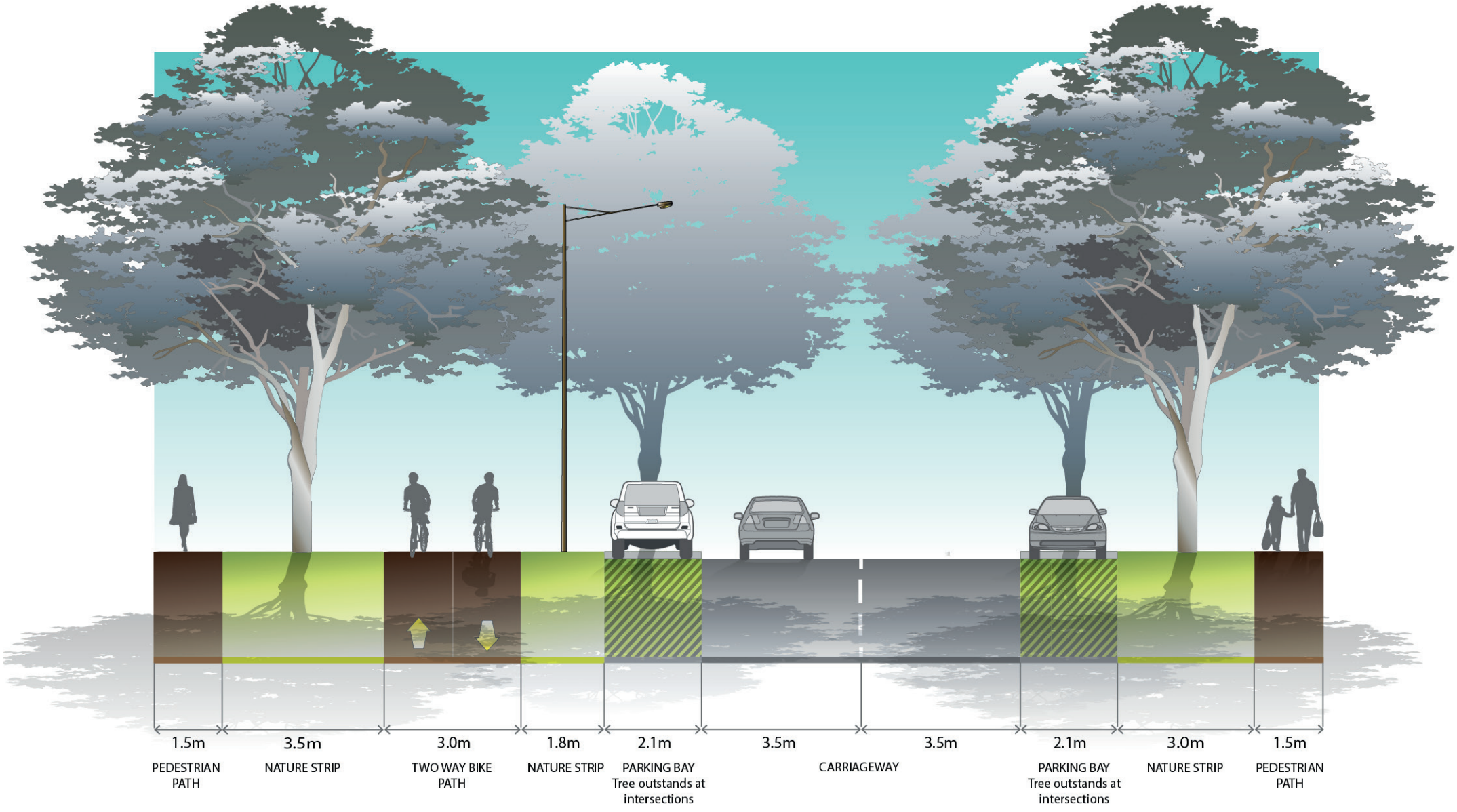
Secondary Arterial 2 Lane (41.8m)

Cross Section 3 - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

NOTES:

- Allotments to front arterial road, with direct driveway access encouraged.
- Cross section allows road to be upgraded to 4 lanes in the future (if required) with reduction of central median width to 4.0m.
- Minimum street tree mature height 15 metres.
- SM2 Semi-Mountable Kerb to be provided to central median.



Connector Street (25.5m)

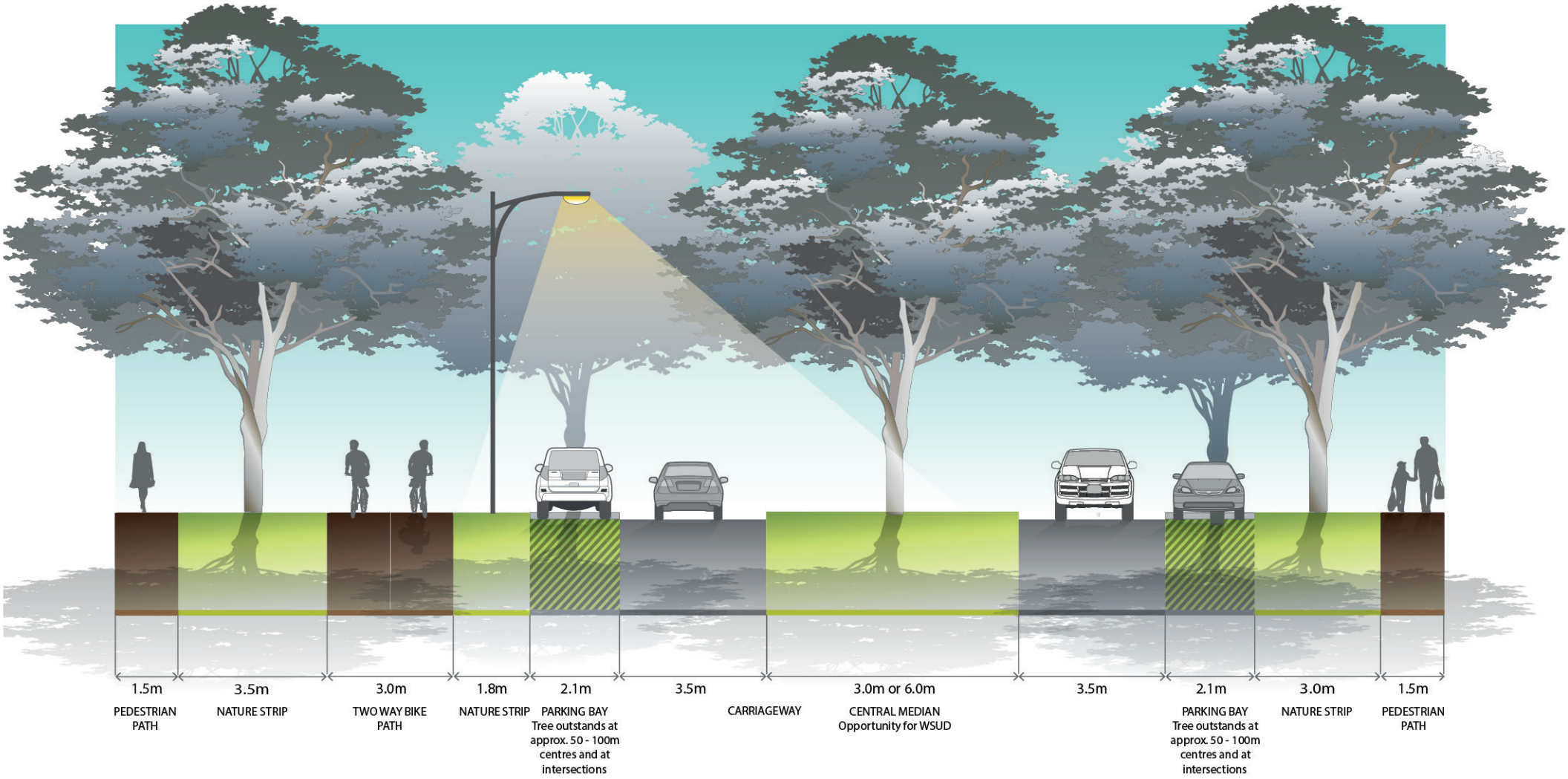
Cross Section 4 - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813

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 Areas (April 2011)
- Where roads abut school drop-off zones and thoroughfares, grassed nature strip should be replaced with pavement. Canopy tree planting must in incorporated into any additional pavement.
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.



Connector Street (28.5-31.5m) - Boulevard

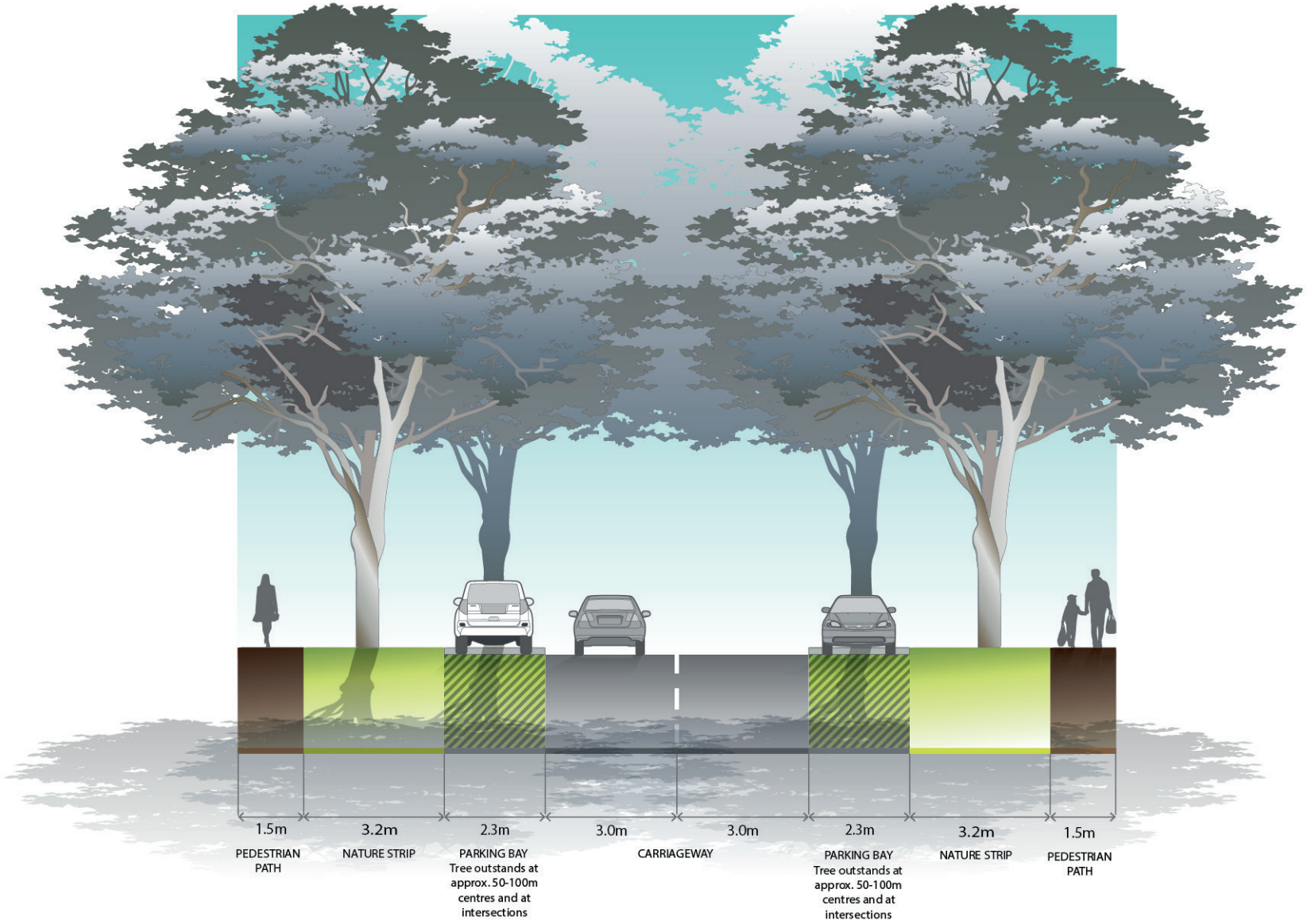
Cross Section 5 - Riverdale Precinct

METROPOLITAN PLANNING AUTHORITY

v140813

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.
- 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.
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority



NOTES:

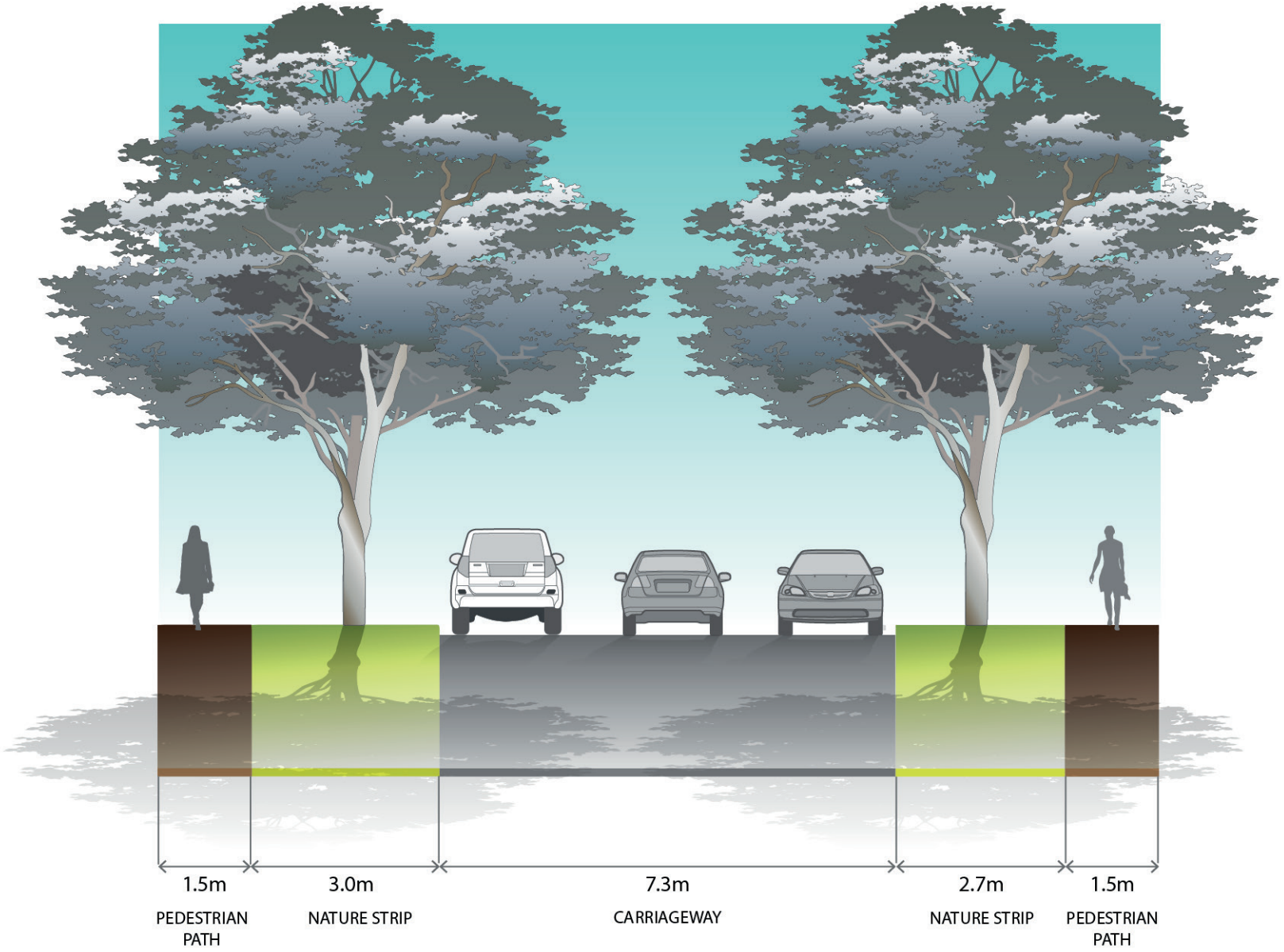
- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

Local Access Level 2 (20m)

Cross Section 6 - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813



Local Access Level 1 (16m)

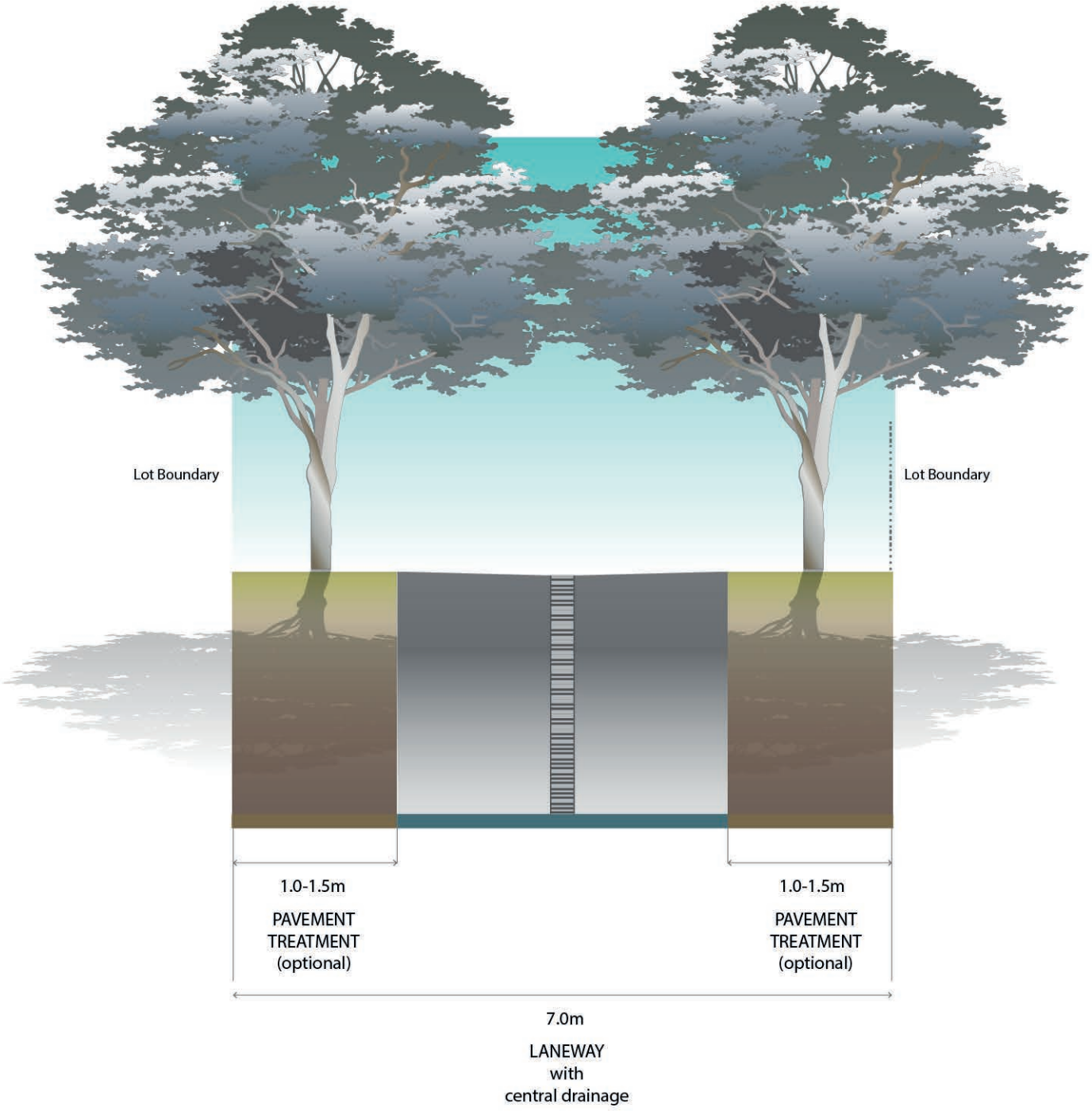
Cross Section 7 - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813

NOTES:

- Minimum street tree mature height 12 metres
- All 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.



Laneway (7.0m)

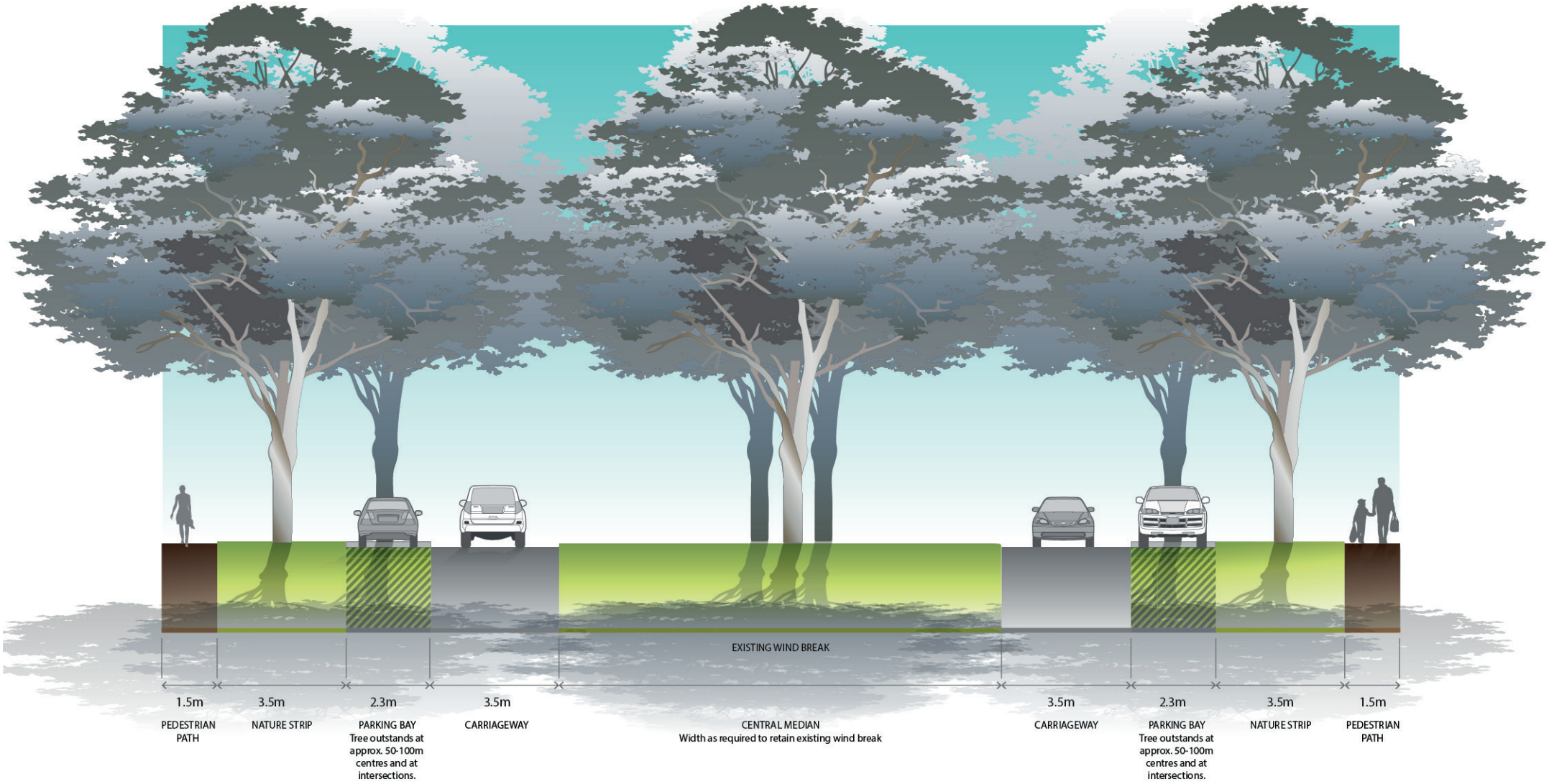
Cross Section 8 - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813

NOTES:

- Different pavement treatment to sides of laneway is optional
- Where different pavement treatment to sides is not provided, central drainage line is to include a different pavement treatment
- Small tree planting to sides of laneway is optional
- Laneway width may be reduced with the consent of the responsible authority.



Feature Street 1

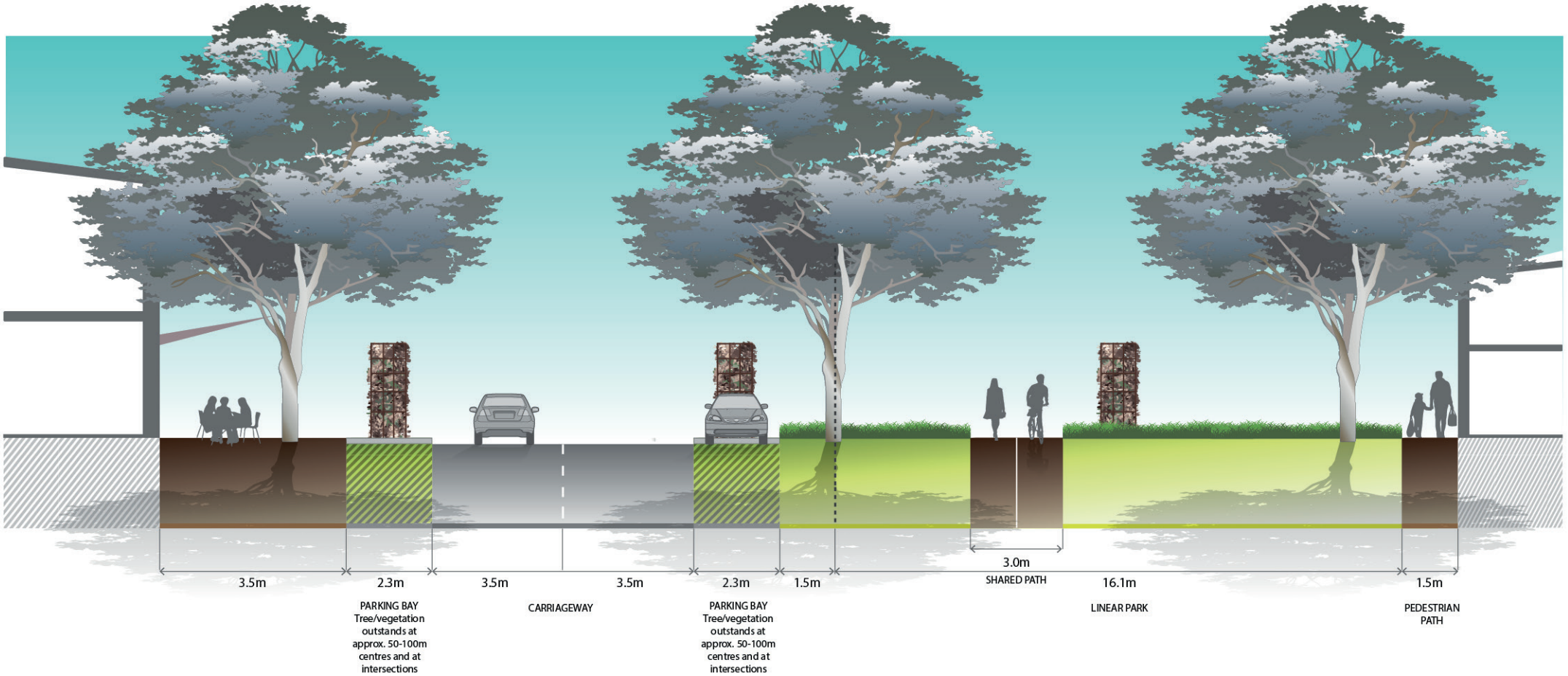
Cross Section 9 - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140814

NOTES:

- Existing windbreak of Dwarf Sugar Gums to be retained and incorporated into central median of new connector road as shown
- Width of central median to be determined with arborist advice to ensure survival of trees



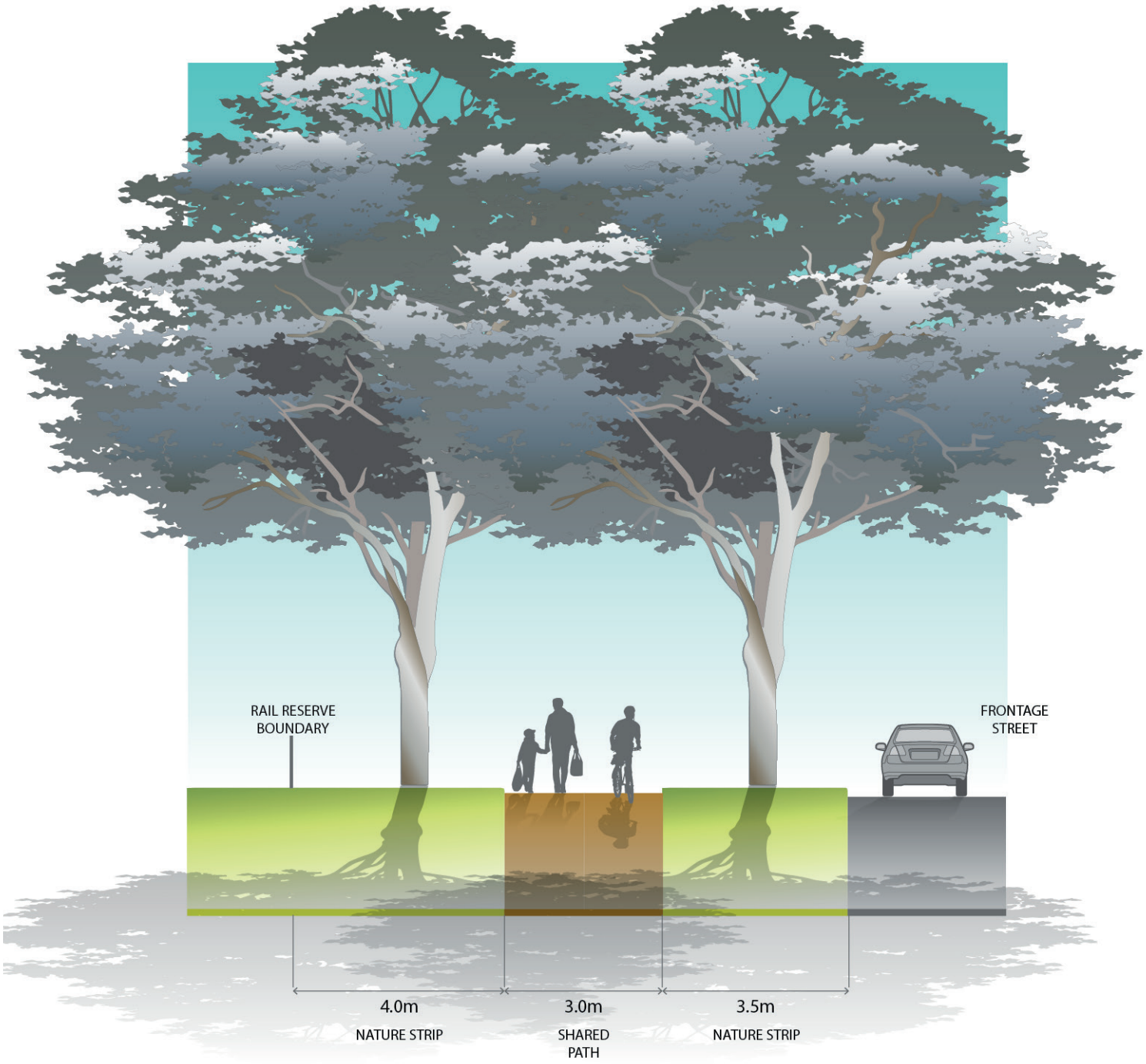
Feature Street 2

Cross Section 10 - Riverdale Precinct

v140814

NOTES:

- Connector road with adjacent linear park to link central civic space of major town centre with government primary school
- Create strong boulevard of three rows of trees evenly spaced across the cross section as shown
- Allotments adjacent linear open space to front park with vehicle access from rear



Rail Reserve Interface

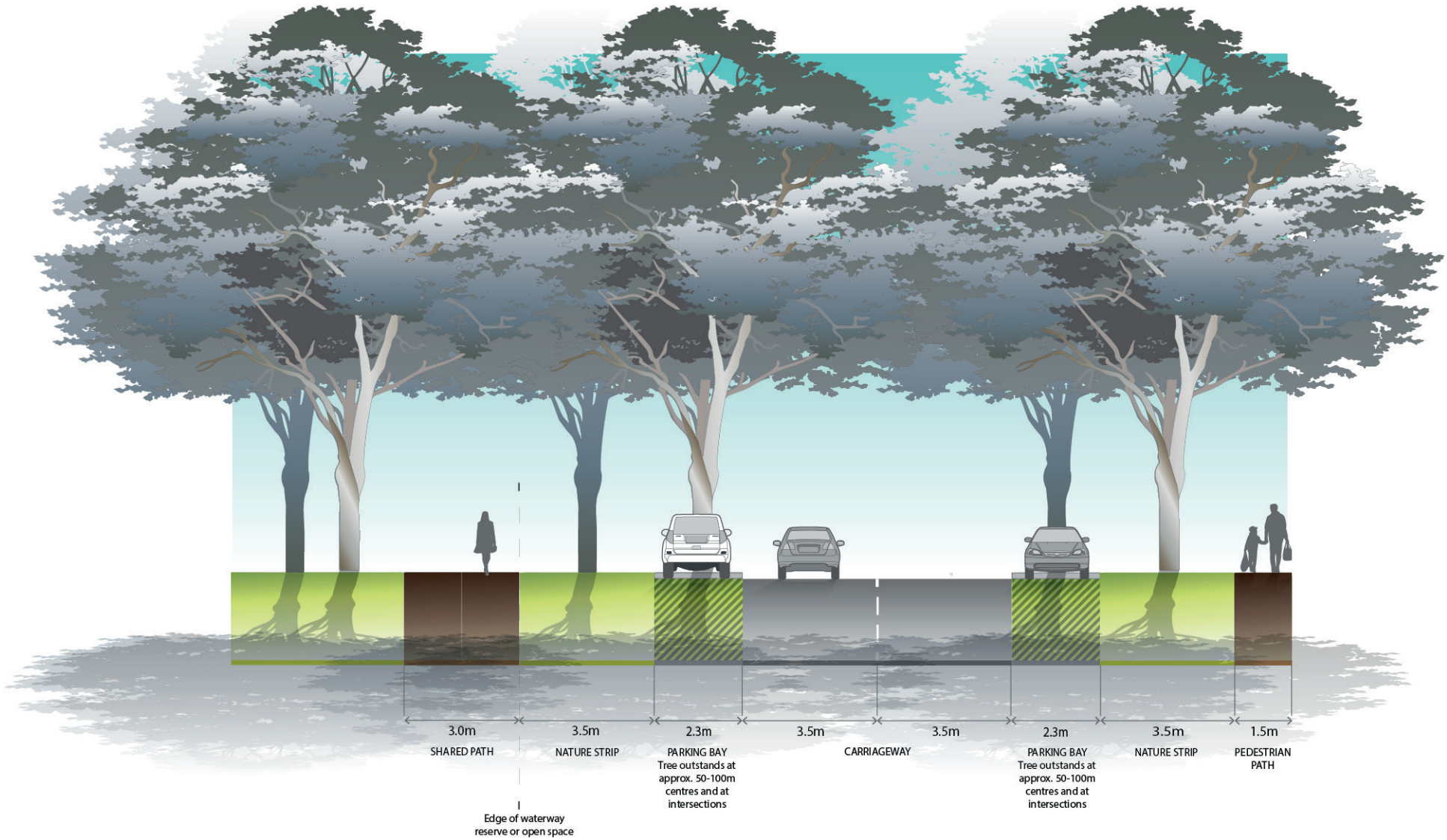
Cross Section 11 - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813

NOTES:

- A shared path is to be provided along the Regional Rail Link reserve where shown on Plan 7
- The shared path is to be located outside of the rail reserve, unless a proposal to locate the path within the rail reserve is approved in writing by VicTrack
- Fencing to the Regional Rail Link reserve boundary is to be visually transparent



Connector Street (20.1m) - Shared landscape trail

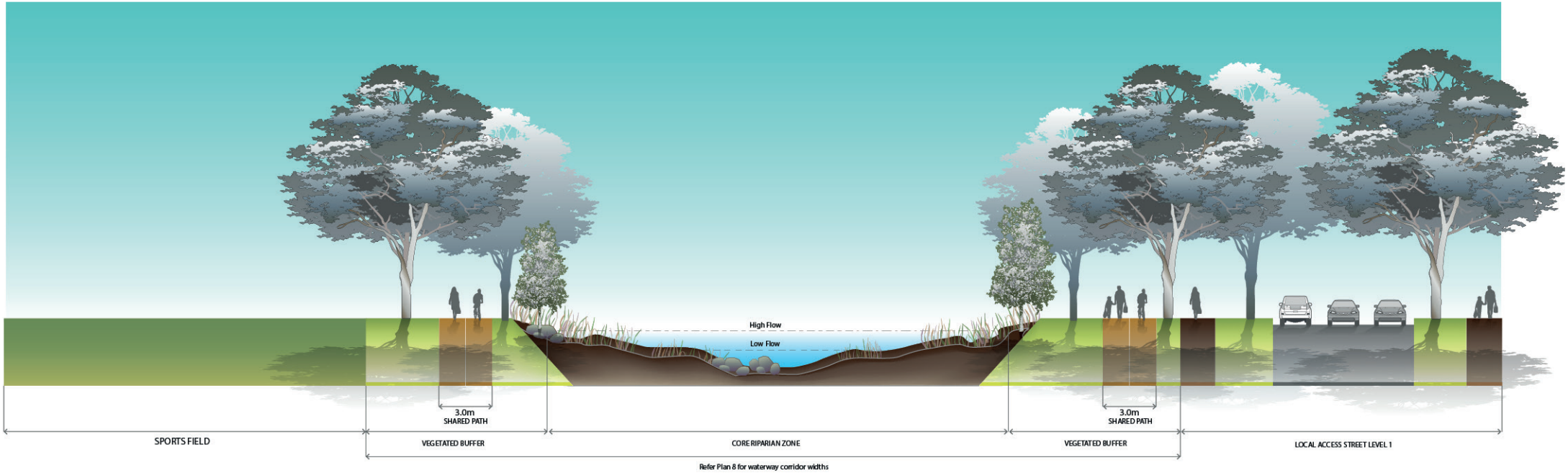
Cross Section 12 - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813

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 Areas (April 2011)



Constructed Waterway Interface

Cross Section 13 - Riverdale Precinct

v140902

NOTES:

- Waterway widths are to be consistent with Plan 8 and subject to Melbourne Water approval
- Shared path placement is shown for both sports field and local access street interfaces for indicative purposes. The shared path network is shown on Plan 7.

Town Centre Main Street

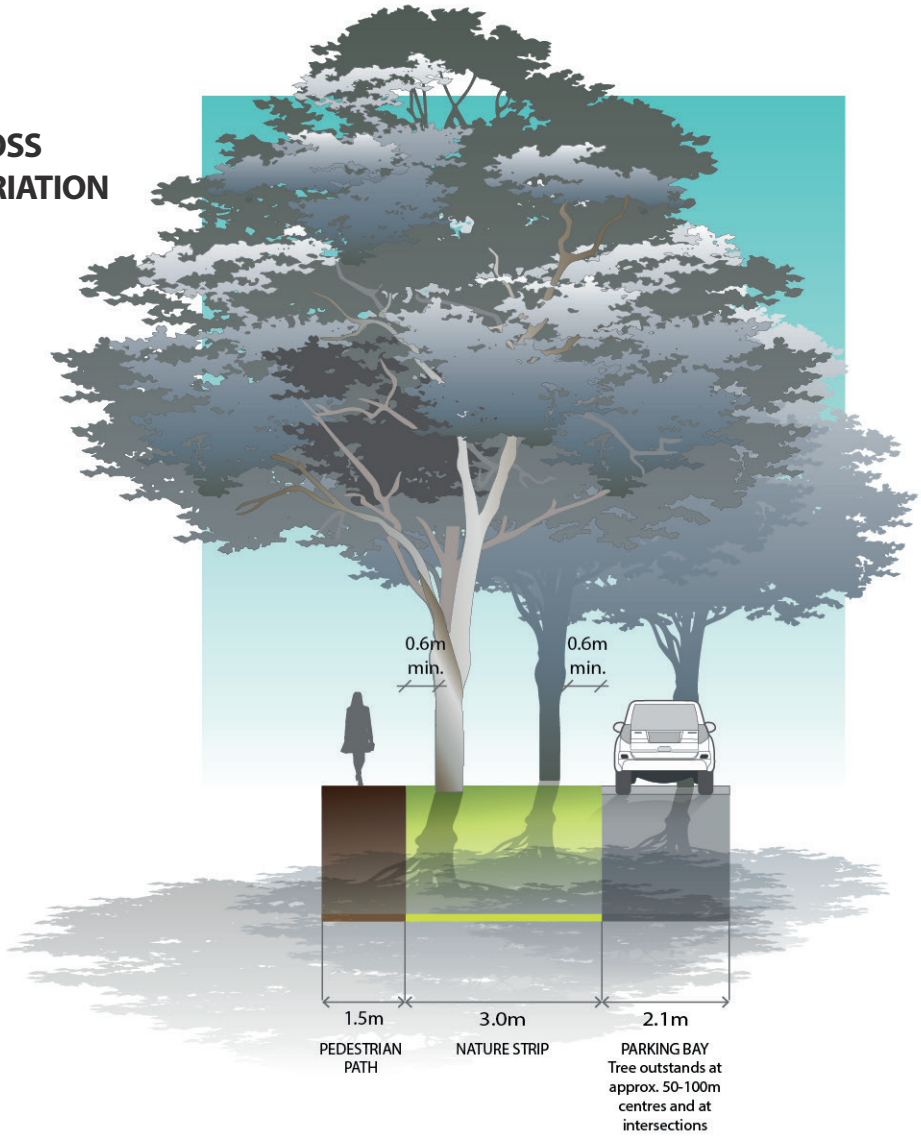
Cross Section 13 - Riverdale Precinct

v140902

NOTES:

- For main streets of local town centres, the cross section outlined in Figure 8 in the *PSP Note: Our Roads: Connecting People* will apply

APPENDIX D - STREET CROSS SECTION VARIATION EXAMPLES



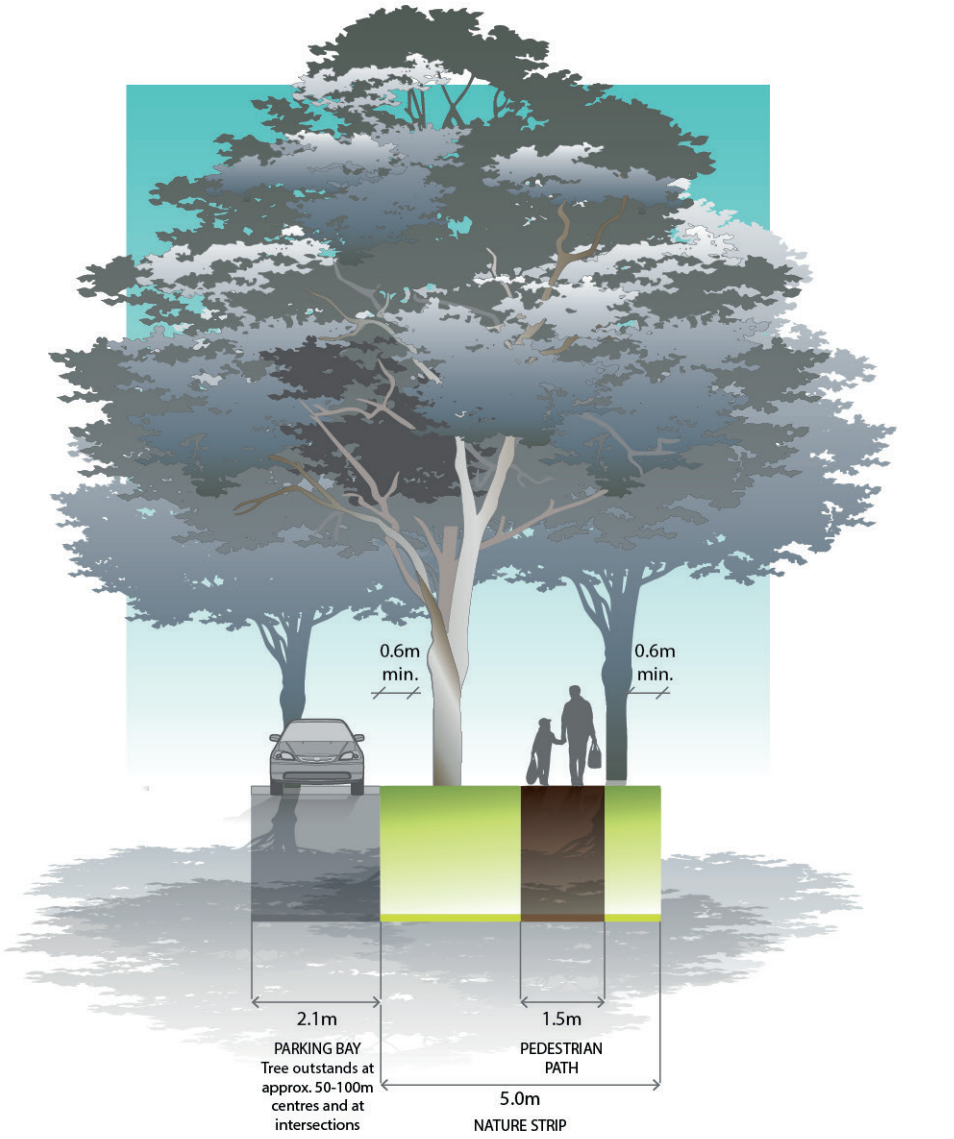
Connector Street (25.5m) Variation 1 - Varying tree placement in naturestrip
Cross Section - Riverdale Precinct

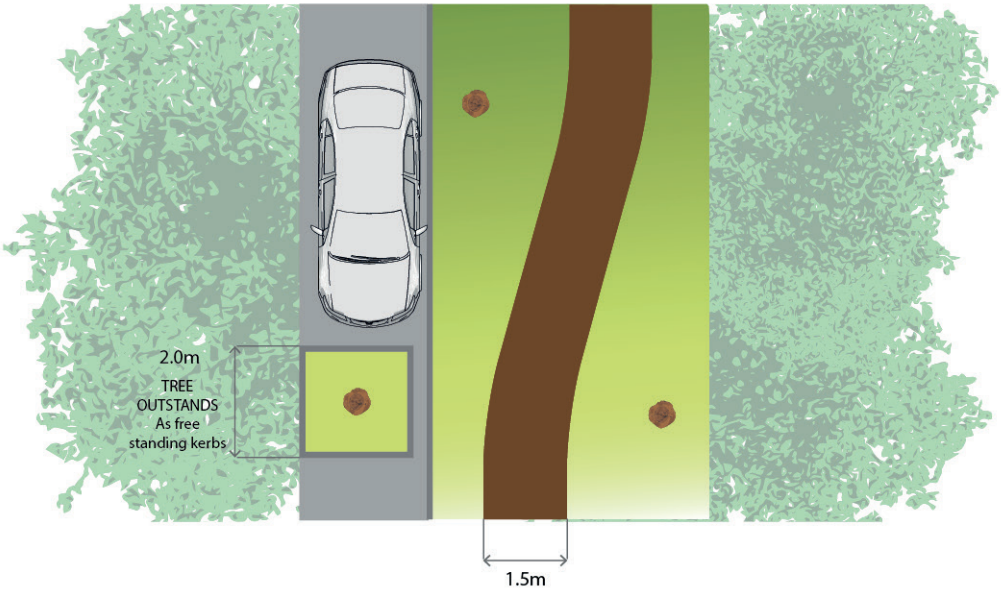
MPA METROPOLITAN PLANNING AUTHORITY

v140813

NOTES:

- Tree planting in varying locations in nature strip not containing bike path, in groups or clusters
- Minimum offset of tree trunks 0.6m from back of kerb and footpath edge
- Tree outstand with continuous extension of kerb shown





Connector Street (25.5m) Variation 2 - Meandering footpath in naturestrip

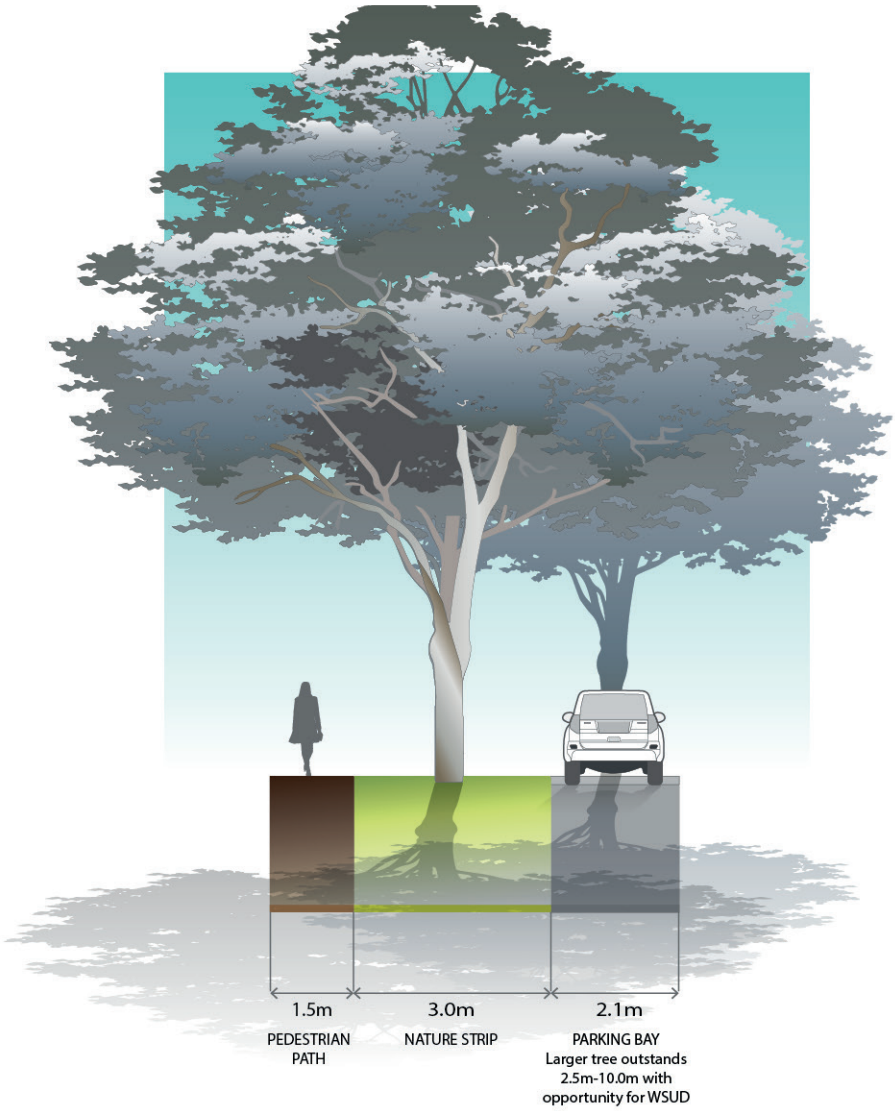
Cross Section - Riverdale Precinct

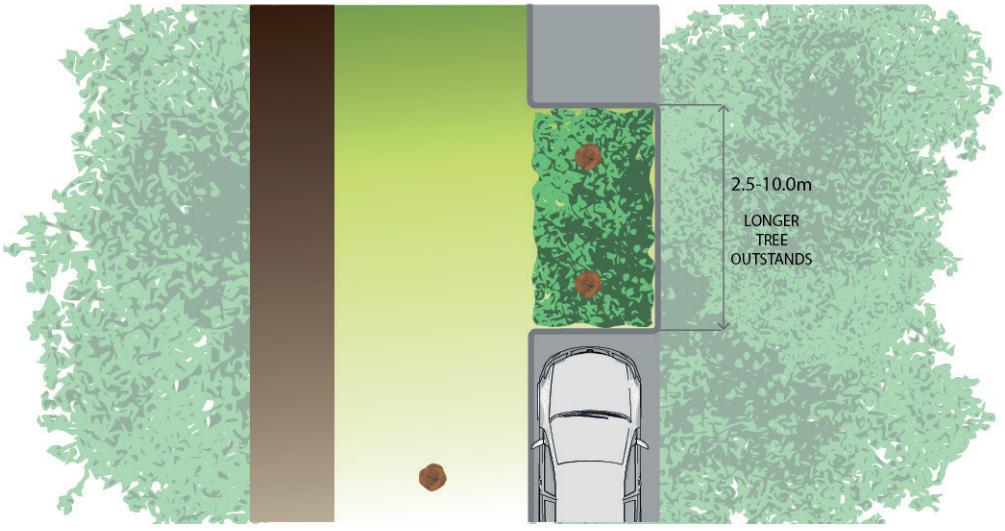
METROPOLITAN PLANNING AUTHORITY

v140813

NOTES:

- Footpath in varying locations in nature strip
- Tree placement adjusts in response to footpath location
- Minimum offset of footpath 1.0m from back of kerb and 0.6m from tree trunks
- Design of meandering footpath is to consider bin placement on nature strips, access to letter boxes for mail delivery, interface with driveways, definition of front allotment boundary and accommodation of bus stops
- Tree outstand with separate kerb surround shown





Connector Street (25.5m) Variation 3 - Longer tree outstands

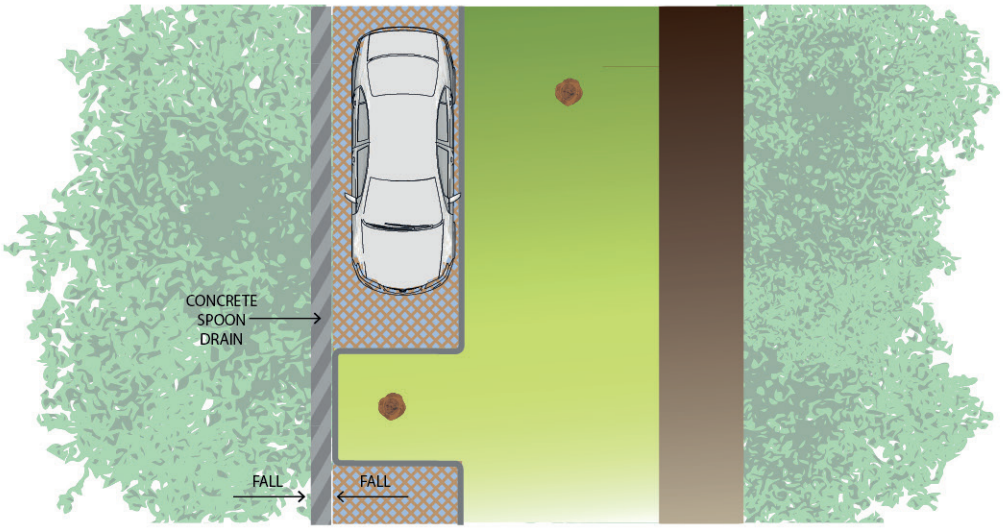
Cross Section - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140813

NOTES:

- For allotments with frontages of 13m or greater tree outstand lengths can be increased to accommodate more trees, garden bed planting and WSUD treatments
- Provide a minimum distance of 6.0m between outstands and adjacent driveways



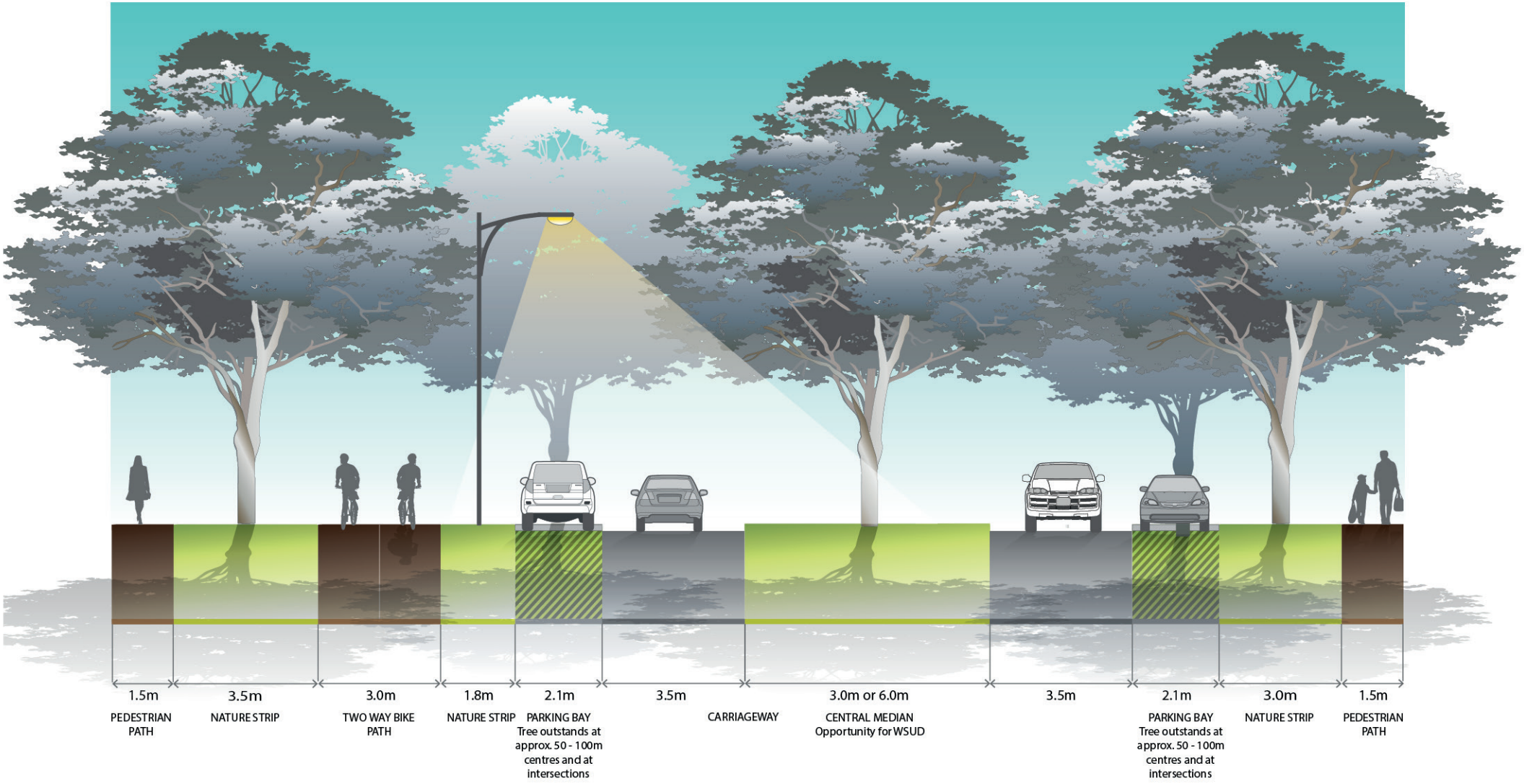
Connector Street (25.5m) Variation 4 - Different pavement in parking bays

Cross Section - Riverdale Precinct

v140813

NOTES:

- A pavement treatment other than asphalt applied to parking bays
- Spoon drain between carriageway and parking bay shown as an alternative drainage treatment



Connector Street (28.5-31.5m) Variation 5 - Boulevard

Cross Section - Riverdale Precinct

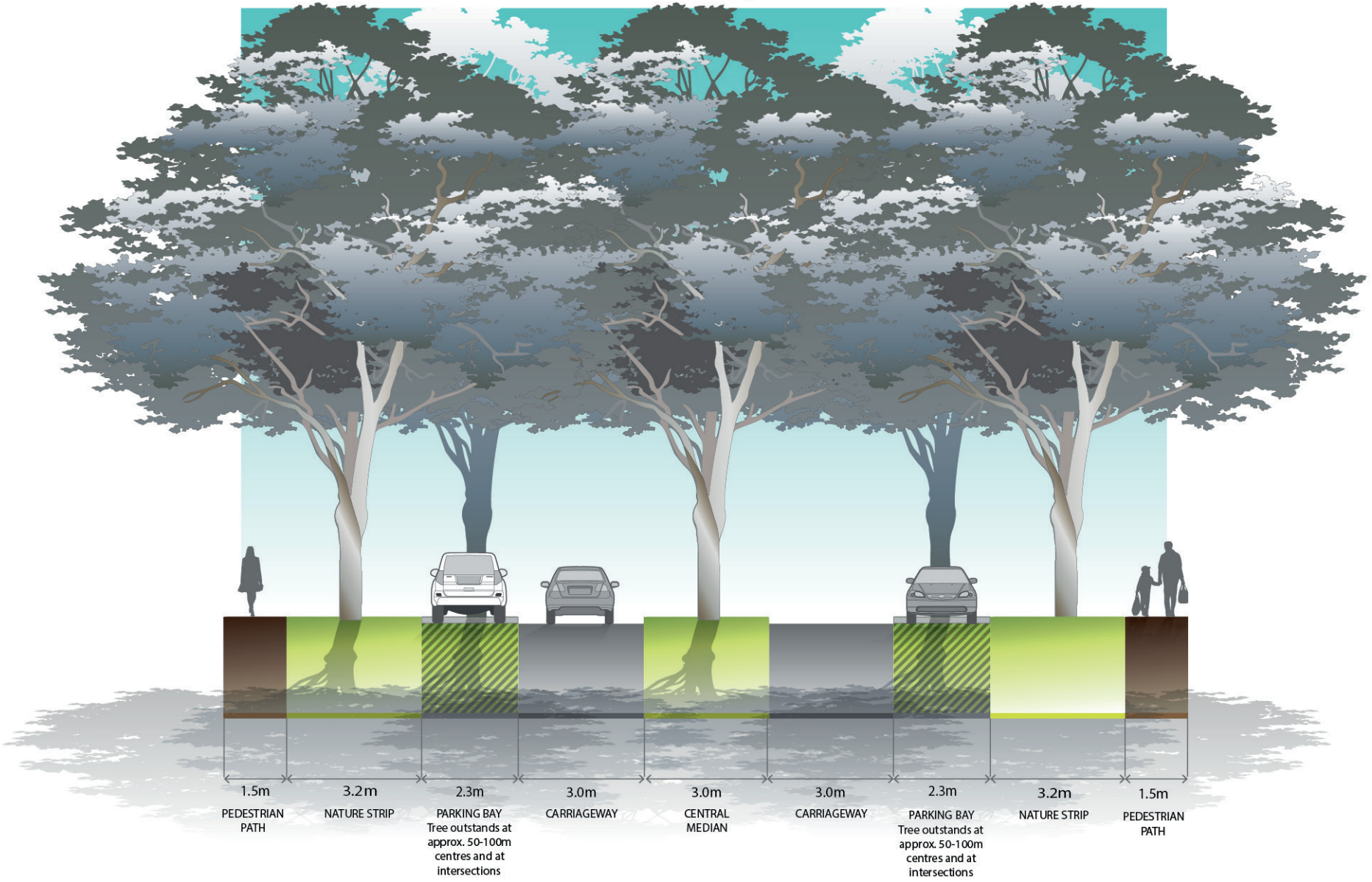
MPA METROPOLITAN PLANNING AUTHORITY

v140813

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.
- 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.
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

Local Access Level 2 (20m) Variations 1, 2, 3 & 4 - as per Connector Street Variations 1, 2, 3 & 4



Local Access Level 2 (23m) Variation 5 - Boulevard

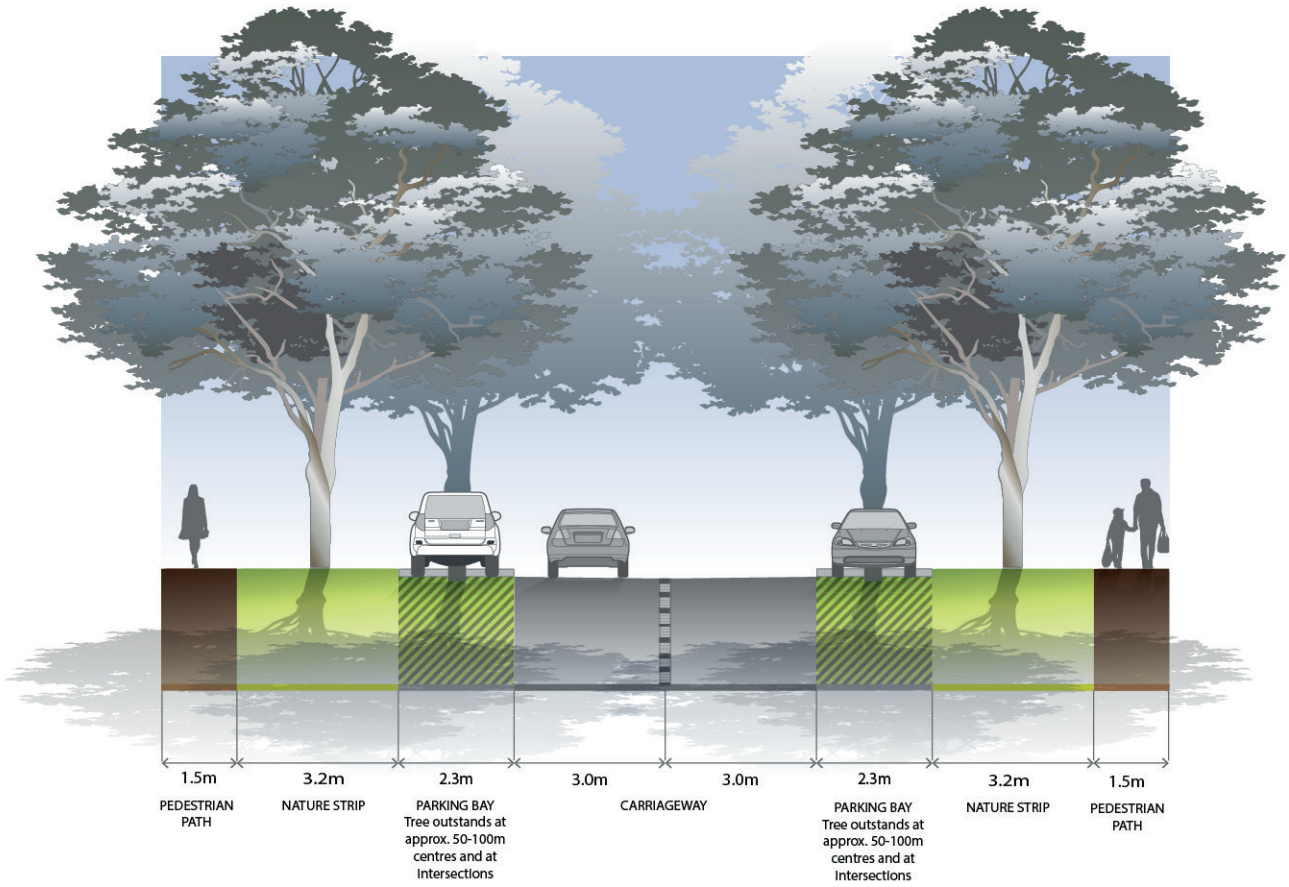
Cross Section - Riverdale Precinct

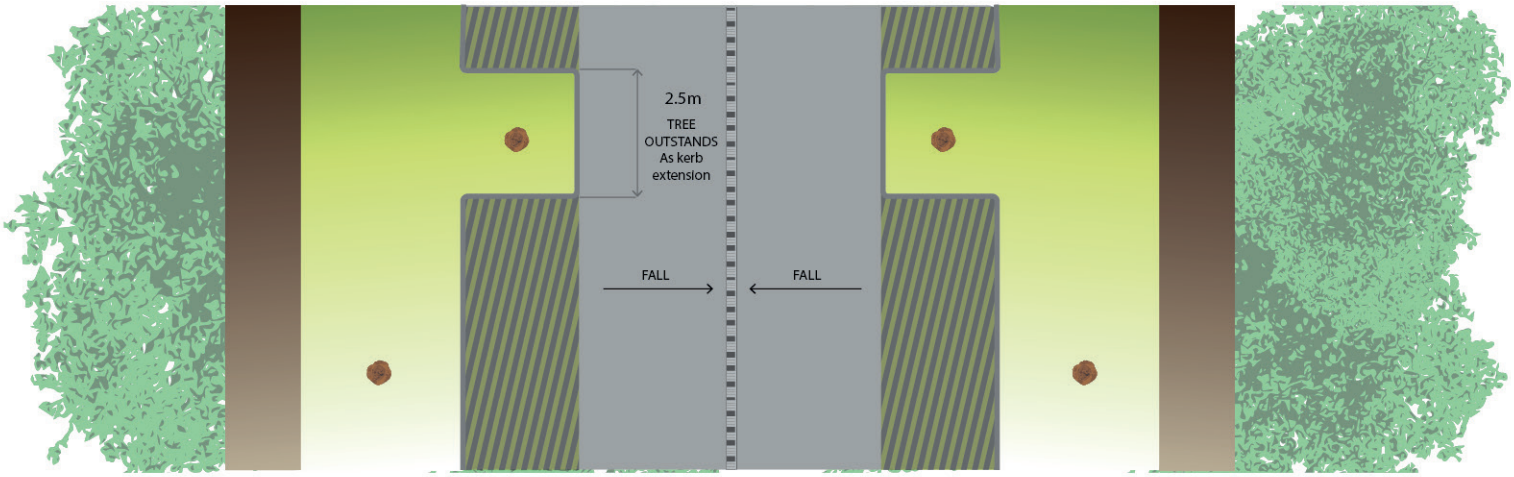
MPA METROPOLITAN PLANNING AUTHORITY

v140806

NOTES:

- Include a central median with canopy trees to create a boulevard effect
- 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
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.



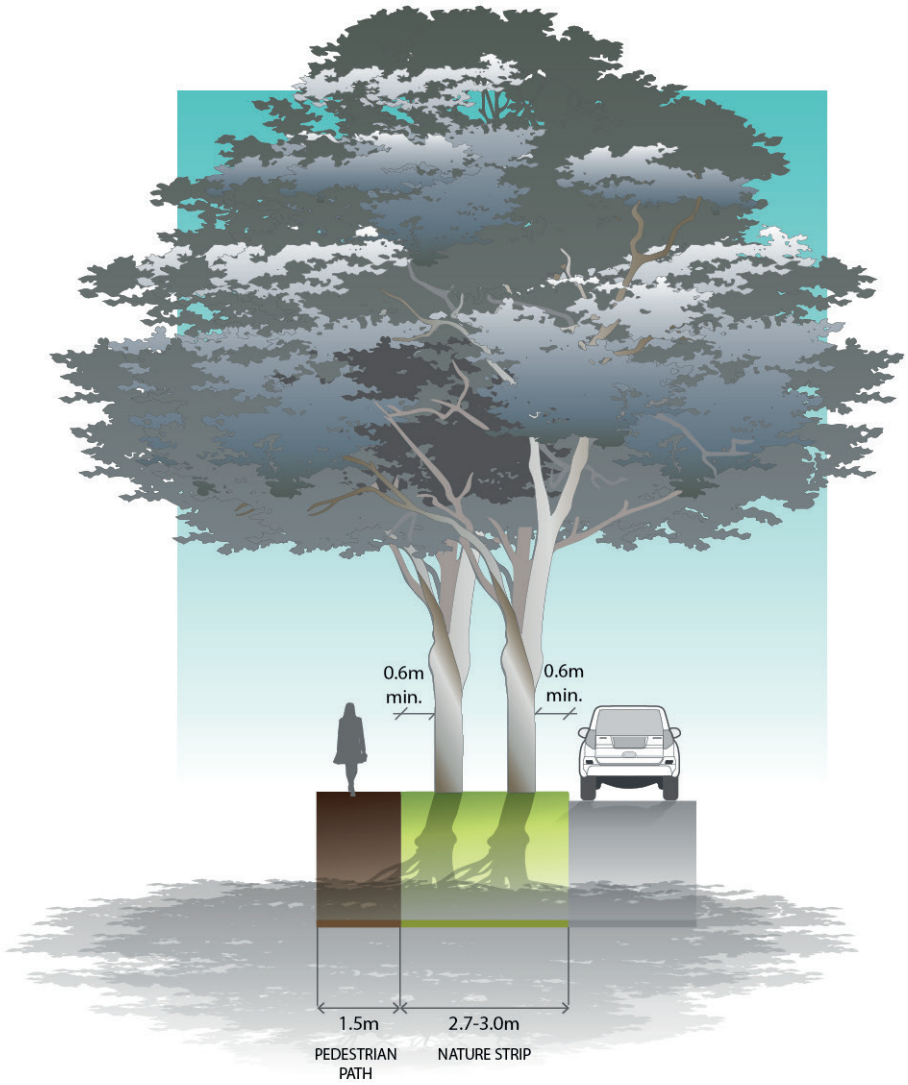


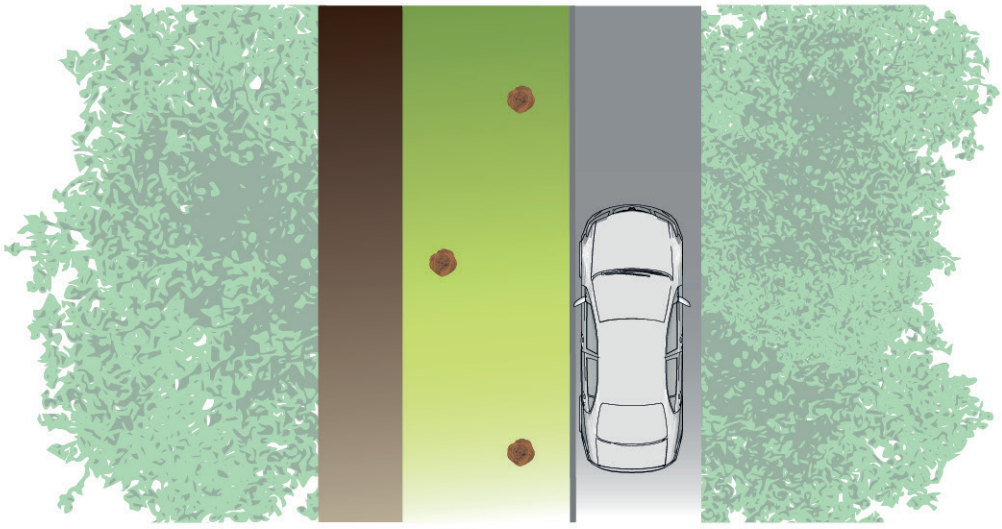
Local Access Level 2 (20m) Variation 6 - Central Drainage

v140813

NOTES:

- Carriageway drains to central drainage line rather than sides
- Central drainage line to include pavement treatment other than asphalt
- Kerbs are to be B1 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)





Local Access Level 1 (16m) Variation 1 - Varying tree placement in naturestrip

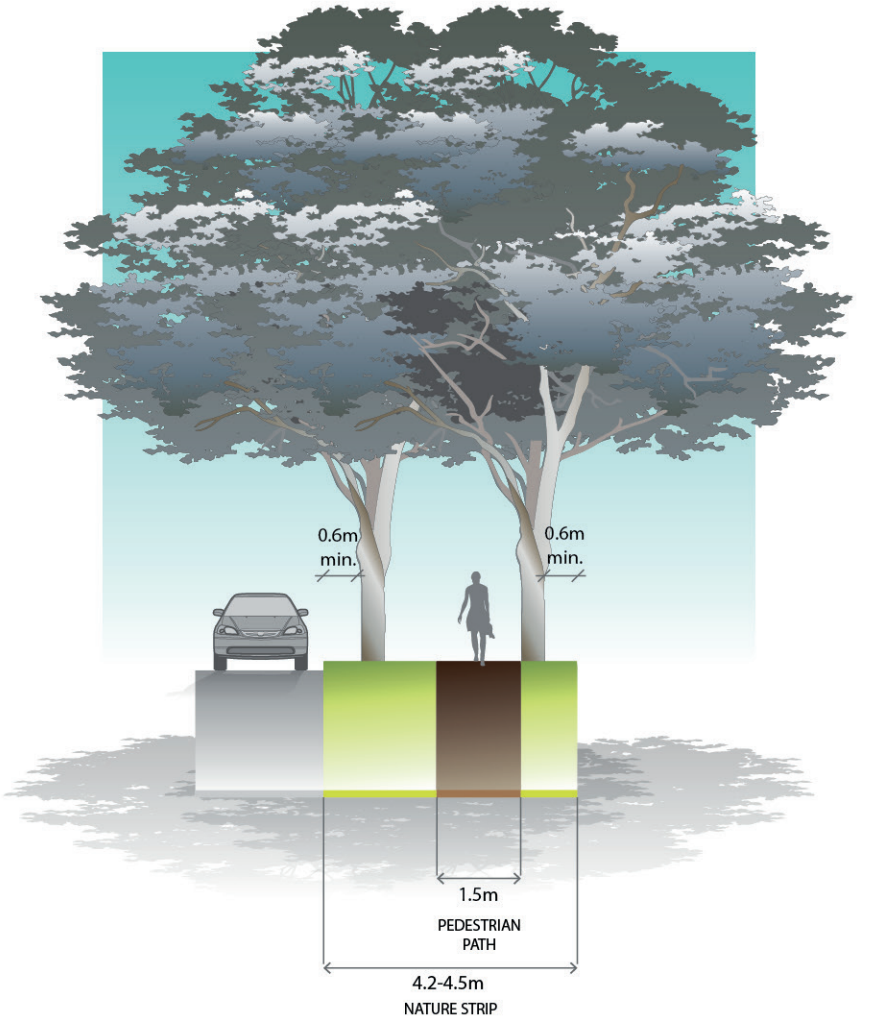
Cross Section - Riverdale Precinct

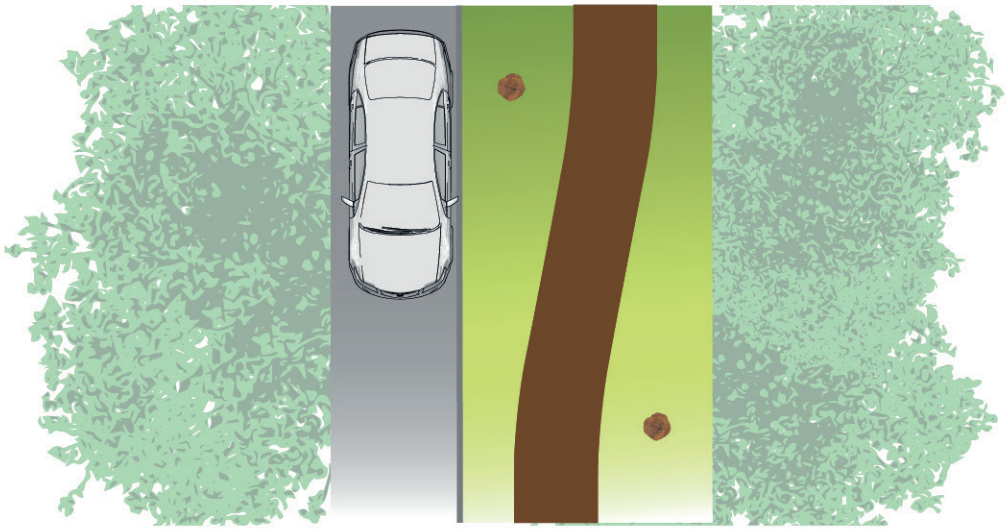
METROPOLITAN PLANNING AUTHORITY

v140814

NOTES:

- Tree planting in varying locations in nature strip, in groups or clusters
- Minimum offset of tree trunks 0.6m from back of kerb and footpath edge





Local Access Level 1 (16m) Variation 2 - Meandering footpath in naturestrip

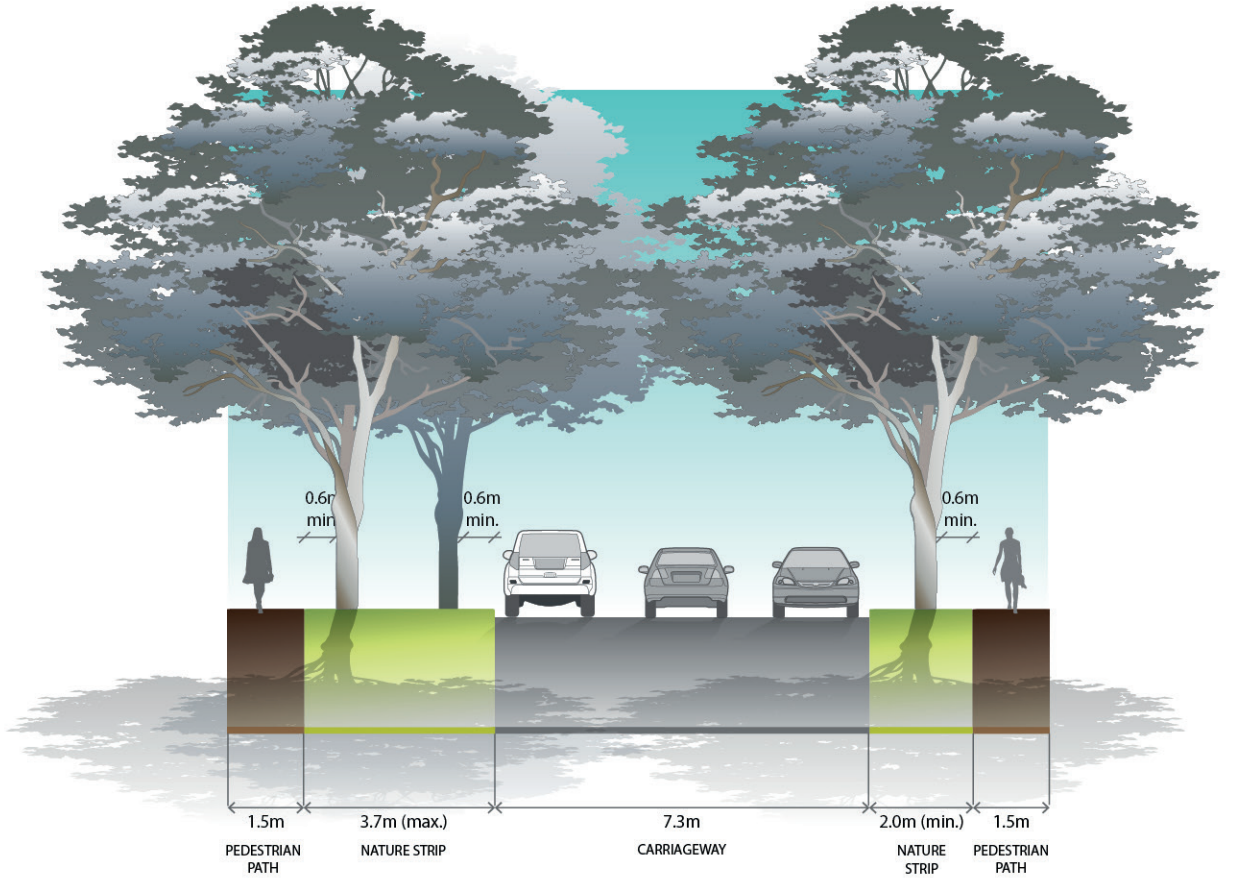
Cross Section - Riverdale Precinct

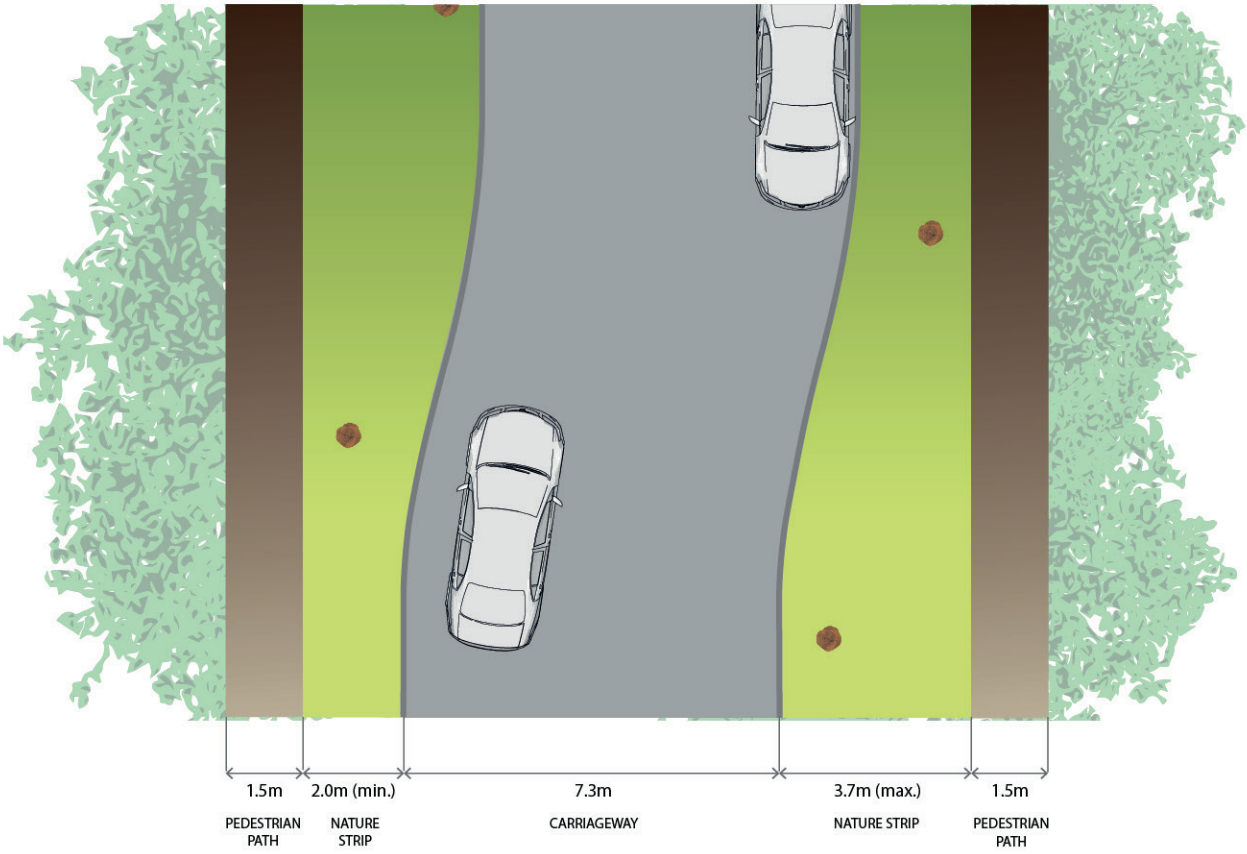
MPA METROPOLITAN PLANNING AUTHORITY

v140814

NOTES:

- Footpath in varying locations in nature strip
- Tree placement adjusts in response to footpath location
- Minimum offset of footpath 1.0m from back of kerb and 0.6m from tree trunks
- Design of meandering footpath is to consider bin placement on nature strips, access to letter boxes for mail delivery, interface with driveways, definition of front allotment boundary and accommodation of bus stops





Local Access Level 1 (16m) Variation 3 - Varying nature strip widths / meandering carriageway

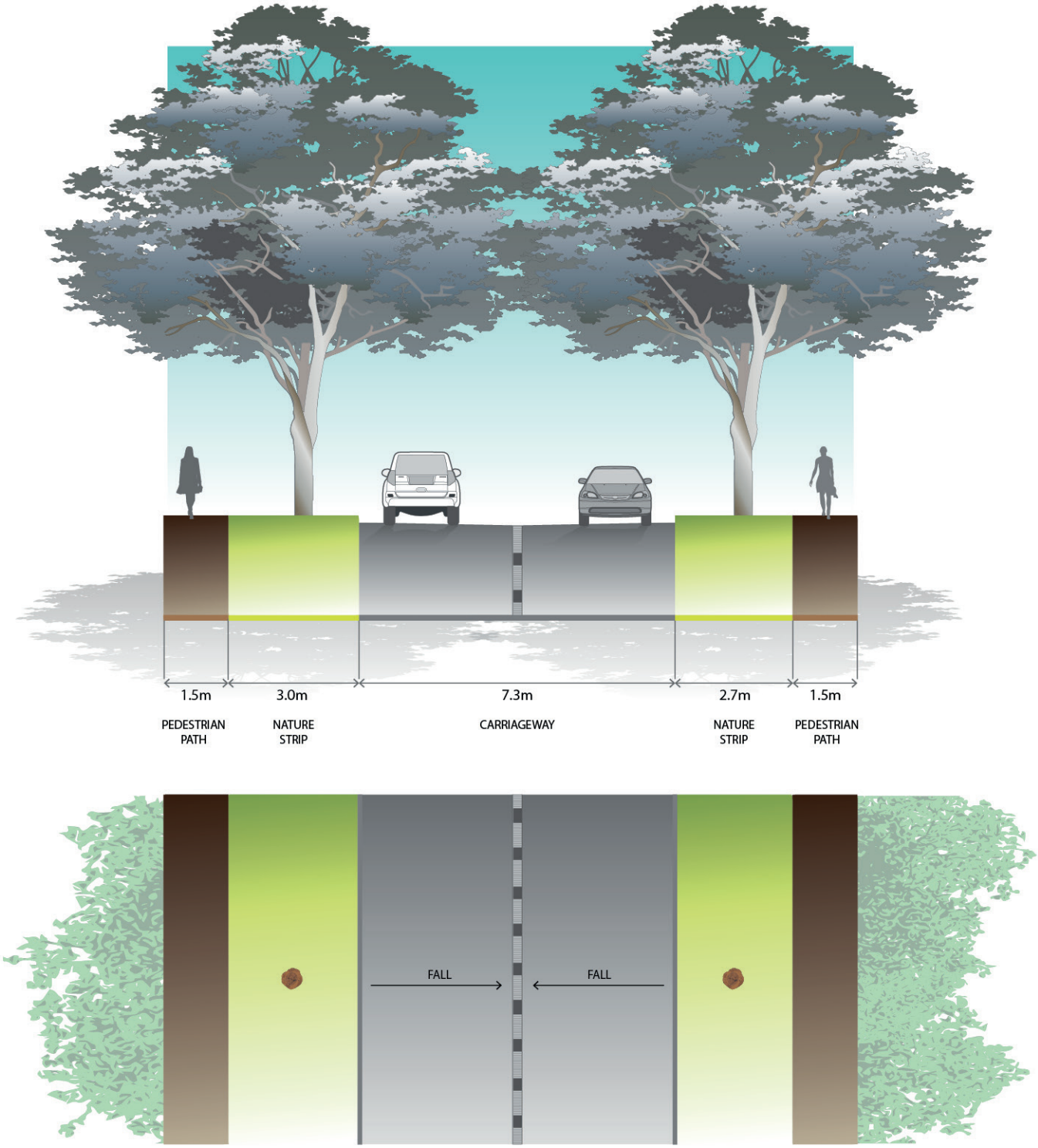
Cross Section - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140814

NOTES:

- Varying carriageway placement in road reserve
- Tree placement adjusts in response to carriageway location



Local Access Level 1 (16m) Variation 4 - Central Drainage

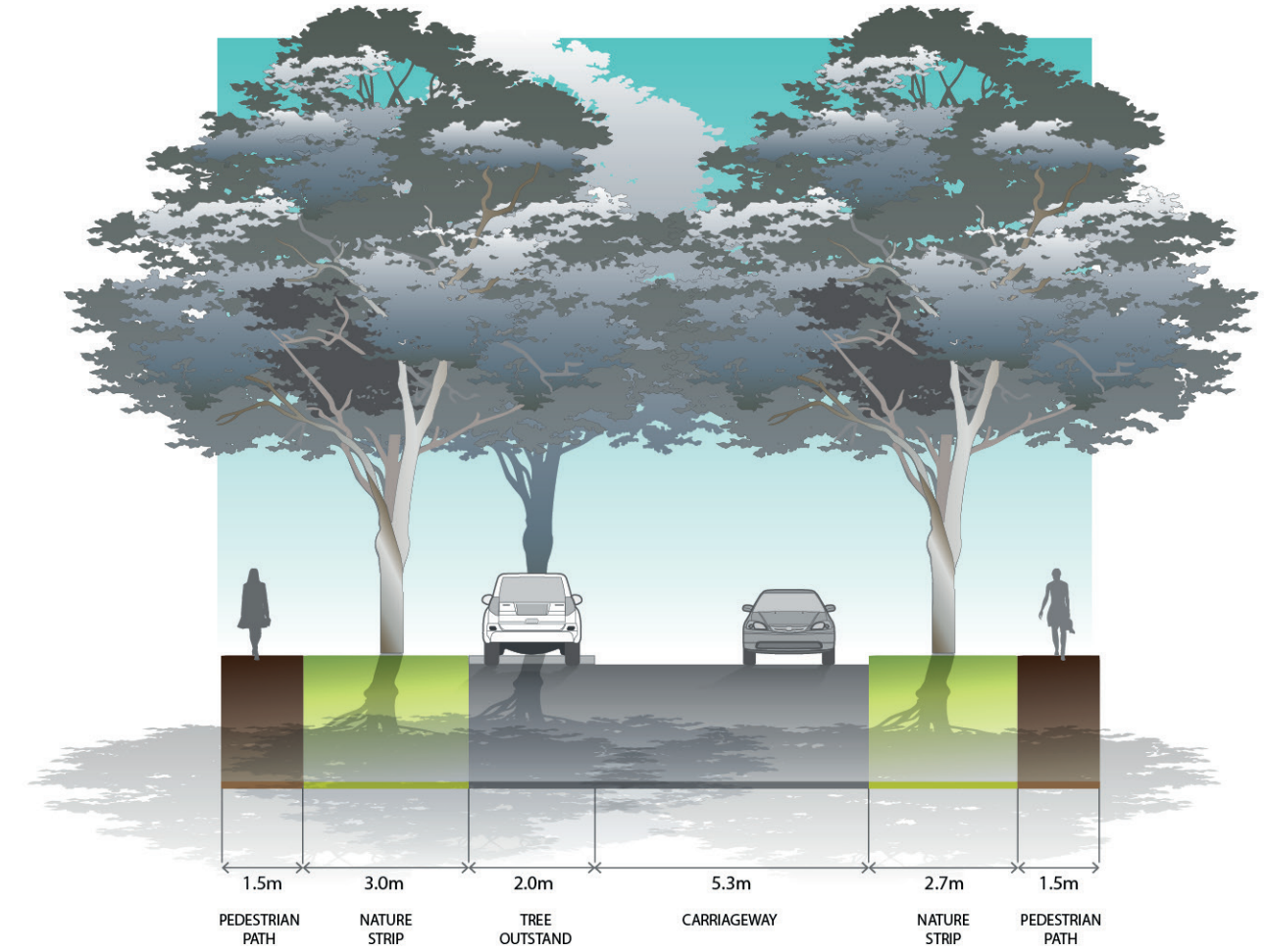
Cross Section - Riverdale Precinct

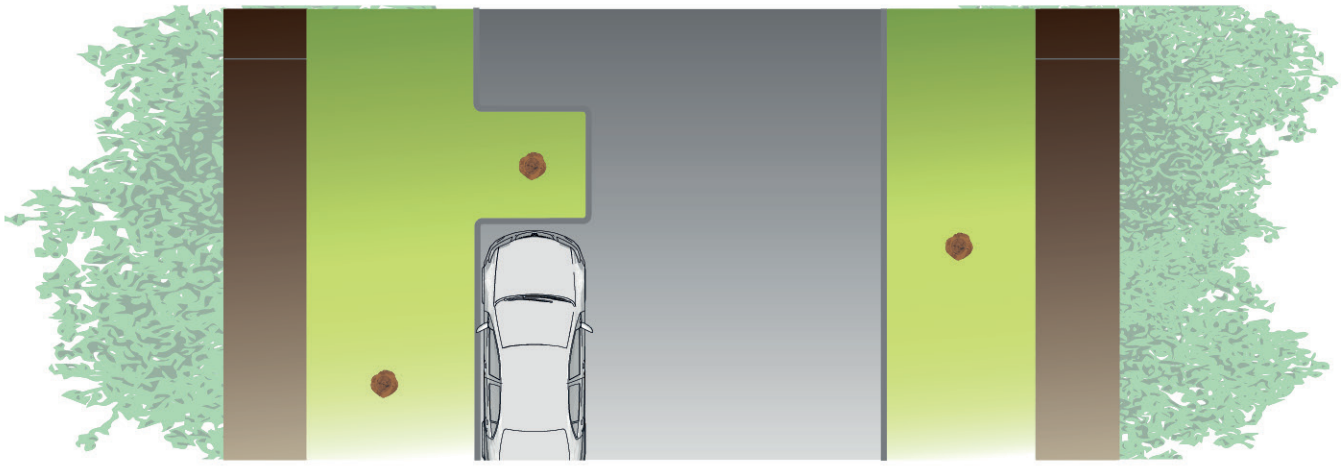
MPA METROPOLITAN PLANNING AUTHORITY

v140814

NOTES:

- Carriageway drains to central drainage line rather than sides
- Central drainage line to include pavement treatment other than asphalt
- Kerbs are to be B1 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Appropriate for short streets (less than 60m) with minimal through traffic or for frontage roads





Local Access Level 1 (16m) Variation 5 - Tree outstands

Cross Section - Riverdale Precinct

MPA METROPOLITAN PLANNING AUTHORITY

v140814

NOTES:

- Include tree outstands at approx 50 – 100m centres on one side only
- Road design to ensure passage of emergency vehicles is accommodated

APPENDIX E - 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, 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 (refer Appendix D), 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.

TABLE 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

	UNDER PEDESTRIAN PAVEMENT	UNDER NATURE STRIPS	DIRECTLY UNDER TREES[1]	UNDER KERB	UNDER ROAD PAVEMENT[2]	WITHIN ALLOTMENTS	NOTES
SEWER	Possible	Preferred	Possible	No	Possible	Possible[3]	
POTABLE WATER	Possible[4]	Preferred	Preferred	No	Possible	No	Can be placed in combined trench with gas
RECYCLED WATER	Possible[4]	Preferred	Preferred	No	Possible	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	

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
- Services must be placed outside of natural waterway corridors or on the outer edges of these corridors to avoid disturbance to existing waterway values.

APPENDIX F - OPEN SPACE DELIVERY GUIDE

PASSIVE RECREATION PARK

A park that provides opportunities for a variety of recreational and social activities in a green space setting. Passive Recreation park's come in a variety of landforms, and in many cases provide opportunities to protect and enhance landscape amenity.

NEIGHBOURHOOD LOCAL PARK

- Passive recreation park suitable for local recreation/social activities
- Junior play emphasis
- Attracts users from the local area (ie 400m catchment)
- Recreational/social facilities suitable for local activities/events.
- Minimal support facilities (seats, bin etc)
- Footpath/bikeway links

DISTRICT LOCAL PARK (1HA OR GREATER)

- Passive recreation park suitable for district-level recreation/social activities
- Junior and youth play emphasis
- Attracts users from the district (ie 2km catchment)
- Recreational/social facilities suitable for district activities/events.
- Basic support facilities eg. amenities, BBQ, Picnic tables, shelters, seats etc)
- Footpath/bikeway links

MUNICIPAL PARK (5HA OR GREATER)

- Major passive recreation park suitable for Citywide recreation/social events
- Attracts users from municipality and adjacent municipalities
- Capacity to sustain high level recreational/social use (5000+) over long periods
- High level recreational/social facilities suitable for Citywide events.
- Junior and youth play emphasis
- High level support facilities eg parking, amenities (toilets), signage
- Footpath/bikeway links
- Public transport
- Car spaces (on and off street)
- Bus Spaces (on and off street)

REGIONAL PARK

- Major passive recreation park suitable for regional recreation/social events
- Attracts users from Melbourne/Geelong and surrounding municipalities
- Capacity to sustain high level recreational/social use (10000+) over long periods
- High level recreational/social facilities suitable for regional events.
- Junior and youth play emphasis
- High level support facilities eg parking, amenities, signage
- Footpath/bikeway links
- Public transport
- Car spaces (off street)
- Bus Spaces (off street)

LINEAR PARK

To provide pedestrian/cyclist links in a parkland setting.

A park that is developed and used for pedestrian and cyclist access, both recreational and commuter, between residential areas and key community destinations such as recreational facilities, schools and other community facilities, public transport and places of work. Linear Reserves are generally linear in nature and follow existing corridors such as water courses and roads. They usually contain paths or tracks (either formal or informal) that form part of a wider path/track network. While the primary function of Linear Reserve is pedestrian & cyclist

access, these parks may serve additional purpose such as storm water conveyance, fauna movement and ecological/biodiversity protection.

NEIGHBOURHOOD

- Park corridor that provides local link
- Attracts users from the local area (ie 400m catchment)
- Capacity to sustain low level accessibility over short periods
- Minor access facilities eg path
- Footpath/bikeway links

DISTRICT

- Major park corridor that provides district link
- Attracts users from the district (ie 2 km catchment)
- Capacity to sustain moderate level accessibility over long periods
- Basic access facilities eg path, signage
- Footpath/bikeway links

MUNICIPAL

- Major park corridor that provides metropolitan link
- Attracts users from municipality and adjacent municipalities
- Capacity to sustain high level accessibility over long periods
- High level access facilities eg paths, signage, shade, water fountains
- Footpath/bikeway links
- Public transport
- Car spaces (on street)
- Bus Spaces (on street)

REGIONAL

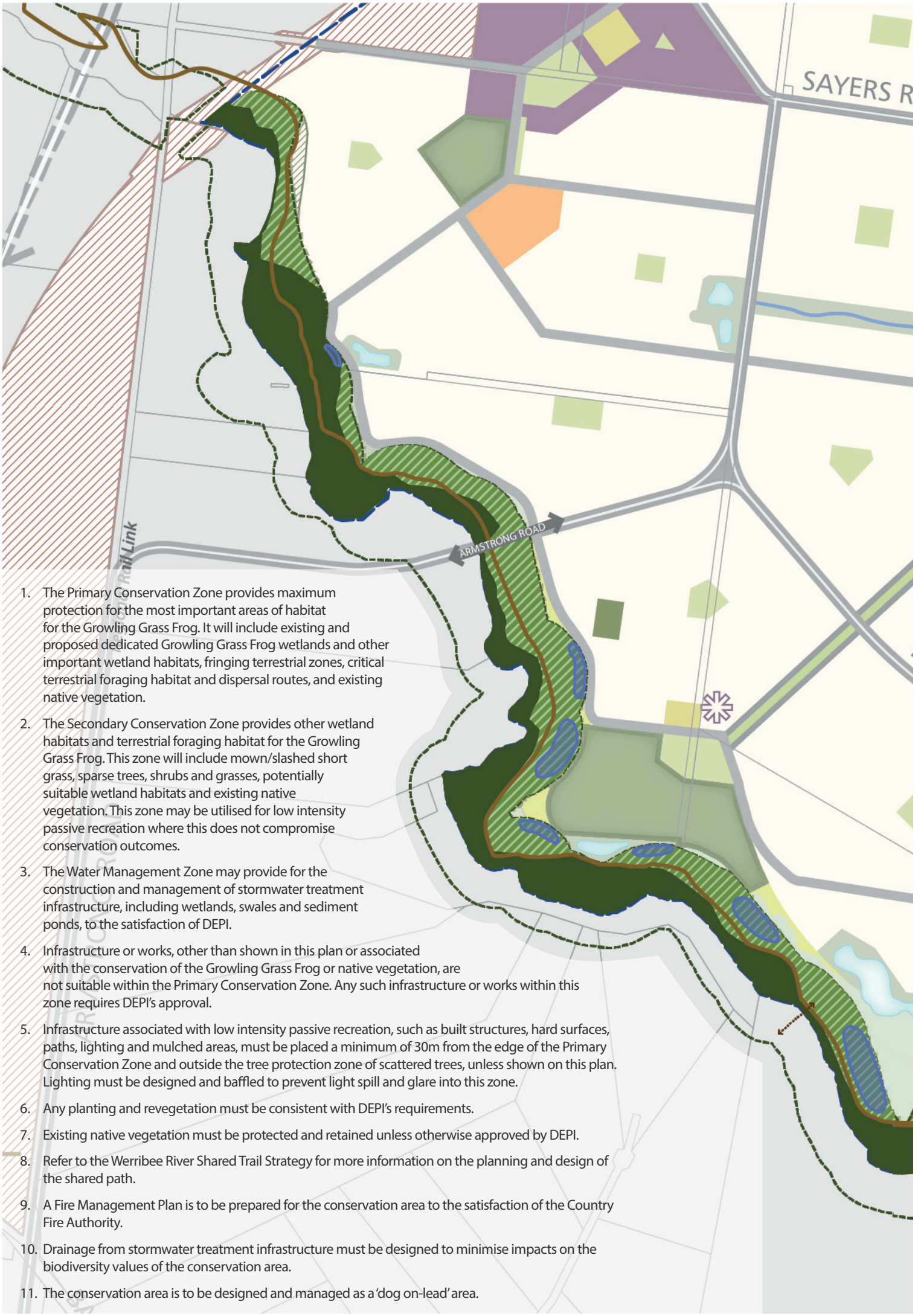
- Major park corridor that provides regional link
- Attracts users from Melbourne/Geelong and surrounding municipalities
- Capacity to sustain high level accessibility over long periods
- High level access facilities eg paths, signage, shade, water fountains
- Footpath/bikeway links
- Public transport
- Car spaces (on and off street)
- Bus Spaces (on and off street)

TOWN SQUARE/URBAN PARK

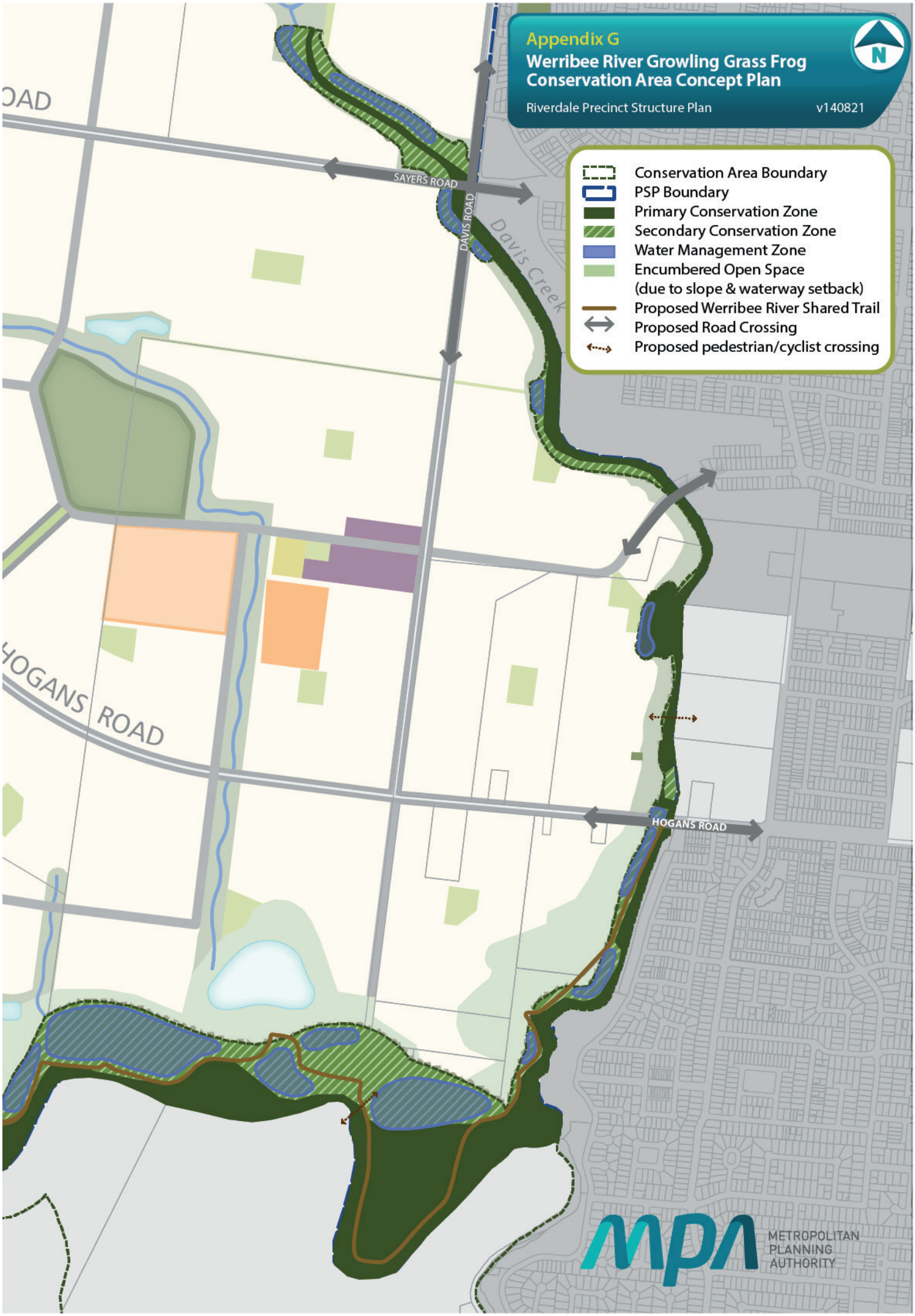
A passive recreation park providing opportunities for a variety of recreational and social activities in an urban setting. They are located predominantly in medium to high density residential area and mixed use centres or corridors. They provide an important role in meeting the passive recreation needs of residents, workers and visitors in activity centres and/or medium to high density residential areas.

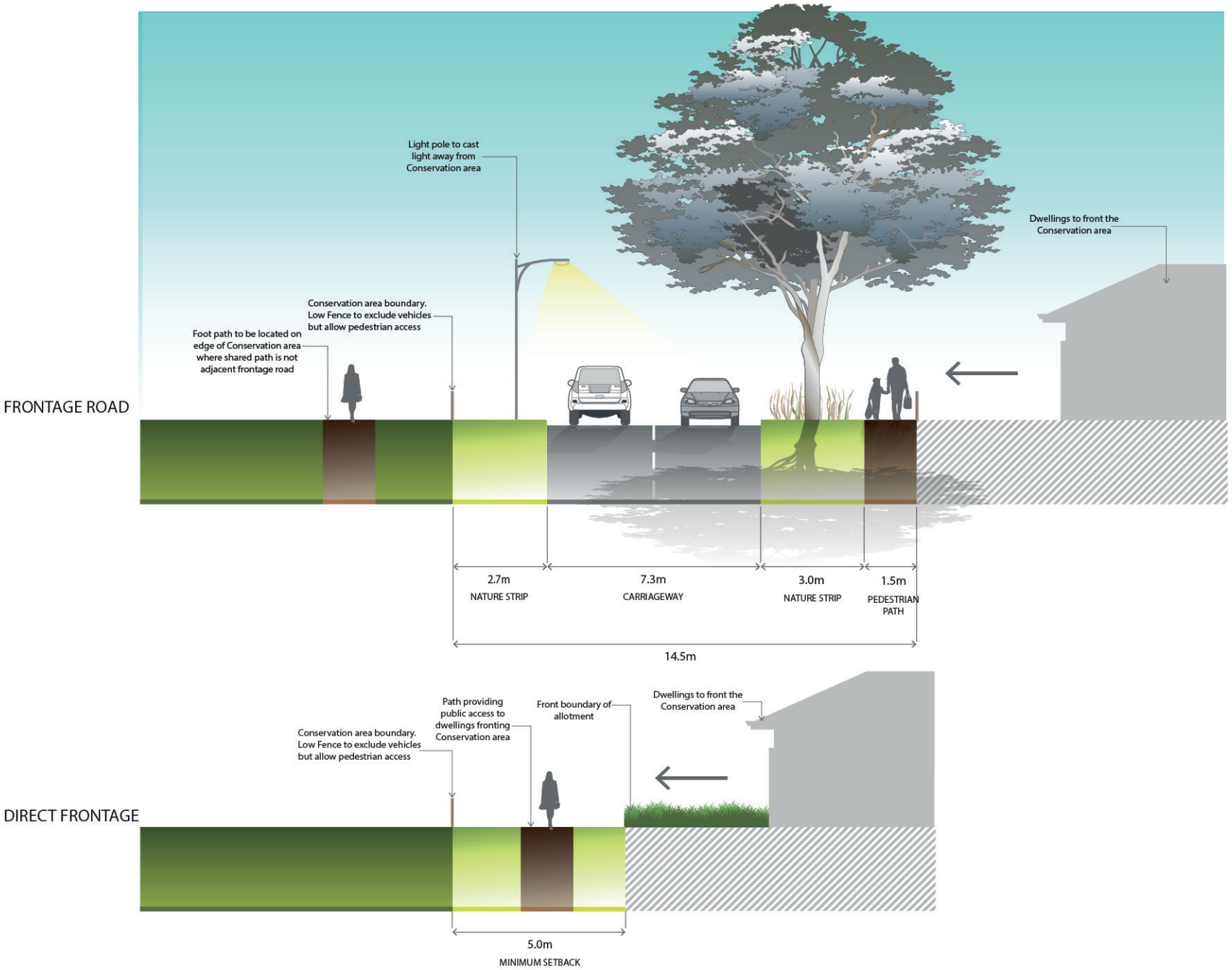
Town squares are to be predominately hard landscaped, while urban parks have less hardstand than town squares, but more than traditional neighbourhood passive recreation parks. Urban parks also offer the opportunity for low key kick and throw activities with a small turfed area.

Both parks are to integrate within their design a number of skate / scooter'able furniture pieces, rails, stairs, ledges, ramps and / or other 'plaza' type elements.



1. The Primary Conservation Zone provides maximum protection for the most important areas of habitat for the Growling Grass Frog. It will include existing and proposed dedicated Growling Grass Frog wetlands and other important wetland habitats, fringing terrestrial zones, critical terrestrial foraging habitat and dispersal routes, and existing native vegetation.
2. The Secondary Conservation Zone provides other wetland habitats and terrestrial foraging habitat for the Growling Grass Frog. This zone will include mown/slashed short grass, sparse trees, shrubs and grasses, potentially suitable wetland habitats and existing native vegetation. This zone may be utilised for low intensity passive recreation where this does not compromise conservation outcomes.
3. The Water Management Zone may provide for the construction and management of stormwater treatment infrastructure, including wetlands, swales and sediment ponds, to the satisfaction of DEPI.
4. Infrastructure or works, other than shown in this plan or associated with the conservation of the Growling Grass Frog or native vegetation, are not suitable within the Primary Conservation Zone. Any such infrastructure or works within this zone requires DEPI's approval.
5. Infrastructure associated with low intensity passive recreation, such as built structures, hard surfaces, paths, lighting and mulched areas, must be placed a minimum of 30m from the edge of the Primary Conservation Zone and outside the tree protection zone of scattered trees, unless shown on this plan. Lighting must be designed and baffled to prevent light spill and glare into this zone.
6. Any planting and revegetation must be consistent with DEPI's requirements.
7. Existing native vegetation must be protected and retained unless otherwise approved by DEPI.
8. Refer to the Werribee River Shared Trail Strategy for more information on the planning and design of the shared path.
9. A Fire Management Plan is to be prepared for the conservation area to the satisfaction of the Country Fire Authority.
10. Drainage from stormwater treatment infrastructure must be designed to minimise impacts on the biodiversity values of the conservation area.
11. The conservation area is to be designed and managed as a 'dog on-lead' area.

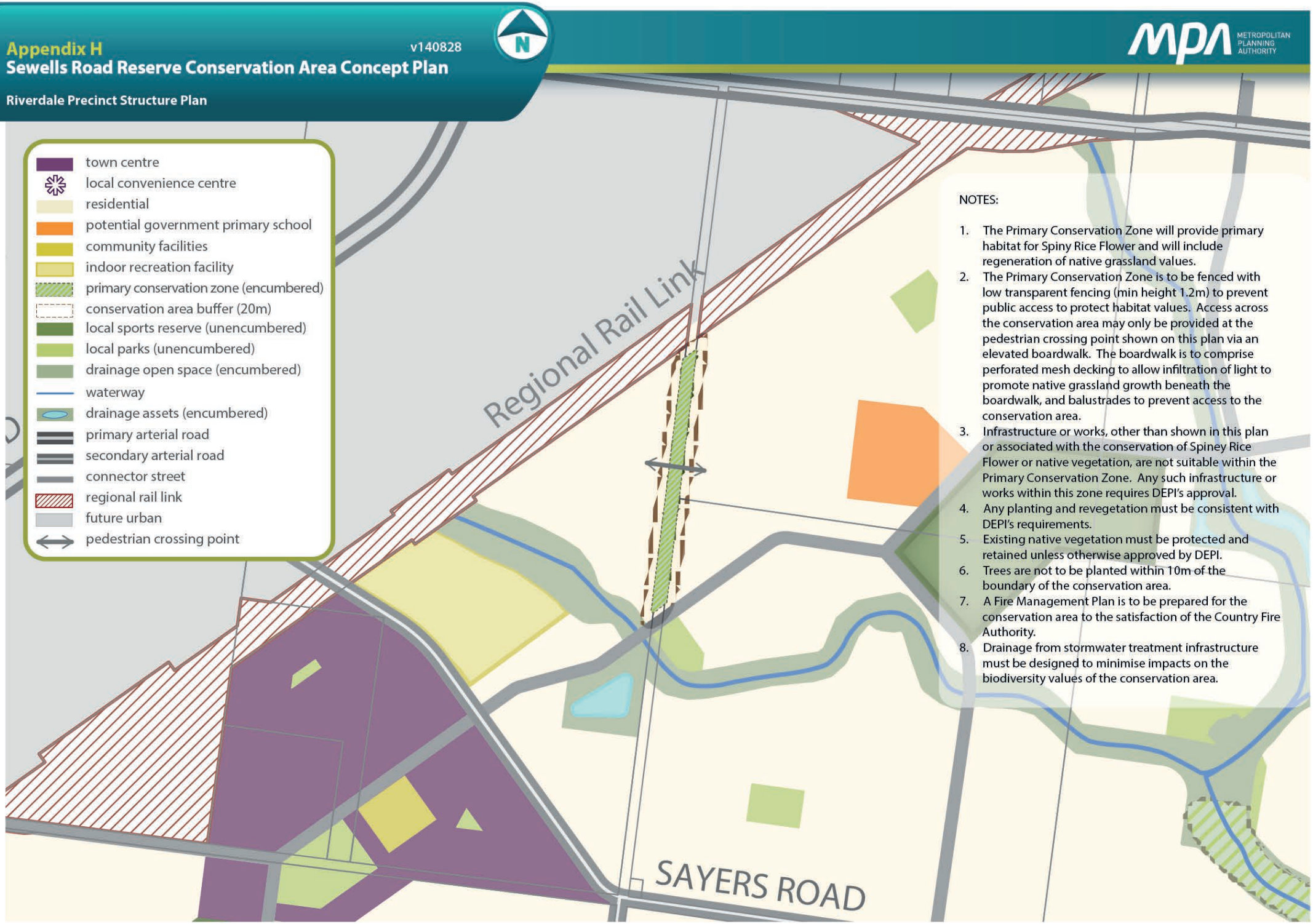

Appendix G
Werribee River Growling Grass Frog Conservation Area Concept Plan
Riverdale Precinct Structure Plan
v140821
N
Conservation Area Boundary
PSP Boundary
Primary Conservation Zone
Secondary Conservation Zone
Water Management Zone
Encumbered Open Space (due to slope & waterway setback)
Proposed Werribee River Shared Trail
Proposed Road Crossing
Proposed pedestrian/cyclist crossing
OAD
SAYERS ROAD
DAVIS ROAD
Davis Creek
HOGANS ROAD
HOGANS ROAD
METROPOLITAN PLANNING AUTHORITY


FRONTAGE ROAD
Light pole to cast light away from Conservation area
Dwellings to front the Conservation area
Conservation area boundary. Low Fence to exclude vehicles but allow pedestrian access
Foot path to be located on edge of Conservation area where shared path is not adjacent frontage road
2.7m
NATURE STRIP
7.3m
CARRIAGEWAY
3.0m
NATURE STRIP
1.5m
PEDESTRIAN PATH
14.5m
DIRECT FRONTAGE
Path providing public access to dwellings fronting Conservation area
Front boundary of allotment
Dwellings to front the Conservation area
Conservation area boundary. Low Fence to exclude vehicles but allow pedestrian access
5.0m
MINIMUM SETBACK

Appendix H v140828

Sewells Road Reserve Conservation Area Concept Plan

Riverdale Precinct Structure Plan



NOTES:

1. The Primary Conservation Zone will provide primary habitat for Spiny Rice Flower and will include regeneration of native grassland values.
2. The Primary Conservation Zone is to be fenced with low transparent fencing (min height 1.2m) to prevent public access to protect habitat values. Access across the conservation area may only be provided at the pedestrian crossing point shown on this plan via an elevated boardwalk. The boardwalk is to comprise perforated mesh decking to allow infiltration of light to promote native grassland growth beneath the boardwalk, and balustrades to prevent access to the conservation area.
3. Infrastructure or works, other than shown in this plan or associated with the conservation of Spiney Rice Flower or native vegetation, are not suitable within the Primary Conservation Zone. Any such infrastructure or works within this zone requires DEPI's approval.
4. Any planting and revegetation must be consistent with DEPI's requirements.
5. Existing native vegetation must be protected and retained unless otherwise approved by DEPI.
6. Trees are not to be planted within 10m of the boundary of the conservation area.
7. A Fire Management Plan is to be prepared for the conservation area to the satisfaction of the Country Fire Authority.
8. Drainage from stormwater treatment infrastructure must be designed to minimise impacts on the biodiversity values of the conservation area.

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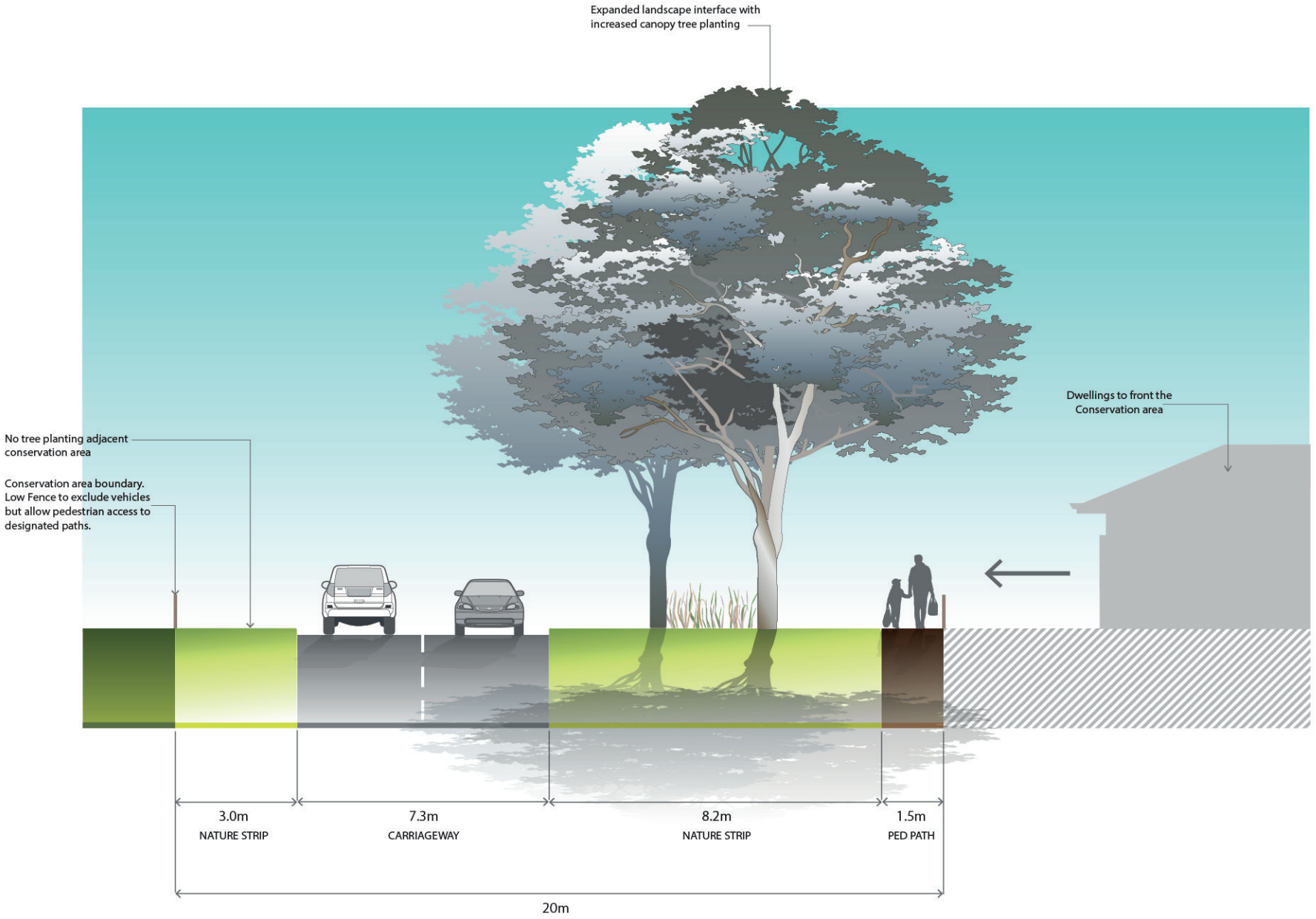

Appendix H Sewells Road Conservation Area Interface

Riverdale Precinct Structure Plan

MPA METROPOLITAN PLANNING AUTHORITY

v140822

METROPOLITAN
PLANNING
AUTHORITY