



CAMDEN COUNCIL AND LIVERPOOL CITY COUNCIL GROWTH CENTRE
PRECINCTS DEVELOPMENT CONTROL PLAN

Leppington Town Centre Development Control Plan

Schedule 2 - Draft for consultation

September 2022

Published by NSW Department of Planning and Environment

planningportal.nsw.gov.au

Title: Leppington Town Centre Development Control Plan

Subtitle: Schedule 2 - [Subtitle]

First published: DRAFT

More information

[Add lines to identify author/unit/location, etc. DELETE THIS SECTION IF NOT NEEDED]

Acknowledgements

[Publication citation or credit for agencies outside the department that have provided significant input to content or funding. DELETE THIS SECTION IF NOT NEEDED]

Cover image: [name of photographer or source. DELETE LINE if not adding cover image or if no attribution is necessary]

© State of New South Wales through Department of Planning and Environment 2022. You may copy, distribute, display, download and otherwise freely deal with this publication for any purpose, provided that you attribute the Department of Planning and Environment as the owner. However, you must obtain permission if you wish to charge others for access to the publication (other than at cost); include the publication in advertising or a product for sale; modify the publication; or republish the publication on a website. You may freely link to the publication on a departmental website.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing ([Month YYYY]) and may not be accurate, current or complete. The State of New South Wales (including the NSW Department of Planning and Environment), the author and the publisher take no responsibility, and will accept no liability, for the accuracy, currency, reliability or correctness of any information included in the document (including material provided by third parties). Readers should make their own inquiries and rely on their own advice when making decisions related to material contained in this publication.

Preamble

Leppington Town Centre is to become a new strategic centre within the Western Parkland City; complementing the role of the Aerotropolis and growing into a regionally significant transit-oriented centre providing major civic, cultural, recreational, retail and business service functions for the area.

It will enable achievement of the vision for Leppington to be active and people focussed, a green urban centre, convenient and connected, a well-designed built environment, to be complementary to its natural environment.

This DCP provides objectives and controls to guide built form and public realm outcomes, achieving good design outcomes.

Good design is important to achieve a scale, bulk and height appropriate to the desired character of the street and surrounding buildings. It achieves an appropriate built form that defines the public domain, provides internal amenity and considers neighbours' amenity.

Good design also recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive development with good amenity. Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context and providing deep soil zones for vegetation and urban heat/water management.

Contents

1.0 Introduction	4
1.1 Name and Application of this DCP Schedule	4
1.2 Structure of DCP Schedule 2	3
1.3 Prevailing Definitions	6
1.4 Variations to Development Controls and DCP Amendments	10
1.4.1 Compliance with the Indicative Layout Plan	10
1.4.2 Compliance with Objectives and Controls in this DCP Schedule	11
2.0 Desired Future Character	12
2.1 Vision for Leppington Town Centre	12
2.2 Desired Future Character Statement	13
2.3 Land Use Planning Principles	15
2.4 Transport and Access Planning Principles	16
2.5 Public Domain Planning Principles	17
2.6 Built Form Planning Principles	18
3.0 Public Domain Controls	20
3.1 General Public Domain Controls	20
3.2 Indicative Layout Plan	21
3.3 Road Hierarchy and Circulation	23
3.4 Street Material Treatments	26
3.4.1 Standard Street Material Treatments	26
3.4.2 Special Street Material Treatments and Intersection Crossing Material Treatments	28
3.5 Street Designs	33
3.6 Intersection Designs	40
3.7 Street Tree Masterplan	42
3.8 Parks, Plazas and Public Open Space	44
3.9 Street Interface Controls	46
3.10 Active Transport Strategy	55
3.11 Pedestrian Desire Lines	58
3.12 Public Transport Strategy	60
3.13 Vistas and Sightlines	62
3.14 Through Site Links	65
3.15 Public Art	66
3.16 Blank Walls	68
4.0 Building Controls	69
4.1 Building Site Requirements	69
4.2 Building Orientation	70
4.3 Building Form	71
4.3.1 Height Strategy	72
4.3.2 Street Setbacks and Building Address	72
4.3.3 Street Wall Height and Upper-Level Setbacks	74

4.3.4 Building Separation and Boundary Setbacks.....	83
4.3.5 Building Bulk	83
4.3.6 Sun Access to Public Spaces.....	84
4.3.7 Building Articulation and Façade Design	85
4.4 Mixed Use Building Functional Design.....	87
4.5 Awnings.....	88
4.6 Landscaping and Tree Canopy Coverage in Residential and Commercial Developments ...	91
4.7 Rooftop Communal Open Space	94
4.8 Water Sensitive Urban Design.....	95
4.9 Drainage and Flood Prone Land.....	96
4.10 Heritage.....	98
4.11 Urban Heat	99
4.12 Sustainability and Rooftop Solar Requirements	101
4.13 Bedroom Mix	103
4.14 Waste Management	104
4.15 Signage	105
4.16 Parking, Loading and Access	108
4.17 Bicycle Parking and End of Trip Facilities	109
4.17.1 Bicycle Parking Rates	110
4.18 Car Parking Design and Access	112
4.18.1 Car Parking Rates.....	116
4.19 Servicing and Loading	120
5.0 Specific Areas	121
5.1 24-Hour Zone	121
5.2 Industrial and Business Development Use Setback.....	125
5.3 Controls for Development Surrounding 1481 Camden Valley Way Leppington (Four Lanterns Estate).....	127
5.4 Amalgamation Controls for Specific Sites	129
Appendix	131
Appendix 1 Street Sections.....	132
Appendix 2 Intersection Designs.....	160
Appendix 2.1 Location Specific Intersection Designs.....	160
Appendix 2.2 Standard Intersection Designs	179
Appendix 3 Street Materials	192
Appendix 4 Street Tree Types.....	222
Appendix 5 Open Space Concept Designs	255

1.0 Introduction

1.1 Name and Application of this DCP Schedule

This DCP schedule forms part of the Camden Growth Centre Precincts Development Control Plan (Camden GCPDCP) and Liverpool Growth Centre Precincts Development Control Plan (Liverpool GCPDCP).

This DCP schedule applies to all development on the land within the Leppington Town Centre Boundary on Figure 1. This schedule and related amendments to the DCP give effect to the provisions of the Camden and Liverpool GCPDCPs for land within the Leppington Town Centre as shown on the Land Application Map.

In the Camden Local Government Area, Parts 5 and 6 of the Camden GCPDCP and Schedule 1 of the Camden GCPDCP do not apply to land within the Leppington Town Centre Boundary, as identified on Figure 1.

Existing residents may carry out development under existing use rights. Parts 1-4 of CGCDCP apply.

Note:

The Leppington Town Centre Precinct is partly within Camden Local Government Area and partly within Liverpool Local Government Area.

Table 1 Applicable Development Control Plans and State Environmental Planning Policy

Development Application for Leppington Town Centre in Liverpool Local Government Area	Development Application for Leppington Town Centre in Camden Local Government Area
Schedule 2: Leppington Town Centre Development Control Plan	Schedule 2: Leppington Town Centre Development Control Plan
Liverpool City Council Growth Centre Precincts Development Control Plan (<i>including schedule 1</i>)	Camden Growth Centre Precincts Development Control Plan (<i>excluding Schedule 1, and Parts 5 and 6 of the Camden GCPDCP</i>)
State Environmental Planning Policy (Precincts—Western Parkland City) 2021	State Environmental Planning Policy (Precincts—Western Parkland City) 2021

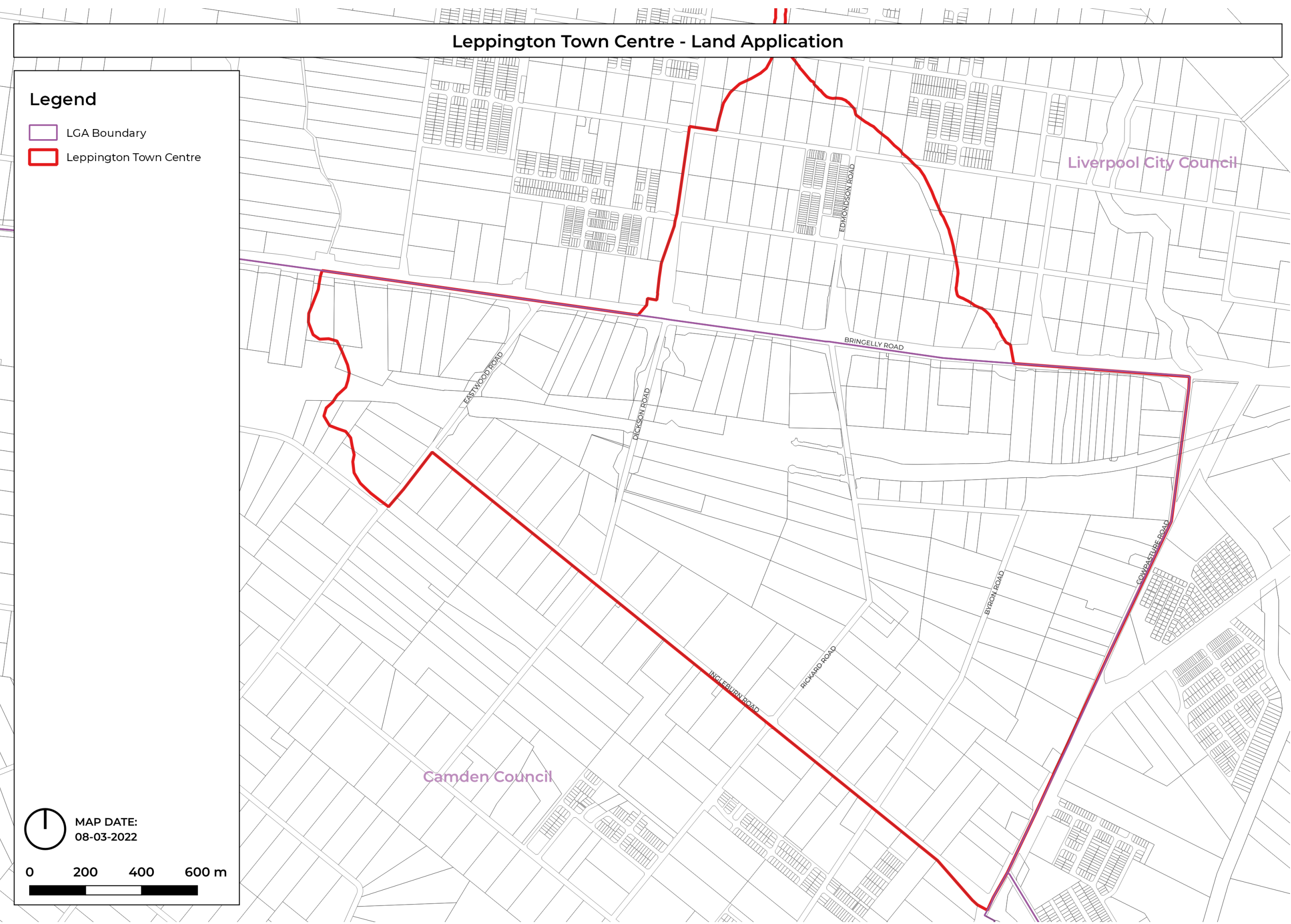


Figure 1 Leppington Town Centre Land Application

1.2 Structure of DCP Schedule 2

On land within the Liverpool Local Government Area this DCP schedule (Schedule 2) must be read in conjunction with Liverpool Growth Centre Precincts Development Control Plan (Liverpool GCPDCP) and Schedule 1.

On land within the Camden Local Government Area this DCP schedule (Schedule 2) must be read in conjunction with Camden Growth Centre Precincts Development Control Plan (Camden GCPDCP). However, Parts 5 and 6 of the Camden GCPDCP and Schedule 1 do not apply.

The Leppington Town Centre DCP Land Application Map is shown below in Figure 2.

In the event of an inconsistency between this DCP schedule and the GCDCPs and / or Schedule 1, the provisions of this DCP schedule (Schedule 2) prevail. Table 2 summarises the structure of this DCP schedule.

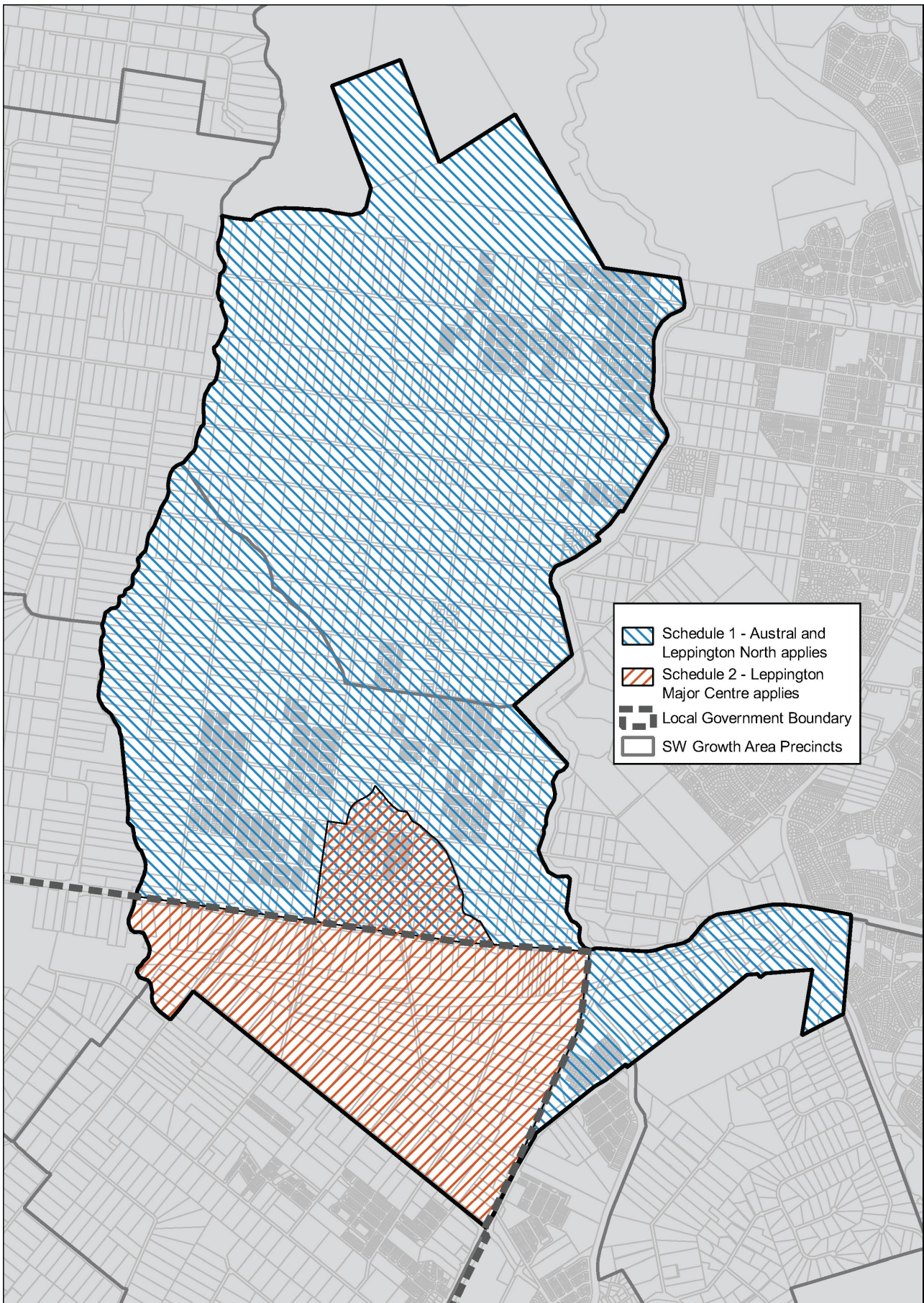


Figure 2 Leppington Town Centre DCP Application Map

Table 2 Structure of schedule

Part	Summary
1.0 Introduction	Identifies the land to which the Schedule applies.
2.0 Desired Future Character	Establishes an overall Desired Future Character and Planning Principles to guide ongoing development in Leppington Town Centre.
3.0 Public Domain Controls	Provides specific objectives and controls that apply to the public domain. Includes the Indicative layout Plan which shows the future layout of the town centre. Establishes a hierarchy of streets within the town centre and the function of each street type. Identifies key access routes for pedestrians, cyclists, public transport and vehicles (cars and delivery vehicles).
4.0 Building Controls	Provides specific objectives and controls that apply to buildings within Leppington Town Centre.
5.0 Specific Areas	Provides objectives and controls that apply to specific areas.
6.0 Appendix	Includes detailed street material treatments, street tree masterplan and tree types, and open space concept designs.

1.3 Prevailing Definitions

The following chapter provides definitions for key terms used in this DCP schedule.

1. Active Commercial Frontage

Is a commercial street frontage where there is an active visual engagement between those in the street and those on the ground floor(s) of buildings. The front facade of buildings, including the main entrance, must face and open (this could include windows) towards the street. Ground floors may accommodate uses such as cafes, shops, businesses or restaurants, however, for a frontage to be active it does not necessarily need to be a retail use. Active Commercial Frontages must provide informal surveillance opportunities and improve the vitality and safety of an area. Active Commercial Frontages serve to define concentrations of commercial activity and support economies of agglomeration. The measures of Active Commercial Frontages are graded from Grade A to Grade C activity and are defined further in this DCP schedule and should be read in conjunction with Figure 23 Street Interface Controls.

a. Active Commercial Frontage, Grade A

Grade A Active Commercial Frontages must be 100% Active Commercial Frontage and:

- Must have similarities consistent with traditional High Streets.
- Must have as many individual commercial frontages as practicable.
- Each individual commercial frontage must be as narrow as practicable to facilitate variety.
- Must provide interest and engage with pedestrians.
- Large format stores must sit behind other commercial frontages that are consistent with the above to ensure continuity of streetscape.
- May provide uses such as boutique shops, cafes, bars and other commercial spaces to contribute to a vibrant, exciting, engaging and varied pedestrian experience on the street.

Grade A Active Commercial Frontages must be consistent with Figure 17 Grade A and B Commercial Frontage Axonometric.

b. Active Commercial Frontage, Grade B

Grade B Active Commercial Frontages must be 75% Active Commercial Frontage. The remaining 25% of the frontage can be services such as fire doors and garage doors or facades with interesting or interactive materiality that ensures there are limited blank walls. A continuous length of services, such as fire doors and garage doors, and blank walls is unacceptable. The applicant must distribute services and blank walls along the façade, preferably interspersed with Active Commercial Frontages, to avoid long stretches of inactivity for the passing pedestrian.

Grade B Active Commercial Frontages must be consistent with Figure 17 Grade A and B Commercial Frontage Axonometric.

c. Active Commercial Frontage, Grade C

Grade C Active Commercial Frontages must be 50% Active Commercial Frontage. The remaining 50% of the frontage can be services such as fire doors and garage doors or facades with interesting or interactive materiality that ensures there are limited blank walls. A continuous length of services, such as fire doors and garage doors, and blank walls is unacceptable. The applicant must distribute services and blank walls along the façade,

preferably interspersed with Active Commercial Frontages, to avoid long stretches of inactivity for the passing pedestrian.

Grade C Active Commercial Frontages must be consistent with Figure 19 Grade C Commercial Frontage Axonometric.

2. Active Residential Frontage

An Active Residential Frontage is a residential street frontage where buildings are designed to facilitate activity and passive surveillance between the building and the street. All ground floor apartments must face and open towards the street with their own gate and or door directly to the street. Ground floor apartments should function, look and feel as though they are a separate terrace house to apartments above.

3. Flexible Residential Frontage/Non-Compulsory Commercial Frontage

A Flexible Residential Frontage/Non-Compulsory Commercial Frontage is a frontage where Council's preference is for ground floor commercial and/or residential dwellings with a separate room at the front of the dwelling that presents to the street that could be used as a home business/office. The purpose of this frontage type is to create a transition between areas with active commercial frontages and areas with residential frontages. Additionally, the purpose of this frontage type is to create flexibility to work from home and/or the ability to potentially convert ground floor residential uses into commercial uses in the future.

A Flexible Residential Frontage/Non-Compulsory Commercial Frontage must have a room at the front of the dwelling that presents to the street that could be used as a home business/office, bedroom or separate living space to ensure maximum flexibility to work from home and/or so that ground floor residential uses can be potentially converted into commercial uses in the future.

A Flexible Residential Frontage/Non-Compulsory Commercial Frontage must have a ground floor ceiling height between 3.3 to 4 metres so that ground floor residential uses can be potentially converted into commercial uses in the future.

Note: A ground floor ceiling height between 3.3 to 4 metres is only required for the room at the front of the dwelling.

4. Crime Prevention through Environmental Design (CPTED)

Crime Prevention through Environmental Design (CPTED) is a crime prevention strategy that focuses on the planning, design and structure of cities and neighbourhoods. It reduces opportunities for crime by using design and place management principles that reduce the likelihood of essential crime ingredients (law, offender, victim or target, opportunity) from intersecting in time and space.

5. Smart Pole

A Smart Pole is a Light Pole that is owned and operated by Council or local agency. A Smart Pole is different to a standard Light Pole that is owned and operated by a utility provider. Smart Poles are generally located on important civic streets such as Rickard Road, Town Centre Streets, Entryway Streets and Boulevards. Smart poles may be used for traffic signals, lighting, signage, CCTV, solar panels and 5G cells.

6. EV Ready Connection

An EV Ready Connection is the provision of a dedicated spare 32A circuit provided in an EV Distribution Board to enable easy future installation of cabling from an EV charger to the EV Distribution Board and a circuit breaker to feed the circuit.

7. Private EV Connection

A Private EV Connection is the provision of a minimum 15A circuit and power point to enable easy future an EV in the garage connected to the main switch board.

8. Shared EV Connection

A Shared EV Connection is the provision of a minimum Level 2 40A fast charger and Power Supply to a car parking space connected to an EV Distribution Board.

9. EV Distribution Board

An EV Distribution Board is a distribution board dedicated to EV charging that is capable of supplying not less than 50% of EV connections at full power at any one time during off-peak periods, to ensure impacts of maximum demand are minimised. To deliver this, the distribution board will be complete with an EV Load Management System and an active suitably sized connection to the main switchboard.

10. EV Load Management System

EV Load Management System is to be capable of:

- reading real time current and energy from the electric vehicle chargers under management
- determining, based on known installation parameters and real time data, the appropriate behaviour of each EV charger to minimise building peak power demand whilst ensuring electric vehicles connected are full recharged.
- scale to include additional chargers as they are added to the site over time.

11. Circular Economy

A circular economy values resources by keeping products and materials in use for as long as possible. Maximising the use and value of resources brings major economic, social and environmental benefits. It contributes to innovation, growth and job creation, while reducing our impact on the environment.

Principles:

- Sustainable management of all resources
- Valuing resource productivity
- Design out waste and pollution
- Maintain the value of products and materials
- Innovate new solutions for resource efficiency
- Create new circular economy jobs
- Foster behaviour change through education and engagement

For further detail refer to *NSW Circular Economy Policy Statement, Too Good to Waste, February 2019*.

12. Public Domain

Elements of the public domain include:

- Streets
- Parks
- Plazas
- Drainage land

13. Core Area

Land identified as 'Inner Core' or 'Outer Core' on the Leppington Town Centre Density Pyramid SEPP mapping.

1.4 Variations to Development Controls and DCP Amendments

1.4.1 Compliance with the Indicative Layout Plan

The Leppington Town Centre Indicative Layout Plan is intended to show how the overall Town Centre will develop over time. It shows how the numerous developments, undertaken over numerous years, will come together to ensure the overall development of the Town Centre is integrated, sustainable and attractive. However, it is recognised that some variation to the layout shown on the ILP may be reasonable to address new or more detailed information about the site, or other factors that might influence individual developments.

Council may grant consent to a proposal that differs from the Indicative Layout Plan (ILP), where the variation is considered to be minor and the proposal is demonstrated to be generally consistent with the ILP. Development applications will be considered on their merits, and applicants are required to demonstrate that the proposed variation is:

- a. Consistent with the relevant Precinct Plan under the Western Parkland City SEPP 2021 (formerly Growth Centres SEPP 2006);
- b. Consistent with the Precinct Planning Outcomes in Part 2 of the GCDSPs;
- c. Consistent with the Desired Future Character Statements in this DCP schedule;
- d. Not likely to significantly impact on the amenity, safety or environmental quality of adjoining lands, or the ability of adjoining development to occur generally in accordance with this DCP schedule.

Where a proposed variation to the DCP does not meet the above requirements, Council may either:

- e. refuse consent for the development application;
- f. condition the development consent to ensure the above requirements are achieved subject to compliance with any condition Council imposes; or
- g. request the applicant to demonstrate that amendment of the DCP is warranted to enable the development to be approved.

Amendment of the DCP will only be considered where the amendment would not significantly alter the planning outcomes for the Precinct. Typically, DCP amendments will not be undertaken to address issues that relate only to a single development: these issues should be dealt with by addressing the criteria for ILP variations above. Amendments will usually only be considered where the change relates to an aspect of the ILP that is demonstrably unreasonable or unnecessary, or where amendments are appropriate to address issues that will affect development generally in the Precinct.

1.4.2 Compliance with Objectives and Controls in this DCP Schedule

Each clause in this DCP schedule contains Objectives and Controls relating to various aspects of development (for example, building setbacks, requirements for car parking, or minimum requirements for landscaping).

The Objectives enable Council and Applicants to consider whether a particular proposal will achieve the development outcomes established for the Town Centre in the ILP.

The Controls establish standards, which if met, mean that development should be consistent with the Objectives. However, in some circumstances, strict compliance with the controls may not be necessary, or may be difficult to achieve because of the particular characteristics of a development site. In these situations, Council may grant consent to a proposal that does not comply with the Controls in this DCP schedule, providing the intent (i.e. the Objective/s) of the Control/s is achieved. Where a variation is sought it must be justified in writing by indicating how the development will meet the Objectives of the relevant Control and / or is generally consistent with the ILP.

2.0 Desired Future Character

2.1 Vision for Leppington Town Centre

The vision for Leppington Town Centre has changed. Over the next 20 years, the planned strategic centre planned around Leppington rail station will grow into a regionally significant transit-oriented centre providing the major civic, cultural, recreational, retail and business service functions for the South West Growth Area. The nearby Aerotropolis will take on the major business and industrial enterprise focus and Leppington Town Centre will now become a more mixed use, urban living and service centre for the surrounding district. It will become home to over 25,000 people who will love this place.

This is the new Vision for Leppington Town Centre...

Active and people focussed

The vision for the Leppington Town Centre is for it to become a major new strategic centre within the Western Parkland City of Sydney. In close proximity to the Western Sydney Aerotropolis and with a rail station providing direct access to Liverpool and Sydney CBD, Leppington Town Centre will be a people and lifestyle focused place, transit oriented and highly convenient with major shopping, cultural and recreation facilities. It will have a multiple education and health facilities, as well as convenient industrial and urban services space on its fringe to meet the needs of its local community.

A green urban centre

A public domain green network will be focused on the existing natural creek-lines and be connected to the main Town Centre Core and Railway Station. The built form will be high quality with a range of densities and building heights increasing with proximity to the Centre and Rail Station. Streets, public and private open spaces will be lined with green tree canopy and have cool outdoor spaces. Leppington will be resilient to urban heat and known for its highly sustainable buildings, spaces and lifestyle.

Convenient and connected

As a strategic centre in the Western Parkland City, Leppington Town Centre will provide much needed homes, jobs, services and a civic hub with high frequency trains and rapid bus to Bradfield in the Aerotropolis, to Liverpool CBD and to greater Sydney, complementing the concept of a 30-minute city. Convenience is never far away with fine grain retail, eat streets, entertainment and excellent transport connections to the rail station at the heart of the centre, and the surrounding area. The range of active transport options through permeable streets and spaces will be a key feature of Leppington, providing access from the outer areas to the centre core. Services, schools, community education and cultural activities will be all within walking distance and people of all ages will feel safe riding bikes through leafy streets on a network of separated cycleways within a 10-minute neighbourhood.

A well-designed built environment

The centre will be known as a smart and innovative city with architecturally designed, sustainable and diverse buildings that open to a vibrant public domain. Streets of varying nature and function will be leafy, human scaled and lined with active and engaging building frontages. A linear high street is planned with fine grain retail and entertainment activated by eat streets, parks and plazas with events and interactive public art including indigenous art. Active and engaging street frontages offer access throughout the town centre for cyclists and pedestrians while also creating a sense of place. Above

street level, rooftop spaces with shared views to cityscapes and landscapes will act as places to relax and connect with others.

Complementary to its natural environment

The built environment is to be complemented by a local open space network focused on three restored and enhanced natural creeks (Kemps, Scalabrini and Bonds Creeks). Urban plazas, parks, sports fields, bush reserves and walking trails will connect kilometres of local open space to the Western Sydney Parklands and the regional open space network creating a green grid. Streets, planned in detail will provide desirable tree planting of indigenous tree species and an environmental function, as well as their transport function.

2.2 Desired Future Character Statement

Objectives

- a) Leppington Town Centre will be the primary focus for employment, retailing, entertainment and community services in the South West Growth Area. It will grow to become a Strategic Centre, consistent with the Greater Sydney Region Plan, the Western City District Plan and the Camden and Liverpool Local Strategic Planning Statements. Leppington Town Centre will be a destination for all residents in the South West Growth Area, providing higher order services and facilities. Leppington is also an important centre for NSW government services, education and health services, in addition to community focussed infrastructure delivered by Council.
- b) Leppington Town Centre will be focused on Leppington Station connected via an attractive public domain comprising a network of parks, plazas and active tree lined streets.
- c) Leppington Town Centre embeds the principles of 'Connection to Country' to empower Aboriginal voices within decision-making; give Aboriginal people greater choice, access and control over land, water, housing and resources within NSW; drive success in Aboriginal organisations and businesses; and create better outcomes for every Aboriginal person in NSW.
- d) Development will activate and enliven the public domain by encouraging the use of outdoor space for movement, recreation and socialisation.
- e) Leppington Station will provide access to the centre connected by an integrated road network that builds on existing roads, respects historic road alignments and considers all road users such as pedestrians, cyclists, buses and cars.
- f) Streets within the town centre will focus on public transport, active transport and pedestrian amenity. Rickard Road and Edmondson Avenue will be a key public transport, pedestrian and cyclist route.
- g) Market Lane will be the key north south retail spine linking pedestrians from Leppington Station to the to the civic precinct to the north and the retail core to the south. Market Lane will be activated by a high-quality public domain and development that provides active frontages to encourage cafes, small bars, boutique shopping and the like.

- h) Perimeter roads (Eastwood Road, Dickson Road, Ingleburn Road, Byron Road, Camden Valley Way, Fourth Avenue, Bringelly Road and Cowpasture Road) will be the main vehicular access routes to ensure streets within the town centre remain focused on public transport, active transport and pedestrian amenity. Despite being main vehicular access routes, perimeter roads must also accommodate public transport, active transport and pedestrian amenity with appropriate planting and material treatments.
- i) The layout of the centre will capitalise on the natural features of the site. Public open space will take advantage of the creeks running through Leppington Town Centre, which form natural edges to the urban areas. The creek lines will serve an important role in drainage and water quality management and provide attractive green spaces for recreation and pedestrian connections to other areas of the Town Centre. These green spaces will link the centre to surrounding recreation areas. Development will be oriented to activate and enhance these spaces.
- j) Water sensitive urban design measures will be integrated within streets, parks and plazas to emphasise connections to the creeks.
- k) A number of parks and plazas will provide places for people to meet and play, and for the community to gather in. These parks and plazas are located and oriented to attract people to key destinations.
- l) Parks and plazas are interconnected to the regional public open space network and provide for an attractive public domain.
- m) The centre will contain a mix of land uses to encourage vibrancy and to create a wide range of employment opportunities:
 - A retail core south of Leppington Station, with opportunities for mixed use development at the fringes integrating with the Scalabrini Creek parkland corridor.
 - A civic precinct north of Leppington Station with education, cultural, recreation and services for residents of the South West Growth Area, in a vibrant mixed use area that connects Bringelly Road, the station, Rickard Road and Scalabrini Creek.
 - Bulky goods retailing and bulky goods related activities will take advantage of the high visibility of major roads including Bringelly Road, Dickson Road and Cowpasture Road. Bulky goods should not be located in highly walkable areas of the Town Centre such as the core.
 - High Density residential development will be focused within a 10-to-15-minute walk from Leppington Station. Density should be highest near Leppington Station, with density decreasing the further away the site is located from the station.
 - An industrial precinct west of Dickson Road will provide significant employment opportunities and contain industrial activities that meet the needs of the surrounding residential population.
- n) Development should respond to local scenic views such as parks, plazas and creeks as well as further scenic views such as the Blue Mountains and the Sydney skyline.
- o) The structural elements of the masterplan (the road network, park and plaza network and general arrangement of land uses) are critical to creating a cohesive, functional and attractive

centre. This DCP schedule focuses on ensuring that development in the centre, at all stages of its growth, is consistent with the ultimate structural elements for Leppington Town Centre.

Controls

- 1) The applicant must demonstrate compliance with the above Desired Future Character Statement objectives.

2.3 Land Use Planning Principles

Objectives

- a) A wide range of commercial, retail, community services, educational, light industrial, entertainment and recreational opportunities are available in Leppington Town Centre.
- b) Opportunities for residential development exist within high and medium density residential areas and mixed-use areas within or near the centre and within walking and cycling distance of Leppington Station.
- c) Related land uses take advantage of opportunities to locate near each other to maximise access to services, economies of agglomeration and the efficient provision and use of ancillary functions such as car parking.
- d) The mix of land uses within the centre creates high levels of activity, and a vibrant, attractive centre.
- e) The scale, intensity and function of land uses reinforces Leppington Town Centre's role as a Strategic Centre and draws people to the centre from the South West Growth Area.
- f) Land uses take advantage of public transport provision, the cycling network and the major road network, all of which make Leppington Town Centre a preferred location for major employment generating land uses.
- g) Development responds to existing patterns of subdivision and land ownership to make efficient use of land and to ensure neighbouring development can occur as the centre progressively develops.
- h) At each stage in the development of the town centre, land uses and the form of development will be consistent with the Vision for the town centre.

Controls

1. The applicant must demonstrate compliance with the above Land Use objectives.

2.4 Transport and Access Planning Principles

Objectives

- a) A hierarchy of streets creates clearly legible routes for pedestrians, cyclists, public transport, cars and service vehicles to access and circulate Leppington Station and the town centre.
- b) The function of each street type is clearly defined.
- c) Streets are designed and constructed to standards that will facilitate the establishment of a high-quality tree lined streetscape and provide sufficient capacity for pedestrians, cyclists and vehicles to move throughout the centre.
- d) Streets are safe, attractive and interesting elements of the public domain that contribute to civic life.
- e) Leppington Station is a key transport connection to metropolitan Sydney, particularly for workers in the centre. Permeability and access to and from Leppington Station, particularly for pedestrians, cyclists and buses is a critical element of the town centre road network.
- f) All streets within the centre have low traffic speeds for pedestrian amenity and safety.
- g) Rickard Road and Edmondson Avenue are a low speed traffic environment that gives priority to buses, pedestrians and cyclists. It is the primary access route from suburban areas into the transport interchange and Leppington Station.
- h) Market Lane is the focus of activity in the retail core of the centre. Retail, commercial and residential development activate the street, along with pedestrians and cyclists.
- i) Perimeter roads (Eastwood Road, Dickson Road, Ingleburn Road, Byron Road, Camden Valley Way, Bringelly Road, Fourth Avenue and Cowpasture Road) are the main vehicular routes to ensure Rickard Road, Edmondson Avenue and the centre of Leppington Town Centre are focused on public transport, active transport and pedestrians.
- j) Town Centre Streets are active and pedestrian friendly, with capacity for buses to circulate on bus capable streets. Town Centre Streets have active ground floor frontages.
- k) Shared Lanes cater for pedestrians, support compatible secondary active frontages for safety and amenity (e.g. small laneway shops and secondary building entries) and provide direct vehicle access to internal car parks and loading bays.

Controls

1. The applicant must demonstrate compliance with the above Transport and Access objectives.

2.5 Public Domain Planning Principles

Objectives

- a) The public domain comprises a network of streets, parks and plazas that are activated, accessible at all times of the day, connect places and provide a consistent, high quality character and amenity that defines Leppington Town Centre.
- b) Elements of the public domain may be constructed by Council or other parties but are designed and constructed to consistent standards to unify development across the town centre.
- c) Landscaping of streets, parks and plazas enhances the quality of the public domain, provides protection from the sun, contributes to the Tree Canopy target, and links the natural features of the town centre with the urban areas.
- d) Materials and finishes such as paving, street furniture, lighting, and elements that link the public and private domain such as ground floor transition areas, building facades and awnings, must be consistent across the town centre.
- e) The design of streets reinforces their role in the road hierarchy and provides a safe, attractive and legible network for pedestrians, cyclists, public transport and cars. Street designs reinforce walkability and maximum block dimensions.
- f) Green links along Kemps Creek, Scalabrini Creek and Bonds Creek create a positive interface between the urban, built up parts of the centre and natural features.
- g) Streets, and green streets connect or terminate at parks and plazas within Leppington Town Centre as well as regional open space outside of the centre.
- h) The orientation of streets, parks and plazas takes advantage of and emphasises local views to Kemps Creek, Scalabrini Creek, Bonds Creek as well as distant views to the Blue Mountains and the Sydney skyline.
- i) Elements of water cycle management are integrated with the street network and public spaces to capitalise on the contribution of water to the amenity and character of the centre.
- j) The design of the public domain achieves energy efficiency and is filled with sunlight in winter.

Controls

1. The applicant must demonstrate compliance with the above Public Domain principles.

2.6 Built Form Planning Principles

Objectives

- a) The design, orientation, size and bulk of buildings compliment the public domain and ensure natural light reaches the public domain. Slender and tall building forms will allow daylight to access between buildings to the public and private domain.
- b) The location, orientation and height of buildings takes advantage of and emphasises local views to Kemps Creek, Scalabrini Creek, Bonds Creek and distant views to the Blue Mountains and the Sydney skyline.
- c) The built form contributes to a legible town centre by highlighting key destinations and creating landmarks.
- d) Building orientation, building heights and the design of building facades enhance safety and amenity in the public domain, including streets, parks, plazas and the creek corridors.
- e) Taller buildings are clustered near Leppington Station.
- f) The bulk of buildings is minimised by a fine grained road network and by limiting the floorplate of taller building elements.
- g) Mid-block links are encouraged to improve pedestrian circulation and reduce the horizontal bulk of buildings.
- h) Buildings always have Active Commercial Frontages and Active Residential Frontages onto streets, parks and plazas to facilitate activity.
- i) Ancillary activities such as parking, loading and service areas are visually screened from the public domain by either sleeving parking with buildings, creating underground parking or creating above ground parking that sits above active ground floor uses, such as Active Commercial Frontages, and is sleeved by apartments and façade treatments.
- j) Driveways take up as little space as possible and loading docks are internal and or sleeved by buildings with active frontages to the street to improve pedestrian amenity on the street.
- k) Buildings are orientated to take advantage of solar access and provide protection from prevailing winds both for building occupants and those in the public domain.
- l) The design and construction of buildings maximises energy efficiency, minimises water use and considers the embodied energy of materials used in construction.

- m) Development in the vicinity of listed heritage items respects and responds to the heritage significance of those items.

Controls

1. The applicant must demonstrate compliance with the above Built Form principles.

This part of the page is intentionally blank

3.0 Public Domain Controls

3.1 General Public Domain Controls

Objectives

- a) To establish a structure for the public domain that connects and integrates development within the Leppington Town Centre.
- b) To ensure that elements of the public domain are designed and constructed to appropriate standards, and that satisfactory arrangements are in place for the ongoing management and maintenance of the public domain either by Council or land owners.

Controls

- 1. Public domain elements must be located as shown in the Indicative Layout Plan (Figure 3).
- 2. Elements of the public domain that are zoned RE1 Public Recreation or SP2 Infrastructure can be delivered by Council, or by another party in accordance with this DCP schedule and must be dedicated to Council, subject to the agreement of Council.
- 3. Streets that are not zoned SP2 are to be delivered by the applicant and dedicated to Council subject to Council's design standards.
- 4. Elements of the public domain that are zoned for purposes other than those listed in Control 3 above are the responsibility of the applicant, and details of the proposed design, construction and operational management of public domain elements must be included in development applications.
- 5. Access to the public domain must be available to the public at all times regardless of Controls 3 and 4 above.

Note: Council may accept dedication of public domain elements such as plazas subject to certain conditions. However, Council may require that these elements remain in private ownership and are maintained and managed by the land owner to appropriate standards. Applicants are encouraged to incorporate these elements of the public domain in development proposals in the Leppington Town Centre, and these proposals should be discussed with Council prior to submission of a development application.

3.2 Indicative Layout Plan

The Indicative Layout Plan forms the basis for urban development in Leppington Town Centre by setting out:

- a. the road network;
- b. public transport routes;
- c. the open space and drainage networks;
- d. the locations of land uses including residential development, schools, community facilities, utilities, centres and employment lands;
- e. areas requiring protection because of environmental or heritage values;
- f. the density and types of housing that are preferred in various parts of the Precinct.

Objectives

- a) To enable development to occur within Leppington Town Centre in a coordinated manner in accordance with the Indicative Layout Plan.
- b) To manage fragmented land.

Controls

1. Development within Leppington Town Centre must generally be consistent with the layout of the Indicative Layout Plan (Figure 3).

Leppington Town Centre Indicative Layout Plan

Legend

- Commercial
- Mixed Use
- Business Development
- Light Industrial
- Medium Density Residential
- High Density Residential
- Railway Corridor
- Public Recreation
- Private Recreation
- School
- Utilities Infrastructure
- Drainage and Riparian
- Landscaped Road Reserve
- Linear Plaza
- Road
- Pedestrian Priority Street
- Recreation Facility
- Education
- Playing Field
- Health Hub
- Nature Reserve
- Commuter Car Park
- Community Centre
- Train Station
- Bus Interchange
- Primary Active Link
- Proposed Active Link

MAP DATE:
13-09-2022

0 200 400 600 m

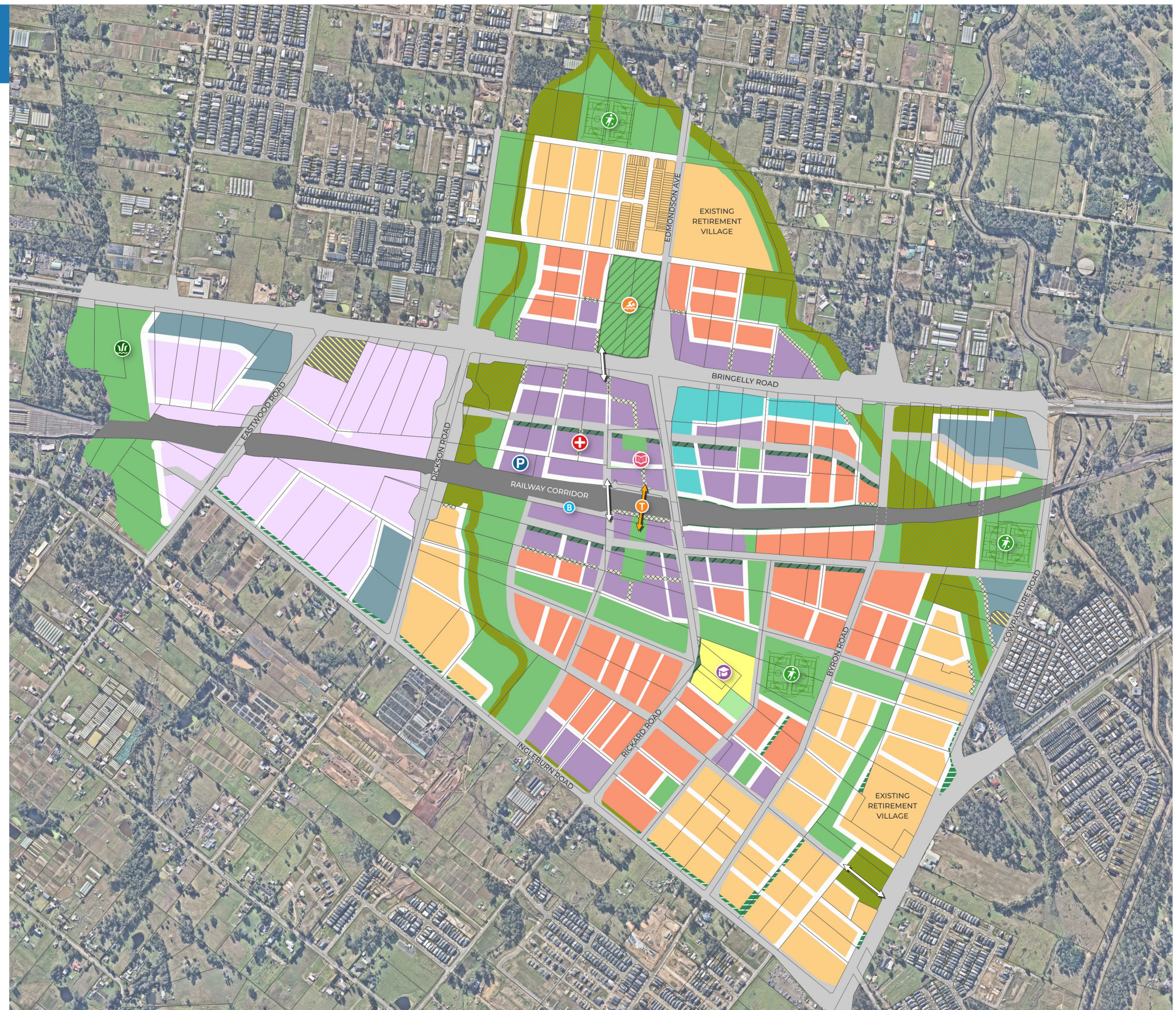


Figure 3 Leppington Town Centre Indicative Layout Plan

3.3 Road Hierarchy and Circulation

Objectives

- a) To ensure that the development of Leppington Town Centre is based on a coordinated, integrated hierarchy of streets that connect people and places within the centre to people and places beyond the centre.
- b) To ensure walking, cycling and public transport are the dominant transport modes within the centre, while recognising the importance of other vehicles (especially point to point vehicles, driverless vehicles, share and hire car vehicles and service vehicles) to the viability and functionality of the centre.
- c) To ensure that streets provide for all modes of transport and that conflicts between modes are appropriately managed based on user hierarchy and the place/movement function of each street.
- d) To ensure a cohesive, safe and well-designed town centre street network that achieves the above objectives through the use of design elements within streets and the public domain.

Controls

1. The locations of streets must be consistent with the Indicative Layout Plan (Figure 3).
2. The street type must be consistent with the Street Typology Map (Figure 4)
3. The design, construction and layout of streets must be consistent with the relevant schedules of this DCP:
 - a. Material Treatment Masterplan provided in 3.4 Street Material Treatments
 - b. Street Designs provided in 3.5 Street Designs
 - c. Intersection Designs provided in 3.6 Intersection Designs
 - d. Street Tree Masterplan provided in 3.7 Street Tree Masterplan
 - e. Street Interface Controls provided in 3.9 Street Interface Controls
 - f. Cycle Strategy provided in Figure 26 Cycle Route Map.
 - g. Pedestrian Strategy provided in Figure 27 Pedestrian Desire Lines.
4. Any variation to the street typologies as per controls 1-3 above must be generally consistent with the principal design elements of those controls, and the Western Sydney Design Guide.
5. A Local Area Traffic Management (LATM) plan shall be submitted with any development which involves the opening of a new road(s), or modifications to existing roads. Design solutions shall conform to Austroads Guide to Traffic Management Part 8 (Local Area Traffic).

6. For a modifications to the street network (layout and typology) to be considered by Council, the proposed street must:
- a. Achieve the same outcomes in terms of circulation, especially pedestrian circulation.
 - b. Maintain the hierarchy of streets within the centre.
 - c. Prioritise pedestrians and cyclists.
 - d. Be consistent with requirements for bus access in and around the centre, including Leppington Public School and the Leppington Transport Interchange.
 - e. Enable the management of stormwater including connections to trunk stormwater basins.
 - f. Not unreasonably impact on the ability of adjoining land owners to develop their land in accordance with the Indicative Layout Plan.
 - g. Be consistent with the Desired Future Character and Planning Principles in Section 2 of this DCP schedule.
 - h. Be consistent with the above controls 4 to 8.

Notes: For consistency it is Council's preference that if the applicant can demonstrate the above and wish to change the street typology that they use an existing street typology from this DCP schedule.

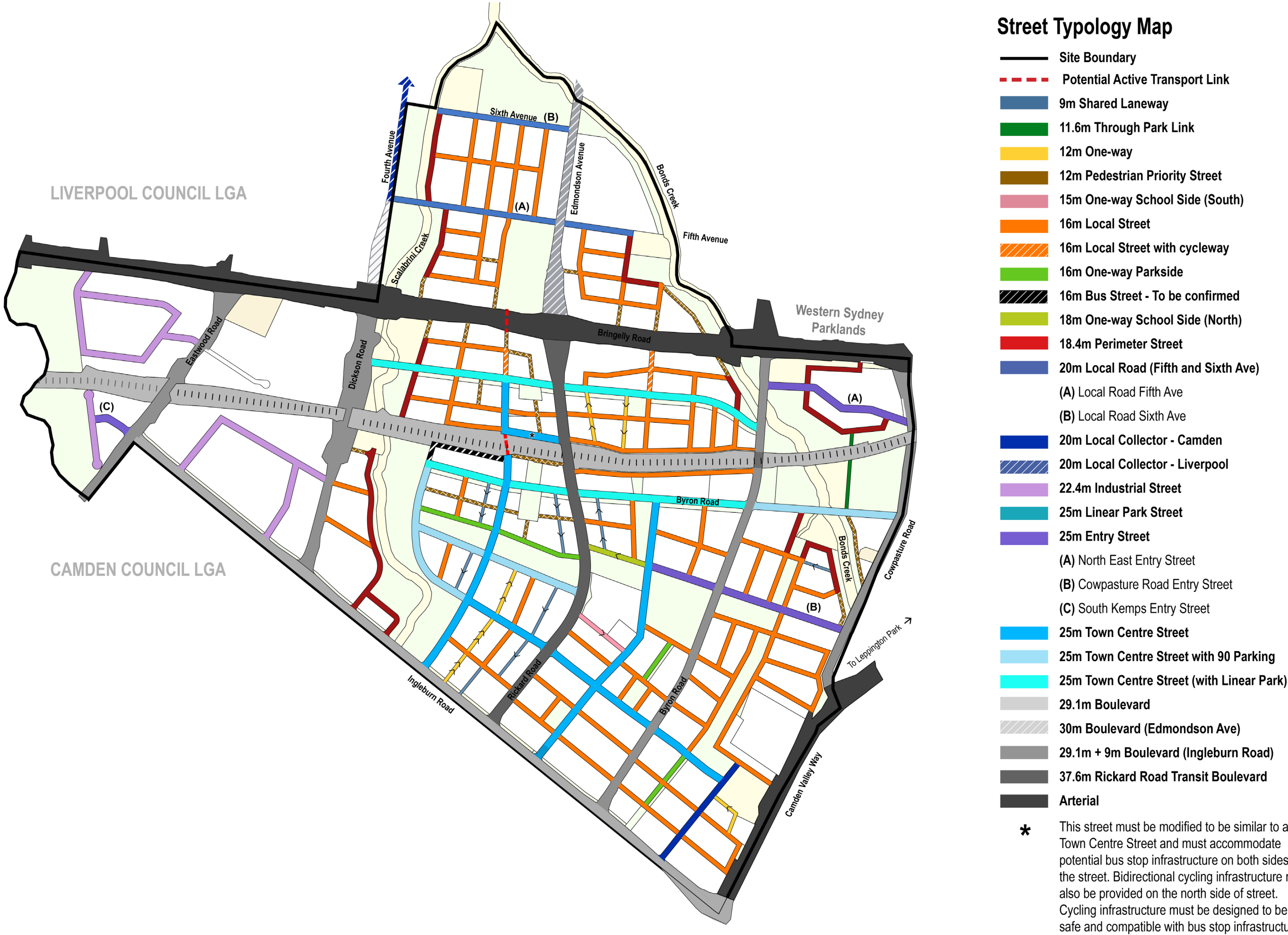


Figure 4 Street Typology Map

3.4 Street Material Treatments

3.4.1 Standard Street Material Treatments

Objectives

- a) Establish consistent and legible street materials in Leppington Town Centre.

Controls

1. All street and intersection material treatments must be consistent with 3.4.1 Street Material Schedule, Appendix 3 Street Materials, and Figure 11 Intersection crossing types.
2. Development must generally use the same street material treatment as the adjacent development. Preference is given to higher grade street material treatments.

Note: Materials for each respective street are also shown in Figure 5 below.

STREET MATERIAL SCHEDULE

STANDARD FOOTPATH PAVING



PAVING TYPE 01

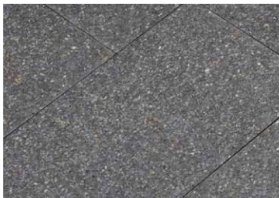
Insitu concrete with saw cuts
Saw cut size: 900 x 300 mm
Colour: Blue metal aggregate
Finish: Broom Finished



PAVING TYPE 02

Granite setts
Size: 100 x 100 x 60 mm
Colour: Sesame Grey as available
from Sam the Paving Man, or equal
Finish: Exfoliated

TOWN CENTRE FOOTPATH PAVING SUBSTITUTE OF PAVING TYPE 01



PAVING TYPE 03

Concrete Unit Paver
Size: 900 x 300 x 40 mm
Paver pattern: Stretcher Bond
Colour Gunmetal as available from
Urbanstone, or equal
Finish: Honed

SHARED PATH PAVING



PAVING TYPE 04

Insitu concrete
Colour: Blue metal aggregate
Finish: Broom Finished

DEDICATED CYCLEPATH PAVING AND ROAD SURFACE



PAVING TYPE 05

Coloured asphalt
Colour: Green

PARKING BAY PAVING



PAVING TYPE 07

Permeable paving - H80 HydroSTON
or equal
Size: 80 x 206 x 136mm
Colour: Light Grey as available from
HydroSTON

Figure 5 Street material schedule

3.4.2 Special Street Material Treatments and Intersection Crossing Material Treatments

Objectives

- a) To ensure a coordinated approach to material treatments for streets, including footpaths and intersections, in Leppington Town Centre.
- b) Provide high-quality pavement and road treatments that relates to areas of active frontages and high foot traffic.

Controls

1. Intersection crossing types must be consistent with both the location and type indicated on Figure 11 Intersection crossing types, as well as the corresponding crossing in the appendix of this schedule.
2. Special Road Material Treatments must be consistent with the material indicated on Figure 6 Special Road Material Treatments.
3. Intersection crossing types must be consistent with the corresponding intersection crossing examples shown in Figures 7, 8, 9, and 10.
4. Where Town Centre Footpath Paving is identified in Figure 12 Special material treatments on footpath, Standard Footpath Paving (paving type 01 in Figure 5) must be substituted with Town Centre Footpath Paving (paving type 04 in Figure 5).
5. Any traffic calming devices should be consistent with controls in the Liverpool and Camden Council Growth Centre DCPs (Section 3.3.3 of Liverpool GCDP & 3.3.1 Camden GCDP).

Note: Raised crossings require concurrence of the respective Council's Local Traffic Committee. Council encourages early engagement to secure pre-approval of raised crossings.

SPECIAL ROAD TREATMENT ROAD CROSSING



PAVING TYPE A

Granite setts
Size: 100 x 100 x 60 mm
Colour: Sesame Grey as available
from Sam the Paving Man, or equal
Finish: Exfoliated

SPECIAL ROAD TREATMENT CENTRAL INTERSECTION ZONE



PAVING TYPE B

Granite setts
Size: 100 x 100 x 60 mm
Colour: Sesame Grey as available
from Sam the Paving Man, or equal
Finish: 80% Natural split 20%
Exfoliated (even mix)

Figure 6 Special Road Material Treatments

Intersection and crossing material examples

Note: Further detail is provided in 'Designing Leppington Town Centre' and the Appendix of this DCP Schedule.

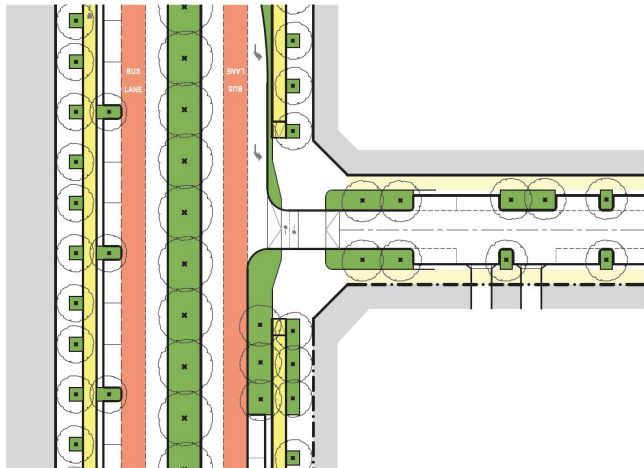


Figure 7 Raised pedestrian and cycle crossing

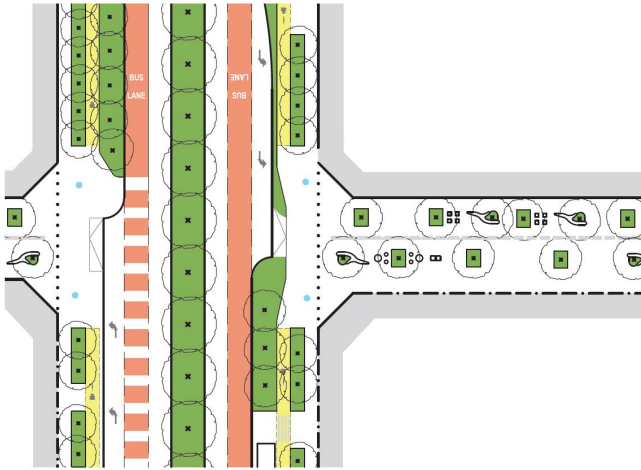


Figure 8 Raised pedestrian and cycle crossing

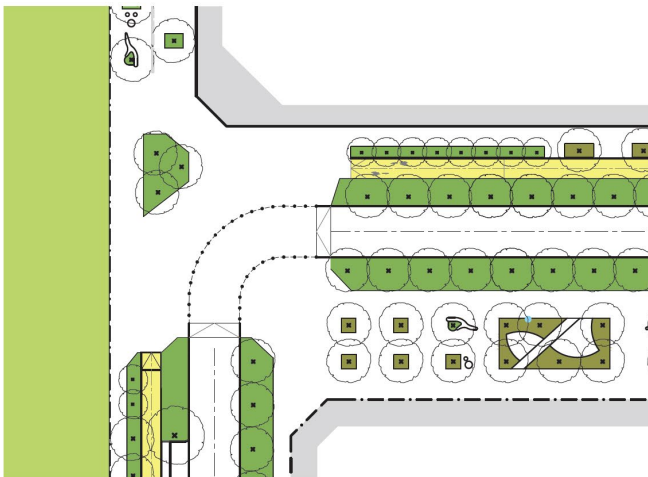


Figure 9 Raised pedestrian crossing on bend to connect plazas

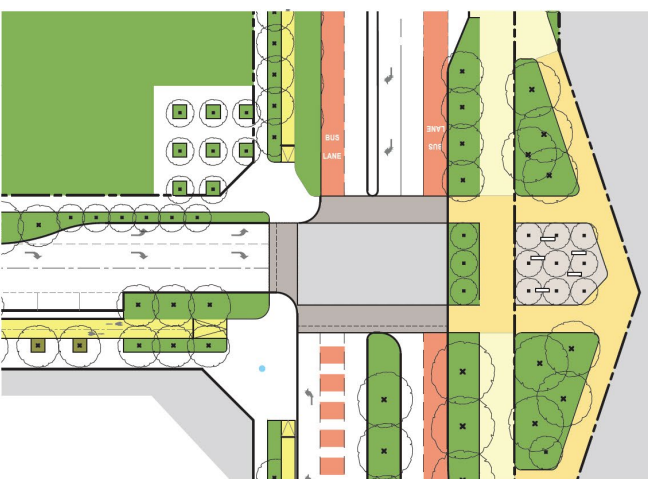


Figure 10 Special paving treatments to signalise intersections (different road material)



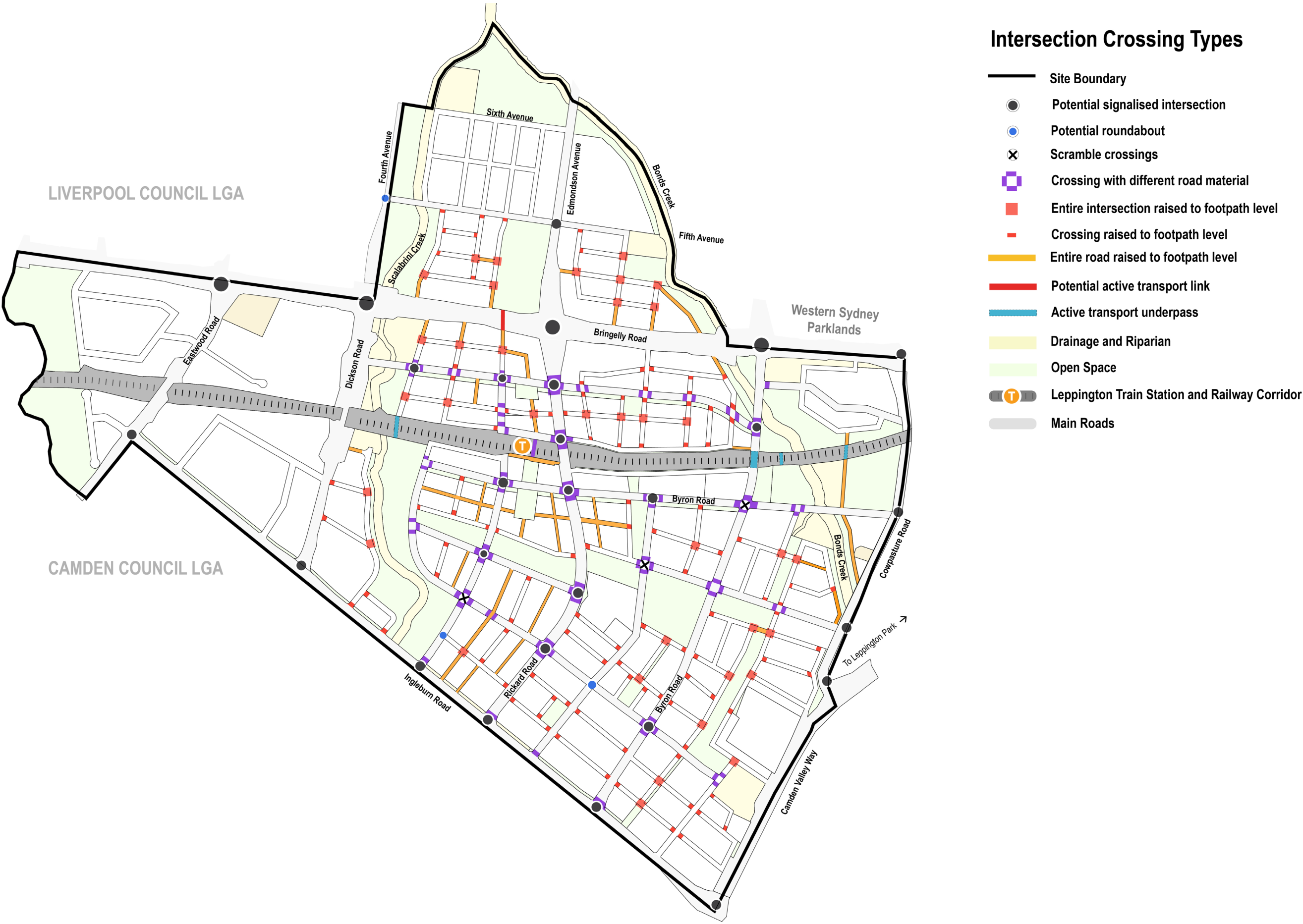
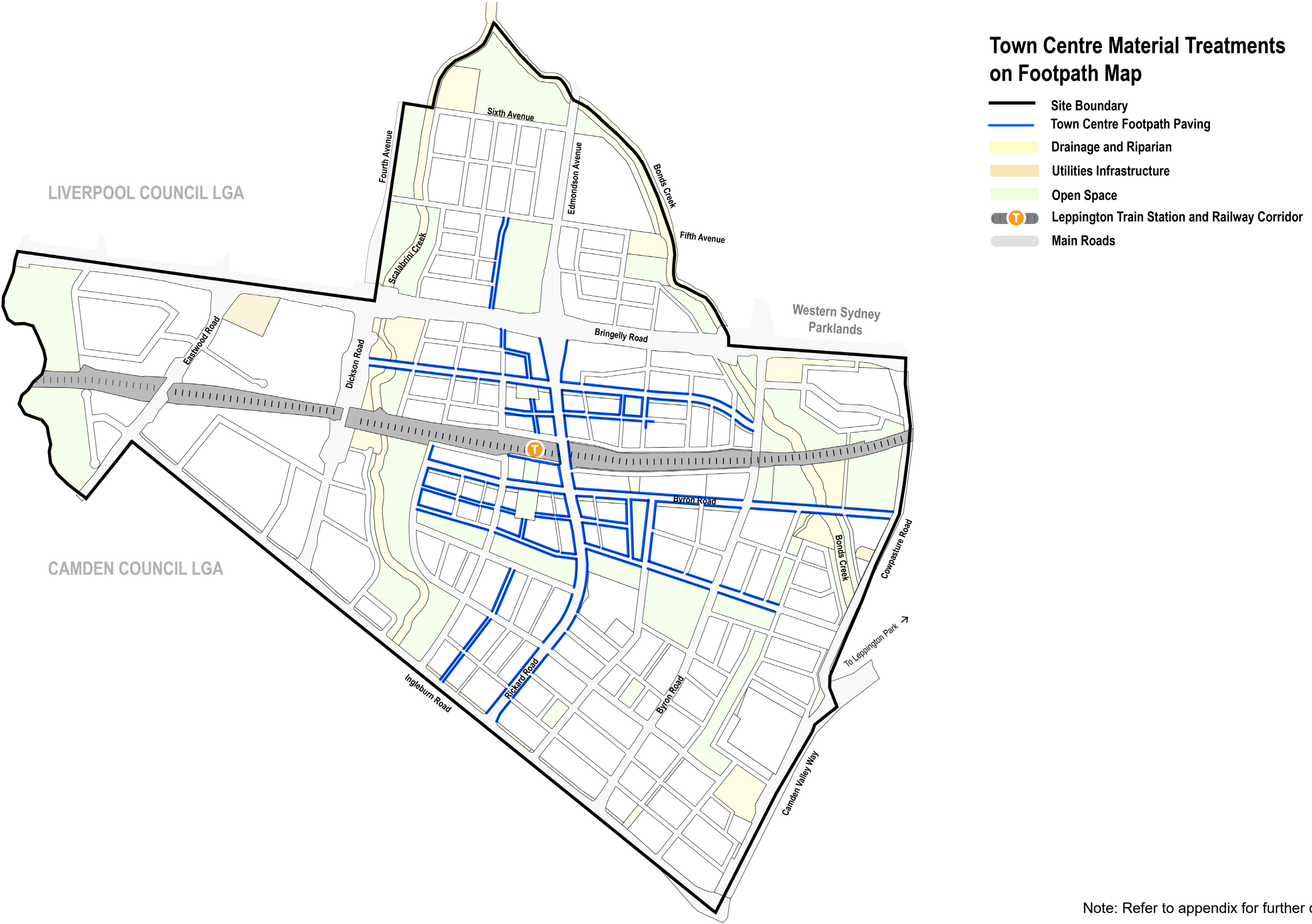


Figure 11 Intersection crossing types



Note: Refer to appendix for further detail

Figure 12 Special material treatments on footpath

3.5 Street Designs

This section of this DCP schedule should be read with Figure 4 Street Typology Map above, corresponding street section and plans listed in Appendix 1 Street Sections and corresponding street materials listed in Appendix 3 Street Materials.

Objectives

- a) Establish design standards that correspond with the intended function and character of the different street types and design requirements in Leppington Town Centre.
- b) Provide a fine grained and legible pedestrian street network that maximises access to and within the Leppington Town Centre.
- c) Ensure the hierarchy of streets is discernible through variations in carriageway, pavement surfaces, on-street parking and street tree planting.
- d) Provide a street network that promotes public transport, walking and cycling as the preferred modes of movement.
- e) Ensure that the street network provides a high level of amenity and safety for all users and provides opportunities for engagement.
- f) Ensure active street frontages to increase the interaction of pedestrians with commercial development.
- g) Ensure streets have appropriate deep soil and tree canopy cover in order to combat the urban heat island.
- h) Streets should be easily maintained.
- i) Street design should avoid cluttering the public domain with regulatory signage.

Table 3 Controls for individual street typologies

Street Type	Control(s)
Rickard Road	<ul style="list-style-type: none"> a) Rickard Road must function as a transit boulevard with priority to public transport in a 24 hour bus lane on each side of the road. b) Pull in bus stop bays are not permitted. Buses must stop in the left lane to avoid buses needing to re-enter traffic which can cause accumulative delays to busses. <i>Note: Pull in bus stop bays may only be constructed where buses are expected to dwell for significant periods of time (such as school bus stops).</i> c) A fully separated unidirection cycleway must be constructed on each side of the road for the full length of Rickard Road within the town centre precinct boundary. d) <i>Note: A bi-directional share path will need to be provided on both sides of the road between the Town Centre Street closest to Bringelly Road and Bringelly Road until such time that a footbridge can be provided over Bringelly Road to accommodate the long term cycling network as indicated in Figure 26 Cycle Route Map.</i> Rickard Road must have an attractive landscape character with tree canopy coverage consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. e) Active frontages must be incorporated into street design. f) Rickard Road is an access denied road with no driveways permitted. g) The design of this street must incorporate smart poles consistent with the prevailing definition of smart poles in Section 1.3.
Boulevards	<ul style="list-style-type: none"> a) Pull in bus stop bays are not permitted. Buses must stop in the left lane to avoid buses needing to re-enter traffic and cause delays to the bus. <i>Note: Pull in bus stop bays may only be constructed where buses are expected to dwell for significant periods of time (such as school bus stops).</i> b) A bidirectional shared path must be constructed on both sides of the road for pedestrians and cyclists. c) Boulevards must have an attractive landscape character with tree canopy coverage provided consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. d) Active frontages must be incorporated into street design. e) Boulevards are access denied roads with no driveways permitted. f) The design of this street must incorporate smart poles consistent with the prevailing definition of smart poles in Section 1.3. <p><i>Note: Section 3.6.1 Location Specific Intersection Designs includes intersection designs for Rickard Road and Byron Road but not for the other major boulevards in Leppington Town Centre (Dickson Road, Eastwood Road and Ingleburn Road). Intersection designs for other major boulevards should be generally guided by the style of intersection designs for Rickard Road and Byron Road.</i></p>

Street Type	Control(s)
Town Centre Streets	<ul style="list-style-type: none"> a) Where bus stops are required at intersections, bus stops must be provided immediately after the intersection consistent with 3.6.2 Standard Intersection Designs. Where bus stops are required mid block, busses are to stop within the vehicular lane and the passenger waiting area constructed within the parking bay area. g. <i>Note: Pull in bus stop bays may only be constructed where buses are expected to dwell for significant periods of time (such as school bus stops).</i> b) A fully separated bidirectional cycleway must be constructed on one side of the road for cyclists. The side of the road that the fully separated bidirectional cycleway must be constructed on must be consistent with Figure 26 Cycle Route Map. c) Town Centre Streets must have an attractive landscape character with tree canopy coverage provided in tree pits between every two parking spaces and on the footpath consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. d) Active frontages must be incorporated into street design. e) Town Centre Streets are access denied roads with no driveways permitted. f) The design of this street must incorporate smart poles consistent with the prevailing definition of smart poles in Section 1.3.
Entry Streets (Cowpasture Road Entry Street, Bringelly Road Entry Street, South Kemps Creek Entry Street)	<p>Where bus stops are required at intersections, bus stops must be provided immediately after the intersection consistent with 3.6.2 Standard Intersection Designs.</p> <p><i>Note: Mid block bus stops are to be avoided on Entry Streets.</i></p> <ul style="list-style-type: none"> a) A bidirectional shared path must be constructed on both sides of the road for pedestrians and cyclists. b) Entry Streets must have an attractive landscape character with tree canopy coverage provided in tree pits between every two parking spaces and on the footpath consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. c) Active frontages must be incorporated into street design. d) Entry Streets are access denied roads with no driveways permitted. e) The design of this street must incorporate smart poles consistent with the prevailing definition of smart poles in Section 1.3.
Industrial Street	<ul style="list-style-type: none"> a) A bidirectional shared path must be constructed on both sides of the road for pedestrians and cyclists. b) Industrial Streets must have an attractive landscape character with tree canopy coverage provided in tree pits between every three parking spaces and on the footpath consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. c) Active frontages must be incorporated into street design.

Street Type	Control(s)
Local Collector Streets	<ul style="list-style-type: none"> a) A shared path must be constructed on both sides of the road for pedestrians and cyclists. There is to be no line marking of the shared path. Instead, a shared path logo is to be painted in appropriate locations to indicate that cyclists are permitted on the footpath. b) Local Collector Streets must have an attractive landscape character with tree canopy coverage provided in tree pits between every two parking spaces and on the footpath consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. c) Active frontages must be incorporated into street design.
Perimeter Street	<ul style="list-style-type: none"> a) Perimeter Streets provide a suitable setback for bushfire prevention. b) Industrial Streets must have an attractive landscape character with tree canopy coverage provided in tree pits between every two parking spaces and on the footpath consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. c) Active frontages must be incorporated into street design.
Local Street	<ul style="list-style-type: none"> a) A shared path must be constructed on both sides of the road for pedestrians and cyclists. There is to be no line marking of the shared path. Instead, a shared path logo is to be painted in appropriate locations to indicate that cyclists are permitted on the footpath. b) Local Streets must have an attractive landscape character with tree canopy coverage provided in tree pits between every two parking spaces and on the footpath consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. c) Active frontages must be incorporated into street design.
Local Street (Parkside with 90° parking)	<ul style="list-style-type: none"> a) Local Streets must have an attractive landscape character with tree canopy coverage provided in tree pits between every two parking spaces and on the footpath consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. b) Active frontages must be incorporated into street design.
One Way Street	<ul style="list-style-type: none"> a) Local Streets must have an attractive landscape character with tree canopy coverage provided in tree pits between every two parking spaces and on the footpath consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. b) Active frontages must be incorporated into street design. c) A fully separated unidirectional cycleway, in the opposite direction to vehicles, must be constructed on one side of the road for cyclists.
One Way Street (Parkside)	<ul style="list-style-type: none"> a) Must be generally consistent with the relevant street section identified in 3.5.1 to 3.5.26 and open space concept design in 3.8 Parks, Plazas and Public Open Space. b) A fully separated unidirectional cycleway, in the opposite direction to vehicles, must be constructed on one side of the road for cyclists.

Street Type	Control(s)
One Way Street (North School Park)	<ul style="list-style-type: none"> a) Must be generally consistent with the relevant street section identified in 3.5.1 to 3.5.26 and open space concept design in 3.8 Parks, Plazas and Public Open Space. b) A fully separated unidirectional cycleway, in the opposite direction to vehicles, must be constructed on one side of the road for cyclists.
One Way Street (South of School)	<ul style="list-style-type: none"> a) Must be generally consistent with the relevant street section identified in 3.5.1 to 3.5.26. b) A fully separated unidirectional cycleway, in the opposite direction to vehicles, must be constructed on one side of the road for cyclists.
Shared Service Lane (Retail)	<ul style="list-style-type: none"> a) Shared Service Lanes must have an attractive landscape character with tree canopy coverage consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. b) Active frontages must be incorporated into street design. c) Shared Service Lanes must be constructed with a centre running dish drain and no curb to be flush with active frontages. d) Shared Service Lanes must have shared zone signs installed.
Shared Service Lane (Residential)	<ul style="list-style-type: none"> a) Shared Service Lanes must have an attractive landscape character with tree canopy coverage consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. b) Active frontages must be incorporated into street design. c) Shared Service Lanes must be constructed with a centre running dish drain and no curb to ensure the road is flush with active frontages. d) Shared Service Lanes must have shared zone signs installed.
Pedestrian Priority Street	<ul style="list-style-type: none"> a) Pedestrian priority streets are to be designed for pedestrians with only emergency or event vehicles allowed access. <i>Note: Where vehicular access is required a Shared Service Lane should be used.</i> b) Pedestrian Priority Streets must have an attractive landscape character with tree canopy coverage consistent with minimum dimensions and locations indicated in the relevant street section identified in 3.5.1 to 3.5.26. c) Active frontages must be incorporated into street design. d) Pedestrian Priority Streets must be constructed with a centre running dish drain and no curb to ensure the road is flush with active frontages. e) A shared path logo is to be painted in appropriate locations to indicate that cyclists are permitted on Pedestrian Priority Streets. f) The design of these streets within the 24 hour zone (identified in Section 5.1) must incorporate smart poles consistent with the prevailing definition of smart poles in Section 1.3.
Through Park Link	<ul style="list-style-type: none"> a) The Through Park Link must be designed to be consistent with the relevant street section identified in 3.5.1 to 3.5.26 and open space concept design in 3.8 Parks, Plazas and Public Open Space.
Linear Park Street	<ul style="list-style-type: none"> a) Must be generally consistent with the relevant street section identified in 3.5.1 to 3.5.26 and open space concept design in 3.8 Parks, Plazas and Public Open Space.

1. All streets that are anticipated to operate as bus routes must be capable of accommodating buses with a minimum vehicle length of 14.5 metres. Refer to figure 28 Public Transport Map in section 3.12 for indicative bus routes.
2. All streets must be constructed in accordance with the street sections and material treatments identified in sections 3.5.1 to 3.5.26 and Appendix 1 Street Sections.
3. Vehicles over 7.5m in length or weigh of more than 4.5t GVM cannot stop for >1 hour unless signposted.
4. Streets must follow the following design and installation specifications:

Service pits:

- a. All service pits to be installed to align with back of kerb orientation and/or with surrounding paving pattern.
- b. All service pits to be infilled with adjacent paving material. Where required, ensure paver cuts to continue surrounding paving pattern. Include dummy cuts as required to avoid smaller pieces.
- c. All service pit locations, orientation and dimensions to be approved by all relevant authorities.

Furniture and services:

- d. Allow sufficient space between fixtures to accommodate in-ground footings.
- e. Allow for a min of 1200mm clearance between furniture/services or as required in relation to specific use (e.g. seating bench front clearance, bike racks).
- f. Locate and install furniture and services between tree pits to avoid any interference along adjacent movement zones.
- g. Where possible, align fixtures with paving joints to minimise paving cuts. Ensure clean and smooth edges at fixing base.
- h. Maintain a minimum of 200mm clearance between fixtures and property boundary.
- i. All services installed within planting must be located away from tree root zone.

Paving installation:

- j. Paving pattern to follow street and back of kerb orientation.
- k. Include custom size paving units where required to suit site conditions and minimise small pieces.
- l. The minimum paver dimension is 100mm.
- m. Ensure even joints spread along the paved path. Align joints to tree pits and property boundary corner.
- n. Install paving to ensure even falls (range fall min 1:100 and max 1:40) and smooth transition between pavers and material changes.
- o. Ensure joints and infill colours to match adjacent paving type.

Tree pit:

- p. Tree pit edge to be aligned with back of the kerb orientation/path of travel lines.
- q. Ensure clean and smooth edge all around the tree pit.

- r. Native grasses and groundcovers to be planted with consideration of their full width along tree pit edge to avoid interference with the line of movements and reduce ongoing maintenance.
- s. Native grasses and groundcovers max 600mm at mature height to maintain sight clearance.

Parking bay paving:

- t. Permeable paving to parking bay areas is encouraged wherever possible to maximise water infiltration.

3.6 Intersection Designs

Objectives

- a) Establish design standards that correspond with the intended function and character of the different intersection types and design requirements in Leppington Town Centre.
- b) Provide a fine grained and legible pedestrian street network that maximises access to and within the Leppington Town Centre.
- c) Provide a street network that promotes public transport, walking and cycling as the preferred modes of movement.
- d) Ensure that the intersections provide a high level of amenity and safety for all users.

Controls

- 1. Intersections must be designed and constructed in accordance with the relevant intersection design and material treatments identified in Appendix 2 Intersection Designs and Appendix 3 Street Materials and satisfy the above objectives for intersection designs.

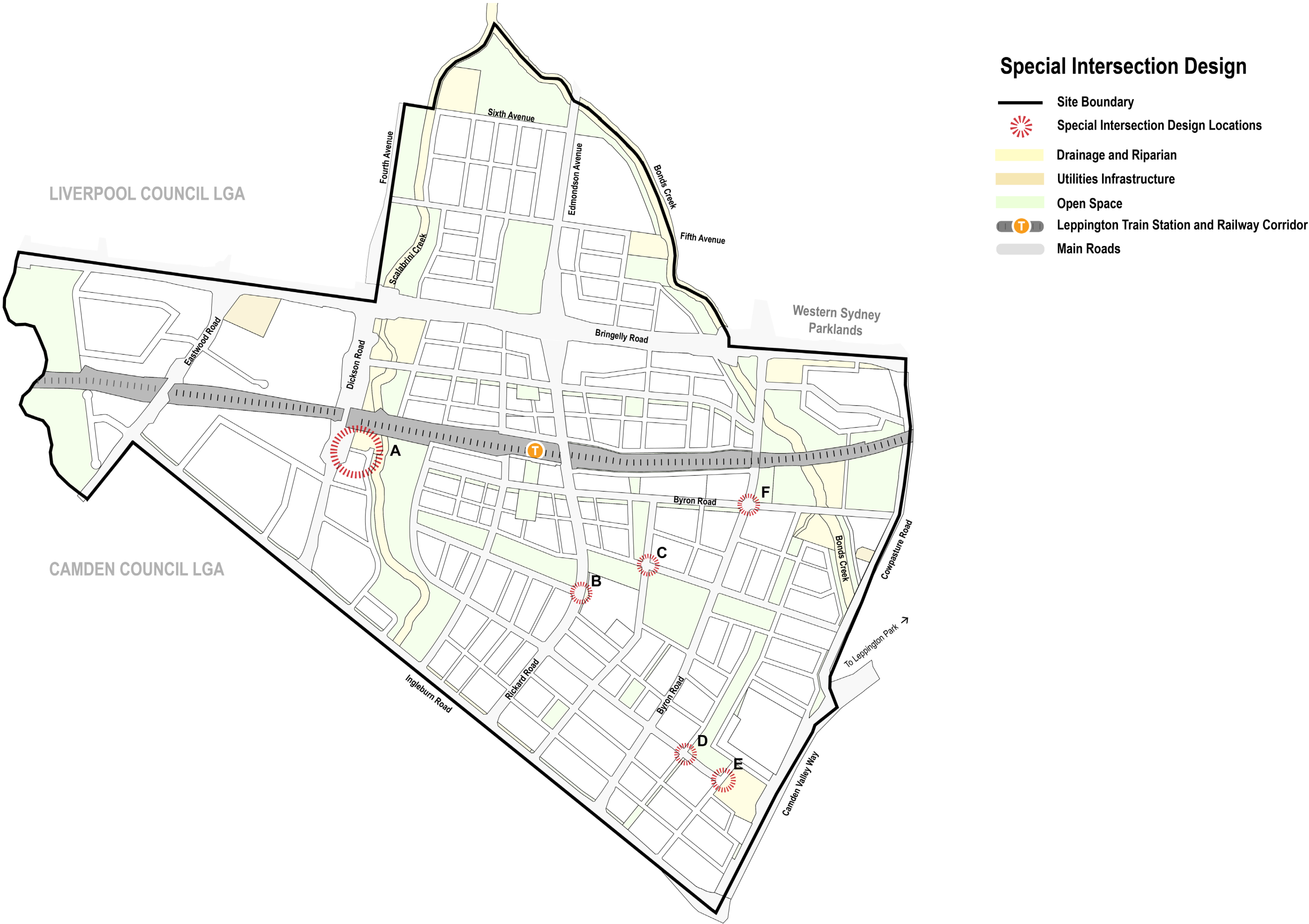


Figure 13 Location Specific - Special Intersection Design

3.7 Street Tree Masterplan

Objectives

- a) Provide a coordinated approach to suitable tree species selection for street trees in Leppington Town Centre that will provide street character and tree canopy.

Controls

1. Tree planting must be generally consistent with the street tree masterplan and relevant street section as shown in Figure 14 Street Tree Masterplan and Appendix 4 Street Tree Types.

Note: Some inconsistencies may exist between the street tree masterplan and indicative layout plan.

STREET TREE MASTERPLAN



Figure 14 Street Tree Masterplan

3.8 Parks, Plazas and Public Open Space

The Leppington Town Centre will present opportunities for active and passive recreation, established through a series of creekside parklands, civic spaces, local parks, linear parks, bushland reserves and sports facilities. The Kemps Creek, Scalabrini Creek, and Bonds Creek corridors provide major north-south elements adjoined by District level open space, with connections provided to other recreation opportunities within the Town Centre and to the Western Sydney Parklands.

Objectives

- a) Public open space is to be integrated with the built form of the Leppington Town Centre.
- b) Public open space is to provide a range of recreational and social opportunities for workers, residents and visitors to Leppington Town Centre.
- c) The design of public open space is to respect the natural environment, integrating water sensitive urban design and the rehabilitation of Riparian Protection Areas.

Controls

- 1. The design of public and publicly-accessible open spaces must demonstrate consistency with the following principles:
 - a. sites are to be accessible and safe,
 - b. include pedestrian and cycling connections to the overall network,
 - c. provide passive surveillance,
 - d. respond to existing site features (e.g. existing trees, topography, water),
 - e. respond to the surrounding buildings functions and uses,
 - f. support and enhance local biodiversity and natural values,
 - g. include vegetated buffers and/or landform to busy roadways to minimise interferences, and
 - h. tree planting to maximise shade.
- 2. The provision of open space in the Leppington Town Centre is to be in accordance with Figure 15.
- 3. The design of public open space is to be generally in accordance with the concept designs in Appendix 5 Open Space Concept Designs.

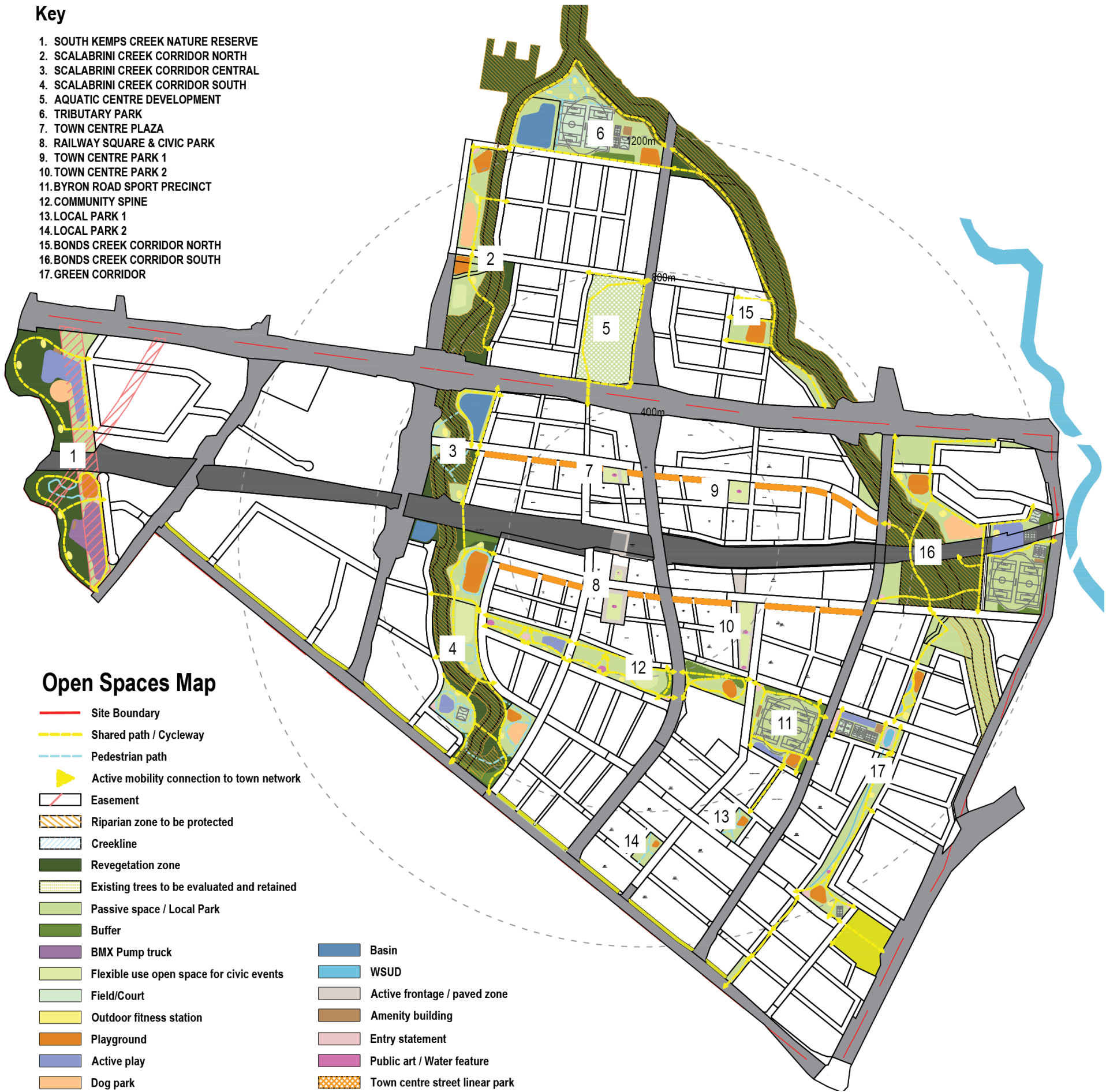


Figure 15 Leppington Town Centre Open Space Network

3.9 Street Interface Controls

Street interface controls define the types of activity and building frontages expected from the ground floor(s) of commercial and residential development in the Leppington Town Centre.

The following street interface controls define the location and type of street frontages, to promote an active visual engagement between those in the street and those on the ground floor(s) of buildings.

The front facade of buildings, including the main entrance, must face and open (this could include windows) towards the street. Ground floors may accommodate uses such as cafes, shops, businesses or restaurants, however, for a street interface to be active it does not necessarily need to be a retail use.

Commercial Street Frontages must provide informal surveillance opportunities and improve the vitality and safety of an area. Commercial interfaces serve to define concentrations of commercial activity and support economies of agglomeration. The measures of commercial interface are graded from Grade A to Grade C activity and are defined below.

An Active Residential Frontage is a residential street frontage where buildings are designed to facilitate activity and passive surveillance between the building and the street. All ground floor apartments must face and open towards the street with their own gate and or door directly to the street. Ground floor apartments should function, look and feel as though they are a separate terrace house to apartments above.

To support the above changes and ensure Leppington Town Centre can evolve over time, Council officers have introduced a Flexible Residential Frontage in the DCP. Where a Flexible Residential Frontage is required the front rooms of ground floor apartments must be designed in such a way that they can be used as a home business or easily be converted to a commercial use. The requirement to have a Flexible Residential Frontage is mapped and apply to streets where, from an urban design perspective, there is a transition from ground floor commercial uses to ground floor residential uses

Objectives

- a) Provide differing levels of active street interface along nominated streets in the Leppington Town Centre in line with the prevailing definitions of this DCP schedule.
- b) Ensure the design of ground level active street interfaces are appropriate to the location and use, and do not detract from the visual appeal and amenity of the streetscape.
- c) Provide informal surveillance opportunities and improve the vitality and safety of an area.
- d) To sleeve large format retail with smaller shopfronts to avoid long stretches of single ownership shopfront.
- e) Encourage cafes, small bars, restaurants, boutique shopping and the like, particularly in mixed-use areas close to civic spaces and Leppington Station.
- f) Allow for active frontages in other non-identified locations to contribute to the amenity of the streetscape.
- g) Ensure Leppington Town Centre has a vibrant, active and engaging street life.

Controls

1. Street Interfaces are to be provided in the locations nominated in Figure 23 Street Interface Controls
2. Building and street interfaces are to contribute to the liveliness and vitality of streets by maximising entries or display windows. This includes shops and/or food and drink premises or other uses, customer service areas and activities which provide pedestrian interest and interaction.
3. Nominated street interfaces shall minimise the percentage of façade dedicated to fire doors, garage doors, blank walls, switchboards, and the like.
4. Glazing on Commercial Frontages must not be covered by signs or stickers (e.g. advertisements and promotions) for more than 25% of the glazing. This is to ensure passive surveillance via visual engagement between those in the street and those on the ground floor(s) of buildings.
5. Where buildings adjoin open space, the building must face and open (this could include windows) towards the open space. Ground floors may accommodate uses such as cafes, shops, businesses, restaurants or ground floor residential apartments with individual access that function, look and feel as though they are separate terrace houses compared to the apartments above. The type of ground floor use and level of activation must be consistent with Figure 23 Street Interface Controls. These frontages must provide passive surveillance and allow workers, customers and residents to enjoy and utilise the immediately adjoining open space.
6. Driveways and service entries are not permitted on streets that require Active Commercial Frontage Type A (as shown in Figure 23 Street Interface Controls), Town Centre Streets, Entryway Streets, Boulevards (for example, Rickard Road and Byron Road) and Arterial Roads (for example, Bringelly Road).
7. Street frontages must conform to street levels as much as is practicable.
8. As shown in Figure 23 Street Interface Controls, street interface **Active Commercial Frontage Type A**:
 - a. must have an Active Commercial Frontage for 100% of the street frontage with an average shopfront width of 6m to 10m.
 - b. must have as many individual active commercial frontages as practicable.
 - c. must not have any blank walls, service entries and driveways.
 - d. each individual commercial frontage width must be as narrow as practicable to facilitate a variety of different frontages. A frontage width as close to 6m as practicable, is preferred.
 - e. must maximise transparent glazing. Dark glazed facades are not supported.
 - f. must site large format stores behind other commercial frontages that are consistent with a-e above to ensure continuity of streetscape, as shown in Figure 20.
 - g. are to provide a high standard of finish and high level of architectural detail by using different materials and design elements to encourage variation in facade treatments.

- h. may provide uses such as boutique shops, cafes, bars and other commercial spaces to contribute to a vibrant, exciting, engaging and varied pedestrian experience on the street.

9. As shown in Figure 23 Street Interface Controls, street interface **Active Commercial Frontage Type B:**

- a. must have an Active Commercial Frontage for at least 75% of the street frontage with an average shopfront width of 6m to 15m.
- b. where a frontage longer than 15m is considered appropriate:
 - i. they are to be limited to three per 100m of building frontage.
 - ii. the façade should present as multiple frontages, using architectural elements such as columns and windows to divide the appearance and provide architectural diversity. An example is shown in Figure 25 Single façade presenting as multiple frontages.
- c. must provide a high standard of finish and appropriate level of architectural detail by using different materials and design elements to encourage variation in facade treatments.
- d. must distribute services, access and blank walls along the façade, preferably interspersed with active street interface, to avoid long stretches of inactivity for the passing pedestrian.
- e. must not provide a continuous length of services, such as fire doors and garage doors, and blank walls, which is unacceptable
- f. Fire doors, garage doors or facades should have interesting or interactive materiality that ensures provision of blank walls is strictly limited.

10. As shown in Figure 23 Street Interface Controls, street interface **Active Commercial Frontage Type C:**

- a. must have an Active Commercial Frontage for at least 50% of the street frontage with average shopfront width of 6m to 15m.
- b. Where longer frontages are considered appropriate:
 - i. they are to be limited to two per 100m of building frontage.
 - ii. the façade should present as multiple frontages, using architectural elements such as columns and windows to divide the appearance and provide architectural diversity. An example is shown in Figure 25 Single façade presenting as multiple frontages.
- c. must provide an appropriate standard of finish and appropriate level of architectural detail.
- d. must distribute services, access and blank walls along the façade, preferably interspersed with active street interface, to avoid long stretches of inactivity for the passing pedestrian.
- e. must not provide a continuous length of services, such as fire doors and garage doors, and blank walls, which is unacceptable.

11. As shown in Figure 23 Street Interface Controls, street interface **Flexible Residential Frontage**

- a. must have a room at the front of the dwelling that presents to the street that could be used as a home business/office, bedroom or separate living space to ensure maximum

flexibility to work from home and/or so that ground floor residential uses can be potentially converted into commercial uses in the future.

- b. must have a ground floor ceiling height between 3.3 to 4 metres so that ground floor residential uses can be potentially converted into commercial uses in the future.

Note: A ground floor ceiling height between 3.3 to 4 metres is only required for the room at the front of the dwelling.

12. **A Residential Frontage** is required in all areas where Active Commercial Frontages and Flexible Residential Frontage/Non-Compulsory Commercial Frontages do not apply (as shown in Figure 23 Street Interface Controls). A Residential Frontage:
- a. is a residential street frontage where buildings are designed to facilitate activity and passive surveillance between the building and the street.
 - b. must have individual dwelling presentation at street level and first floor level with an average width of 4m to 10m.
 - c. must face and open towards the street.
 - d. must have active ground floor residential apartments with individual access that function, look and feel as though they are separate terrace houses compared to the apartments above.
 - e. must minimise blank walls and provide privacy through front patio setbacks and plantings.
 - f. must a high standard of finish and appropriate level of architectural detail.
 - g. must limit the use of opaque fencing and screening in favour of landscaped frontages with low rise fences.
13. Service and utility bays, loading docks and car park entries are to be orientated towards Shared Service Lanes, or where this is not possible, to the lowest category of Street Frontage in Figure 23 Street Interface Controls.
14. Service and utility bays, loading docks and car parks must be visually screened from the public domain by either sleeving parking with buildings, creating underground parking or creating above ground parking that sits above active ground floor uses, such as Active Commercial Frontages, and is sleeved by apartments and façade treatments.
15. Driveways must take up as little space as possible and service and utility bays, loading docks and car parks are internal and or sleeved by buildings with active frontages to the street to improve pedestrian amenity on the street. Large blank walls presented to the street as a result of service and utility bays, loading docks and car parks are unacceptable.

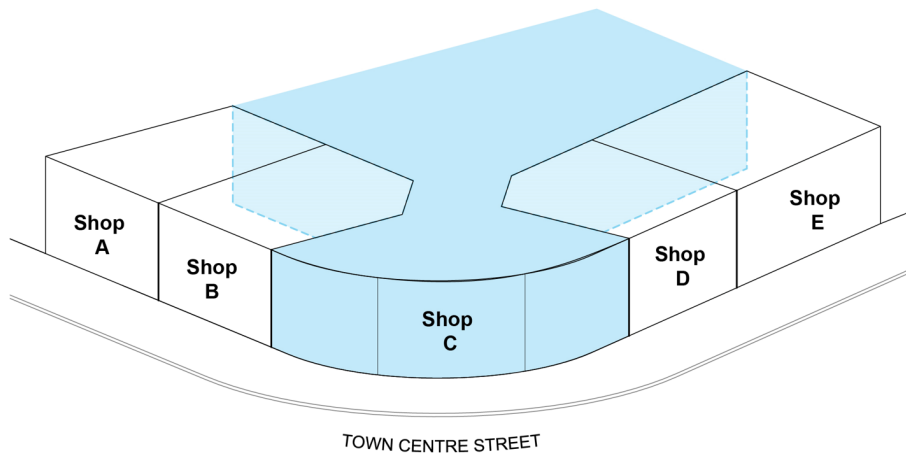


Figure 16 Shop front with larger retail sleeved behind

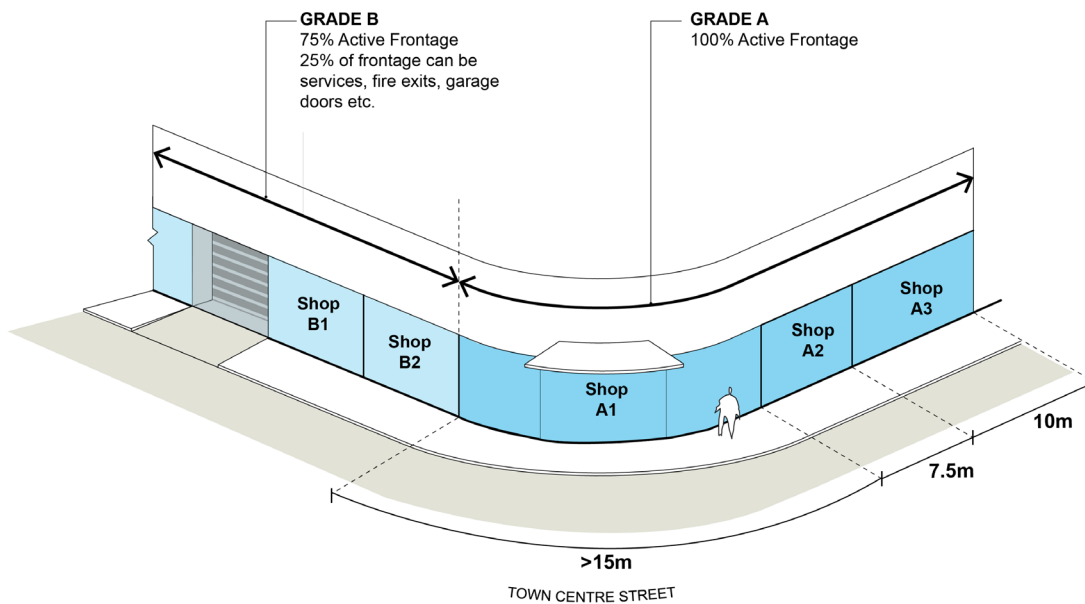


Figure 17 Grade A and B Commercial Frontage Axonometric



Figure 18 Examples of Grade A (left) and Grade B (Right) Commercial Frontages

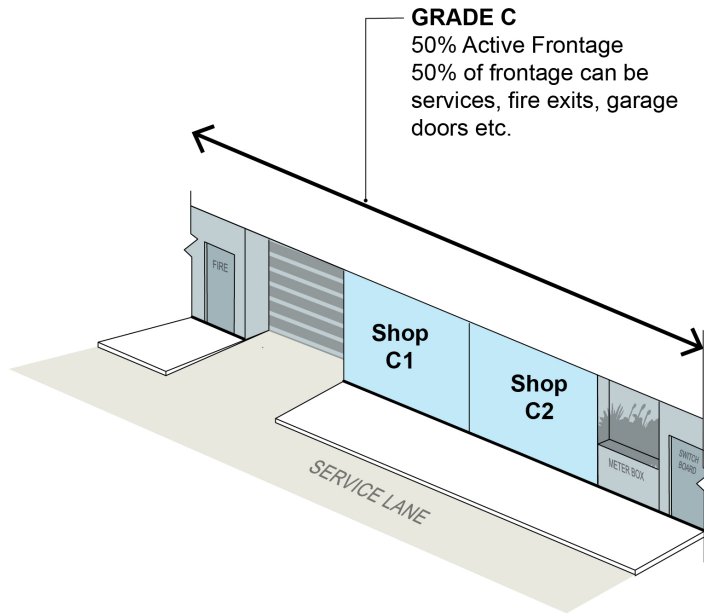


Figure 19 Grade C Commercial Frontage Axonometric



Figure 20 Example of a Grade C Commercial Frontage



Figure 21 Example of Active Residential frontage

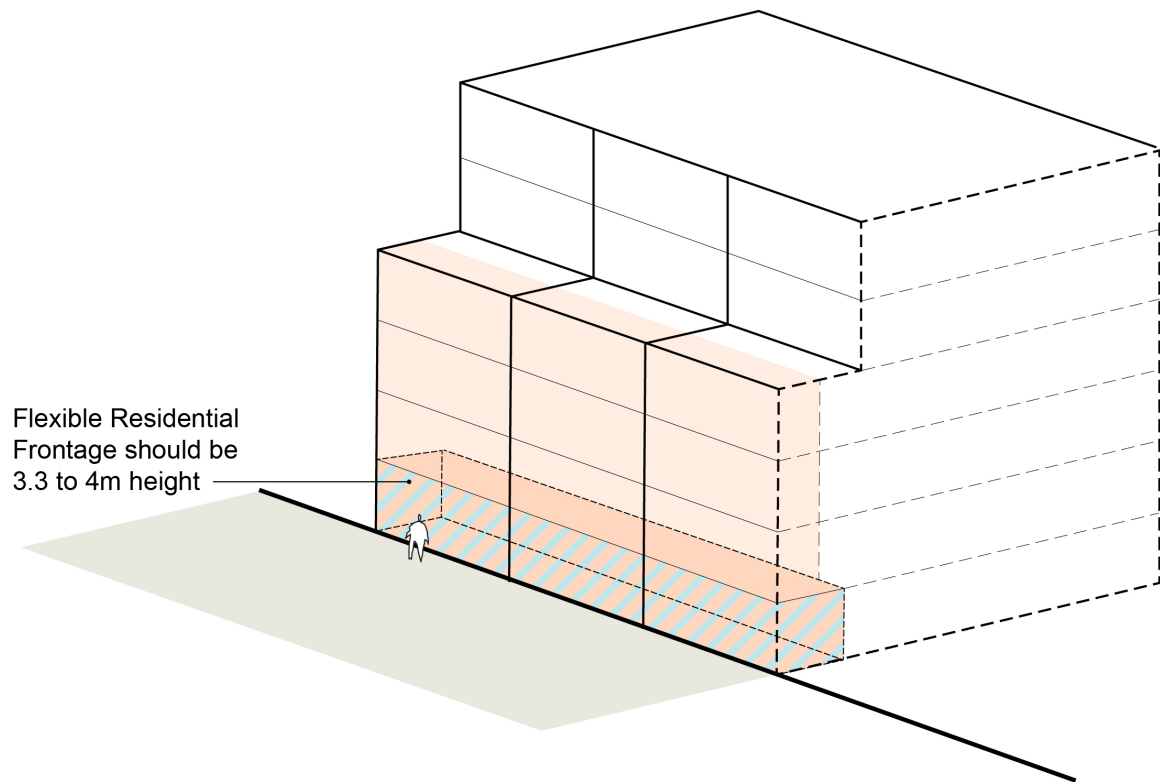


Figure 22 Flexible Residential Frontage

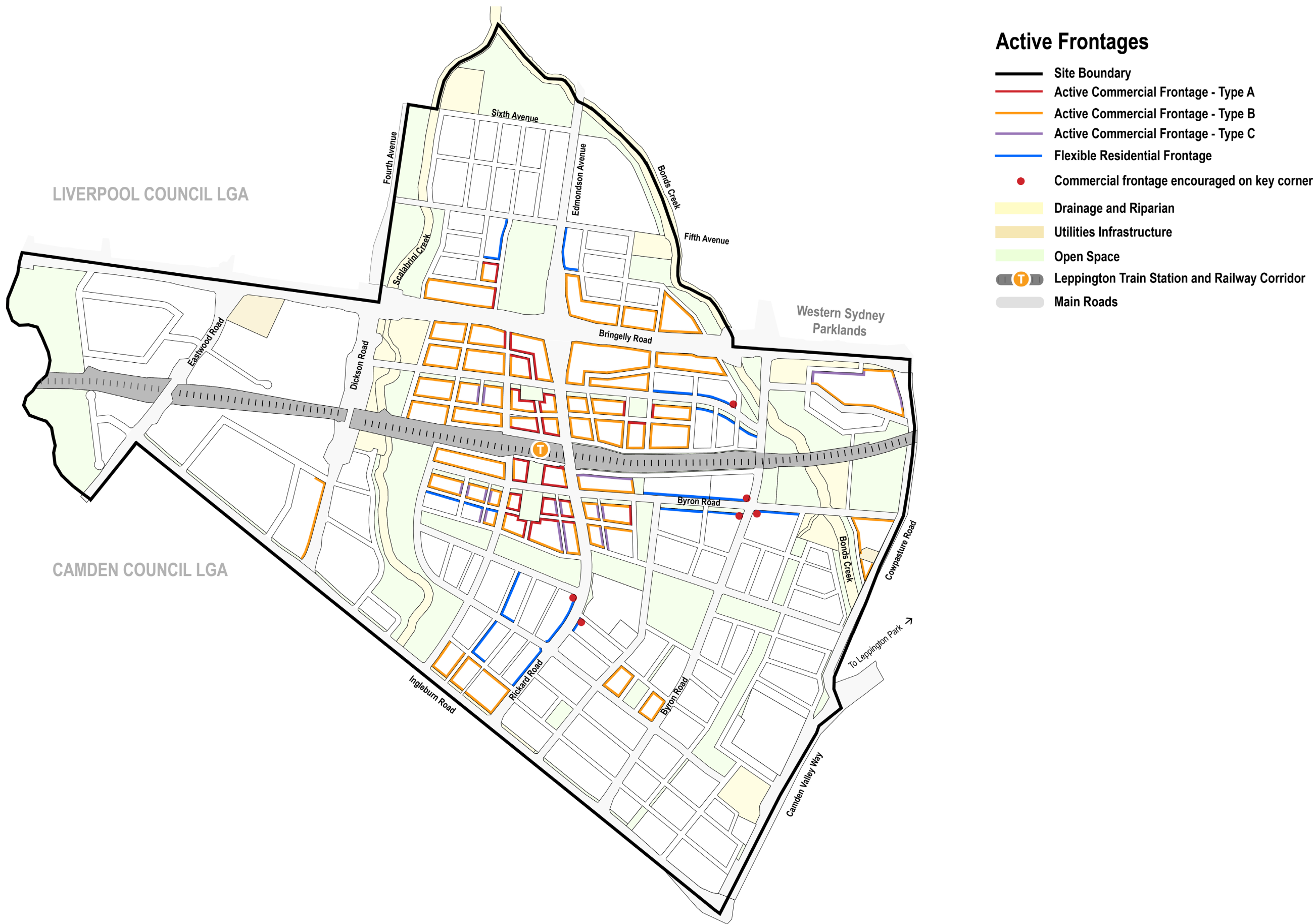


Figure 23 Street Interface Controls



Figure 24 Example of flexible residential frontage



Figure 25 Single façade presenting as multiple frontages

3.10 Active Transport Strategy

Leppington Town Centre will be a self-sufficient 30 minute city. Pedestrians and cyclists will have high quality (amenity, safety, and convenience) access to the centre and Leppington Station, without heavily relying on local buses.

Objectives

- a) Provide a convenient, efficient and safe network of pedestrian and cycleway paths for the use of the community, within and beyond the Leppington Town Centre.
- b) Pedestrian and bicycle movement is prioritised over motorised vehicle movement to provide high levels of pedestrian and bicycle safety, amenity, and comfort.
- c) Encourage residents to walk or cycle, in preference to using motor vehicles, as a way of gaining access to schools, shops, and local community and recreation facilities.
- d) Encourage the use of walking and cycling as a safe and reliable first and last mile connection to Leppington Station and beyond by prioritising walking and cycling at required signalised crossings.
- e) Pedestrian paths, cycle routes and facilities must be safe, well lit, clearly defined, functional and accessible to all.

Controls

1. Key pedestrian and cycleway routes must be provided in accordance with Figure 26 Cycle Route Map.
2. Key pedestrian and cycleway routes must be provided in accordance with the relevant street sections in Section 3.5.
3. Key pedestrian and cycleway routes must be provided in accordance with the relevant intersection designs in Chapter 3.6 Intersection Designs.
4. As indicated in Figure 26 Cycle Route Map, paths must be consistent with the following legend definitions:
 - a. **One-way (unidirectional) bicycle paths** are located on each side of a road and operate in the same direction (or opposite direction if provided on a one way street) as adjacent motor vehicle traffic.
 - b. **Two-way (bidirectional) bicycle paths** are located on one side of a road, going in two directions.
 - c. A **shared zone** is a road or network of roads or a road related area where space is shared safely by vehicles, pedestrians and cyclists and where pedestrian priority and quality of life take precedence over ease of vehicle movement.
 - d. A **shared path** is an area open to the public that is designated for the use of both bicycle riders and pedestrians. Shared paths can be identified by signs and/or pavement markings showing a pedestrian and a bike.

5. Pedestrian paths, cycle routes and facilities are to be designed to be fully accessible by all in terms of access points and gradients, in accordance with Australian Standard 1428:1-4.

Cycle Route Map

- Site Boundary
 - Potential Active Transport Link
 - Uni directional cycleway
 - Bi directional cycleway
 - Shared path
 - Potential connections through open space
 - Future Upper Sydney Water Canal Trail
 - Cycle on quiet street
 - Cycle Plaza
 - Drainage and Riparian
 - Utilities Infrastructure
 - Open Space
 - Leppington Train Station and Railway Corridor
 - Main Roads
- * Note: This street must be modified to be similar to a Town Centre Street and must accommodate potential bus stop infrastructure on both sides of the street. Bidirectional cycling infrastructure must also be provided on the north side of street. Cycling infrastructure must be designed to be safe and compatible with bus stop infrastructure

Note
Council to confirm final strategy for Industrial Streets and Local Collector

All local streets are considered to be quiet streets where it will be safe to cycle on the road

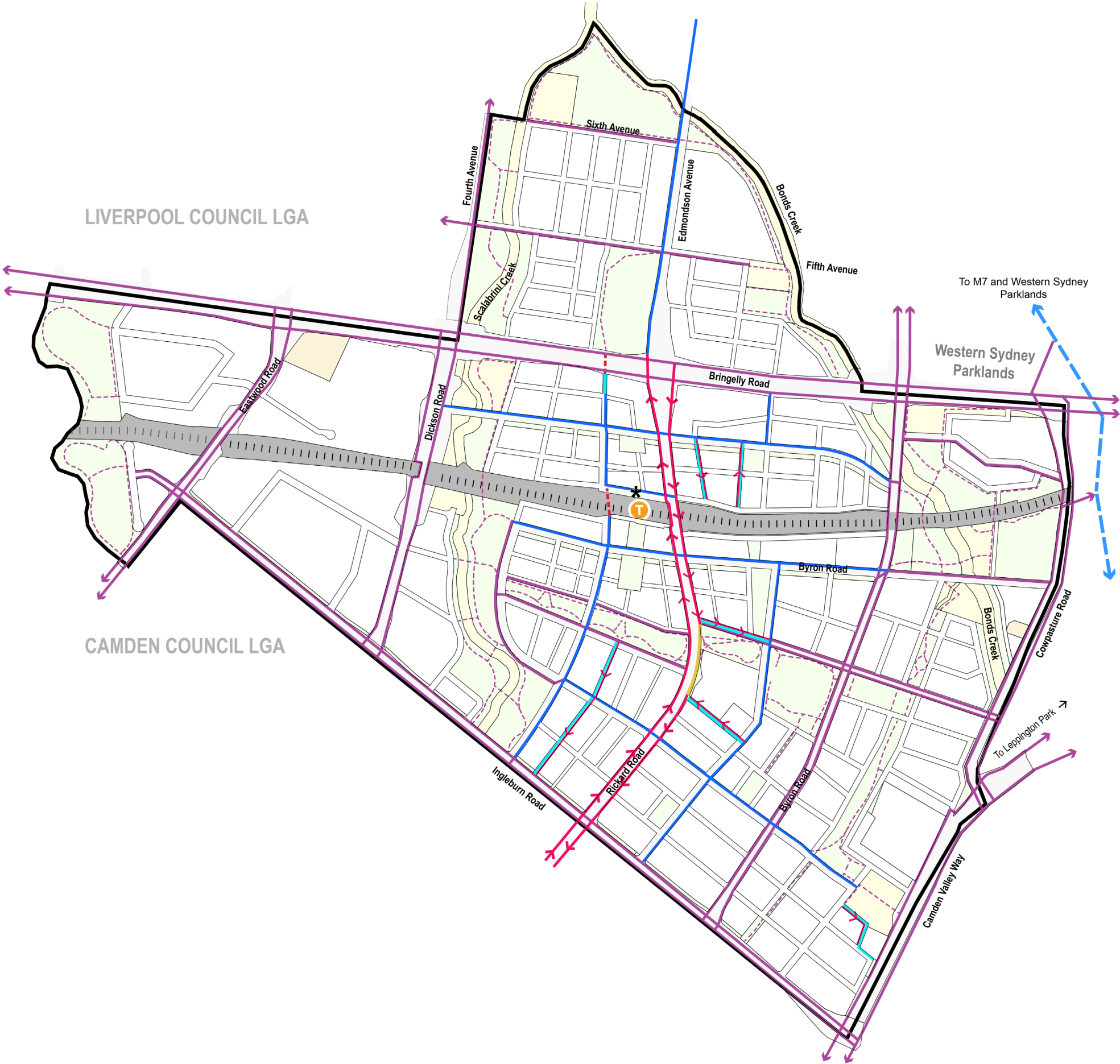


Figure 26 Cycle Route Map

3.11 Pedestrian Desire Lines

Objectives

- a) Identify key pedestrian desire lines in Leppington Town Centre.
- b) Guide the provision of key pedestrian links and active transport infrastructure.

Controls

1. Footpaths and associated public realm infrastructure should be consistent with the routes identified in Figure 27 Pedestrian Desire Lines.

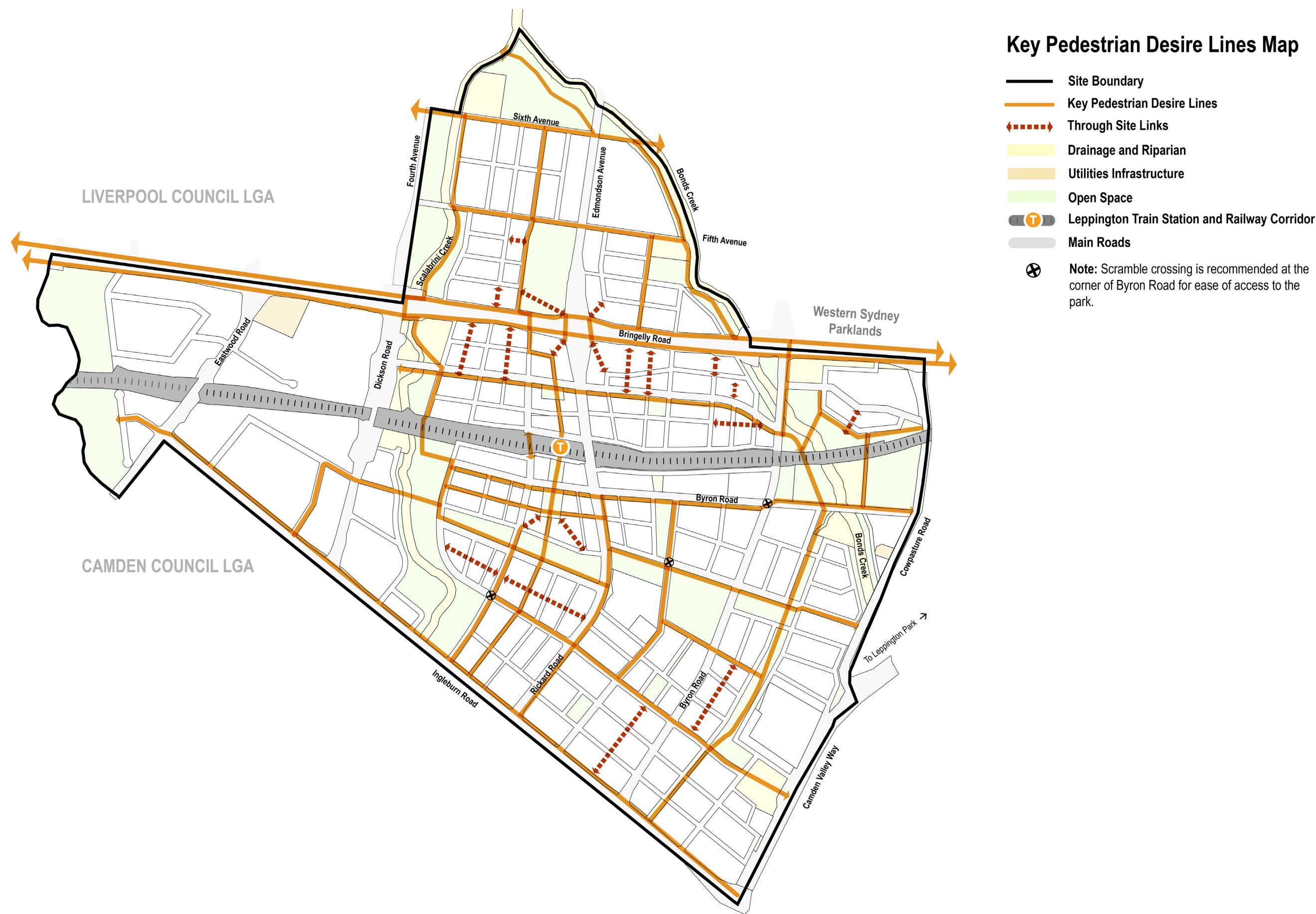


Figure 27 Pedestrian Desire Lines

3.12 Public Transport Strategy

Objectives

- a) Provide opportunities for public transport infrastructure to integrate into the Leppington Town Centre.
- b) Provide appropriate space within streets and in front of development sites for bus stops, bus lanes, and to facilitate good interchanges with active transport connections.
- c) Ensure appropriate access is provided for buses in the Leppington Town Centre.
- d) Increase the number of people using active transport for short trips in Leppington by providing safe and well-connected active transport infrastructure such as bike paths and walking routes.
- e) Ensure that all streets categorised as Town Centre or above are bus capable.
- f) Ensure that active transport is an attractive first and last mile option for accessing public transport by minimising the need for signalised crossings.

Controls

- 1. Where indicative proposed bus shelters are located on Figure 28 Public Transport Map, street designs must reflect the relevant street section, with development providing space for bus access and shelters to be built. The relevant Council is responsible for delivering bus shelter and stops.
- 2. All streets that are anticipated to operate as bus routes, as indicated in Figure 28 Public Transport Map, must be capable of accommodating buses with a minimum vehicle length of 14.5 metres.
- 3. All streets and intersection designs must be consistent with Chapter 3.5 Street Designs and Chapter 3.6 Intersection Designs to ensure adequate space for buses.

Note: Also see Table 3 Controls for individual street typologies for controls related to how bus stops should be configured on different street types.

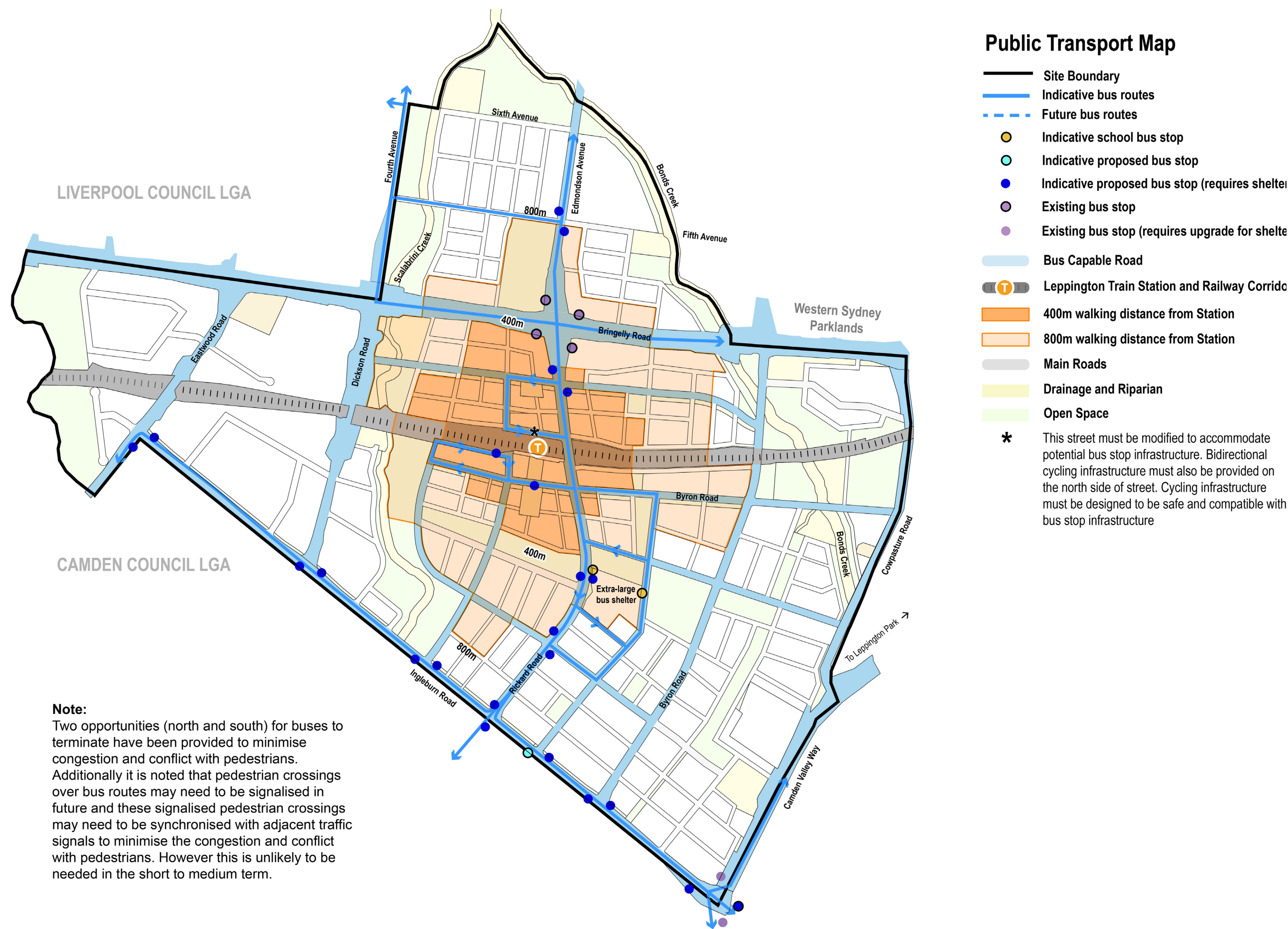


Figure 28 Public Transport Map

3.13 Vistas and Sightlines

Leppington Town Centre sits to the west of a ridgeline that is approximately 100 metres above sea level. The town centre itself has an elevation of approximately 80 to 90 meters above sea level. This means that buildings above approximately 15 to 35 meters, depending on their location within the town centre and site specifics, afford distant views to the Sydney skyline and Blue Mountains. This section of the DCP schedule is to help guide development to share these distant views as well as local views to creeks and parklands.

Objectives

- a) Enhance key views, vistas and sightlines in Leppington Town Centre.
- b) Provide opportunities views and vistas at ground level, from balconies, rooftops and podiums.
- c) Promote building forms and articulation that permit view sharing.

Controls

- 1. Development should enhance the vistas and sightlines defined in the View Corridor Map (Figure 31) as well as distant views through appropriate built form that frames and responds to distant views.
- 2. Signage within private development sites must not obstruct key vistas and sightlines. Signage must also be consistent with the objectives and controls in 4.15 Signage.
- 3. Development must not obstruct or detract from a view corridor, as identified in the View Corridor Map (Figure 31).
- 4. Where a view, vista or sightline follows a road corridor, street walls must be developed in accordance with the provisions of this DCP schedule to define view corridors as shown in Figure 29.

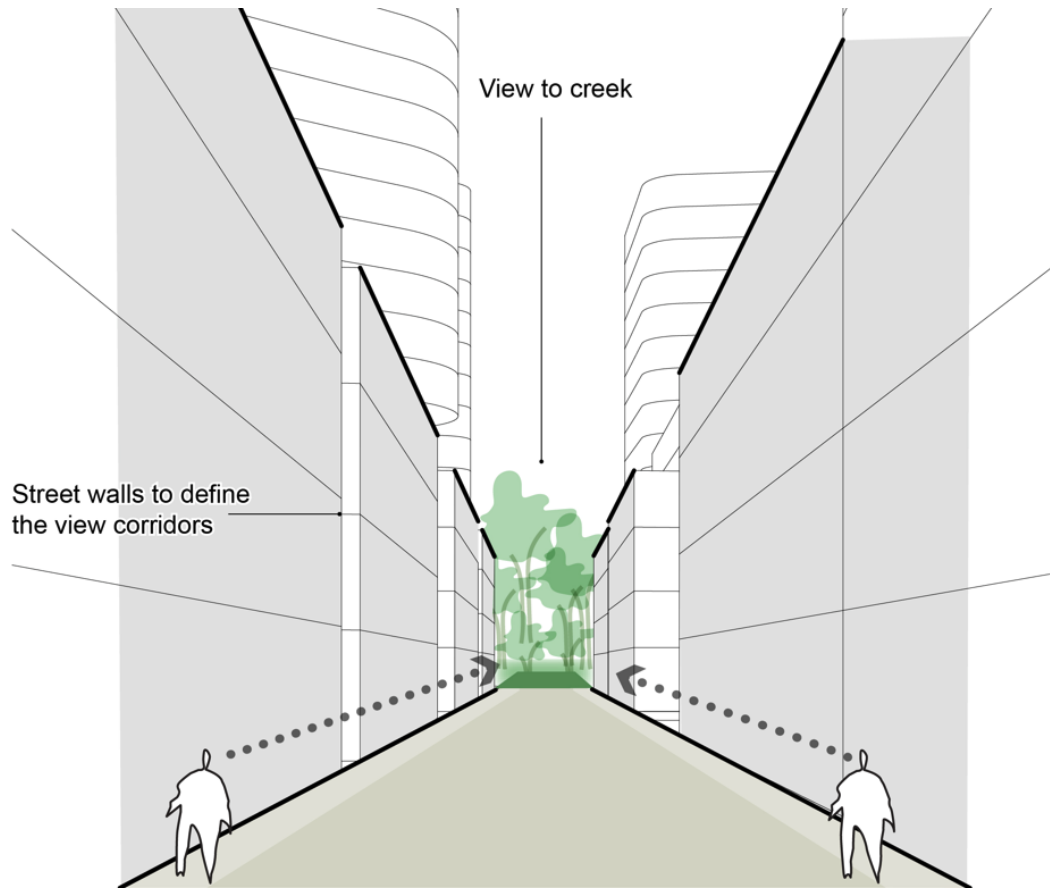


Figure 29 View corridor at street level

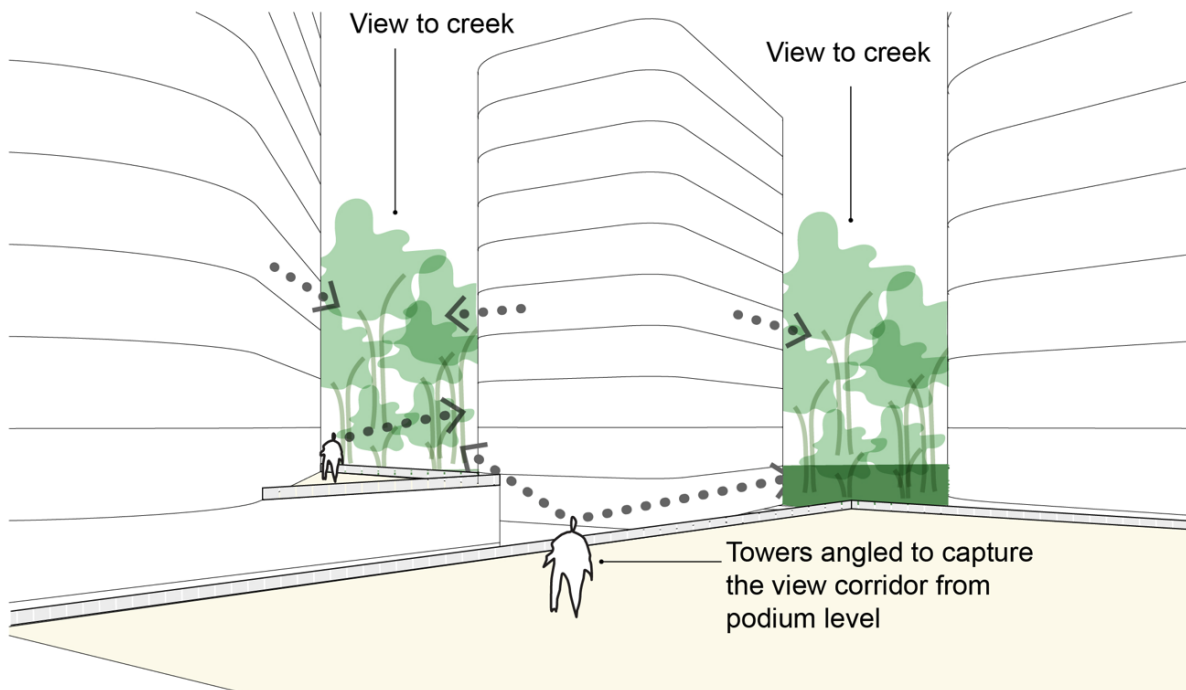


Figure 30 View corridor at podium level

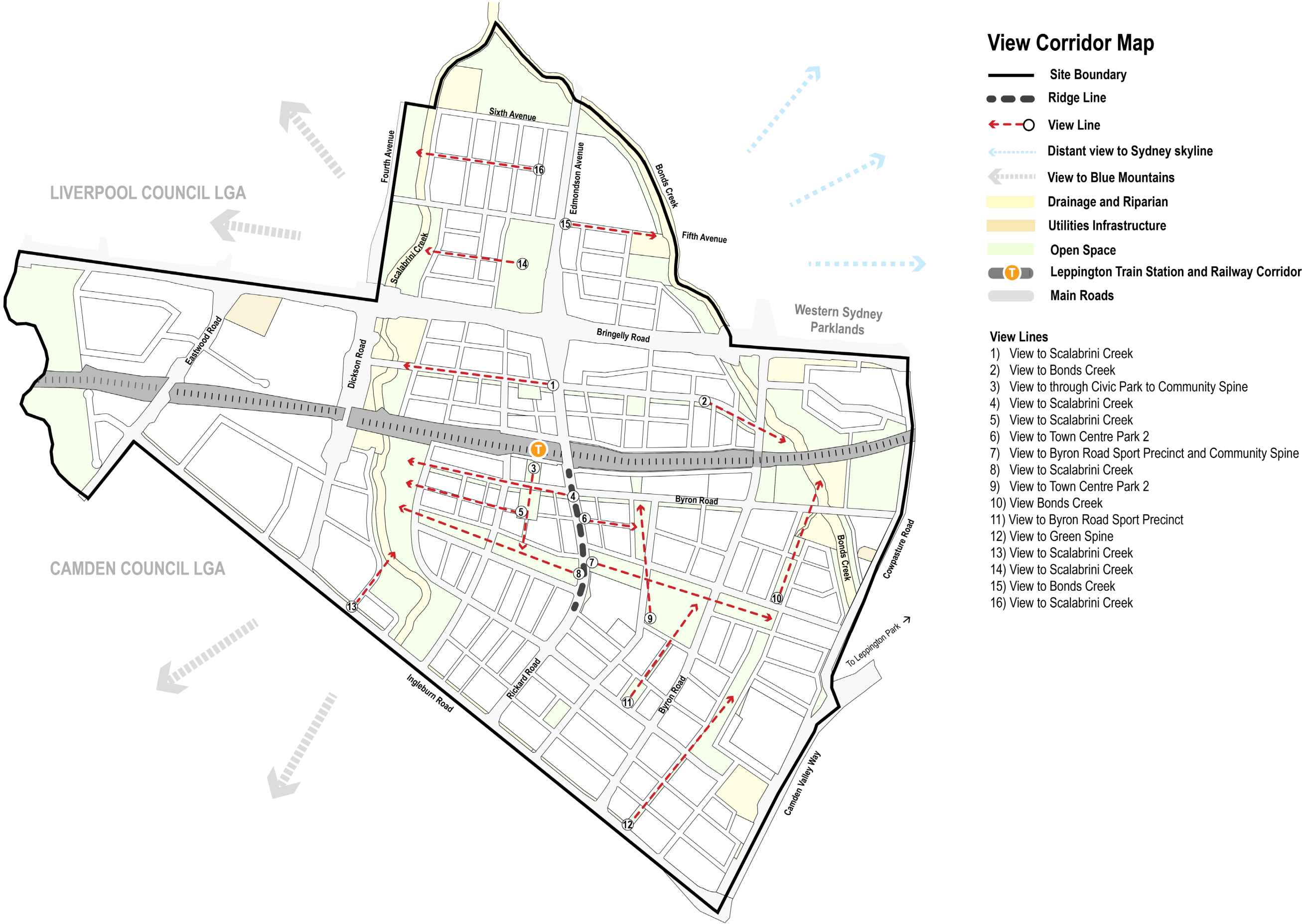


Figure 31 View Corridor Map

3.14 Through Site Links

Objectives

- a) Ensure that through site links are provided to support the development of Leppington Town Centre.
- b) Encourage the development of an integrated network of activated lanes, pedestrian streets and through site links
- c) Improve pedestrian connectivity through private development sites to key open and public spaces, across road corridors and to public transport stops.
- d) Reduce the size of large street blocks to provide greater movement choice.
- e) Create clear and direct throughways for pedestrians.
- f) Increase the range of economic opportunities.

Controls

- 1. A through site link must be provided for every:
 - a. 100m of continuous residential frontage, or
 - b. 120m of continuous commercial frontage.
- 2. Through site links must also be provided in accordance with Figure 27 Pedestrian Desire Lines. Where through site links are indicated, alternative routes will be considered where more efficient pedestrian connectivity can be achieved to key open and public spaces, across road corridors and to public transport stops.
- 3. Through site links must be at least 6m wide and clear of obstructions. Wider through site link widths incorporating landscaping and tree planting are highly encouraged.
- 4. Through site links must be publicly accessible between 7am and 7pm at a minimum. Through site links that provide 24 hour accessibility are Council's preference.
- 5. Development must provide openings such as windows and balconies along pedestrian through site links to improve passive surveillance.
- 6. Through site links must have direct sight lines.
- 7. Where feasible, through site links should be open to the sky.
- 8. Through site links must be consistent with CPTED principles.

3.15 Public Art

Objectives

- a) Encourage public art to provide visual interest
- b) Promote the inclusion and integration of site-specific public artworks within developments which are accessible and viewable the public, make a positive contribution to the urban environment and add to the cultural of the Leppington Town Centre.
- c) Encourage public art to be functional such as a children's playground, public seating or a shade structure.
- d) Encourage the integration of public art into structures through means such as cladding, screening, and window or floor treatments.
- e) Enrich and enliven the public and private domain with high quality, aesthetic, durable, and functional art.
- f) Encourage delivery of essential public infrastructure in creative and innovative ways through the use of public art. This may include at the main entry/exit points of fenced areas, along with recessed spaces.
- g) Recognise and celebrate Aboriginal heritage, values and living culture in the public domain.
- h) To promote sustainability and encourage positive social, economic and environmental outcomes
- i) To integrate public art with major development and encourage communication between relevant stakeholders.

Controls

1. All public art is to be provided in accordance with the relevant Council Public Arts Policy (*Camden Public Art Policy P4.0096.1 2019, Liverpool City Council Public Arts Policy 191890.2020*)
2. All new developments having a capital value of more than \$5,000,000 in Leppington Town Centre are required to provide and implement a Public Art Strategy. The plan is to include the provision of high-quality artworks within the development in publicly accessible and viewable locations, near main entrances and street frontages and in lobbies.
3. In addition to the requirement of control 2 above, development on sites over 5,000m² in area are required to provide and implement a Public Art Strategy. The plan is to include the provision of high-quality artworks within the development in a publicly accessible and viewable location.

4. The cost of any public art must equate to at least 1.5% of the capital investment value of the development.
5. A Public Art Strategy must demonstrate how the artwork has been through community engagement and consultation by the proponent. Early engagement with Council is required prior to wider engagement and delivery of a final Public Art Plan.
6. Public art should, where possible, be responsive to culture and Country, particularly within areas of identified Aboriginal heritage and value.

Note: Where possible, local artists, business, fabricators and suppliers are to be engaged in the design, fabrication, installation and maintenance of public artworks.

3.16 Blank Walls

Objectives

- a) Minimise and ameliorate blank walls (with no windows or entrances) at the ground level.

Controls

1. Large areas of blank, minimally or poorly articulated walls are not acceptable. Measures to avoid this may include provision of windows, awnings, sun shading devices, pergolas, green walls, public art or a recognisably increased setback to the upper storey.
2. Blank walls are not permitted where facing publicly accessible open space.
3. The maximum length of any blank wall must not exceed 5 metres.
4. The maximum height of any blank wall must not exceed 3 metres.

4.0 Building Controls

4.1 Building Site Requirements

Objectives

- a) To ensure that buildings are developed with appropriate proportions and space.
- b) Ensure that parking and servicing may be provided on site and that pedestrian amenity is maintained in relation to the spacing of vehicular accesses.

Controls

- 1. Development sites are required to have at least one street frontage with a width of at least 20m for development of commercial, industrial, shop top housing, residential flat buildings, multi dwelling housing or a mixed-use development comprising a combination of these.
- 2. Development sites are generally required to have a minimum street frontage of at least:
 - a. 30m for buildings between 4 and 8 storeys.
 - b. 40m for buildings over 8 storeys.

4.2 Building Orientation

Objectives

- a) Establish a positive interface between buildings, streets, parks, plazas and squares.
- b) Ensure that buildings are positioned and orientated to maximise energy efficiency, provide protection from inclement weather, and minimise noise.
- c) Ensure appropriate solar access to functional areas, public and private open space.
- d) Provide passive surveillance and encourage activity within the public domain.
- e) Reduce single-orientation residential units with poor natural cross-ventilation.
- f) Encourage facades to respond to their orientation with appropriate materiality.

Controls

1. Buildings are to be orientated towards and provide active frontages at street level to areas indicated in Figure 23 Street Interface Controls.
2. The main pedestrian entries to buildings, including ground floor retail and commercial premises that face the street, are to generally be from the high category streets noted in Figure 23 Street Interface Controls.
3. Service and utility bays, loading docks and car park entries are to be orientated towards service lanes, or where this is not possible, to streets not specified as requiring an Active Frontage in Figure 23 Street Interface Controls.
4. Buildings are to be orientated to provide attractive, active building frontages and passive surveillance to public open space, land zoned for drainage purposes, plazas, squares and pedestrian through-site links.

4.3 Building Form

Building form controls identify the location of building mass and elements relative to the streetscape, public and private open spaces and adjoining sites and buildings. The combination of building controls such as heights, setbacks and depths form an overall shape; a building envelope that contributes to the creation of the desired future character and appearance of the built environment. These controls consider the impact of sunlight to adjoining buildings and open spaces, privacy and overlooking, the quality of spaces inside buildings, the amenity and usability of private open spaces, and the sense of pedestrian scale and amenity in nearby streets.

The provisions in this section of the DCP are intended to encourage high quality design for new buildings, creating an innovative and creative character for Leppington Town Centre. The resulting built form and character of new development should contribute to an attractive public domain in Leppington Town Centre and produce a desirable setting for its intended uses.

Objectives

- a) Establish the scale, dimensions, form and separation of buildings appropriate for the setting in the planned strategic centre.
- b) Achieve a legible, functional, comfortable and attractive form within the local and Western Parkland City context.
- c) Provide a strong definition of the public domain and achieve street frontages with good physical and visual connections between buildings and the street.
- d) Ensure building depth, bulk and separation allows for view sharing and provides for suitable amenity, solar access and daylight penetration and privacy between adjoining developments.
- e) Provide suitable solar access and amenity to key parks, squares and public spaces within the Town Centre.
- f) Achieve an articulation of building mass that contribute to visual relief, interest and a high quality of design.
- g) Provide for pedestrian comfort and protection from wind and urban heat through various methods including street trees and vegetation.

Controls

1. Buildings are to be designed in accordance with the controls in this chapter.

4.3.1 Height Strategy

Objectives

- a) Establish a logical, legible and coordinated approach to building height controls in Leppington Town Centre provide for tower variation in the core area and scale down towards the edges of the precinct.
- b) Establish building envelopes consisting of height and setbacks which generally provide for a continuous and consistent building presentation and street character.
- c) Provide flexibility in the way that buildings can mass floor area, allowing for tall, slender buildings.

Controls

- 1. Buildings must be developed in accordance with the controls in Figure 42 Height Strategy Map.
- 2. Building height must not exceed the airport Obstacle Limitation Surface (OLS) of 230.5 metres Australian Height Datum (AHD) as defined in *State Environmental Planning Policy (Precincts—Western Parkland City) 2021*.

Note: Australian Height Datum is the height of a point above mean sea level in metres. Mean sea level is the average height of the ocean's surface.

4.3.2 Street Setbacks and Building Address

Objectives

- a) Establish consistent building lines fronting streets and other public spaces to create a quality public domain and streetscape character.
- b) Establish the desired vertical and horizontal spatial proportions of streets and other public spaces.
- c) Provide defined edges which reinforce and support the hierarchy and character of specific streets, lanes and spaces.
- d) Provide street setbacks appropriate to the building location, function and desired character, engaging with the level of street activity and providing for passive surveillance.
- e) Provide for street landscape character and space for significant canopy tree planting in all relevant zones.
- f) Minimise overshadowing and maintain reasonable solar access to identified key public spaces.

Controls

1. Buildings are to be aligned and setback in relation to planned and existing streets in accordance with Figure 43 Building Setback Map.
2. The definitions of street setbacks are as follows:
 - a. Civic Park setbacks must be developed in accordance with Figure 33 Civic Park Setback. Development must have:
 - i. 4m ground floor setback
 - ii. 0m setback for upper floors
 - iii. first storey height of at least 4.3m
 - b. Zero Mixed use, Business and Industrial Zone setbacks must be developed in accordance with Figure 32 Zero setback with 2 storey street wall and 4m upper setback, and Figure 34 Zero setback with 4 or 6 storey street wall and 4m upper setback. Development must have
 - i. 0m setback for ground floor
 - ii. relevant street wall height as noted in Figure 43 Building Setback Map.
 - iii. 4m upper level setback
 - c. Bringelly Road setback must be developed in accordance with Figure 40 Bringelly Road Setback. Development must have:
 - i. 10m setback from SP2 zoned land
 - ii. 6 storey street wall height
 - iii. 4m upper level setback
 - d. Ingleburn Road setback must be developed in accordance with Figure 39 Ingleburn Road setback and street interface. Development must have:
 - i. 9m landscape setback, consisting of 6m of publicly accessible communal open space and 3m of private or communal open space
 - ii. A primarily solid masonry fence on the 3m setback line no taller than 1.6m high.
 - e. Industrial use and business development uses setback must be consistent with Chapter 5.2 Industrial and Business Development Use Setback.
3. Buildings developed in the B3 Commercial Core and B4 Mixed Use zones are to have street frontages built to the street alignment with a predominantly zero setback to the street.
4. Where Figure 39 identifies a zero setback, the building street wall height is to be at least:
 - a. 20m and five storeys above ground on north-south streets in the B4 zone in the core area of the centre.
 - b. 14m and three storeys above ground otherwise in the B3 and B4 zones.
5. Articulation and recesses on building facades must be a maximum 0.6m on active street frontages and a maximum 2.5m on other street frontages in the B3 and B4 zones.
6. Projections beyond the zero setback lines must only be situated at least 3m above ground and may include:
 - a. verandas, balconies, roof overhangs and blade walls above street level projecting up to 0.6m.
 - b. awnings projecting up to 2.0m.

7. Where a front setback other than a zero setback applies, façade articulation elements may extend into the front setback to a maximum of 1.5m and for a maximum of 30% of the entire length of the building facade.
8. Street setbacks for shop top housing, residential flat buildings, multi dwelling housing and mixed used development in the R3 Medium Density and R4 High Density Residential zones must be in accordance with Figure 43 Building Setback Map.
9. Setbacks for other forms of residential buildings, including attached dwellings, semi-detached dwellings and dual occupancies must be in accordance with the residential setback controls in Part 4 of the main body of Camden and Liverpool Growth Centres DCP.
10. Setbacks along Bringelly Road must be designed in accordance with Figure 40.
11. Setbacks in land zoned R3 Medium Density in the Liverpool LGA are subject to the relevant controls contained in Schedule 1 Liverpool City Council Growth Centre Precincts Development Control Plan.

4.3.3 Street Wall Height and Upper-Level Setbacks

Objectives

- a) Achieve comfortable street and public domain environments for pedestrians in terms of daylight, scale, sense of enclosure and wind mitigation as well as a healthy environment for canopy street trees.
- b) Reinforce the desired future character of the Town Centre and strengthen the urban form with reasonably consistent street wall heights, while enabling suitable flexibility in building design.
- c) Clearly define Town Centre streets with zero setback street walls and upper-level setbacks above the podium level to ensure an urban, human scale and minimise overshadowing impacts
- d) Allow for sunlight access between tower elements and over building podiums to planned public open spaces and landscaped plazas in the Town Centre.
- e) Provide for an appropriate transition in building heights and visual relief through variation of form, as viewed from streets and key public spaces.
- f) Provide opportunities in medium density residential areas for deep soil planting to maximise tree canopy cover to residential streets.

Controls

1. Street wall or frontage heights, in relation to planned or existing streets and public spaces, are to be in accordance with Figure 39.

2. Corner sites in B3, B4, and R4 zoned land may be built with no upper-level setback for a length of:
 - a. 20m to east-west streets in the core area of the centre.
 - b. 30m otherwise in the B3 and B4 zones.
3. Setbacks along Ingleburn Road must be developed in accordance with the controls in Figure 39 Ingleburn Road setback and street interface. These controls include:
 - a. A 9-metre landscaped setback
 - i. 6m of which is publicly accessible communal open space; and
 - ii. 3m as private open space or communal open space with a fence up to 1.6 metre high
 - b. Where ground floor residential apartments are proposed, these must:
 - i. Provide an individual entry for each unit at street level
 - ii. Setback first floor balconies with acoustic screening; and
 - iii. Provide wintergardens on upper levels.

Note: Council may, after review by the respective Council's design advisory group, consider alternatives where a building demonstrates design excellence.

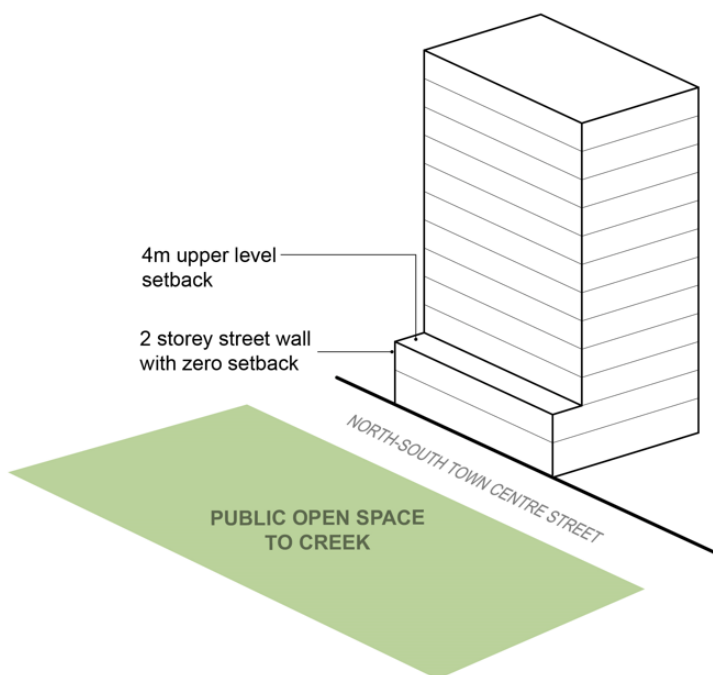


Figure 32 Zero setback with 2 storey street wall and 4m upper setback

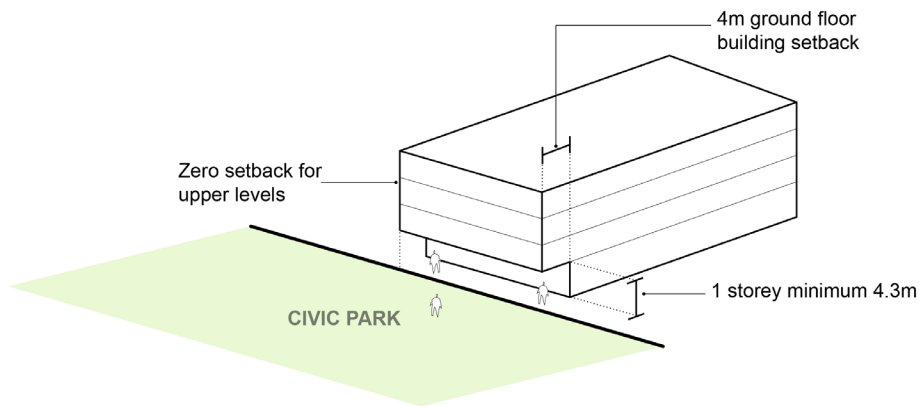


Figure 33 Civic Park Setback

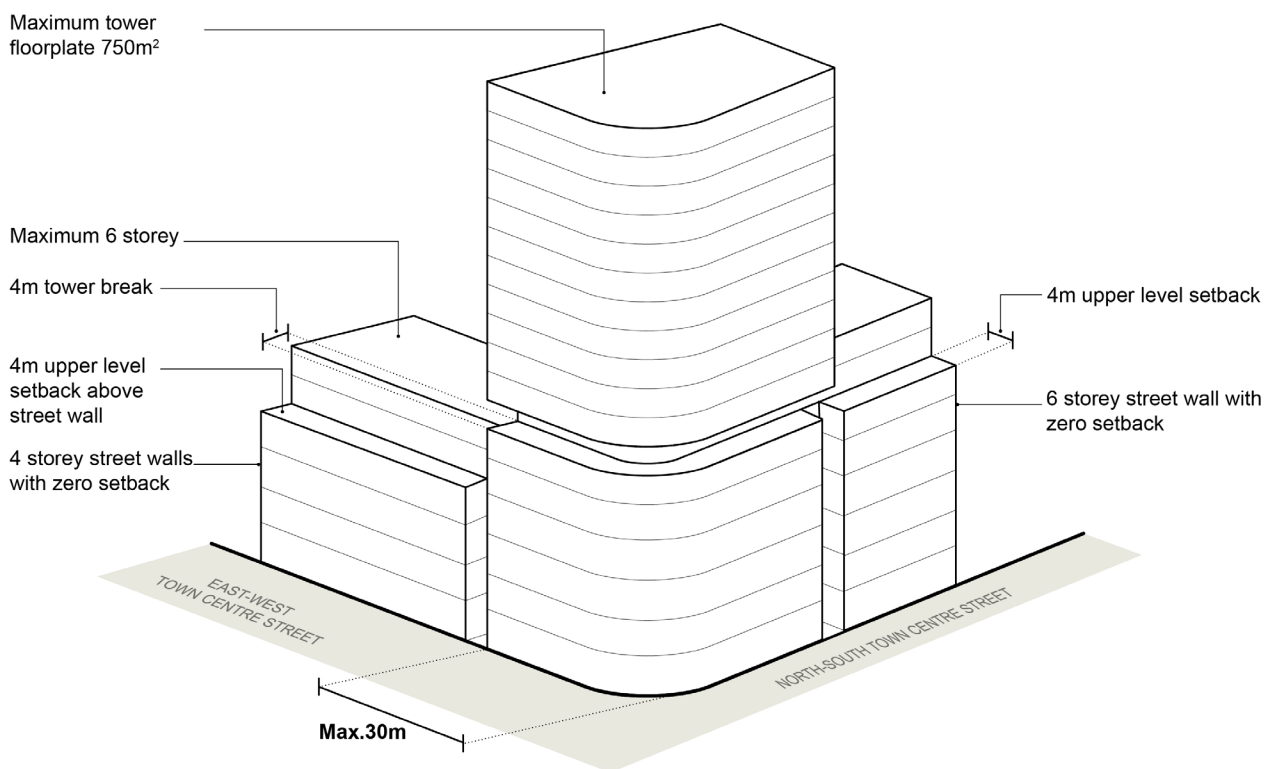


Figure 34 Zero setback with 4 or 6 storey street wall and 4m upper setback



Example of articulated 6 storey street wall that creates a strong street edge



Example of a 'tower break' between the podium and tower



Example of mixed use development with 6 storey street wall with upper levels setbacks to 8 storeys and a 21 storey tower to the corner



Example of mixed use development with 4 storey street wall and 18 storey corner tower (Source: Google Maps)

Figure 35 Image examples of street walls, tower breaks, upper level setbacks and podiums



Example of zero street setback with ground floor courtyard and deeper first storey balconies



Example of a 4 storey residential 'street wall'



Example of a 6 storey street wall with double-height articulation zone for first two storeys and upper levels set back



Example of a 4 storey residential podium with upper levels set back



Example of 4 storey street wall defined by strong balcony elements above ground floor up to 4 storeys and upper levels set back (Source: Google Maps)

Figure 36 Image examples of residential frontages

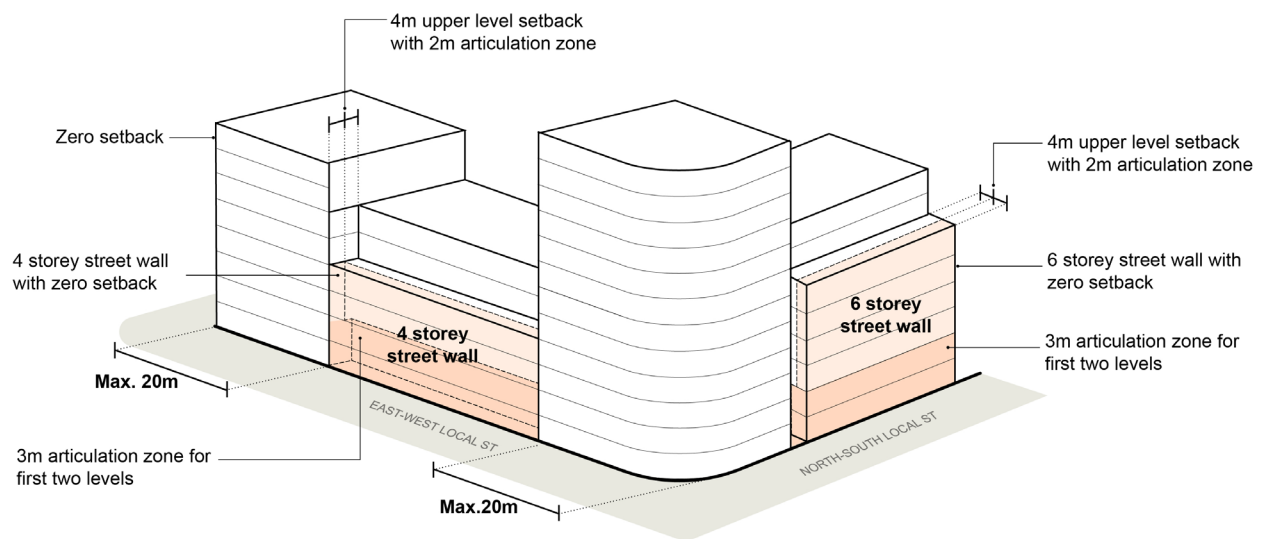


Figure 37 Residential (R4) Setback

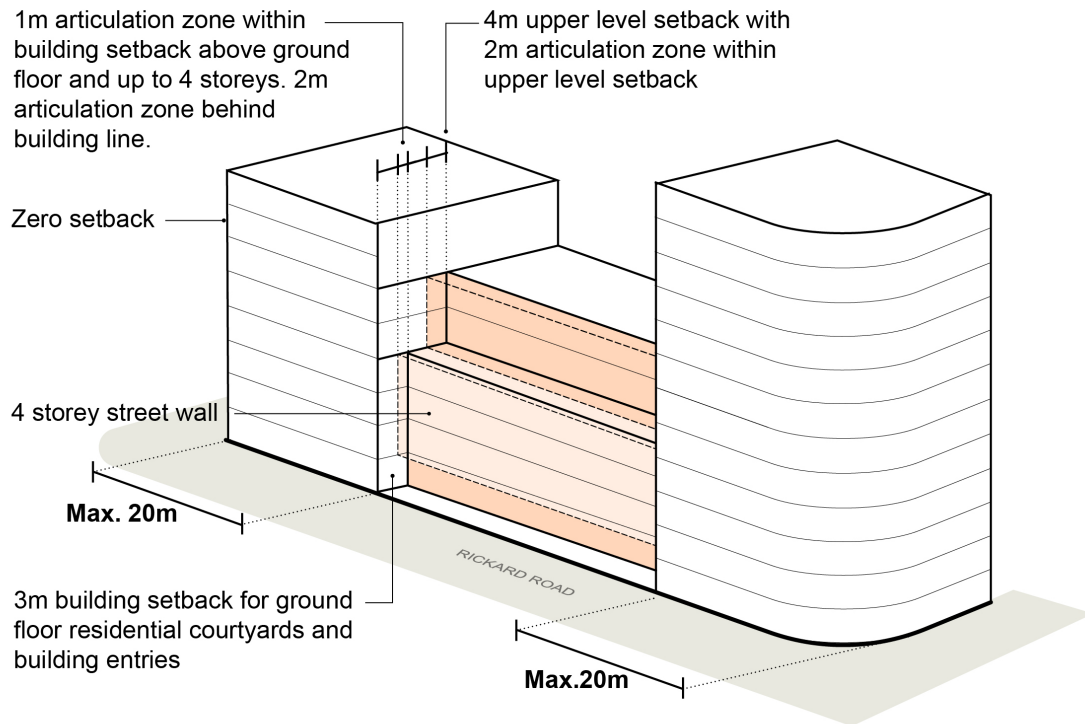


Figure 38 Rickard Road Residential (R4) setback and street interface

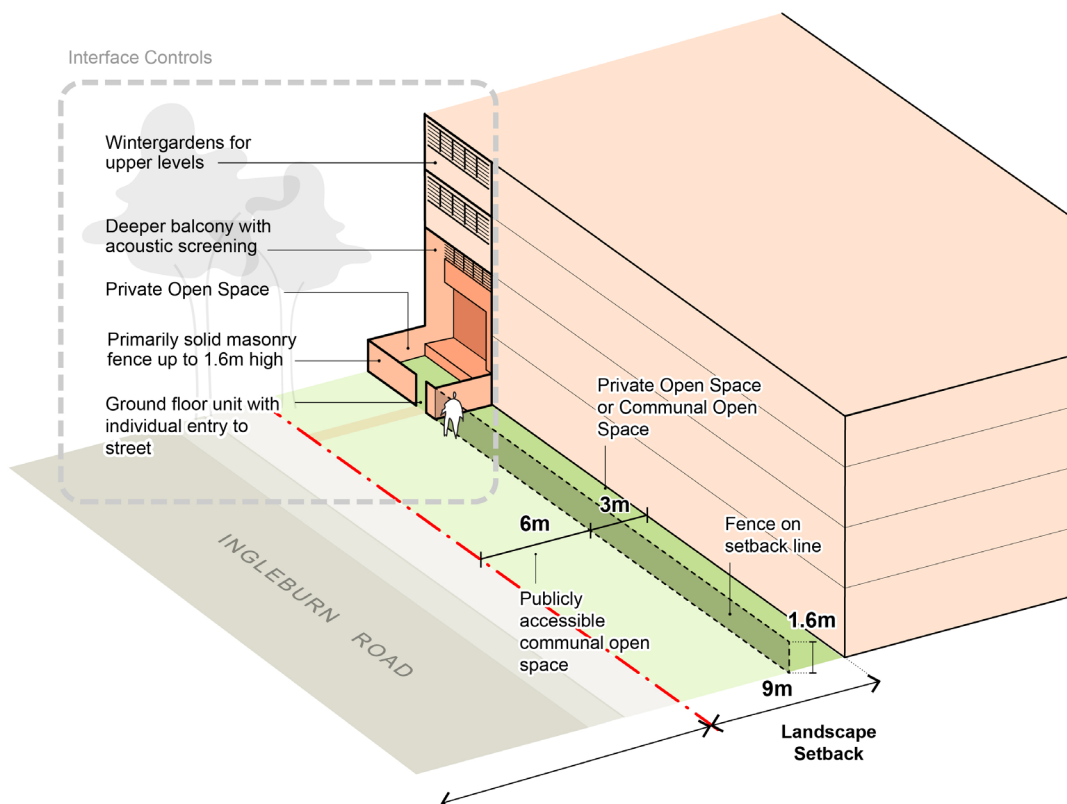


Figure 39 Ingleburn Road setback and street interface

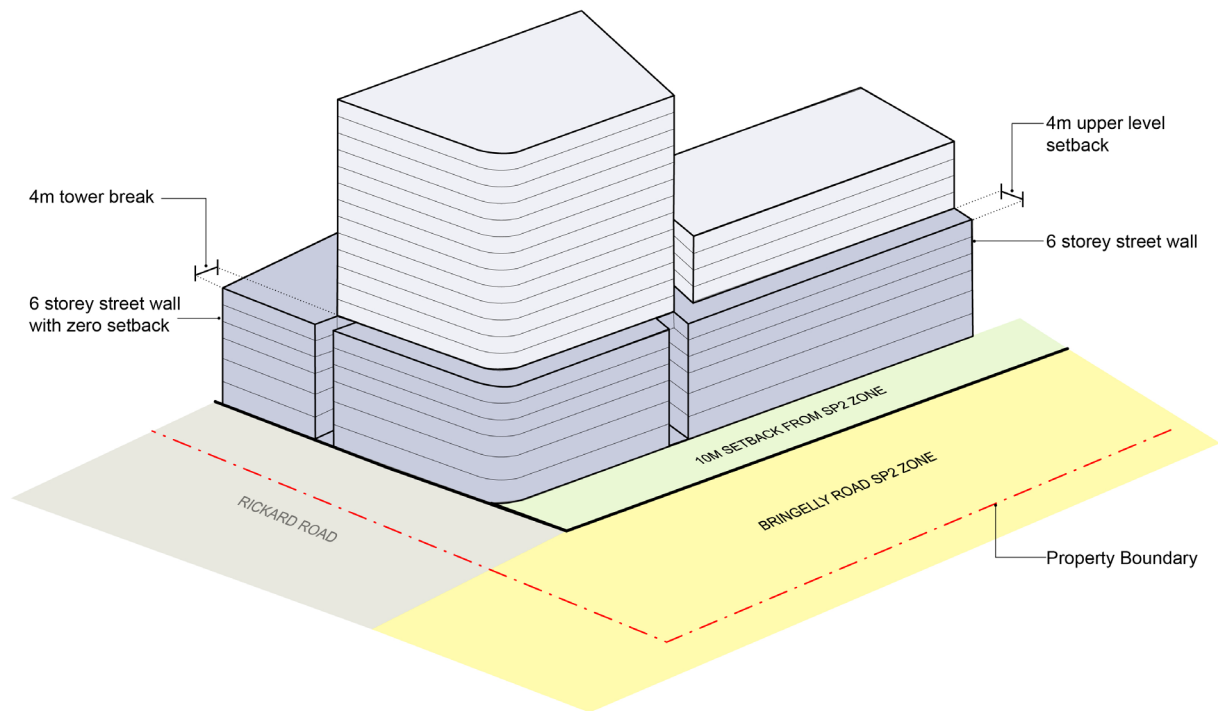


Figure 40 Bringelly Road Setback



Example of built form with arterial road interface. The building facade addresses the street together with landscaping and tree planting.

Figure 41 Bringelly Road Setback image example

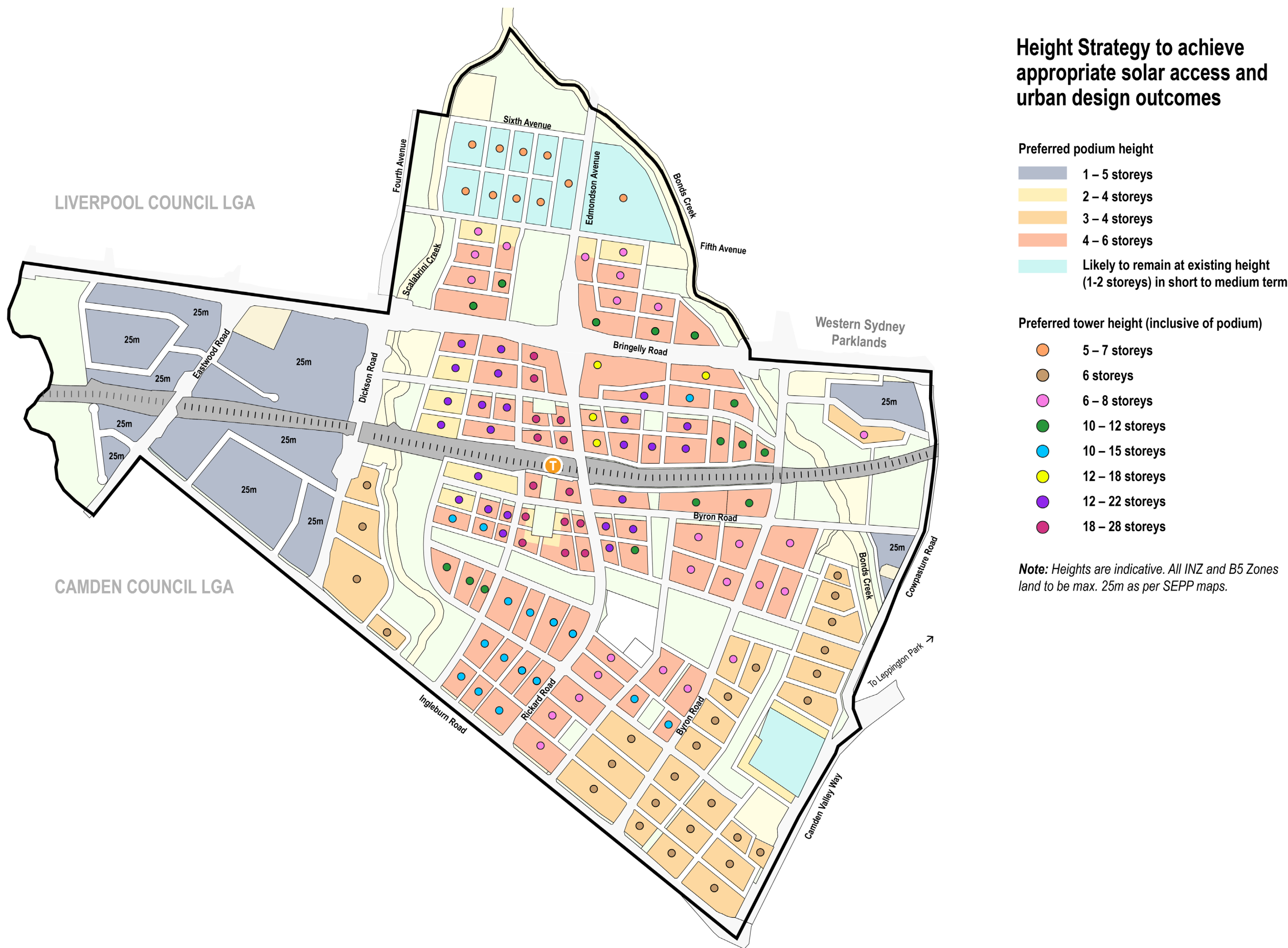


Figure 42 Height Strategy Map

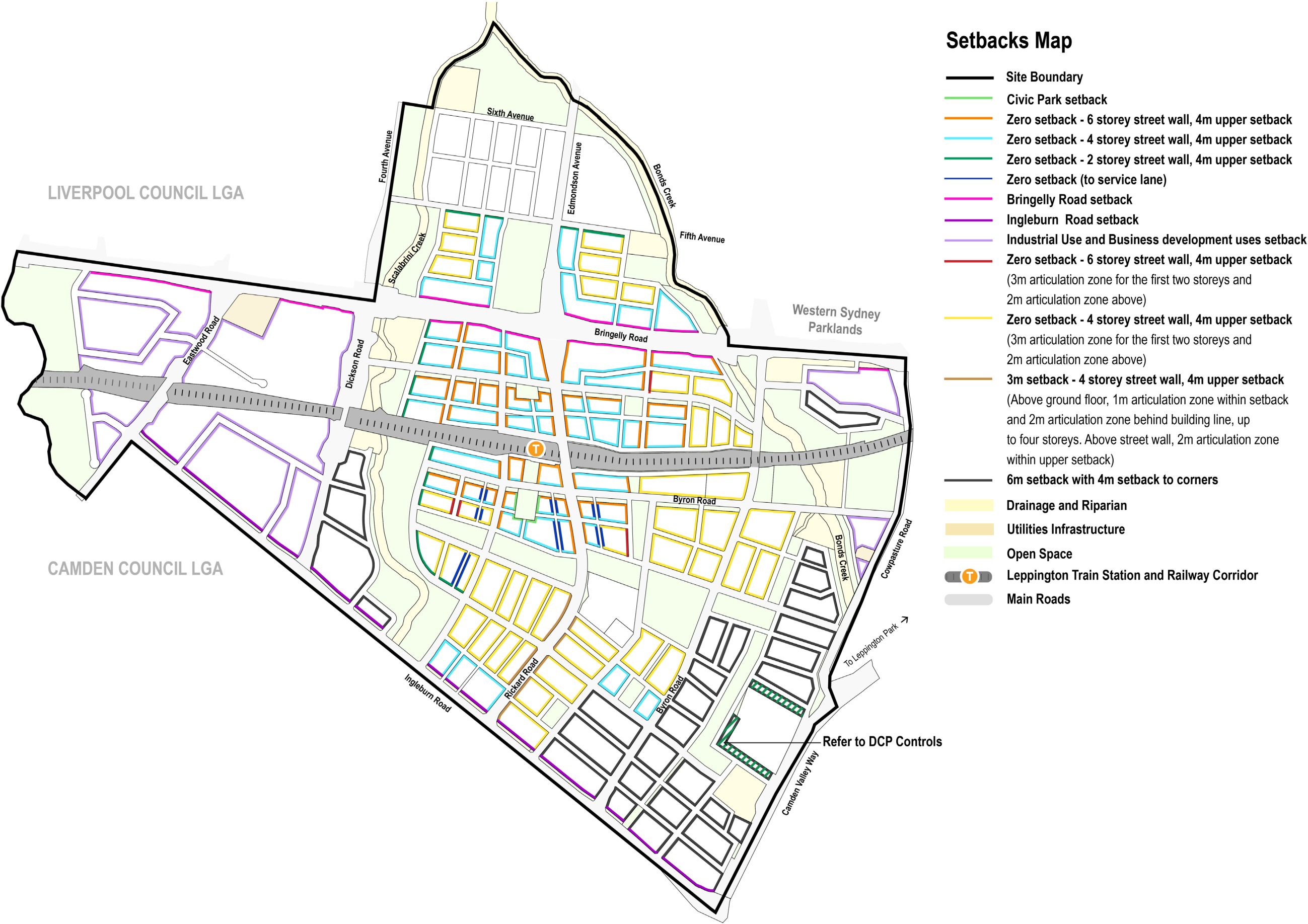


Figure 43 Building Setback Map

4.3.4 Building Separation and Boundary Setbacks

Objectives

- a) Ensure an appropriate level of amenity for building occupants in terms of daylight, outlook, view sharing, ventilation, wind mitigation, and privacy to residential and tourist accommodation buildings.
- b) Allow for reasonable sunlight access to a majority of residential dwellings within buildings on and surrounding the site.
- c) Achieve usable and pleasant streets, public spaces and communal open spaces in terms of wind mitigation, daylight and solar access and landscaped areas including tree cover.
- d) Ensure spaces between buildings are appropriate to the scale and character when viewed from streets, public areas and private open spaces.

Controls

- 1. Buildings are to be designed in accordance with the relevant controls specified in Figure 43 Building Setback Map.

4.3.5 Building Bulk

Objectives

- a) Achieve living and working environments in sustainable buildings with good internal amenity and minimise need for artificial heating, cooling and lighting.
- b) Encourage slender tower forms that maximise solar access to public spaces and adjacent development.
- c) Reduce the apparent bulk and scale of buildings by limiting the length of high rise towers and breaking up expanses of building form.
- d) Reduce adverse impacts on streets and the public domain at ground level by controlling the size of upper level of buildings.
- e) Achieve a desirable skyline sympathetic to the location, topography and context.
- f) Allow for view sharing and view corridors.
- g) Provide for viable and useable commercial floor space and residential floor plates.

Controls

- 1. For any building within the B3 Commercial Core zone above 30m or 8 storeys:
 - a. the maximum horizontal length dimension must not exceed 45m

- b. the floor plate area must not exceed 1,500m²
- 2. For any building within the B4 Mixed Use or R4 High Density Residential zone:
 - a. The length of the upper parts of buildings above podium, up to 30m / 8 storeys, must not exceed 65m.
 - b. The length of building towers above 8 storeys on east-west streets in the core must not exceed 25m.
 - c. The length of building towers above 8 storeys otherwise must not exceed 45m.
- 3. The maximum building floor plate area within the B4 Mixed Use or R4 High Density Residential zone is:
 - a. 1,000m² above 30m or 8 storeys
 - b. 800m² above 55m or 16 storeys

4.3.6 Sun Access to Public Spaces

Objectives

- a) Ensure adequate sunlight access to planned and existing public spaces in Leppington Town Centre.
- b) Provide for an appropriate transition in building heights down to key identified public spaces.
- c) Provide for a suitably scaled enclosure to the identified public spaces.
- d) Encourage towers with smaller floorplates above a podium to allow light permeability into buildings, between buildings and the public domain.

Controls

- 1. All development must demonstrate that direct sunlight access can be achieved to at least 50% of the public open spaces within the vicinity of the site between the lunchtime hours of 12pm and 2pm on 21 June.
- 2. Development must demonstrate how solar access to public space is shared between adjacent development sites, achieving a reasonable balance between development and sunlight access on each site.

Note: Camden Council has developed a 3D model for Leppington Town Centre demonstrating how solar access can be achieved in all public spaces. This is available on request from Camden Council.

4.3.7 Building Articulation and Façade Design

Objectives

- a) Ensure that the design of building facades and location of openings and service areas, contributes positively to an attractive streetscape.
- b) Encourage materials and finishes that are attractive, resilient, complement the public domain, and are durable and easy to maintain.
- c) Ensure fine-grain development, activity and surveillance at street level.
- d) Achieve architectural diversity and interest in the architectural character by minimising buildings of the same or similar design being located adjacent or opposite to one another.

Controls

1. Articulation zones must be provided to compliment the building mass and emphasise key design elements such as entrance points and respond to environmental conditions including solar access, noise, privacy and views.
2. The maximum frontage length of a building must be 65m. Where a development site frontage is longer than 65m, two or more building with different architectural expressions must be developed to front the street or public domain with a building separation of not less than 6m for the full height of the building. This control does not apply for tower elements above 10 storeys. This may be varied where development provides significant architectural diversity consistent with controls (3), (4) and (5). An example is shown in Figure 44 Building Articulation.
3. Buildings in excess of 45m long must be designed as at least two distinct 'building components' which are to:
 - a. have their own architectural character;
 - b. not exceed 25m in length with a preferred length of 20m;
 - c. reflect the building's internal organisation; and
 - d. should have individual entrances or lobbies.
4. Buildings less than or equal to 35m long may have a single architectural character provided that the façade elements establish 'fine grain' vertical and horizontal articulation (rhythm and scale).
5. Groups of dwellings served by the same vertical circulation lift and/or stair must be designed as a distinct 'building component' with its own architectural character and expression. Generally, in buildings up to 10 storeys high, these groups should not exceed 50 dwellings per 'building component' and where practicable, should have separate body corporate entities.
6. Large development sites which have multiple buildings are to be designed as distinctive buildings with building elements that are materially different from other (including finishes, building entrances, balconies and balustrades, awnings, planters, pergolas, boundary walls and fences).

7. External security shutters are not permitted.
8. On corner sites, shop fronts must wrap around the corner including where they are on the corner of through site links or driveway openings.
9. Entries to residential or commercial lobbies, facing Rickard Road, Main Town Centre Streets or Internal Access Streets, are to be a maximum of 50% of the building frontage width or 10 metres, whichever is the lesser, as per the street designs in Chapter 3.5.
10. Architectural expression must be diverse across building groups/blocks and facades should be articulated to create visual interest.
11. There must be a contemporary architectural style based on simple primary building forms and a fine-grained assemblage of elements (which may incorporate the diversity of character of streetscapes in historic towns such as Camden).
12. Façade design must create a series of vertical elements along a building length reflecting a traditional main street façade.
13. Building facades must be designed to accentuate key architectural features and clearly delineate points of interest such as building entries, vertical and horizontal elements.
14. Building facades must incorporate a variety of finishes and materials which provide visual relief to the built form and which complement the materials and colours adopted for the public domain.
15. Sleeve buildings must be used to minimise the visual impact of large boxes, service areas and to define streets.
16. Roof elements must be used to screen mechanical plant.

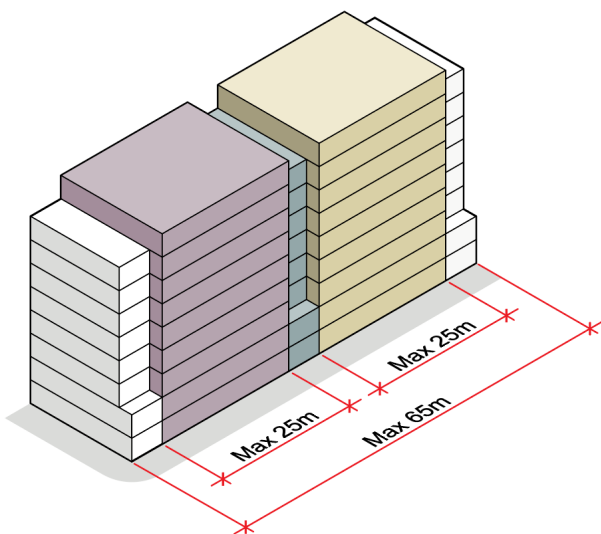


Figure 44 Building Articulation (buildings between 45-65 metres long)

4.4 Mixed Use Building Functional Design

Objectives

- a) Allow minimum commercial floorspace controls to be distributed in various parts of developments, including rooftops.
- b) Encourage different building typologies within a single staged development such as terraces and apartments.
- c) Encourage architectural variety and diversity in mixed use building design.

Controls

1. The applicant must demonstrate consistency with the above objectives.
2. Commercial floorspace on rooftops can contribute towards the minimum commercial floorspace provision for mixed use development.

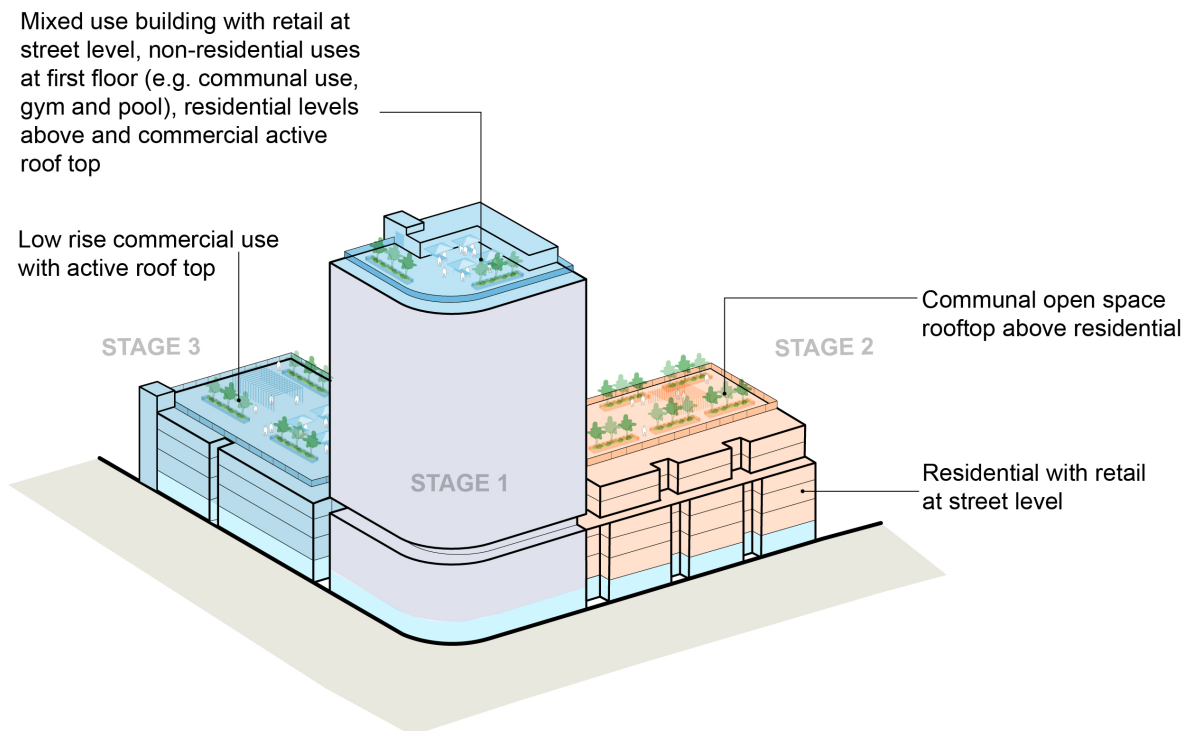


Figure 45 Mixed use building functional design

4.5 Awnings

Objectives

- a) To provide continuous and well-designed awnings to key Town Centre and Pedestrian Priority Streets for weather protection and shade.

Controls

1. Awnings must be located in accordance with Figure 48 Awning Map.
2. Where a site has a commercial ground floor
3. Awnings must be developed in accordance with Figure 46:
 - a. Minimum height = 3.5m
 - b. Maximum height = 5.0m
 - c. Minimum overhang = 2m
 - d. Minimum distance from kerb = x
 - i. to be determined by the width of the planting / street furniture / lighting zone/ flex zone to the kerb.
 - e. Maximum overhang = Y
 - i. to be determined by width of planting / street furniture / lighting zone distance to the kerb, or 3.3m, whichever is the shortest.

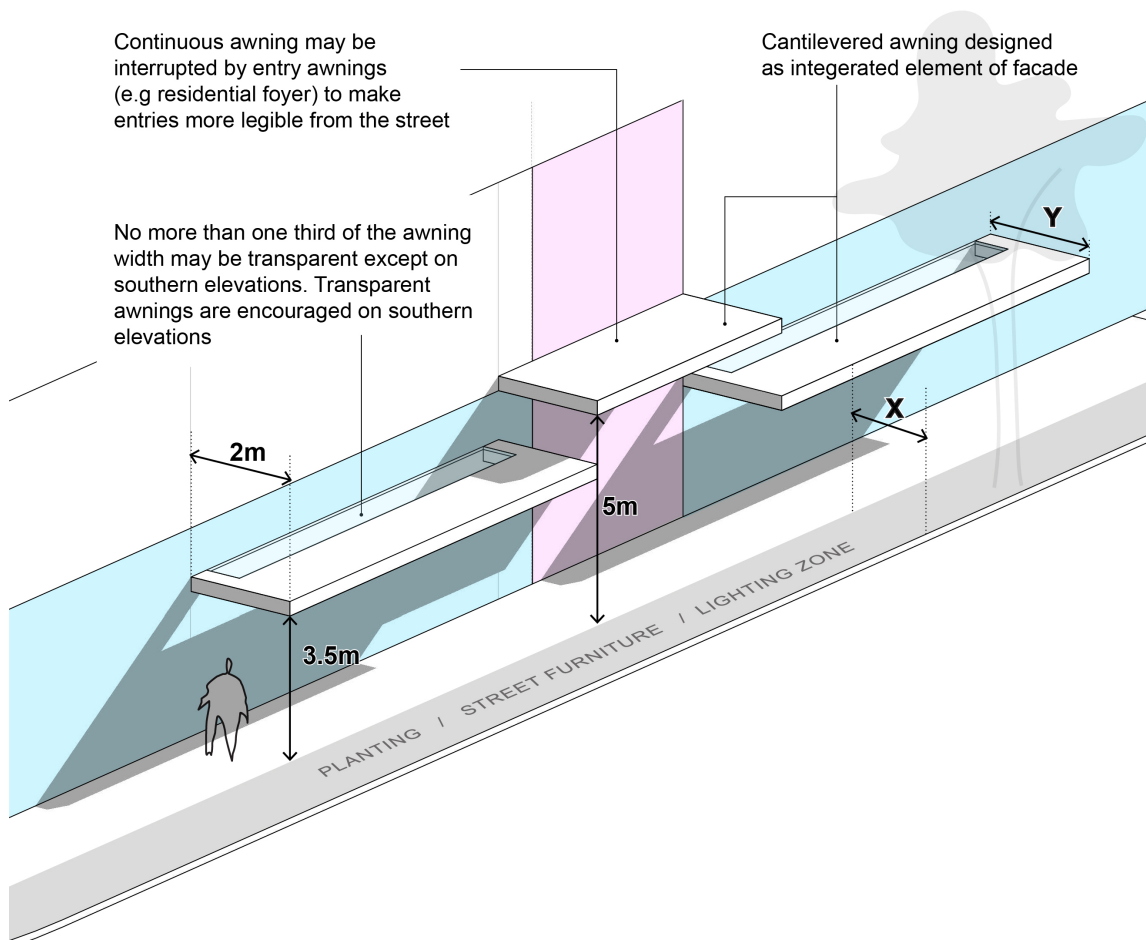


Figure 46 Awning Controls



Example of continuous corner awning with active street frontage



Example of entry awning for residential uses



Example of a green awning designed to integrate with building facade.



Example of transparent awning

Figure 47 Awning examples

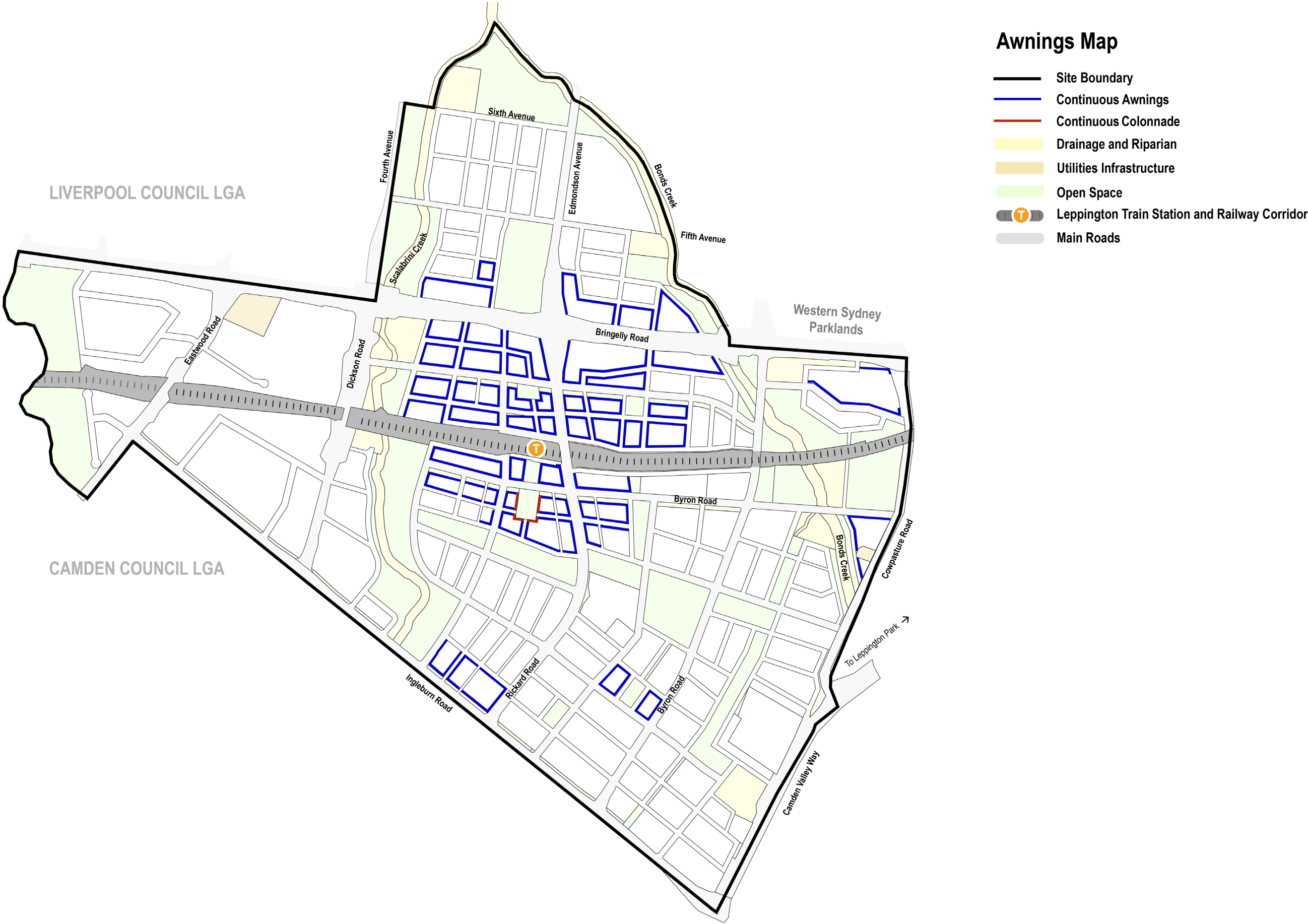


Figure 48 Awning Map

4.6 Landscaping and Tree Canopy Coverage in Residential and Commercial Developments

Objectives

- a) Integrate landscaping and tree canopy coverage within development sites within the design of buildings and within the landscape character of the public domain.
- b) Ensure landscaping and tree canopy coverage contributes to an attractive streetscape, a safe environment for people, and to minimise the impacts of development on natural features in Leppington Town Centre.
- c) Ensure landscaping and tree canopy coverage is distributed across all communal and private open spaces areas.
- d) Encourage the maximum provision of landscaping and tree canopy coverage that complements any development.

Controls

1. A landscape plan is to be submitted for all development within the Leppington Town Centre where internal or external landscaped areas are required or proposed. Landscape plans must be developed by an Australian Institute of Landscape Architecture (AILA) registered landscape architect.
2. Landscape maintenance/management plans need to be developed/provided for all developments. Signage indicating who is responsible for the landscape maintenance/management plan should be made available in communal areas.
3. In all trafficable areas in residential and commercial developments, regardless of if on structure (such as above a basement or on a rooftop) or above deep soil;
 - h. each communal open space area must have 30% tree canopy coverage so that at noon on the summer solstice approximately 30% of each communal open space area is shaded by tree canopy, consistent with Figure 49 Tree canopy cover – Shop-top housing / apartments
 - i. each private open space area (excluding balconies but including terraces and rooftops), must have 30% tree canopy coverage so that at noon on the summer solstice approximately 30% of each private open space area is shaded by tree canopy, consistent with Figure 49 Tree canopy cover – Shop-top housing / apartments and Figure 50 Tree canopy cover – Medium density (attached housing).

Note: Where tree canopy coverage is required on structure, Council will accept trees that provide dappled shade, however the applicant must demonstrate how and where other structures or other plantings will provide deep shade.
4. Where tree canopy coverage is required on structure the tree must be capable of reaching at least 3m height at tree maturity.

5. Where tree canopy coverage is required in deep soil the tree must be capable of reaching at least 6m in height at tree maturity. Planting is to include deep rooted tree species to assist in maintaining an appropriate water table.
6. All non trafficable areas must be landscaped and consist of predominantly soft ground where possible (i.e. solid paving, concrete, or other impervious materials are to be minimised).
Note: See 4.12 Sustainability and Rooftop Solar Requirements contains controls and objectives that may relate to non trafficable areas.
7. Landscaping within development sites is to complement the landscape character of adjoining streets and other public spaces.
8. The proportion of the site that is unpaved is to be maximised to enable maximum water infiltration.
9. Rainwater storage and re-use is required for all landscaping irrigation, with mains water only to be used as a backup. The capacity of on-site water storage is to consider the likely water consumption required to maintain landscaped areas within the site.
10. Landscaping of development sites adjacent to Scalabrini Creek and Bonds Creek is to integrate with the natural characteristics of the existing vegetation or vegetation to be re-established along these creek corridors. Native (locally indigenous) plant species are to be the dominant landscape species in these locations.
11. Landscaping design and tree species selection is to consider solar access (in winter) and the provision of shade (in summer) to buildings, the public domain and outdoor areas within the development (including private open space and communal open space areas).
12. Piping for recycled water must be considered as part of the initial landscaping design to allow for the use of recycled water for irrigation once it is available.

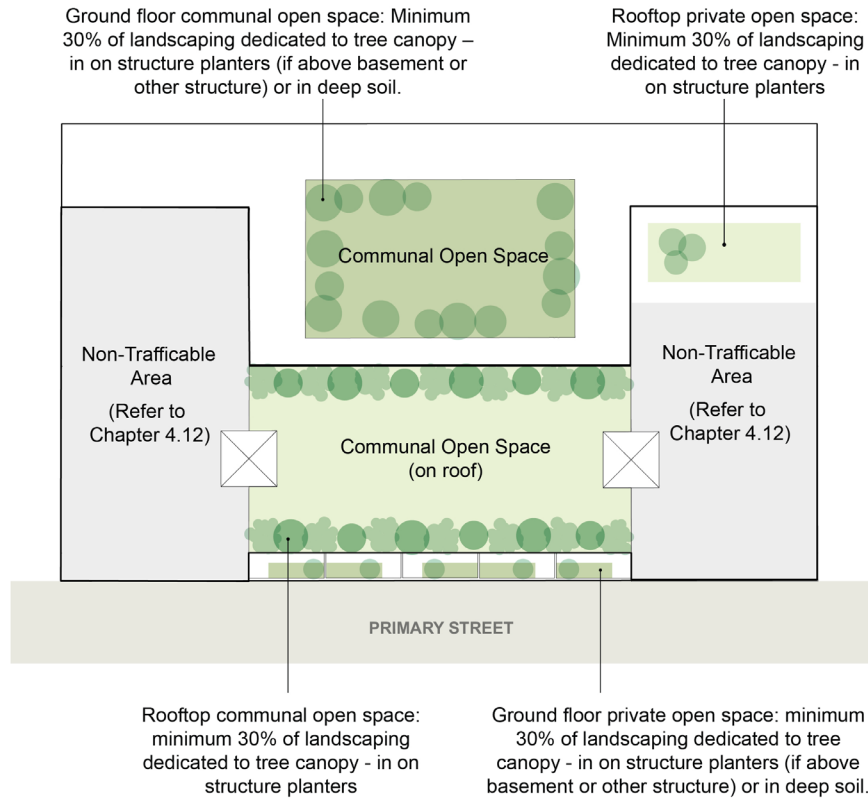


Figure 49 Tree canopy cover – Shop-top housing / apartments

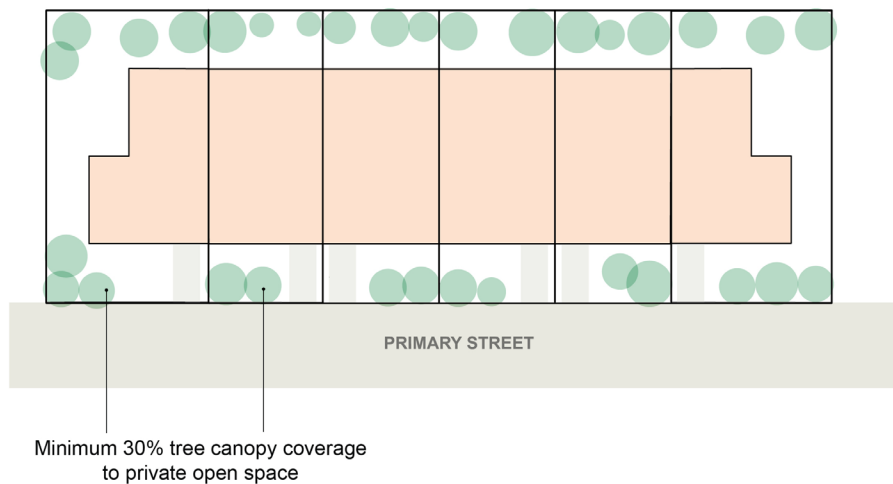


Figure 50 Tree canopy cover – Medium density (attached housing)

4.7 Rooftop Communal Open Space

Leppington Town Centre sits to the west of a ridge line that is approximately 100 meters above sea level. The town centre itself has an elevation of approximately 80 to 90 meters above sea level. This means that buildings above approximately 15 to 35 meters, depending on their location within the town centre and site specifics, afford distant views to the Sydney skyline and Blue Mountains. Rooftops are encouraged to take advantage of this unique position in Western Sydney and provide amenity to residents.

Objectives

- a) Encourage the use of rooftops as communal open space in mixed use and residential development.
- b) Ensure rooftops are utilised for communal open space with appropriate planting for canopy coverage, appropriate facilities for enjoyment and entertainment (BBQs, outdoor tables and opportunities for communal activities like rooftop cinema nights) as well as energy generation.
- c) Ensure rooftop communal space is encouraged to be an addition to at grade communal open space.

Controls

1. All rooftop communal open spaces must be included as part of a required landscape plan.
2. Where communal rooftop open space is provided it must:
 - a. Provide shade to at least 30% of the open space through on structure planting capable of supporting medium to large trees that can contribute to tree canopy coverage as well as opportunities from shade structures.
 - b. Not use the space for commercial purposes without the approval of Council.
3. Where Rooftop Communal Open Space is proposed, designs must include the provision of accessible toilets at roof level.

Note: Further controls for rooftop spaces are contained in Chapter 5.1 24-Hour Zone.

4.8 Water Sensitive Urban Design

Objectives

- a) Protect and enhance natural water systems which may be affected by urban development.
- b) Reduce storm water run-off and peak flows effected by urban development.
- c) Meet stormwater quality targets through treatment systems such as bio-retention, swales, wetlands and raingardens.
- d) Encourage the utilisation of storm water for passive irrigation of street trees.
- e) Integrate stormwater detention and treatment with the urban structure of the Leppington Town Centre.
- f) Optimise the use of rainwater that falls in Leppington Town Centre and minimise the amount of water transported out of the catchment resulting in a reduced demand for potable water.

Controls

1. A Leppington Town Centre Water Sensitive Urban Design Strategy (WSUD Strategy) has been prepared by the Department of Planning and Environment and is available from Council. Development applications must demonstrate compliance with the WSUD Strategy and the controls in this DCP schedule (which take precedence over the Strategy) to Council's satisfaction.
2. Trunk stormwater detention basins and channels as shown on the Indicative Layout Plan have been designed to detain stormwater volume up to the 100 year ARI storm event from streets, residential zoned land and public spaces within the Leppington Town Centre. Detention of additional stormwater runoff as a result of other development is to be managed within the development site (on site detention) to ensure there is no increase in runoff in events up to the 100 year ARI event.
3. Where development adjoins or incorporates streets that follow drainage paths (low points), WSUD measures should be incorporated into the design of the street. Measures such as bioswales and tree pits are to be located in the road verge (as opposed to in a central median).
4. For individual development applications, a Water Cycle Management Strategy should be prepared by a suitably qualified and experienced consultant to demonstrate how the proposed development manages run off quantity and quality, reduces potable water use, minimises effluent production and integrates landscape irrigation with non-potable water.
5. Measures to treat stormwater quality are to be incorporated into each development. The design and location of water quality treatment devices is to be consistent with the WSUD Strategy and integrated with elements of the development such as car parks, landscaped areas, private open space, communal outdoor areas and setback zones.

4.9 Drainage and Flood Prone Land

Objectives

- a) Mitigate flood risk in Leppington Town Centre.
- b) Maximise the development potential of land in Leppington Town Centre, and the productive use of land that is affected by flooding.
- c) Ensure that development does not create an increased risk of flooding or changes to flooding conditions.
- d) Ensure the coordinated and orderly development of land that manages stormwater flows and quality.

Controls

1. No residential allotments are to be located at a level lower than the 1% Annual Exceedance Probability (AEP) flood level plus a freeboard of 500 mm (i.e. within the 'flood planning area').

Note: Where development is proposed within or adjacent to land that is shown on the Flood Prone Land figure, as being affected by the 1% AEP level, council may require a more detailed flood study to be undertaken by the applicant to confirm the extent of the flood affectation on the subject land.

2. Roads are to be located above the 1% AEP flood level in the creek and are to be designed in accordance with specifications of council in relation to management of stormwater flows and quality.

Note: This clause applies for all development in the Leppington Town Centre. Council may require the applicant to demonstrate how development achieves appropriate road levels and management of stormwater flows and quality.

3. Development must manage stormwater flows and quality by:
 - a. preventing damage by stormwater to the built and natural environment.
 - b. reducing nuisance flows to a level which is acceptable to the community.
 - c. providing a stormwater system which can be economically maintained and which uses open space in a compatible manner.
 - d. controlling flooding.
 - e. minimising urban water run-off pollutants entering watercourses.

Note: Pedestrian and cycle pathways and open space may extend within the 1% AEP flood level, provided the safe access criteria contained in the NSW Floodplain Manual are met.

Leppington Town Centre
Flood Prone Land

- Legend
- Flood Prone Land
 - Development Parcel
 - Railway Corridor and Utilities
 - Linear Plaza
 - Landscaped Road Reserve
 - Public Recreation
 - Private Recreation
 - Drainage
 - Pedestrian Priority Street

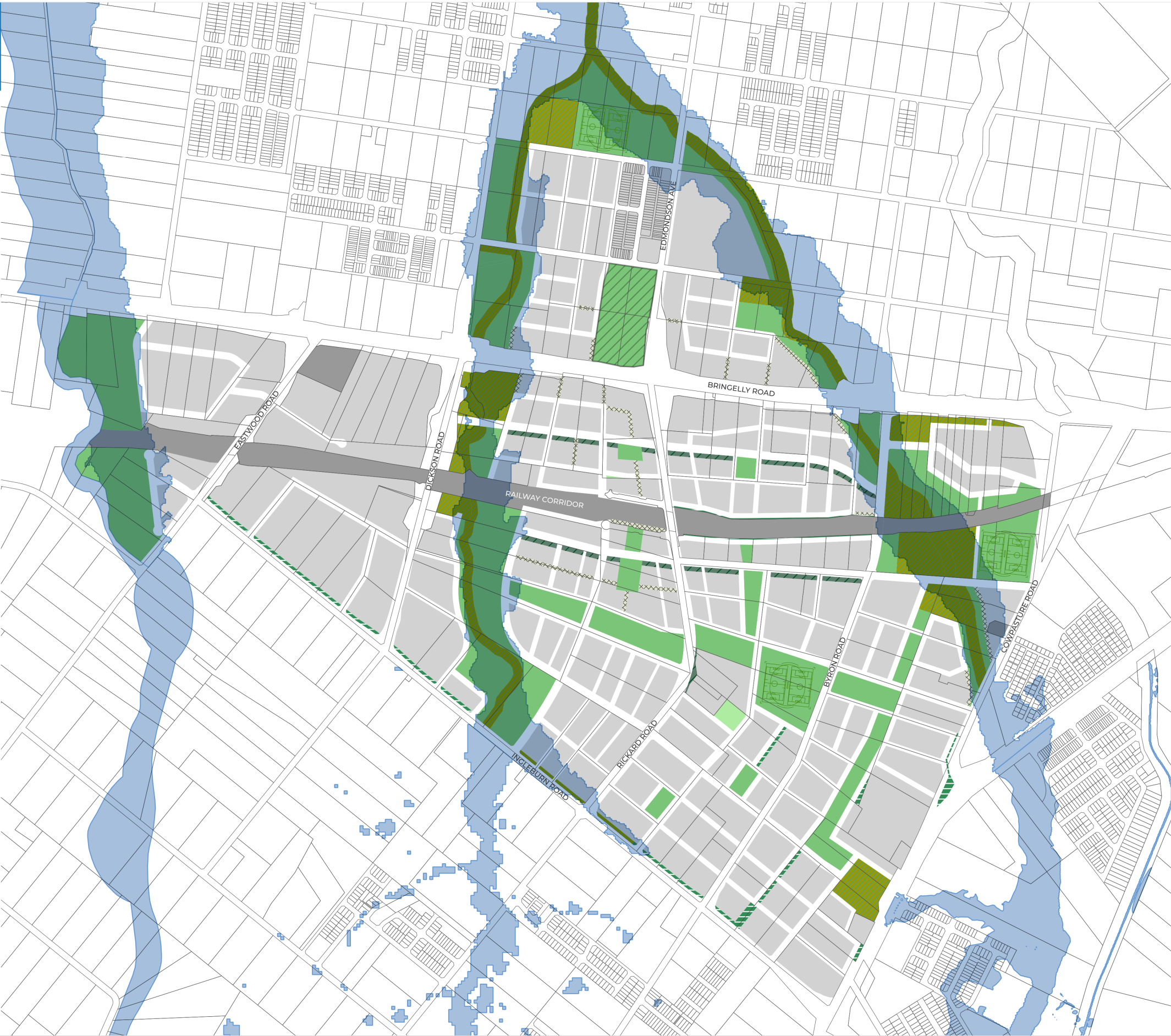
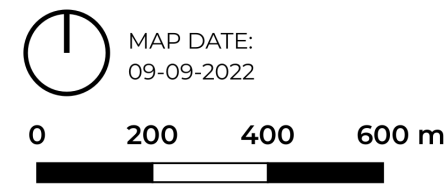


Figure 51 Flood Prone Land (pre-development)

4.10 Heritage

Objectives

- a) To conserve and enhance the heritage significance of heritage items.
- b) To retain an appropriate landscape setting for the heritage item and views associated with the place.
- c) To encourage ongoing use of heritage items, including adaptive reuse where this will contribute to the conservation of the item.

Controls

- 1. Development in the vicinity of Leppington School Heritage Item must be sympathetic to the scale, massing and character of the significant weatherboard buildings and their garden setting. Buildings shall not exceed two storeys in height within 10 metres of the curtilage of the Leppington School site. Development shall incorporate landscape treatments to ensure an appropriate transition of building scale between the heritage item and adjacent development.
- 2. Development that coincides with the former Eastwood Road historic road alignment shall conserve elements of the original road alignment within the landscape, either by means of a natural landscape corridor or other forms of interpretation such as explanatory signage.

4.11 Urban Heat

In Leppington Town Centre, all development will be required to implement design principles that minimise the impacts of urban heat. This means that each development should minimise its carbon emissions, reduce its peak demand on the electricity grid and minimise its contribution to the urban heat island effect; as well as being designed to ensure that both indoor and outdoor spaces stay as cool as possible in hot weather.

The requirements for urban heat mitigation and the information required to support a development application varies for different types and scales of development.

Objectives

- a) To reduce carbon emissions from the development, considering both construction and operational emissions.
- b) To reduce peak demand on the electricity grid and support a robust electricity network, by improving energy efficiency and installing solar panels.
- c) To reduce the development's contribution to the urban heat island effect, by minimising hard surfaces, using cool materials, maximising landscaped area, and retaining water in the landscape where it is available for evapotranspiration.
- d) To design homes for high passive thermal performance, so that they stay as cool as possible through heatwaves and maintain habitable conditions even in the event of an extended power outage.
- e) To design non-residential buildings for high passive thermal performance, so that they remain comfortable for workers and visitors in hot weather, while also minimising energy demands. Prioritise buildings (or parts of buildings) which are open to the public and those where people work.
- f) To design outdoor areas that are accessible to residents, workers or the general public to stay as cool as possible during hot weather, so that people can still work, socialise and recreate outdoors and also use active transport modes.

Design principles: buildings

- i. Design buildings for high passive thermal performance, to reduce reliance on energy for cooling (and heating).
- ii. Install energy-efficient fittings and appliances.
- iii. Install or connect to renewable energy systems, to offset energy demands and reduce peak electricity demands
- iv. Use cool roofing materials, with a high Solar Reflectance Index (SRI). Green roofs are also encouraged, particularly where there is a need to minimise glare from roofs.
- v. Limit the solar reflectivity of glazed façades, and shade reflective façades with vegetation and/or architectural features.
- vi. For external walls, minimise the use of thermally massive materials like concrete that absorb energy and stay warm, re-emitting heat into outdoor areas.

Design principles: outdoor areas

- vii. Design outdoor spaces to stay cool in hot weather, considering orientation, including as much shade as possible, and providing irrigation to landscaped areas.
- viii. Prioritise these design measures in areas frequented by people, including town centres, transport nodes, active transport routes.
- ix. Shade paved surfaces and walls where possible, also considering solar access in the cooler months.

- x. Consider cool paving (high albedo and/or high thermal emittance) or permeable paving. Although these materials are not suitable in all situations, they should be used wherever possible. Use cool paving wherever glare is not a constraint and there are potential cooling benefits. Use permeable paving where traffic loads are light and where there is an opportunity for rainfall to soak into soil below the pavement.
- xi. Maximise landscaped area within the development. Within landscaped areas, maximise soil volumes, and plant trees that will grow to have large, dense canopies. Also include understorey plantings.
- xii. Provide irrigation to landscaped areas, to support healthy vegetation and enable evapotranspiration, which has a cooling effect.
- xiii. Where an irrigation system is not feasible, provide passive irrigation – enable runoff from adjacent hard surfaces to soak into landscaped areas.
- xiv. Include features that store water in the landscape – for example rain gardens, wetlands and ponds. Also consider the use of fountains, misting fans or water play features to create particular cool zones in the landscape.
- xv. Connect irrigation systems and water features to a sustainable supply of non-potable water (e.g. rainwater tank, stormwater harvesting scheme, recycled water) so that a water supply is more likely to be available for cooling, even in times of drought and restricted mains water use.

Controls

1. All development must demonstrate substantial consistency with the design principles above.

4.12 Sustainability and Rooftop Solar Requirements

The NSW Government aims to achieve 50% emission reduction target by 2030, and a net zero emissions target by 2050. To achieve this target, the built environment must accelerate the take-up of net zero technologies such as renewable on-site energy generation and low-carbon building materials.

Green infrastructure provides numerous social, environmental and cultural benefits and can contribute to making Leppington Town Centre a more climate change resilient, liveable and beautiful place.

Green infrastructure, sustainability initiatives and energy efficient design has also been shown to increase property values and decrease ongoing costs, providing price premiums of between 3-8%¹.

Green infrastructure is defined as:

Term	Meaning
Green Roof	A green roof is vegetation covering at least 30% of available rooftop space - that is, space which is not occupied by structures housing plant, equipment or stairway accesses. A green roof should provide measurable environmental benefits. The green roof includes a vegetated layer, growing medium, and a waterproof membrane. Plants grown in sectioned lots are acceptable, however, potted plants/planter boxes which cover less than 30% of available rooftop space are not considered as a green roof. Additional to the minimum 30% vegetation cover, a green roof can include facilities for renewable energy, water collection infrastructure, walkways, furnishings and the like.
Green Wall	Green walls are either free-standing or part of a building that is partially or completely covered with vegetation. The wall may incorporate soil and/or inorganic material as the growing medium. There are two main types of green wall: green façades and living walls. Green façades are made up of climbing plants either growing directly on a wall or on specially designed supporting structures. The plant's shoot system grows up the side of the building while being rooted in the ground. With a living wall, modular panels are affixed to the wall and geo-textiles, irrigation and a growing medium combine to support a dense network of plants.

Objectives

- Minimise energy consumption and achieve net zero emissions by 2050.
- Promote innovative and environmentally responsible design that achieves energy efficiency and renewable energy outcomes.
- Utilise building roofscapes to improve the environmental performance of buildings, including energy generation.
- Encourage high performing buildings that are carbon-neutral certified.
- Development must strive to be high performing, incorporating principles of circular economy.

¹ Leppington Town Centre Market Demand Analysis – Hill PDA April 2021

- f) Buildings minimise cooling demand indoors and heat absorbance through orientation, the design of roofs and facades and materials.
- g) Encourage green roofs and podiums in developments to improve air quality, ambient air temperature, building insulation, bird habitat, amenity and aesthetic quality of the urban environment.

Controls

1. All developments must feature solar panels on rooftops and provide suitable surface area for solar collection where there is adequate access to sunlight. This must consider potential overshadowing from other buildings.
2. All residential and light industrial development must feature solar panels on a minimum of 25% of the rooftop. Where appropriate, solar energy generation should be maximised.
3. The use, location, and placement of solar panels (e.g. photovoltaic) is to take into account the potential permissible building form on adjacent properties.
4. Accessible roofs and podiums must provide plantings that assist in providing shade.
5. The green roof or podium must be planted out with suitable plants (Australian native or endemic to the Sydney region where possible).

Note: Rooftops are to include solar panels in addition to other features such as building services, communal open space and green roofs, where applicable.

[What are BASIX targets? - BASIX \(Building Sustainability Index\) \(nsw.gov.au\)](https://www.nsw.gov.au/basix)

4.13 Bedroom Mix

Objectives

- a) Provide a mix of dwellings to cater for the needs of the resident population and to encourage a diverse population.
- b) Encourage flexible building design to enable future changes in use and internal configurations.

Controls

1. Apartment development of 20 dwellings or more must provide dwellings within the following proportional ranges:
 - a. Studio dwellings - 5 to 10% of total dwellings;
 - b. 1-bedroom dwellings - 10 to 30% of total dwellings;
 - c. 2-bedroom dwellings - 40 to 75% of total dwellings; and
 - d. 3-bedroom dwellings or larger - 10 to 30% of total dwellings.
2. The maximum percentage of 1 bedroom dwellings may be increased above 30% provided the numbers of studio dwellings and 1 bedroom dwellings combined does not exceed 45% of the total dwellings proposed.
3. Where residential uses are proposed or required for the ground floor level, at least 50% of 3 bedroom or larger dwellings are to be provided on the ground floor.

Note: Ground floor apartments should function, look and feel as though they are a separate terrace house to apartments above.
4. New development is to include a variety of internal designs that will allow adaptation to different uses over time by:
 - a. providing internal walls that can easily be removed without affecting structural integrity;
 - b. locating services so that they do not impede the future conversion of the unit into a different configuration; and
 - c. incorporating the ability to separately occupy parts of individual dwellings.

4.14 Waste Management

This section outlines the requirements for the management of waste from new developments. This section of the DCP schedule is to be read in conjunction with the relevant Council Waste Management Guideline or Policy.

- Liverpool City Council Domestic Waste Management Policy
- Camden Council's Waste Management Guidelines

Objectives

- a) Ensure that an appropriate waste service is provided to all new development.
- b) Ensure waste collection vehicles have safe, reliable access to all collection points and can manoeuvre to all waste collection points during all stages of a development.
- c) Ensure provision of adequately designed and constructed storage and collection areas for all developments that allows for responsible storage and collection of all waste types that are generated at the development.
- d) Ensure that waste vehicle access is as minimal and discreet as possible so as to not detract from pedestrian amenity and the public domain.

Controls

1. A Waste Management Plan (WMP) must be submitted for all new development, including demolitions, construction and the ongoing (or change of) use. A WMP outlines the waste that will be generated and how the development proposes to manage the waste.
For further information on WMPs refer to:
 - Camden Council's Waste Management Guideline; or
 - Liverpool City Council Domestic Waste Management Policy.
2. All commercial, mixed use and residential flat building site developments must make provisions for on-site waste collection. Any access shall accommodate Council's standard waste vehicle dimensions.
3. Waste collection points must not negatively impact the public domain by minimising driveway openings as much as feasible, while still accommodating Council's standard waste vehicle dimensions.

4.15 Signage

The purpose of this section is to establish specific objectives and development controls for the provisions of signage in the Leppington town Centre. This section should be read in conjunction with *State Environmental Planning Policy Industry and Employment 2021*. For the purposes of this section, signage has the same meaning as defined in SEPP (Industry and Employment) 2021 (or equivalent).

Objectives

- a) Deliver and maintain a high quality public domain.
- b) Promote signage that demonstrates design excellence and contributes positively to the appearance and significant characteristics of buildings, streetscapes and the Leppington Town Centre skyline.
- c) Ensure signage does not detract from a high quality pedestrian experience of streets and other public spaces and prioritises way finding and other signs that are in the public interest.
- d) Encourage signs and building frontages that provide and allow for interesting and active streets preferably through views in to and from a premises but also through architectural detailing of the sign and building.
- e) Encourage and provide opportunities for innovative, unique and creative signs.
- f) Minimise the negative amenity impacts of signs and advertisements.
- g) Ensure signage contributes to the character of identified precincts and is consistent with land uses throughout the Town Centre.

Controls

- 1. Signage is to be compatible with the architecture, materials, finishes and colours of the building and the streetscape.
- 2. Signage attached to a building is to be positioned in locations or on panels in between any architectural elements (such as awnings, windows, doors and parapet lines). Signs are not to conceal or detract from integral architectural features or cover any mechanical ventilation systems.
- 3. Signage that will detract from the amenity or visual quality of heritage items, civic plazas, open space areas, waterways or residential areas is not permitted.
- 4. Signs should allow the main facades of buildings from the first floor to the rooftop or parapet to be uncluttered and generally free of signage.
- 5. Signage is not to be supported by, hung from or placed on other signs or advertisements.

6. Signage that will distract road users, or could be mistaken for a traffic sign, is not permitted.
7. Signage that will unduly obstruct the passage or sightlines of vehicles, cyclists or pedestrians is not permitted.
8. A building identification sign should be located at or near the major pedestrian entry to a building and be designed to fit within the architectural elements of a building.
9. Top of building signs are permitted to incorporate the registered name and a logo of the building or development or to contribute towards public art.
10. Top of building signs are not to be used, sold or leased as any form of business or third-party advertisement.
11. Development consents for top of building signs are to be limited to 5 years.
12. The following signs are not permitted:
 - a. Sky signs and other roof signs that project vertically above the roof of a building.
 - b. Signs painted on or applied to the surface of a building roof in order to be visible from the air.
 - c. Above awning signs.
 - d. Flashing, electronic, running or moving signs – for example a variable message board sign (other than those signs authorised for traffic management, road traffic and road safety purposes or signs that contribute to public art).
 - e. Illuminated advertising street name signs.

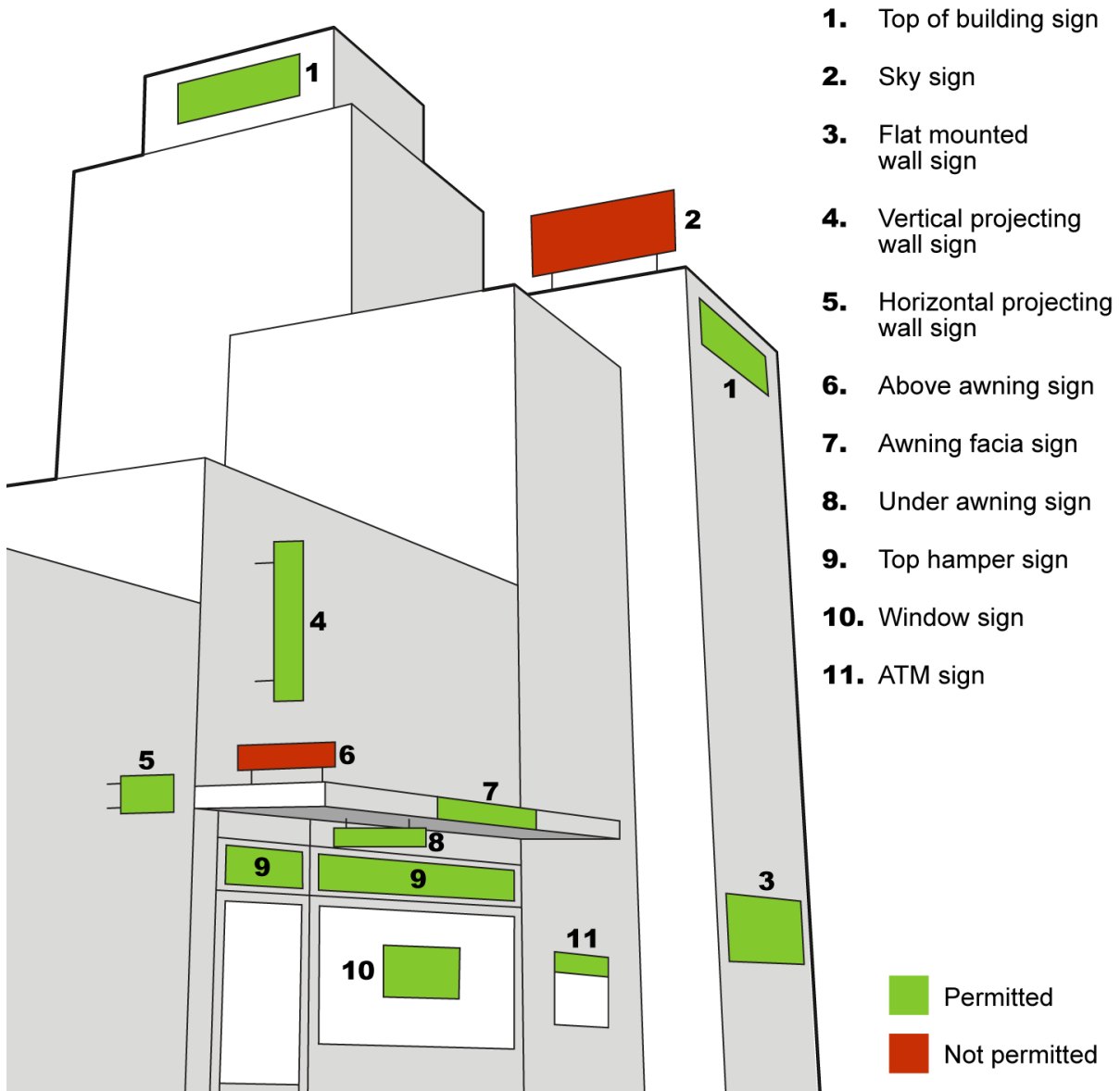


Figure 52 Signage Controls

4.16 Parking, Loading and Access

Objectives

- a) Ensure an appropriate number of parking spaces are provided within the Leppington Town Centre to service the needs of businesses, residents and visitors.
- b) Encourage modes of travel other than private cars for travel within and to the Leppington Town Centre.
- c) Ensure efficient and safe access for delivery and service vehicles to businesses within the Leppington Town Centre.
- d) Provide integrated vehicle, bicycle and service access points without compromising streetscape character or pedestrian amenity.
- e) Provide for changing parking, loading and access needs as the Leppington Town Centre develops.
- f) Reinforce Leppington Town Centre's character as an urban town centre environment.

Controls

1. Travel Plans are provided to include measures that reduce car dependency for new developments by encouraging sustainable transport modes. A Travel Plan must be submitted for:
 - a. Any residential developments containing 30 or more residential units; and
 - b. Any commercial or industrial developments which exceeds 3,000m² in gross floor area (GFA) or accommodates more than 50 employees.
2. Rates of provision for carparking are to be determined with reference to the rates specified in Chapter 4.18. Rates may be modified (subject to agreement by Council), or Council may restrict the provision of parking to a maximum number of spaces because:
 - a. Access to public transport means that dependence on private cars is reduced within the Leppington Town Centre; or
 - b. Traffic congestion is likely to occur because parking provision generates traffic volumes in excess of planned road capacity; or
 - c. The required rate of car parking would result in detrimental impacts on the character and amenity of the centre; or
 - d. On street parking is available in proximity to the proposed development, reducing demand for internal car parking; or
 - e. Provision is made for other modes of transport e.g. Walking and cycling that would reduce the demand for car parking; or
 - f. Efficiencies in car parking use are achieved by locating the proposed development adjacent to another development or land use that has spare car parking capacity (in general or at certain times of the day) or where parking provision can be shared between the developments; or
 - g. Shared use of car parking by commuters and the development is proposed; or
 - h. A detailed assessment of required provision of car parking demonstrates that parking will be appropriately provided at a rate which differs from the standards.

4.17 Bicycle Parking and End of Trip Facilities

Objectives

- a) Locate bicycle parking a short distance from the user's destination.
- b) Provide bicycle parking that is highly visible, near building entrance(s) safe for bicycles and is easy to find.
- c) Ensure bicycle parking is easy to maintain.
- d) Provide high quality and innovatively designed end of trip facilities that promote multi-modal trips and efficient use of existing public and private parking facilities.

Controls

1. All developments provide on-site bicycle parking designed in accordance with AS 2890.3, and its 3 levels of security.
2. Provide Class B bicycle facilities for occupants of residential buildings and visitors, staff, or employees of any land use.
3. Provide Class C bicycle rails for visitors of any land use in the public domain.
4. Where bicycle parking for tenants is provided in a basement, it is located:
 - a. On the uppermost level of the basement and with access to the building lobby;
 - b. Close to entry and exit points; and
 - c. Subject to security camera surveillance.

Note: It is Council's preference for bicycle parking to be provided on the ground floor in buildings with more than 10 dwellings. Bicycle parking should be in a secure room directly accessible (and may be visible) from the lobby.

5. At least 1 charging station for electric bicycles is provided for every 10 bicycle parking spaces.
6. Dedicated spaces for share bicycles/scooters are provided in the public domain close to entrances to trip generators and alongside traditional bicycle racks. Landscape plans should identify these areas to allow for geo-fencing for preferred parking and exclusion zones. (i.e. by establishing a virtual perimeter through GPS, users are informed of suitable parking areas via the bicycle/scooter rental app).
7. For non-residential or mixed use buildings, the following facilities are provided at the following rates:
 - a. 1 personal locker for each bicycle parking space;
 - b. 1 shower and change cubicle for the first 5 bicycle spaces or part thereof, plus an additional shower for every 10 bicycle parking spaces thereafter;
 - c. Showers and change facilities may be provided in the form of shower and change cubicles in a unisex area or in both female and male change rooms; and
 - d. Locker change room and shower facilities are located close to the bicycle parking area, entry/exit points.
8. For residents of strata titled buildings or visitors to other developments, end-of-trip facilities are optional. However, where there are bicycle storage and shower/change facilities, they must be made available to all occupants of the building.

4.17.1 Bicycle Parking Rates

Bicycle parking spaces for new developments are to be provided in accordance with the rates outlined in Table 4. Where an apartment in a residential building has a basement storage area on title that is large enough to accommodate a bicycle and is no smaller than a Class 1 bicycle locker, additional bicycle parking for that apartment is not required.

Bicycle parking facilities are additional to other parking requirements.

Table 4 Bicycle Parking Rates

Proposed Use	Residents / Employees	Customers / Visitors
Residential		
Residential accommodation	1 space / dwelling	1 space / 10 dwelling
Tourist and Visitor Accommodation Hotel, motel, or serviced apartments		1 space / 20 rooms
Backpackers accommodation	1 space / 4 staff	1 space / 10 beds
Commercial		
Office or business premises	1 space / 150m2 GFA	1 space / 400m2 GFA
Bulky goods premises	1 space / 600m2 GFA	1 space / 1,000m2 GFA
Shop, restaurant of café	1 space / 25m2 GFA	2 spaces plus 1 space / 100m2 over 100m2 GFA
Shopping centre	1 space / 200m2 GFA	1 space / 300m2 sales GFA
Pub	1 space / 100m2 GFA	1 space / 100m2 GFA
Entertainment facility	N/A	Whichever is greater of: · 1 space / 15 seats; or · 1 space / 40m2 GFA.
Place or public worship	N/A	
Hospital	1 space / 15 beds	1 space / 30 beds
Industry		
Industry or warehouse	1 space / 10 staff	N/A
Distribution centre		
Community		
Community centre	1 space / 10 staff	2 spaces plus 1 space / 1,000m2 GFA
Childcare centre	1 space / 10 staff	2 spaces / centre
Primary school		

Proposed Use	Residents / Employees	Customers / Visitors
Secondary school	1 space / 20 staff	1 space / 5 students
Tertiary educational institution	1 space / 10 staff	1 space / 10 students
Medical centre or health consulting rooms	1 space / 5 practitioners	1 space / 200m2 GFA
Swimming pool	1 space / 10 staff	2 spaces / 15m2 of pool area
Library	1 space / 10 staff	2 spaces plus 1 space / 200m2 GFA
Art gallery or museum	1 space / 1,000m2 GFA	1 space / 200m2 GFA

Note: The minimum number of bicycle parking spaces is to be rounded up to the nearest whole number.

GFA = Gross Floor Area

4.18 Car Parking Design and Access

Objectives

- a) Provide functional, safe, and efficient carparking areas.
- b) Minimise visual and amenity impacts of carparking on the public domain.
- c) Ensure carparking is situated appropriately within a site.
- d) Ensure adaptability of carparking provision and design to accommodate other uses over time.
- e) Ensure vehicle access arrangements are appropriate and minimise any adverse impact on infrastructure, road networks, safety, adjoining properties, amenity, and street trees.
- f) Ensure development makes appropriate provision for transport, access, servicing, and end of trip facilities to meet the needs of development, reduce the demand for private carparking over time and facilitate an environmentally sustainable transport network.
- g) Manage/limit the number of vehicle movements through high pedestrian and cycling precincts and streets.
- h) Reduce the effects of heat island in carparking areas.
- i) Preference the use of basement carparking.
- j) Promote the integration of electric vehicle parking and charging stations to carparks.
- k) Recognise the positive benefits of increased electric vehicle adoption on urban amenity including air quality, urban heat and noise.
- l) Ensure new development in Leppington Town Centre provides the necessary infrastructure to support the charging of electric vehicles.
- m) Minimise the impact of electric vehicle charging on peak electrical demand requirements.
- n) Reinforce Leppington Town Centre's character as an urban town centre environment.

Controls

1. The size and design of all parking spaces and any associated manoeuvring areas must be in accordance with AS 2890.
2. Parking must be design to be consistent with Figure 53 and Figure 54 below.
3. The majority of carparking must be provided in below ground carparking, and on street to limit visual impact and maintain pedestrian amenity.

Below Ground Parking

4. Below ground carparking must not protrude above the finished ground level.
5. Below ground carparking must be contained within the building envelope except:
 - a. Under Linear Plazas where Council may permit Stratum under Council's land below the Linear Plaza subject to the applicant being able to demonstrate that the:
 - i. land above remains fit for purpose
 - ii. structure below and the structural integrity of the structure below will not compromise the ability for the land above to be fit for purpose
 - iii. structure below is at least 5m below the finished ground level to allow Council to place footings for structures in the Linear Plaza and allow sufficient deep soil depth for trees and drainage
 - iv. structure below is set back 3.5m from the above kerb line to allow for underground utilities
 - v. structure below has no protrusions (e.g. stairwells, lift shafts, fire escapes, structural support etc.) into the land above.

Rooftop Parking

6. Rooftop parking is not permitted to preserve the future amenity for residential flat buildings located in the centre.

Above Ground Parking

7. Above ground carparking is not permitted except:
 - a. for in mixed use or commercial developments where the carpark is integrated into the development and:
 - i. where the carpark starts on or above level 1, leaving the ground floor for active uses
 - ii. where buildings provide appropriate visual screening to the carpark
 - iii. where buildings provide active edges to the street consistent with chapter 3.9 Street Interface Controls.

At Grade Parking

8. At grade carparking is not permitted except:
 - a. for in stand-alone commercial developments outside the Leppington Town Centre Core:
 - i. where the main access to the carpark is from a non-active frontage
 - ii. where buildings provide appropriate visual screening to the carpark from public places
 - iii. where carparking is not visible to any residential components of the development
 - iv. where buildings provide active edges to the street consistent with chapter 3.9 Street Interface Controls.
9. Developments with at grade carparking must ensure frontages are oriented to both the at grade carpark and the public domain (such as public parks, squares, plazas or streets) in accordance with chapter 3.9 Street Interface Controls. Frontages to the public domain must take precedence over frontages to the at grade carpark.
10. All at grade and above ground carparking must demonstrate what infrastructure will be incorporated to allow for easy transition to habitable land uses in the future. This includes consideration of:
 - a. Retrofitting of utilities and services (water, electricity, and internet);
 - b. Building code requirements for a range of uses;
 - c. Removable ramps;
 - d. Greater reinforcement, such as steel (as residential/commercial spaces are heavier than carparks); and
 - e. Flexible approaches for night-time use (e.g. night markets, gallery events etc.).
11. All at grade and above ground carparking must have a floor to ceiling height of at least 3.2m (clearance free of mechanical servicing) to allow for adaption to other uses.
12. All at grade and above ground carparking must be sleeved to street frontages with buildings (consistent with Figure 53 and Figure 54 below). In limited circumstances, where sleeving with buildings is not possible, a façade treatment needs to be architecturally designed to screen cars and provide an alternative solution.
13. All carparking must not to be visible from public places (such as public parks, squares, plazas or streets).
14. The maximum amount of carparking spaces for a development is inclusive of the minimum number of parking spaces required for car share schemes.
15. All parking spaces for car share schemes are to be:

- a. located together in closest proximity to entry and exit points of the building; and/or
 - b. located adjacent to a public road and integrated with the streetscape through appropriate landscaping where the space is external and signposted for use only by car share vehicles; and
 - c. where located on private land are to be retained as common property by the Owners Corporation of the site.
16. All carparks with over 100 spaces must incorporate smart technology to track real-time car movement (e.g. wireless parking bay sensors and dynamic signage).
 17. Within land zoned B5 Business Development zone, where carparking, loading or service areas are located adjacent to land zoned for public recreation, landscaping is to be used to screen the carpark from view from the public recreation land.

Note: Please refer to Chapter 1.3 Prevailing Definitions for further detail on Electric Vehicle Charging Infrastructure terms.

18. All apartment residential carparking must:
 - a. Provide an EV Ready Connection to at least one carparking space per dwelling.
 - b. Provide EV Distribution Board(s) of sufficient size to allow connection of all EV Ready Connections and Shared EV connections.
 - c. Locate EV Distribution board(s) so that no future EV Ready Connection will require a cable of more than 50 metres from the parking bay to connect.
 - d. Provide adequate space for the future installation (post construction) of compact meters in or adjacent to the EV Distribution Board, to enable the body corporate to measure individual EV usage in the future.
 - e. Identify on the plans the future installation location of the cable trays from the EV Distribution Board to the car spaces allocated to each dwelling that are provided a Future EV connection, and to make spatial allowance for it when designing in other services.
19. All car share spaces and spaces allocated to visitors must have a Shared EV connection.
20. All commercial building carparking must provide 1 Shared EV connection for every 10 commercial car spaces distributed throughout the carpark to provide equitable access across floors and floor plates.

Landscaping of Car Parking Areas

21. One large canopy tree planting must be provided at a maximum intervals of 25m (9 parking bays) for all at grade parking areas.

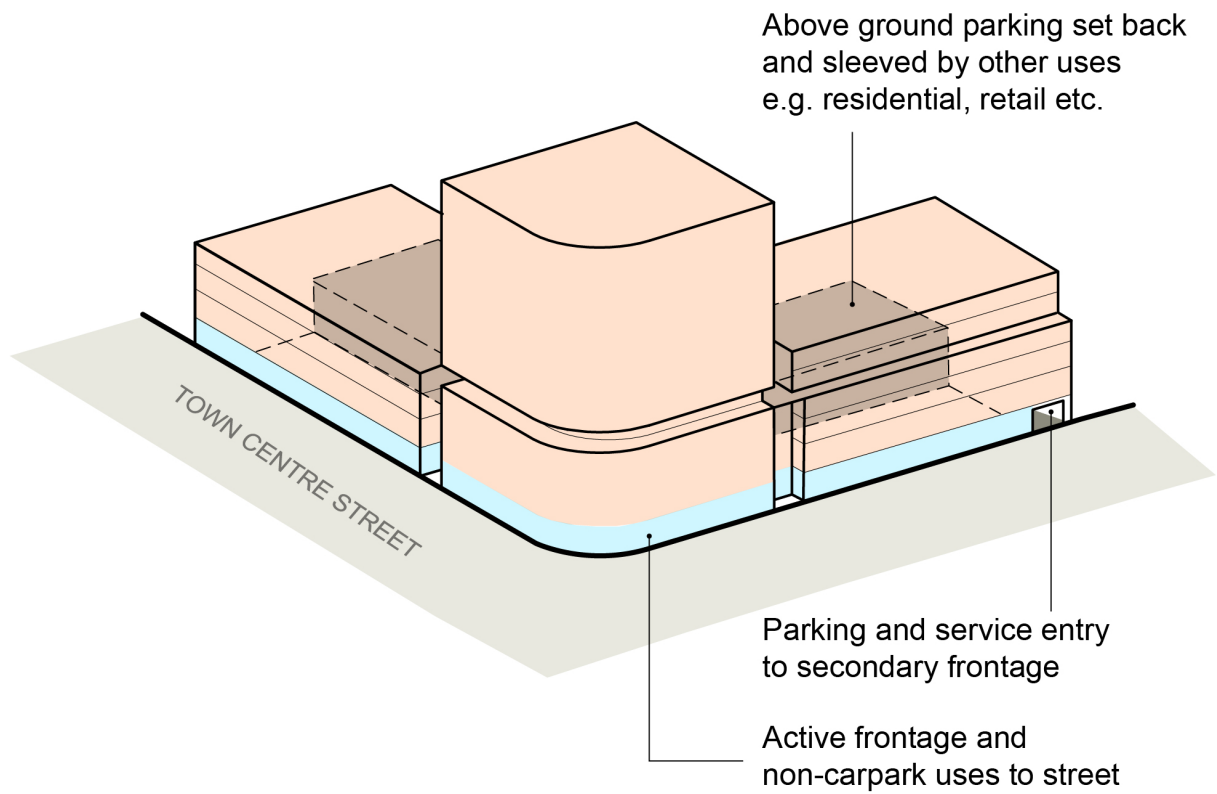


Figure 53 - Above ground parking to be sleeved to enable active frontages to the street

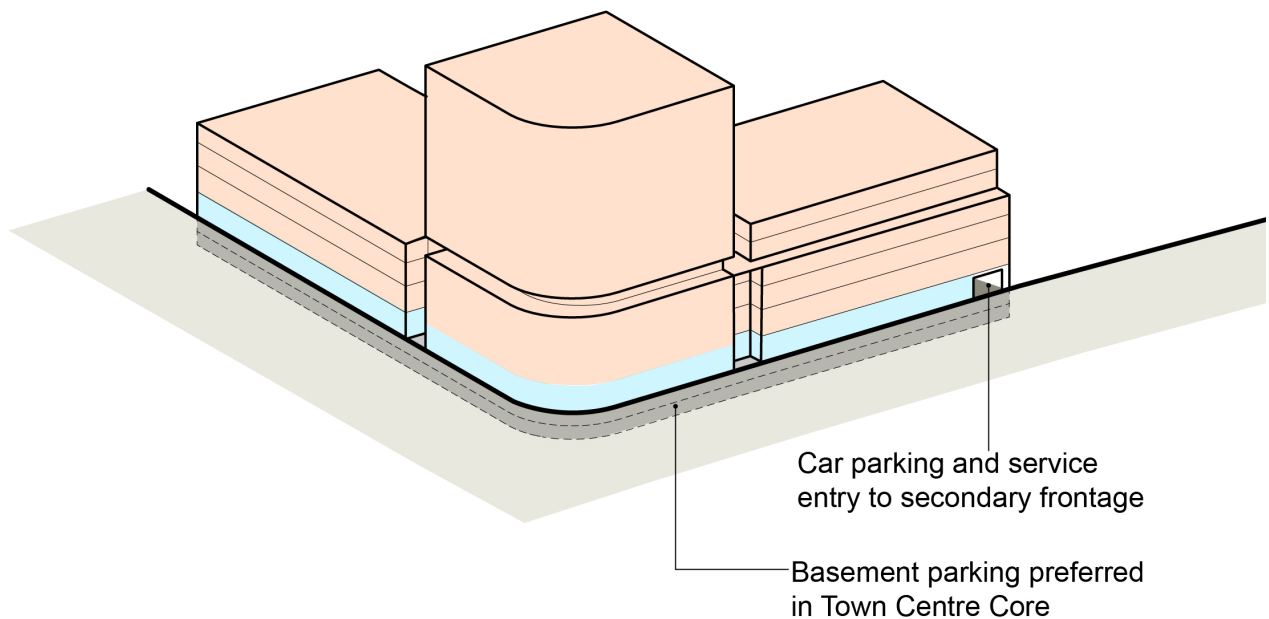


Figure 54 - Below ground or basement parking

4.18.1 Car Parking Rates

On-site car parking for residential and non-residential developments, including visitor parking, is to be provided between the minimum and maximum rates stated in Table 5.

Table 5 Car Parking Rates

Proposed Use	Land Use Zone	Within 800m walking distance of Leppington Station	Greater than 800m walking distance of Leppington Station	
		Maximum parking rate	Minimum parking rate	Maximum parking rate
Industry				
Light industry or warehouse		1 space / 200m ²	1 space / 200m ²	1 space / 100m ²
Distribution centre	All	1 space / 250m ²	1 space / 250m ²	1 space / 100m ²
Residential				
Attached housing	All	Studio or 1 bedroom – 1 space / dwelling (all areas)		
		2 bedroom – 1 space / dwelling	2 bedroom – 1 space / dwelling	2 bedroom – 1.5 space / dwelling
		3 or more bedrooms – 1.5 spaces / dwelling	3 or more bedrooms – 1.5 spaces / dwelling	3 or more bedrooms – 2 spaces / dwelling
Multi-dwelling housing	All	Studio or 1 bedroom – 1 space / dwelling	Studio or 1 bedroom – 0.5 space / dwelling	Studio or 1 bedroom – 1 space / dwelling
		2 bedroom – 1 space / dwelling	2 bedroom – 1 space / dwelling	2 bedroom – 1.5 space / dwelling
		3 or more bedrooms – 1.5 spaces / dwelling	3 or more bedrooms – 1.5 spaces / dwelling	3 or more bedrooms – 2 spaces / dwelling
		Visitor – 0.2 spaces / dwelling with a minimum of 1 space.		
		Provision of a car washing space if there are more than 4 dwellings. This may also be a visitor space.		

Proposed Use	Land Use Zone	Within 800m walking distance of Leppington Station	Greater than 800m walking distance of Leppington Station	
		Maximum parking rate	Minimum parking rate	Maximum parking rate
Residential flat buildings Shop-top housing	Mixed Use	Studio or 1 bedroom – 0.5 spaces / dwelling	Studio or 1 bedroom – 0.5 spaces / dwelling	Studio – 0.5 spaces / dwelling 1 bedroom – 1 space / dwelling
		2 bedrooms – 1 space / dwelling		
		3 or more bedrooms – 1 space / dwelling	3 or more bedrooms – 1 space / dwelling	3 or more bedrooms – 1.5 spaces / dwelling
		Motorcycle parking – 1 space / 10 car spaces		
		Provision of a car washing space for developments with more than 4 dwellings. This may also be a visitor space.		
Tourist and Visitor Accommodation (Hotel, motel, or serviced apartments)	All	1 space / 5 apartments or rooms, plus 1 space per 5 employees.	1 space / 5 apartments or rooms, plus 1 space per 5 employees.	1 space / 3 apartments or rooms, plus 1 space per 5 employees.
Commercial				
Office or business premises	All	1 space / 100m ² GFA	1 space / 100m ² GFA	1 space / 35m ² GFA
Bulky goods premises		1 space / 100m ² GFA	1 space / 100m ² GFA	1 space / 75m ² GFA
Shop, restaurant or cafe		1 space / 90m ² GFA	1 space / 90m ² GFA	1 space / 45m ² GFA
Supermarkets		1 space / 200m ²	1 space / 200m ²	1 space / 50m ²
Shopping centre		1 space / 400m ² GFA	1 space / 400m ² GFA	1 space / 50m ² GFA
Entertainment facility		1 space / 100m ²	Car parking will be determined on the characteristics of the facility. A submission based on parking arrangements for similar facilities may be required.	

Proposed Use	Land Use Zone	Within 800m walking distance of Leppington Station	Greater than 800m walking distance of Leppington Station	
		Maximum parking rate	Minimum parking rate	Maximum parking rate
Hospital		Assessment to be based on merit taking into consideration the proposed uses and equivalent rates for similar uses as prescribed in this DCP schedule.		
Place of public worship		1 space / 100m ²	1 space / 100m ²	1 space / 30m ²
Community				
Childcare centre	All	1 space / 2 employees with a maximum of 3 spaces plus: 2 spaces if less than 24 enrolment places; or: 3 spaces if 24 enrolment places and above.	1 space / 2 employees with a maximum of 3 spaces plus: 2 spaces if less than 24 enrolment places; or: 3 spaces if 24 enrolment places and above.	1 space / employee with a maximum of 6 spaces plus 1 space / 10 children in enrolment.
Educational		1 space / 6 staff	1 space / 6 staff	1 space / 4 staff
Medical centre or health consulting rooms		1 space / 200m ² Proposals for medical centres must include a traffic report accurately predicting traffic generation based on similar sized medical centres.	1 space / 200m ² Proposals for medical centres must include a traffic report accurately predicting traffic generation based on similar sized medical centres.	1 space / 75m ² Proposals for medical centres must include a traffic report accurately predicting traffic generation based on similar sized medical centres.
Recreational facilities		5 spaces / 100m ²	5 spaces / 100m ²	7 spaces / 100m ²
Swimming pool		5 spaces / 100m ²	5 spaces / 100m ²	7 spaces / 100m ²
Other				
All uses not listed above	Neighbourhood Centre	1 space / 100m ² non-residential GFA	1 space / 100m ² non-residential GFA	1 space / 75m ² non-residential GFA

Proposed Use	Land Use Zone	Within 800m walking distance of Leppington Station	Greater than 800m walking distance of Leppington Station	
		Maximum parking rate	Minimum parking rate	Maximum parking rate
	Business Development/ Enterprise Zone	1 space / 250m ² non-residential GFA	1 space / 250m ² non-residential GFA	1 space / 150m ² non-residential GFA
	Mixed Use	1 space / 200m ² non-residential GFA	1 space / 200m ² non-residential GFA	1 space / 125m ² non-residential GFA
Non-residential development	All	Motorcycle parking – 1 space / 10 car spaces		
Accessible Parking				
Residential	All	1 space / adaptable dwelling		
		1 space / 20 visitor spaces		
Non-residential		1% of all spaces		

Car Share and Electric Vehicles

The minimum number of on-site parking spaces to be made available for car share scheme vehicles is to be provided according to the following rates:

- Residential development – 1 space per 60 car spaces provided.
- Office, business, industrial or retail premises – 1 space per 40 car spaces provided.

The minimum number of on-site parking spaces to be made available for electric vehicles including charging stations is to be provided according to the following rates:

- Residential development – 1 space per 60 car spaces provided.
- Office, business, industrial or retail premises – 1 space per 40 car spaces provided.

4.19 Servicing and Loading

Objectives

- a) Provide functional, safe, and efficient loading and servicing areas.
- b) Minimise visual and amenity impacts of loading and servicing on the public domain.
- c) Ensure that adequate off-street loading, delivery, and servicing facilities are provided.
- d) Minimise the impacts of loading, deliveries and servicing operations on the safety and efficiency of the surrounding road system and resident/visitor movement.
- e) Support efficient off-street facilities to support sustainable last mile freight and servicing for the precinct.
- f) Encourage opportunities for active, multi-functional loading spaces with 24-hour uses.
- g) Reinforce Leppington Town Centre's character as an urban town centre environment.

Controls

- 1. Service vehicle access points should be consolidated where possible to limit the potential for conflict points
- 2. Loading and service areas are not to be located adjacent to or across a road from land zoned for residential or public recreation purposes.
- 3. Where a zero setback is required, consideration must be given as to how to minimise breaking the façade with large openings.
- 4. All carparking, loading and service areas must:
 - a. be accessed from non-active frontages
 - b. be screened by buildings that provide appropriate visual screening to the parking, loading and service area from public places consistent with Chapter 3.9 Street Interface Controls.

5.0 Specific Areas

5.1 24-Hour Zone

By 2040, Leppington Town Centre is envisaged to be a new 24-hour hub, world-renowned for its vibrancy, diversity, safety and access to amenity right throughout the day and night. To compete on the world stage and create jobs, Leppington must have a fantastic after dark experience and 24-hour amenities for all to enjoy.

Given the 24 hour nature of the future Western Sydney Airport, Leppington will provide the commercial services that meet the demands for these residents, tourists and workers which include 18-24 hour clubs, food services, personal and commercial services.

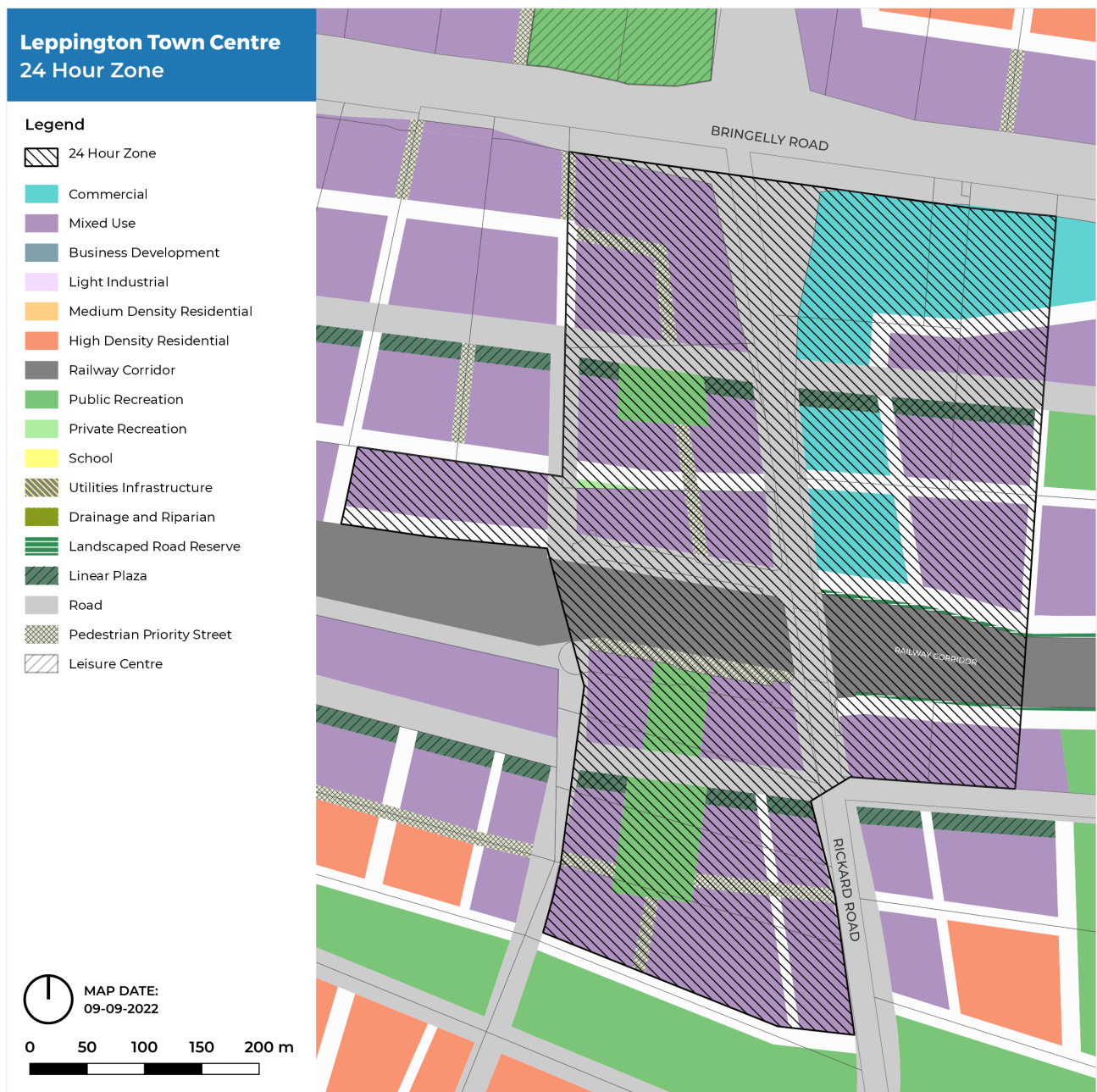


Figure 55 24 Hour Zone

These controls define a 24-hour trading zone in the town centre that is recognised as a hub in Greater Sydney's 'Neon Grid'.

Objectives

- a) Support a safe, diverse, inclusive, vibrant, and accessible night-time economy for the Leppington Town Centre.
- b) Support the Leppington Town Centre 24-Hour Zone to grow as a 24-hour centre for workers, residents and visitors using high quality public and active transport connected to the Aerotropolis and Greater Sydney.
- c) Enable trading hours to support night-time economy uses and activities in appropriate locations.
- d) Ensure that night-time accessibility to centres promotes high levels of activity and a strong night-time economy.
- e) Encourage innovative opportunities for public rooftops and roof terraces in the Leppington Town Centre.
- f) Ensure that late night trading premises will have minimal adverse impacts on the amenity of residential or other sensitive land uses.
- g) Ensure that adjacent residential developments are attenuated against any noise/sound impacts that may derive from late night trading premises.
- h) Ensure residential apartments are appropriately designed to mitigate the impacts of outside noise.

Controls

1. All residential apartments and / or serviced apartments within the 24-hour zone must be designed and constructed with double-glazed windows and / or laminated windows, solid walls, sealing of air gaps around doors and windows as well as appropriate insulating building elements for doors, walls, roofs and ceilings etc; to provide satisfactory acoustic privacy and amenity levels for occupants within the residential and / or serviced apartment(s).
2. The Statement of Environmental Effects (SEE) accompanying any development in the 24 hour zone should include an acoustical impact assessment study which outlines acoustic treatment measures for any residential apartments and / or serviced apartments in the development. The acoustic impact assessment study must be carried out by a suitably qualified and experienced acoustic consultant (ie a person who is a Member of the Australian Acoustical Society, the Institution of Engineers or the Association of Australian Acoustical Consultants).
3. Standard trading hours are shown in the table below:

Table 6 24 hour zone trading hours

Licensing Status	Standard Hours	Extended Hours with approval
Licensed Premise	7am-11pm (extended to 2am on Fridays and Saturdays)	Up to 24-hour trading
Not Licensed Premise	7am-2am	Up to 24-hour trading

4. Council will accept development applications for extended late night trading in the 24-hour zone. Appropriate trading hours for late night trading premises will be determined by considering a number of issues, where relevant, which include, but are not limited to:
 - a. the location and context of the premises, including proximity to residential and other sensitive land uses (including how those land uses are designed to mitigate sound and how the proposal is designed to mitigate sound) and other late night trading premises.
 - b. the specific nature of the premises, its activities and the proposed hours of operation.
 - c. the likely impact on the amenity of surrounding sensitive land uses, including noise, and the ability to manage the impacts.
 - d. the provision of indoor performance, creative or cultural use and how this increases the diversity of late night activities in the area.
 - e. the provision of indoor space for performance, creative or cultural uses in a licensed premises, including the nature of the space available for the use, programming and entertainment being provided.
 - f. design measures to mitigate noise from late night trading.
 - g. the contribution that late night trading proposals make to street activation and vibrancy of an area at night.
 - h. the likely impacts arising from the closing times and patron dispersal of the proposed and existing late night uses, including consideration of unlicensed late night trading in an area, such as shops, businesses and food and drink premises.
 - i. the existing hours of operation of surrounding business uses.
 - j. the size and patron capacity of the premises.
 - k. the impact of the premises on the mix, diversity and possible concentration of late night uses in the locality.
 - l. the likely operation of the proposal during daytime hours, including the potential for street front activation.
 - m. submission of a plan of management that demonstrates a strong commitment to good management of the operation of the business, particularly in relation to managing potential impacts on adjoining and surrounding land uses and premises, as well as the public domain.
 - n. the diversity of retail and business services within an area and the impact of a late night trading proposal on this diversity.
 - o. measures to be used for ensuring adequate safety, security and crime prevention both on the site of the premises and in the public domain immediately adjacent to, and generally surrounding, the premises.
5. Development applications should address the above criteria when applying for extended trading hours.
6. A Rooftop Management Plan is to be submitted for all commercial or mixed-use development within the Leppington Town Centre where a habitable rooftop of roof terrace is proposed larger than 10 square meters that would be used commercially after 10pm (and midnight on a Friday and Saturday night). A Rooftop Management Plan should include the following:
 - a. A description of the primary use of the space as well as any secondary/ancillary uses (e.g. restaurant or bar, public entertainment, office communal etc). This may be in the form of a floor and/or site plan that indicates the use of all areas within the building.
 - b. Details of the maximum capacity of the space and the maximum number of patrons/persons that will be standing and/or sitting at any one time.
 - c. The location of waste storage areas.
 - d. Location of air conditioning, exhaust fan systems and security alarms.

- e. A schedule of the proposed hours of use for each day of the week, noting the range of hours proposed for each day. If the nature of an area changes, for example, a dining area becomes a rooftop cinema after the kitchen closes, then this should be noted and operational hours for the different uses detailed.
 - f. The identification of all likely noise and vibration sources associated with the operation of the premises. This may include such sources as:
 - i. public entertainment;
 - ii. external (outside) areas such as courtyards, rooftops, balconies etc;
 - iii. persons leaving and entering the premises;
 - iv. the operation of mechanical plant and equipment;
 - v. waste disposal, sorting and collection of bottles etc.
 - g. The identification of all noise sensitive areas of different occupancy in close proximity to the proposed use (e.g. residential dwellings, accommodation, offices etc).
7. Rooftops to be used for business or entertainment purposes after 10pm (and midnight on a Friday and Saturday night) should be framed on at least two sides by development to contain noise and maintain privacy for neighbours and shown in Figure 56.

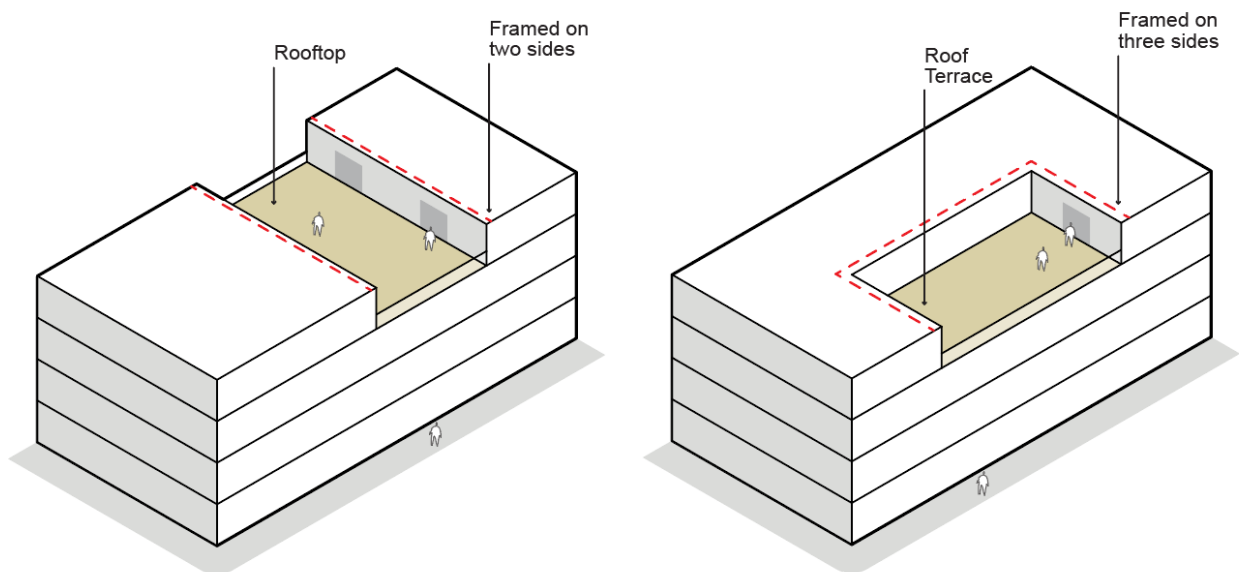


Figure 56 Commercial rooftop framing and location

5.2 Industrial and Business Development Use Setback

Objectives

- a) Reduce the impact of industrial development on residential properties and open space within Leppington Town Centre.
- b) Clearly define sites through appropriate screening, fencing and landscape controls.
- c) Encourage high quality building design and variety of materials.
- d) Provide an appropriate interface between industrial land and open space or residential land.
- e) Provide appropriate landscaped setbacks planted with locally endemic species.
- f) Encourage architectural expression and articulation of built form to avoid 'big box' buildings by using elements such as entries, canopies, front offices and arrival zones.
- g) Encourage building elements to address open space and residential land.

Controls

Development should consider the controls and design principles in the NSW Department of Planning and Environment '*Business Zone Design Guide*' December 2021. Where there is inconsistency between this schedule and the design guide, this schedule prevails.

- 1. A minimum of 20% of the site must be dedicated to soft landscaping. A minimum of 10% of the site must be dedicated to deep soil capable of supporting large trees. These allocations may overlap.
- 2. All development on land zoned IN2 Light Industrial or B5 Business Development that adjoins open space or residential land must:
 - a. Provide a minimum building setback of 10 metres, and a maximum of 21m from the primary frontage.
 - b. Provide a minimum 50% glazing on the primary façade.
 - c. Compliment and take advantage of adjacent open space (for example offices may face and open towards open space). This provides passive surveillance and allows workers and customers to enjoy and utilise the immediately adjoining open space.
 - d. Provide landscaping and deep soil planting along the site perimeter within the building setback zone
 - e. Provide a street edge road adjacent to the land as per the Leppington Indicative Layout Plan (Figure 3)
- 3. All other development on land zoned IN2 Light Industrial or B5 Business Development must:
 - a. Provide a minimum building setback of 4 metres, and a maximum of 21m from the primary frontage.

- b. Provide a minimum 50% glazing on the primary façade.
 - c. Provide landscaping and deep soil planting along the site perimeter within the building setback zone.
4. An articulated building entry may extend within the setback zone by a maximum of 2m to provide for a pedestrian friendly interface to the street.
5. Boundary fencing must:
- a. Be no taller than 1800mm
 - b. Be black palisade design, set back behind landscape and visually open.

Note: Development should consider low, landscape fencing to the primary facade where the main pedestrian entry and active frontages are located to create an open transition to public open space.

6. Parking and loading areas should be located to the side or rear of the building. Parking should not be located in front of the primary facade of the building.

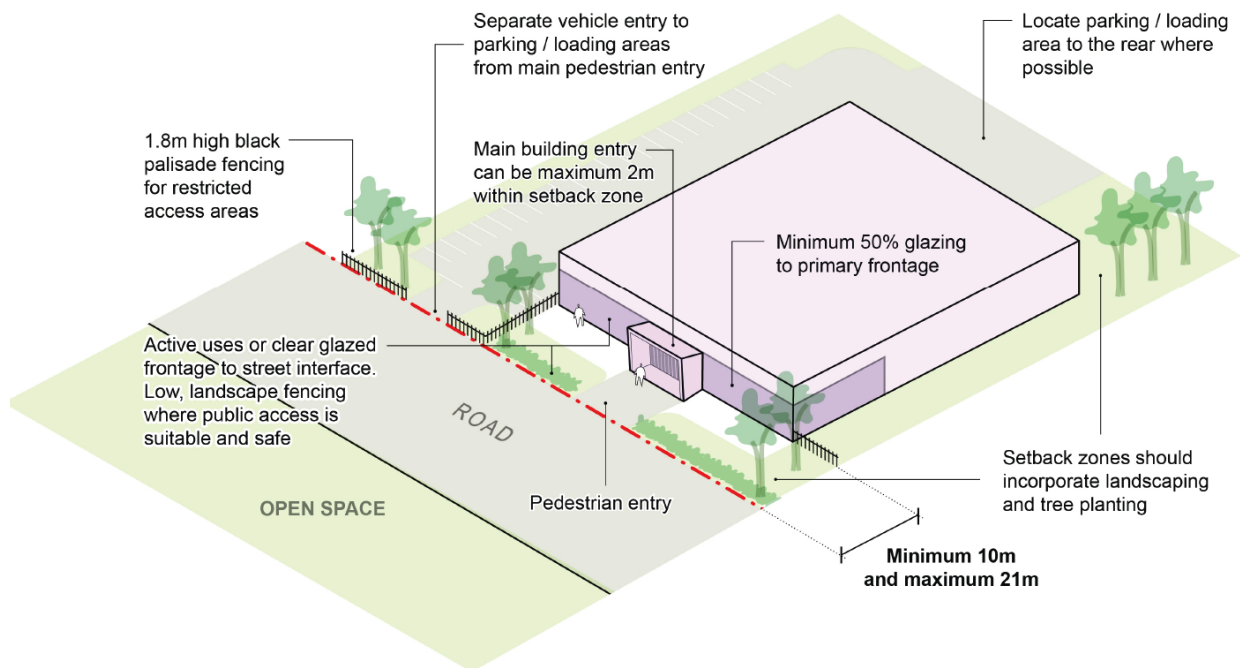


Figure 57 Industrial and Business Development Use Setback

5.3 Controls for Development Surrounding 1481 Camden Valley Way Leppington (Four Lanterns Estate)

Objectives

- a) Integrate the existing development at Four Lanterns Estate as a part of the Leppington Town Centre.
- b) Encourage new vehicular and pedestrian entries from local streets to the Four Lanterns Estate.

Controls

- 1. Development surrounding the Four Lanterns Estate must be designed in accordance with Figure 58 - Indicative Concept Design for the interface of the Four Lanterns Estate and Figure – Development adjacent the Four Lanterns Estate.
- 2. New development sleeving the Four Lanterns Estate must have a height of two storeys with three to four storeys permissible at key corners to define street edges.
- 3. A minimum rear setback of 6 metres is required to the boundary of the Four Lanterns Estate.
- 4. Lots sleeving the Four Lanterns Estate must have a minimum depth of 30 metres.
- 5. Development above 2 storeys on key corners requires a 10 metre rear setback.
- 6. Screen planting and landscape is required to the north-western boundary of the Four Lanterns Estate.

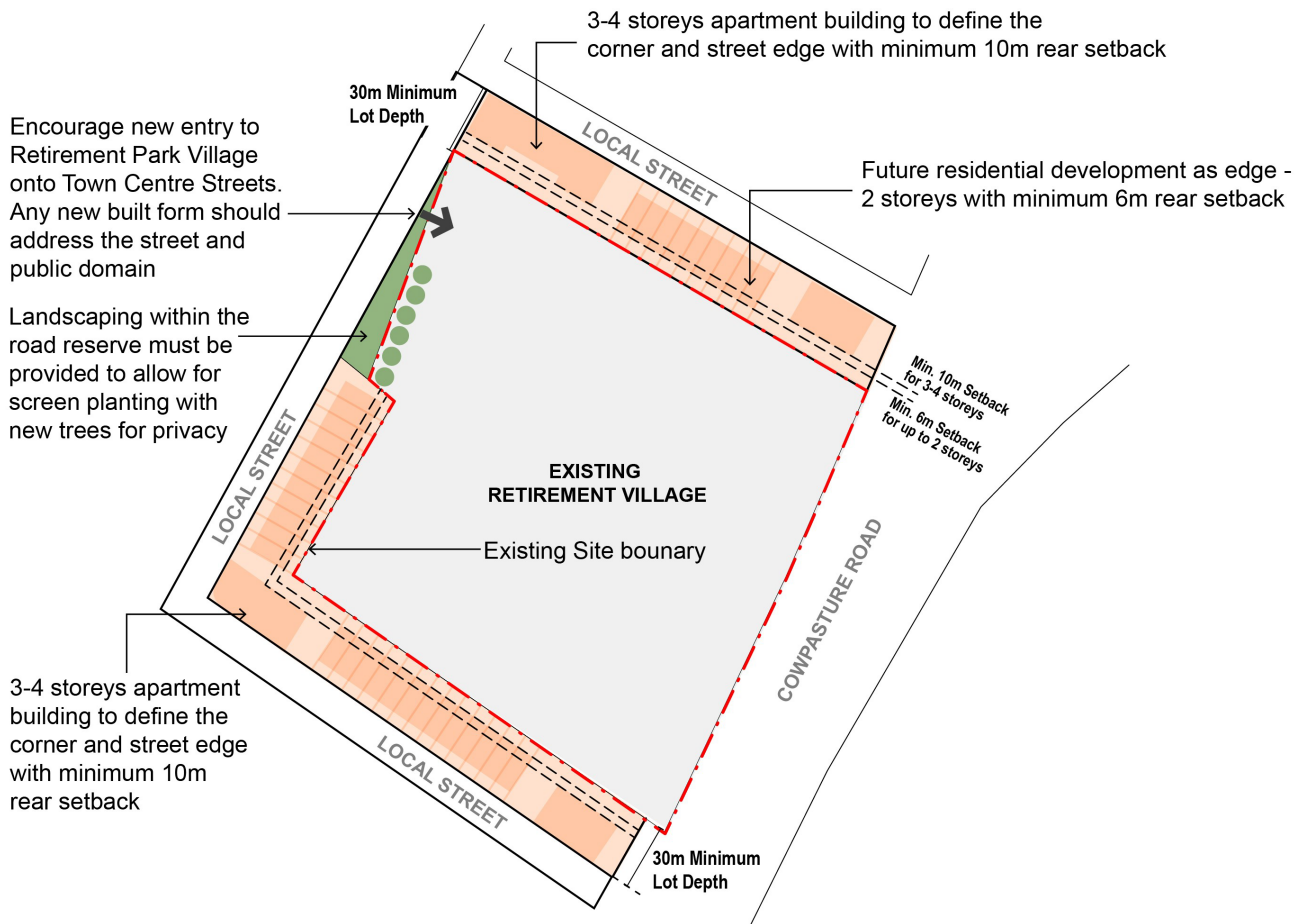


Figure 58 - Indicative Concept Design for the interface of the Four Lanterns Estate

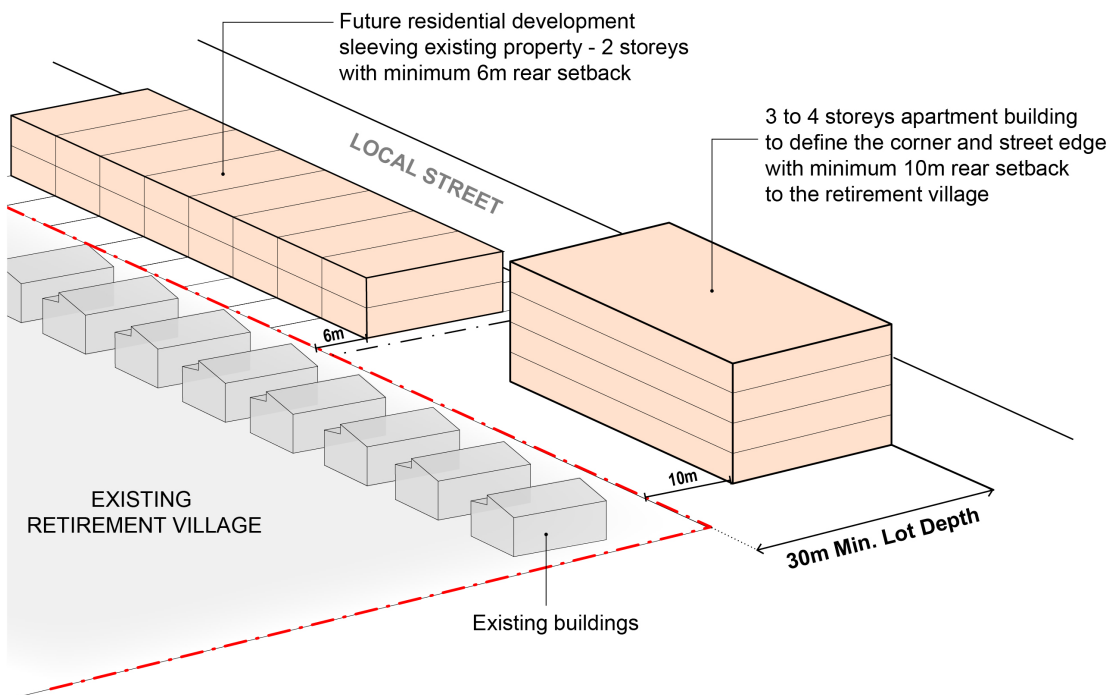


Figure 59 – Development adjacent the Four Lanterns Estate

5.4 Amalgamation Controls for Specific Sites

Objectives

- a) To provide cohesive and coordinated development of isolated and constrained sites
- b) To ensure that isolated or constrained sites are capable of supporting high quality, feasible development.

Controls

1. Amalgamation of certain lands are required, as listed in the below table and in Figure 60:

Map Label	Lot / DP	Address
1	1/DP1211652	362 BRINGELLY ROAD AUSTRAL NSW 2179
2	3/DP1203670	352 BRINGELLY ROAD AUSTRAL NSW 2179
3	6/DP1203670	312 BRINGELLY ROAD AUSTRAL NSW 2179
4	7/DP1203670	300 BRINGELLY ROAD AUSTRAL NSW 2179
5	14/DP1204031	185 BRINGELLY ROAD LEPPINGTON NSW 2179
6	15/DP1204031	183 BRINGELLY ROAD LEPPINGTON NSW 2179
7	16/DP1204031	179 BRINGELLY ROAD LEPPINGTON NSW 2179
8	17/DP1204031	177 BRINGELLY ROAD LEPPINGTON NSW 2179
9	18/DP1204031	173 BRINGELLY ROAD LEPPINGTON NSW 2179
10	19/DP1204031	171 BRINGELLY ROAD LEPPINGTON NSW 2179
11	20/DP1204031	165 BRINGELLY ROAD LEPPINGTON NSW 2179
12	12/DP1203607	155 COWPASTURE ROAD LEPPINGTON NSW 2179
13	1/DP565228	111 COWPASTURE ROAD LEPPINGTON NSW 2179
14	2/DP1202350	91 COWPASTURE ROAD LEPPINGTON NSW 2179

2. If amalgamation of the sites listed in control 1 is not achieved, then detailed plans shall be submitted to Council demonstrating that amalgamation is not required, and include (at least):
 - a. Building envelope plans (indicating height, setbacks, resultant site coverage, solar access, and the location of any private open space) to demonstrate that each site can be developed in an orderly manner; and
 - b. Details of any boundary adjustments / land swap plans to provide for orderly development of the site(s), if required; and
 - c. A site access strategy, detailing vehicular and non-vehicular access for both the subject and adjoining site(s); and
 - d. Details of any interim development, such as treatment of blank walls or preservation of future access driveways, which are required to minimise impacts on adjacent developments and the public domain; and
 - e. A written statement from the adjacent land-owner(s) identified in control 1, indicating endorsement of the above-mentioned building envelope plans, subdivision plan (if

required), interim development responses, site access strategy, and any other relevant plan.

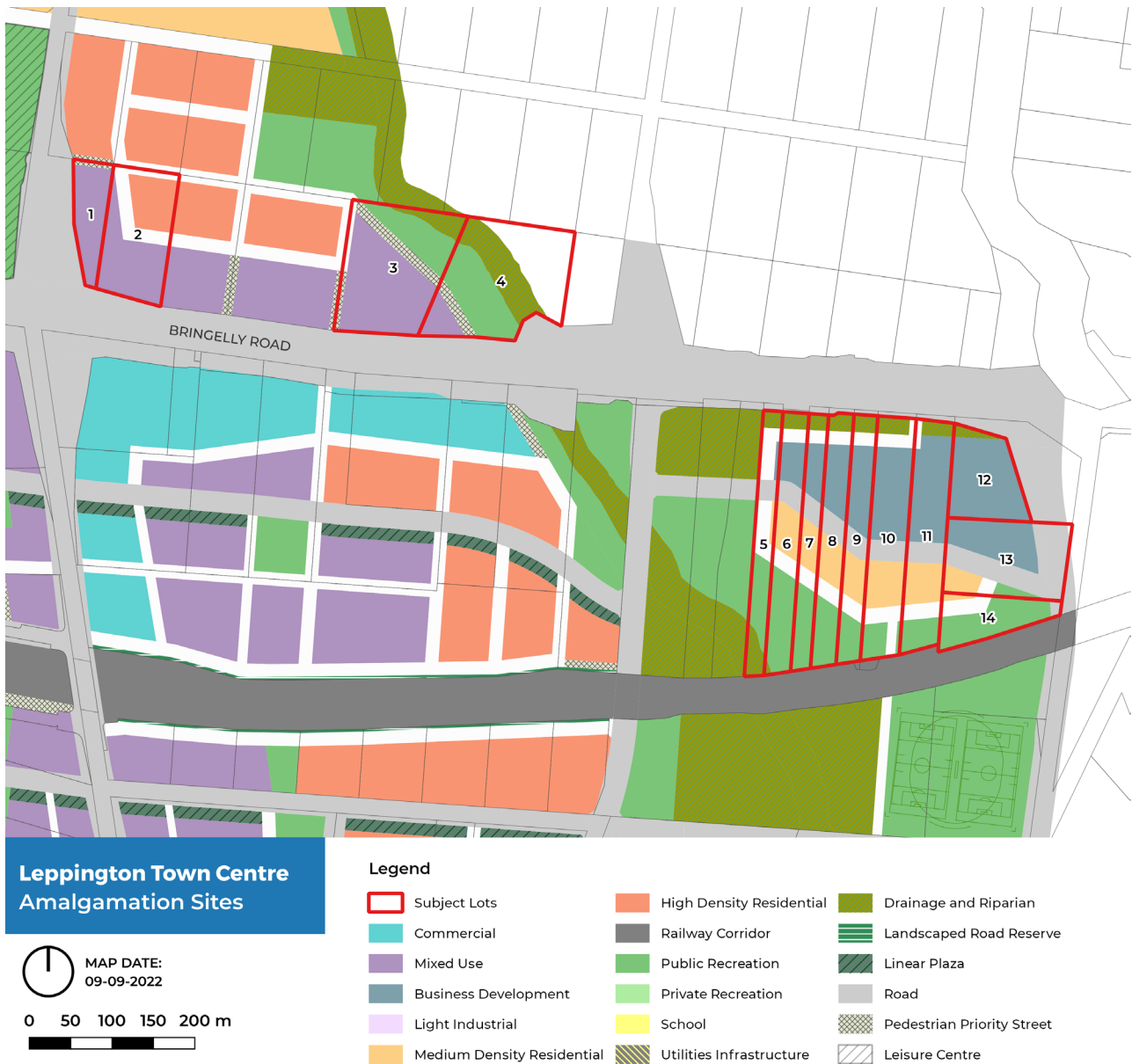


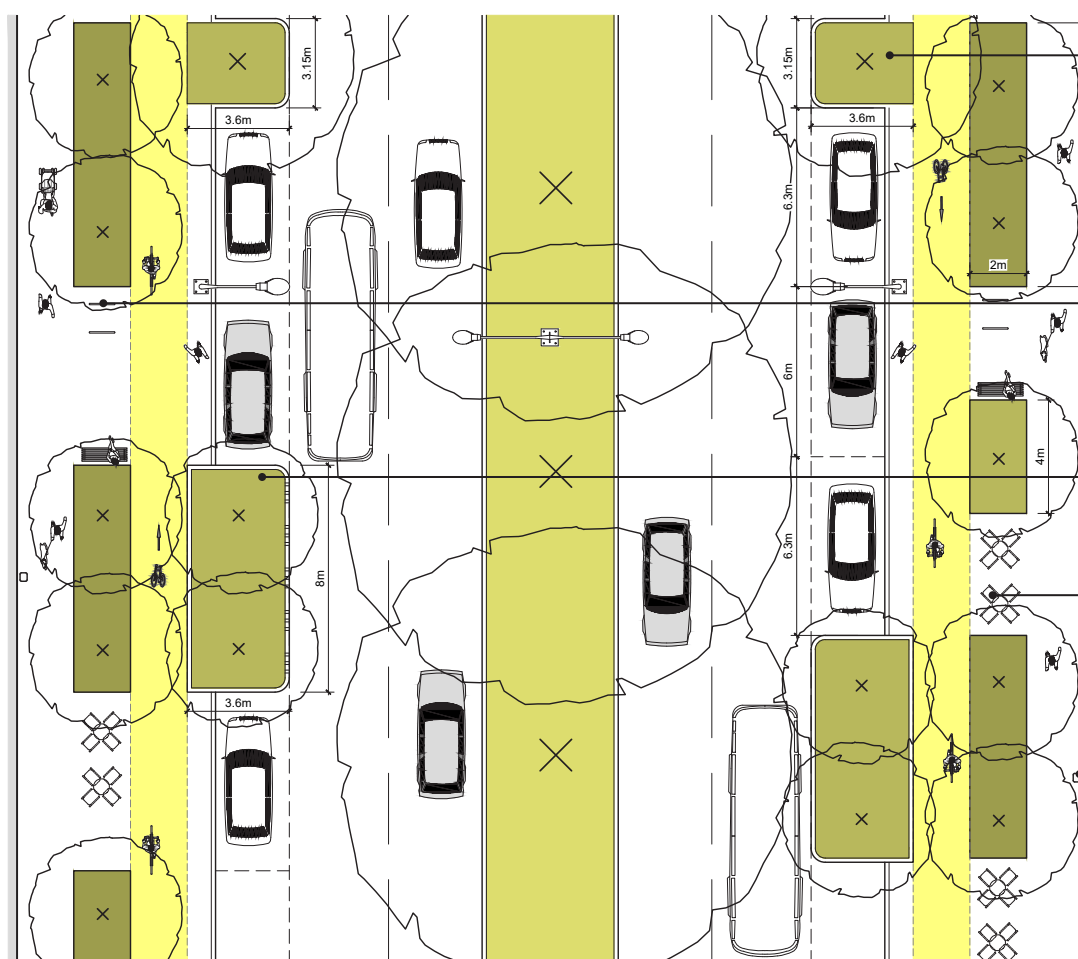
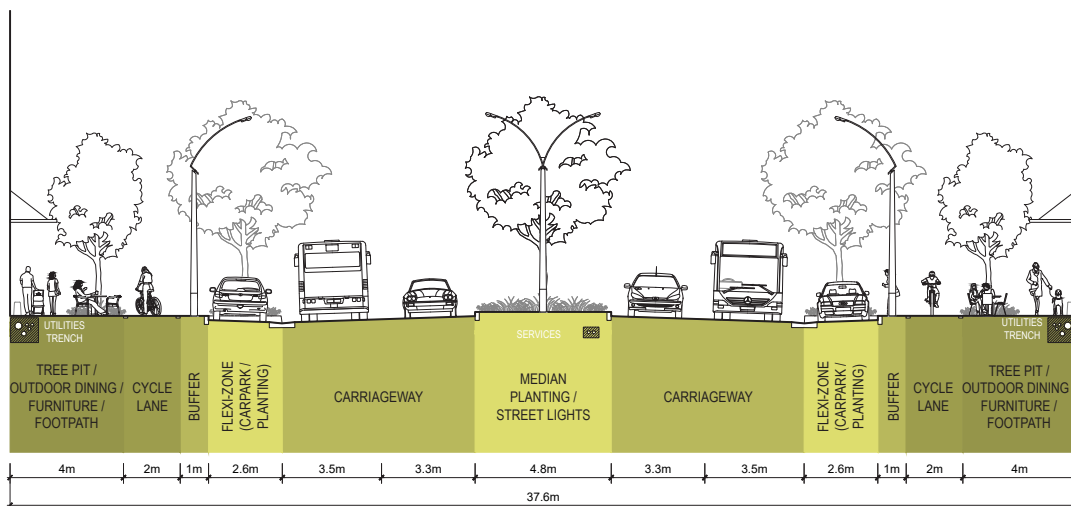
Figure 60 – Amalgamation subject sites

Appendix

The Appendices are as follows:

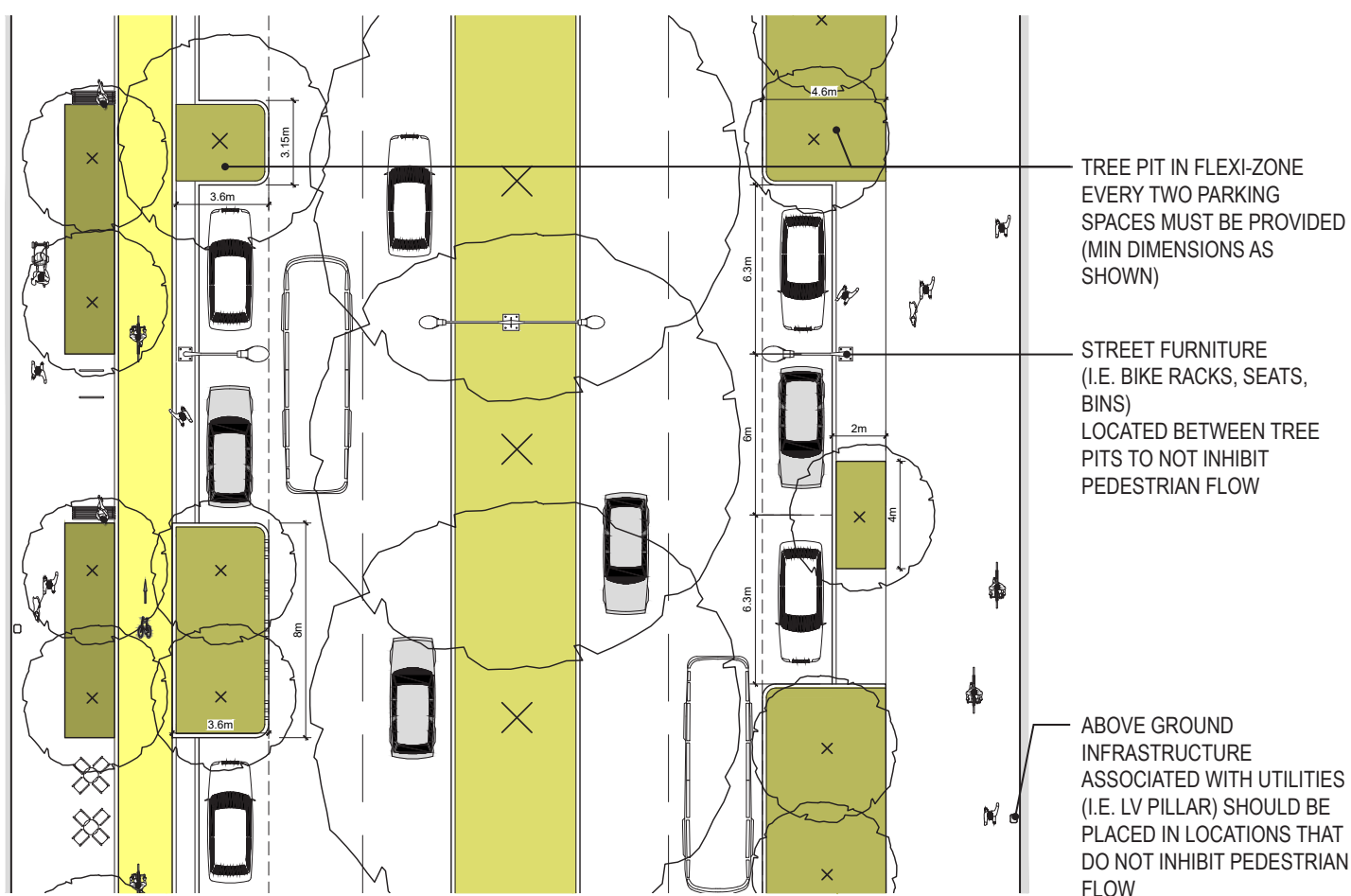
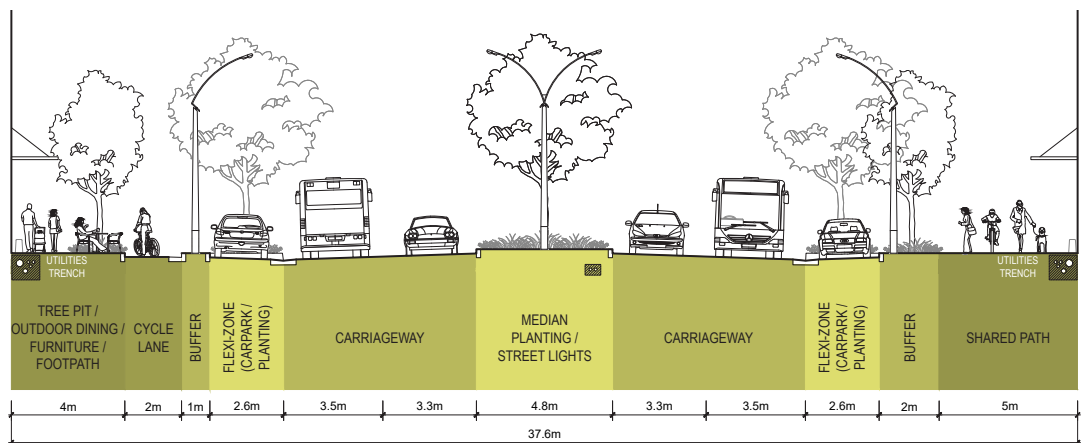
- Appendix 1 Street Sections
- Appendix 2 Intersection Designs
 - Appendix 2.1 Locating Specific Intersection Designs
 - Appendix 2.2 Standard Intersection Designs
- Appendix 3 Street Materials
- Appendix 4 Street Tree Types
- Appendix 5 Open Space Concept Designs

Appendix 1 Street Sections



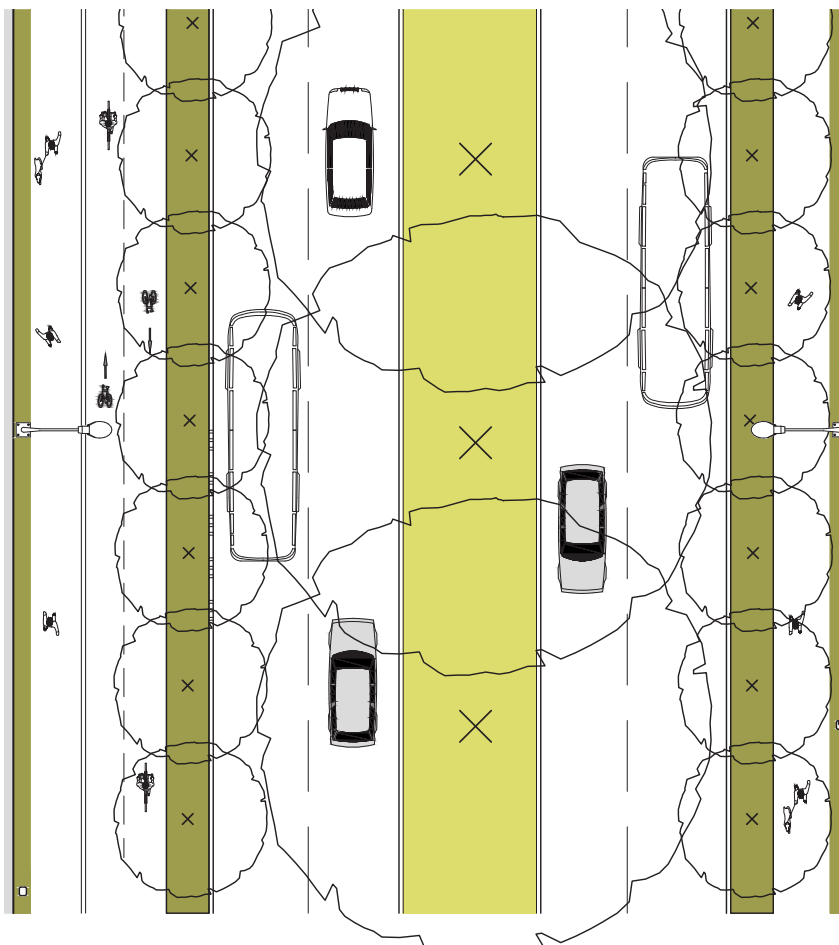
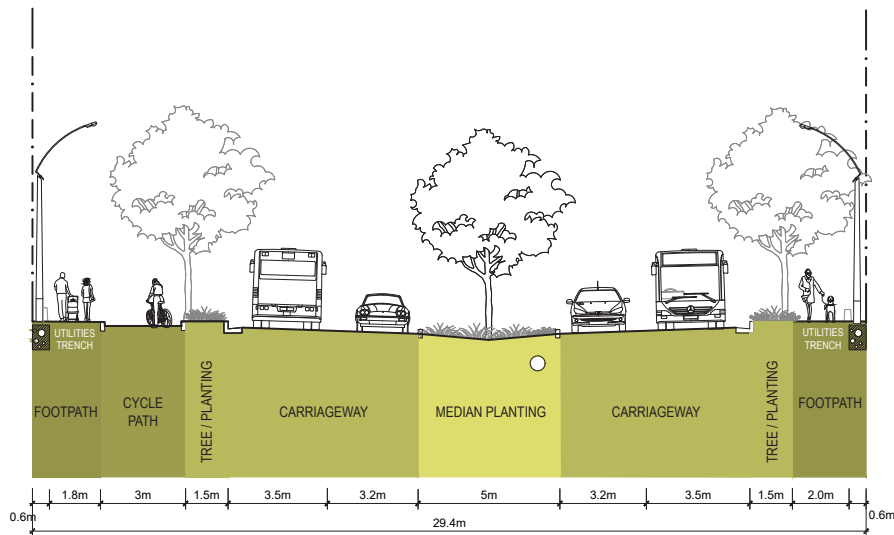
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



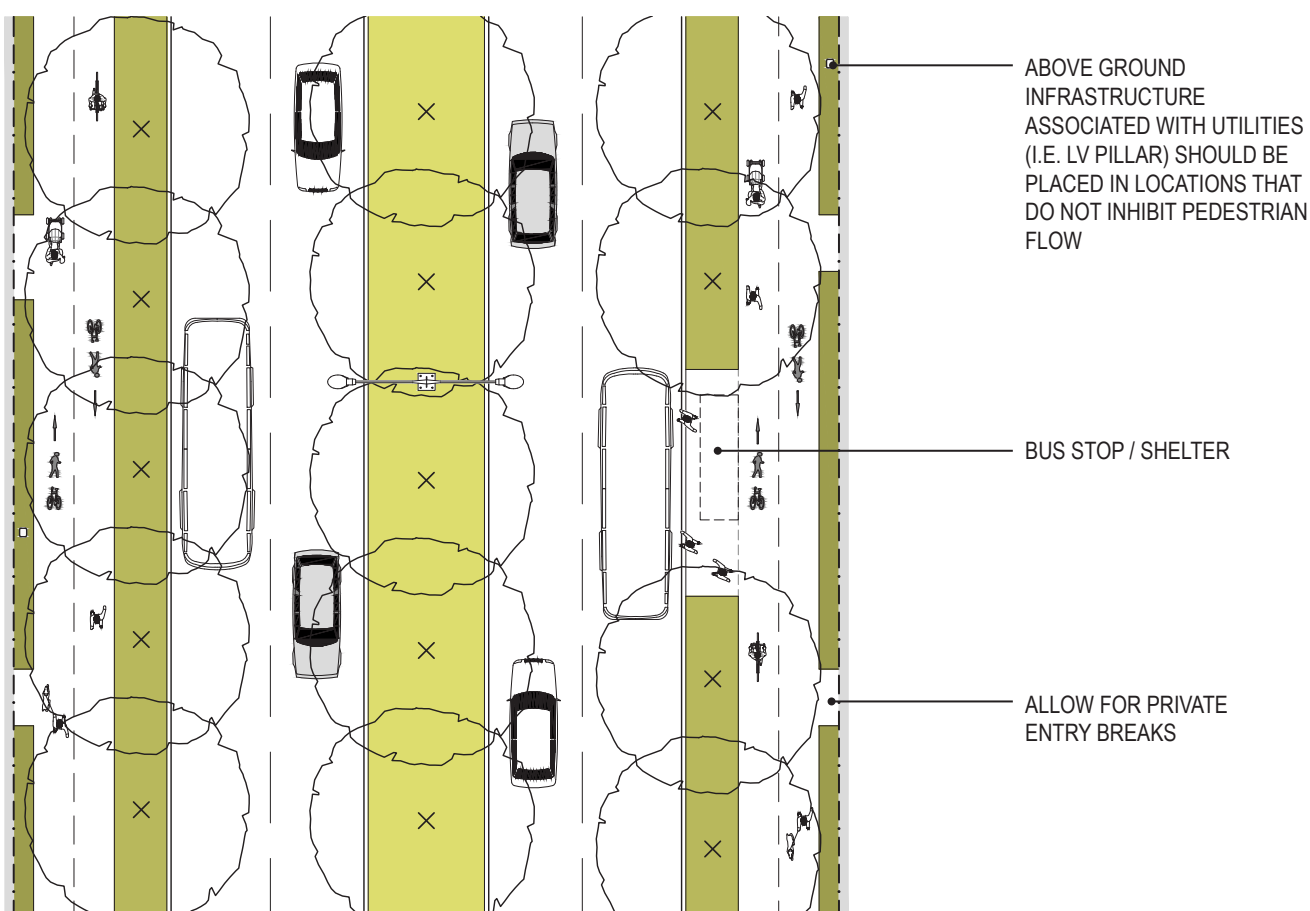
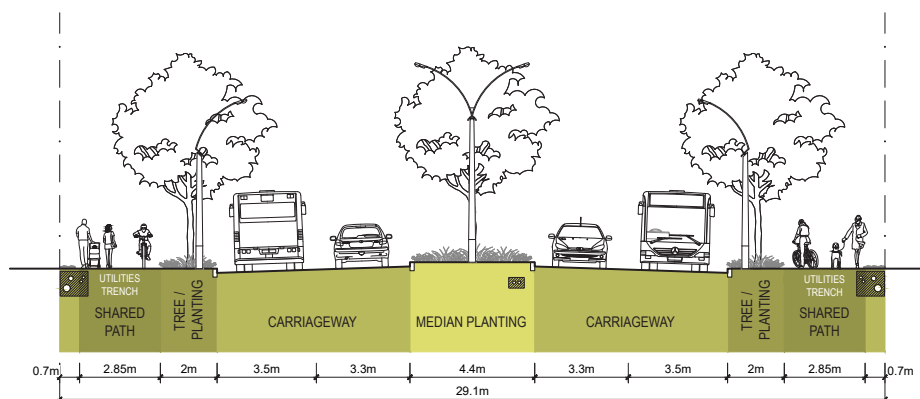
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



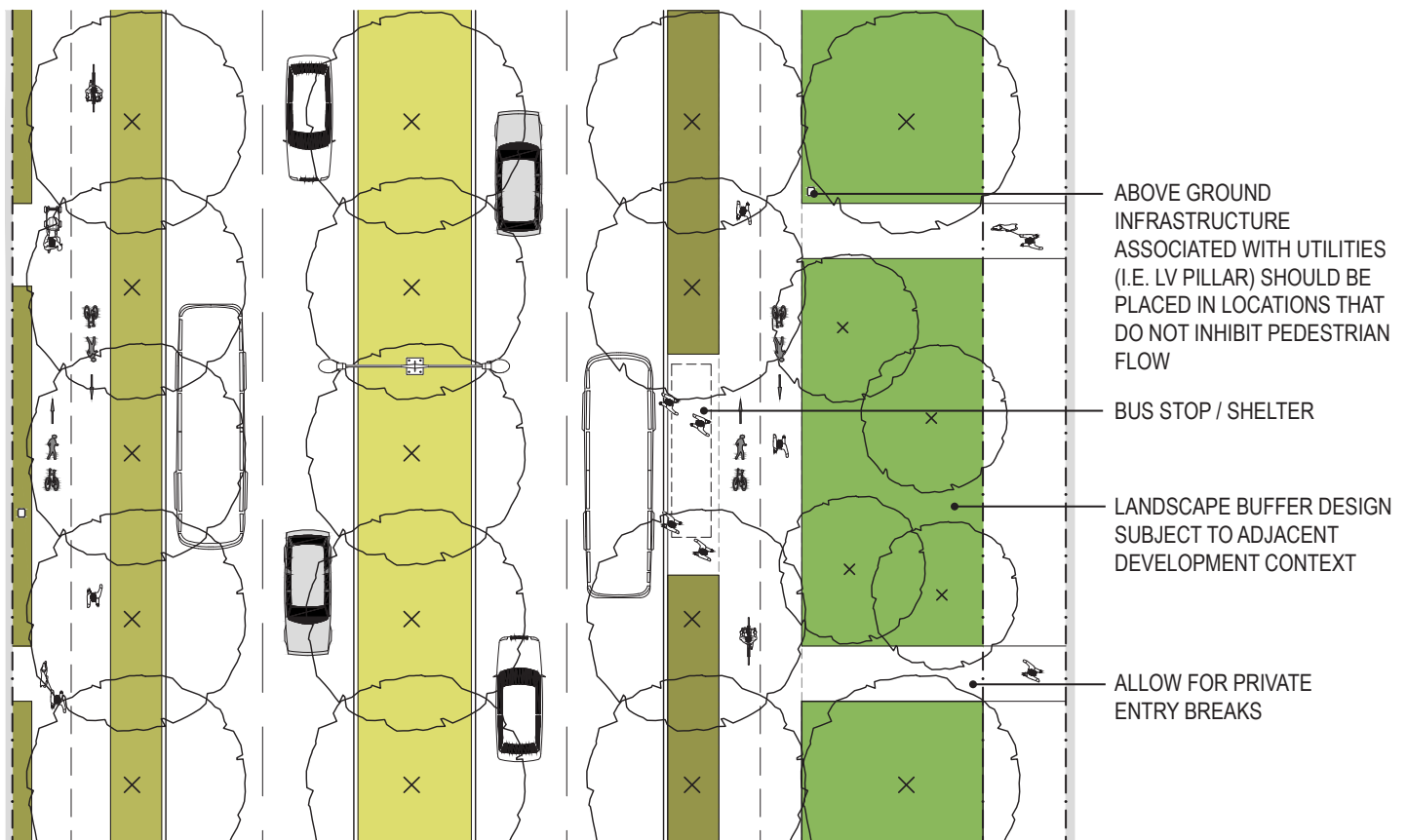
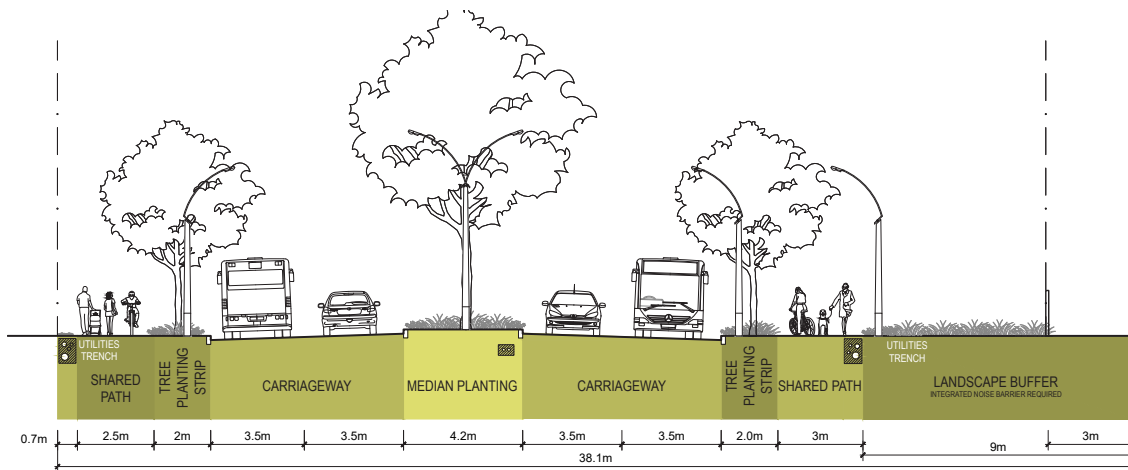
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



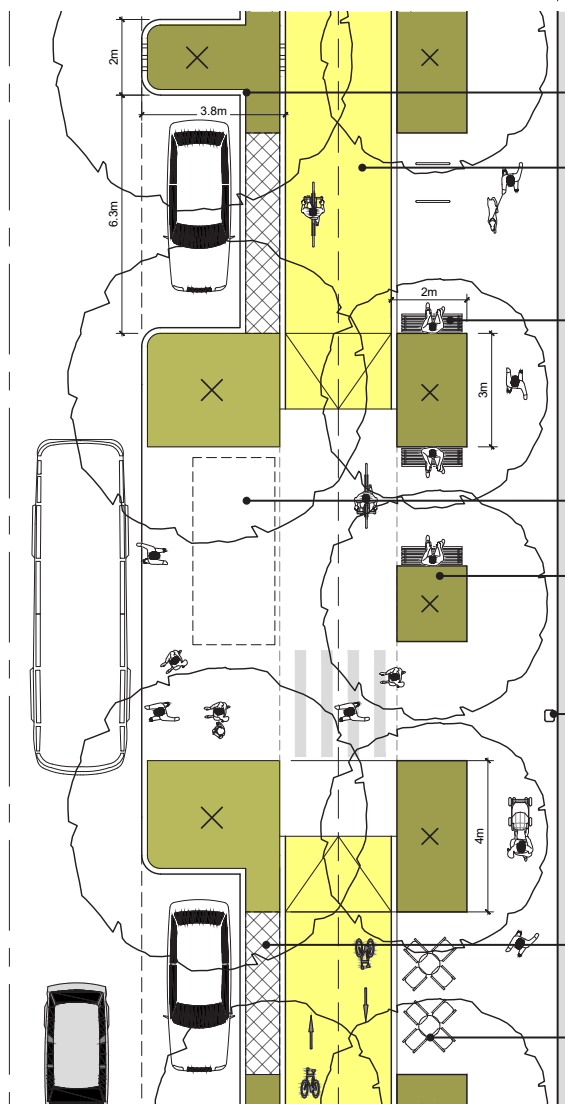
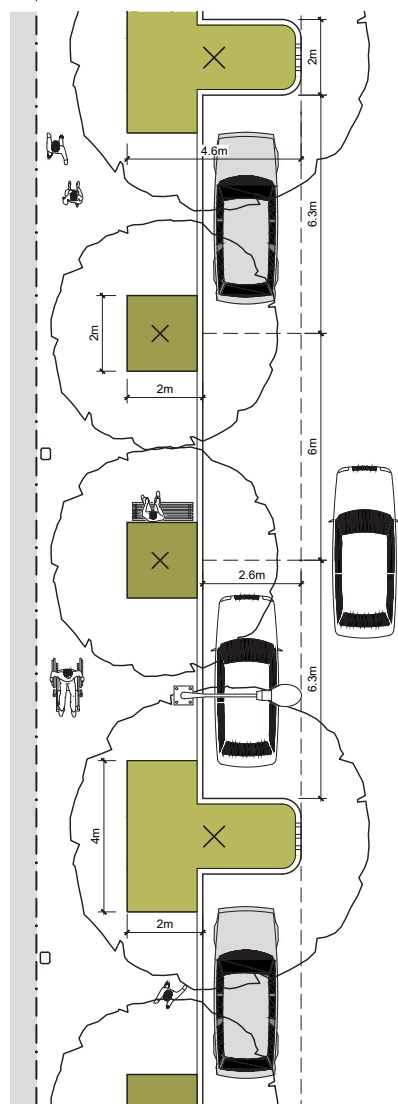
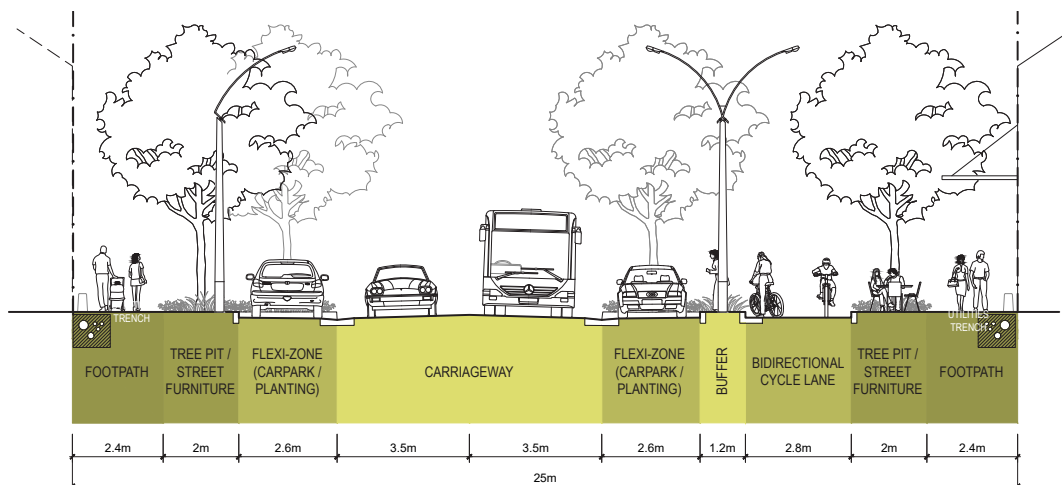
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



TREE PIT IN FLEXI-ZONE EVERY THREE PARKING SPACES MUST BE PROVIDED. (MIN DIMENSIONS AS SHOWN)

BIDIRECTIONAL CYCLE LANE RAISED UP TO THE FOOTPATH LEVEL FOR BUS STOP & PEDESTRIAN CROSSING

STREET FURNITURE (I.E. BIKE RACKS, SEATS, BINS) LOCATED BETWEEN TREE PITS TO NOT INHIBIT PEDESTRIAN FLOW

BUS STOP / SHELTER

TREE PITS BETWEEN PARKING SPACES ON FOOTPATH MUST BE PROVIDED (MIN DIMENSIONS AS SHOWN)

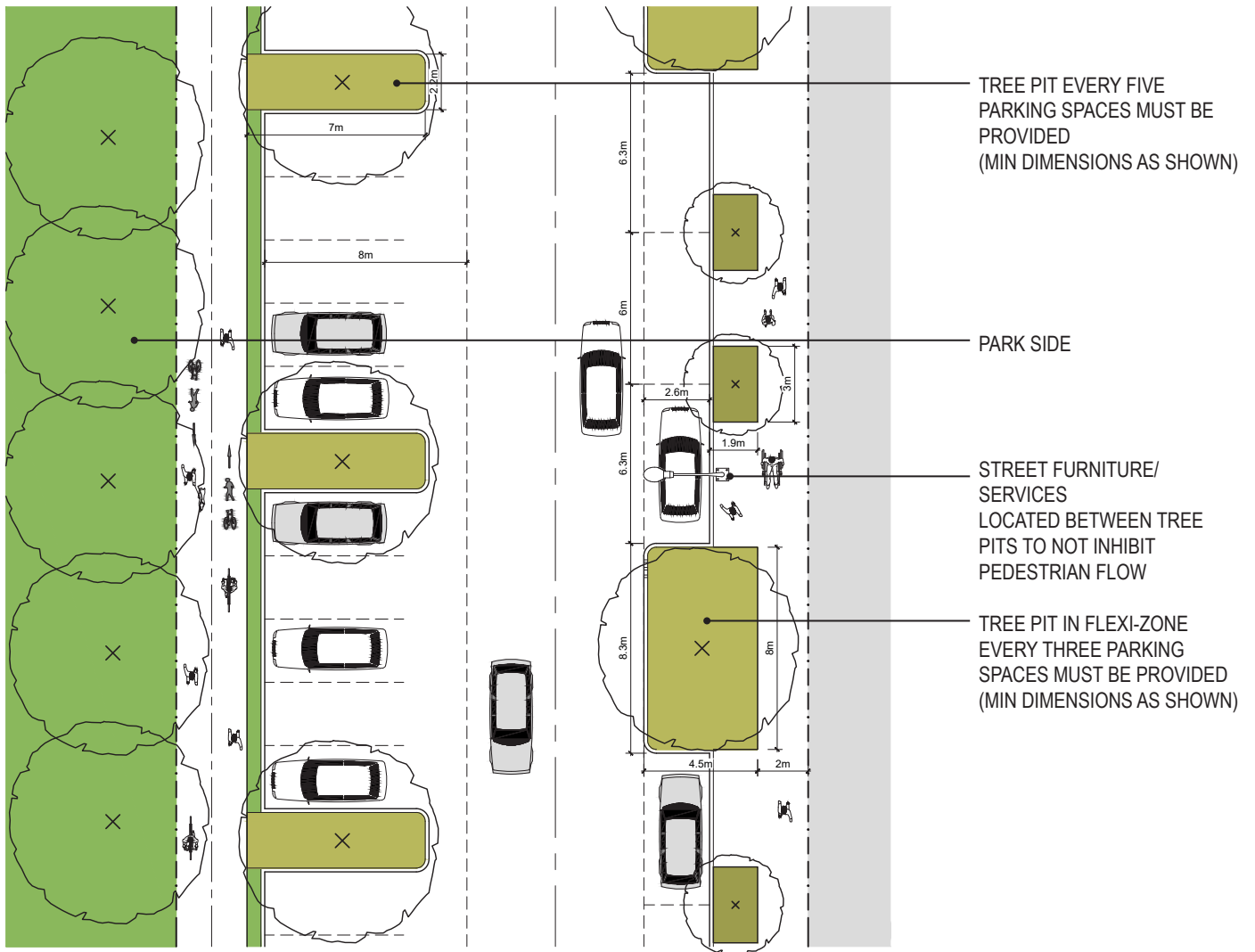
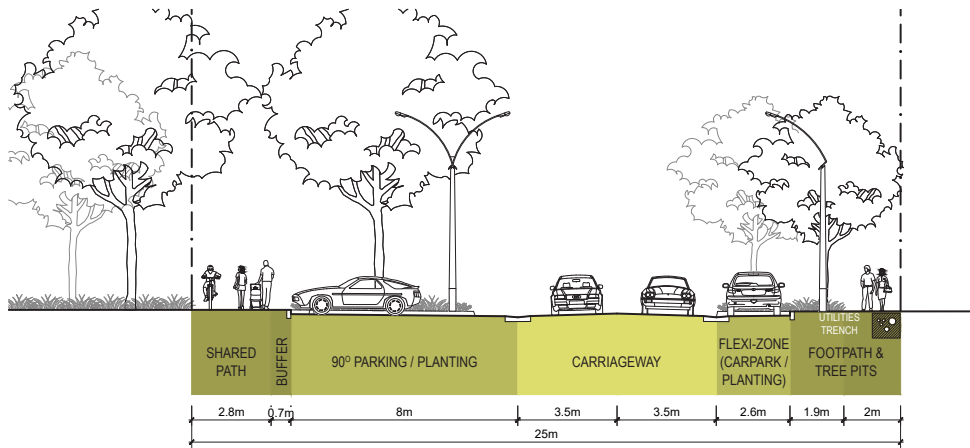
ABOVE GROUND INFRASTRUCTURE ASSOCIATED WITH UTILITIES (I.E. LV PILLAR) SHOULD BE PLACED IN LOCATIONS THAT DO NOT INHIBIT PEDESTRIAN FLOW

STRATA CELL UNDER PAVING TO PROVIDE SUFFICIENT SOIL VOLUME

OUTDOOR DINING IS ENCOURAGED. IT WILL ONLY BE CONSIDERED WHERE A CLEAR PEDESTRIAN PATH IS MAINTAINED

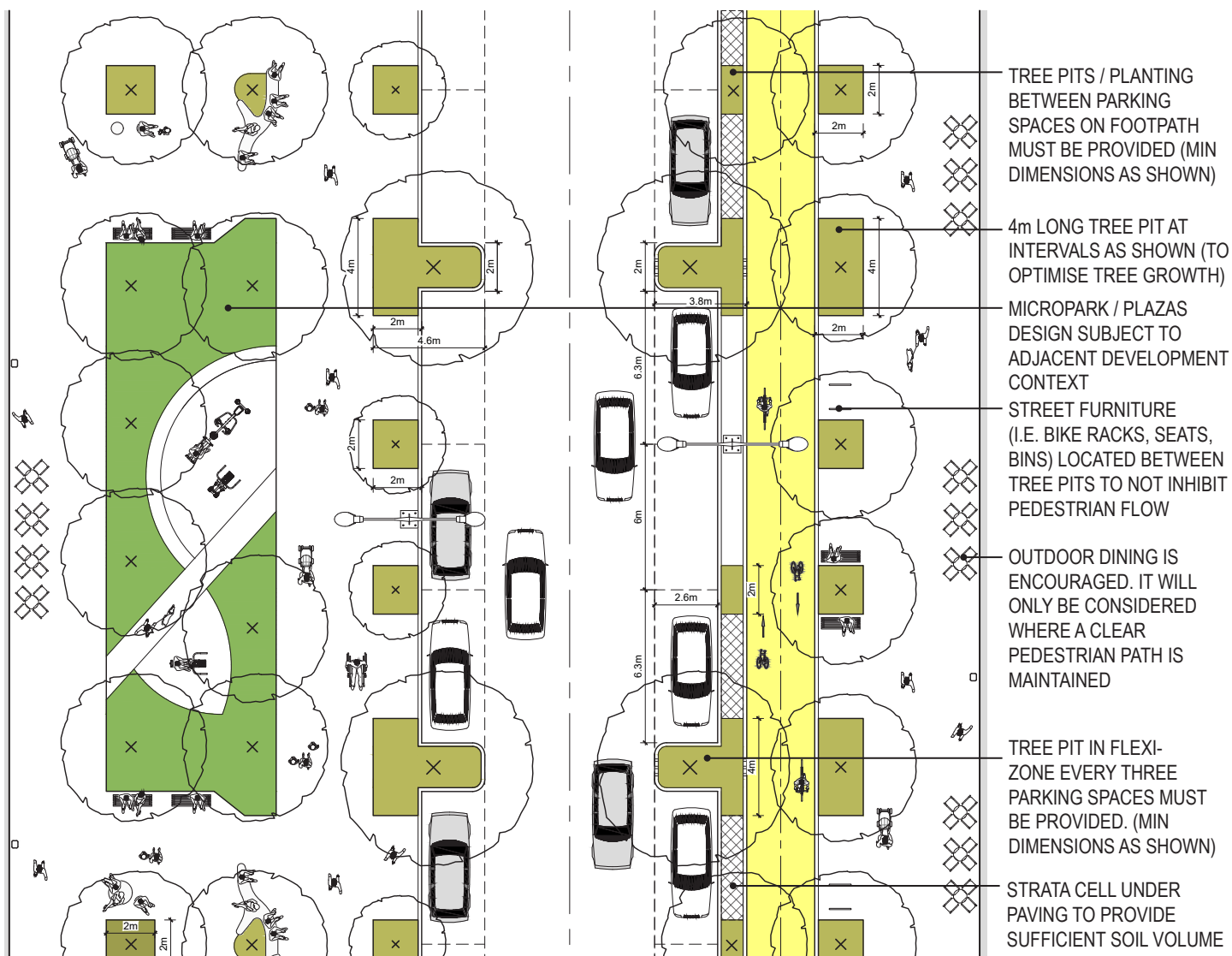
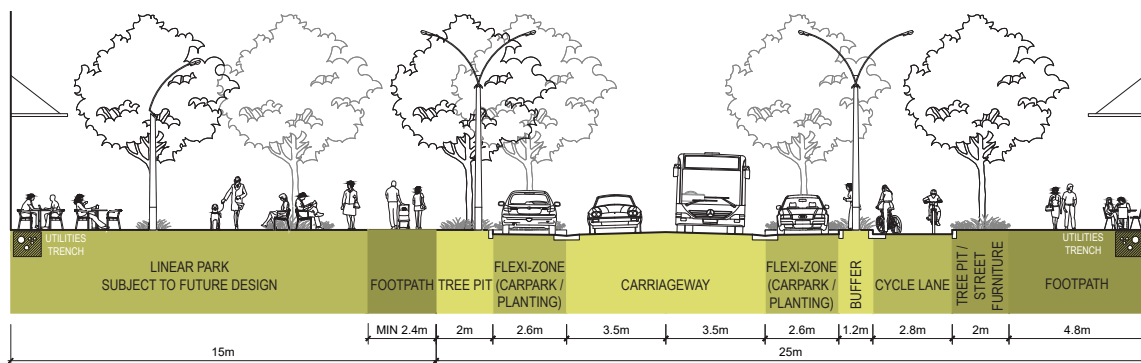
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



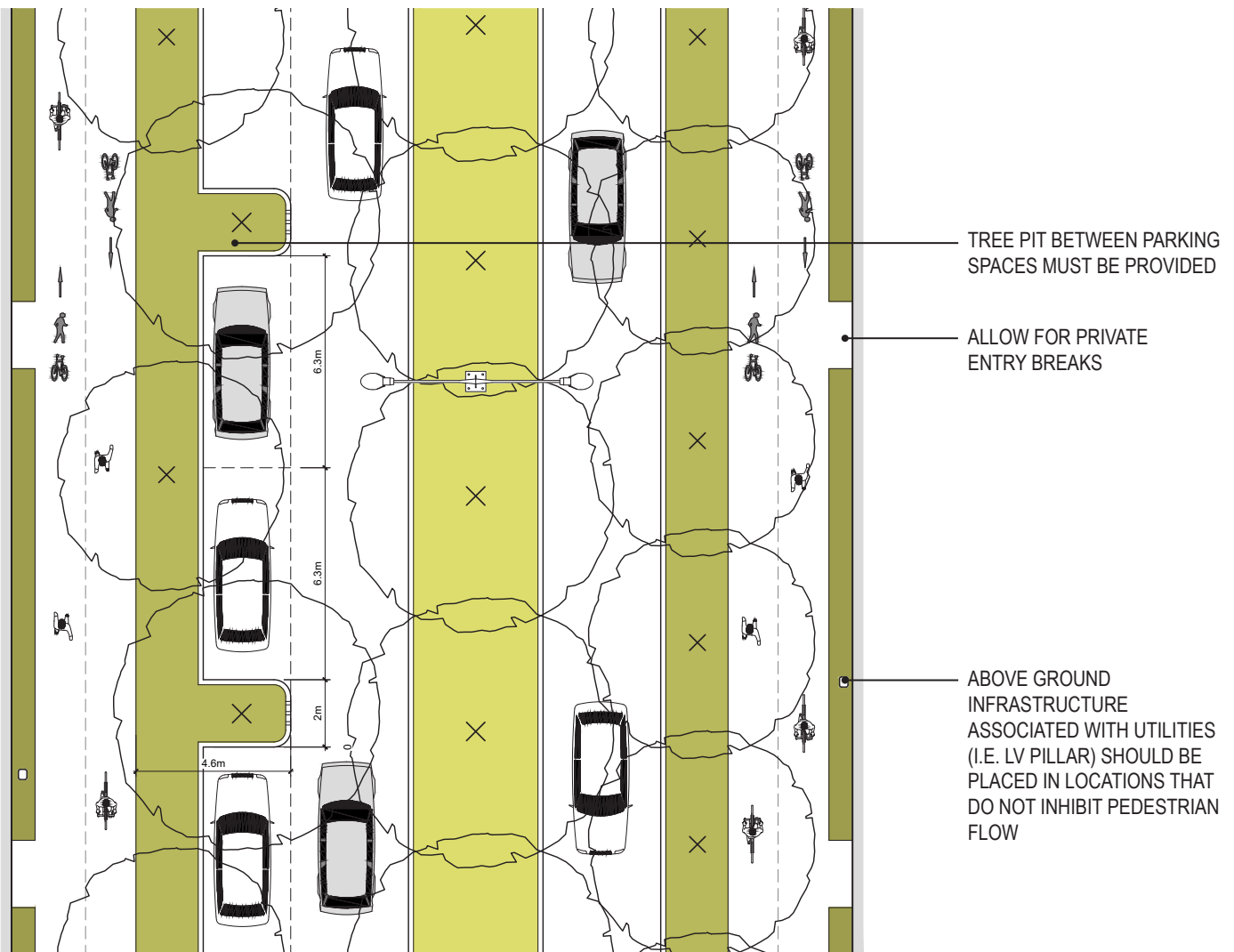
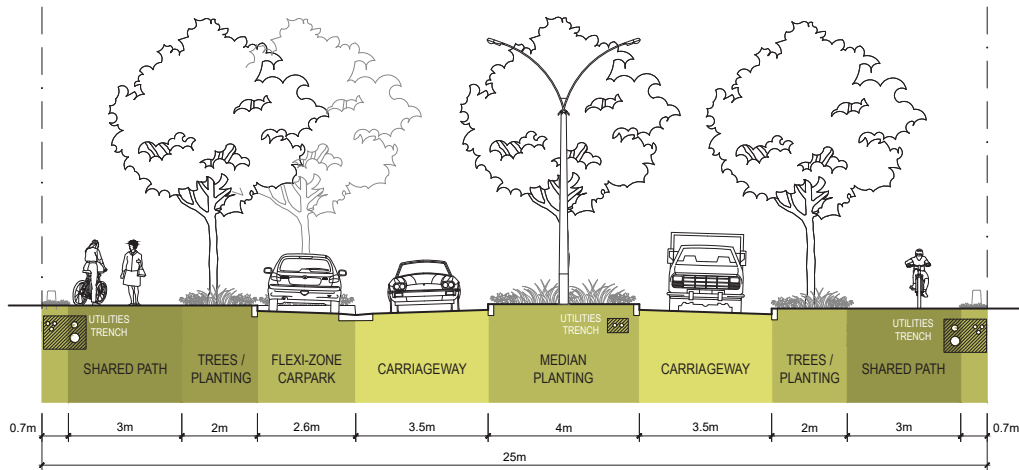
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



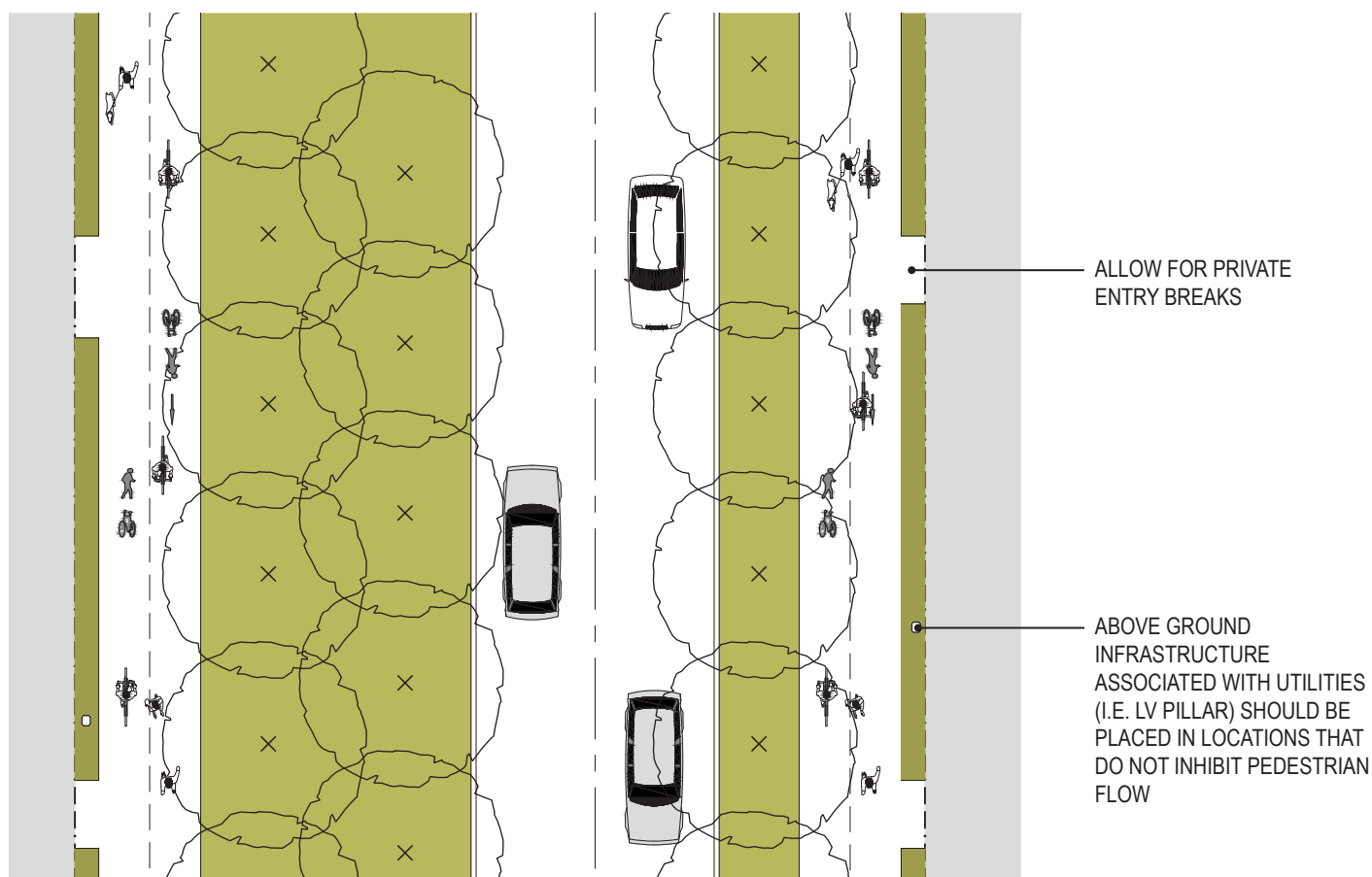
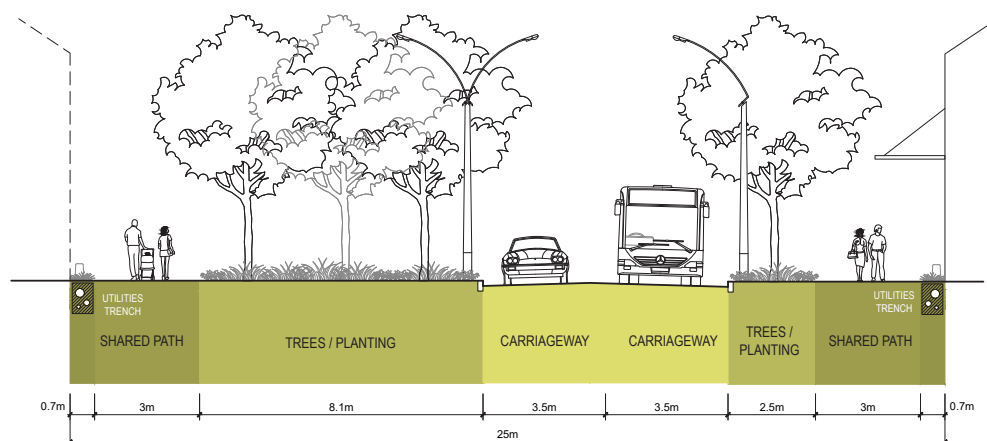
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



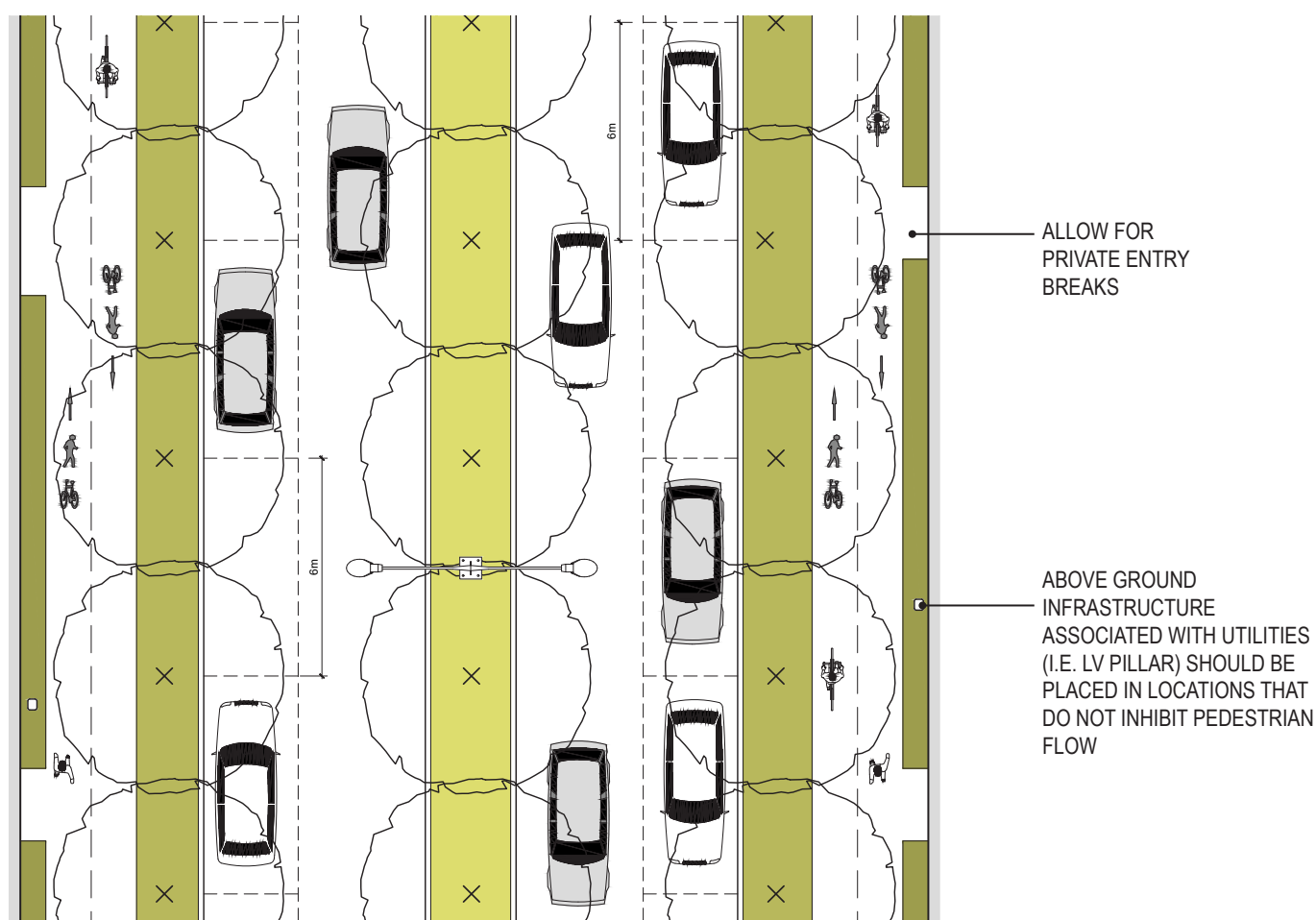
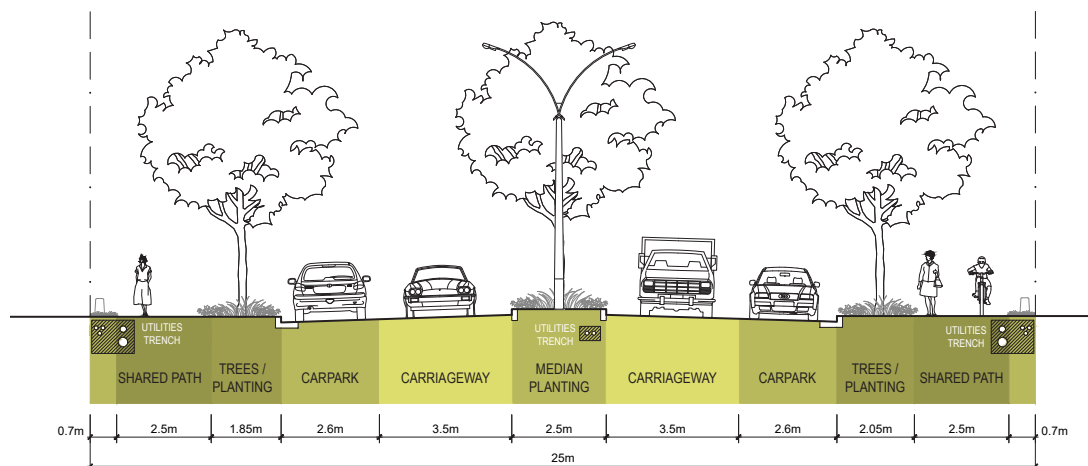
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



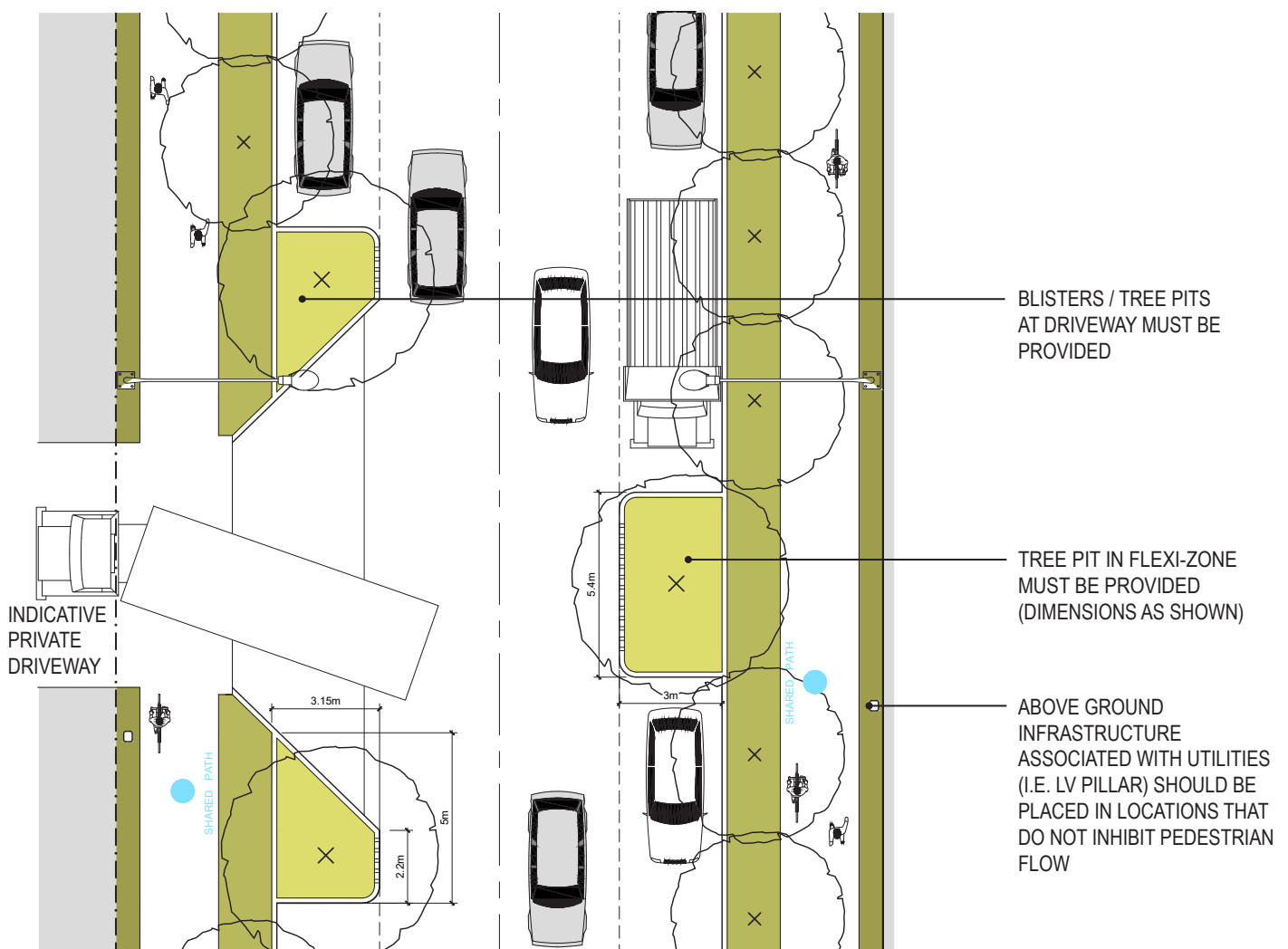
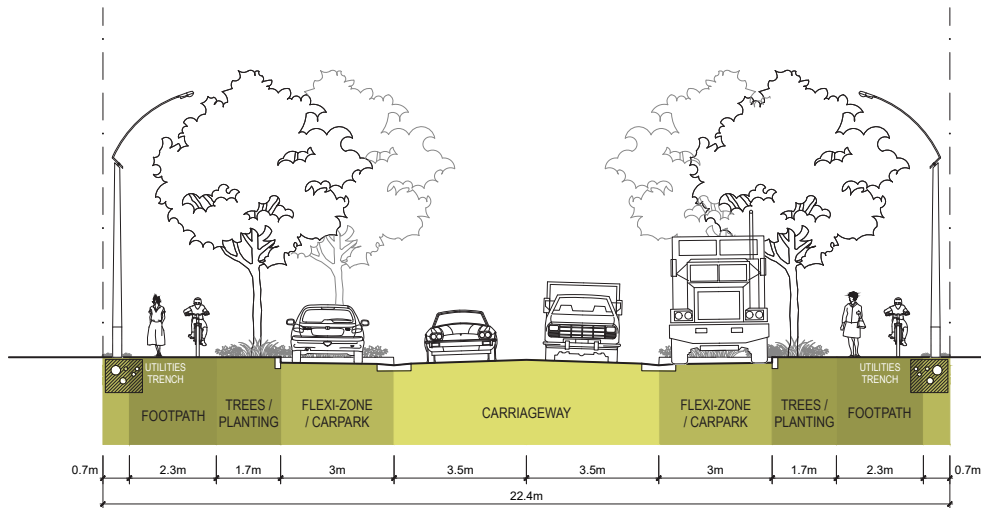
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



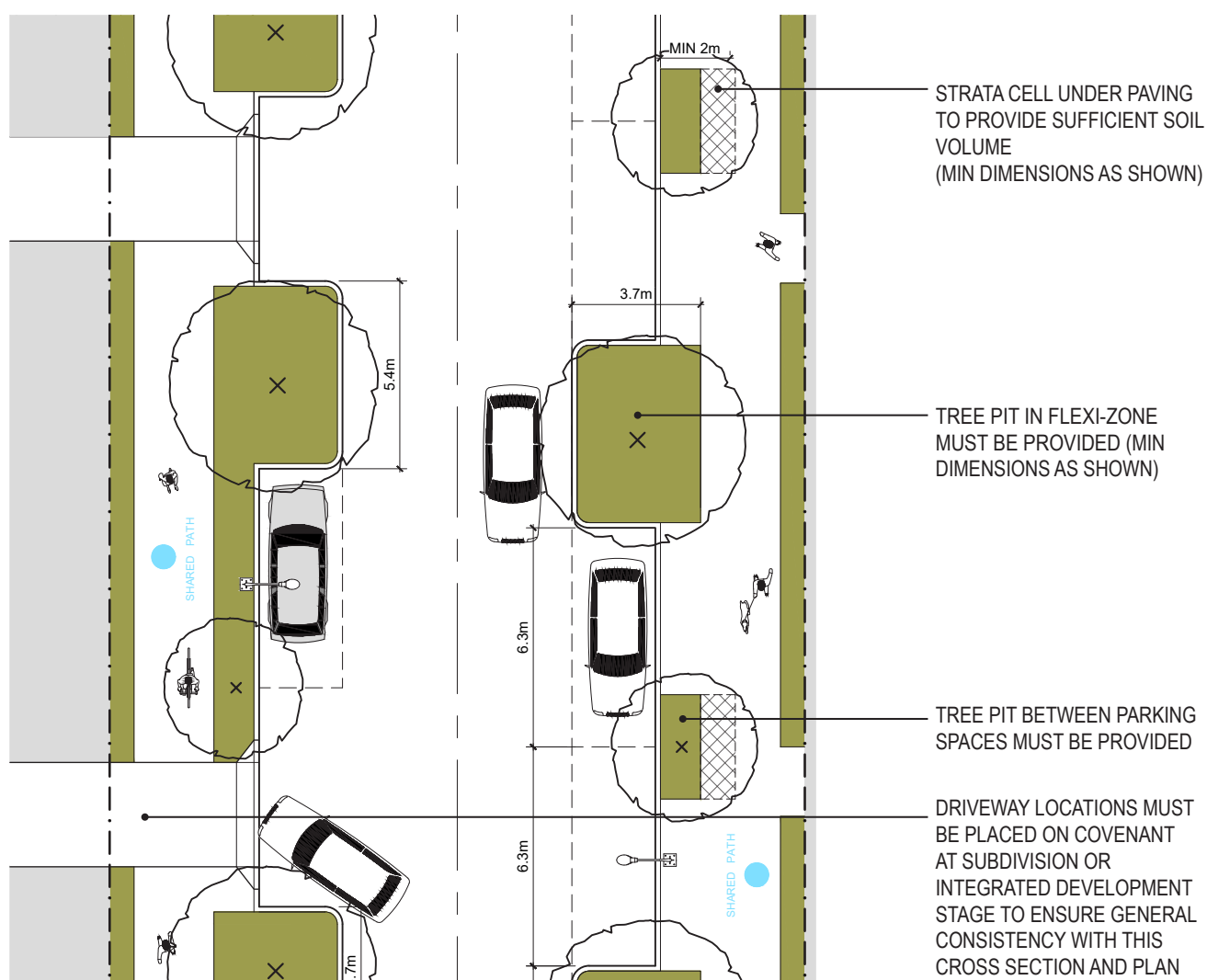
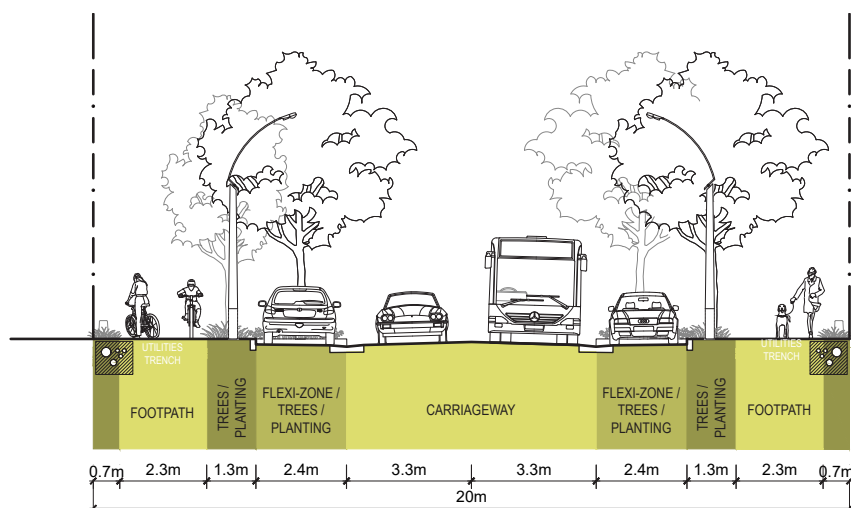
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



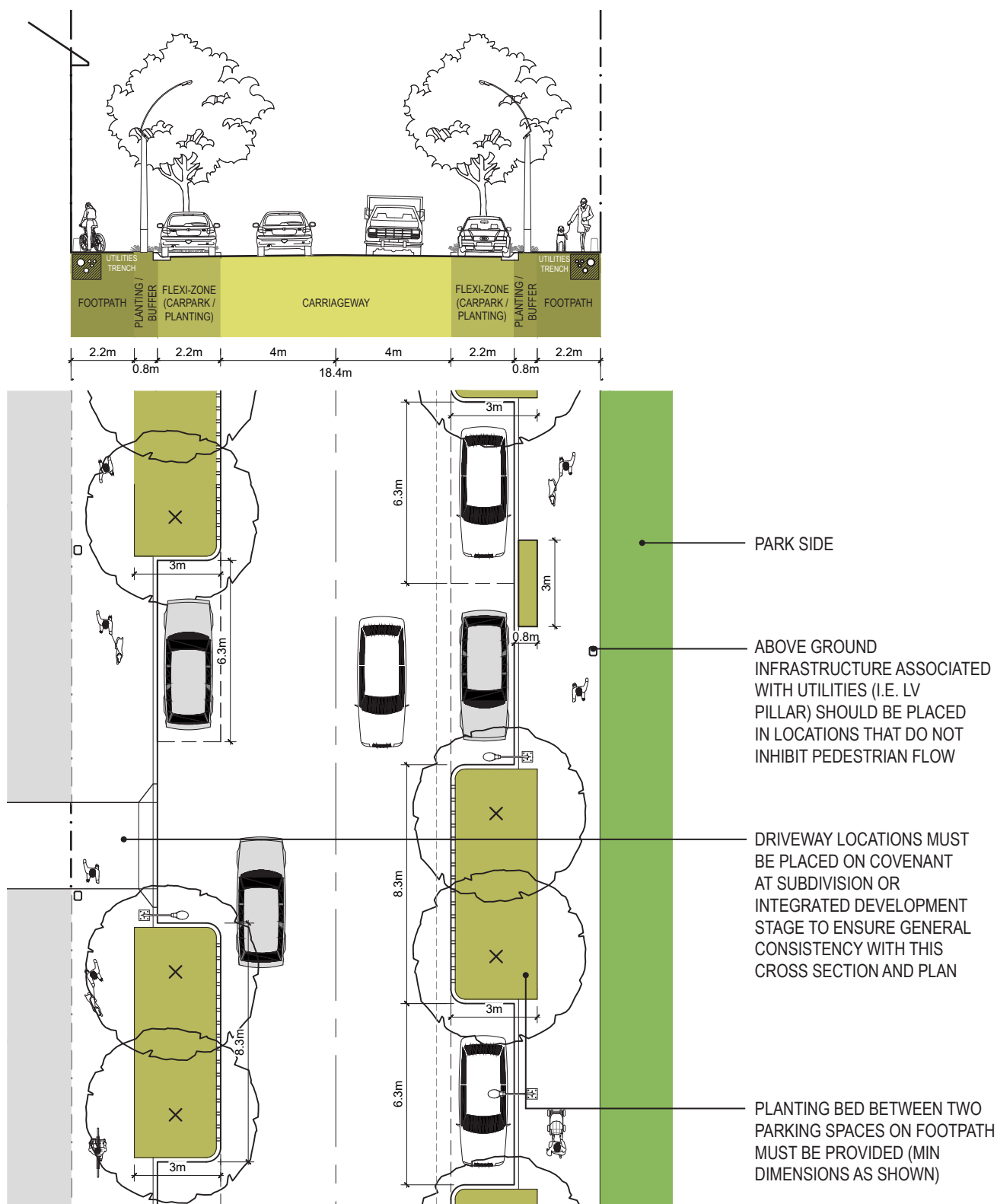
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



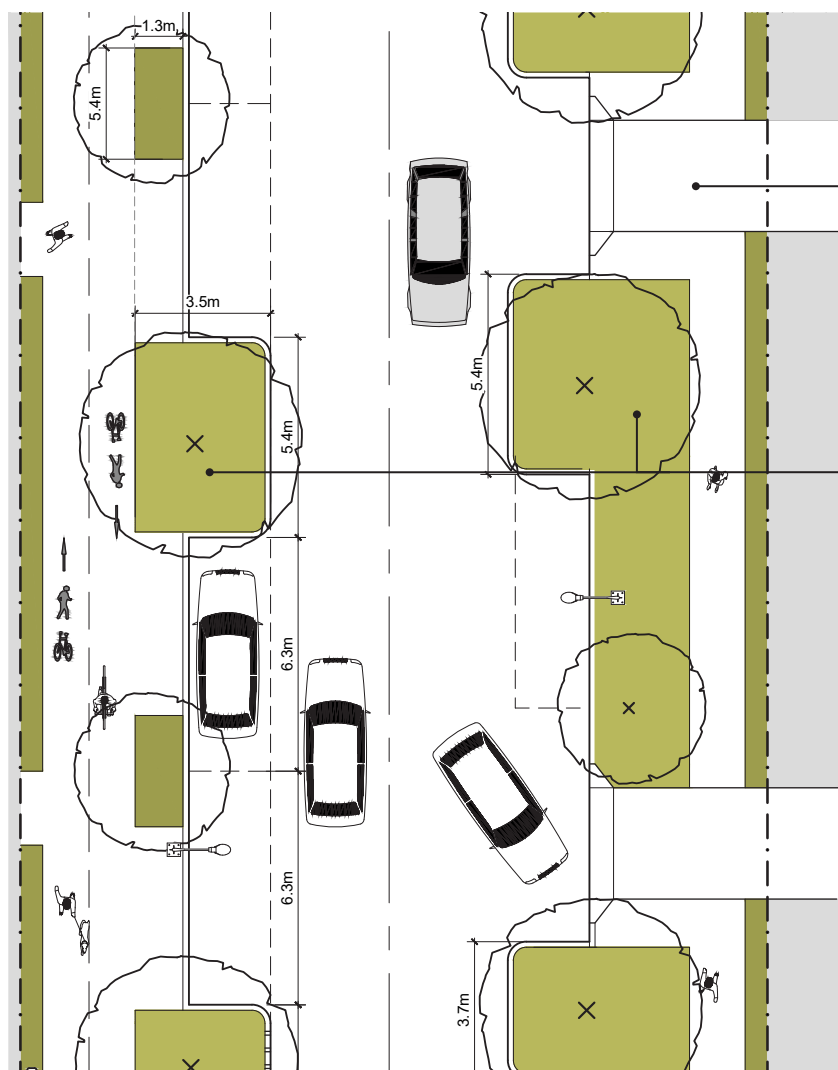
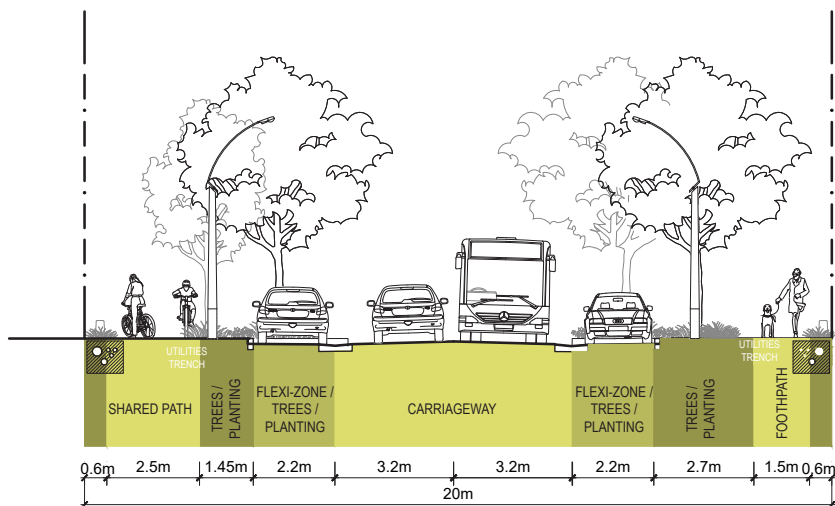
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.

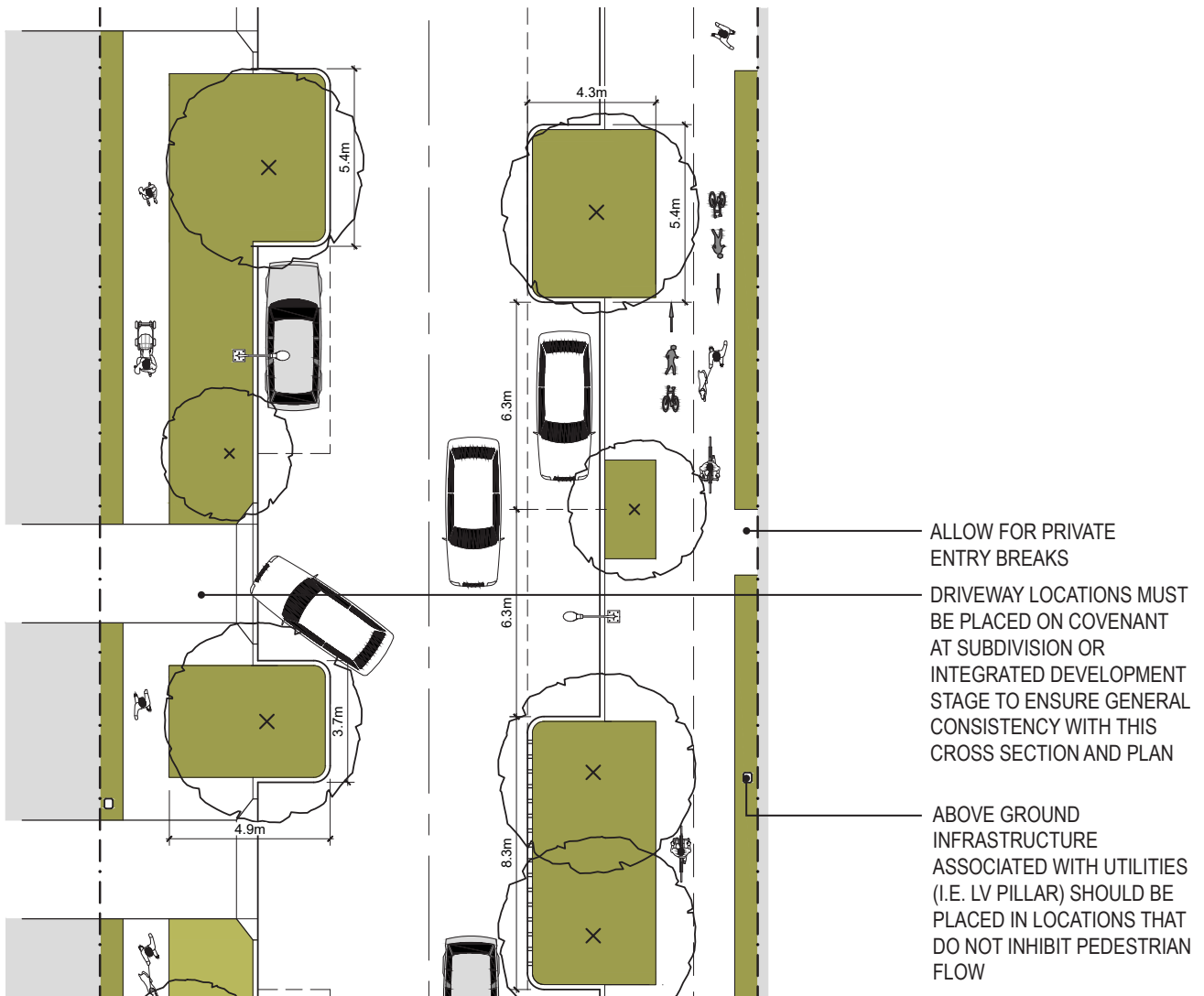
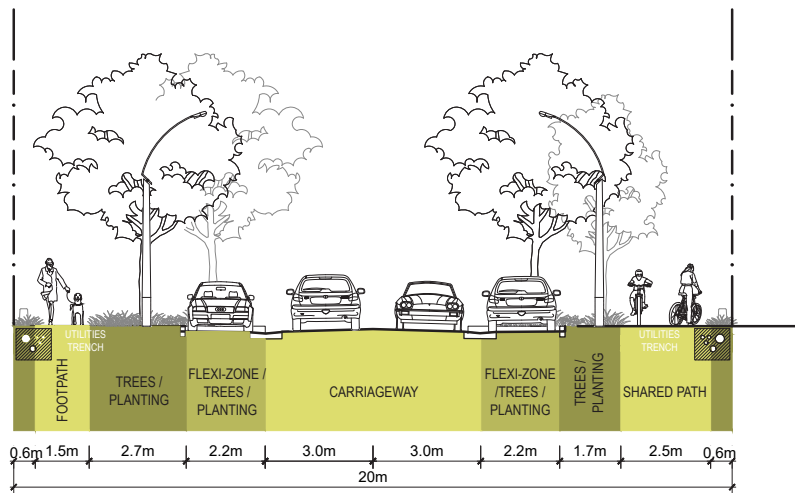


DRIVEWAY LOCATIONS MUST BE PLACED ON COVENANT AT SUBDIVISION OR INTEGRATED DEVELOPMENT STAGE TO ENSURE GENERAL CONSISTENCY WITH THIS CROSS SECTION AND PLAN

TREE PIT IN FLEXI-ZONE MUST BE PROVIDED (MIN DIMENSIONS AS SHOWN)

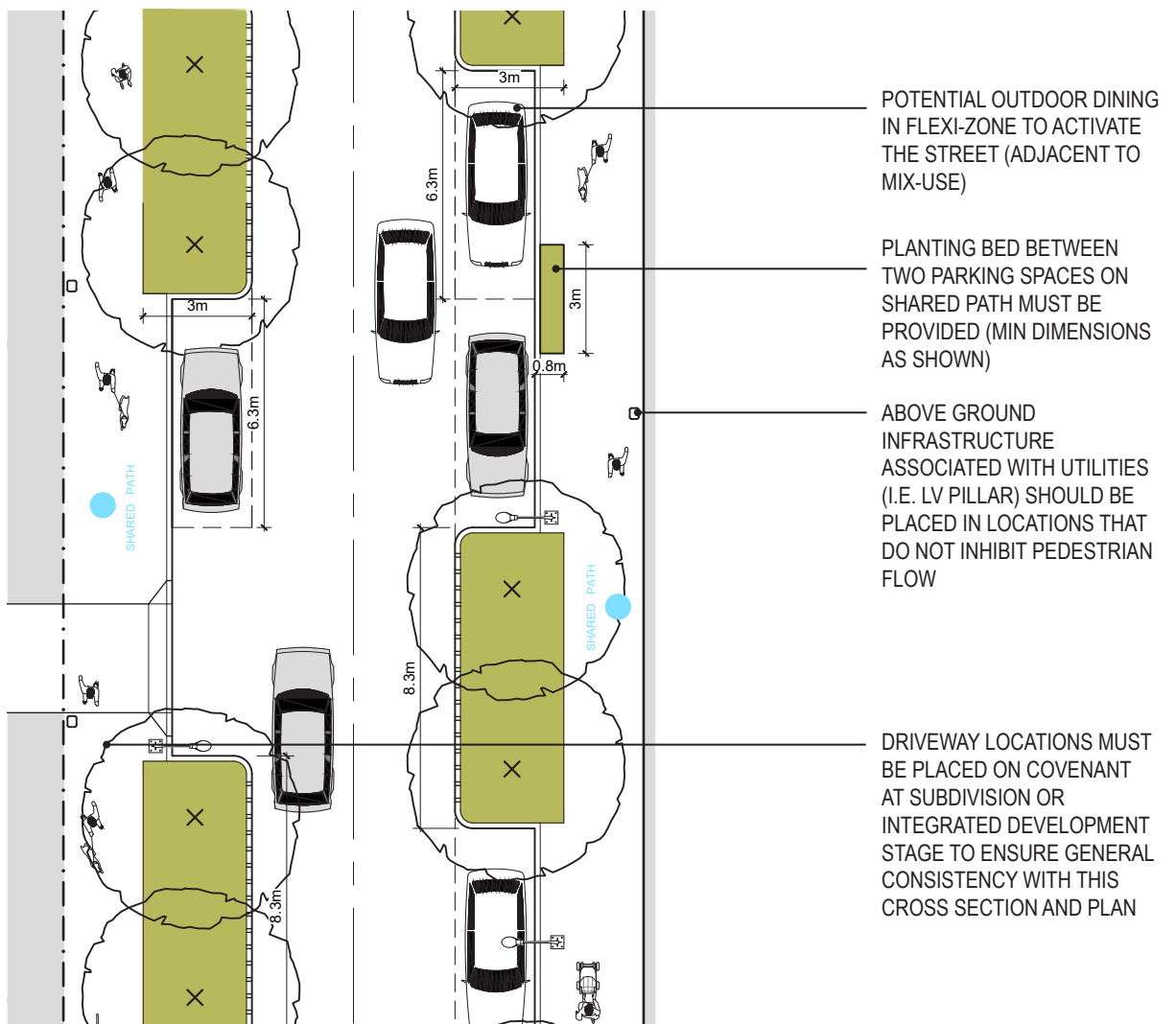
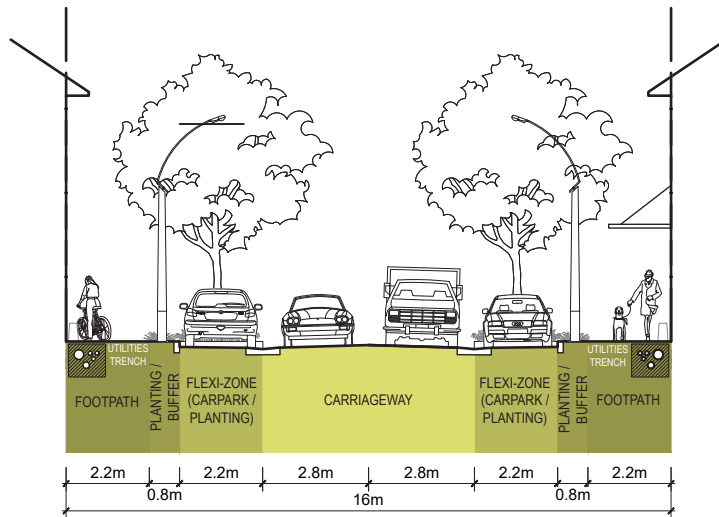
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



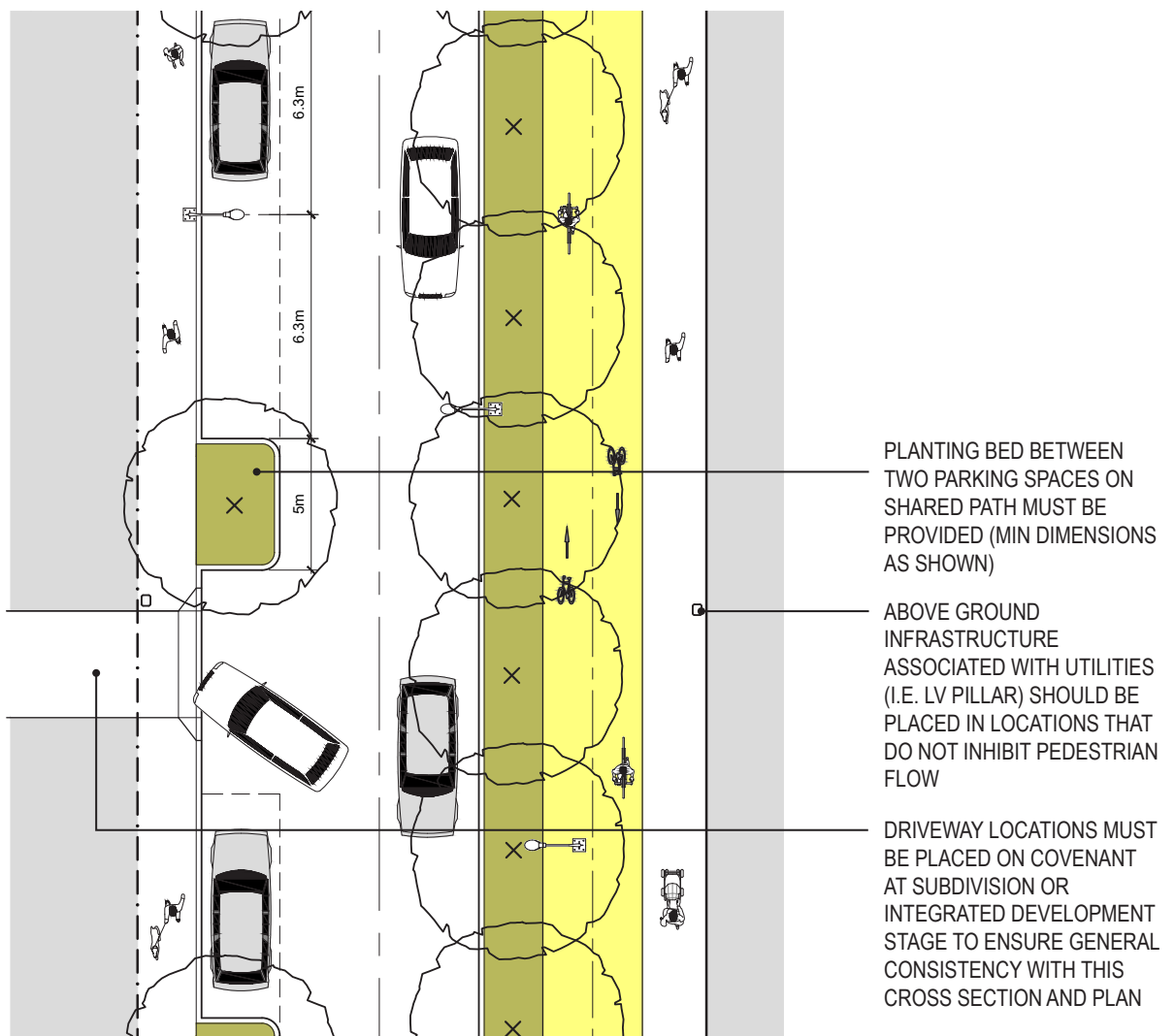
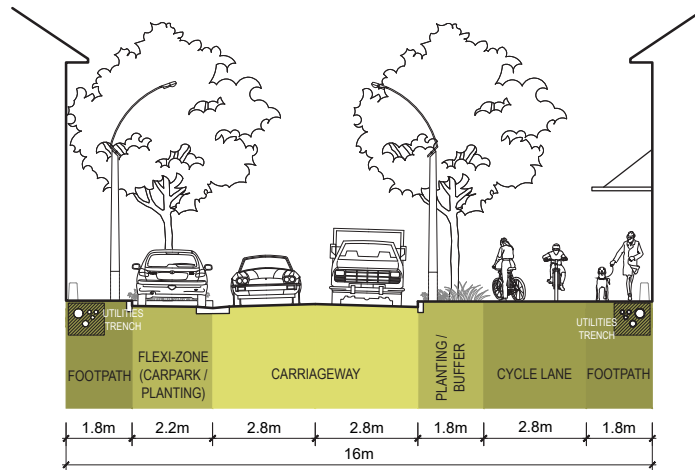
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



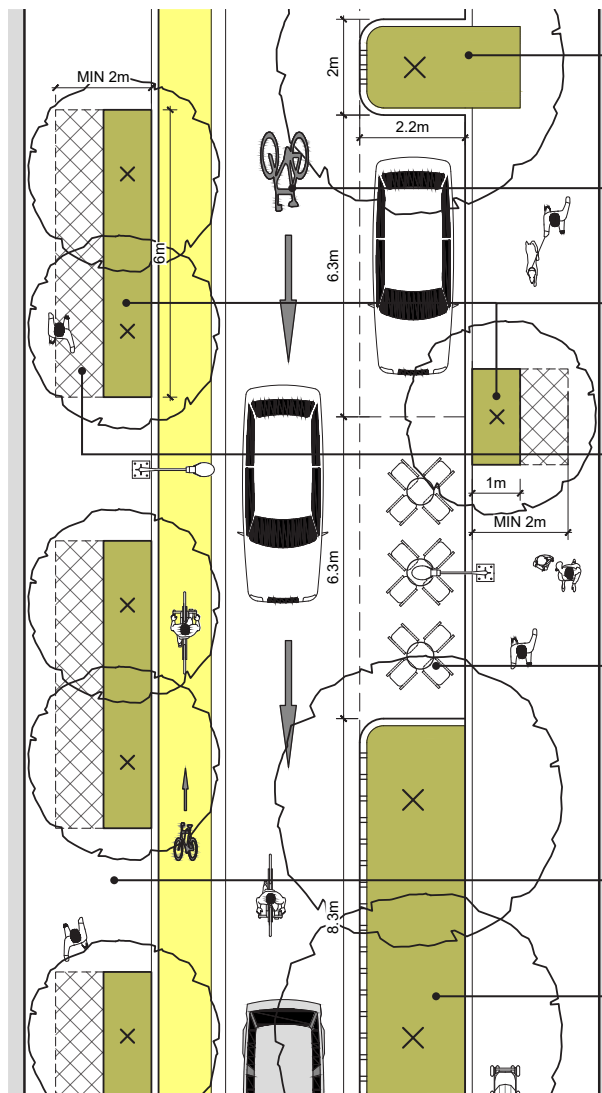
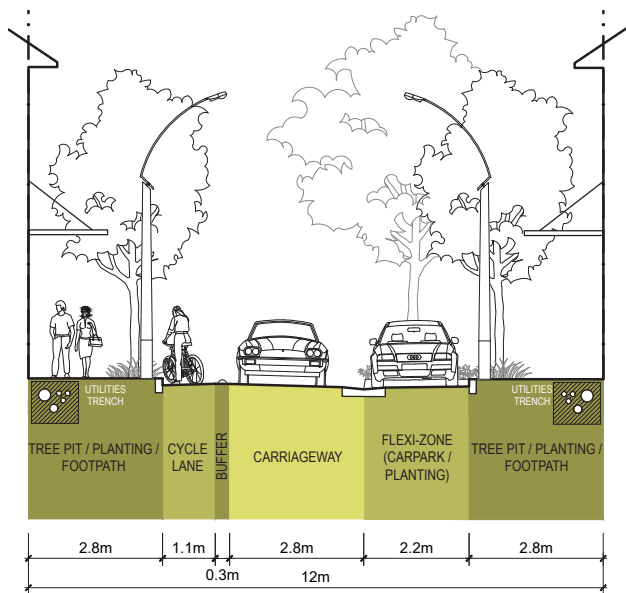
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



TREE PIT EVERY TWO PARKING SPACES MUST BE PROVIDED (MIN DIMENSIONS AS SHOWN)

ON ROAD ONE WAY CYCLE LANE

TREE PITS / PLANTING BETWEEN PARKING SPACES MUST BE PROVIDED ON FOOTPATH (MIN DIMENSIONS AS SHOWN)

STRATA CELL UNDER PAVING TO PROVIDE SUFFICIENT SOIL VOLUME (MIN DIMENSIONS AS SHOWN)

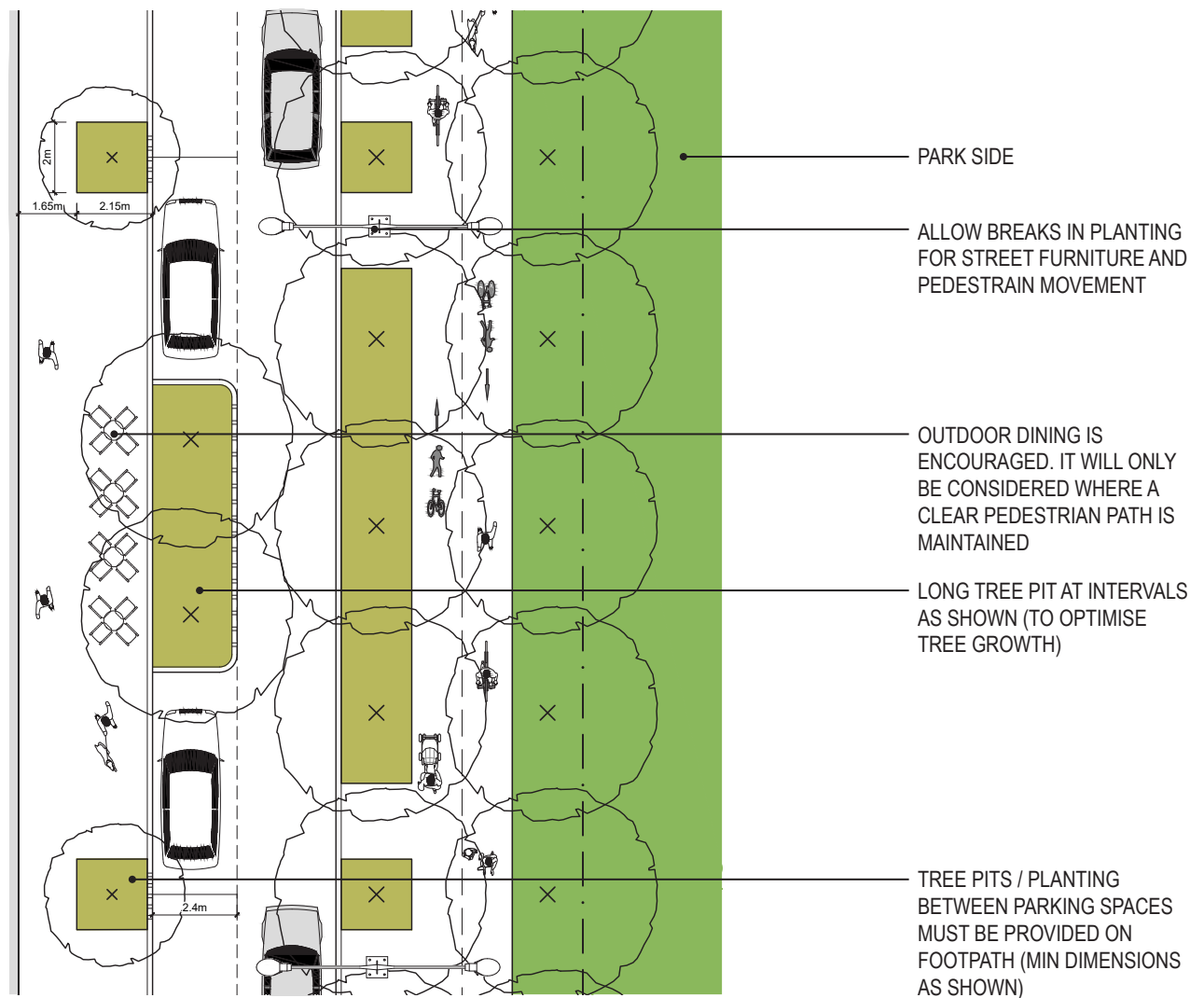
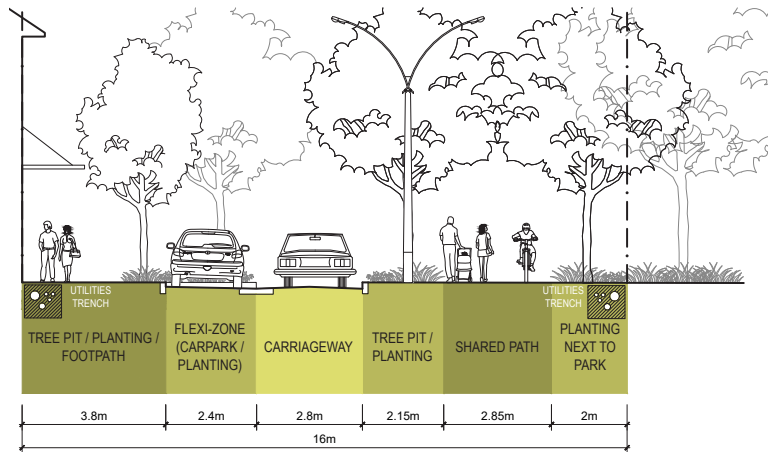
OUTDOOR DINING IN FLEXI-ZONE IS ENCOURAGED

ALLOW FOR BREAK SPACES TO ACCOMMODATE FURNITURE AND SERVICES

TREE PIT EVERY TWO PARKING SPACES MUST BE PROVIDED (MIN DIMENSIONS AS SHOWN)

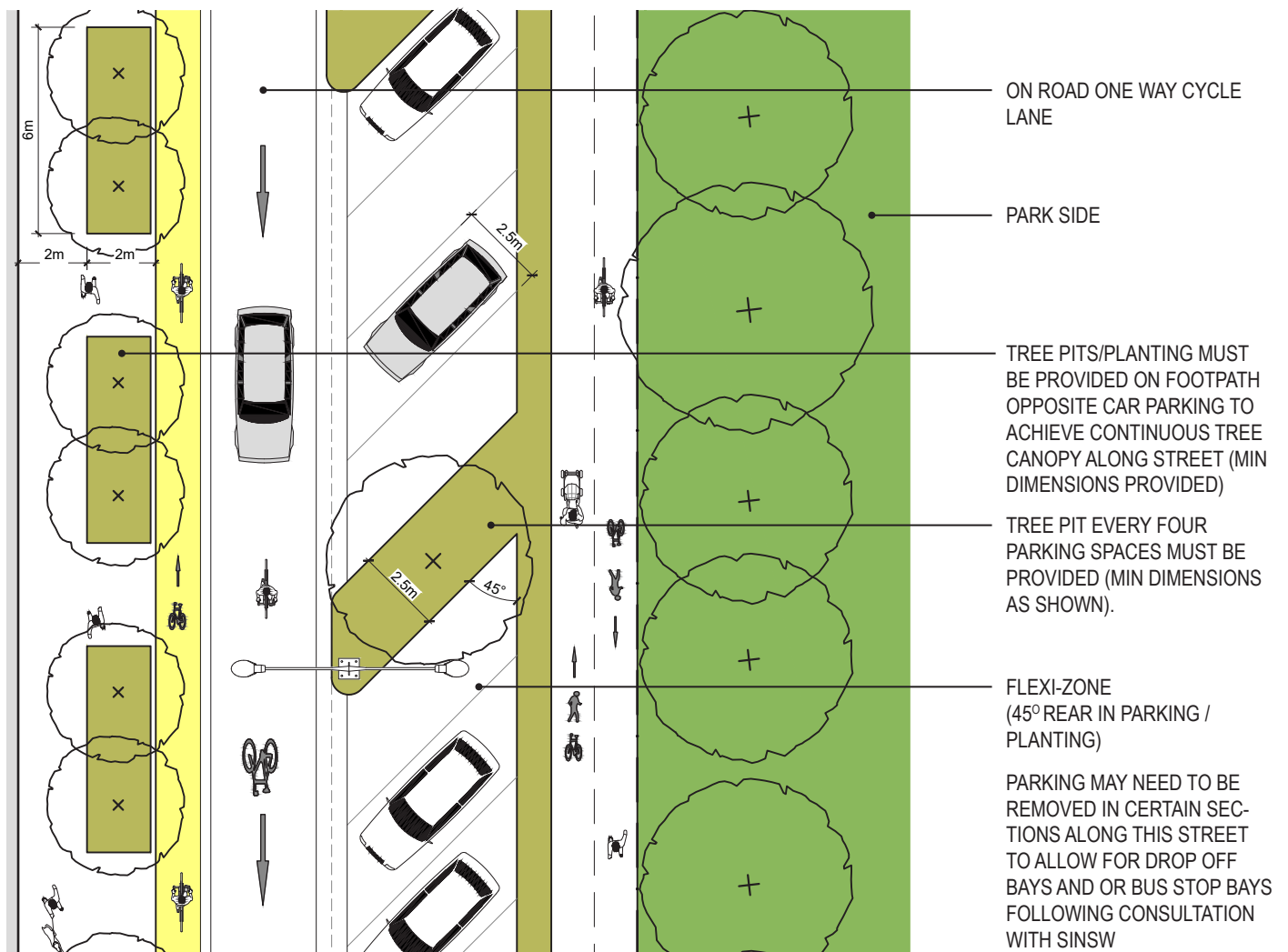
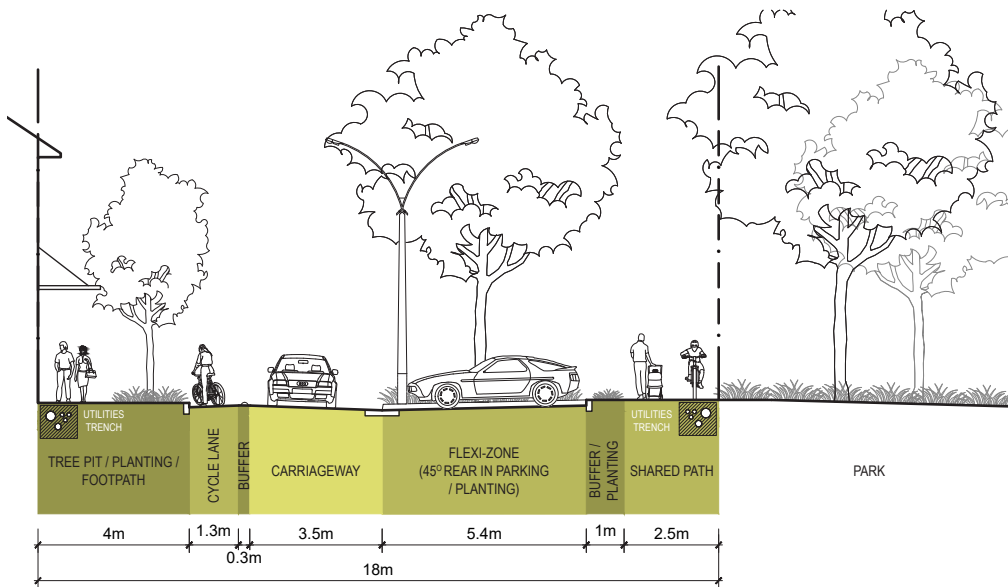
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



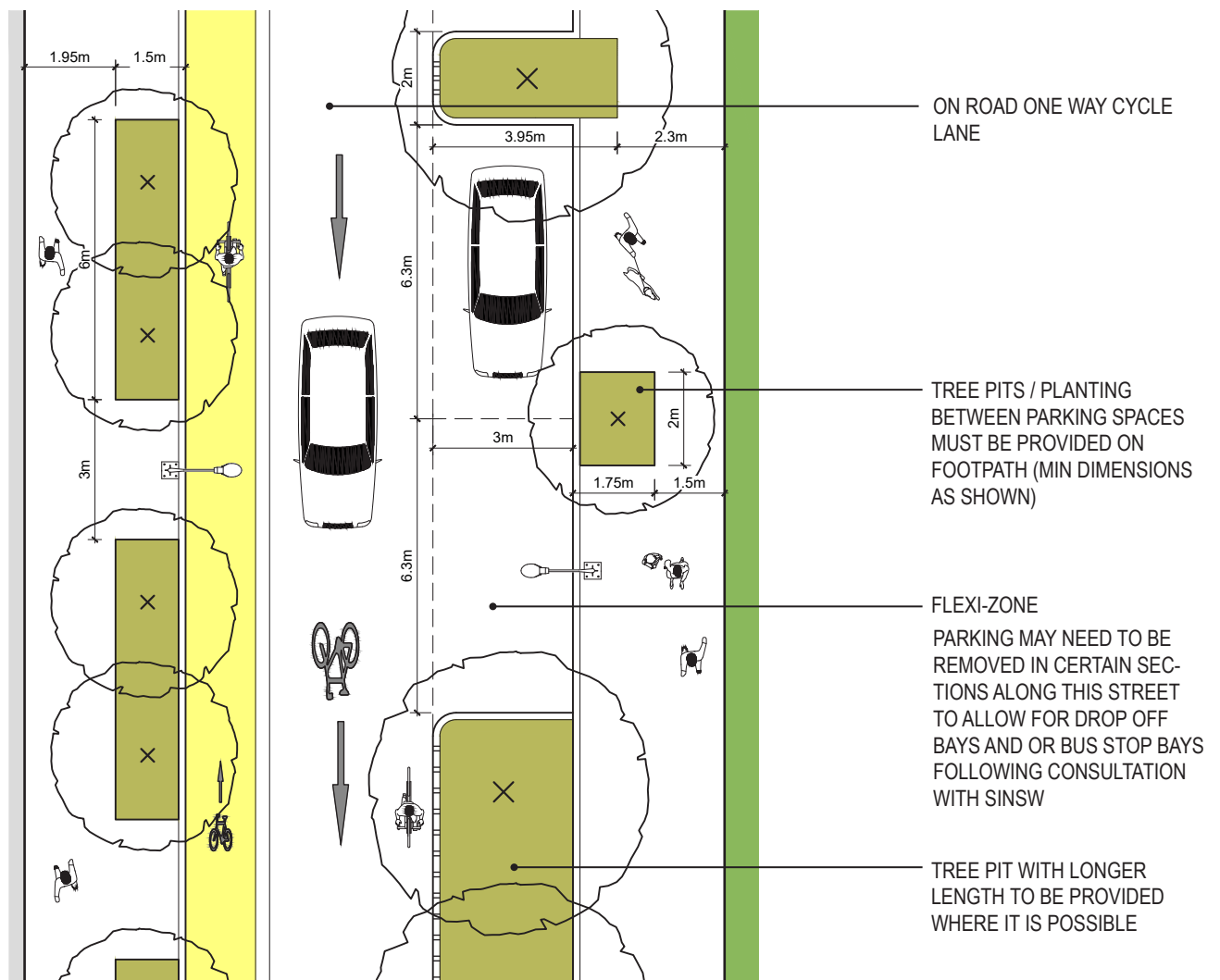
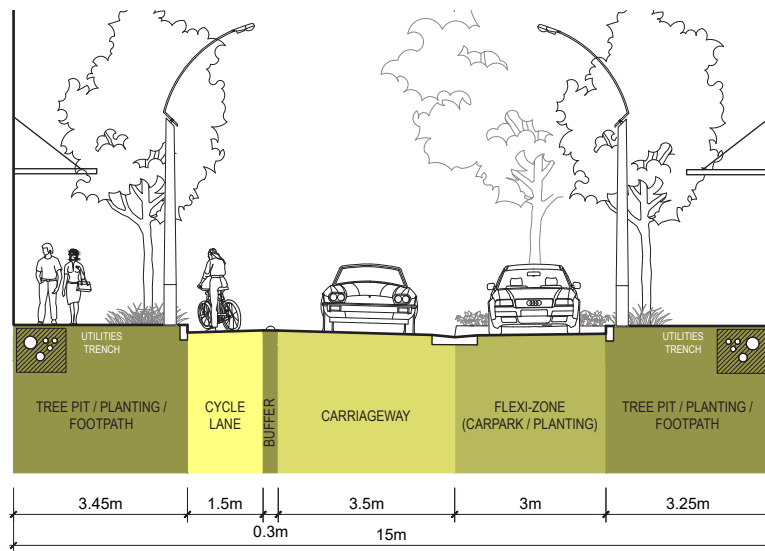
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



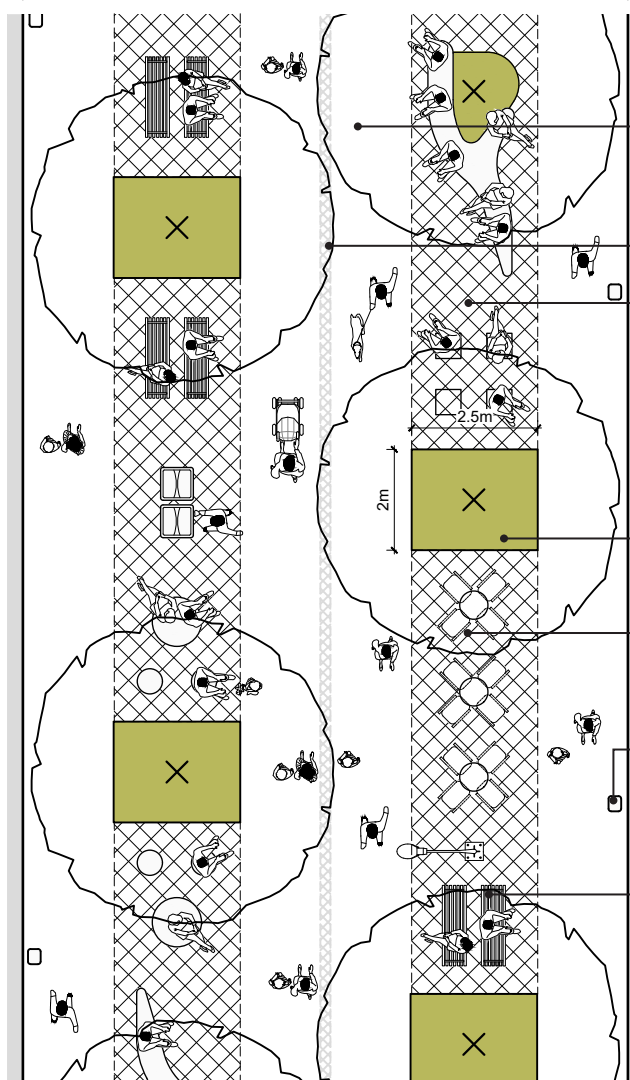
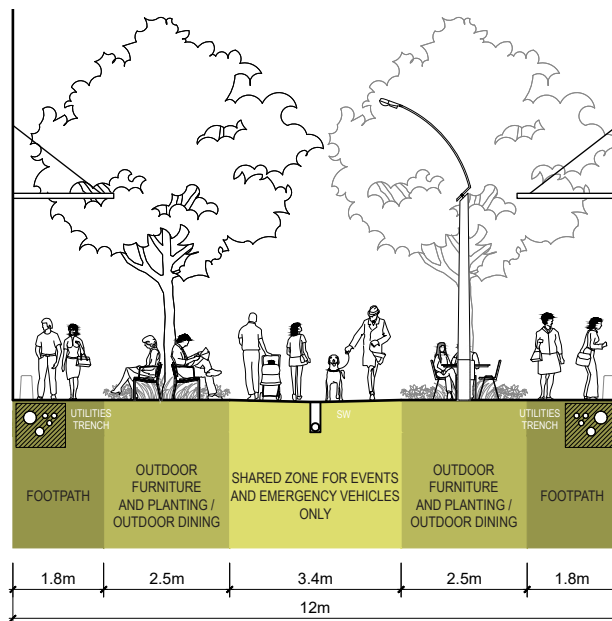
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



3.4m CLEARANCE MUST BE PROVIDED IN THE CENTRE FOR EVENTS AND EMERGENCY VEHICLES

FLUSH CENTRAL STORMWATER (SW) DRAINAGE

STRATA CELL UNDER PAVING TO PROVIDE SUFFICIENT SOIL VOLUME

MINIMUM 2.5m x 2m TREE PITS / PLANTING WITH MAX. 9m SPACING

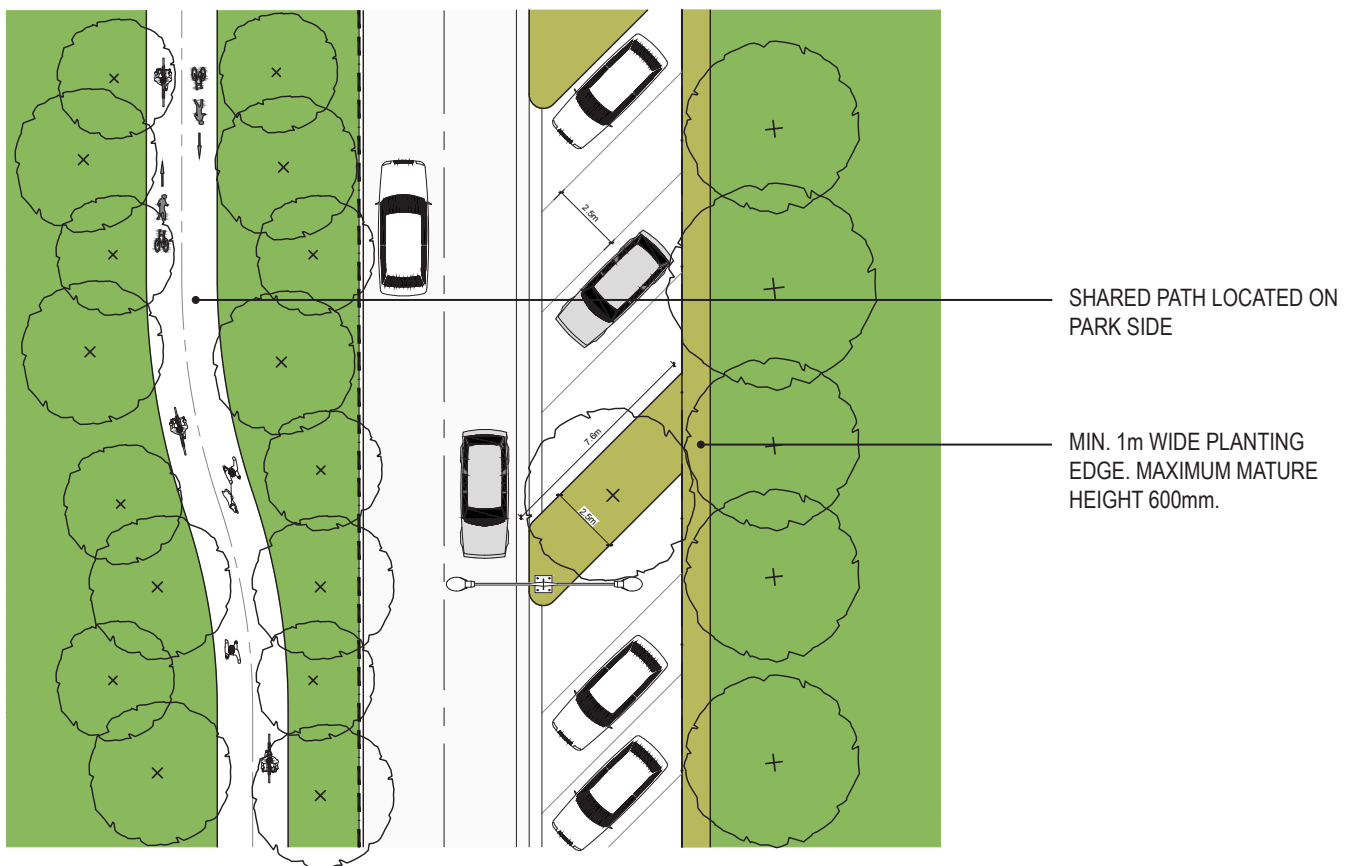
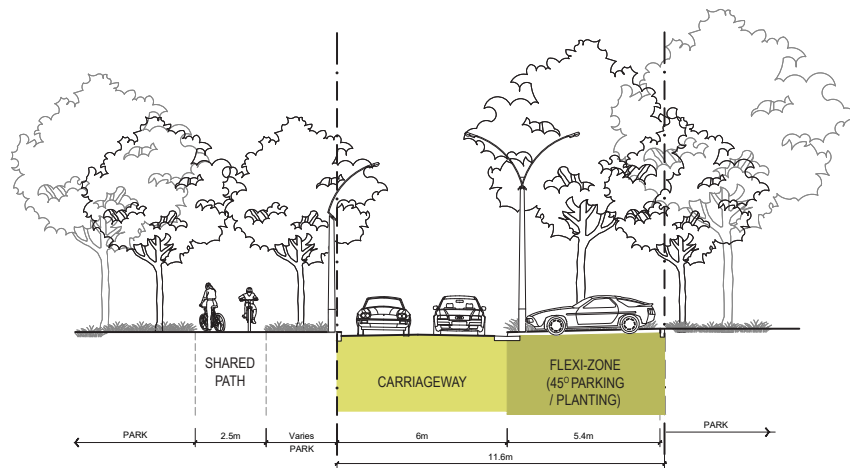
OPPORTUNITIES FOR OUTDOOR DINING BETWEEN TREE PITS TO BE LOCATED TO NOT OBSTRUCT EMERGENCY VEHICLE ACCESS

ABOVE GROUND INFRASTRUCTURE ASSOCIATED WITH UTILITIES (I.E. LV PILLAR) SHOULD BE PLACED IN LOCATIONS THAT DO NOT INHIBIT PEDESTRIAN FLOW

STREET FURNITURE (I.E. SEATING, BINS, TABLES) STRATEGICALLY PLACED TO MINIMISE POSSIBILITY OF VEHICLE ENCROACHMENT ONTO FOOTPATH.
MINIMUM 1.8m CLEARANCE BETWEEN BUILDING EDGE AND TREE/PLANTING AND OUTDOOR FURNITURE.

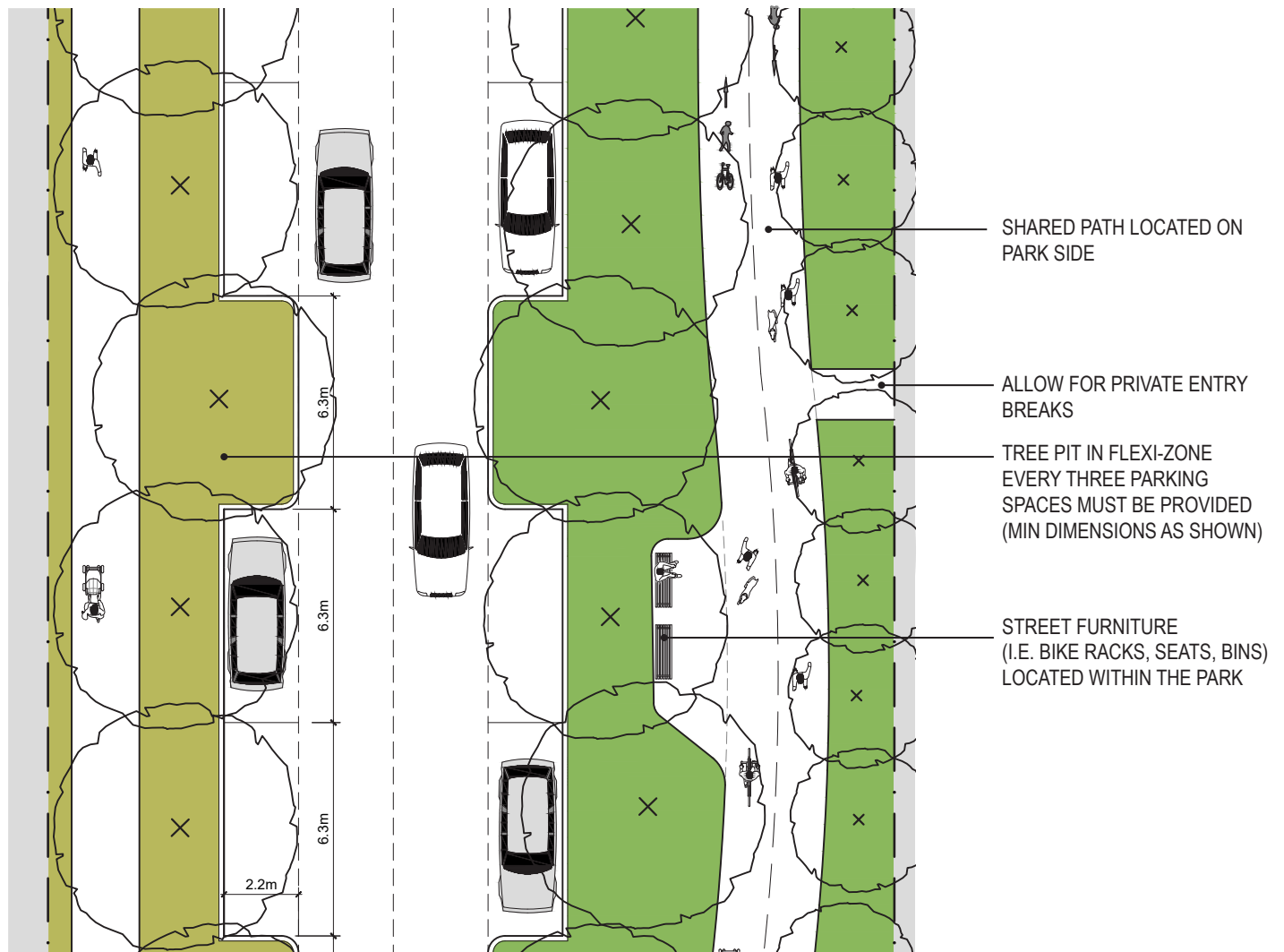
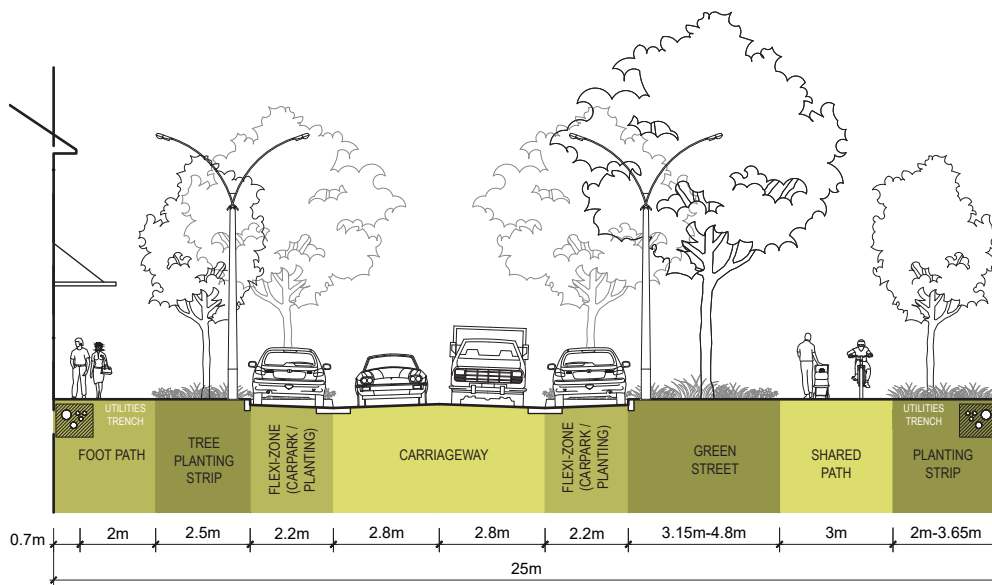
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.



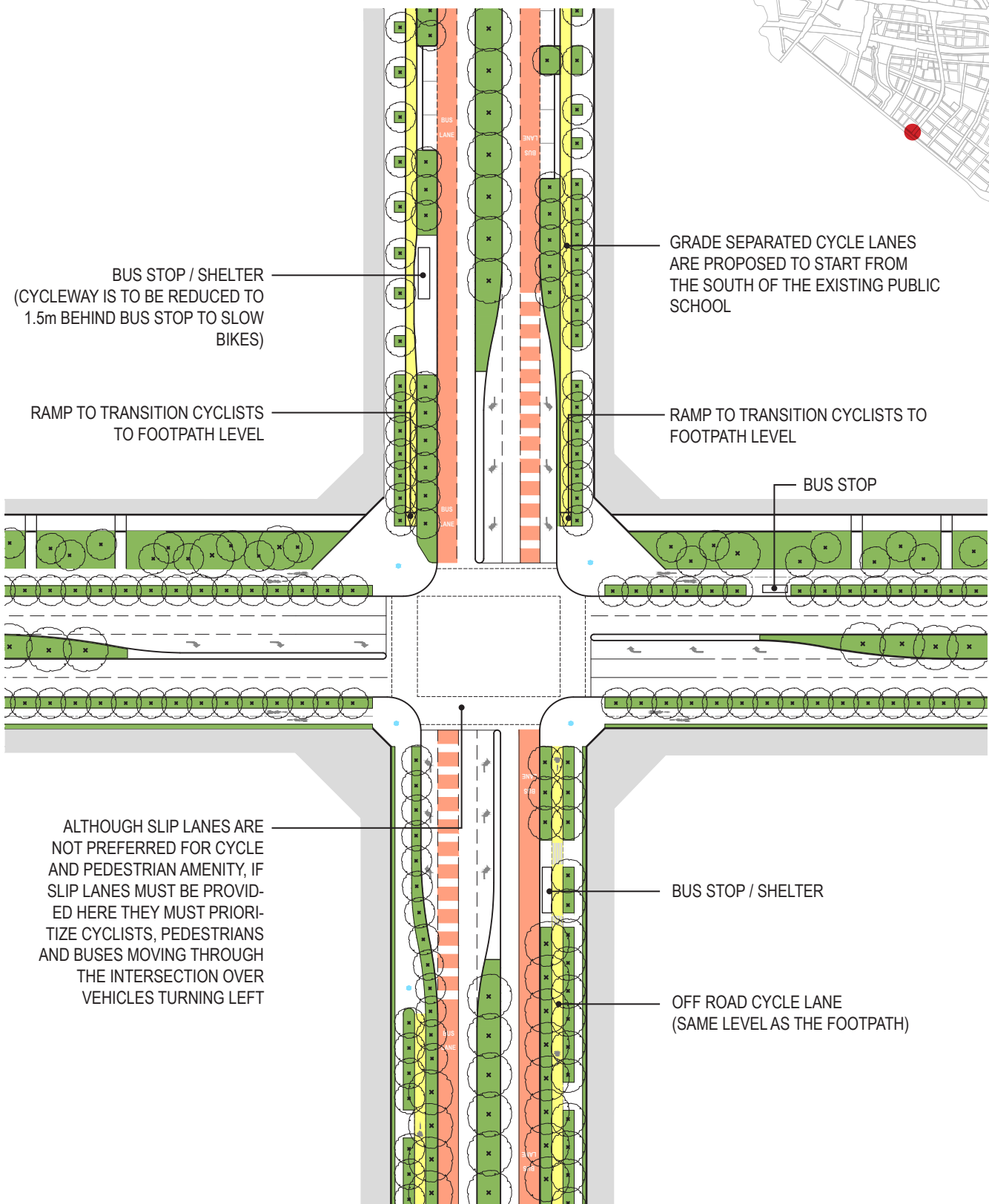
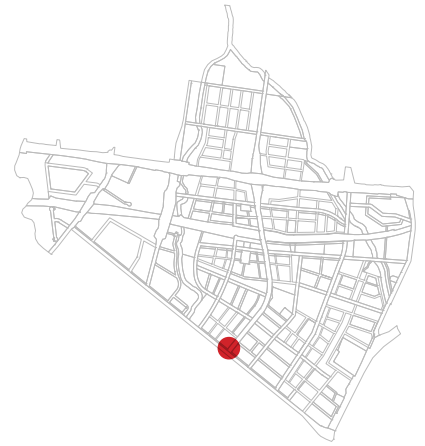
NOTE:

- WSUD TREE PITS WITH GAPS AT KERB TO COLLECT WATER ARE ENCOURAGED.
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.
- EXTEND TREE PIT AND STRATA CELL EXTENTS TO MAXIMUM DIMENSIONS IN RELATION TO SITE CONDITIONS TO ALLOW FULL POTENTIAL TREE GROWTH.
- ANY SERVICE TRENCH LOCATED WITHIN THE MEDIAN TO BE LOCATED ON SIDE TO AVOID INTERFERENCE WITH STREET TREE.

Appendix 2 Intersection Designs

Appendix 2.1 Location Specific Intersection Designs

RICKARD RD 37.6m



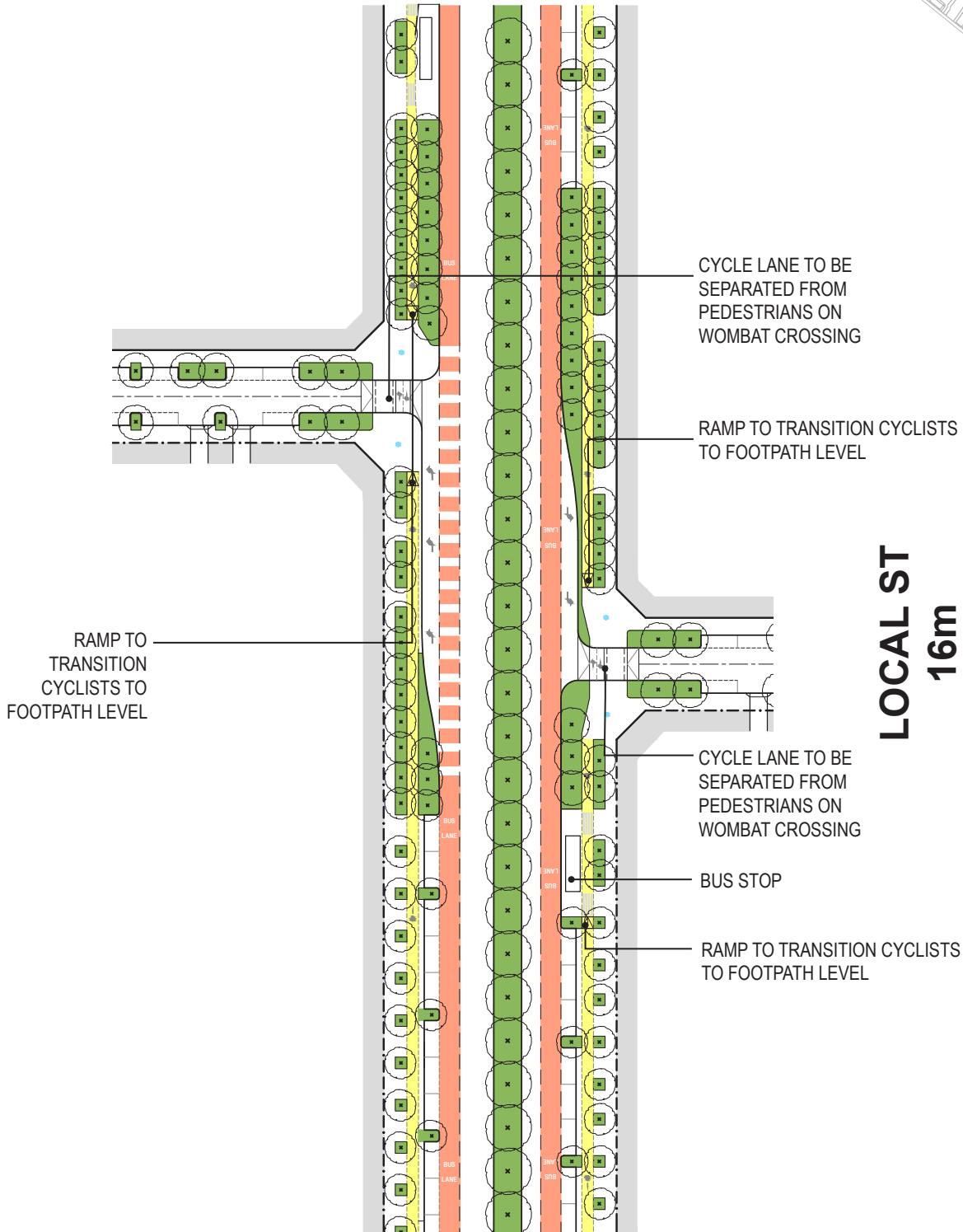
INGLEBURN RD
29.1m

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



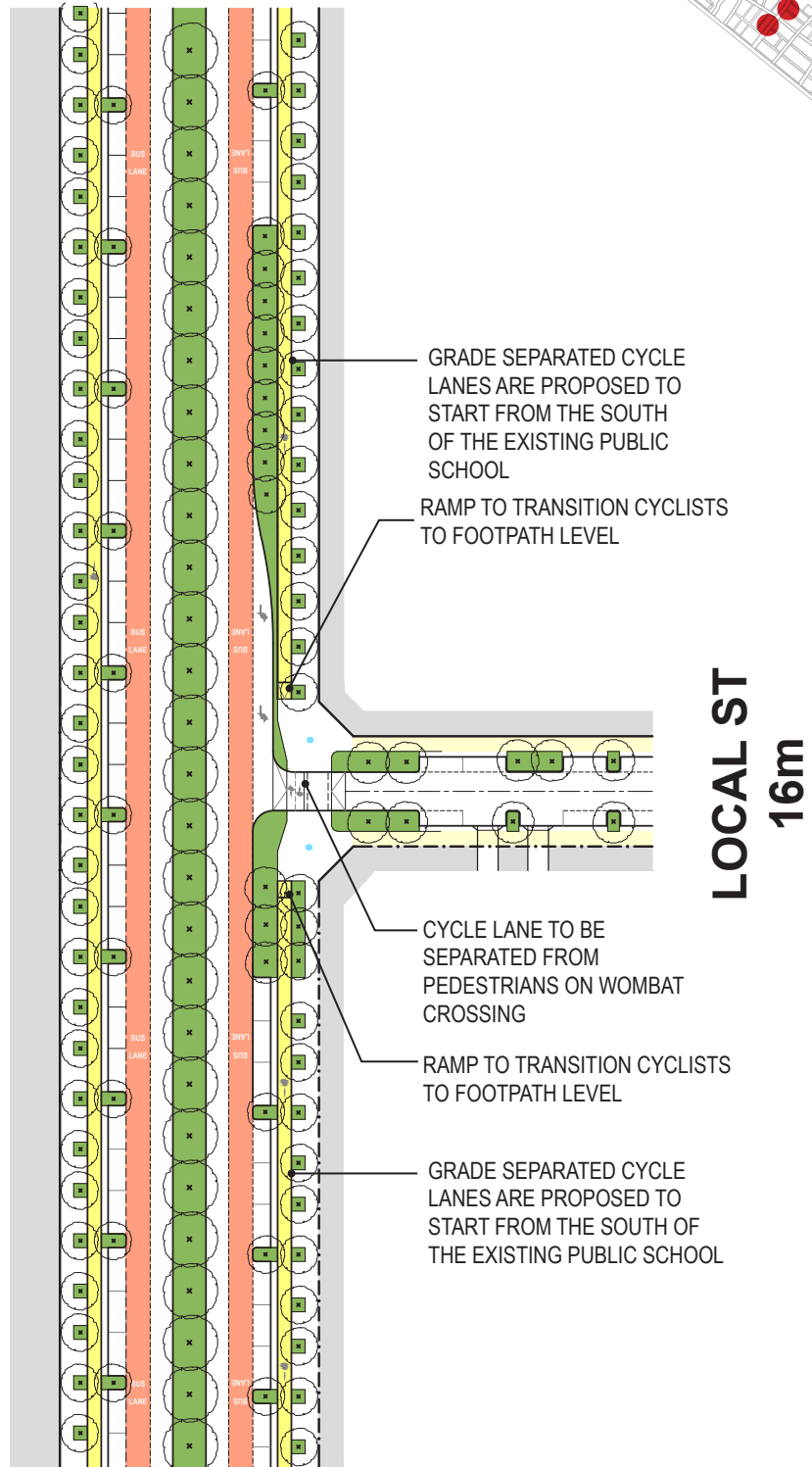
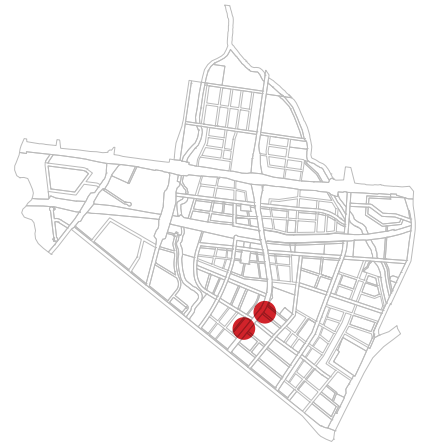
RICKARD RD 37.6m



NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

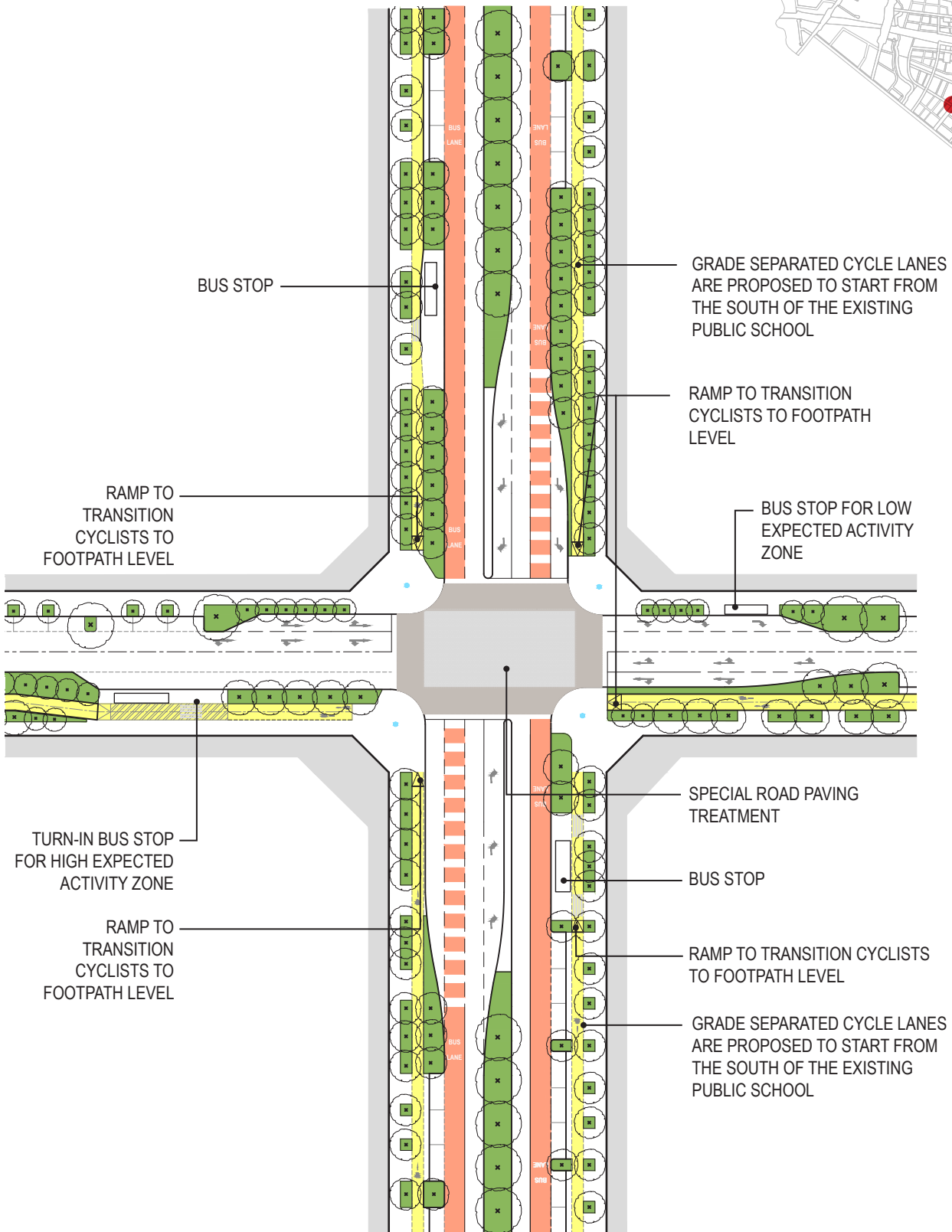
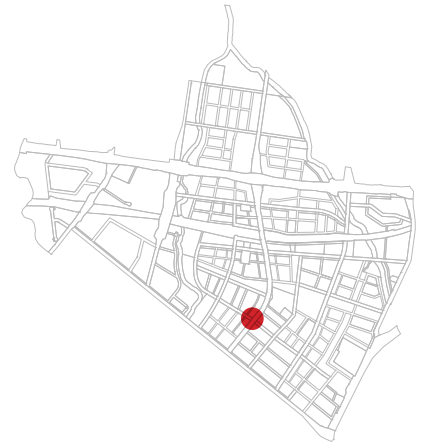
RICKARD RD 37.6m



NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

RICKARD RD 37.6m

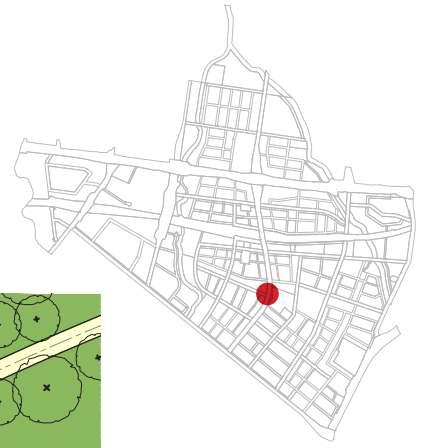


TOWN CENTRE ST
25m

NOTE:

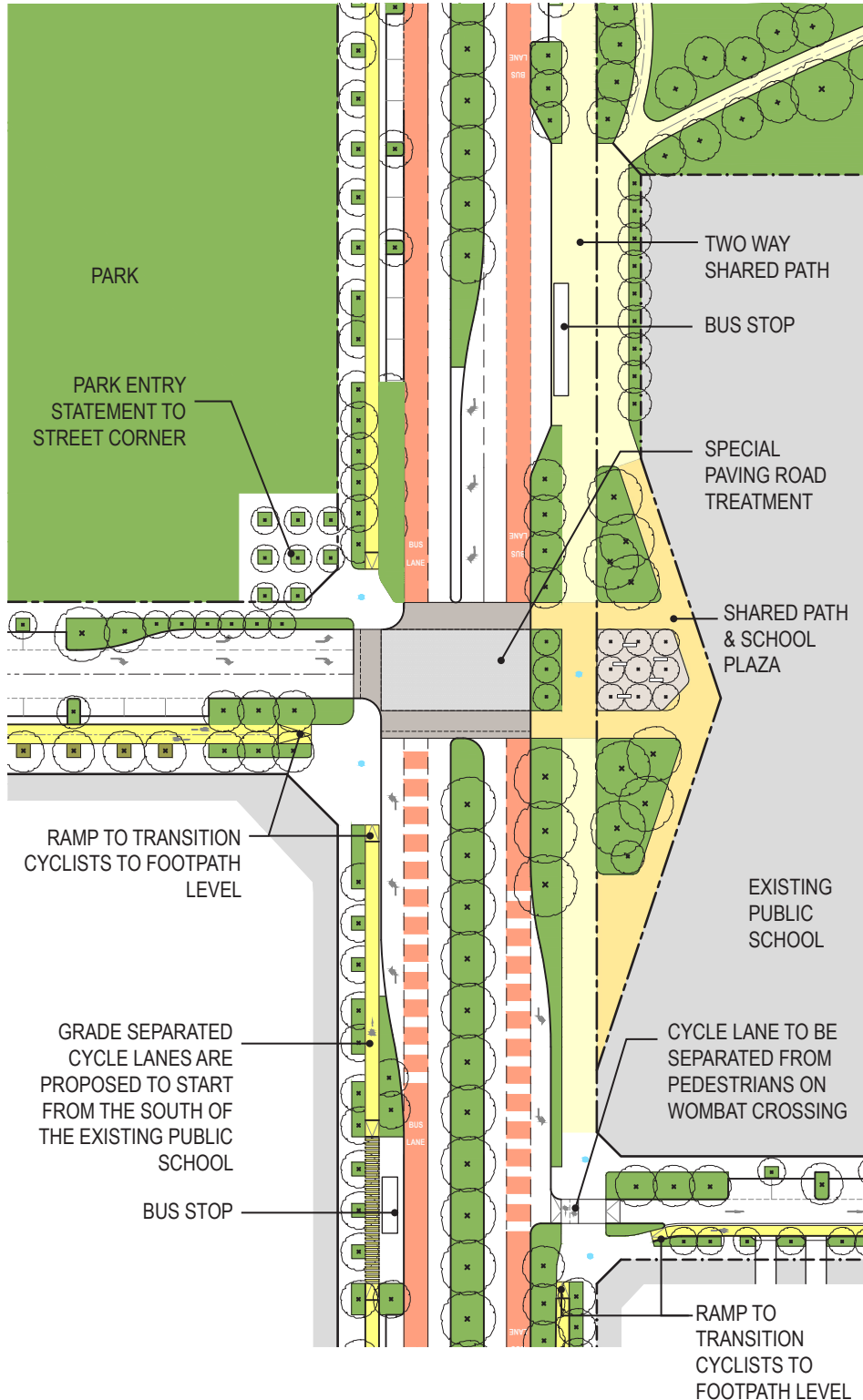
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

RICKARD RD 37.6m



TOWN CENTRE ST

25m



ONE WAY ST

(SOUTH OF SCHOOL)

14m

NOTE:

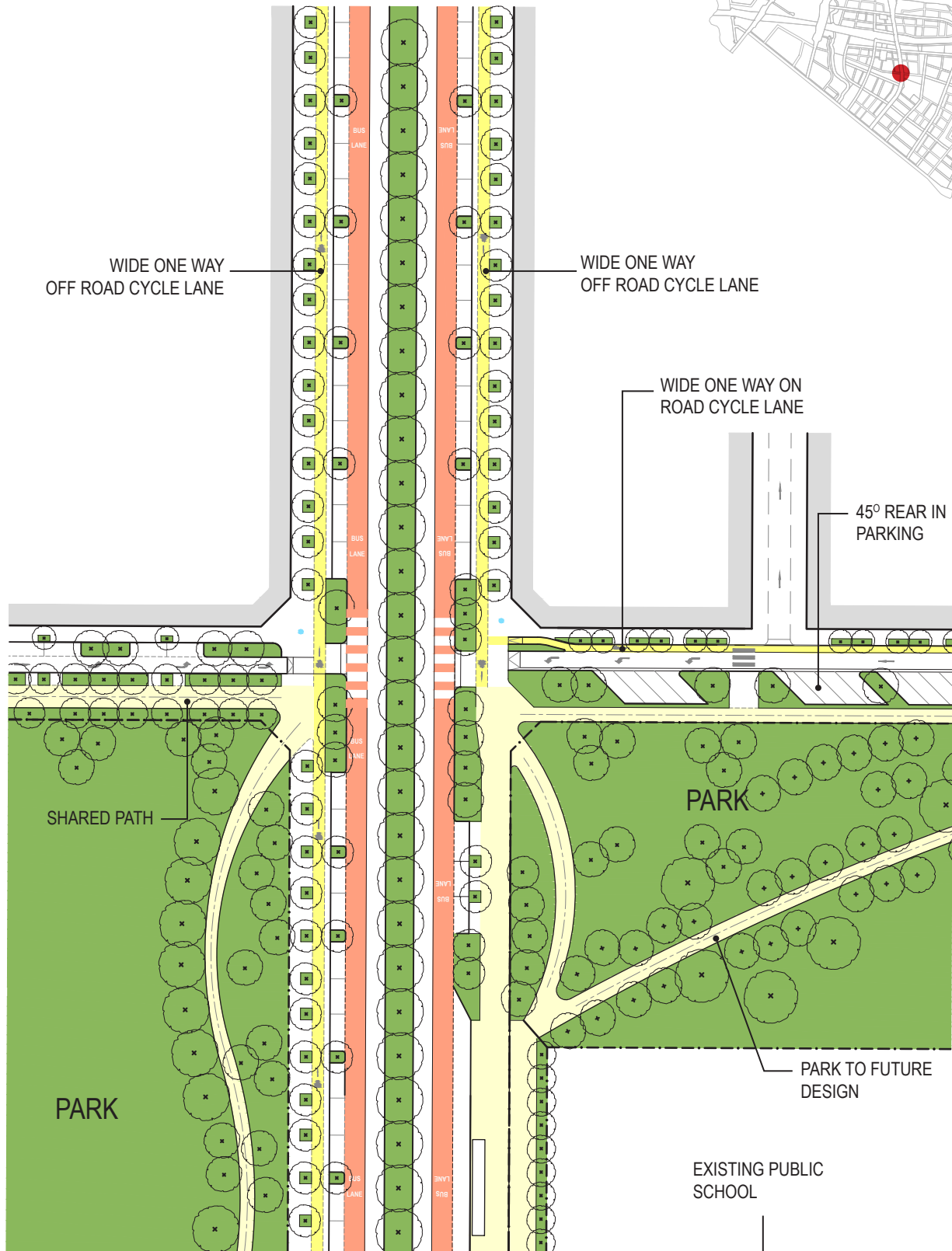
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

RICKARD RD 37.6m



ONE WAY ST

16m



ONE WAY ST

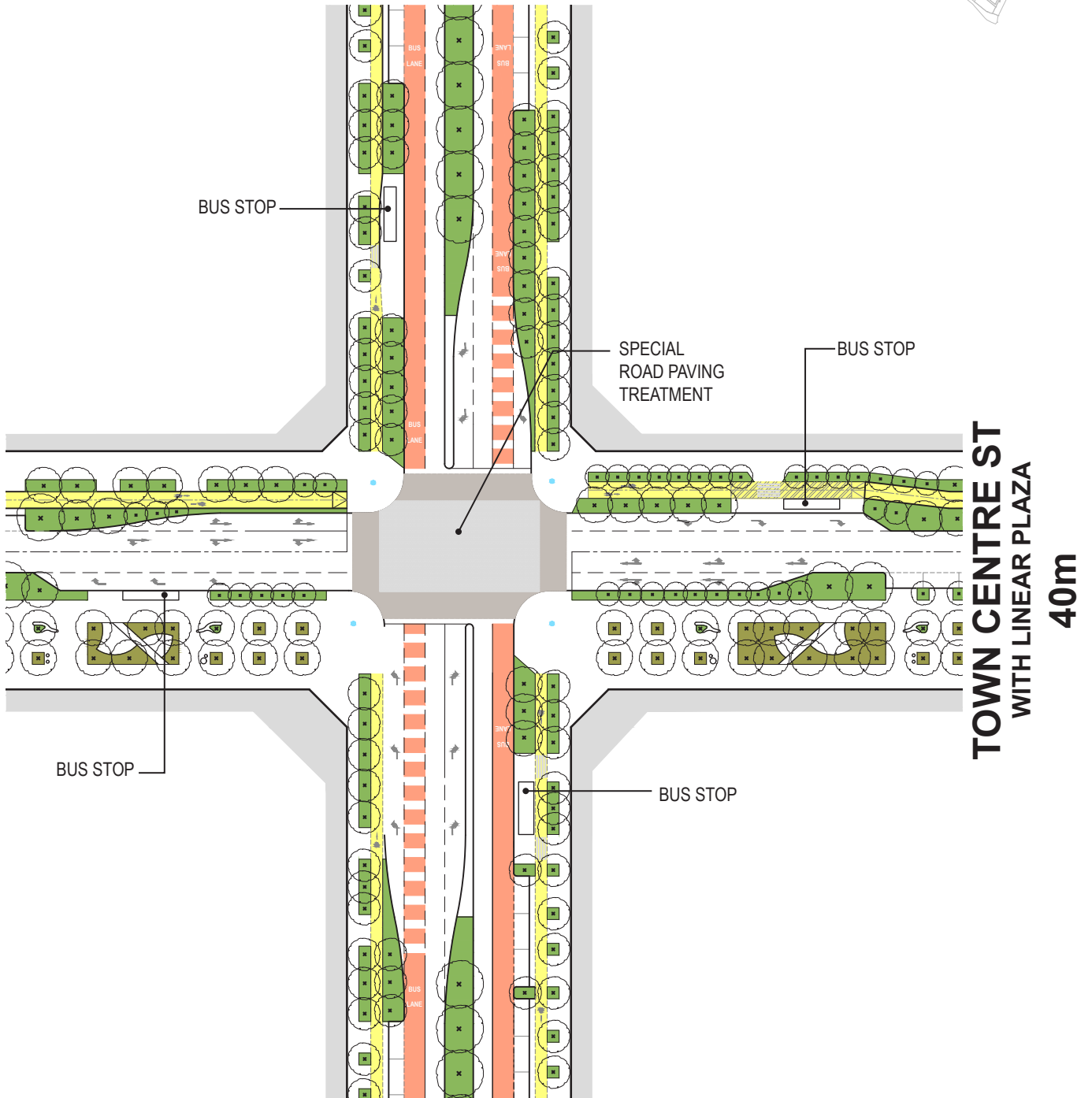
16m

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

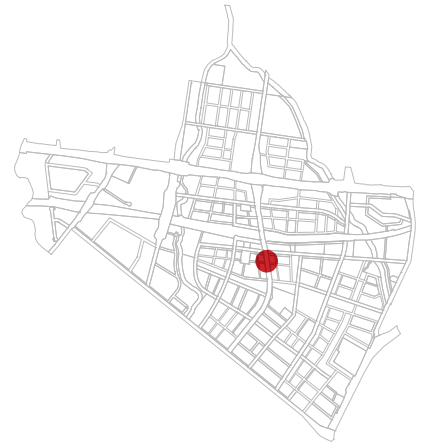


RICKARD RD 37.6m

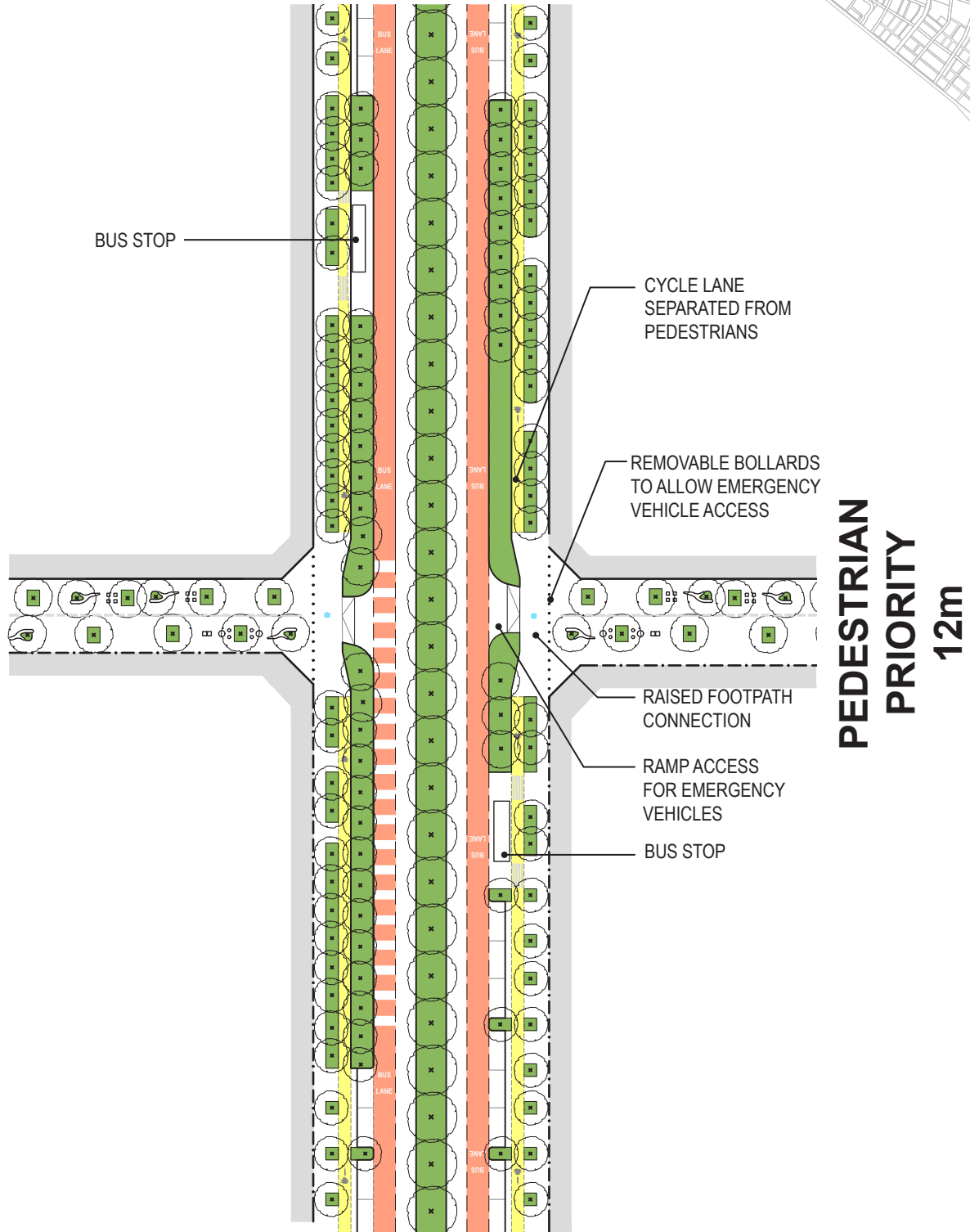


NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



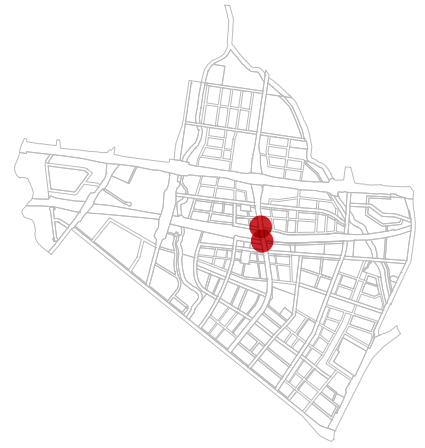
RICKARD RD 37.6m



NOTE:

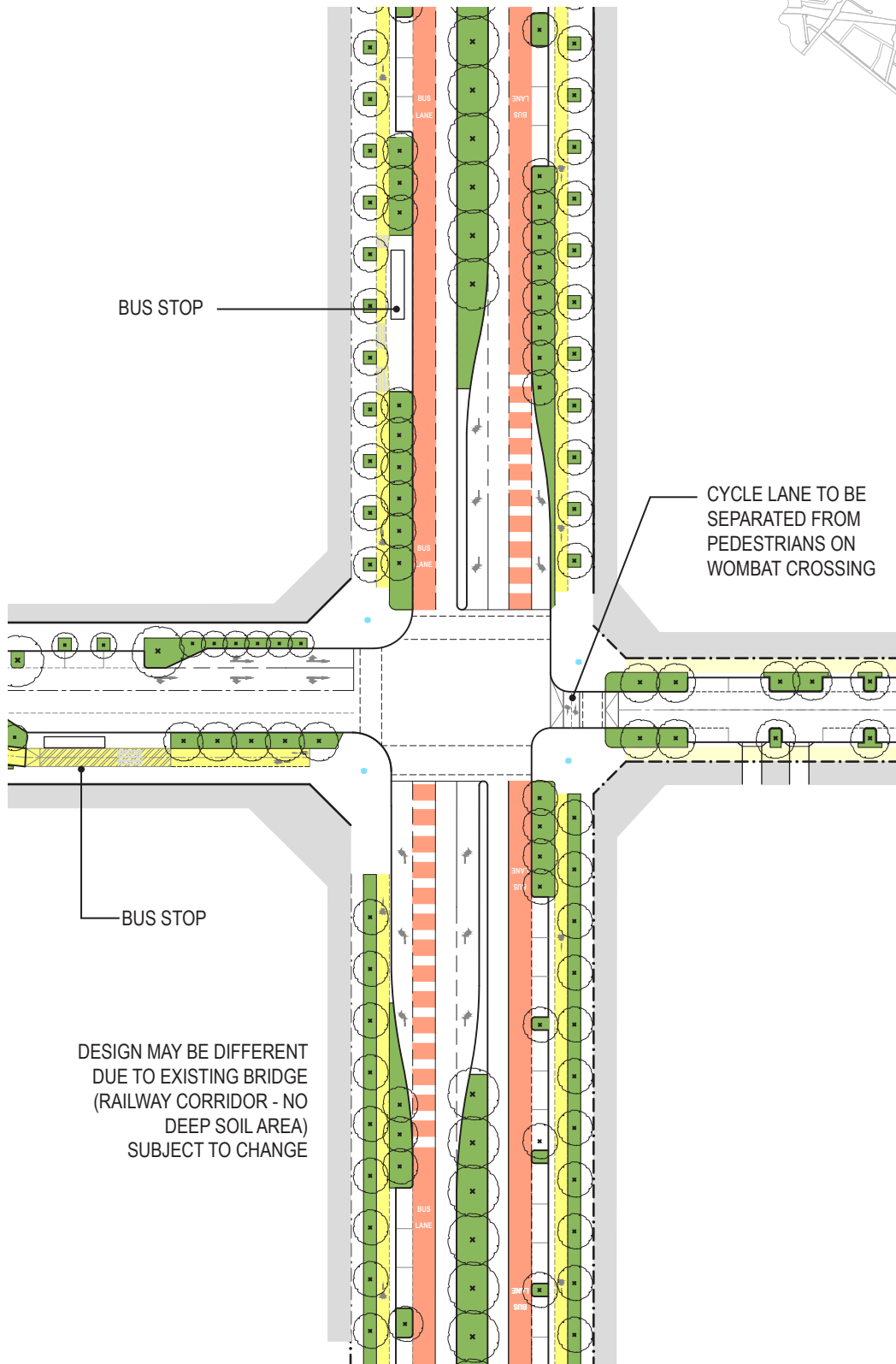
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

RICKARD RD 37.6m



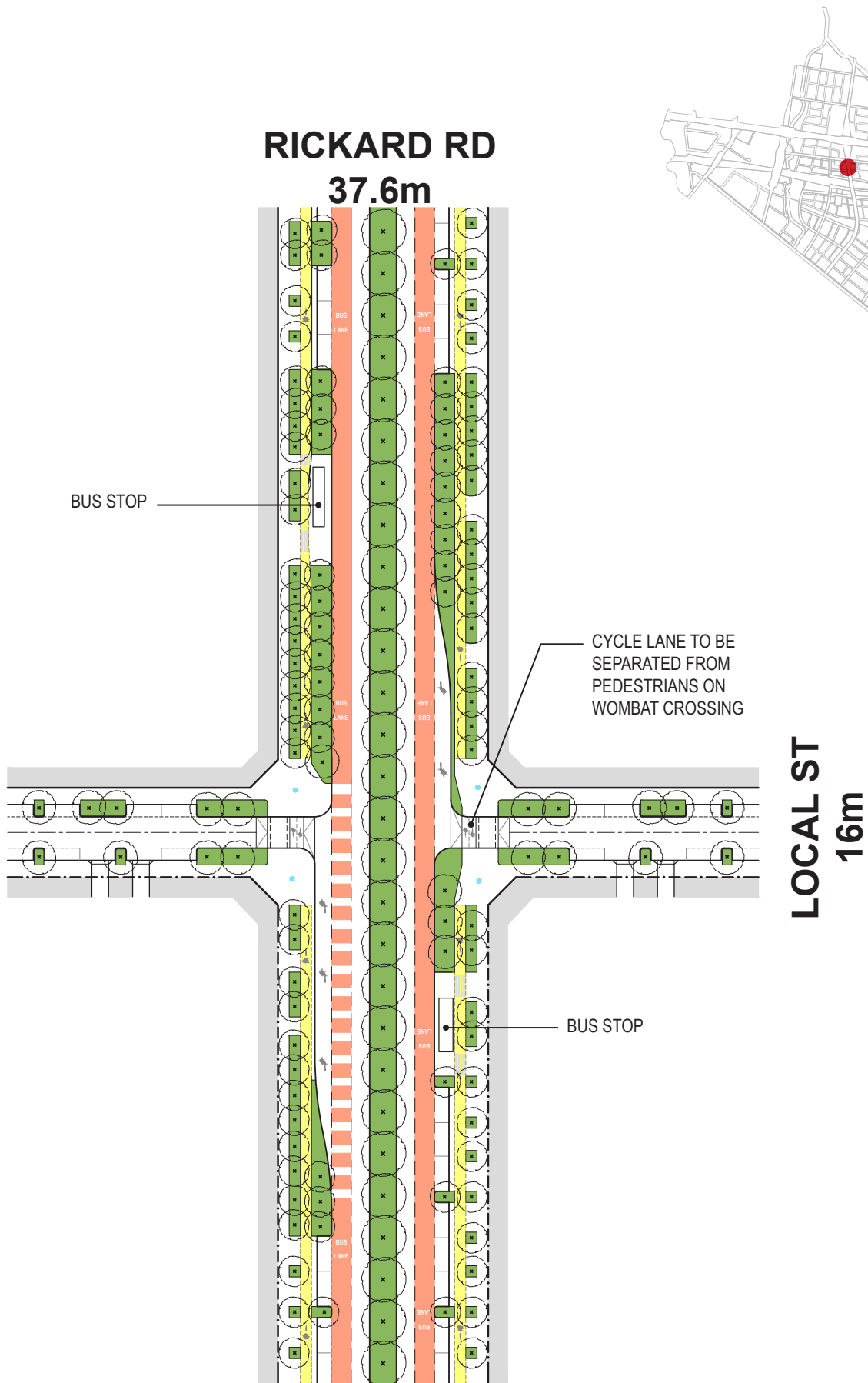
TOWN CENTRE STREET
25m

LOCAL ST
16m



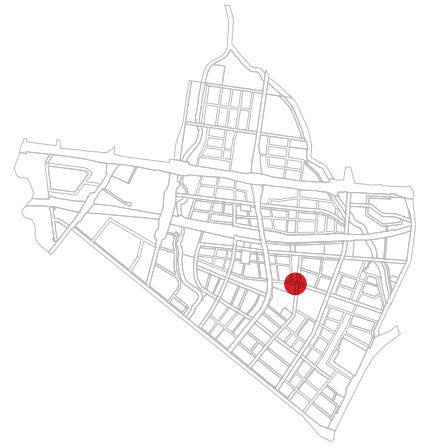
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



NOTE:

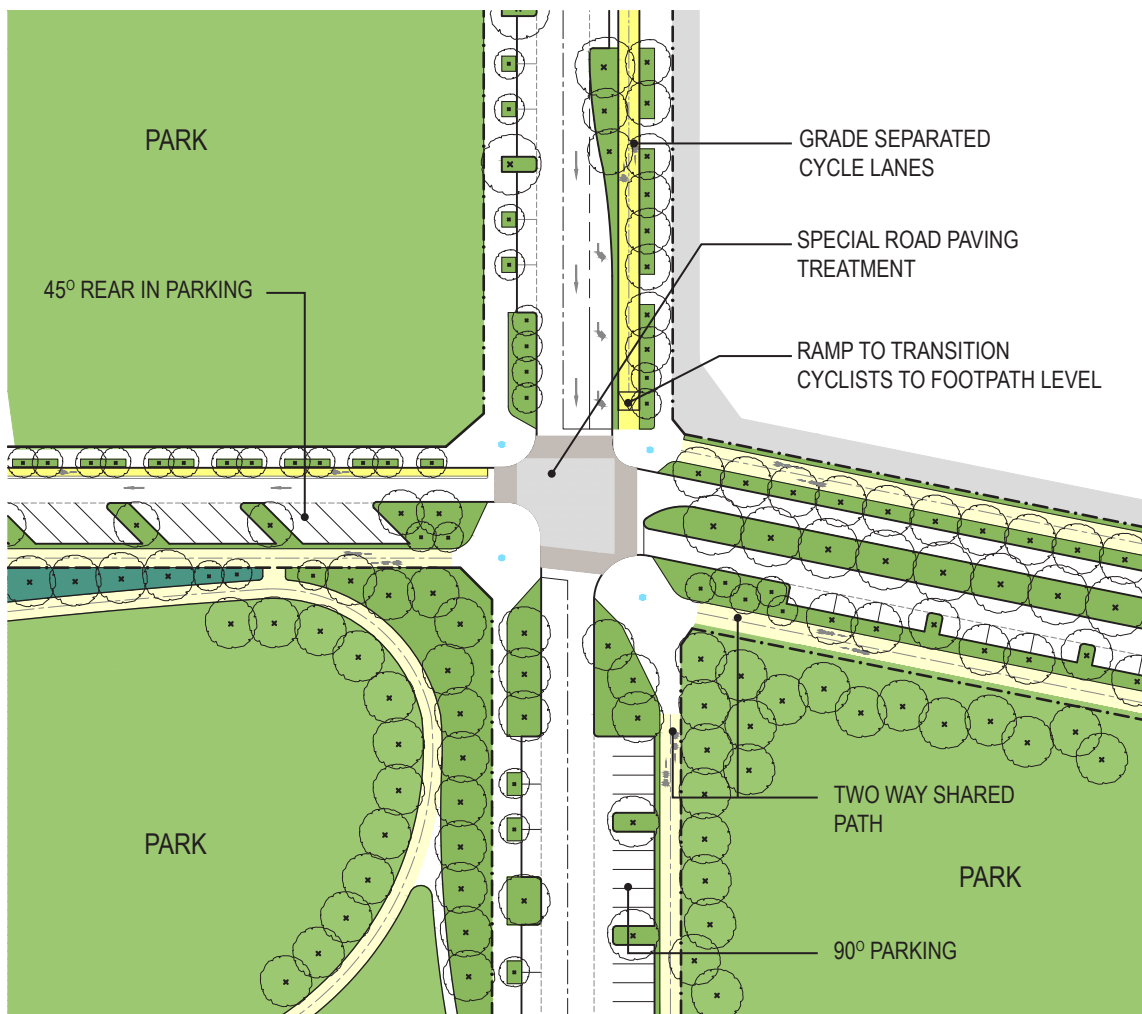
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



TOWN CENTRE ST 25m

ONE WAY ST
(ADJACENT TO PARK)

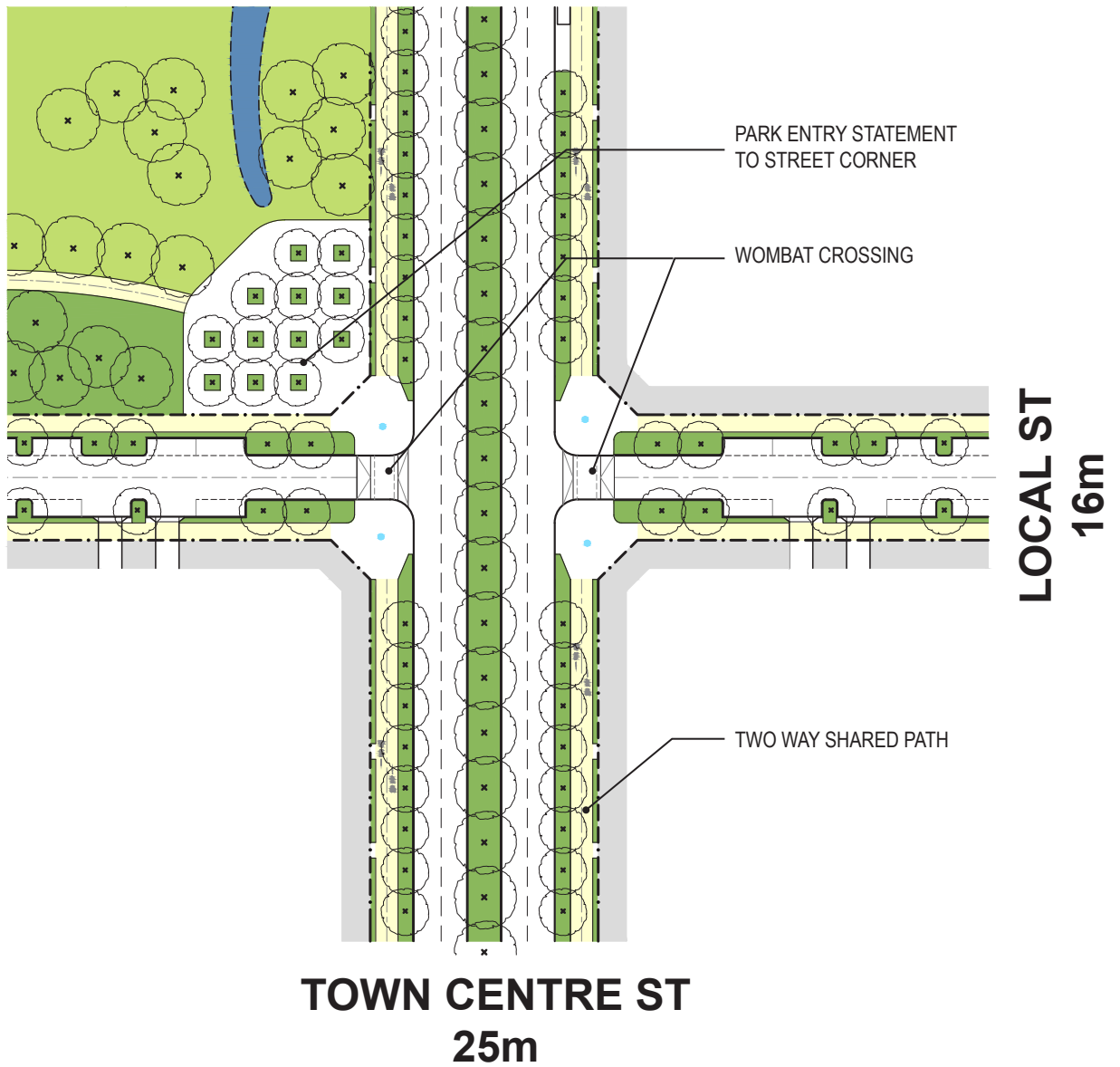
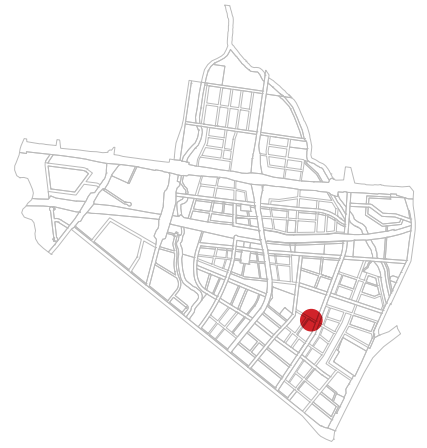
16m



TOWN CENTRE ST 25m

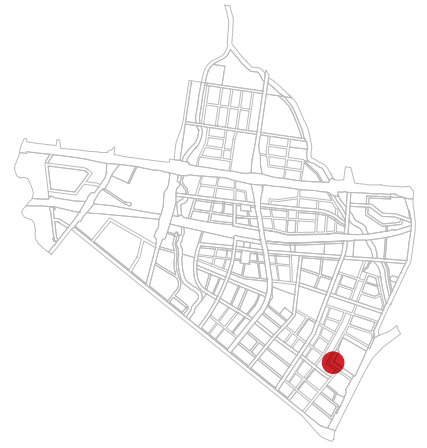
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



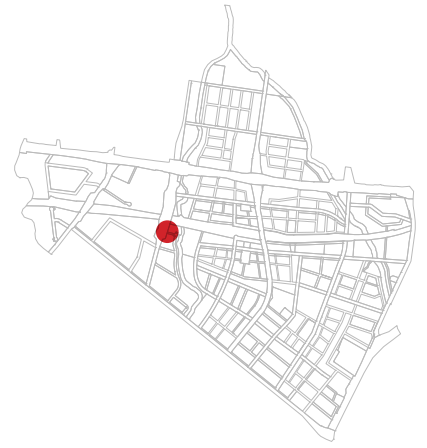
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



TO
BRIDGE
↑

SERVICE
VEHICLE RD

BASIN

EXISTING GATE TO BE
RELOCATED TO HERE FROM
STREET TO ACCOMMODATE
THE PATH CONNECTION

PATH CONNECTION
BETWEEN PEDESTRIAN
PRIORITY ST & DICKSON RD

SECTION OF EXISTING
SERVICE VEHICLE ROAD TO
BE RECONFIGURED TO
ACCOMMODATE THE PATH
CONNECTION

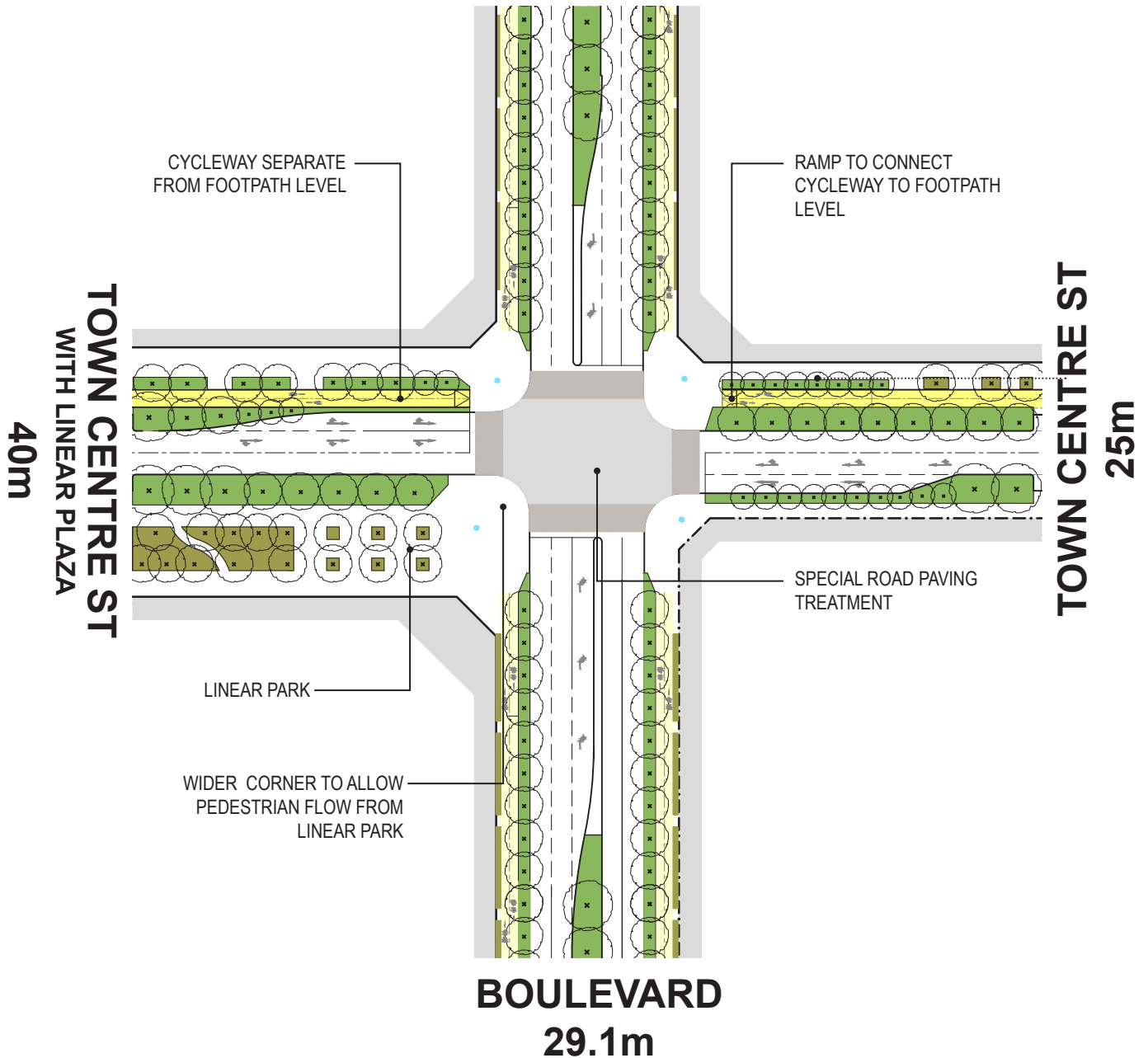
PEDESTRIAN
PRIORITY ST
12m

LOCAL ST
16m

DICKSON RD
(BOULEVARD)
29.1m

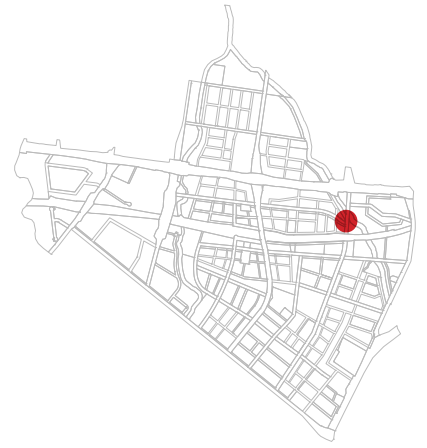
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

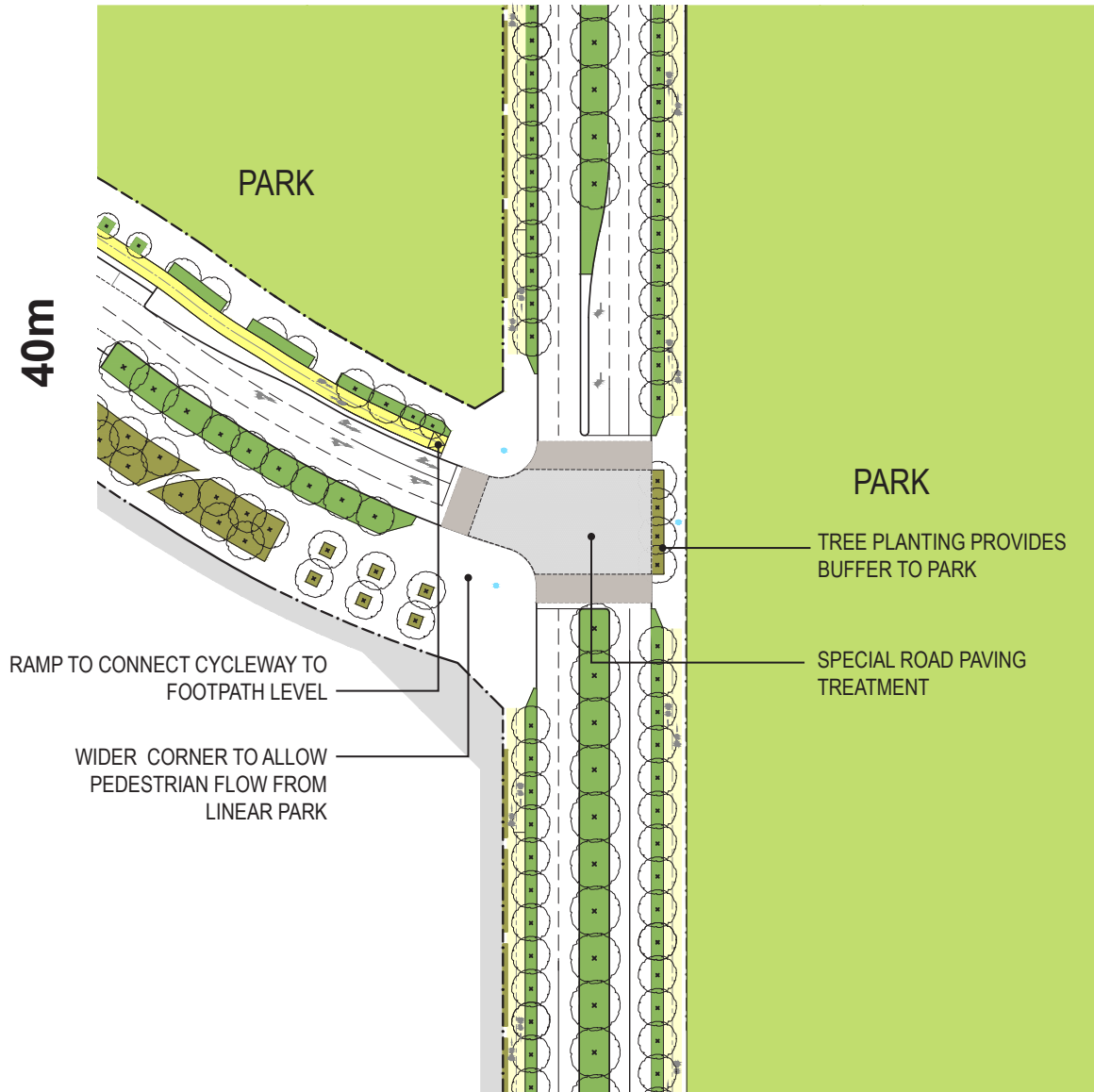


NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



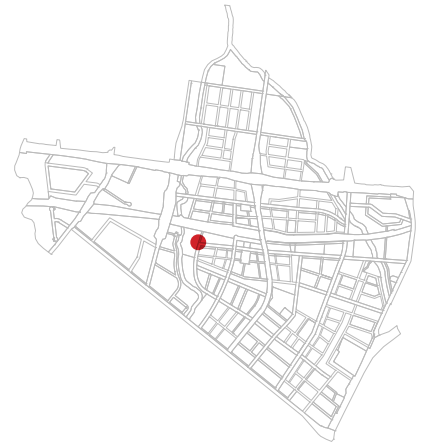
TOWN CENTRE ST WITH LINEAR PLAZA 40m



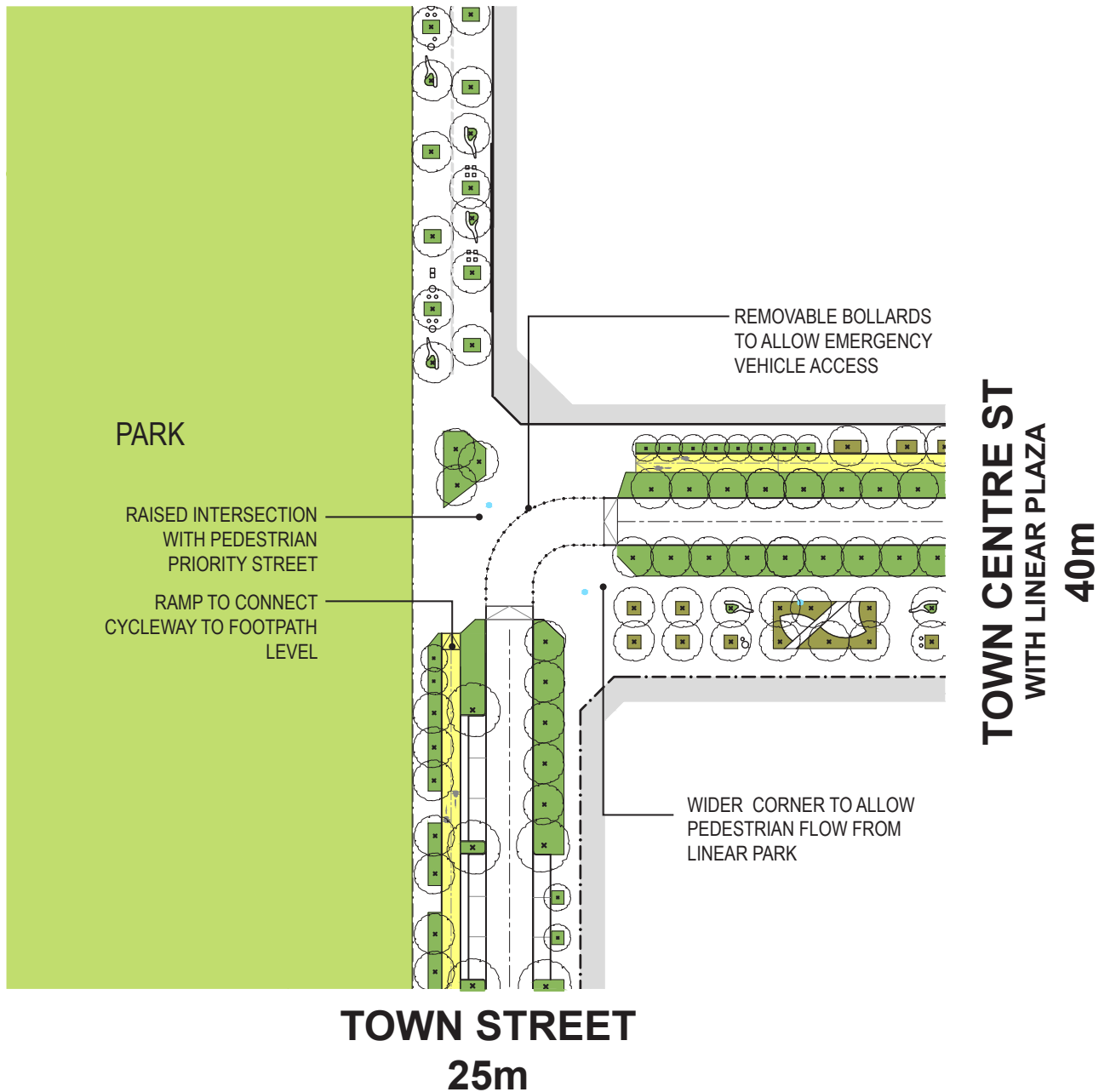
BOULEVARD 29.1m

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



PEDESTRIAN PRIORITY



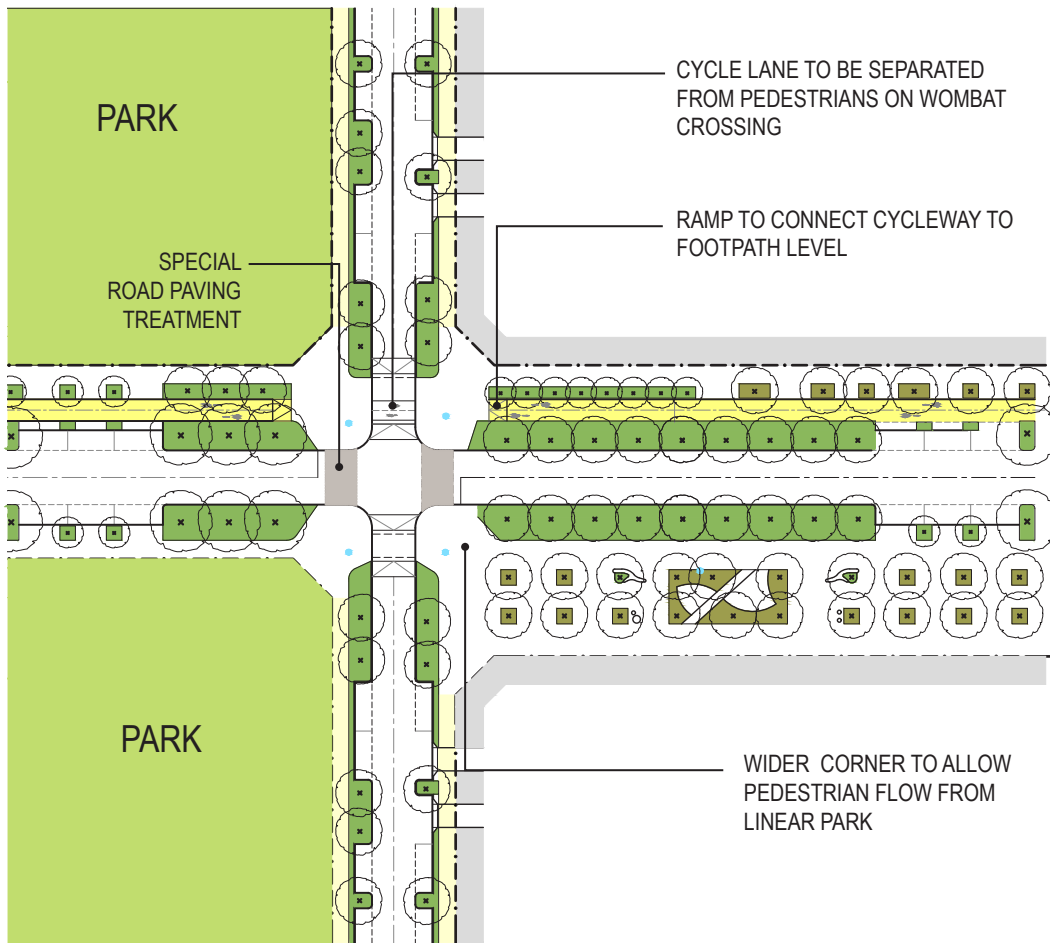
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LOCAL ST 16m

TOWN STREET
25m

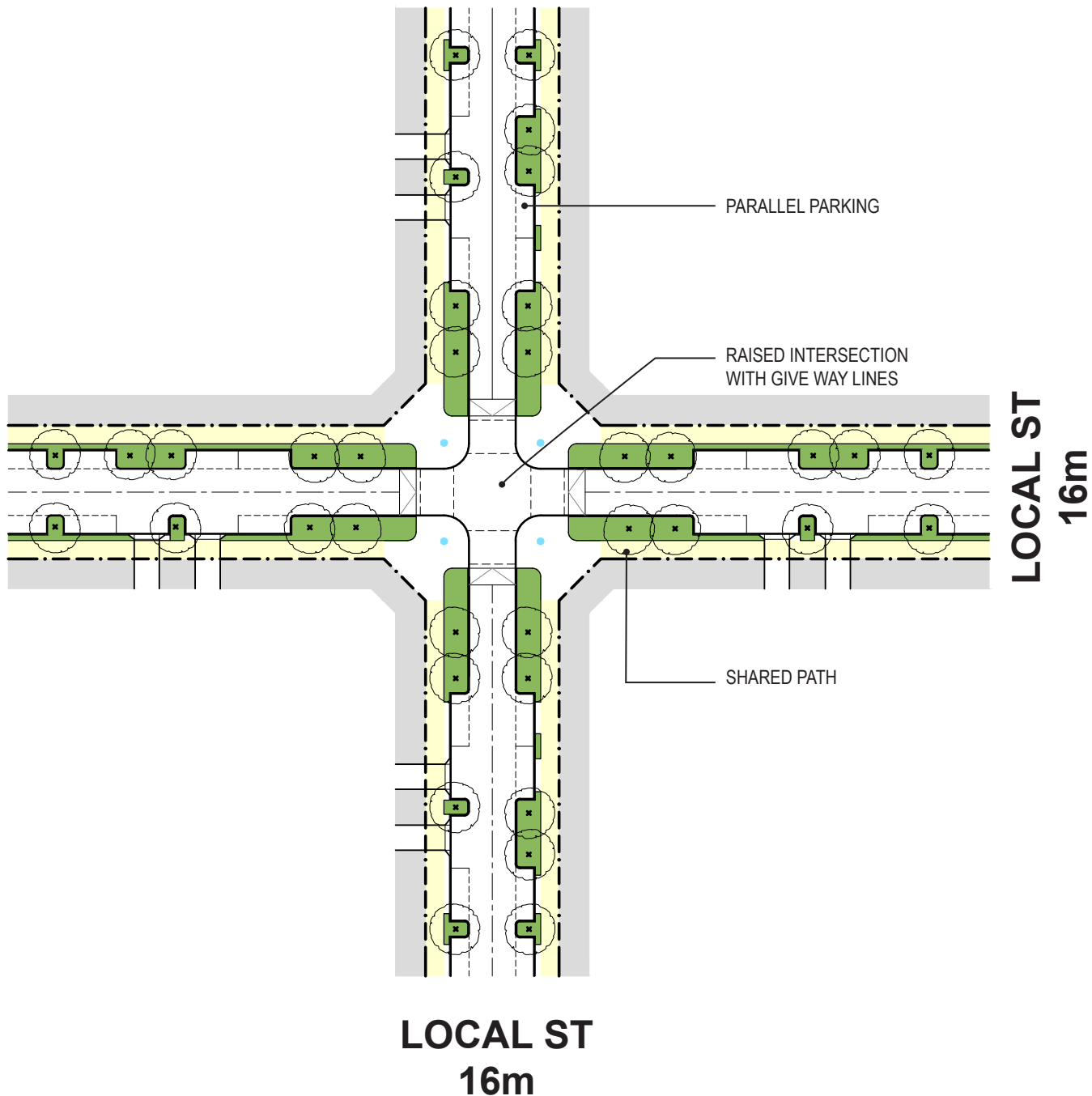


TOWN STREET
WITH LINEAR
PLAZA

NOTE:

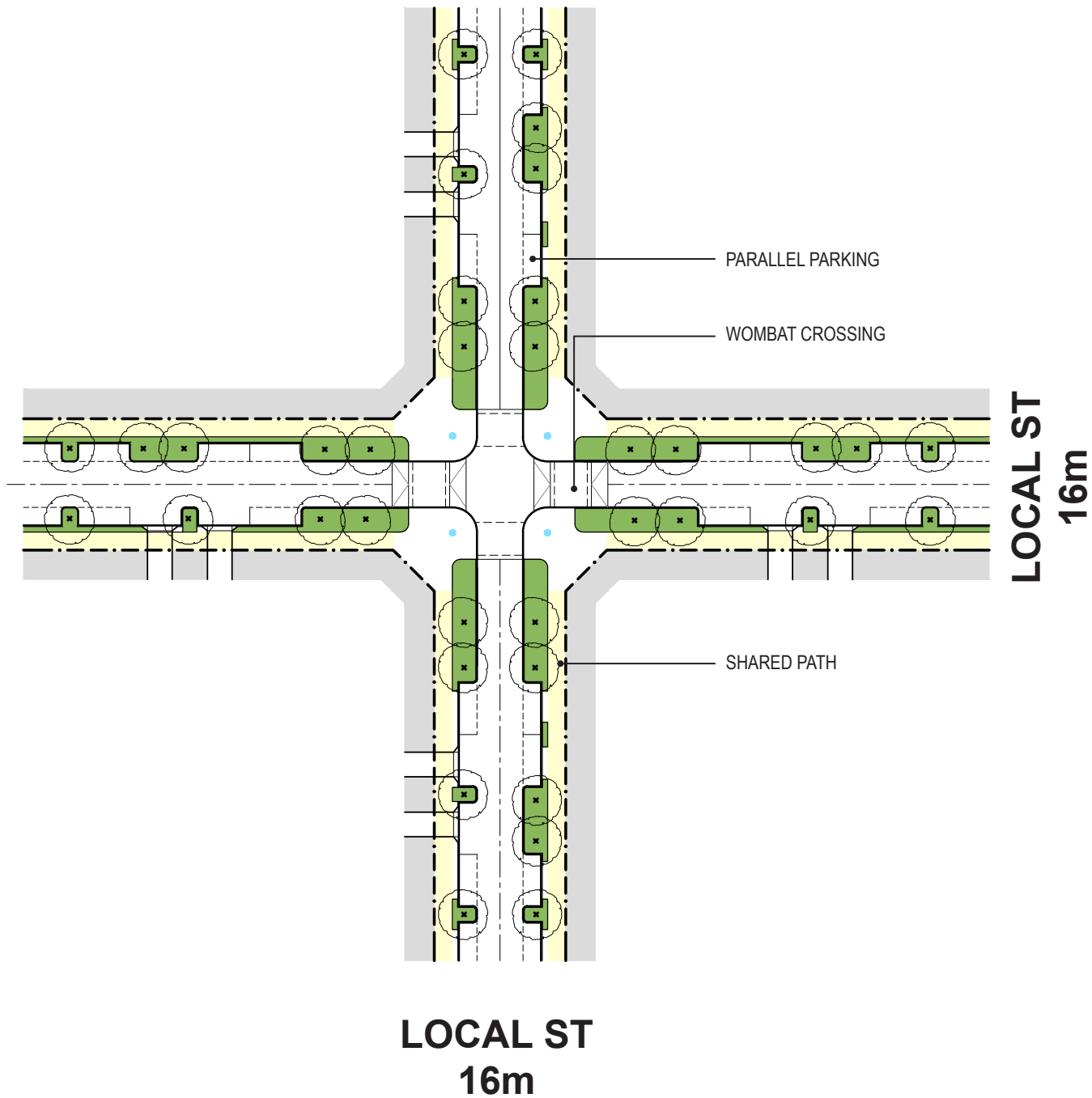
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

Appendix 2.2 Standard Intersection Designs



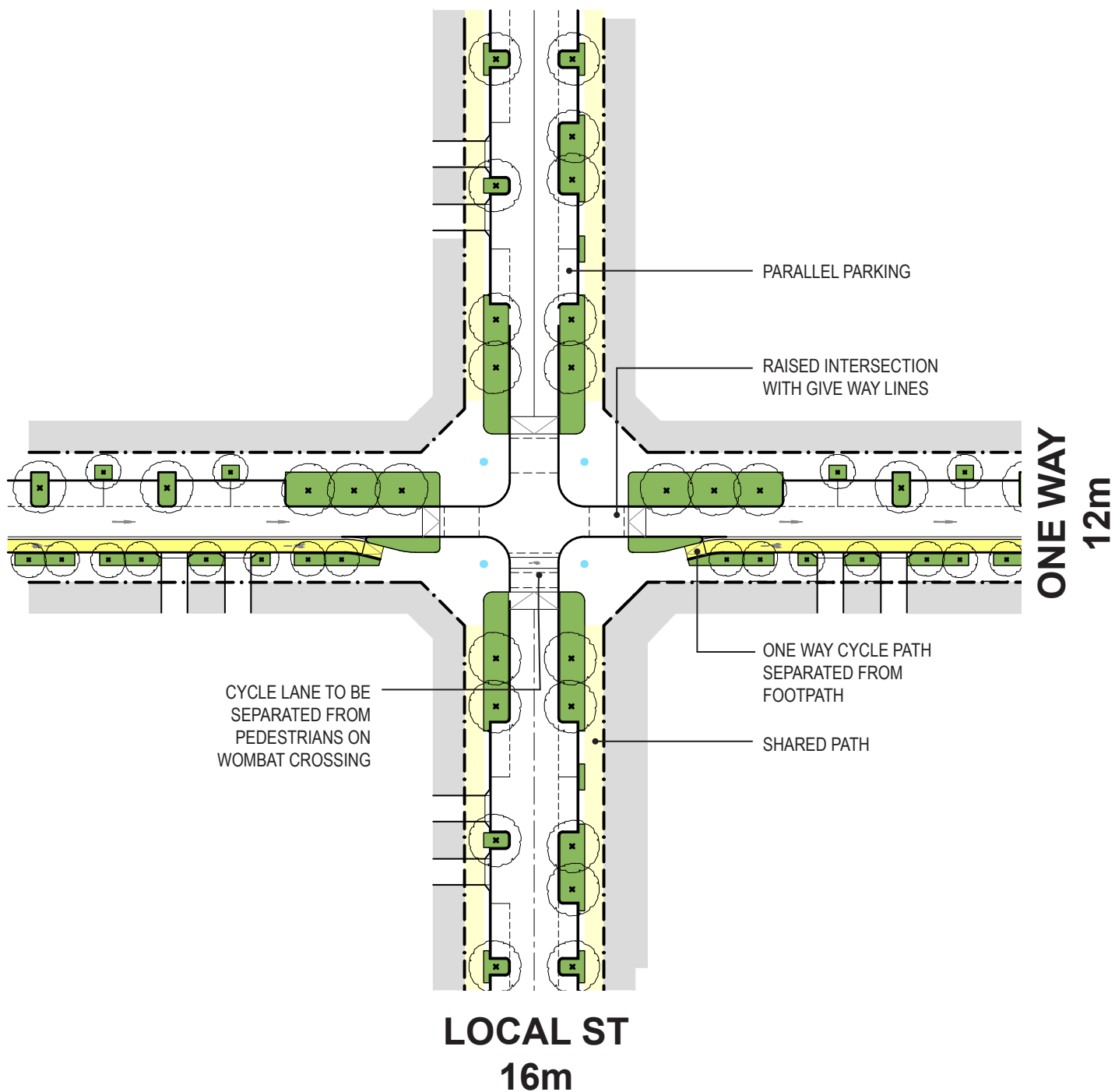
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



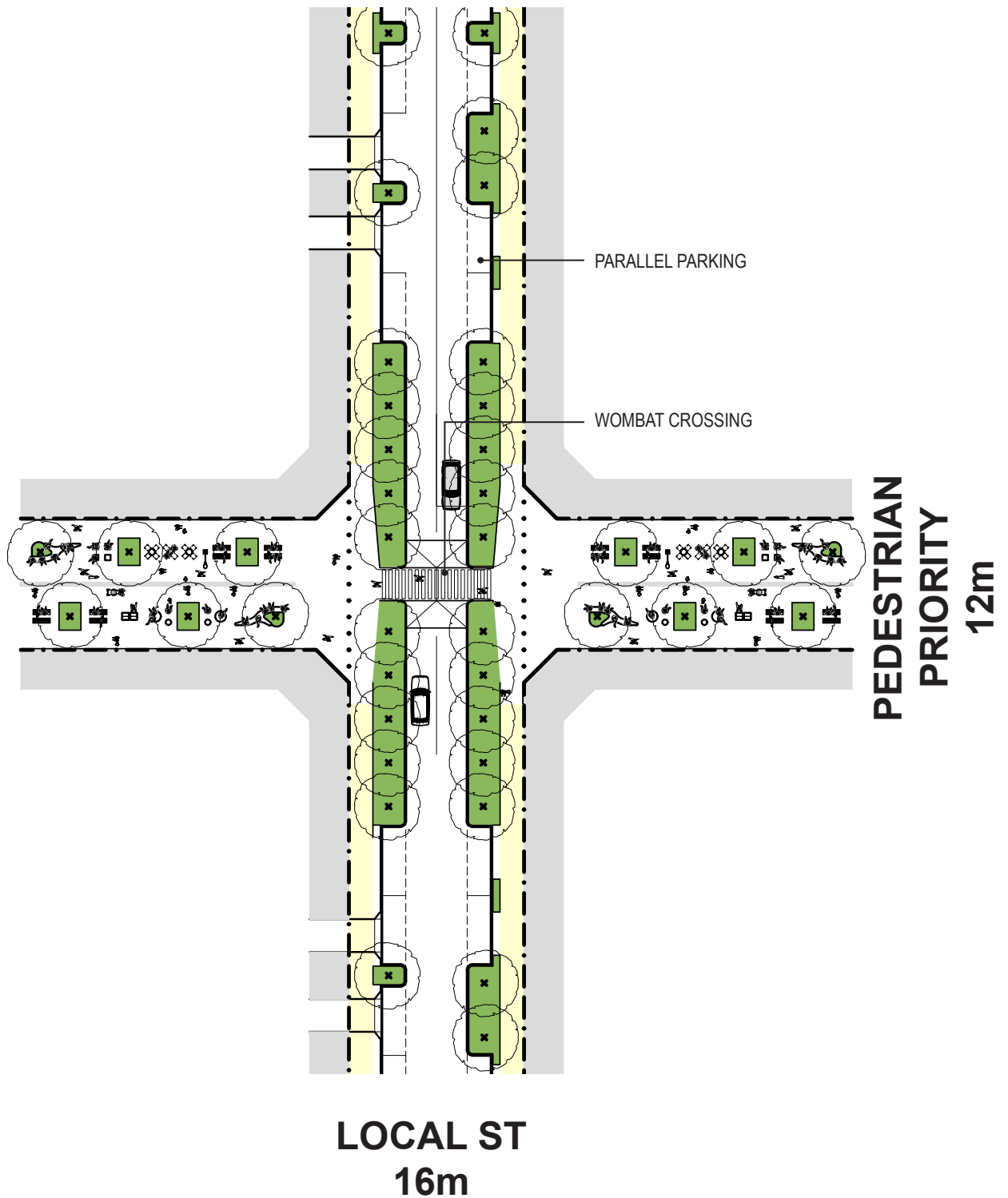
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



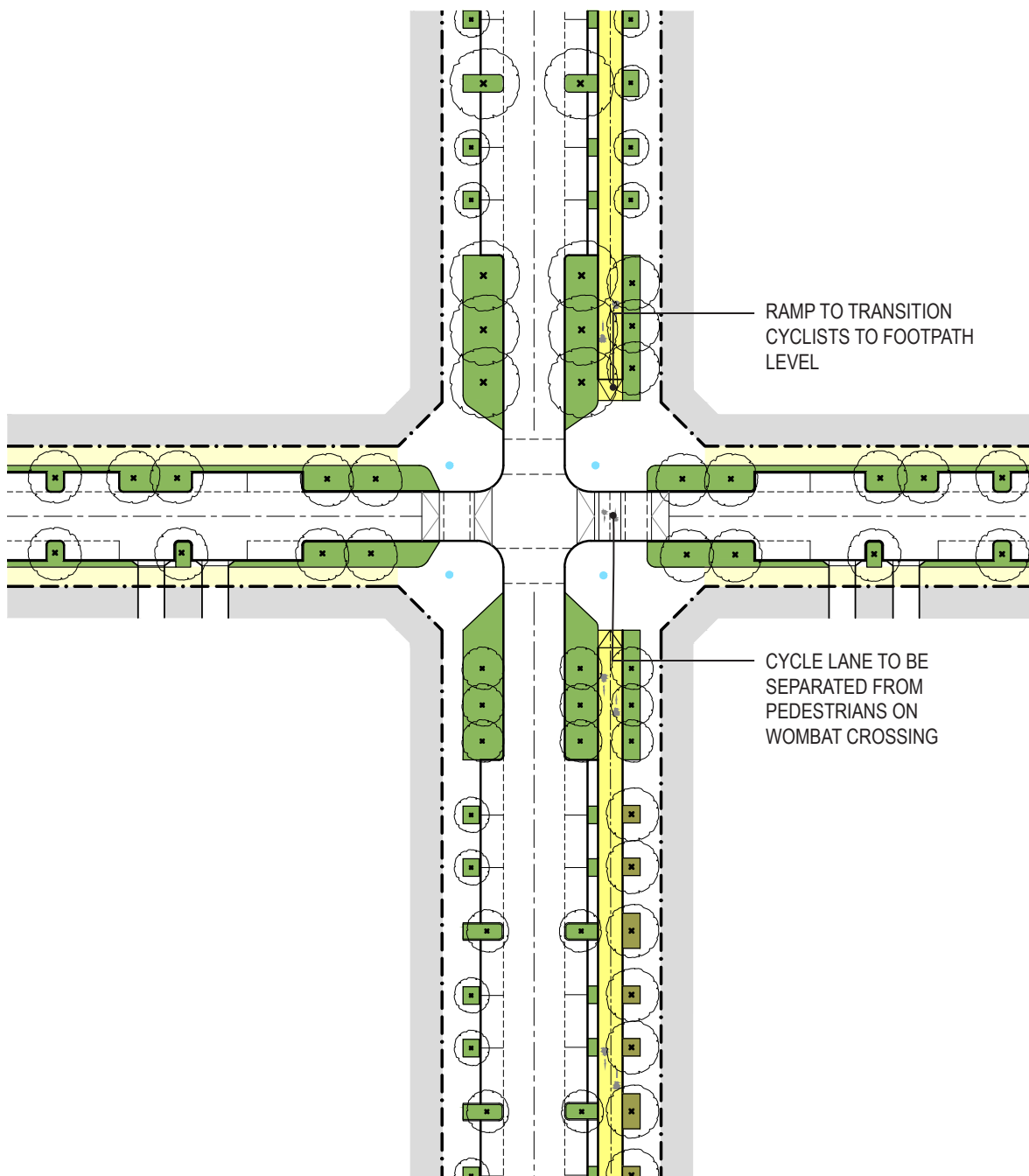
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

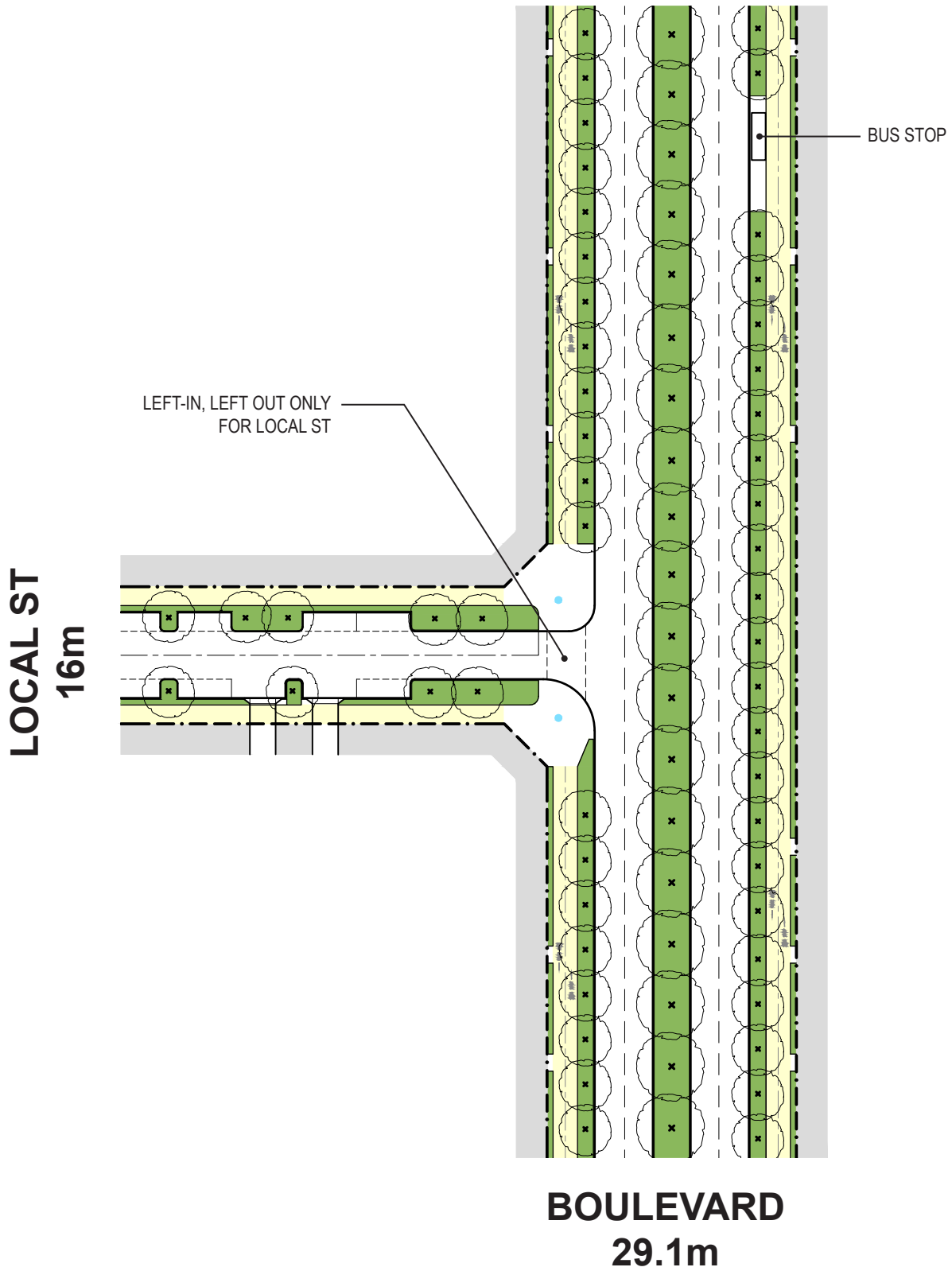


LOCAL ST
16m

TOWN CENTRE ST
25m

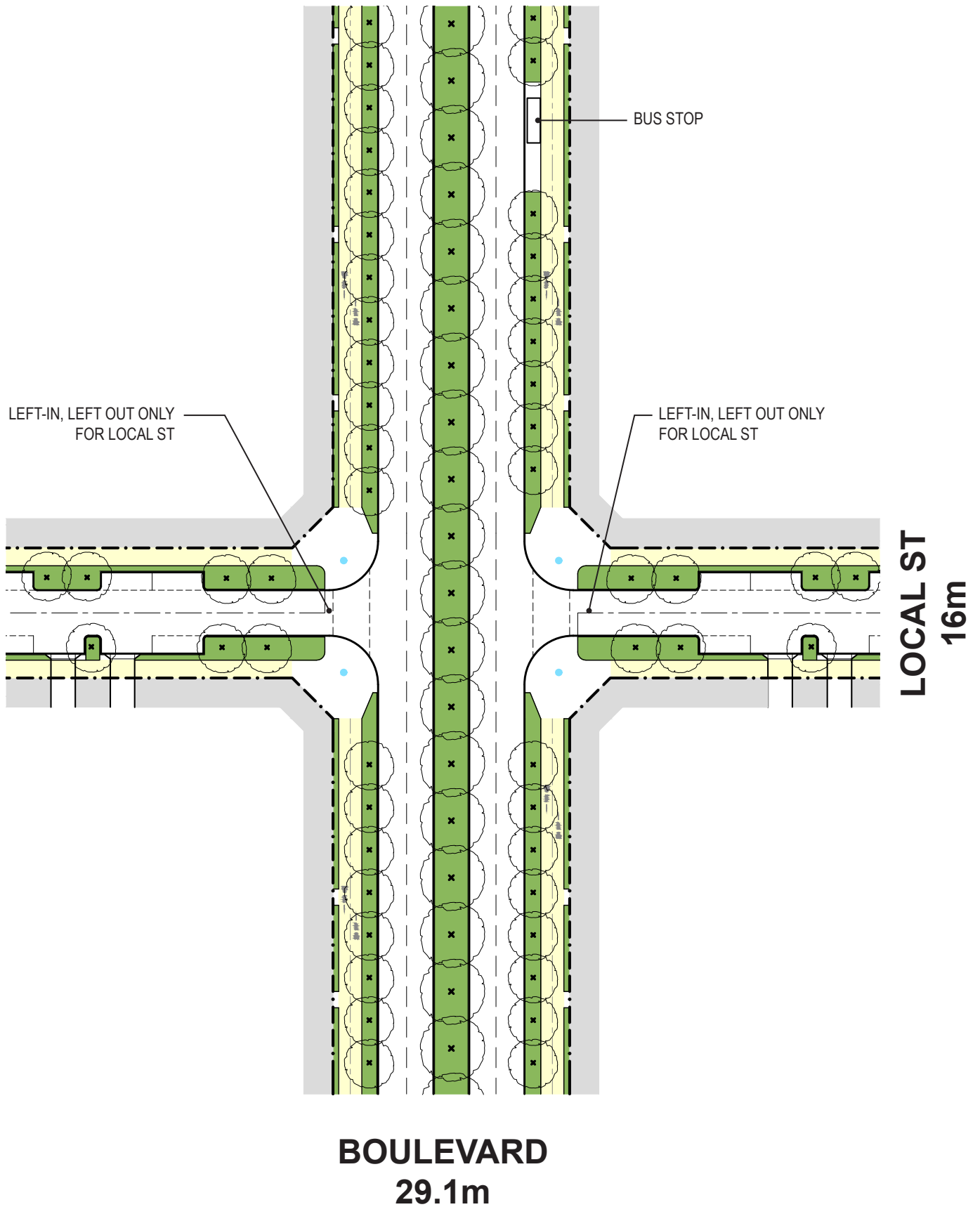
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



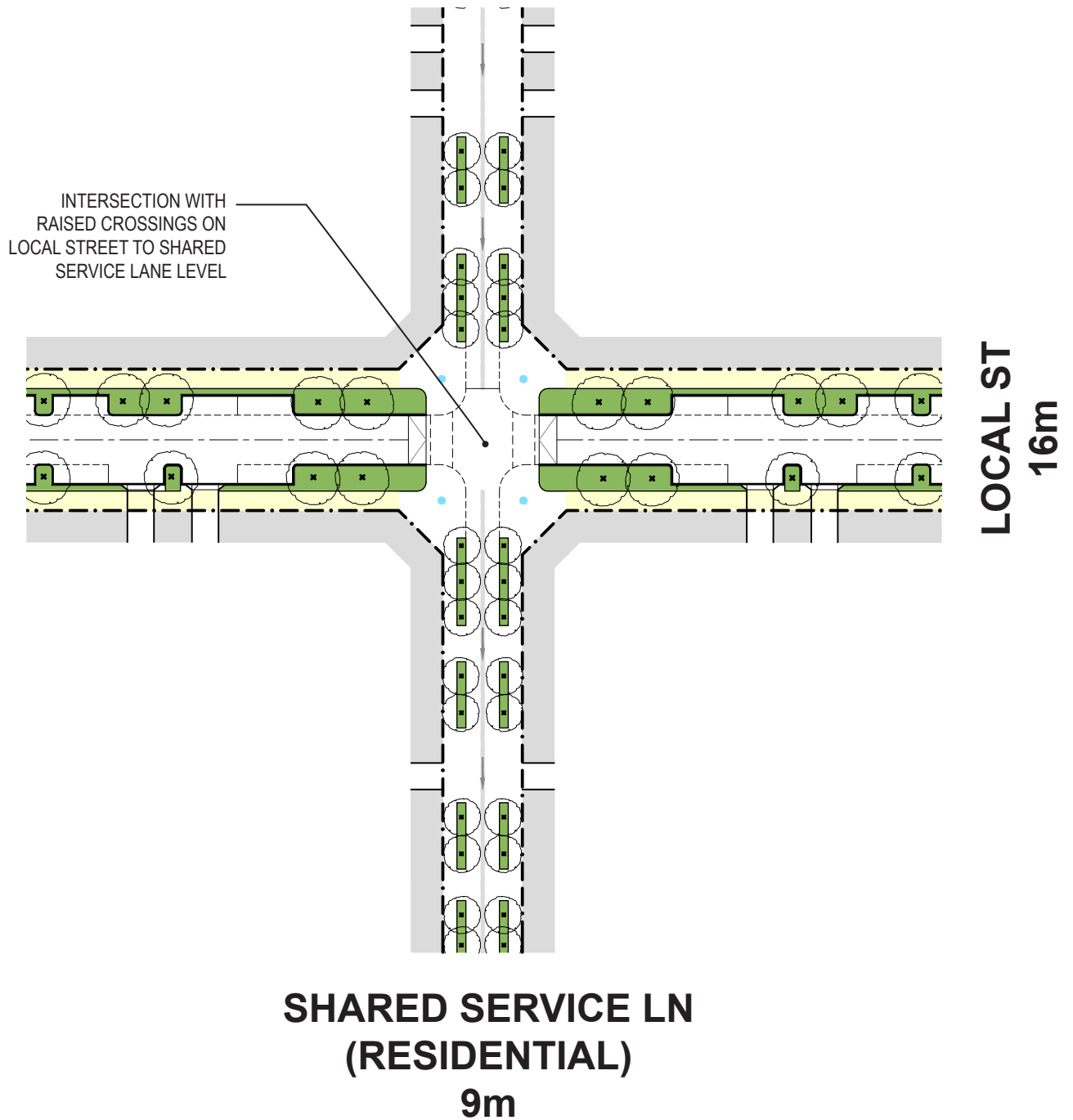
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



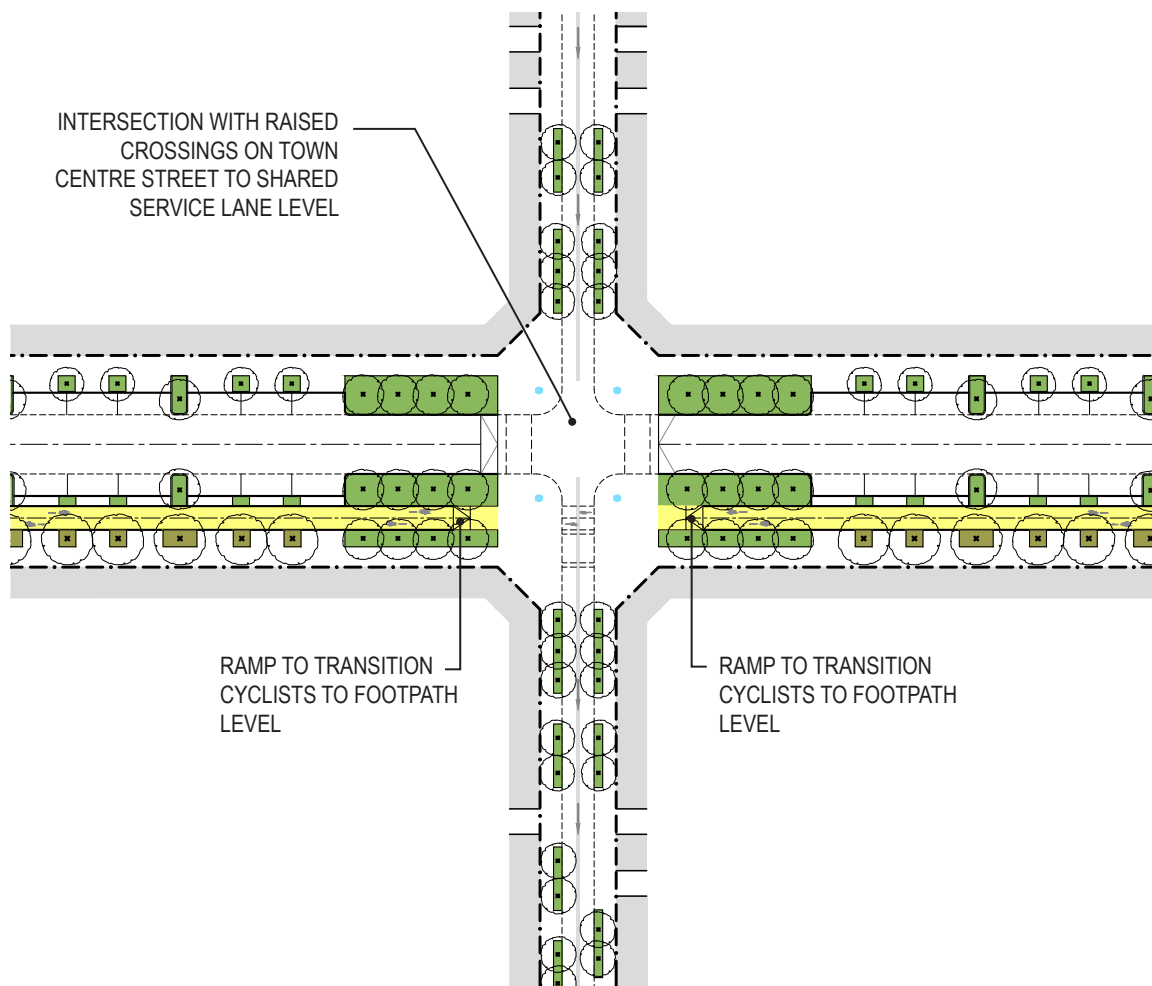
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



NOTE:

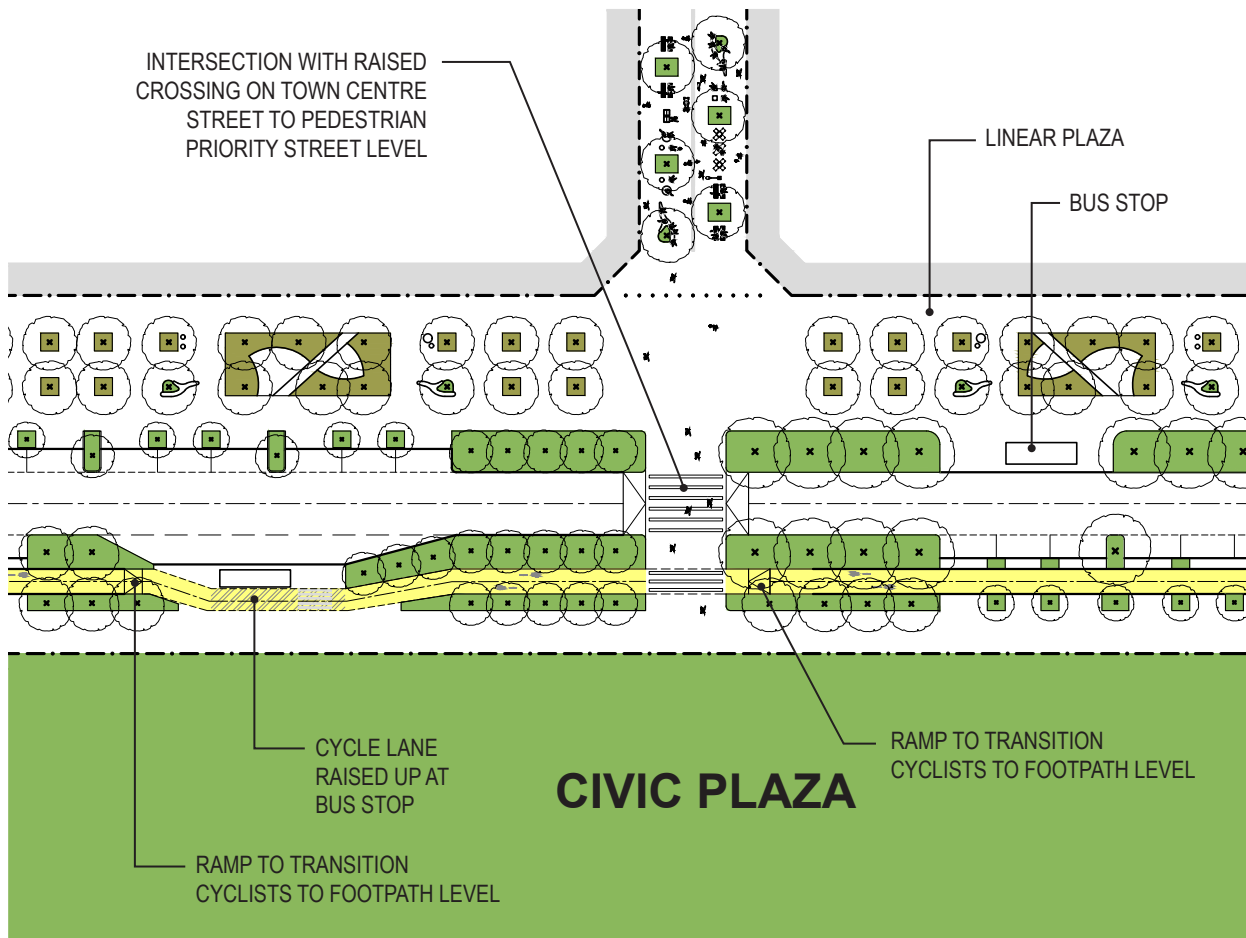
- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

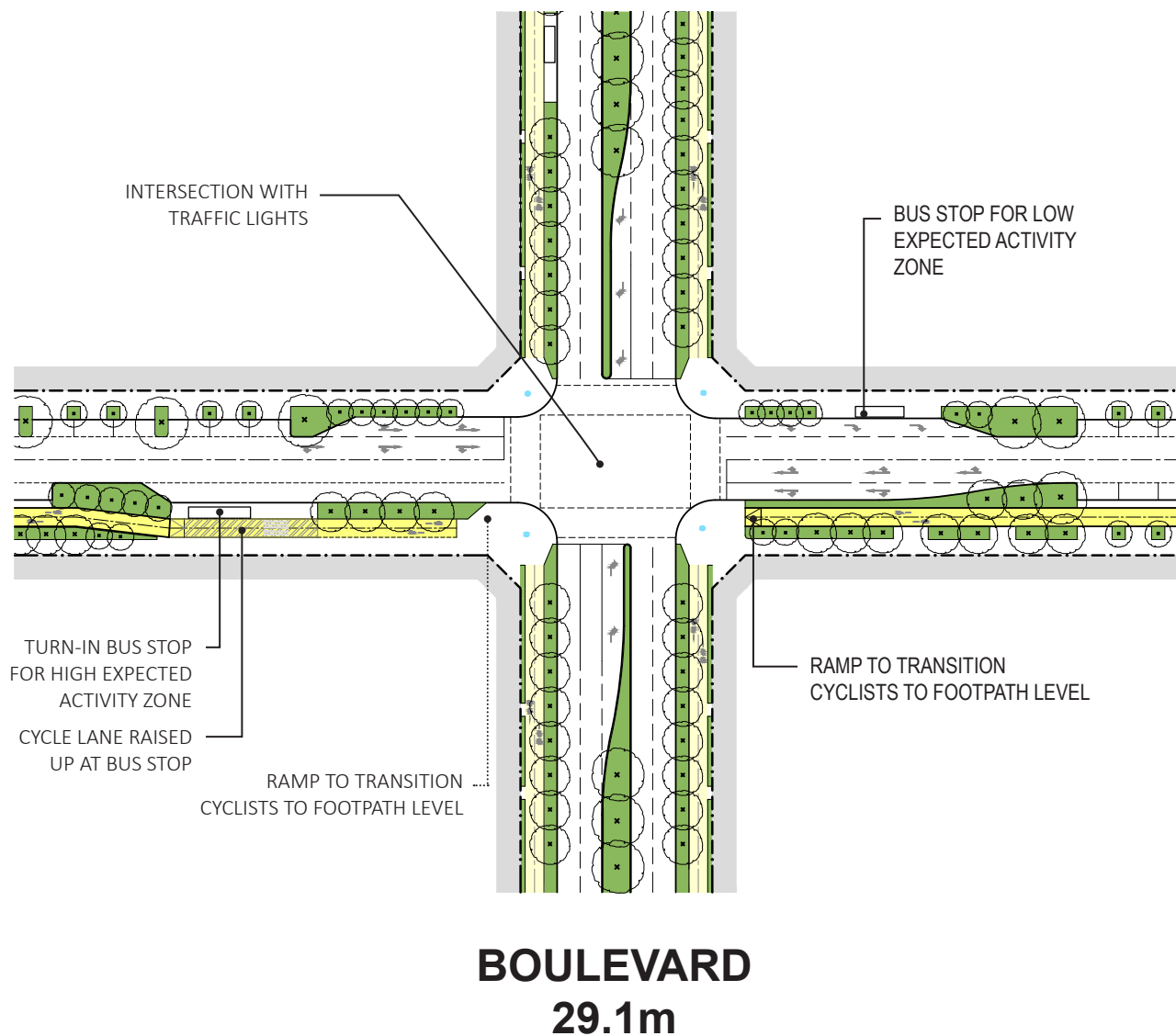
PEDESTRIAN PRIORITY 12m



TOWN CENTRE ST
WITH LINEAR PLAZA
40m

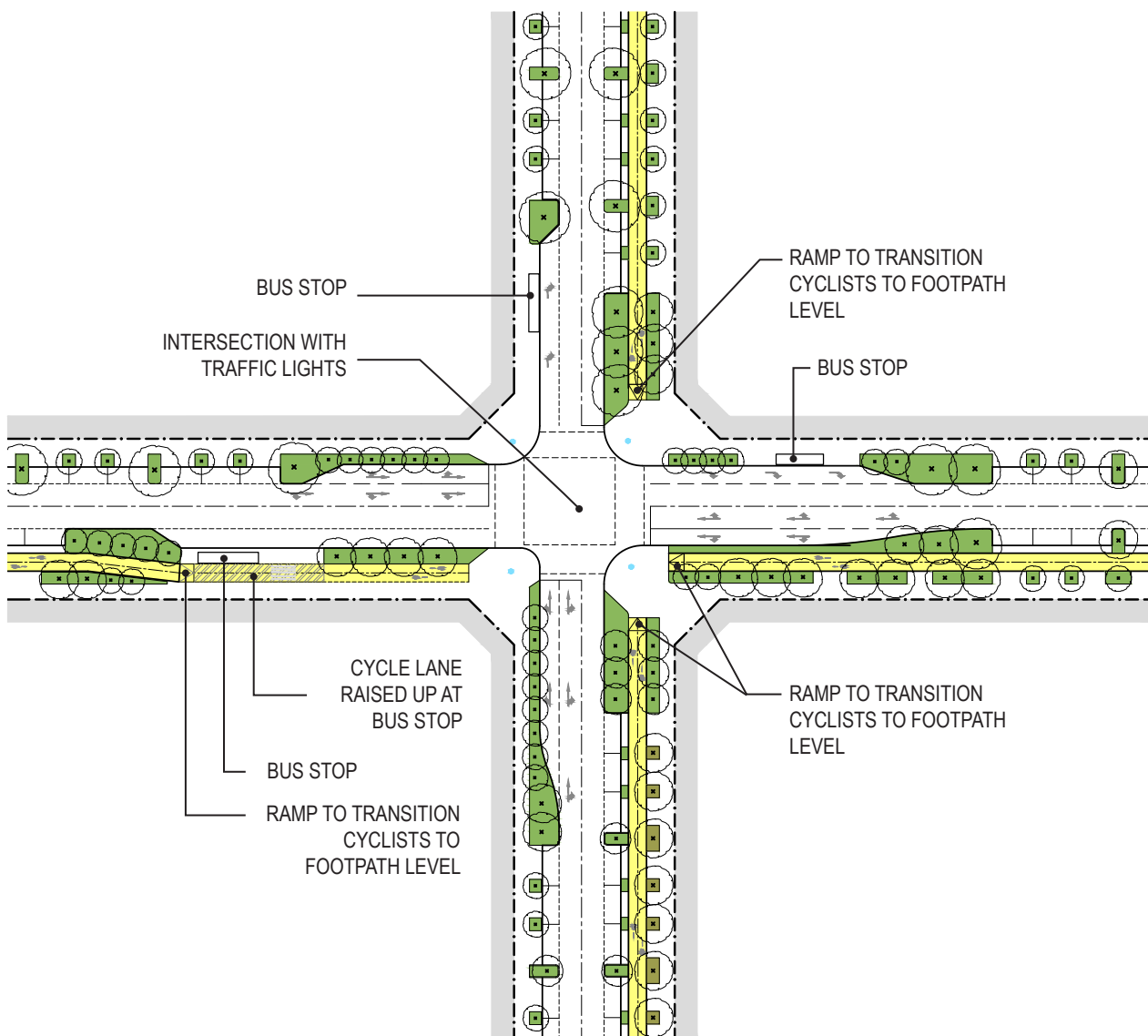
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



TOWN CENTRE ST 25m

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

Appendix 3 Street Materials

STREET MATERIAL SCHEDULE

STANDARD FOOTPATH PAVING



PAVING TYPE 01

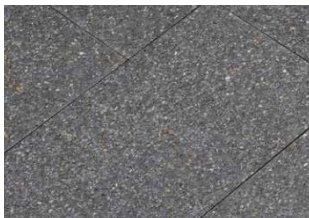
Insitu concrete with saw cuts
Saw cut size: 900 x 300 mm
Colour: Blue metal aggregate
Finish: Broom Finished



PAVING TYPE 02

Granite setts
Size: 100 x 100 x 60 mm
Colour: Sesame Grey as available
from Sam the Paving Man, or equal
Finish: Exfoliated

TOWN CENTRE FOOTPATH PAVING SUBSTITUTE OF PAVING TYPE 01



PAVING TYPE 03

Concrete Unit Paver
Size: 900 x 300 x 40 mm
Paver pattern: Stretcher Bond
Colour Gunmetal as available from
Urbanstone, or equal
Finish: Honed

SHARED PATH PAVING



PAVING TYPE 04

Insitu concrete
Colour: Blue metal aggregate
Finish: Broom Finished

DEDICATED CYCLEPATH PAVING AND ROAD SURFACE



PAVING TYPE 05

Coloured asphalt
Colour: Green

PARKING BAY PAVING



PAVING TYPE 07

Permeable paving - H80 HydroSTON
or equal
Size: 80 x 206 x 136mm
Colour: Light Grey as available from
HydroSTON

NOTES:

SERVICE PITS:

- ALL SERVICE PITS TO BE INSTALLED TO ALIGN WITH BACK OF KERB ORIENTATION AND/OR WITH SURROUNDING PAVING PATTERN.
- ALL SERVICE PITS TO BE INFILLED WITH ADJACENT PAVING MATERIAL. WHERE REQUIRED, ENSURE PAVER CUTS TO CONTINUE SURROUNDING PAVING PATTERN. INCLUDE DUMMY CUTS AS REQUIRED TO AVOID SMALLER PIECES.
- ALL SERVICE PIT LOCATIONS, ORIENTATION AND DIMENSIONS TO BE APPROVED BY ALL RELEVANT AUTHORITIES.

FURNITURE AND SERVICES:

- ALLOW SUFFICIENT SPACE BETWEEN FIXTURES TO ACCOMMODATE IN-GROUND FOOTINGS.
- ALLOW FOR A MIN OF 1200MM CLEARANCE BETWEEN FURNITURE/SERVICES OR AS REQUIRED IN RELATION TO SPECIFIC USE (EG. SEATING BENCH FRONT CLEARANCE, BIKE RACKS...).
- LOCATE AND INSTALL FURNITURE AND SERVICES BETWEEN TREE PITS TO AVOID ANY INTERFERENCE ALONG ADJACENT MOVEMENT ZONES.
- WHERE POSSIBLE, ALIGN FIXTURES WITH PAVING JOINTS TO MINIMISE PAVING CUTS. ENSURE CLEAN AND SMOOTH EDGES AT FIXING BASE.
- MAINTAIN A MIN OF 200MM CLEARANCE BETWEEN FIXTURES AND PROPERTY BOUNDARY.
- ALL SERVICES INSTALLED WITHIN PLANTING TO BE LOCATED AWAY FROM TREE ROOT ZONE.

PAVING INSTALLATION:

- PAVING PATTERN TO FOLLOW STREET AND BACK OF KERB ORIENTATION.
- INCLUDE CUSTOM SIZE PAVING UNITS WHERE REQUIRED TO SUIT SITE CONDITIONS AND MINIMISE SMALL PIECES. MIN. PAVER DIMENSION 100MM.
- ENSURE EVEN JOINTS SPREAD ALONG THE PAVED PATH. ALIGN JOINTS TO TREE PITS AND PROPERTY BOUNDARY CORNER.
- INSTALL PAVING TO ENSURE EVEN FALLS (RANGE FALL MIN 1:100 AND MAX 1:40) AND SMOOTH TRANSITION BETWEEN PAVERS AND MATERIAL CHANGES.
- ENSURE JOINTS AND INFILL COLOURS TO MATCH ADJACENT PAVING TYPE.

TREE PIT:

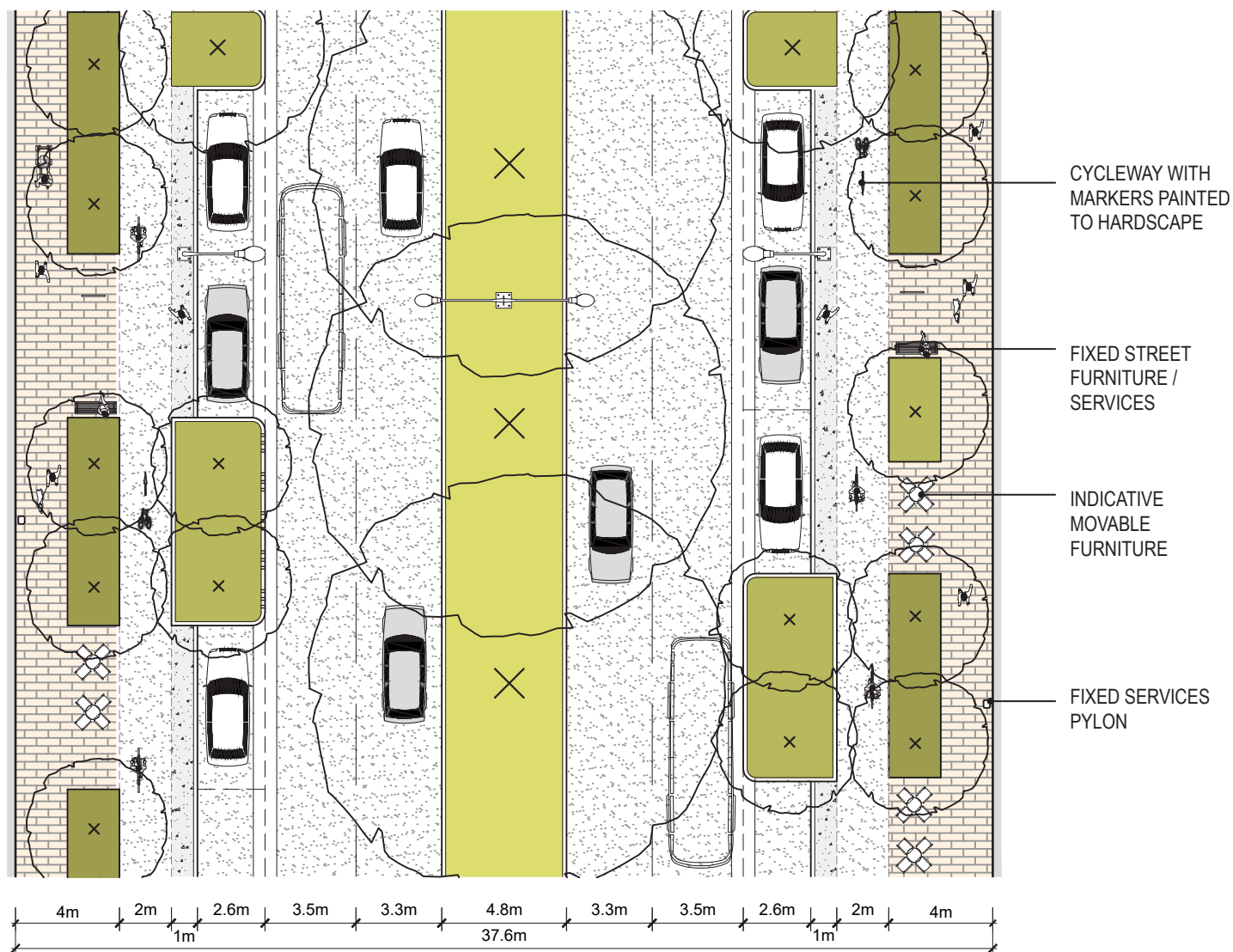
- TREE PIT EDGE TO BE ALIGNED WITH BACK OF THE KERB ORIENTATION/PATH OF TRAVEL LINES.
- ENSURE CLEAN AND SMOOTH EDGE ALL ROUND THE TREE PIT.
- NATIVE GRASSES AND GROUNDCOVERS TO BE PLANTED WITH CONSIDERATION OF THEIR FULL WIDTH ALONG TREE PIT EDGE TO AVOID INTERFERENCE WITH THE LINE OF MOVEMENTS AND REDUCE ONGOING MAINTENANCE.
- NATIVE GRASSES AND GROUNDCOVERS MAX 600MM AT MATURE HEIGHT TO MAINTAIN SIGHT CLEARANCE.

PARKING BAY PAVING:

- PERMEABLE PAVING TO PARKING BAY AREAS IS ENCOURAGED WHEREVER POSSIBLE TO MAXIMISE WATER INFILTRATION.

DRIVEWAY PAVING:

- PAVING TO MATCH ADJACENT FOOTPATH TO BE EXTENDED TO FULL DRIVEWAY BETWEEN FRONT OF KERB ALIGNMENT TO BOUNDARY/ GARAGE DOOR.



LEGEND



PAVING TYPE 03

Concrete Unit paver (900 x 300 mm) - Gunmetal - Honed



PAVING TYPE 05

Asphalt



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished

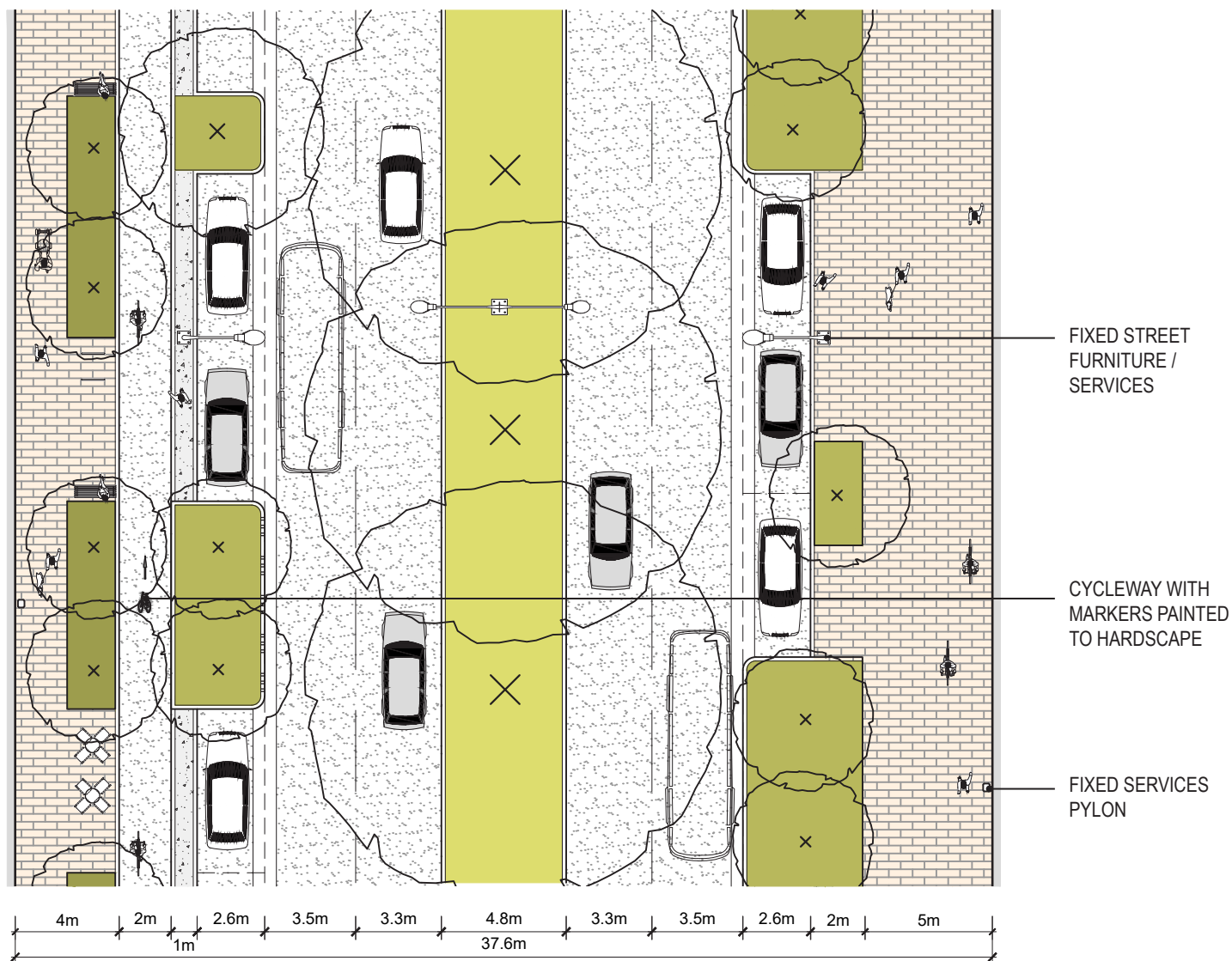


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 03

Concrete Unit paver (900 x 300 mm) - Gunmetal - Honed



PAVING TYPE 05

Asphalt



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished

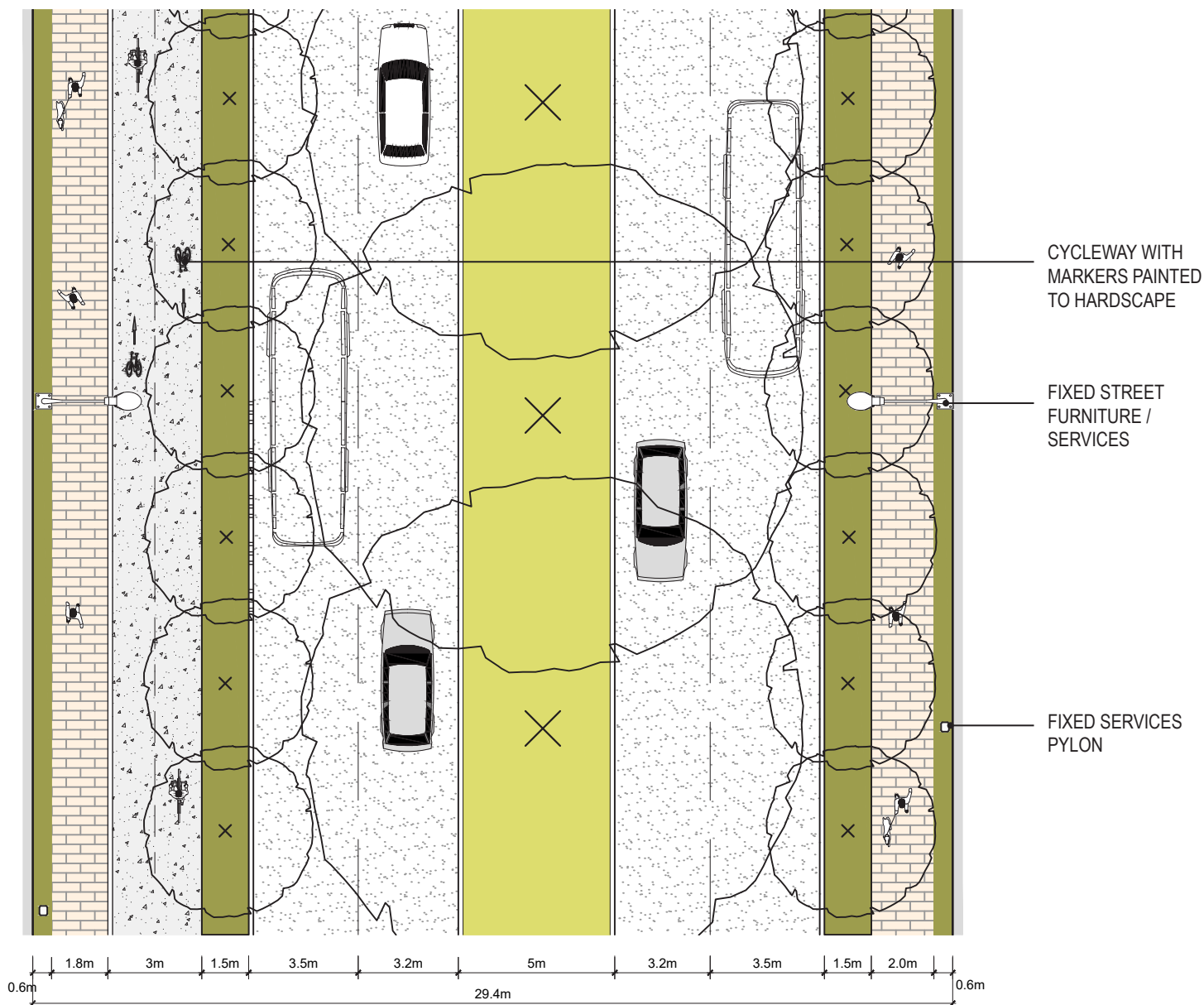


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 03

Concrete Unit paver (900 x 300 mm) - Gunmetal - Honed



PAVING TYPE 05

Asphalt



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished

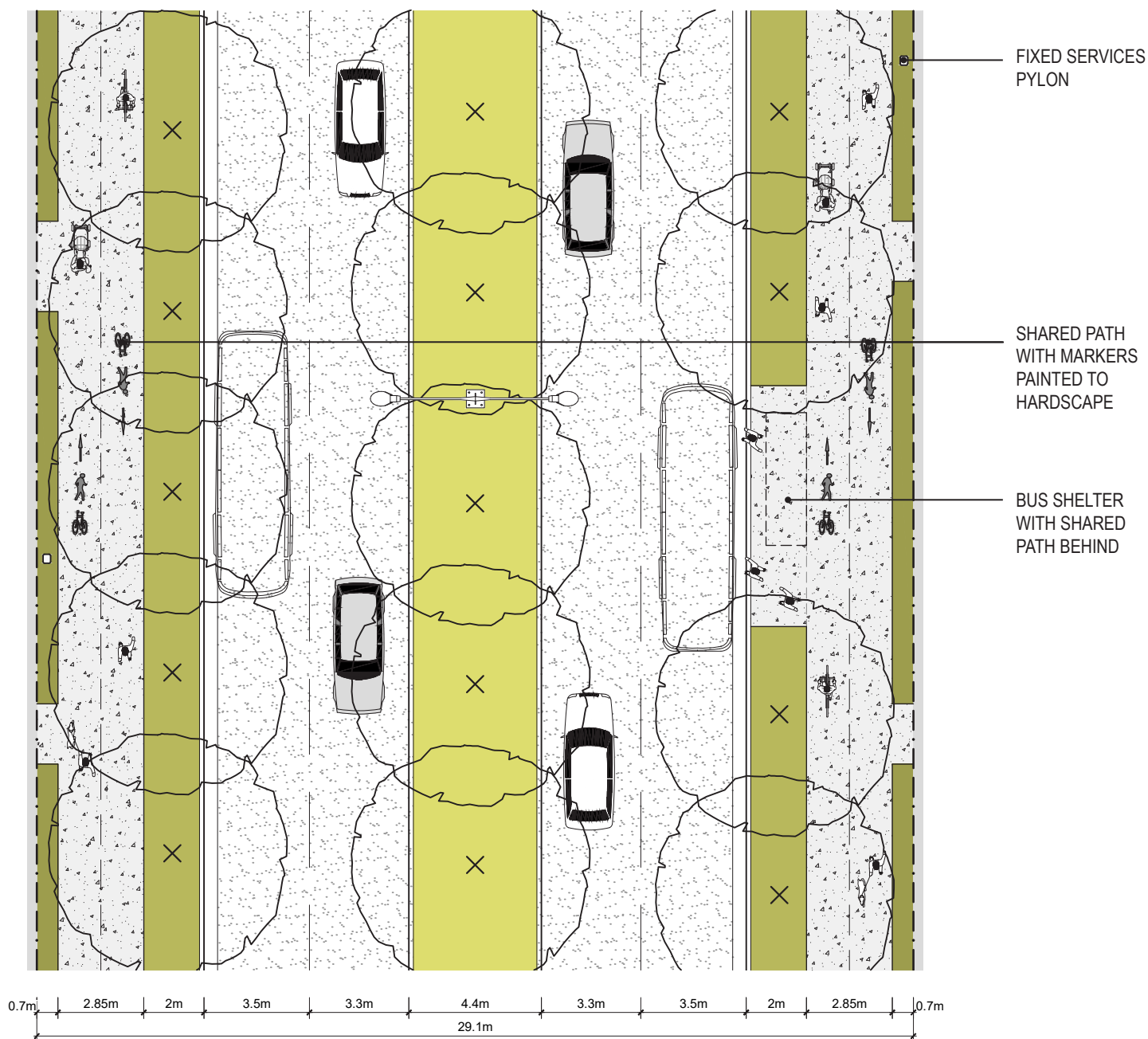


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished



GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

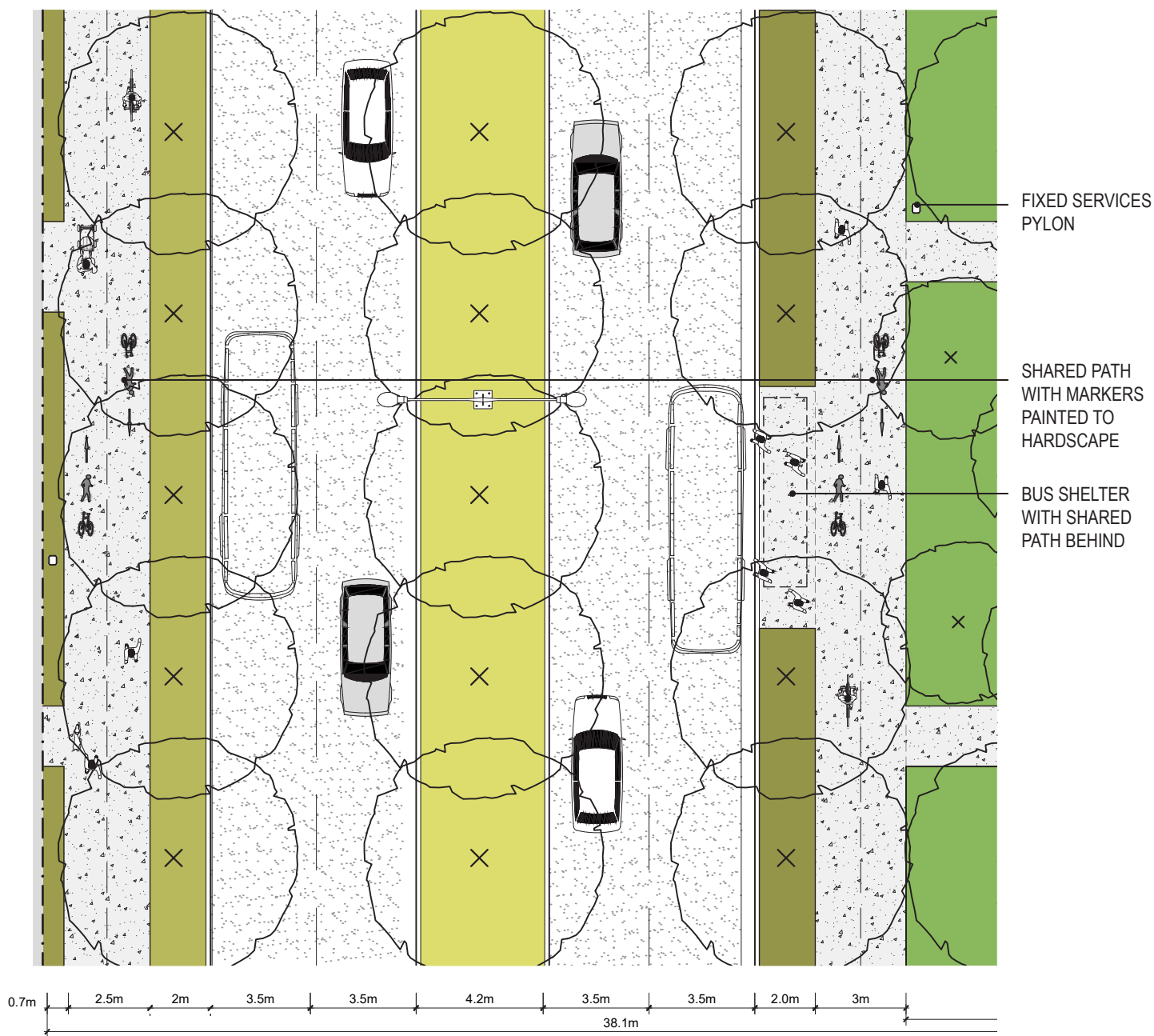


PAVING TYPE 05

Asphalt

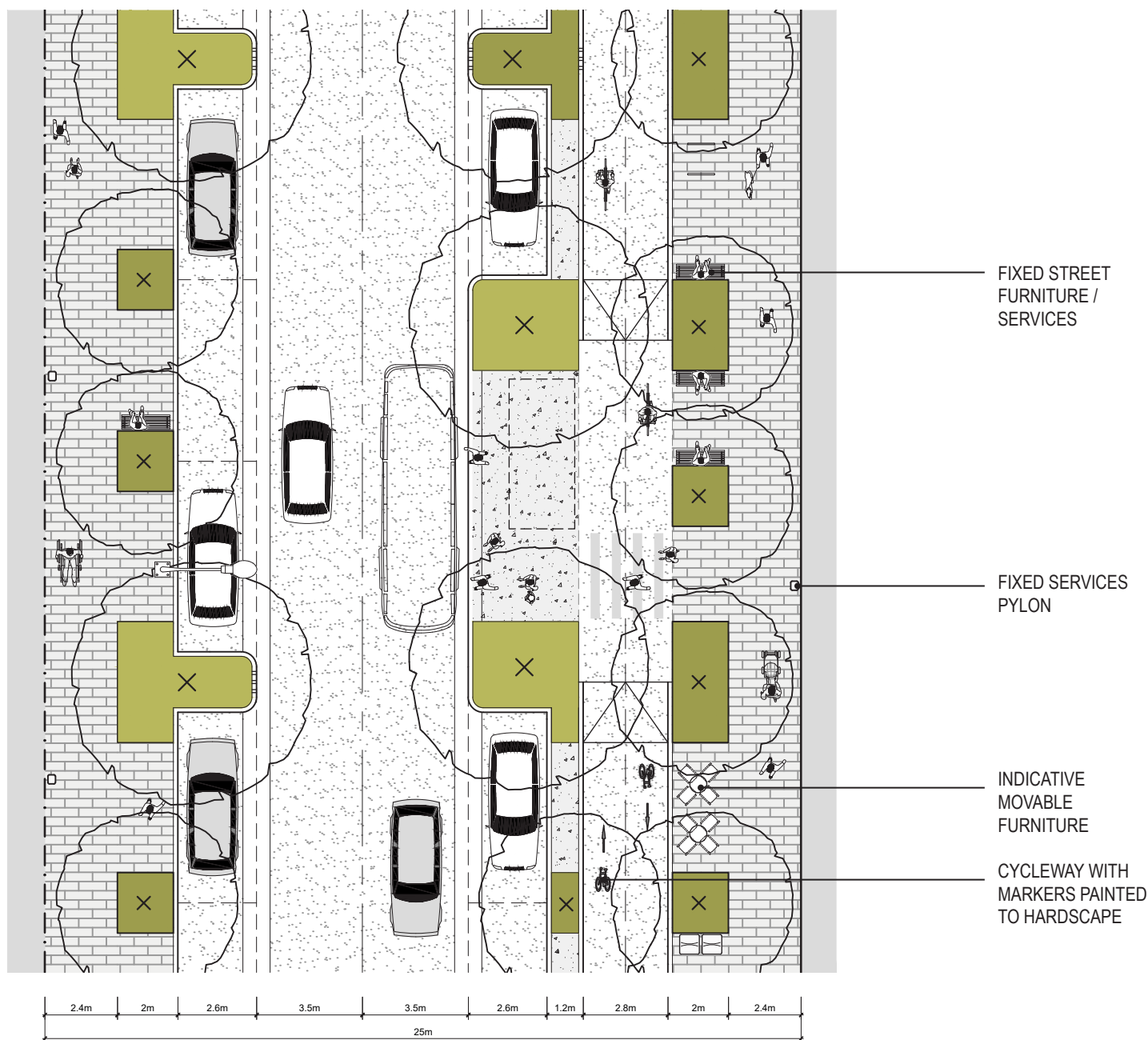
NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 01

Insitu concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished

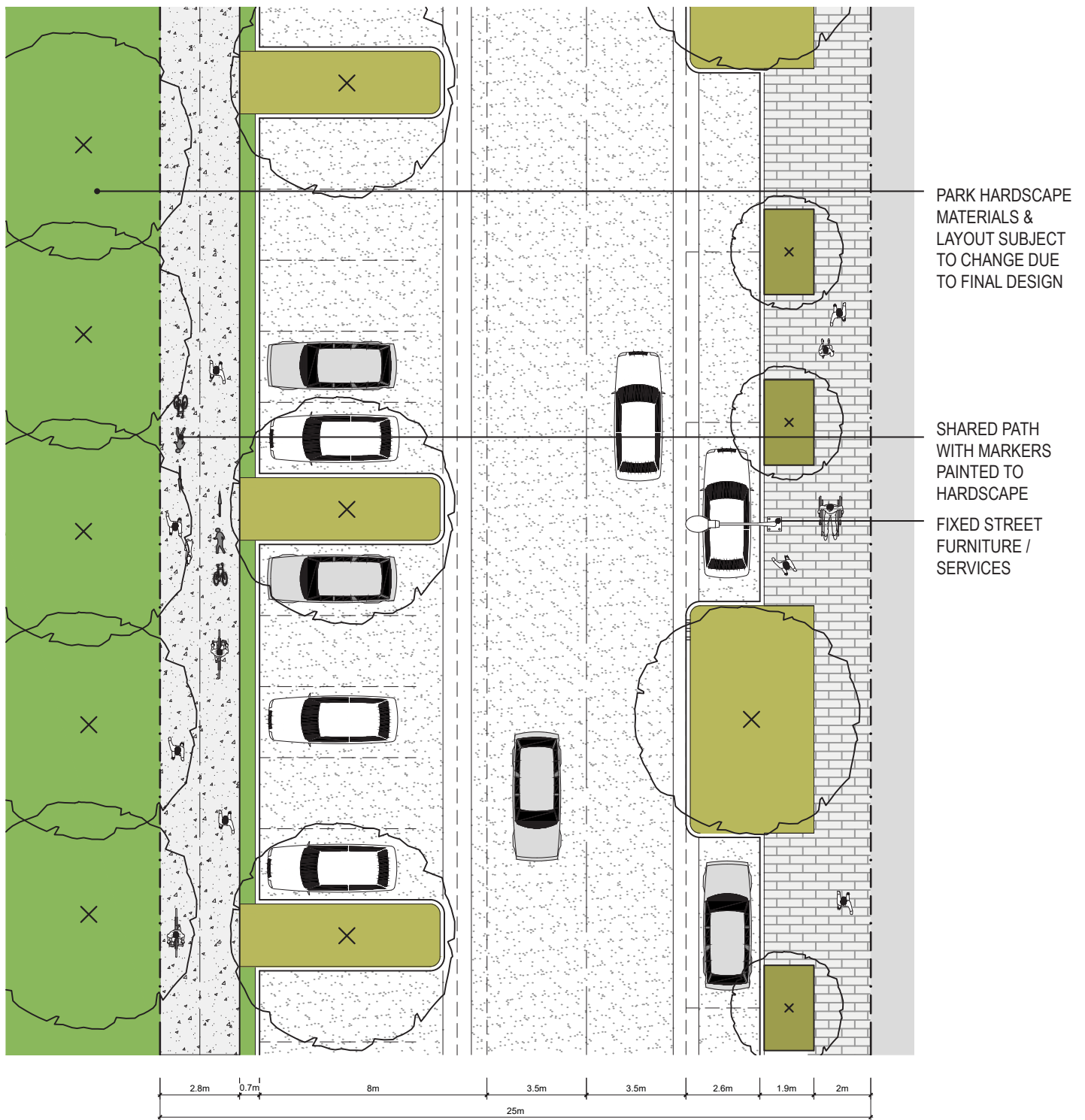


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 01

Insitu concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt



OPEN SPACE SUBJECT TO CHANGE DUE TO FINAL DESIGN



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished

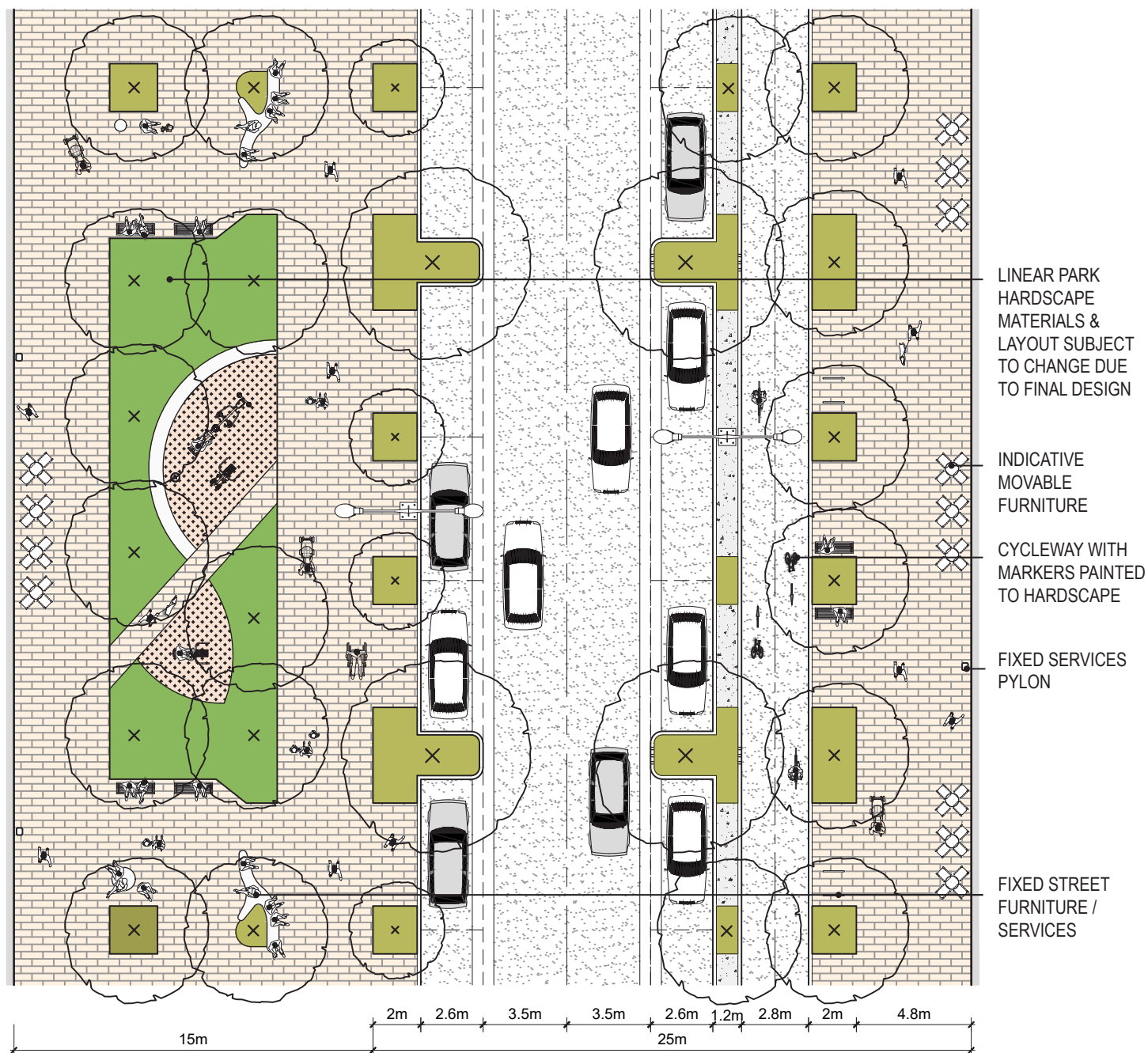


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 03

Concrete Unit paver (900 x 300 mm) - Gunmetal - Honed



PAVING TYPE 05

Asphalt



OPEN SPACE SUBJECT TO CHANGE
DUE TO FINAL DESIGN



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished



GARDEN BED

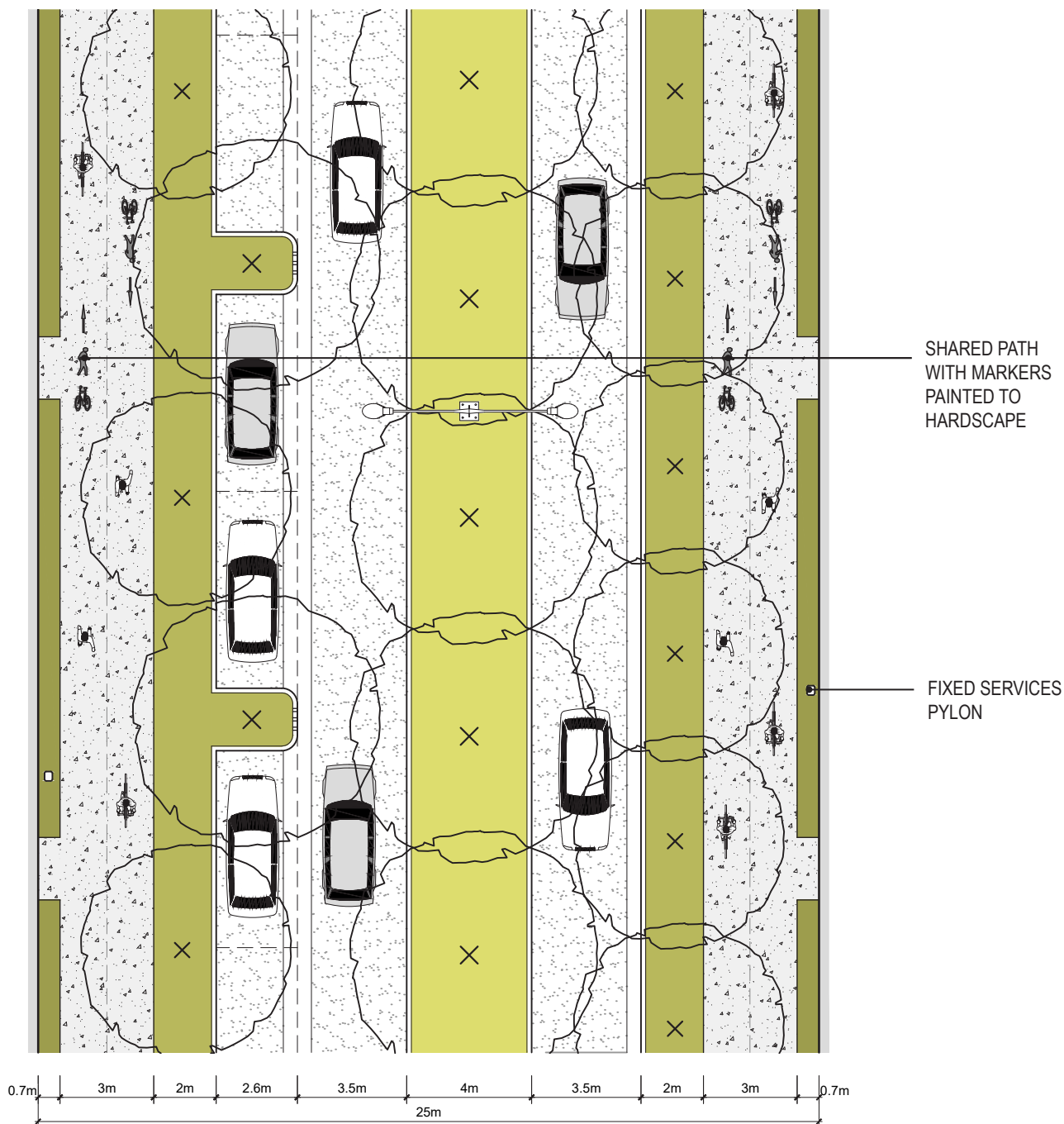
Mix of shrubs, native grasses and groundcovers
under trees. Planting max 600mm at mature
height to maintain sight lines



PAVING TYPE TO FUTURE
DESIGN

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished



GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

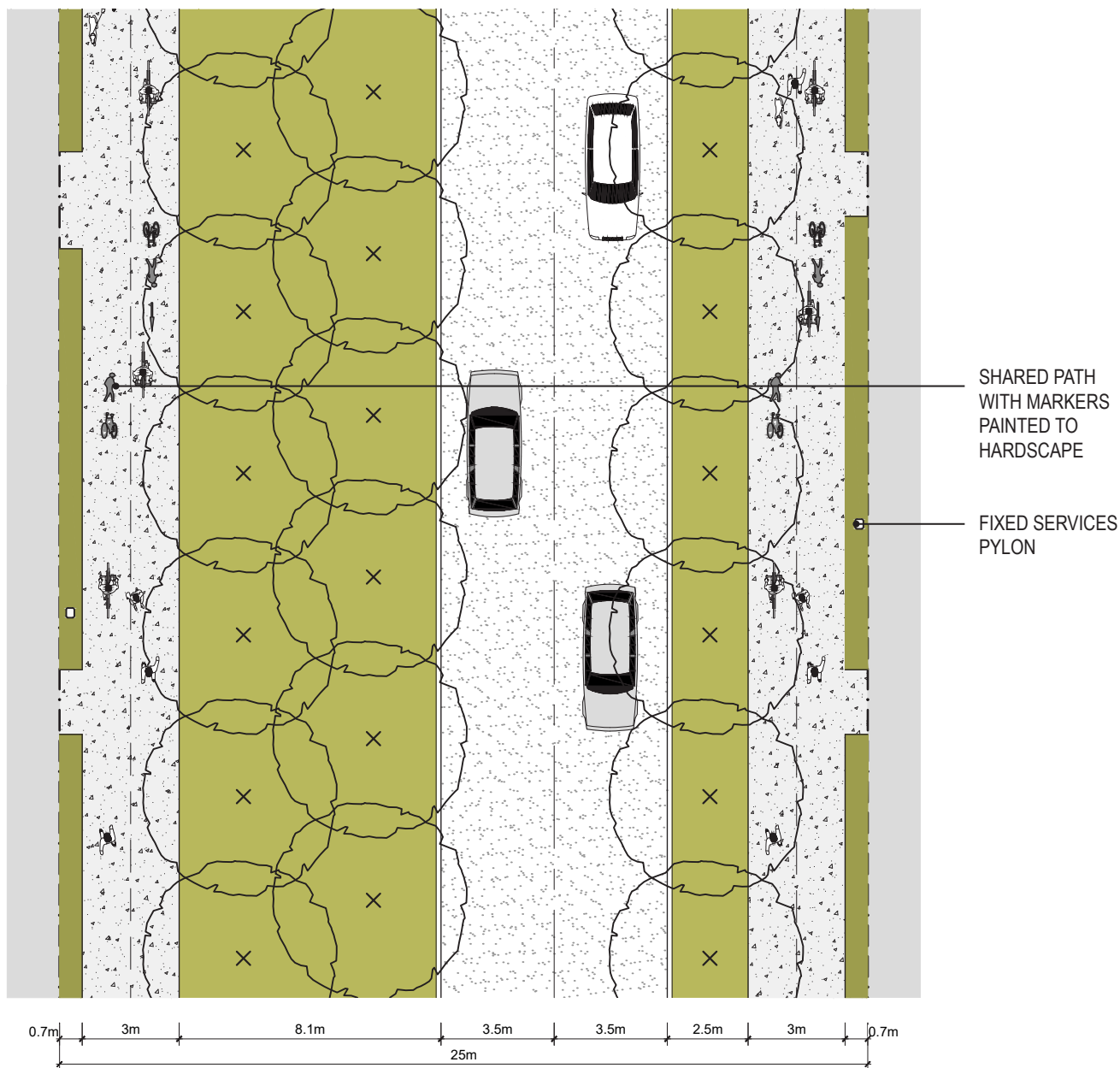


PAVING TYPE 05

Asphalt

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished



GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

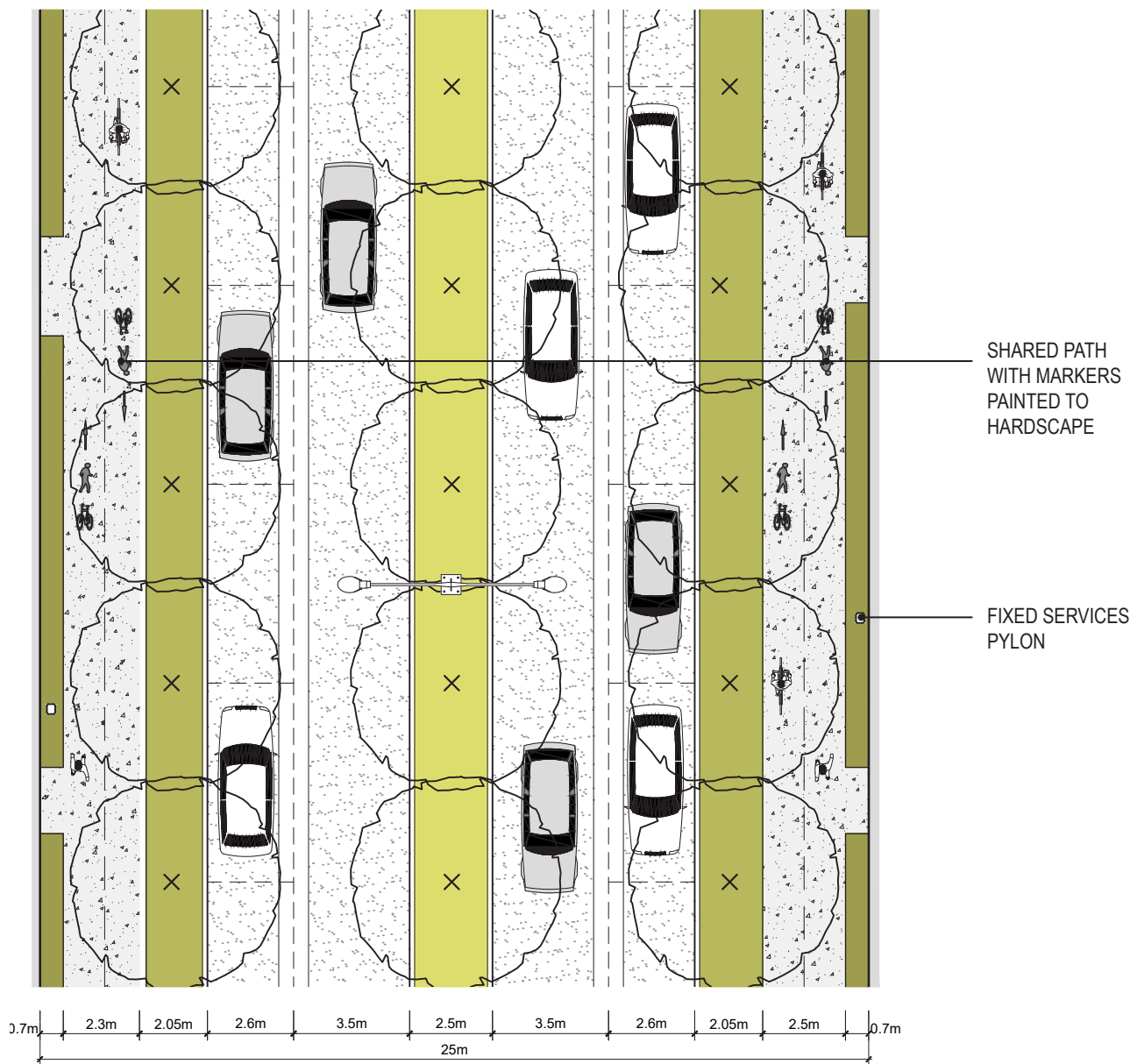


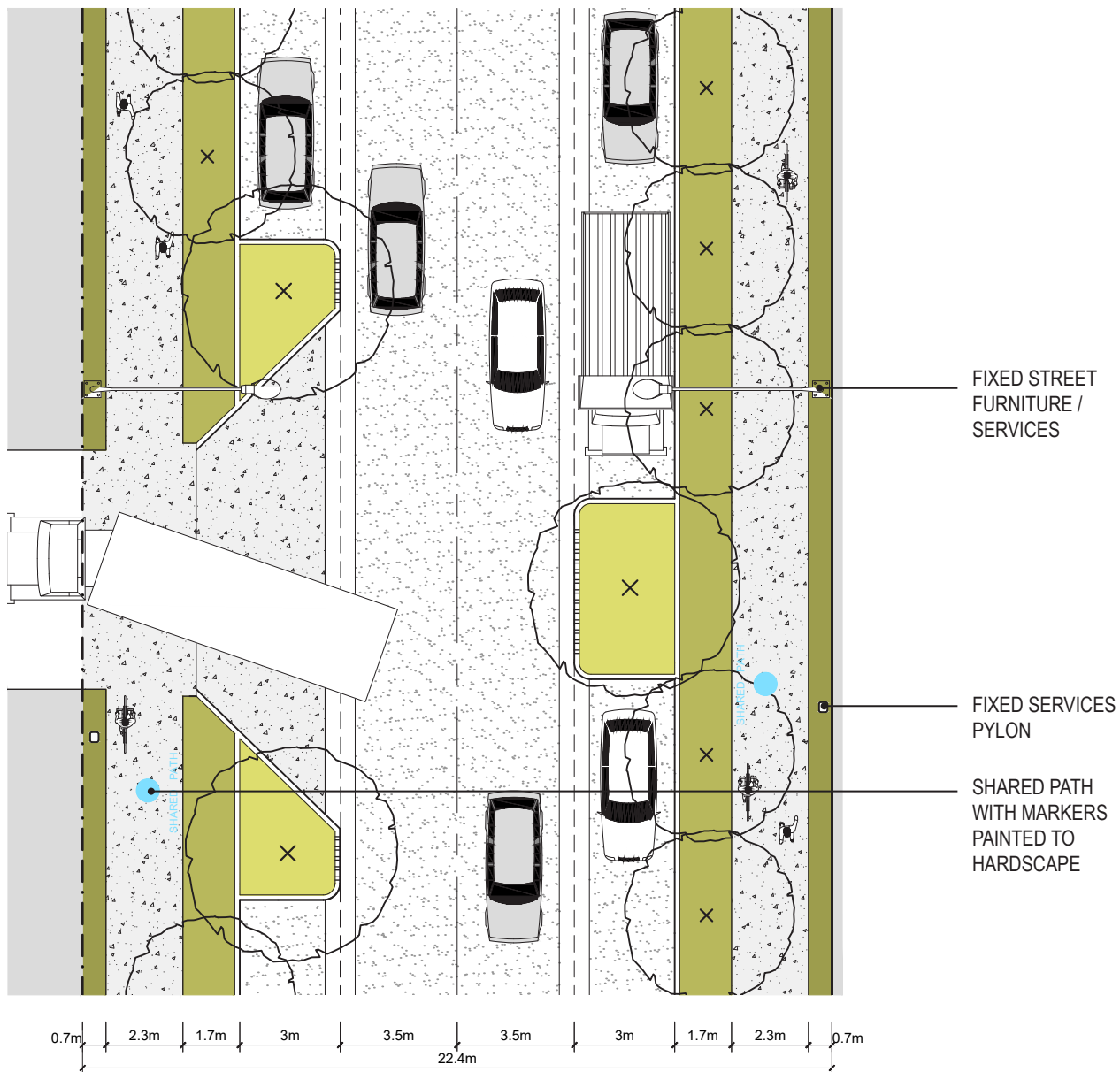
PAVING TYPE 05

Asphalt

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.





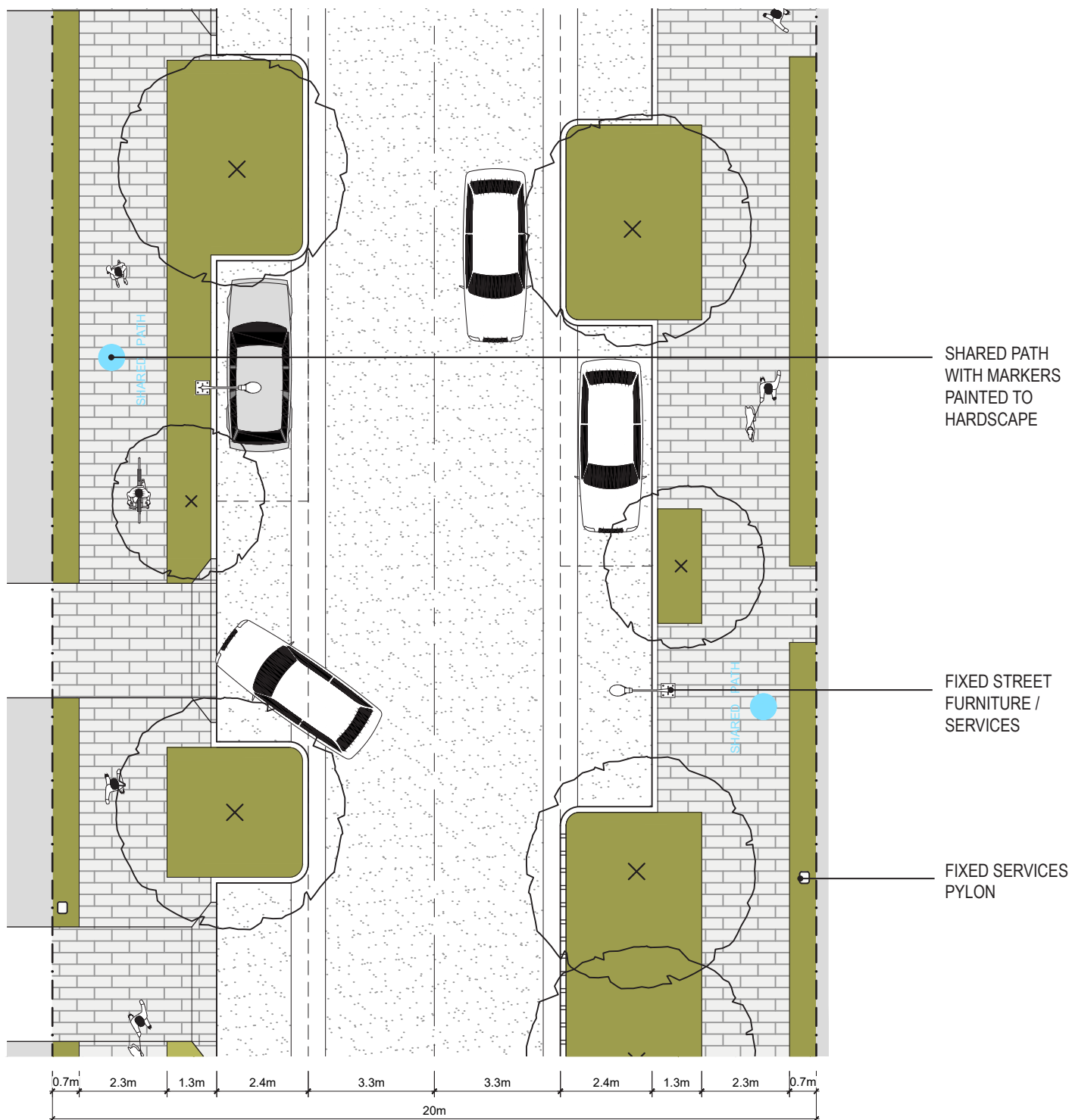
LEGEND

	PAVING TYPE 04 Insitu concrete - Blue metal aggregate - Broom finished
	PAVING TYPE 05 Asphalt

	GARDEN BED Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines
--	--

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 01

In situ concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt

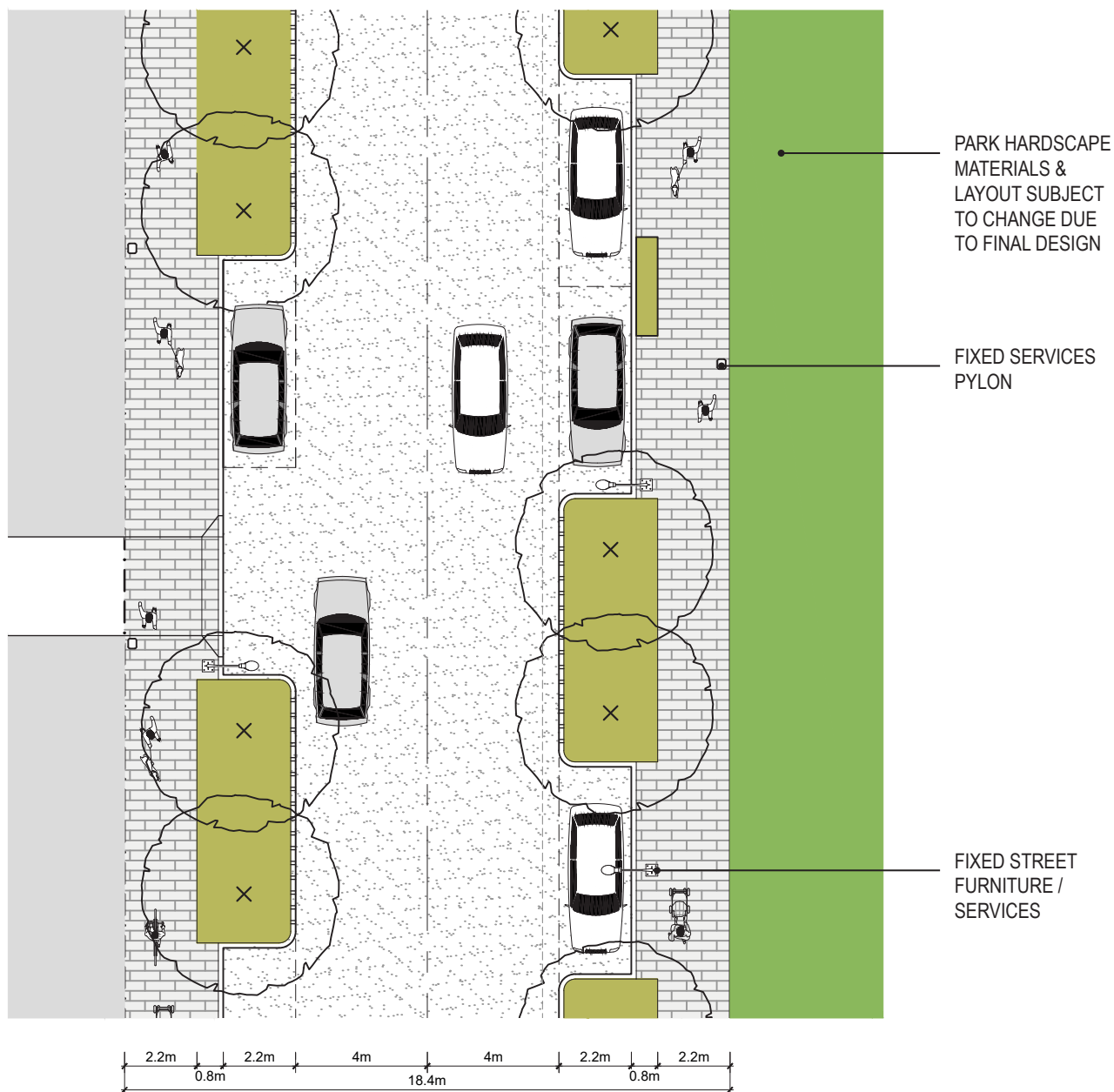


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 01

Insitu concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt



GARDEN BED

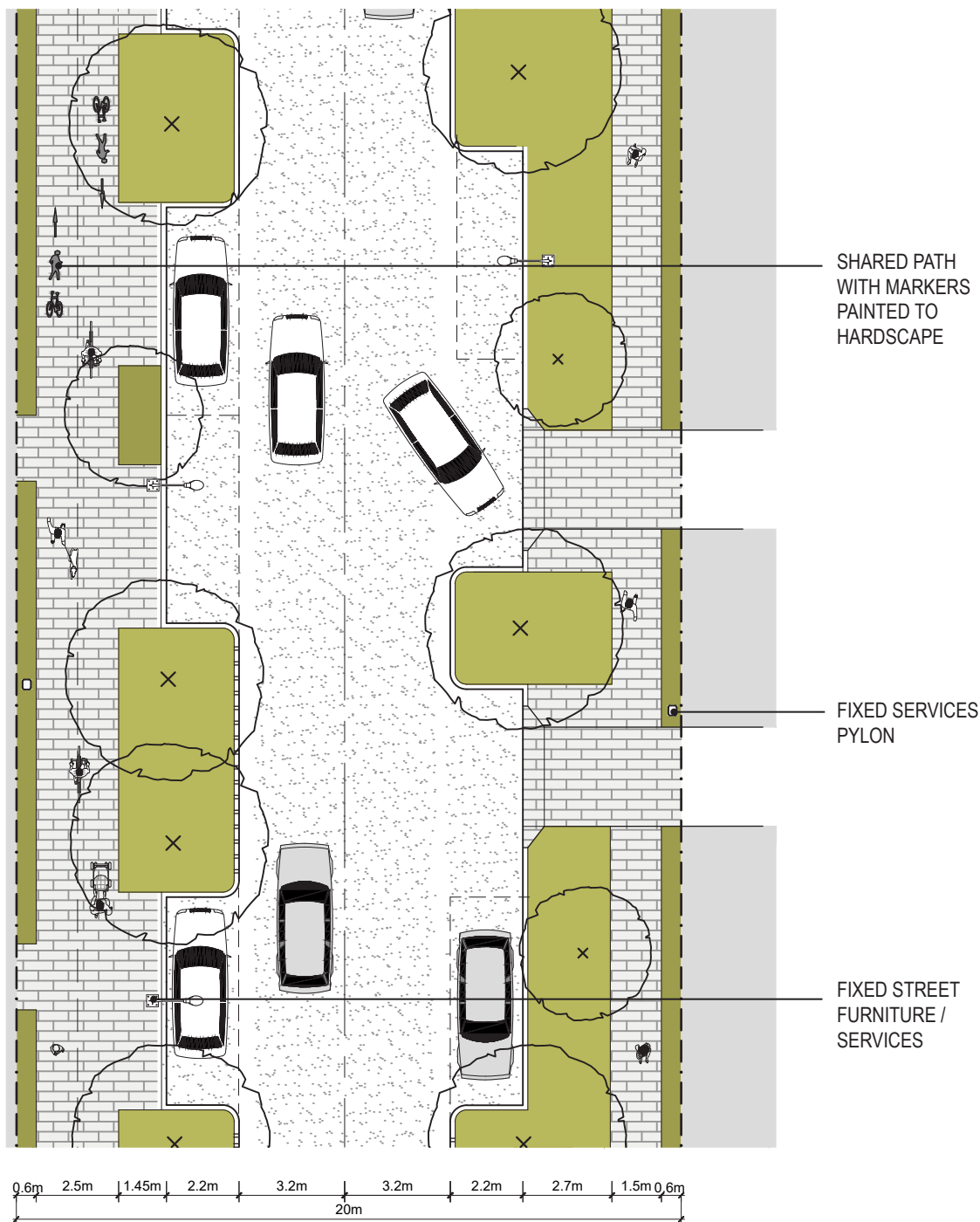
Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines



OPEN SPACE SUBJECT TO CHANGE DUE TO FINAL DESIGN

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 01

Insitu concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt

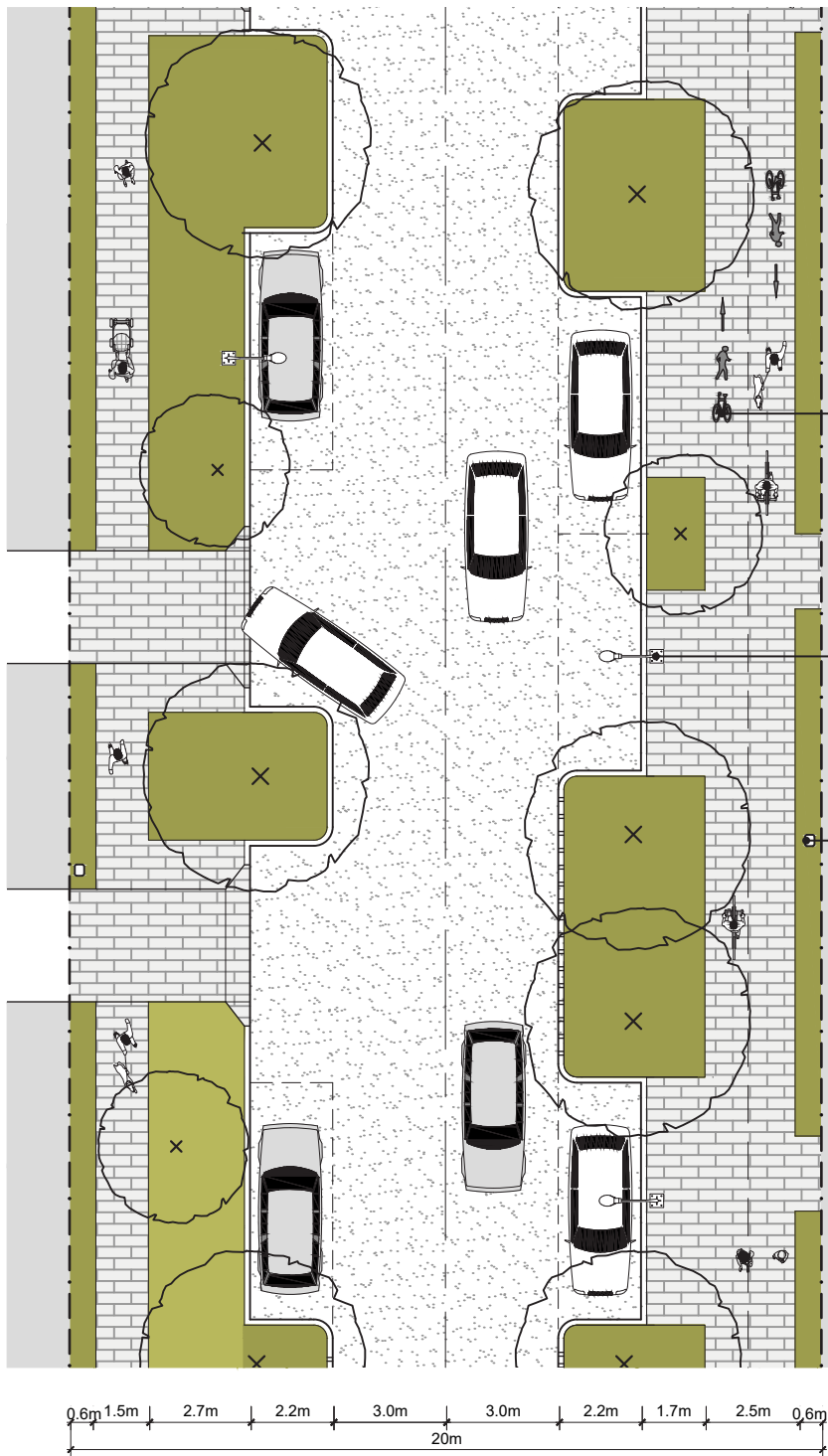


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



SHARED PATH
WITH MARKERS
PAINTED TO
HARDSCAPE

FIXED STREET
FURNITURE /
SERVICES

FIXED SERVICES
PYLON

LEGEND



PAVING TYPE 01

Insitu concrete with saw cut pattern (900 x 300 mm) -
Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt

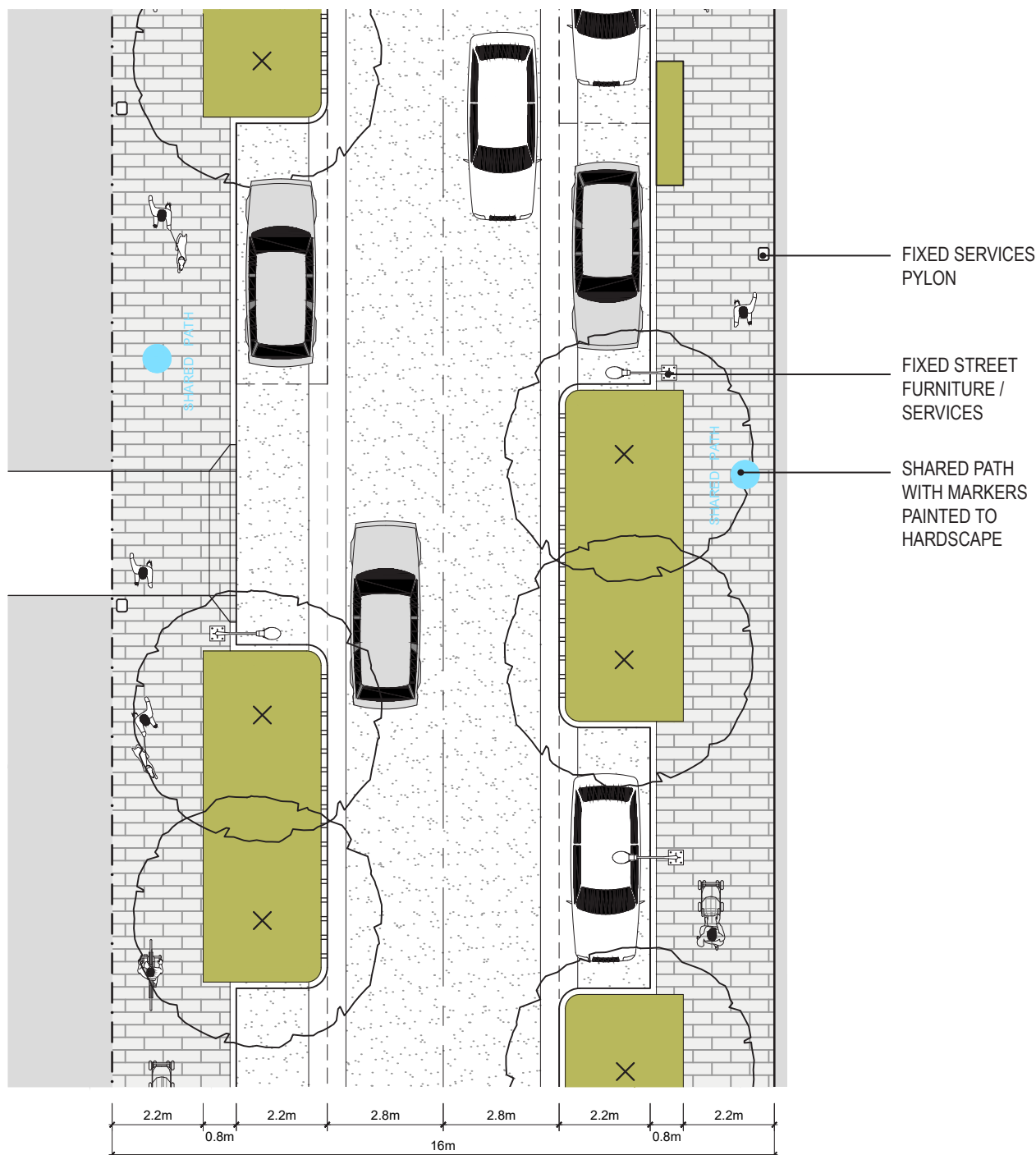


GARDEN BED

Mix of shrubs, native grasses and groundcovers
under trees. Planting max 600mm at mature
height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 01

Insitu concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt

to be substituted with PAVING TYPE 03

(Concrete Unit paver (900 x 300 mm) - Honed - Gunmetal) in the town N-S pedestrian link. Refer to Special Material Treatments on Footpath map

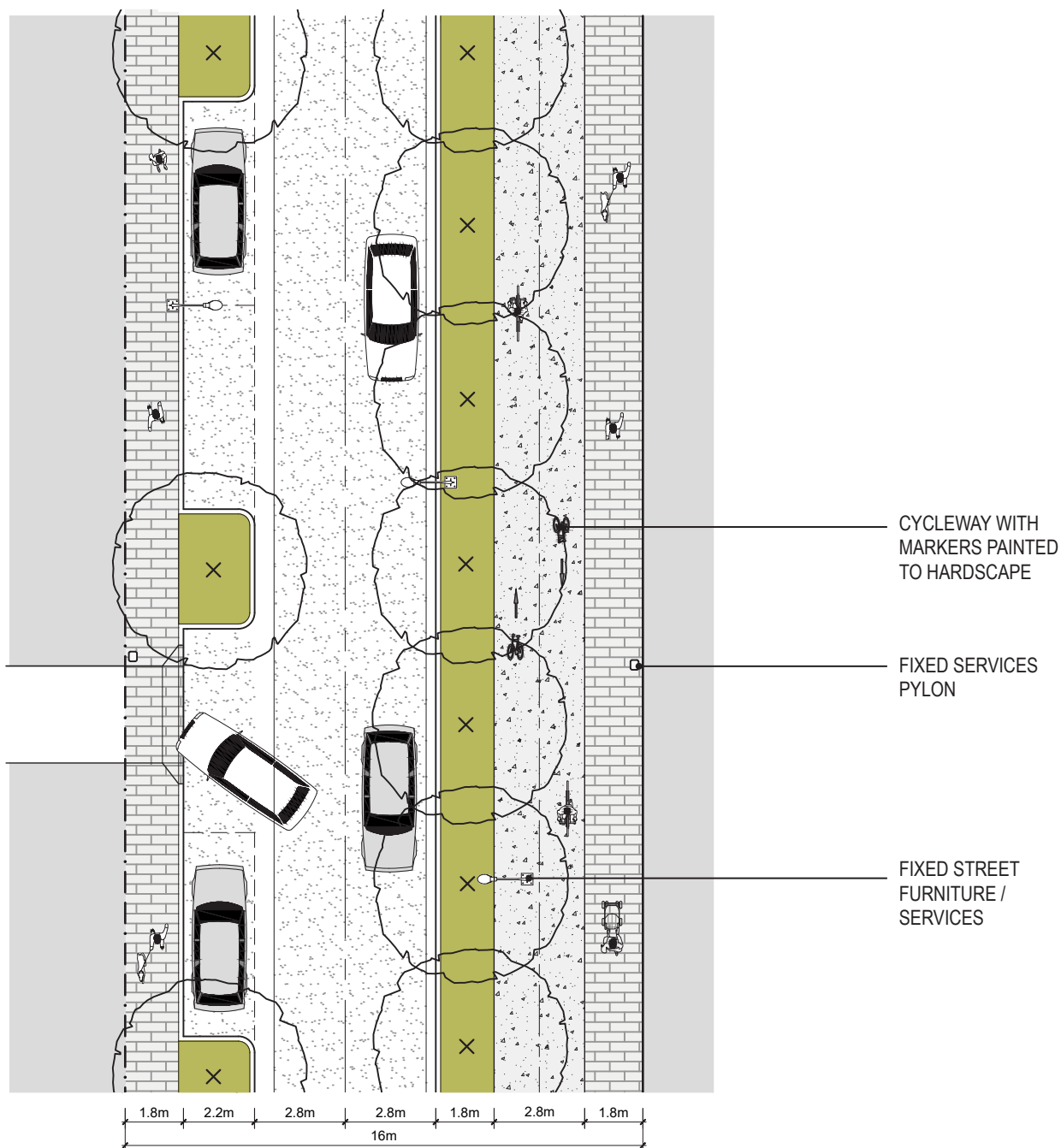


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 01

Insitu concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished

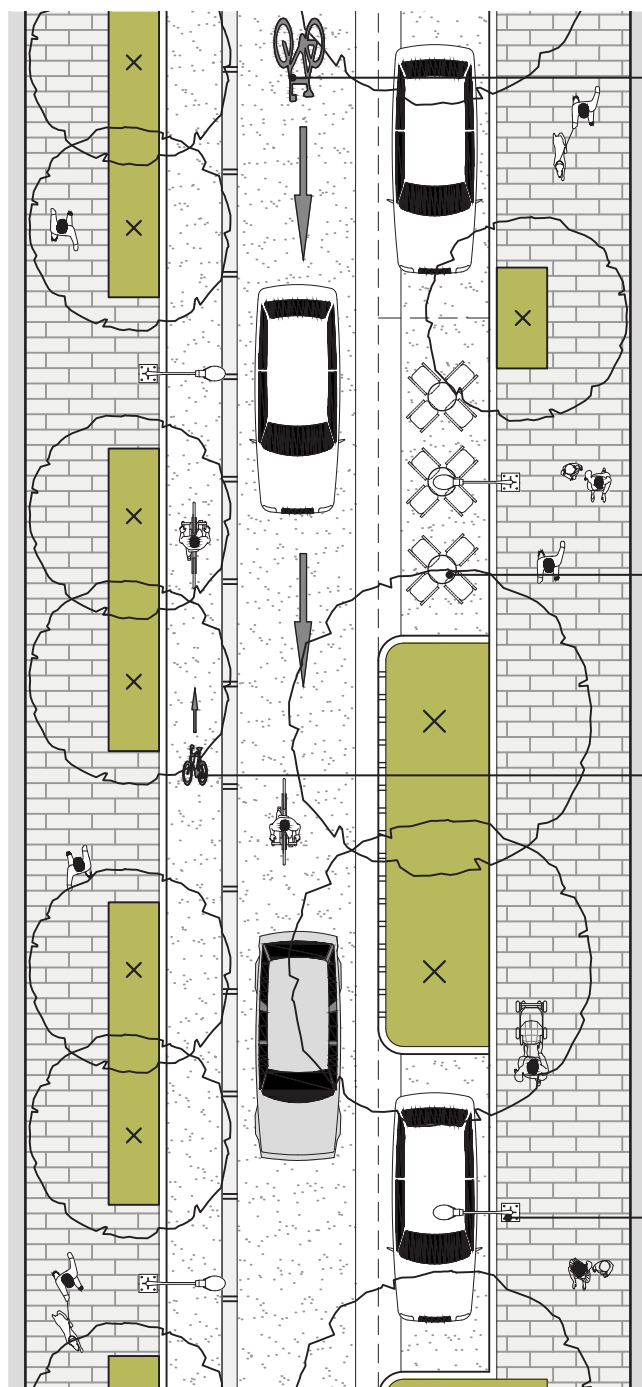


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



SHARED ZONE
WITH MARKERS
PAINTED TO
HARDSCAPE

INDICATIVE
MOVABLE
FURNITURE

CYCLEWAY WITH
MARKERS
PAINTED
TO HARDSCAPE

FIXED STREET
FURNITURE /
SERVICES

LEGEND



PAVING TYPE 01

Insitu concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt

to be substituted with PAVING TYPE 03

(Concrete Unit paver (900 x 300 mm) - Honed - Gunmetal) in the town N-S pedestrian link. Refer to Special Material Treatments on Footpath map

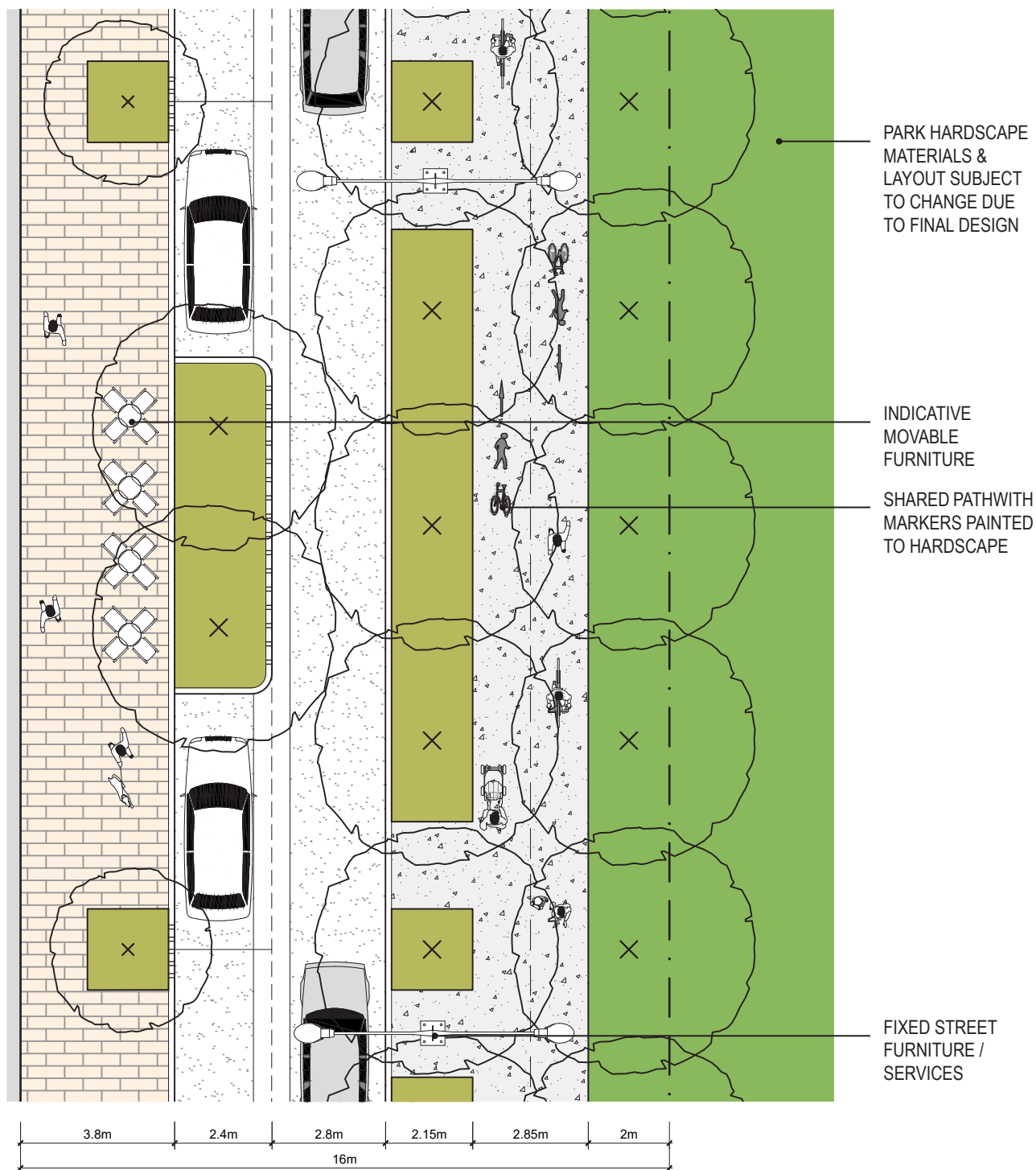


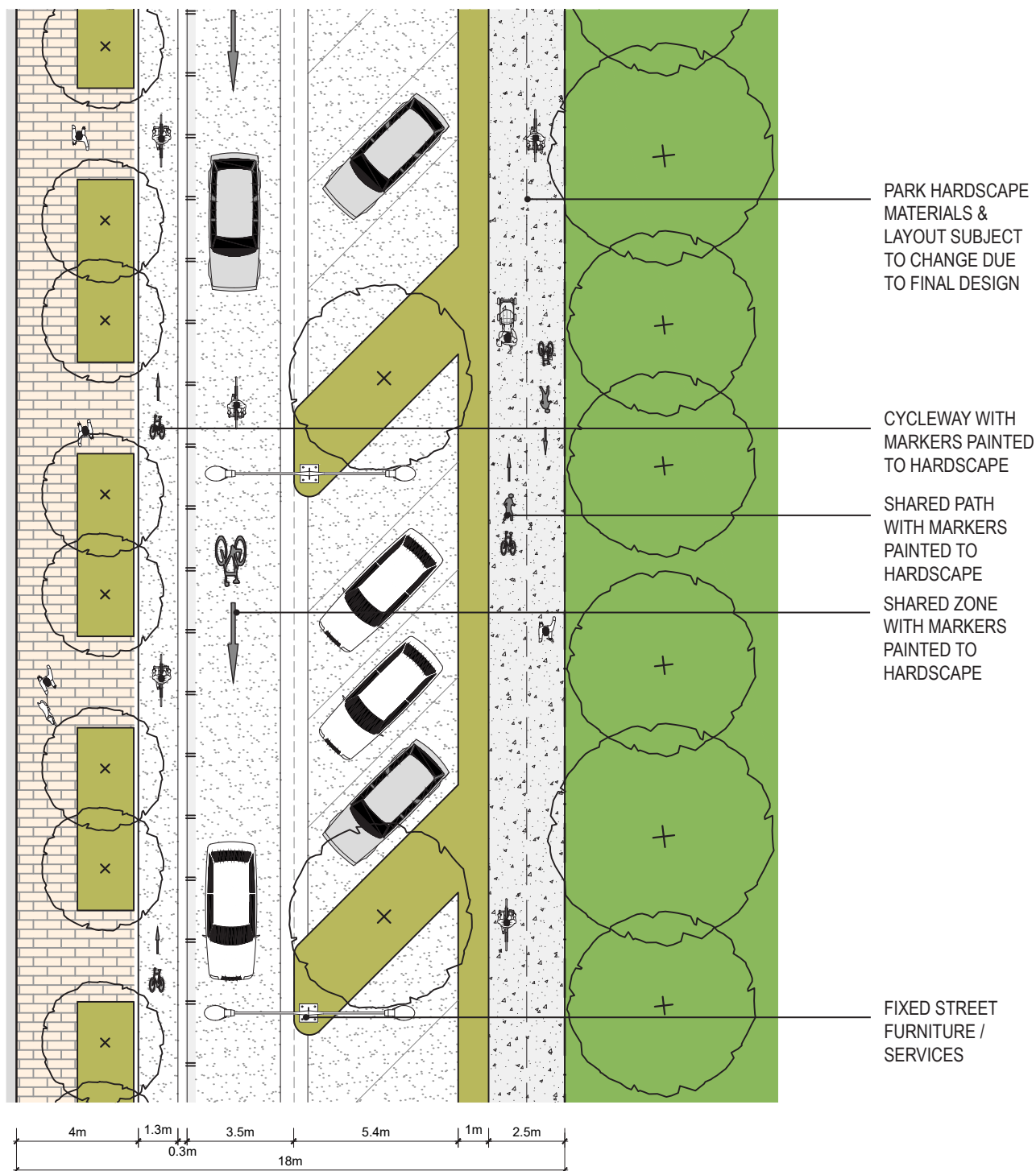
GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.





LEGEND



PAVING TYPE 03

Concrete Unit paver (900 x 300 mm) - Gunmetal - Honed



PAVING TYPE 05

Asphalt



OPEN SPACE SUBJECT TO CHANGE DUE TO FINAL DESIGN



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished

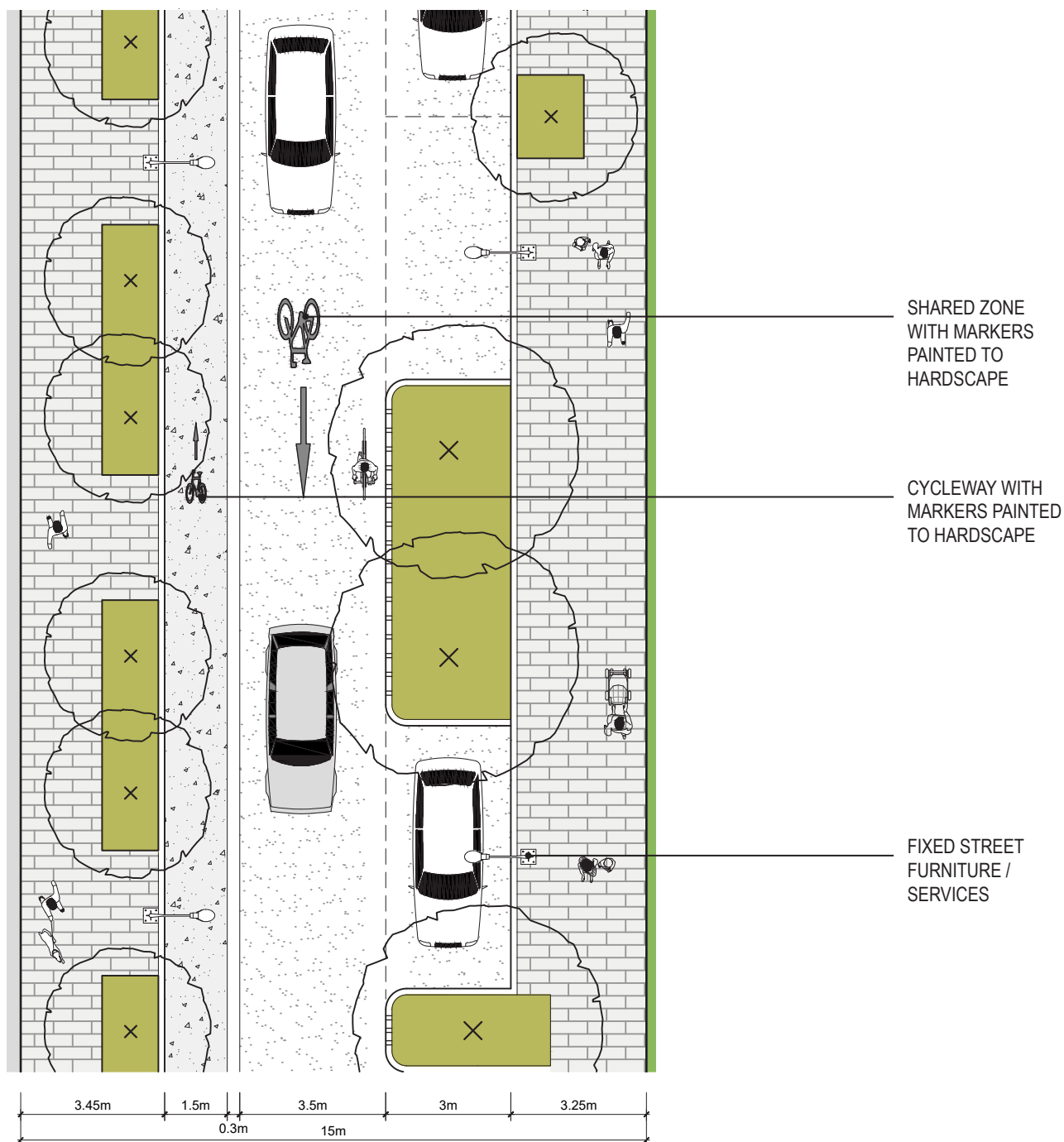


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 01

In situ concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt



PAVING TYPE 04

In situ concrete - Blue metal aggregate - Broom finished

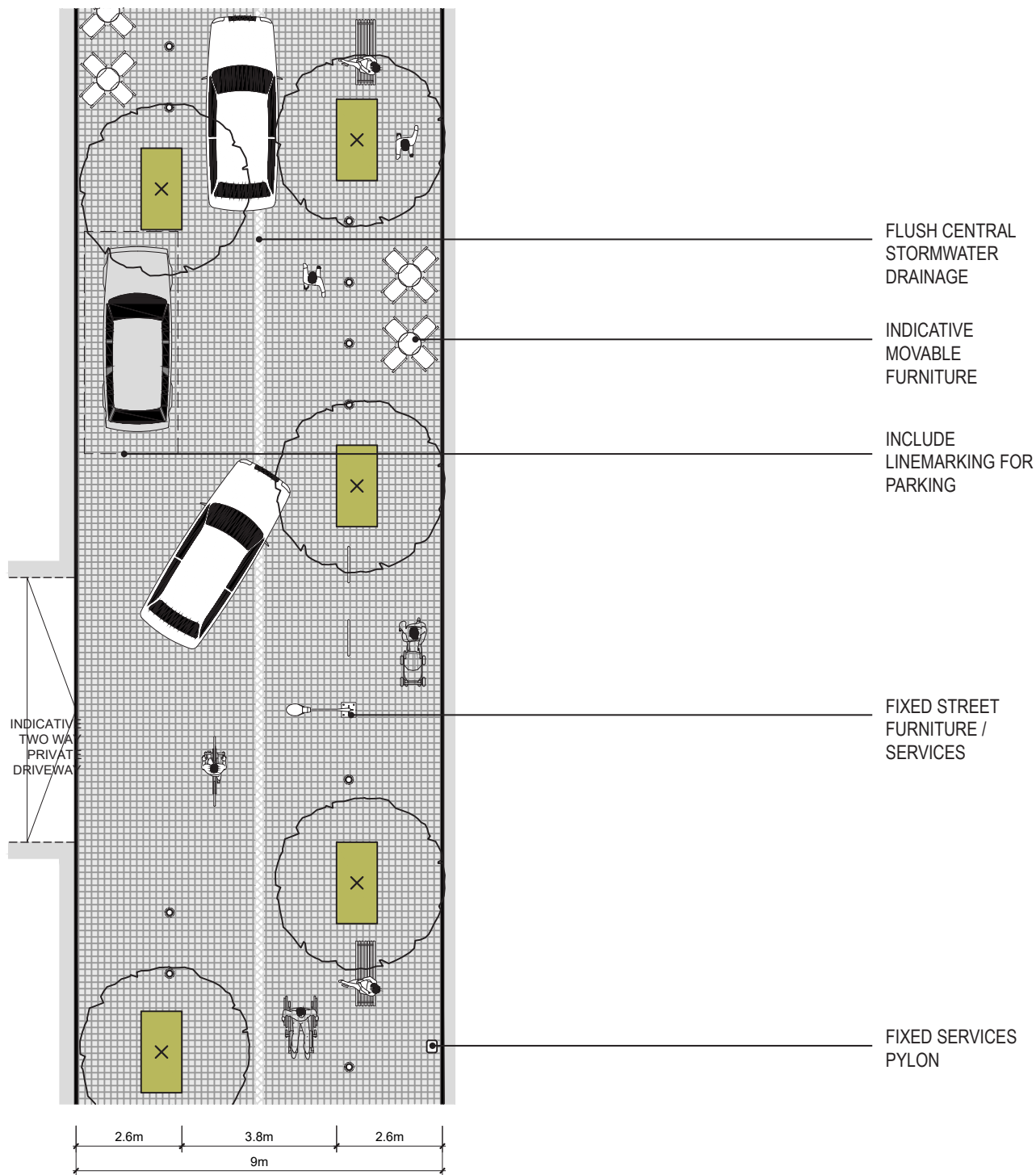


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 02

Granite setts (100 x 100 mm) - Sesame grey - Exfoliated

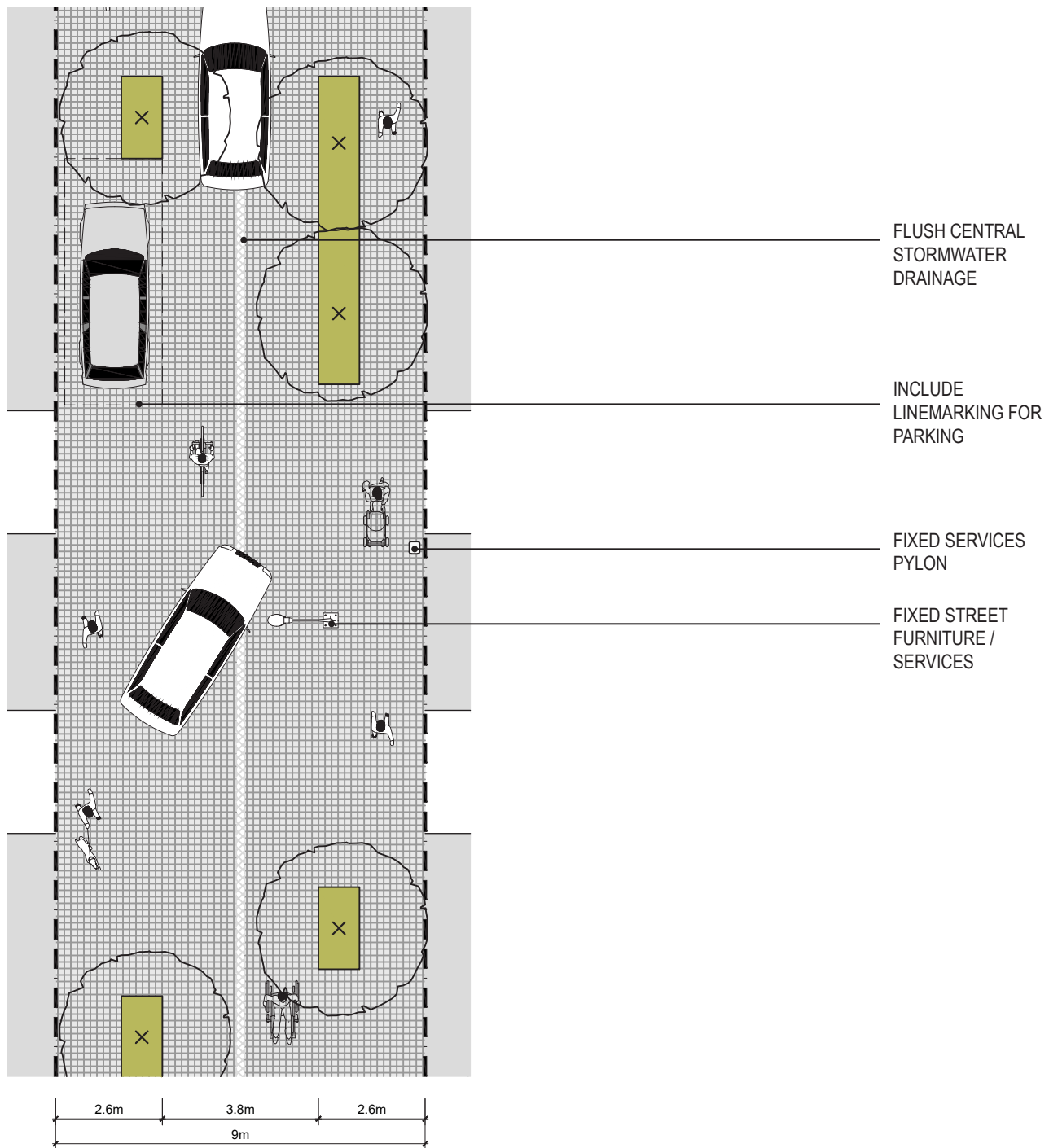


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 02

Granite setts (100 x 100 mm) - Sesame grey - Exfoliated

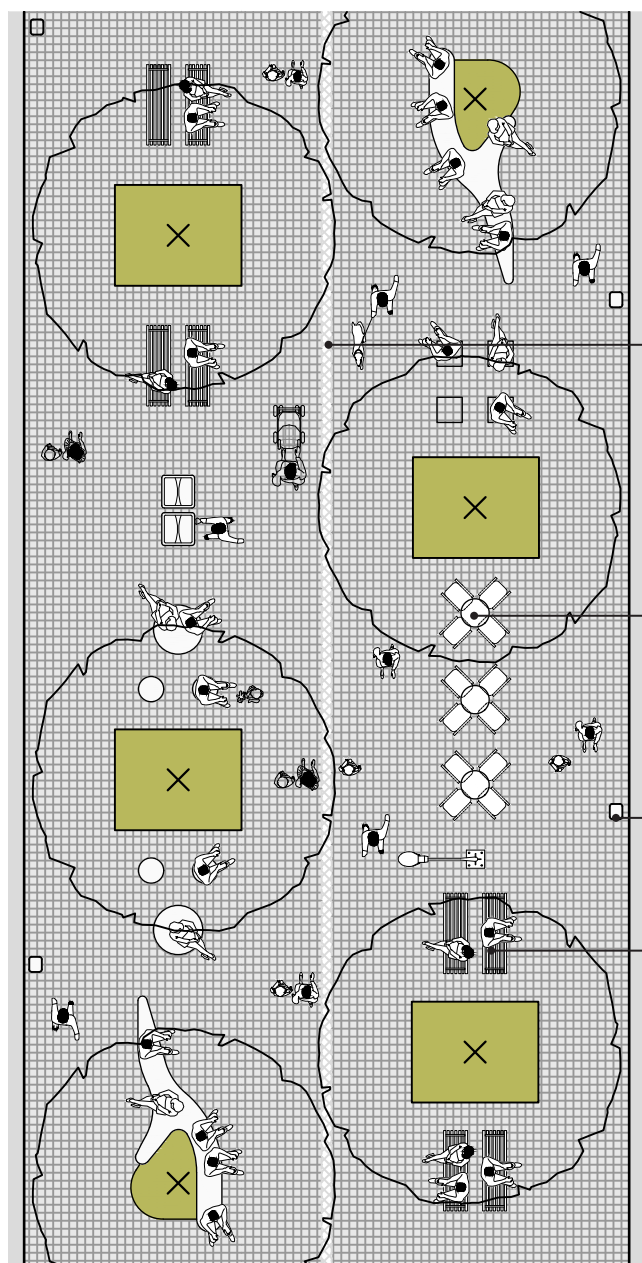


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

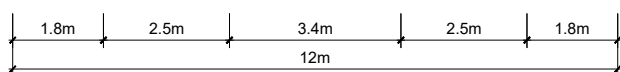


FLUSH CENTRAL
STORMWATER
DRAINAGE

INDICATIVE
MOVABLE
FURNITURE

FIXED SERVICES
PYLON

FIXED STREET
FURNITURE /
SERVICES



LEGEND



PAVING TYPE 02

Granite setts (100 x 100 mm) - Sesame grey - Exfoliated

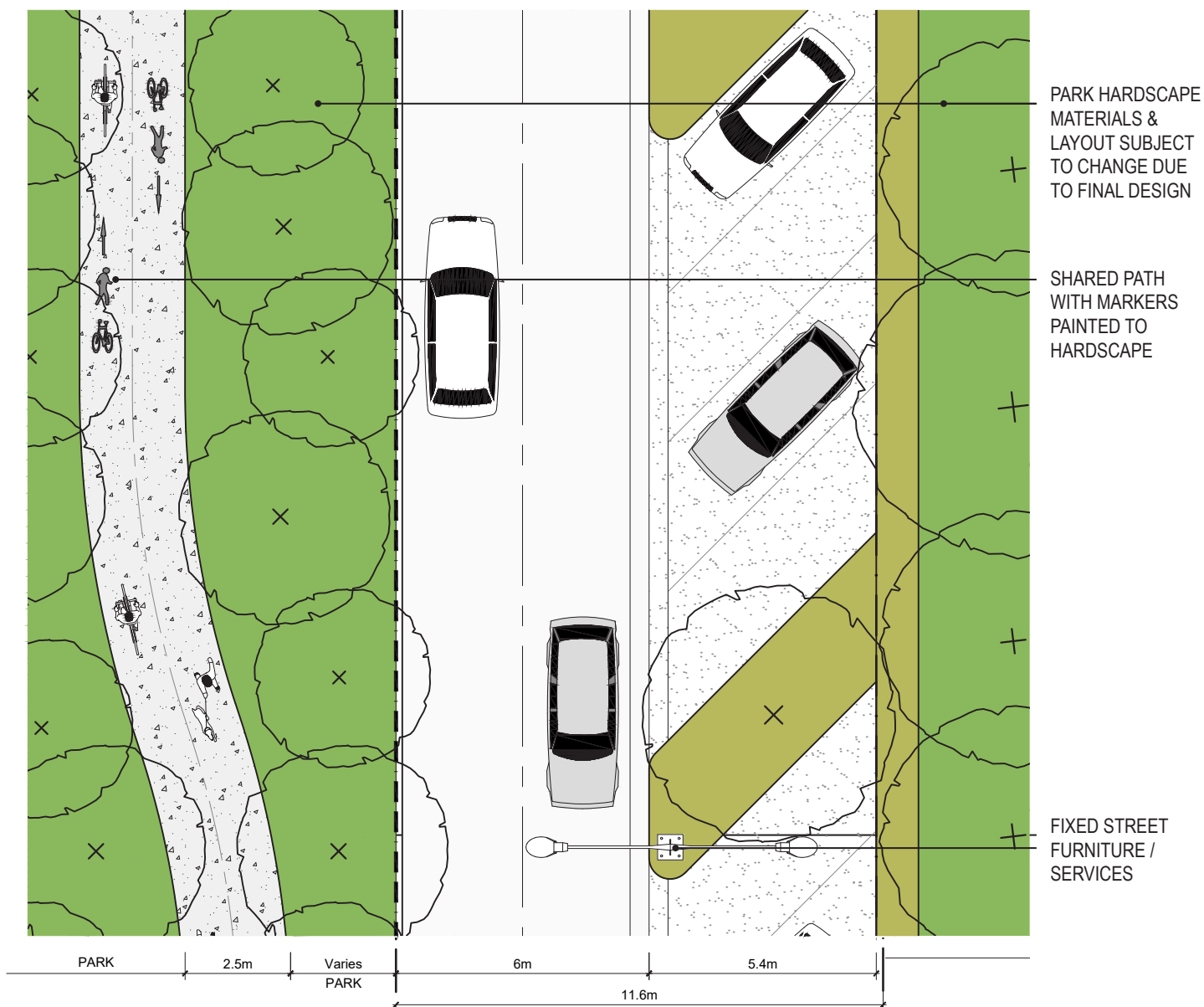


GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 04

In situ concrete - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt



GARDEN BED

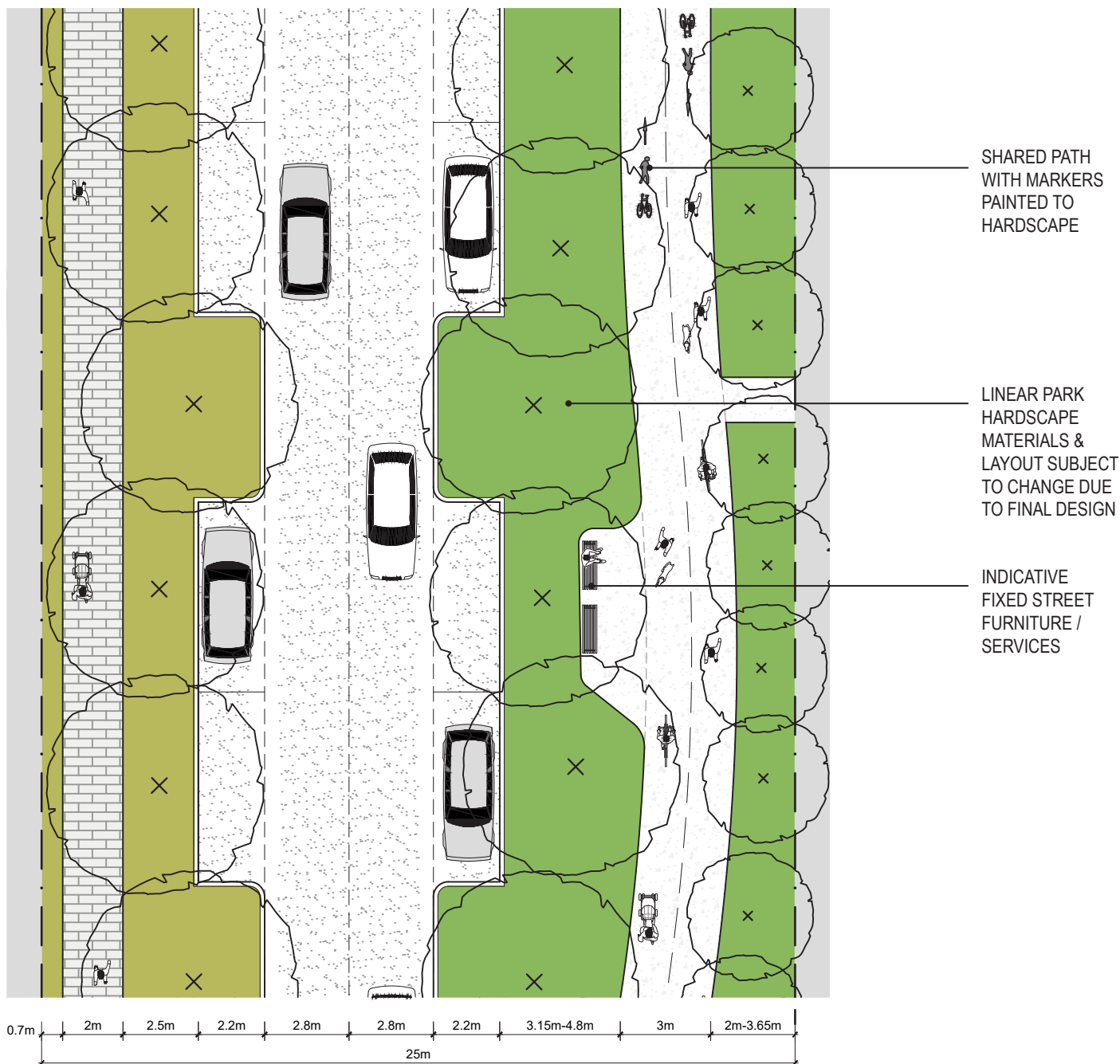
Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines



OPEN SPACE SUBJECT TO CHANGE DUE TO FINAL DESIGN

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.



LEGEND



PAVING TYPE 01

Insitu concrete with saw cut pattern (900 x 300 mm) - Blue metal aggregate - Broom finished



PAVING TYPE 05

Asphalt



OPEN SPACE SUBJECT TO CHANGE DUE TO FINAL DESIGN



PAVING TYPE 04

Insitu concrete - Blue metal aggregate - Broom finished



GARDEN BED

Mix of shrubs, native grasses and groundcovers under trees. Planting max 600mm at mature height to maintain sight lines

NOTE:

- TREE PIT LOCATIONS AND DIMENSIONS, IN BETWEEN SPACING AND THE NUMBER OF PARKING SPACES IS INDICATIVE ONLY WITH THE STREET TREE MASTERPLAN TAKING PRECEDENCE OVER THESE DRAWINGS TO PROVIDE GUIDANCE ON THIS.

Appendix 4 Street Tree Types

STREET TREE MASTERPLAN



- Arterial (Trees installed)
- Rickard Road Transit Lane
- Boulevard Type A
- Boulevard Type B
- Boulevard Type C
- Town Centre Street Type A
- Town Centre Street Type B
- Town Centre Street Type C
- Special Street – Cowpasture Road Access
- Special Street – Bringelly Road Access
- Special Street – Kemps Creek Reserve Access
- Industrial Street
- Local Collector
- Perimeter Street
- Local Street Type A
- Local Street Type B
- Local Street Type C
- Local Street Type D
- Local Street Type F
- One Way Street Type A
- One Way Street Type B
- One Way Park side Type
- One Way School Side
- Shared Service Lane Type A
- Pedestrian Priority Street Type A
- Pedestrian Priority Street Type B
- Pedestrian Priority Street Type C
- Pedestrian Priority Street Type D
- Linear Park Street
- Through Site Link (No trees in road reserve)

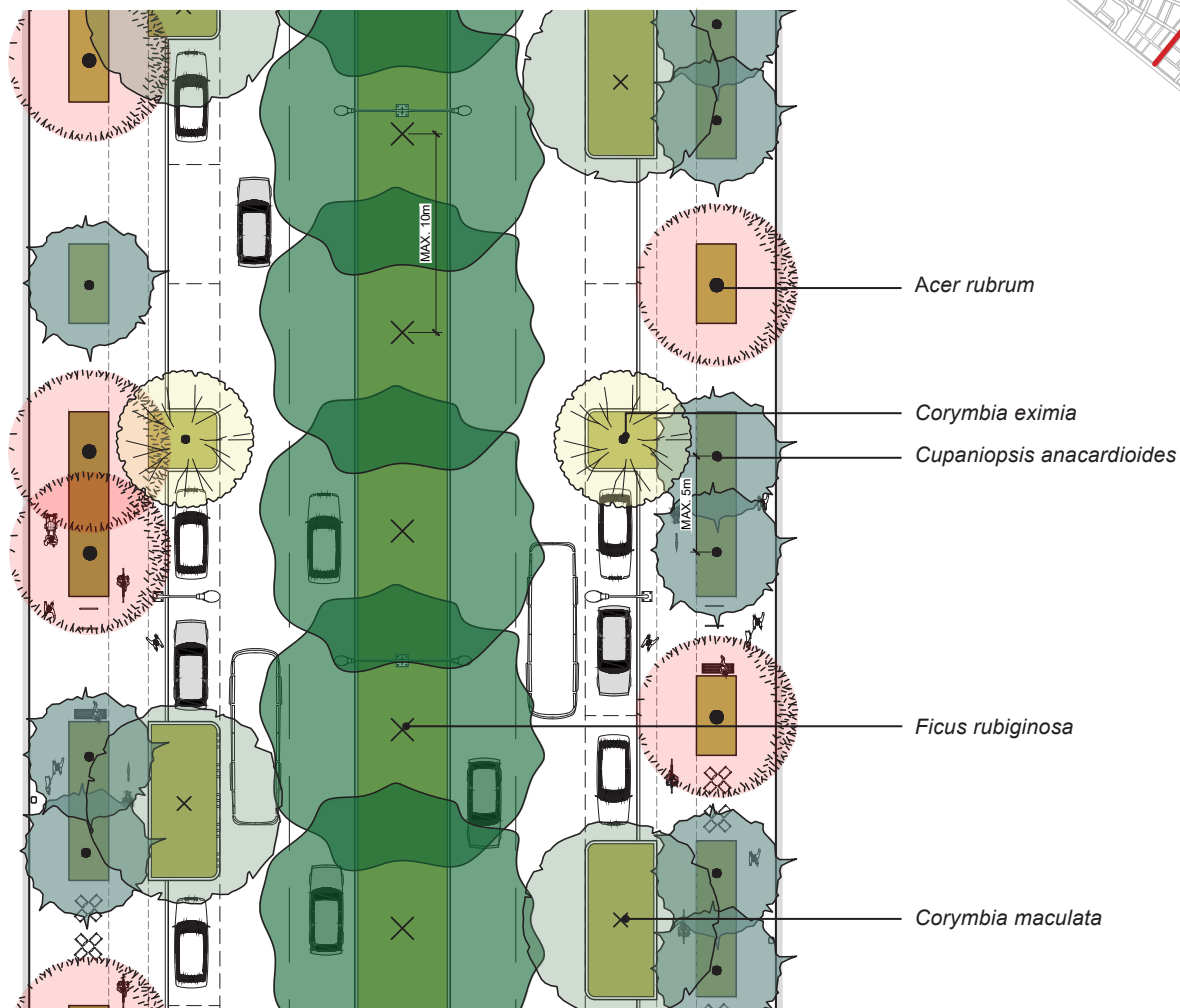
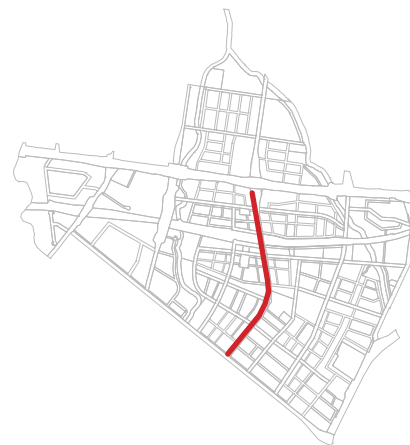
MASTER TREE SCHEDULE

BOTANICAL NAME	COMMON NAME	POTENTIAL MATURE HEIGHT	POTENTIAL MATURE SPREAD	FOLIAGE
<i>Acacia melanoxylon</i>	Blackwood	12-15m	5m	Evergreen
<i>Acer rubrum</i>	Canadian Maple	13m	8m	Deciduous
<i>Agonis flexuosa</i>	Willow Myrtle	10m	5m	Evergreen
<i>Angophora floribunda</i>	Rough-barked apple	15m	10m	Evergreen
<i>Brachychiton populneus</i>	Kurrajong Tree	8-10m	6m	Evergreen
<i>Citharexylum spinosum</i>	Fiddlewood Tree	12m	6m	Deciduous
<i>Corymbia citriodora</i>	Lemon Scented Gum	20m	8m	Evergreen
<i>Corymbia citriodora</i> 'Scentuous'	Lemon Scented Gum	7m	4m	Evergreen
<i>Corymbia eximia</i>	Yellow Bloodwood	10m	7m	Evergreen
<i>Corymbia maculata</i>	Spotted Gum	25m	10m	Evergreen
<i>Corymbia maculata</i> 'ST1' Lowanna	Compact Spotted Gum	10m	7m	Evergreen
<i>Corymbia</i> 'Summer Red'	Grafted Eucalyptus Summer Red	4-6m	4m	Evergreen
<i>Cupaniopsis anacardioides</i>	Tuckeroo	5-8m	5-7m	Evergreen
<i>Eucalyptus amplifolia</i>	Cabbage Gum	30m	6m	Evergreen
<i>Eucalyptus benthamii</i>	Camden White Gum	15-20m	15m	Evergreen
<i>Eucalyptus crebra</i>	Narrow Leaved Ironbark	35m	10m	Evergreen
<i>Eucalyptus elata</i>	River white gum	30m	10m	Evergreen
<i>Eucalyptus eugenoides</i>	Thin-leaved Stringybark	30m	10m	Evergreen
<i>Ficus rubiginosa</i>	Port Jackson Fig	18m	15m	Evergreen
<i>Fraxinus excelsior</i> 'Aurea'	Golden Ash	10m	8m	Deciduous
<i>Harpullia pendula</i>	Tulipwood	6m	4m	Evergreen
<i>Hymenosporum flavum</i>	Native Frangipani	8m	5m	Evergreen
<i>Lagerstroemia indica</i>	Crepe myrtle	10m	4m	Deciduous
<i>Liquidambar styraciflua</i> 'Ward' Cherokee	Cherokee™ Sweetgum	12m	6m	Deciduous
<i>Livistona australis</i>	Cabbage fan palm	30m	5m	Evergreen
<i>Melaleuca decora</i>	White Feather Honey myrtle	6m	5m	Evergreen
<i>Quercus palustris</i>	Pin Oak	15m	8m	Deciduous
<i>Tristaniopsis laurina</i> 'Luscious'	Water Gum	9m	6m	Evergreen
<i>Waterhousea floribunda</i> 'Green Avenue'	Waterhousea Green Avenue	10m	8m	Evergreen

REFERENCE

City of Sydney Street tree Masterplan
Appendix A, Tree and Landscape Species List
<https://www.cityservices.act.gov.au/>
<https://www.cityofparramatta.nsw.gov.au/>
<https://www.alpinenurseries.com.au/>
<https://www.specialitytrees.com.au/>
<https://andreasensgreen.com.au/>

- Rickard Road is the main trafficable spine of Leppington and should be unique still maintaining a level of consistency in tree varieties with Boulevard tree selections
- Dense planting in street median rather than specifically placed and symmetrical planting



EXPECTED CANOPY COVERAGE : 75%



Acer rubrum



Corymbia maculata



Corymbia eximia

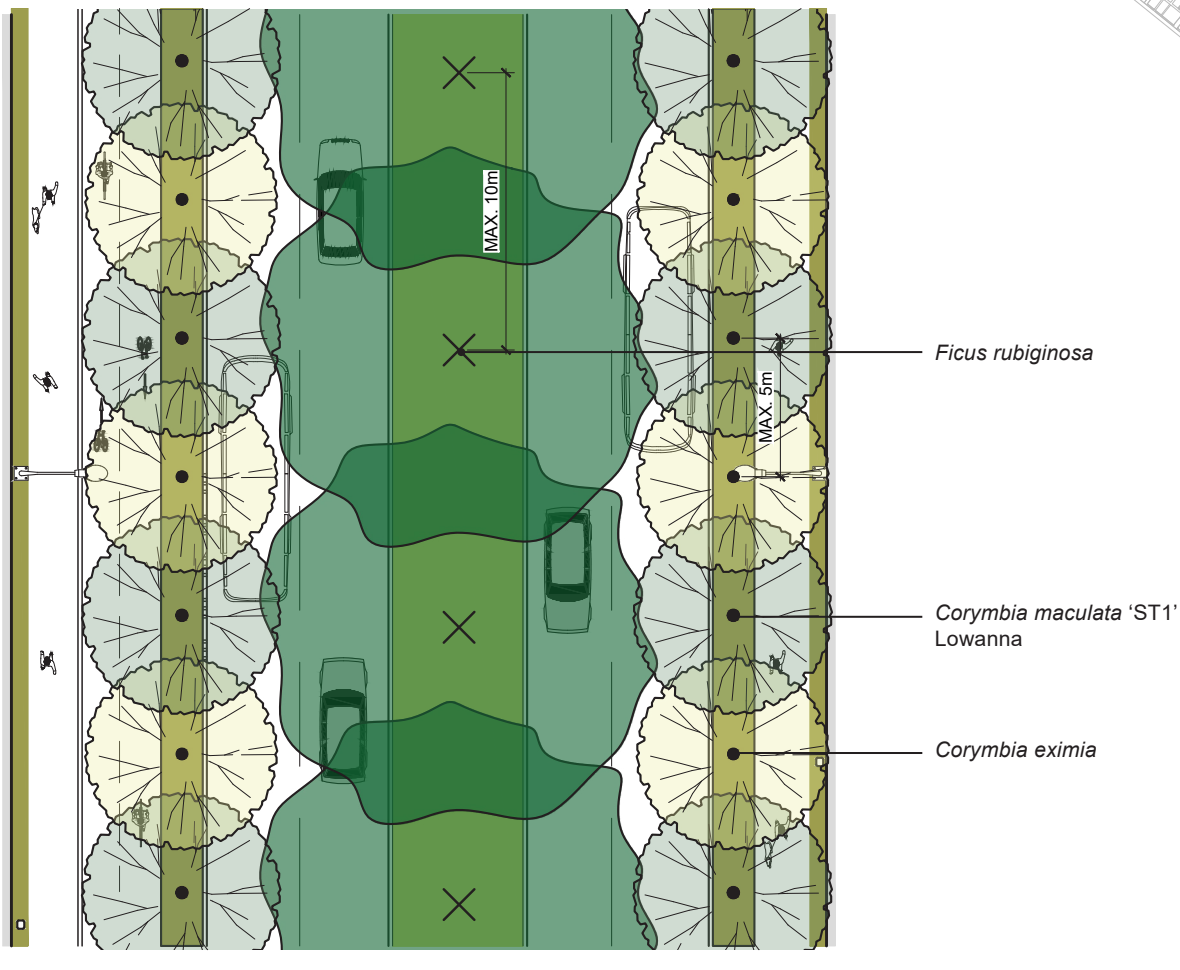
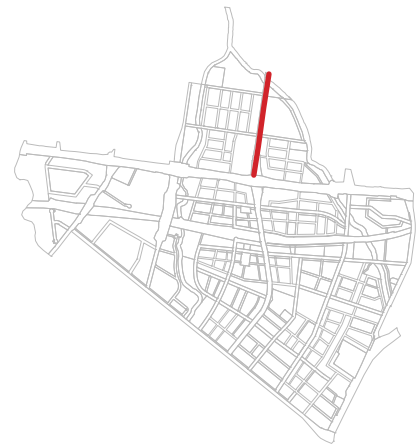


Cupaniopsis anacardioides



Ficus rubiginosa

- Edmondson road is the main N-S trafficable spine directly connected to Rickard Road therefore it maintain a level of consistency in tree varieties with the Rickard road tree selections
- Dense planting in street median rather than specifically placed and symmetrical planting



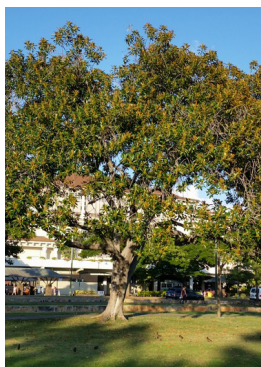
EXPECTED CANOPY COVERAGE : 90%



Corymbia maculata 'ST1'
Lowanna

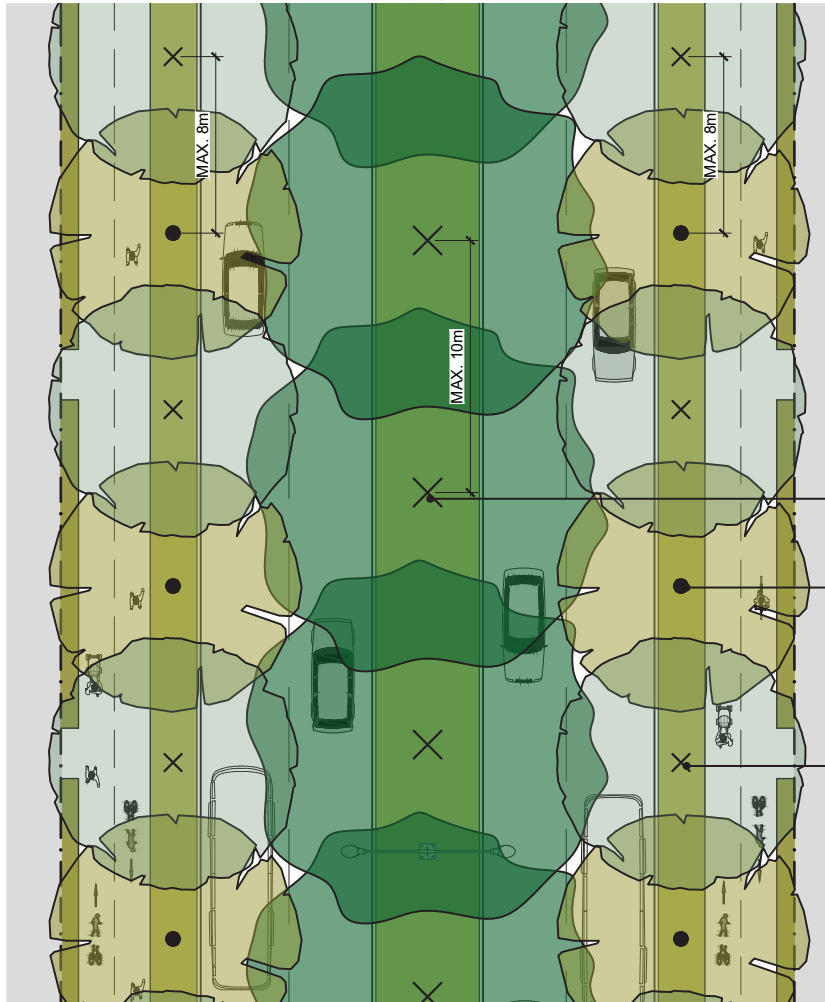
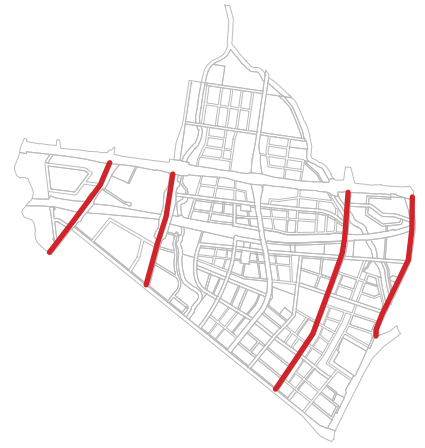


Corymbia eximia



Ficus rubiginosa

- Boulevards are the main trafficable spines of Leppington and should be unique, still maintaining a level of consistency in tree varieties with Rickard Road
- Dense planting in street median rather than specifically placed and symmetrical planting



Ficus rubiginosa

Corymbia maculata

Angophora floribunda



EXPECTED CANOPY COVERAGE : 95%



Angophora floribunda

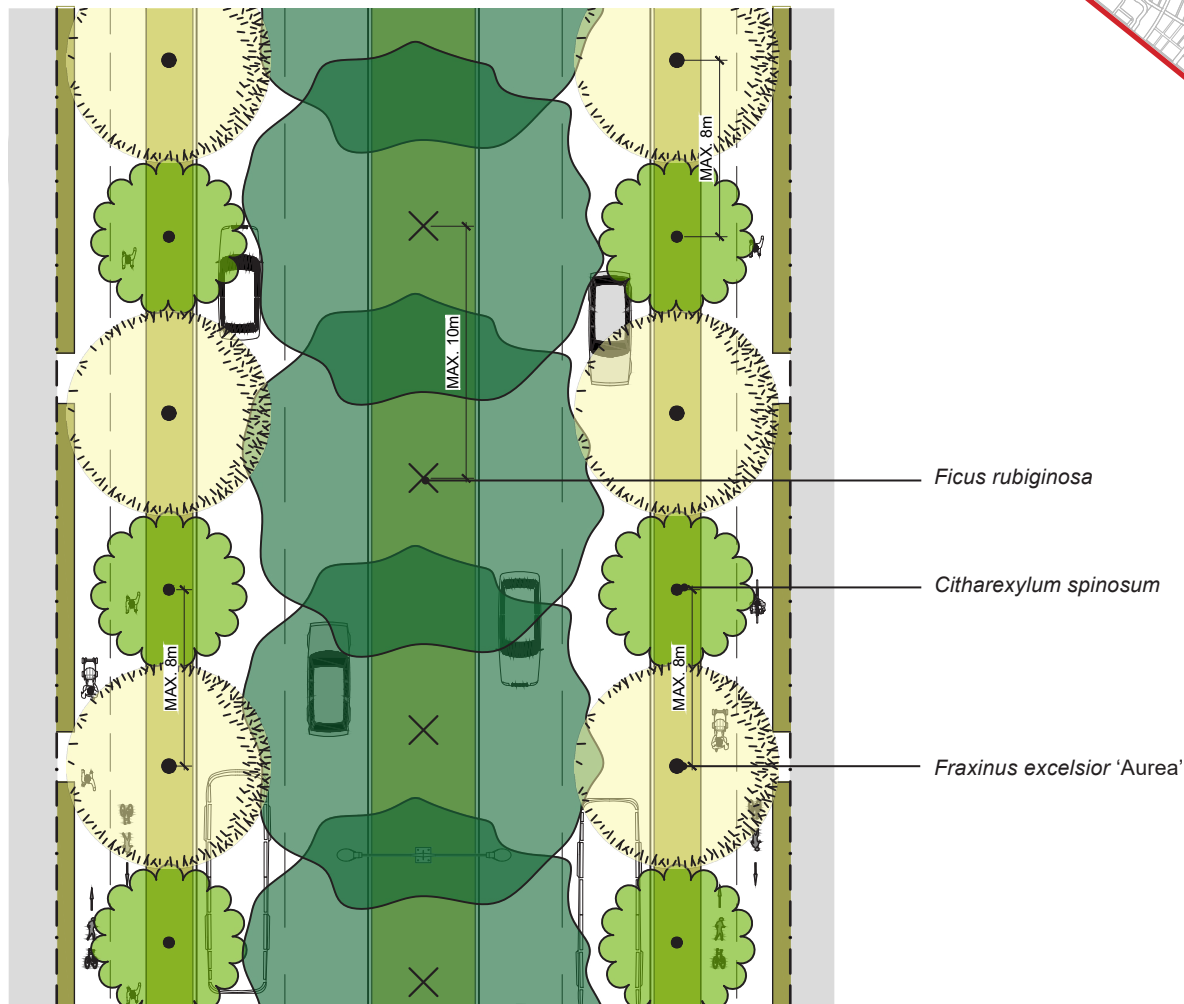
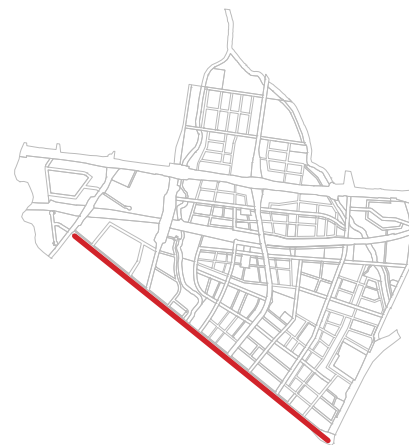


Corymbia maculata



Ficus rubiginosa

- Boulevard B is one of the main roads of Leppington and should be unique, still maintaining a level of consistency in tree varieties with Boulevard A and Rickard Road.
- Dense planting in street median rather than specifically placed and symmetrical planting
- Deciduous trees are used for the trees adjacent to the footpath



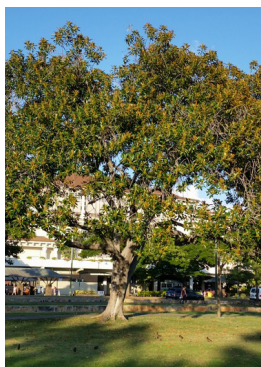
EXPECTED CANOPY COVERAGE : 87%



Citharexylum spinosum

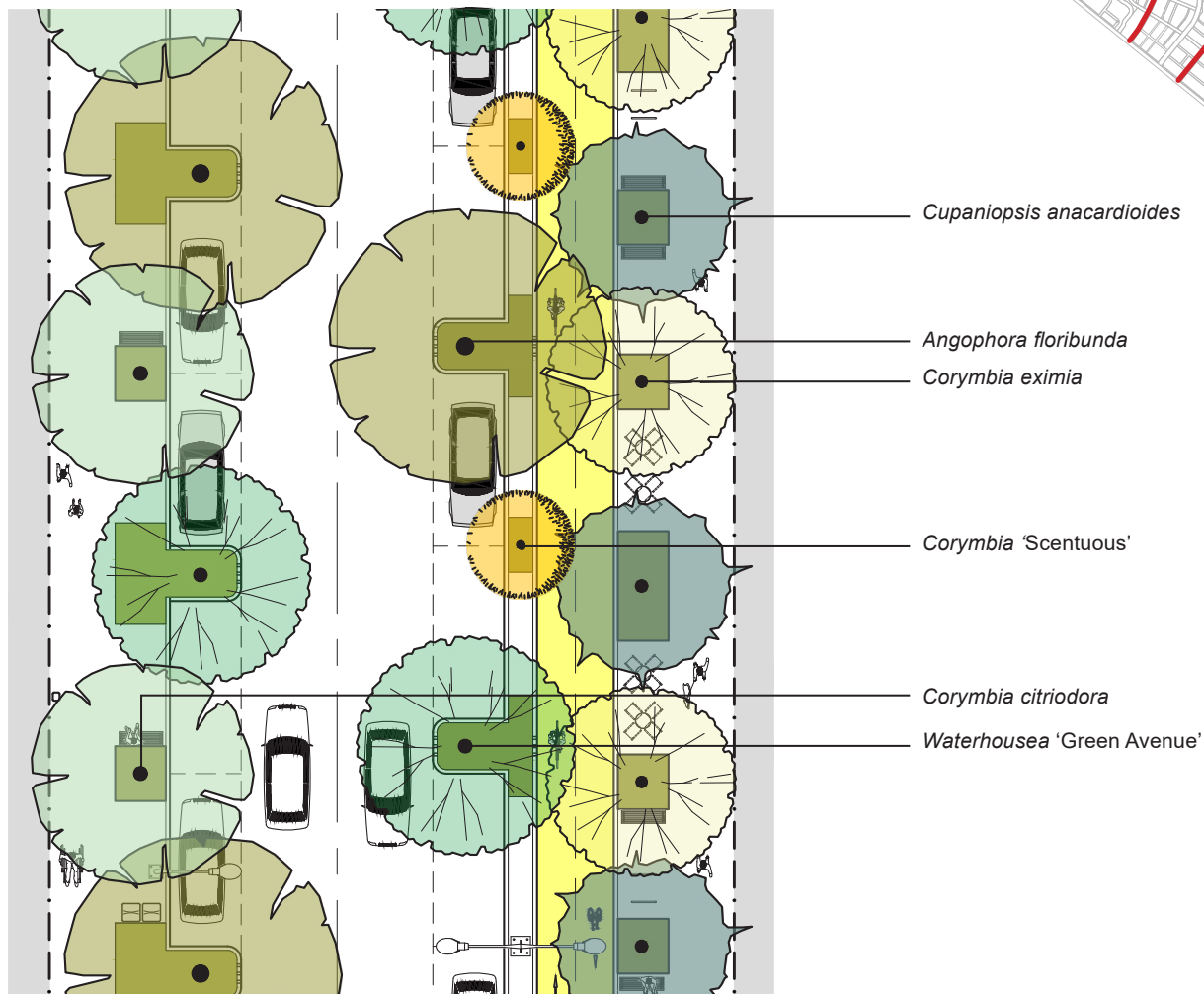


Fraxinus excelsior
'Aurea'



Ficus rubiginosa

- Town Centre streets are likely to have a high degree of pedestrian and commercial activity, street trees should have different visuals through the seasons.
- Height of buildings are likely to be over 5 storey, and trees can be admired from these heights as well as providing substantial shade.



EXPECTED CANOPY COVERAGE : 75%



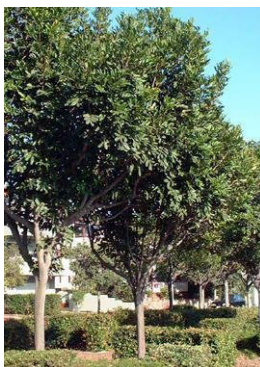
Angophora floribunda



Corymbia 'Scentuous'



Corymbia eximia

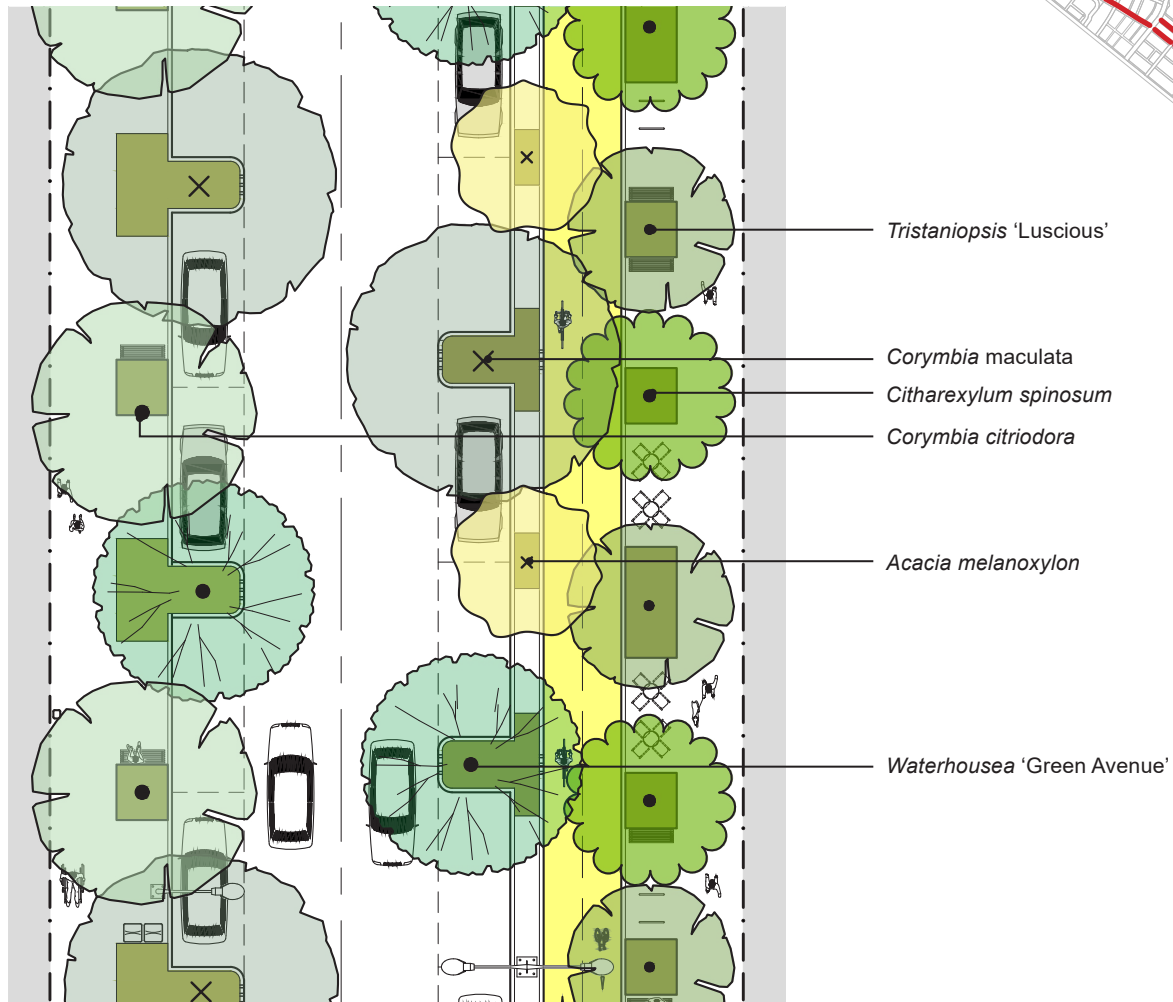
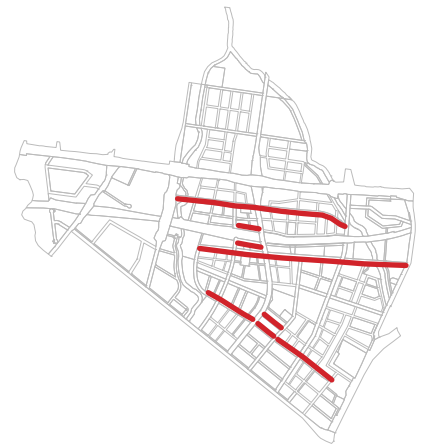


Cupaniopsis anacardioides



Waterhousea 'Green Avenue'

- Town Centre streets are likely to have a high degree of pedestrian and commercial activity, street trees should have different visuals through the seasons such as autumn leaves and spring flowers.
- Height of buildings are likely to be over 5 storey, and trees can be admired from these heights as well as providing substantial shade.



EXPECTED CANOPY COVERAGE : 75%



Acacia melanoxylon



Corymbia maculata



Citharexylum spinosum

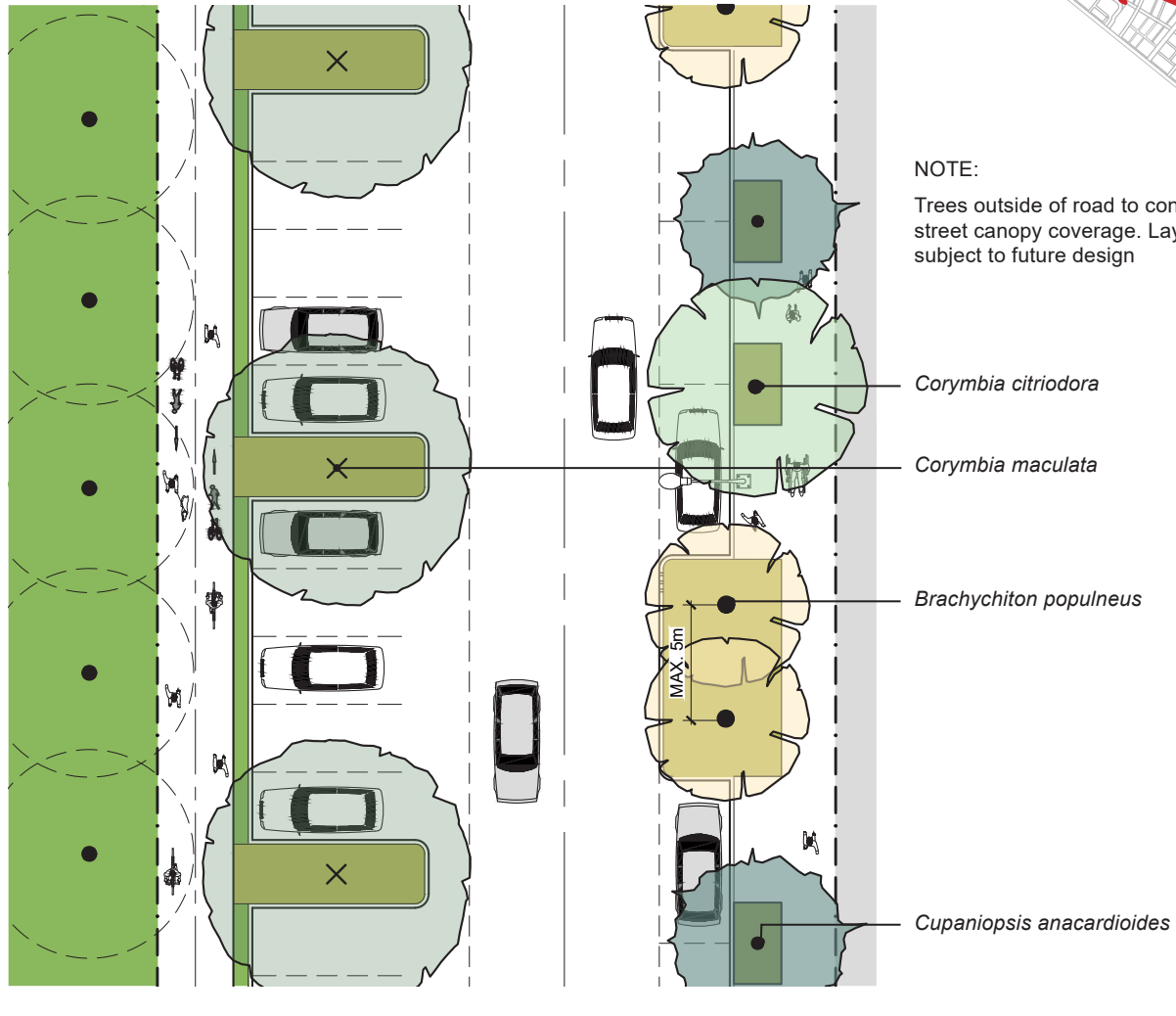
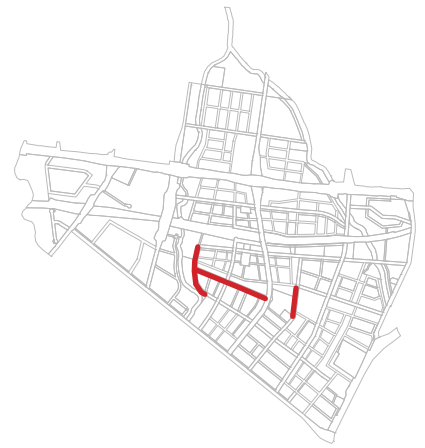


Tristaniopsis 'Luscious'



Waterhousea 'Green Avenue'

- Town Centre streets have a high degree of pedestrian and commercial activity, street trees should have different visuals through the seasons.
- Height of buildings are likely to be over 5 storey, and trees can be admired from these heights as well as providing substantial shade.
- The west side of the road is adjacent to the park



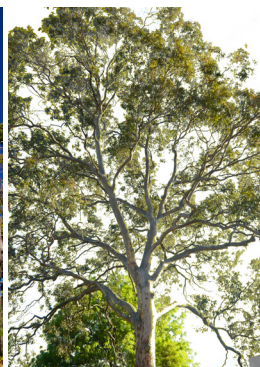
EXPECTED CANOPY COVERAGE : 50%



Brachychiton populneus



Corymbia citriodora

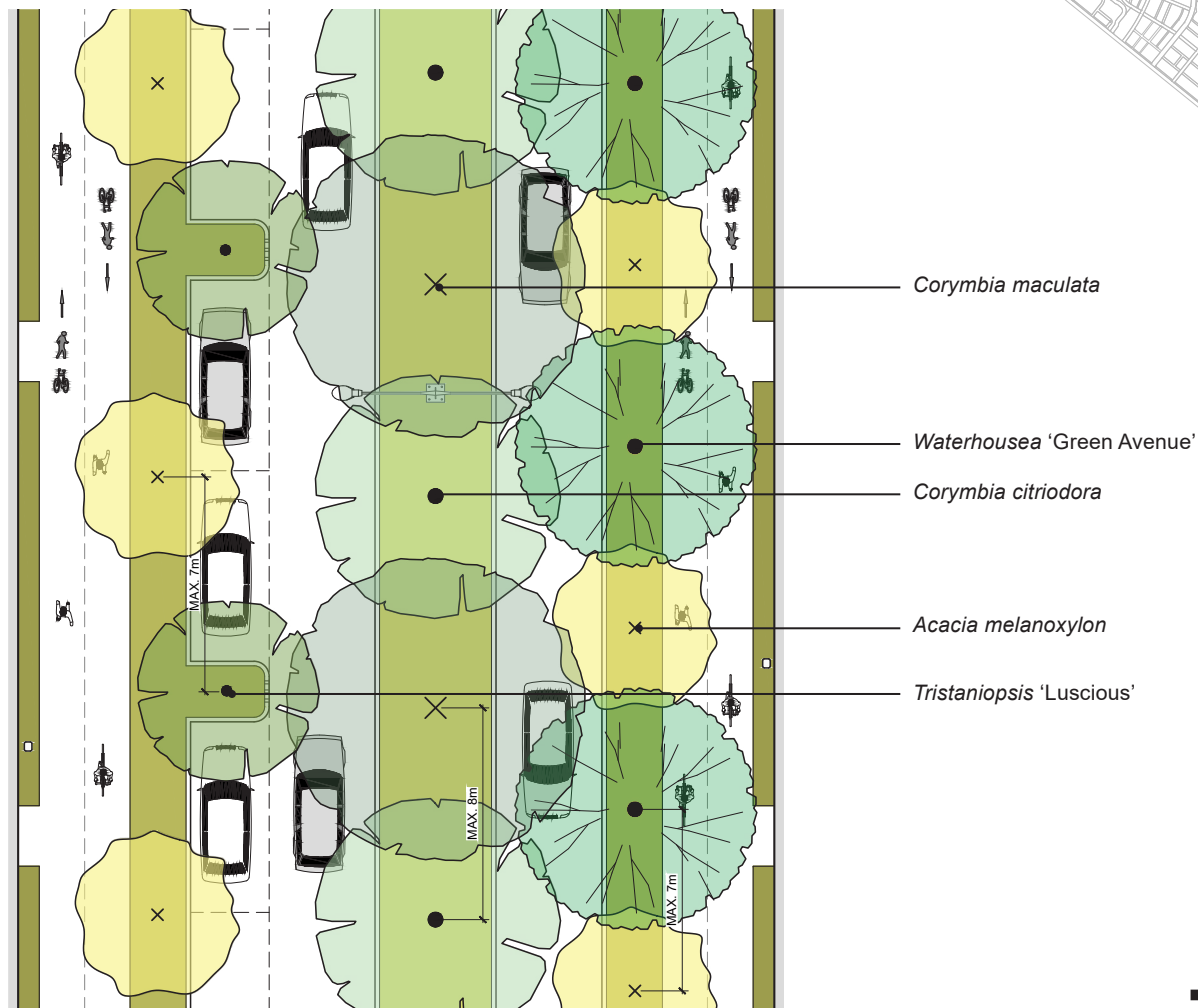
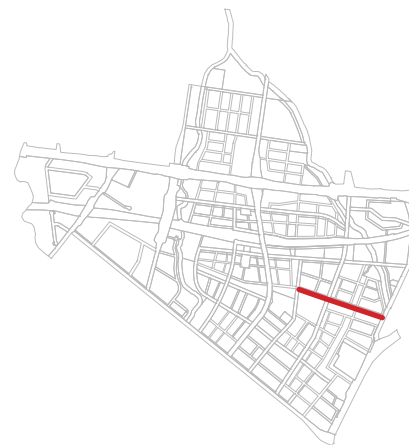


Corymbia maculata



Cupaniopsis anacardioides

- Feature trees to be required here as an access road
- Should be consistent with One-way B and One-way Park side
- Broad tree canopies are preferred median rather than specifically placed and symmetrical planting



EXPECTED CANOPY COVERAGE : 75%



Acacia melanoxylon



Corymbia citriodora



Corymbia maculata

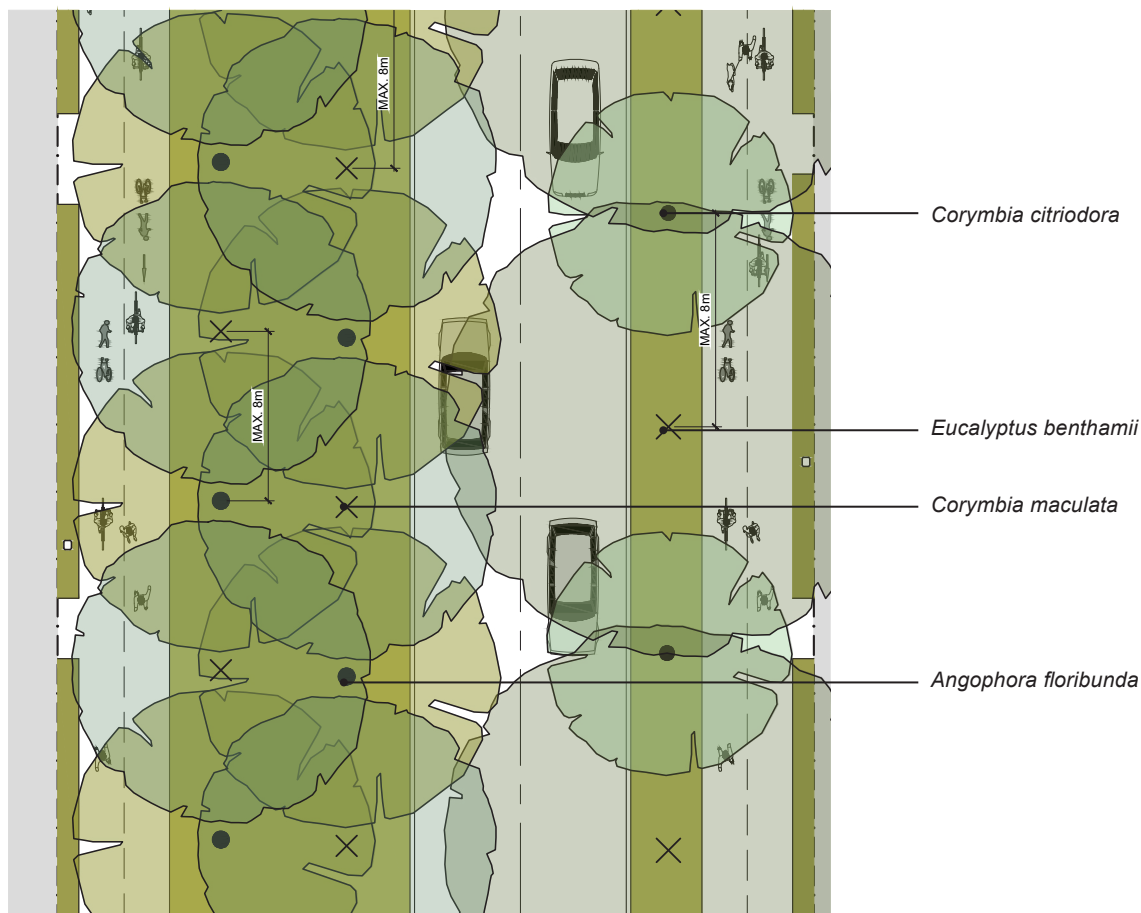


Tristaniopsis 'Luscious'



Waterhousea 'Green Avenue'

- Feature trees to be required here as an access road
- Broad tree canopies are preferred median rather than specifically placed and symmetrical planting
- Use of Camden white gum here as it is our tree and threatened species.



EXPECTED CANOPY COVERAGE : 95%



Angophora floribunda



Corymbia citriodora

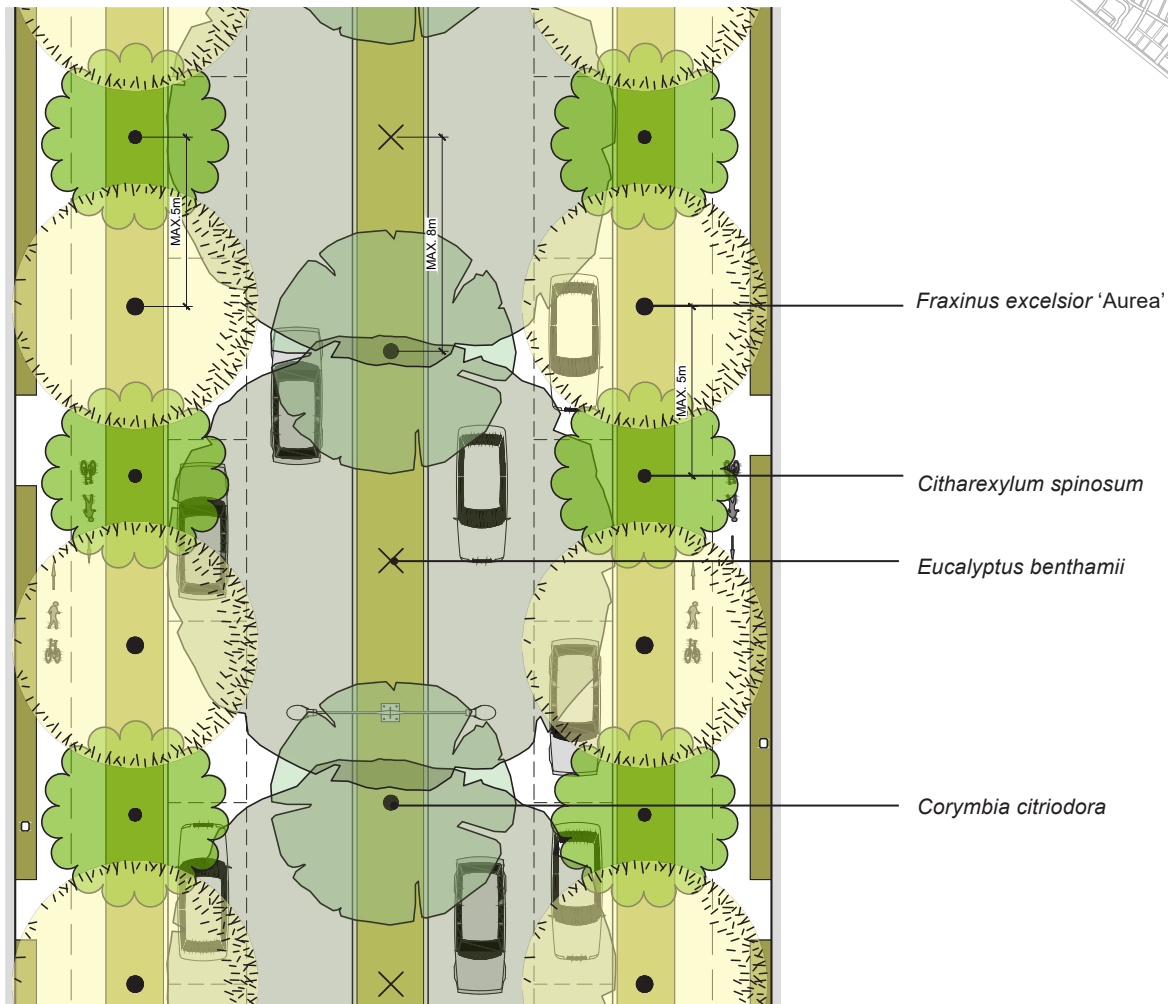


Corymbia maculata



Eucalyptus benthamii

- Kemps Creeks Reserve road continues the main boulevard road that is Ingleburn Road. The tree selection should have a level of consistency in tree varieties with Boulevard B.
- Use of Camden white gum as often as practicable, its our tree and threatened species.
- Deciduous trees should be used on for the trees adjacent to the footpath



EXPECTED CANOPY COVERAGE : 95%



Citharexylum spinosum



Corymbia citriodora

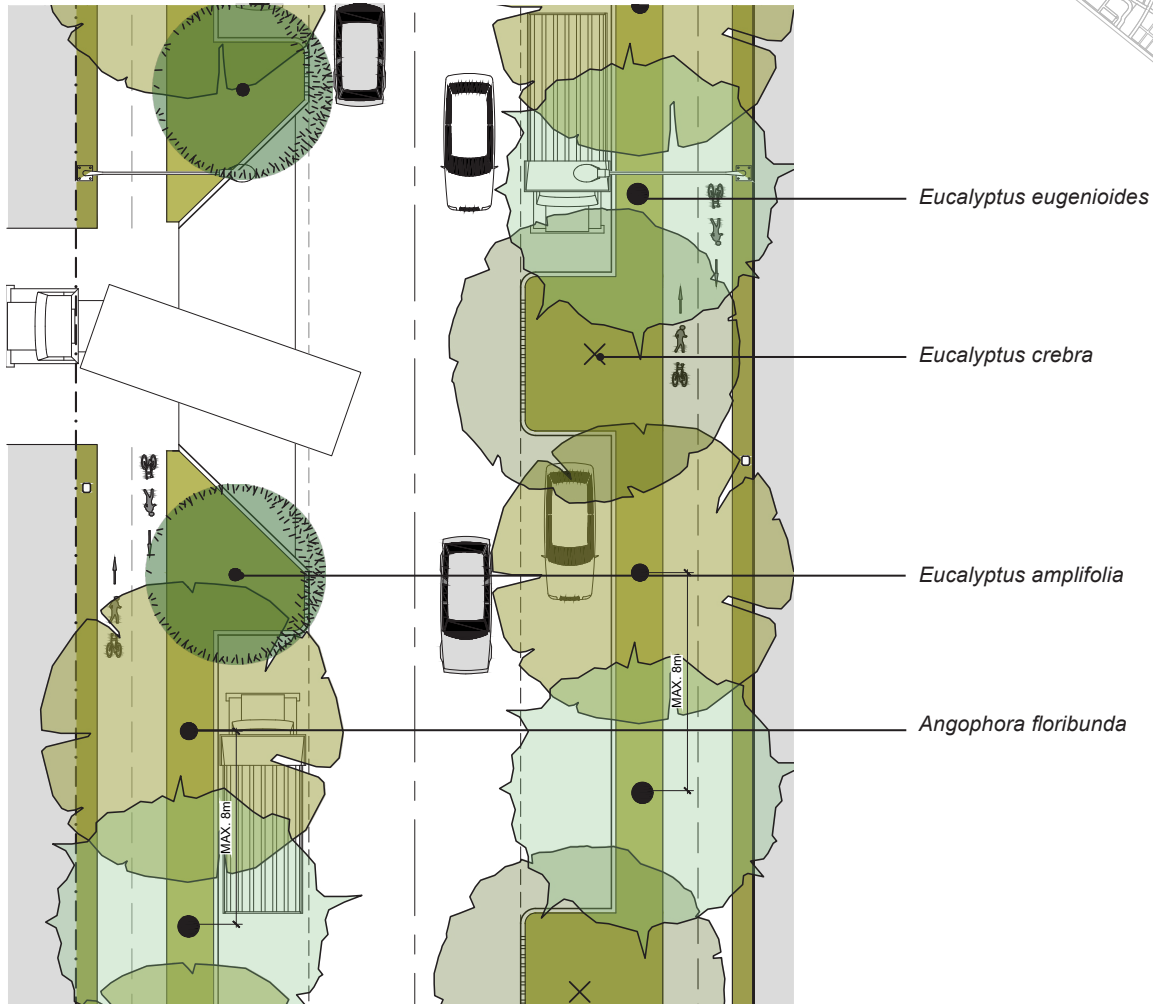
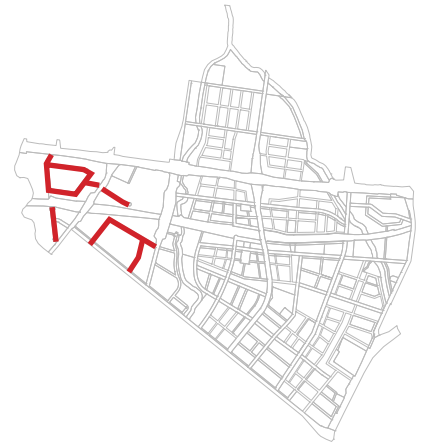


Eucalyptus benthamii



Fraxinus excelsior 'Aurea'

- Tall narrow trees to prevent future conflict with big trucks
- Robust varieties
- Broad canopies



EXPECTED CANOPY COVERAGE : 64%



Angophora floribunda



Eucalyptus amplifolia

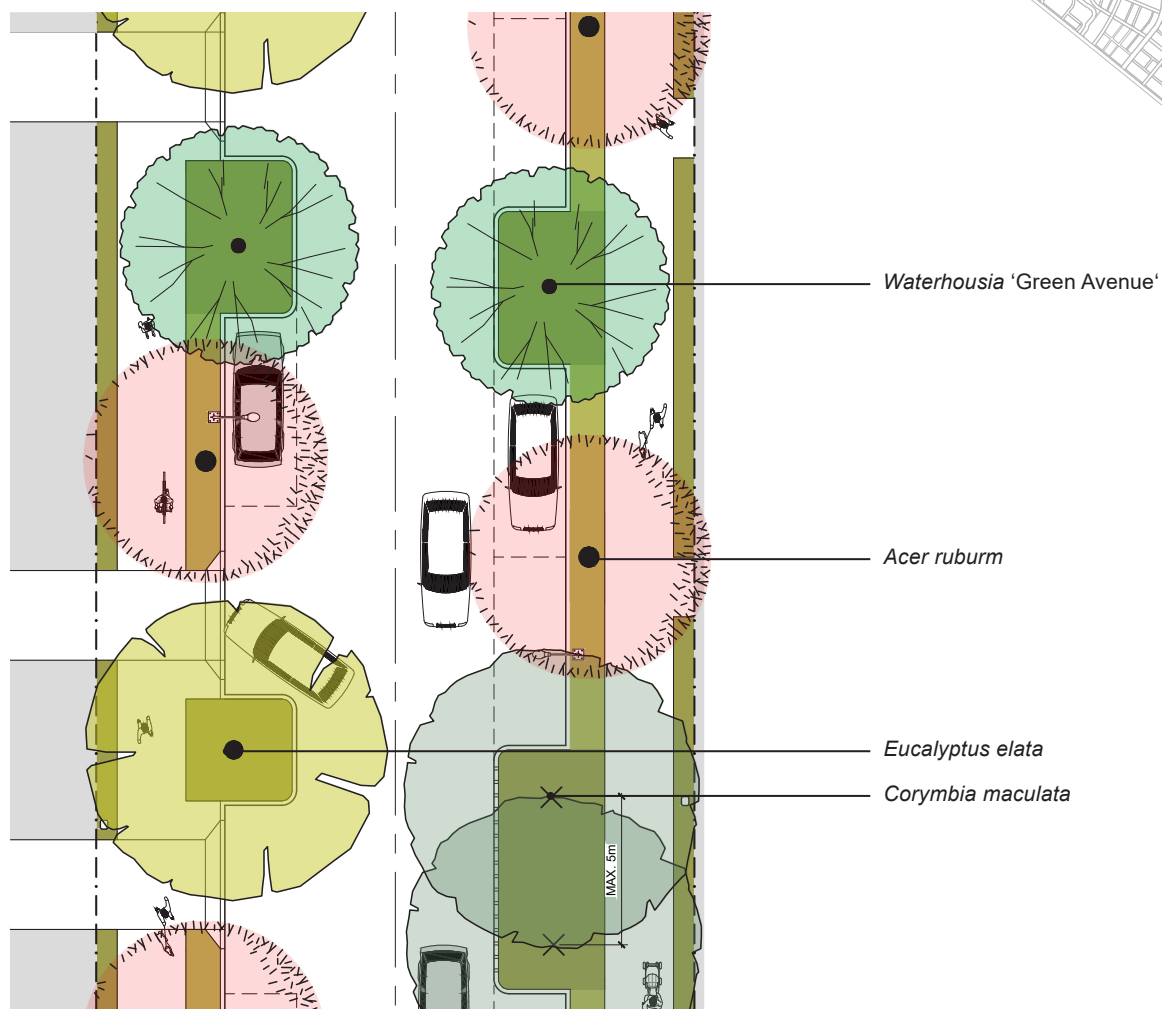


Eucalyptus crebra



Eucalyptus eugenioides

- Local collector to be similar species to Local Streets;
- Up to 2 Local Collector street types;
- Many of these streets will have up to 4 storey residential apartments on either side of the street.



EXPECTED CANOPY COVERAGE : 75%



Acer rubrum



Corymbia maculata

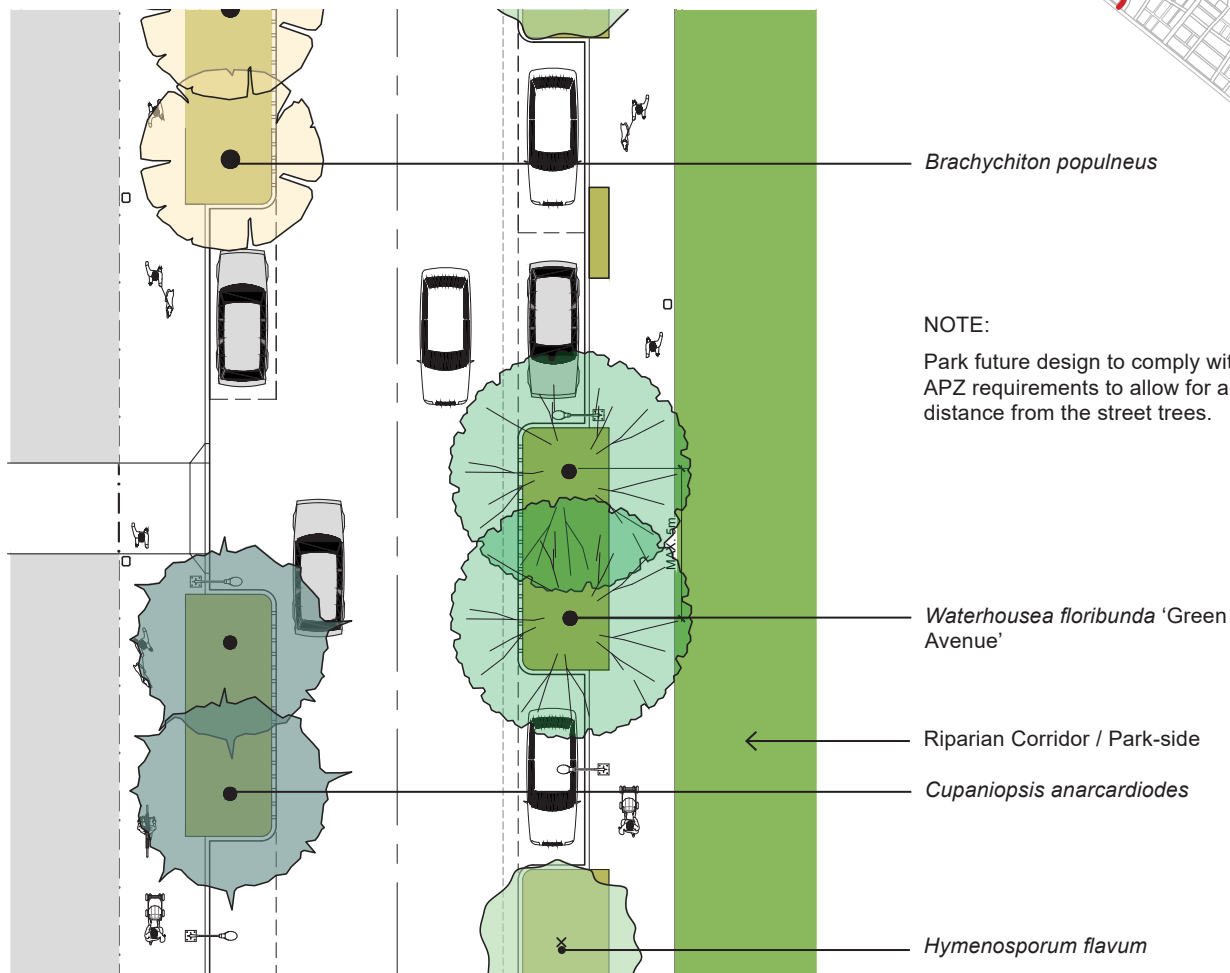


Eucalyptus elata



Waterhousia 'Green Avenue'

- Variety of native trees with fire retardant preferred in this street type to mark the connection to the creeks and the riparian park
- Fire retardant trees selected to reduce bushfire hazard



EXPECTED CANOPY COVERAGE : 36%



Brachychiton populneus



Cupaniopsis anacardioides

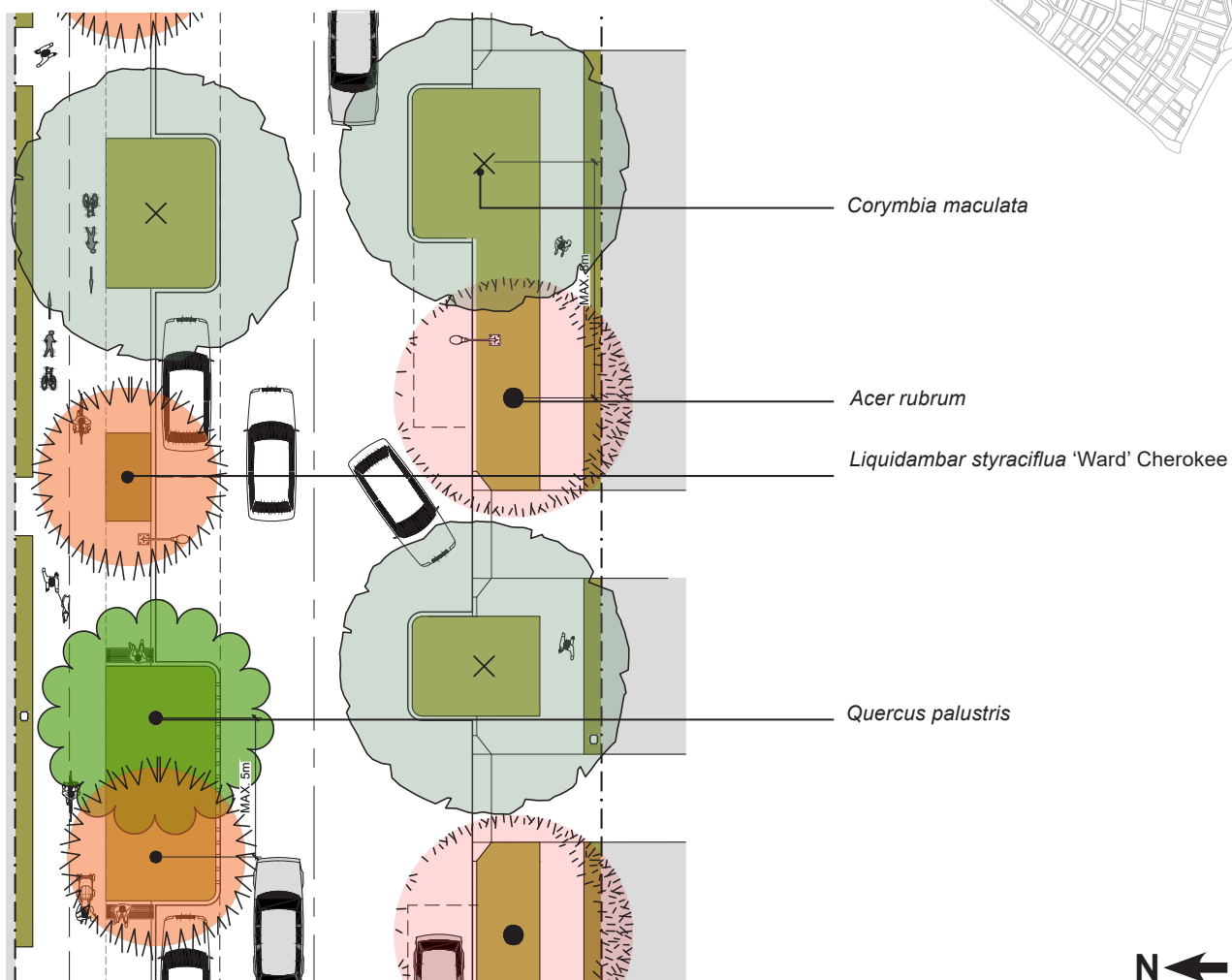
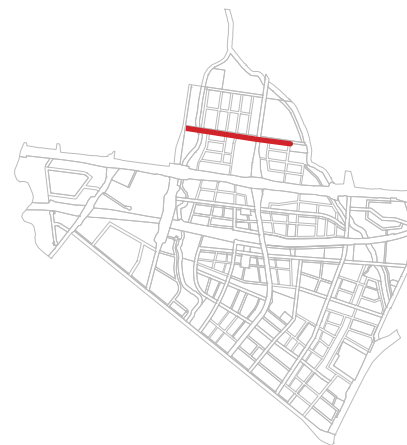


Hymenosporum flavum



Waterhousea 'Green Avenue'

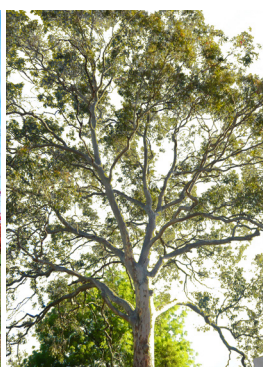
- Local collector to be similar species to Local Streets;
- This streets will have up to 4 storey residential apartments on either side of the street.



EXPECTED CANOPY COVERAGE : 75%



Acer rubrum



Corymbia maculata

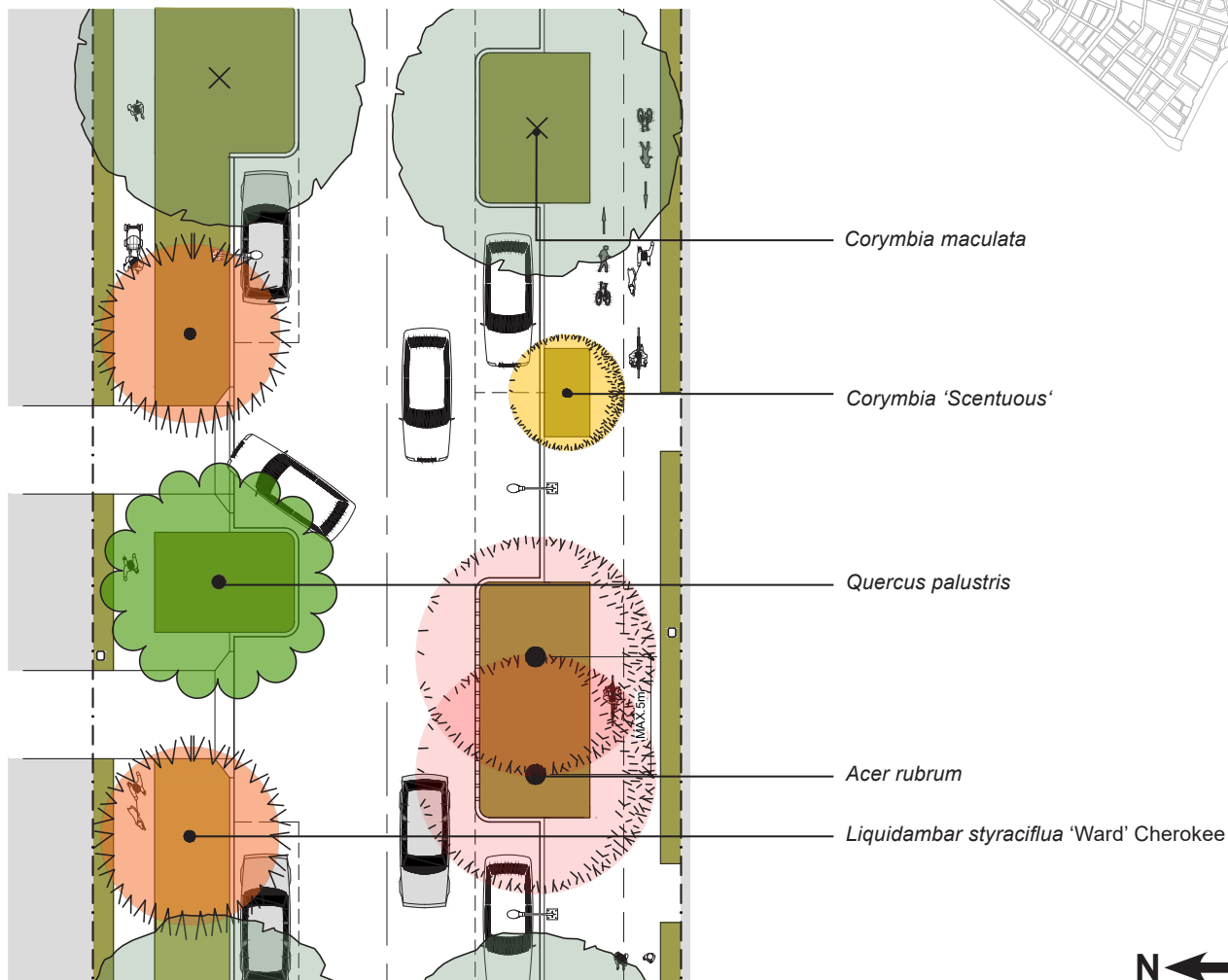
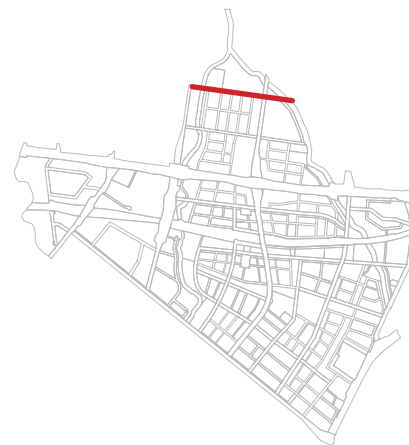


Liquidambar styraciflua
'Ward' Cherokee



Quercus palustris

- Local street to be similar species to Local collector (Fifth Avenue);
- This street will have up to 4 storey residential apartments on either side of the street.



EXPECTED CANOPY COVERAGE : 75%



Acer rubrum



Corymbia maculata



Corymbia 'Scentuous'

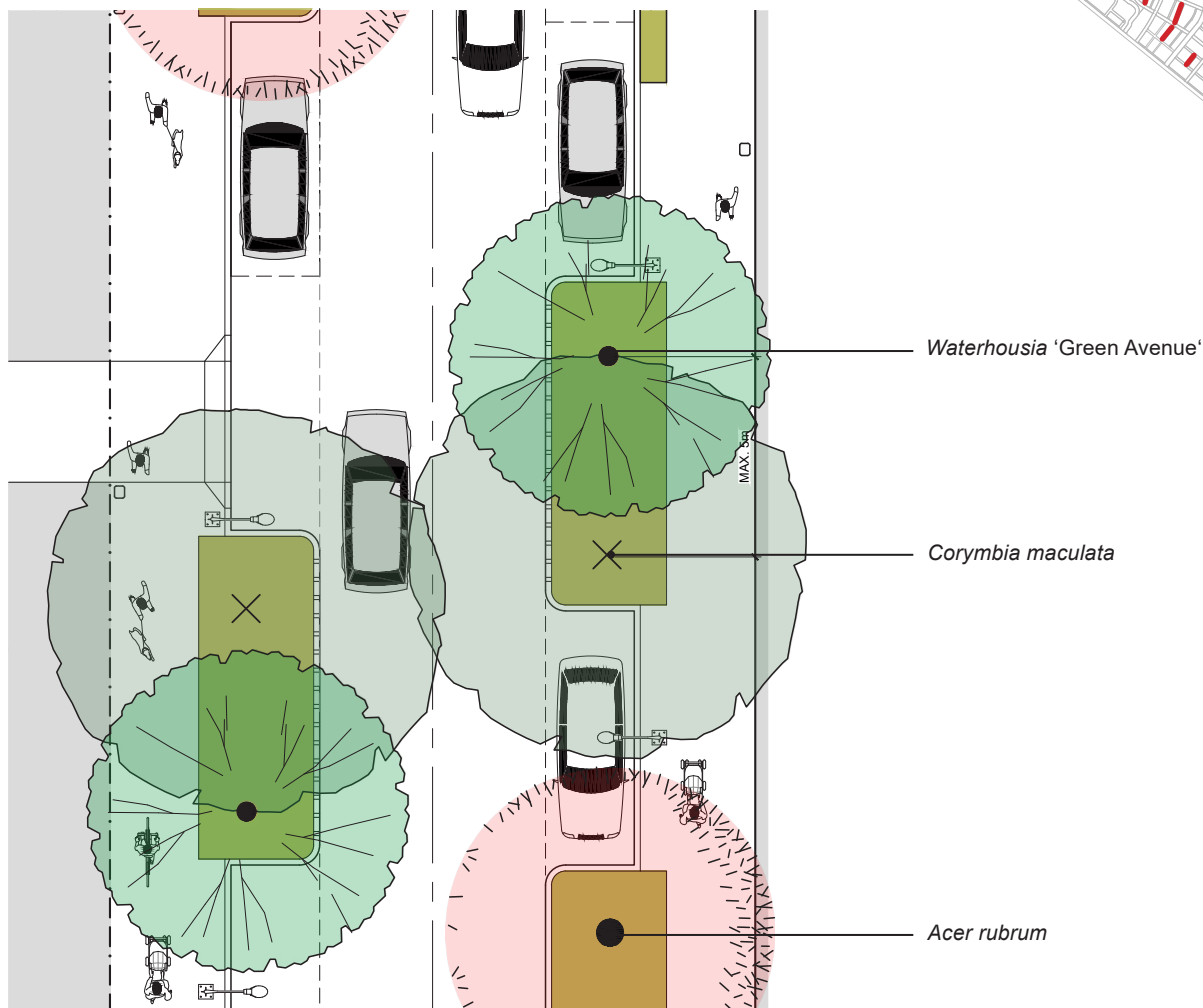


*Liquidambar styraciflua
'Ward' Cherokee*



Quercus palustris

- Up to 4 Local Street types as this is a street type more frequent than others;
- Many of these streets will have up to 4 storey residential apartments on either side of the street.



EXPECTED CANOPY COVERAGE : 65%



Acer rubrum

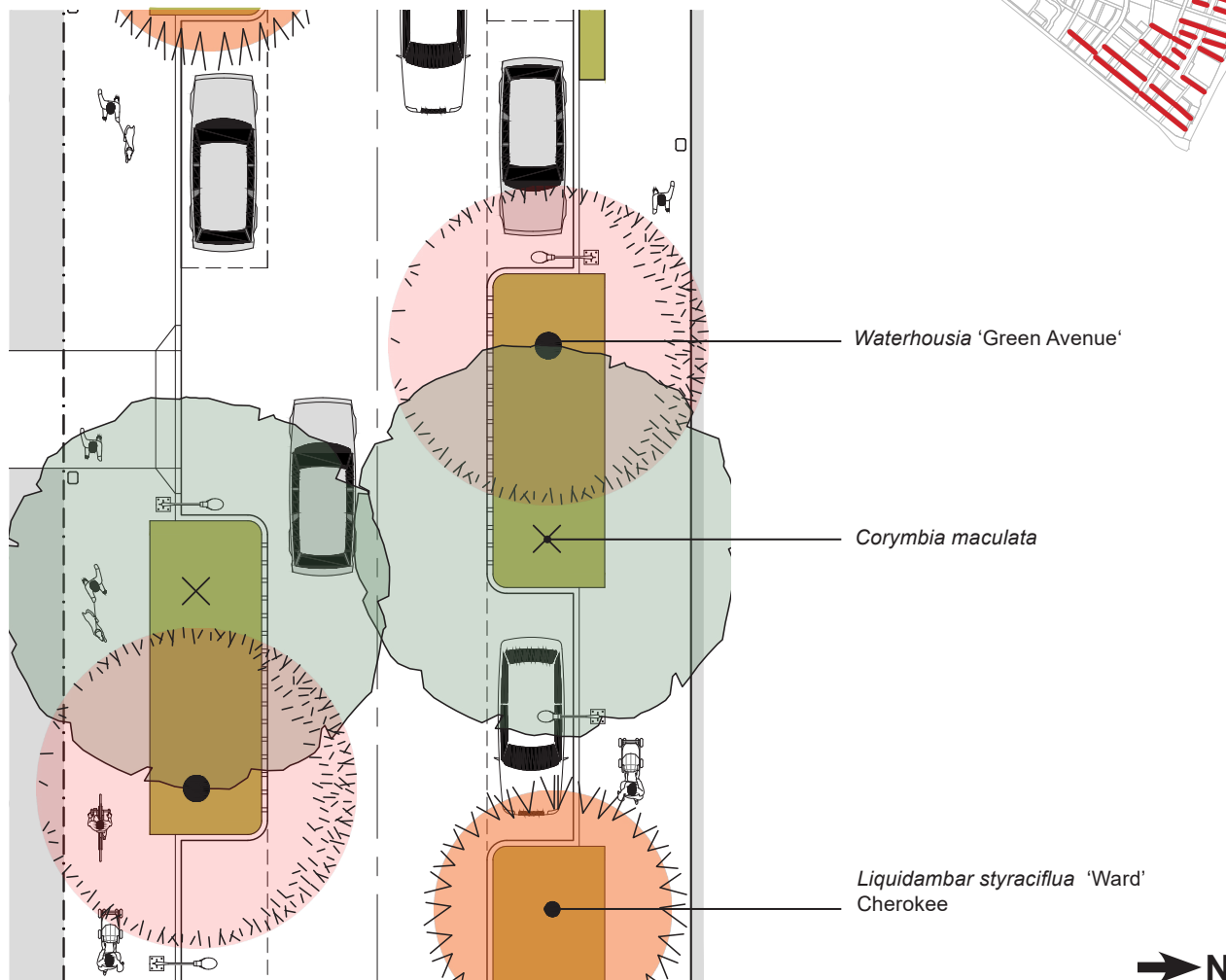


Corymbia maculata



Waterhouseia 'Green Avenue'

- Up to 4 Local Street types as this is a street type more frequent than others;
- Many of these streets will have up to 4 storey residential apartments on either side of the street.



EXPECTED CANOPY COVERAGE : 65%



Acer rubrum

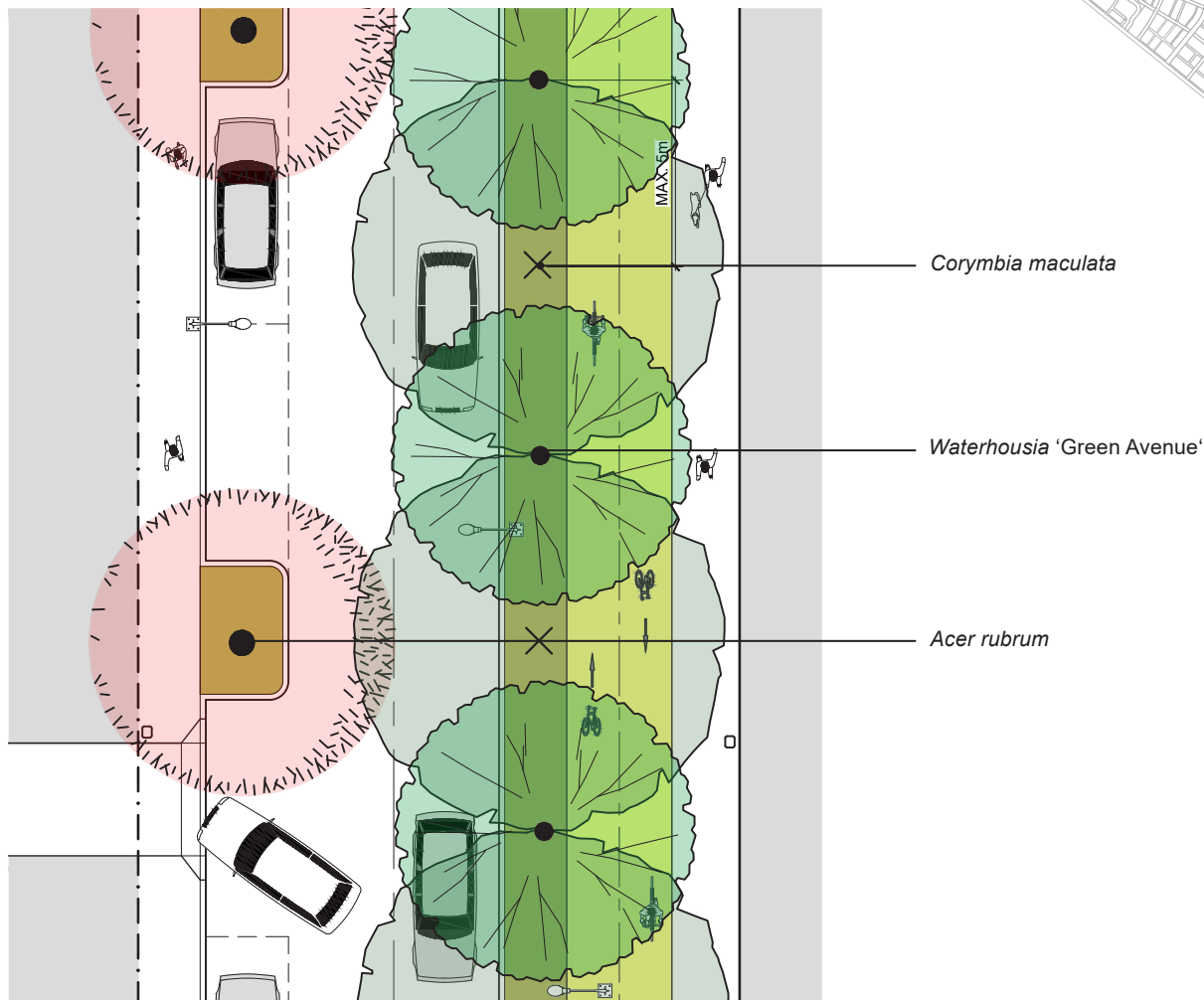
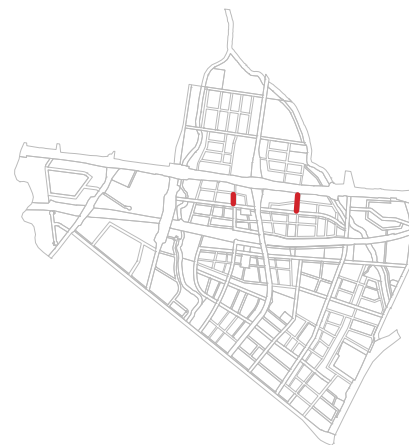


Corymbia maculata



Liquidambar styraciflua
'Ward' Cherokee

- Up to 5 Local Street types as this is a street type more frequent than others;
- Many of these streets will have up to 4 storey residential apartments on either side of the street.



EXPECTED CANOPY COVERAGE : 65%



Acer rubrum

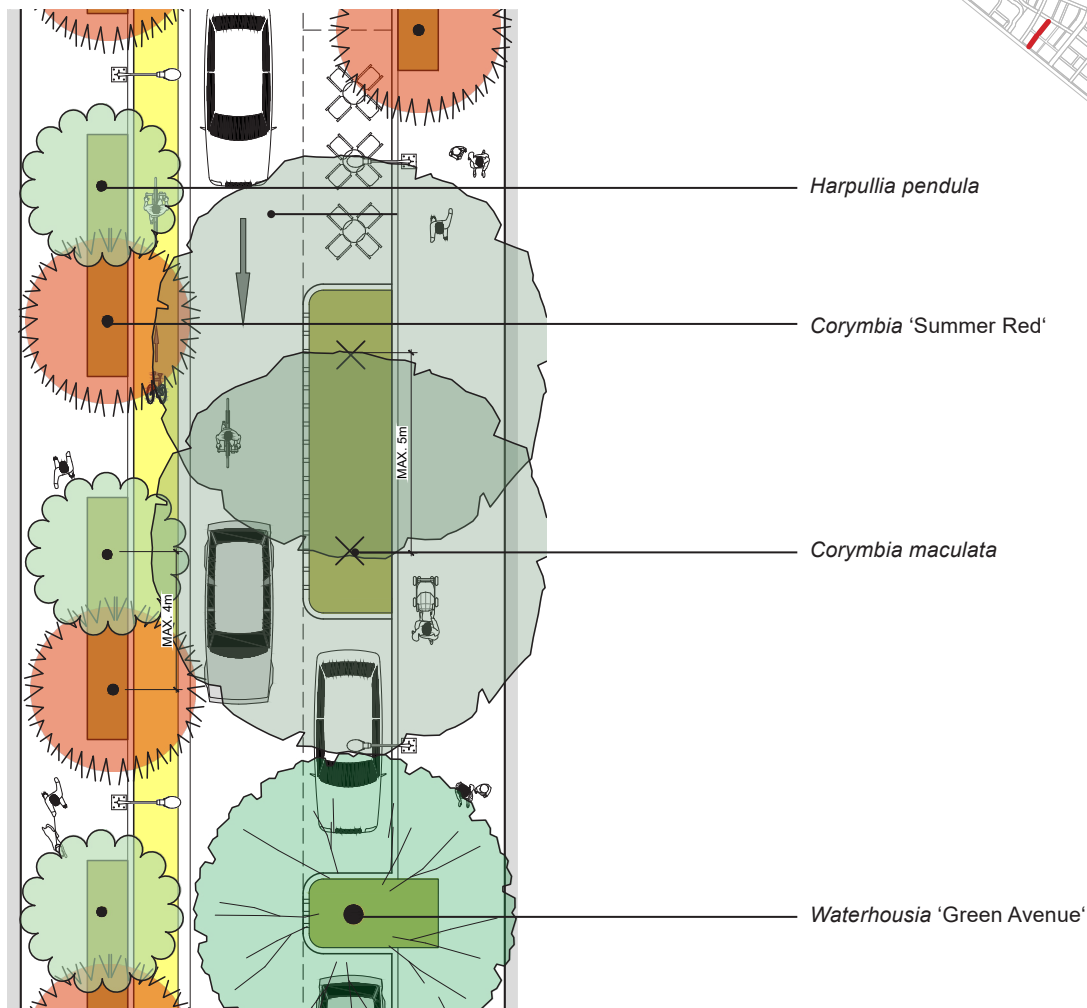


Corymbia maculata



Waterhousea 'Green Avenue'

- One Way Street to be similar species to Local Collector;
- Up to 2 One Way Street Types;
- Many of these streets will have up to 4 storey mixed use or residential apartments on either side of the street.



EXPECTED CANOPY COVERAGE : 75%



Corymbia maculata



Corymbia 'Summer Red'

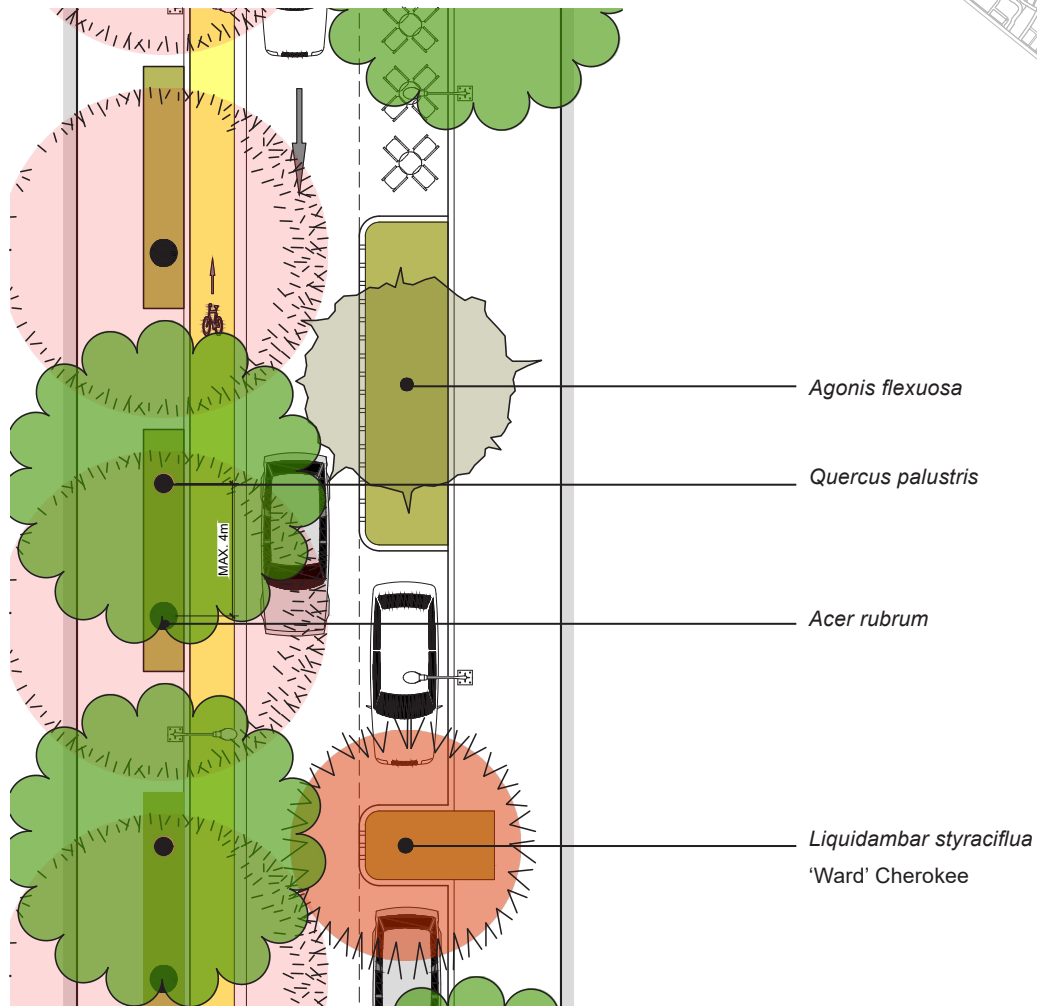


Harpullia pendula



Waterhousea 'Green Avenue'

- One Way Street to be similar species to Local Collector;
- Up to 2 One Way Street Types;
- Many of these streets will have up to 4 storey mixed use or residential apartments on either side of the street.



EXPECTED CANOPY COVERAGE : 82%



Acer rubrum



Agonis flexuosa

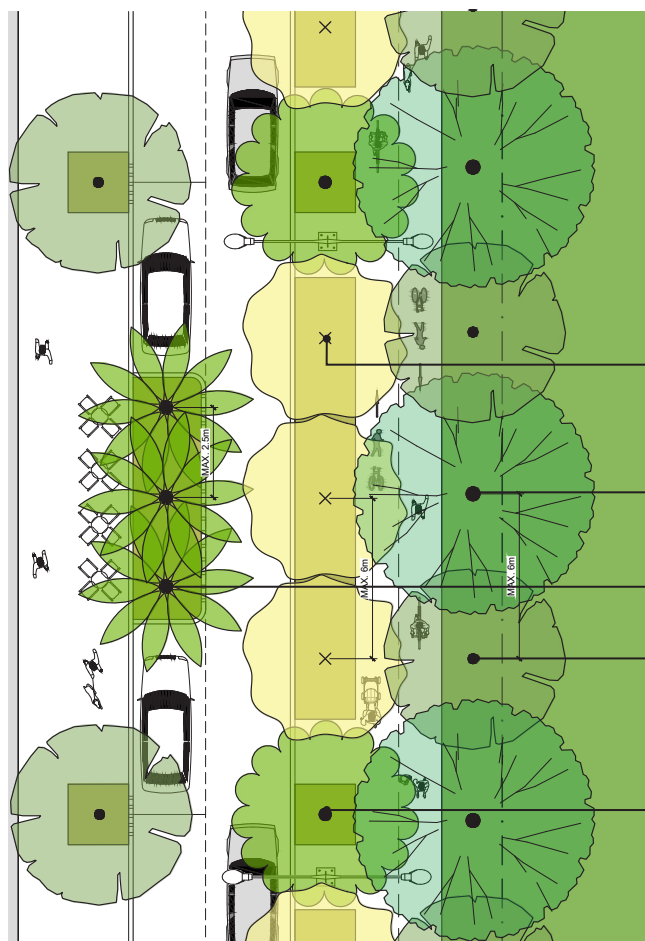


Liquidambar styraciflua
'Ward' Cherokee



Quercus palustris

- Trees should be large and are an introduction into the park and the larger trees that are more suited there.
- Mix of deciduous and evergreen trees
- Extensive use of colour throughout the seasons to create a place that evolves over through the year.



NOTE:

Trees outside of road to contribute to street canopy coverage. Layout to be subject to future design

Acacia melanoxylon

Waterhousea 'Green Avenue'

Livistona australis

Tristanopsis 'Luscious'

Citharexylum spinosum



EXPECTED CANOPY COVERAGE : 75%



Acacia melanoxylon



Citharexylum spinosum



Livistona australis

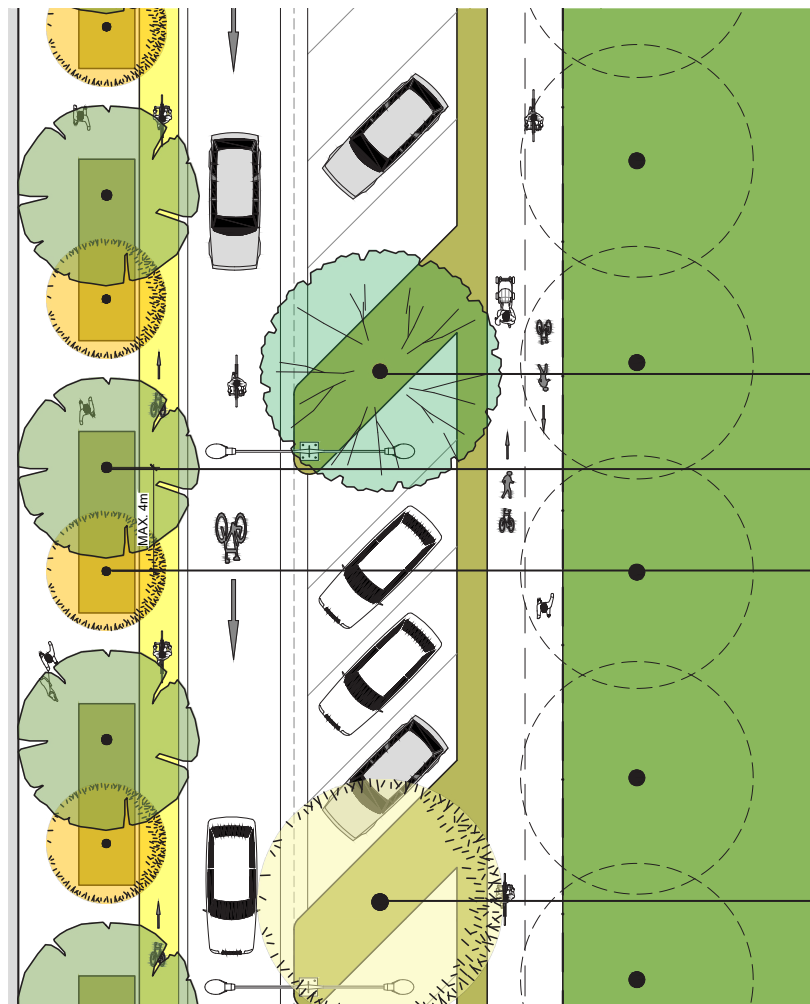
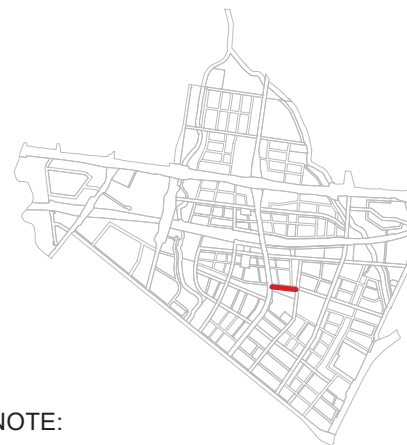


Tristanopsis 'Luscious'



Waterhousea 'Green Avenue'

- Mix of deciduous and evergreen trees
- Extensive use of colour throughout the seasons to create a place that evolves over through the year.



NOTE:

Trees outside of road to contribute to street canopy coverage. Layout to be subject to future design

Waterhousea 'Green Avenue'

Tristaniopsis 'Luscious'

Corymbia 'Scentuous'

Fraxinus excelsior 'Aurea'



EXPECTED CANOPY COVERAGE : 56%



Corymbia 'Scentuous'



Tristaniopsis 'Luscious'

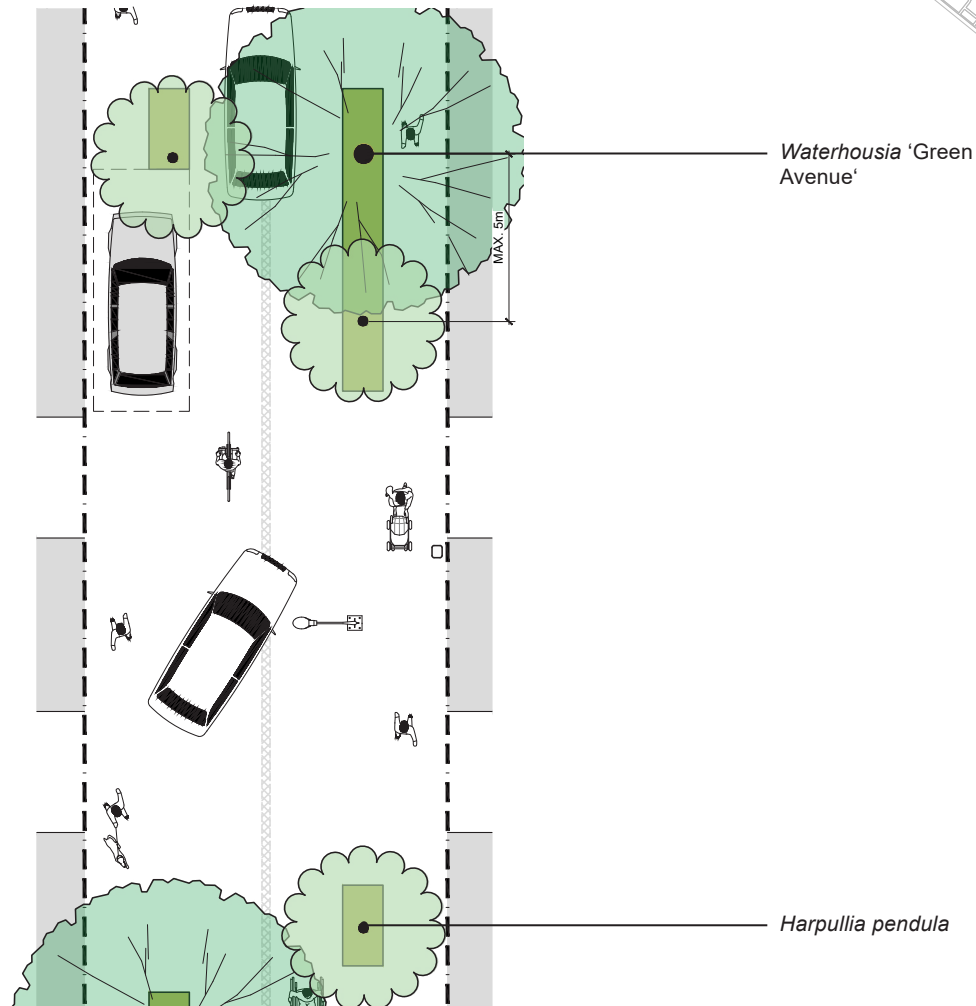


Fraxinus excelsior 'Aurea'



Waterhousea 'Green Avenue'

- Native trees preferred as this street type is N/S
- Medium size trees suggested
- Largely paved area, so a robust tree is preferred



EXPECTED CANOPY COVERAGE : 40%

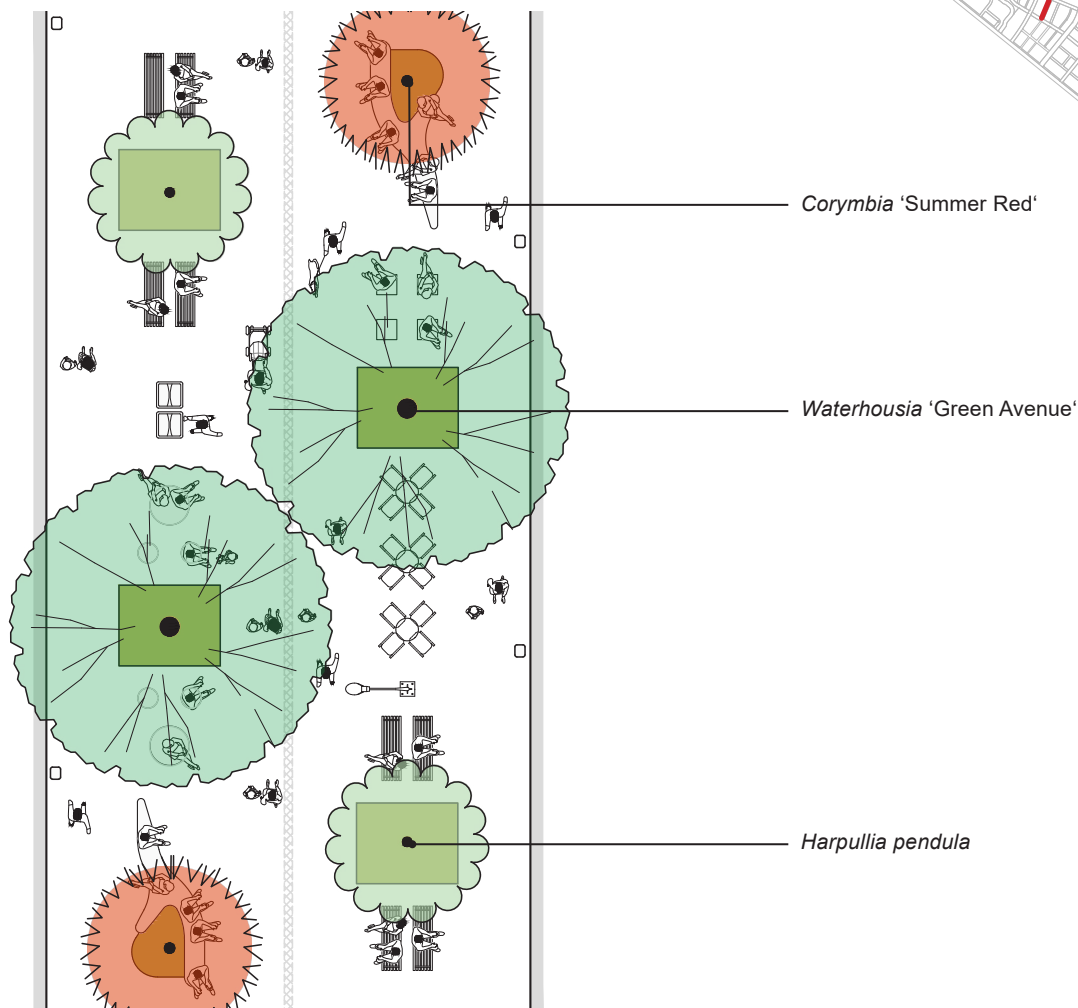


Harpullia pendula



Waterhouseia 'Green Avenue'

- These should be lined with trees that change seasonally to create interest over time.
- Market street specific - will be the central pedestrian spine of Leppington; lively and interesting with small shops, pubs etc.



EXPECTED CANOPY COVERAGE : 50%



Corymbia 'Summer Red'

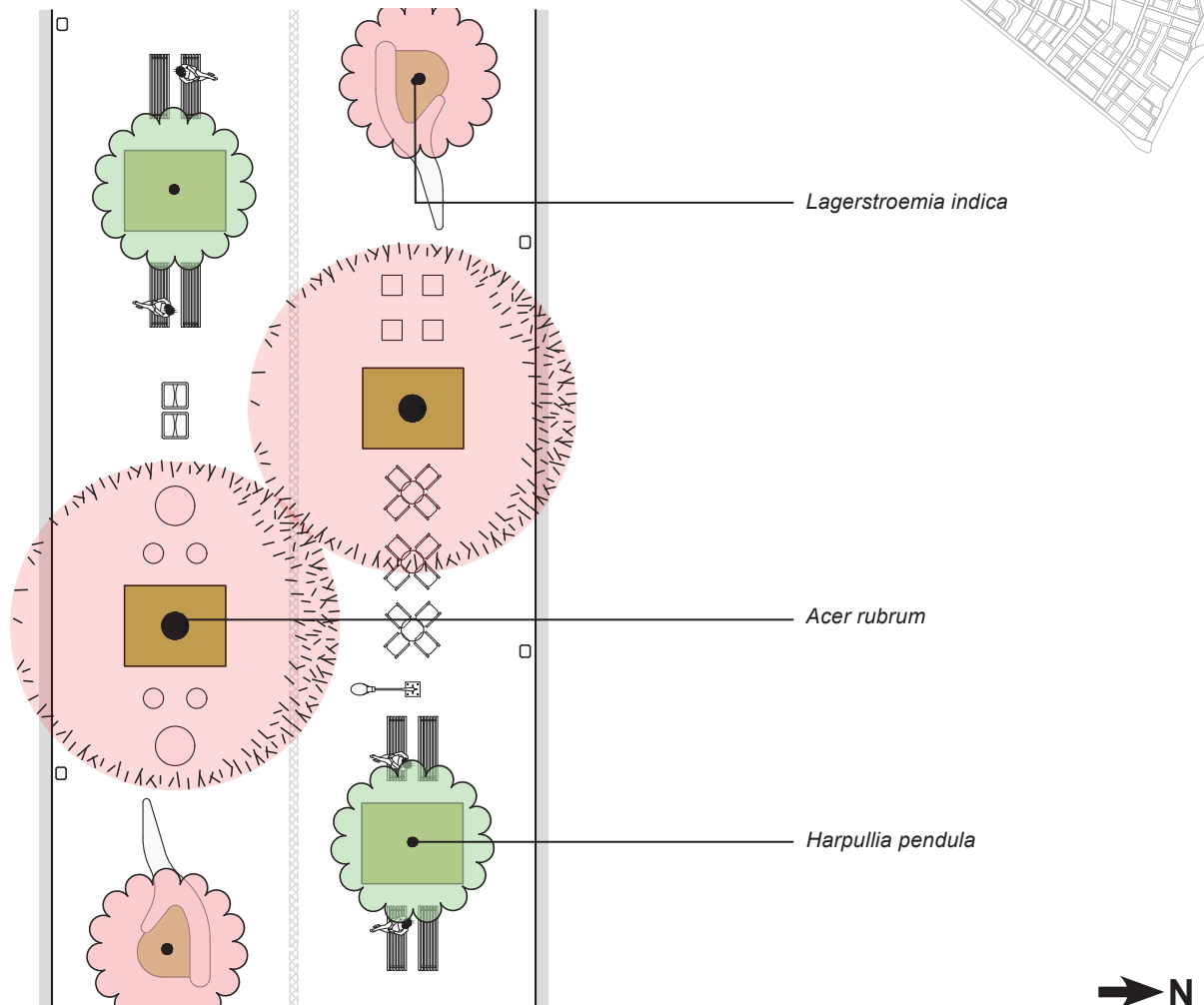


Harpullia pendula



Waterhousea 'Green Avenue'

- These should be lined with trees that change seasonally to create interest over time.
- Market street specific - will be the central pedestrian spine of Leppington; lively and interesting with small shops, pubs etc.
- Deciduous trees may be more ideal for market street (runs N/S)



EXPECTED CANOPY COVERAGE : 50%



Acer rubrum

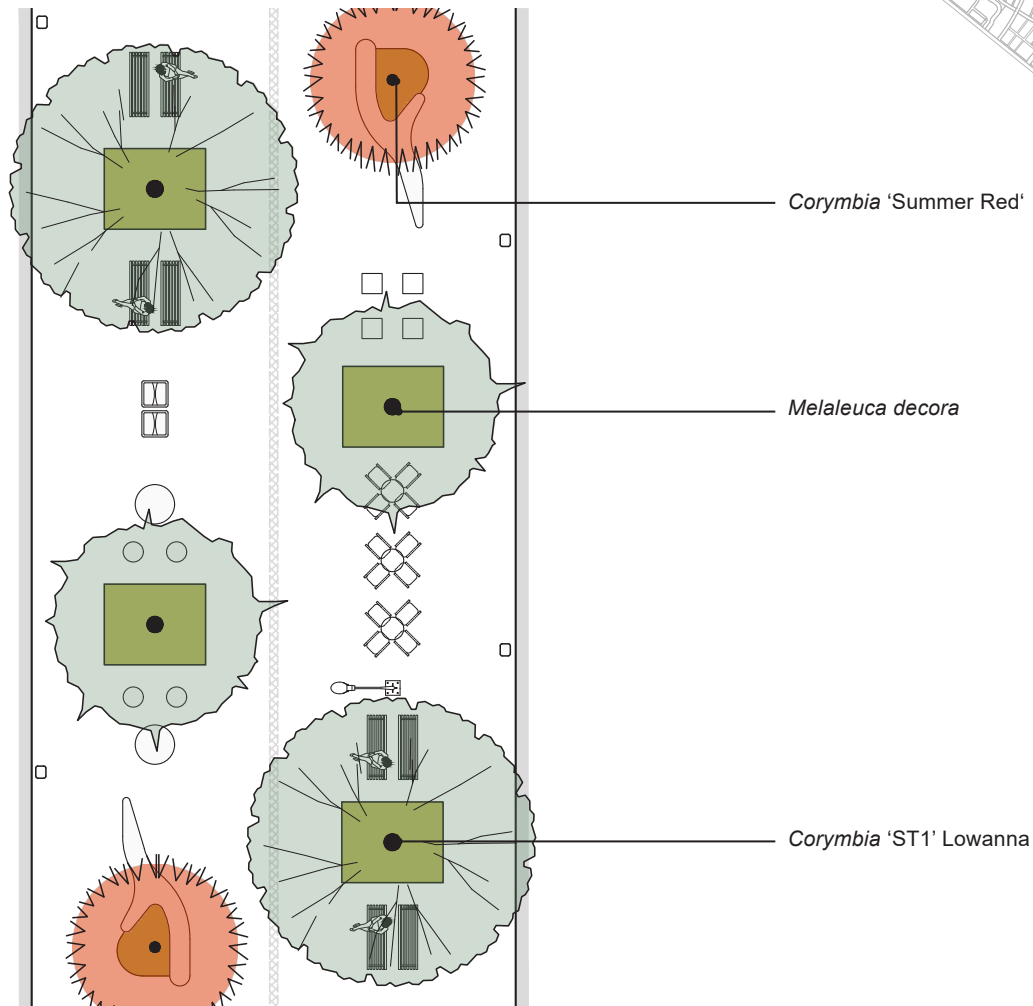
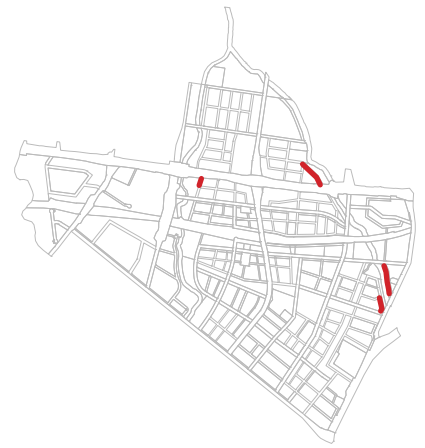


Harpullia pendula



Lagerstroemia indica

- These should be lined with trees that change seasonally to create interest over time.
- Market street specific - will be the central pedestrian spine of Leppington; lively and interesting with small shops, pubs etc.
- Deciduous trees may be more ideal for market street (runs N/S)



EXPECTED CANOPY COVERAGE : 50%



Corymbia 'Summer Red'

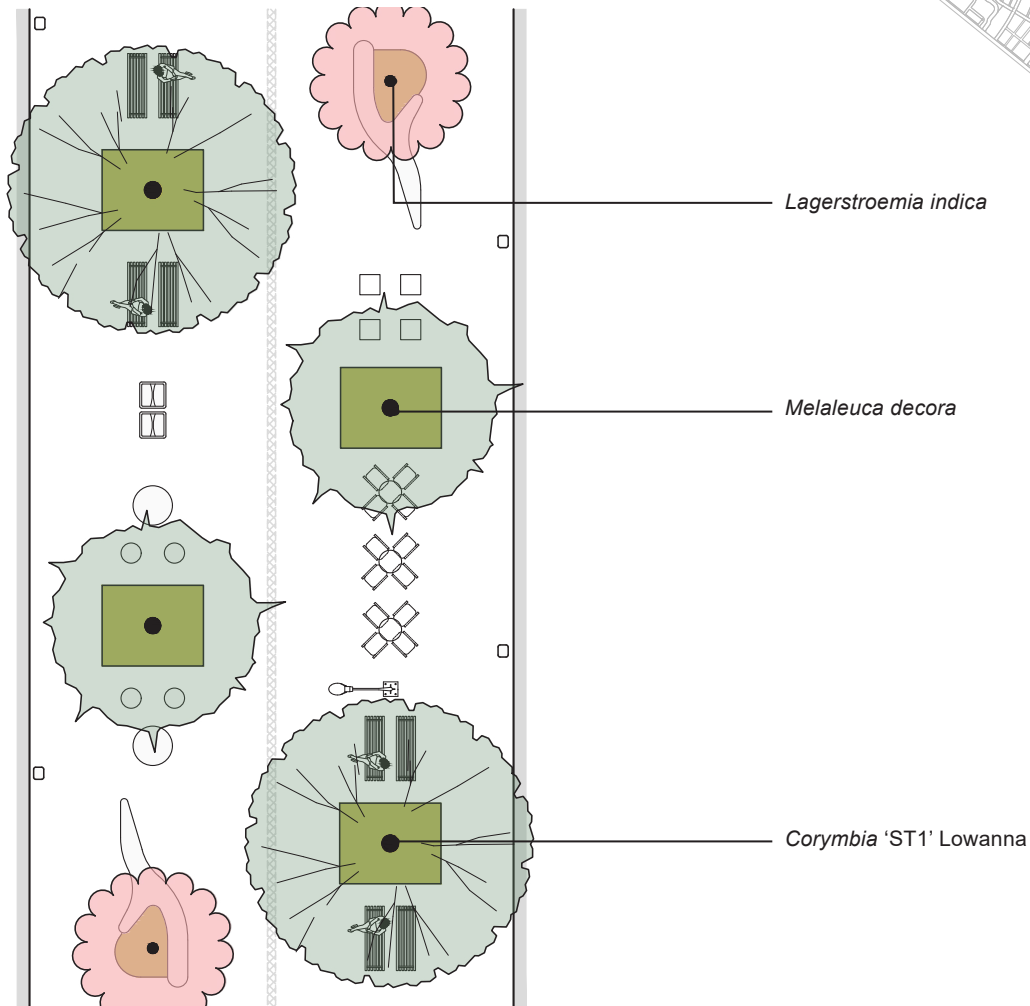


Corymbia 'ST1' Lowanna



Melaleuca decora

- These should be lined with trees that change seasonally to create interest over time.
- Market street specific - will be the central pedestrian spine of Leppington; lively and interesting with small shops, pubs etc.
- Deciduous trees may be more ideal for market street (runs N/S)



EXPECTED CANOPY COVERAGE : 50%



Corymbia 'ST1' Lowanna

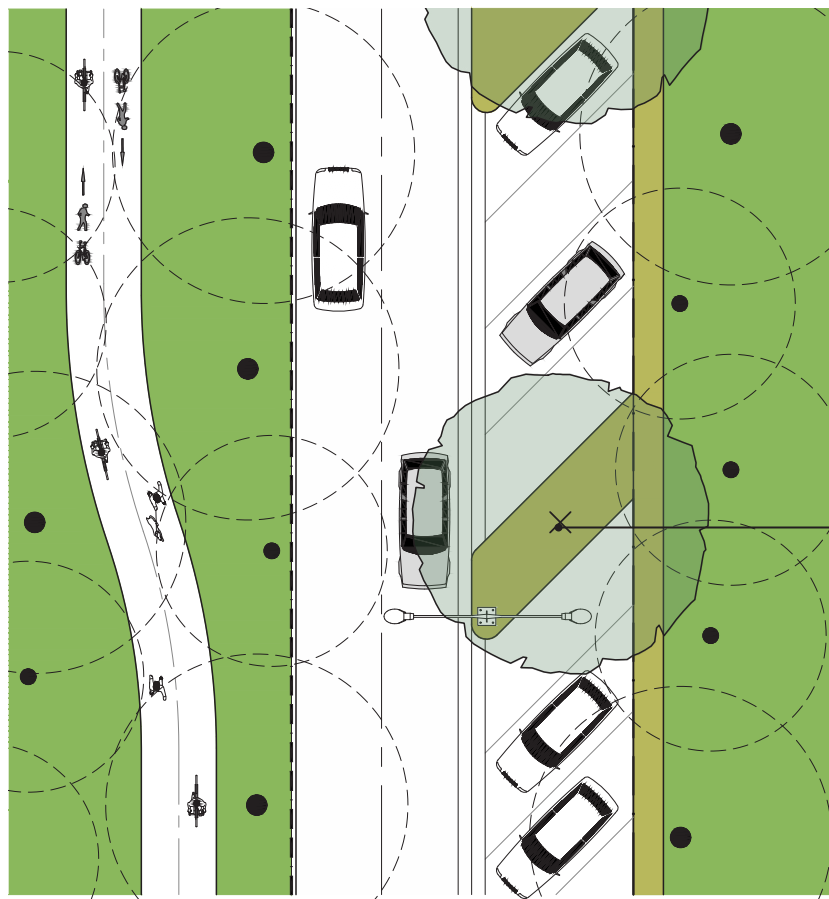


Lagerstroemia indica



Melaleuca decora

- Large native trees to integrate with Park trees (subject to future design)



NOTE:

Trees outside of road to contribute to street canopy coverage. Layout to be subject to future design

Corymbia maculata

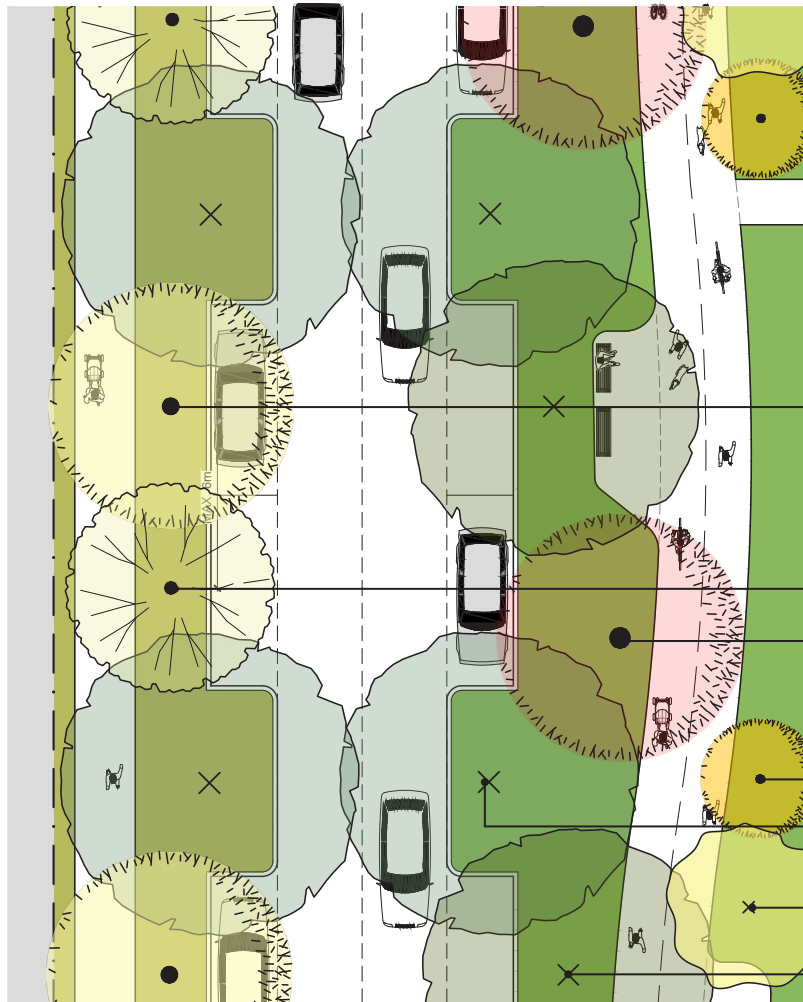
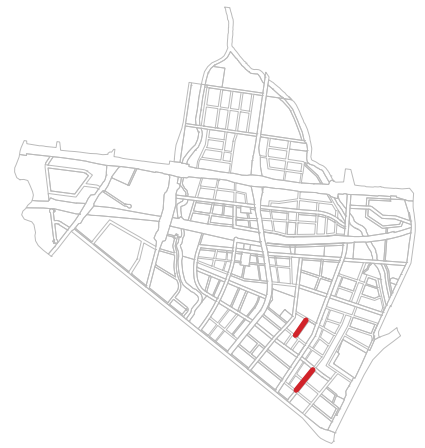


EXPECTED CANOPY COVERAGE : 70%



Corymbia maculata

- The tree selection should have a level of consistency in tree varieties with Local street Type A.
- Mix of deciduous and evergreen trees
- Extensive use of colour throughout the seasons to create a place that evolves over through the year.



NOTE:

Trees outside of road to contribute to street canopy coverage. Layout to be subject to future design

Fraxinus excelsior 'Aurea'

Corymbia exima

Acer rubrum

Corymbia 'Scentuous'

Corymbia maculata

Acacia melanoxylon

Eucalyptus crebra



EXPECTED CANOPY COVERAGE: 75%



Acacia melanoxylon



Acer rubrum



Corymbia maculata

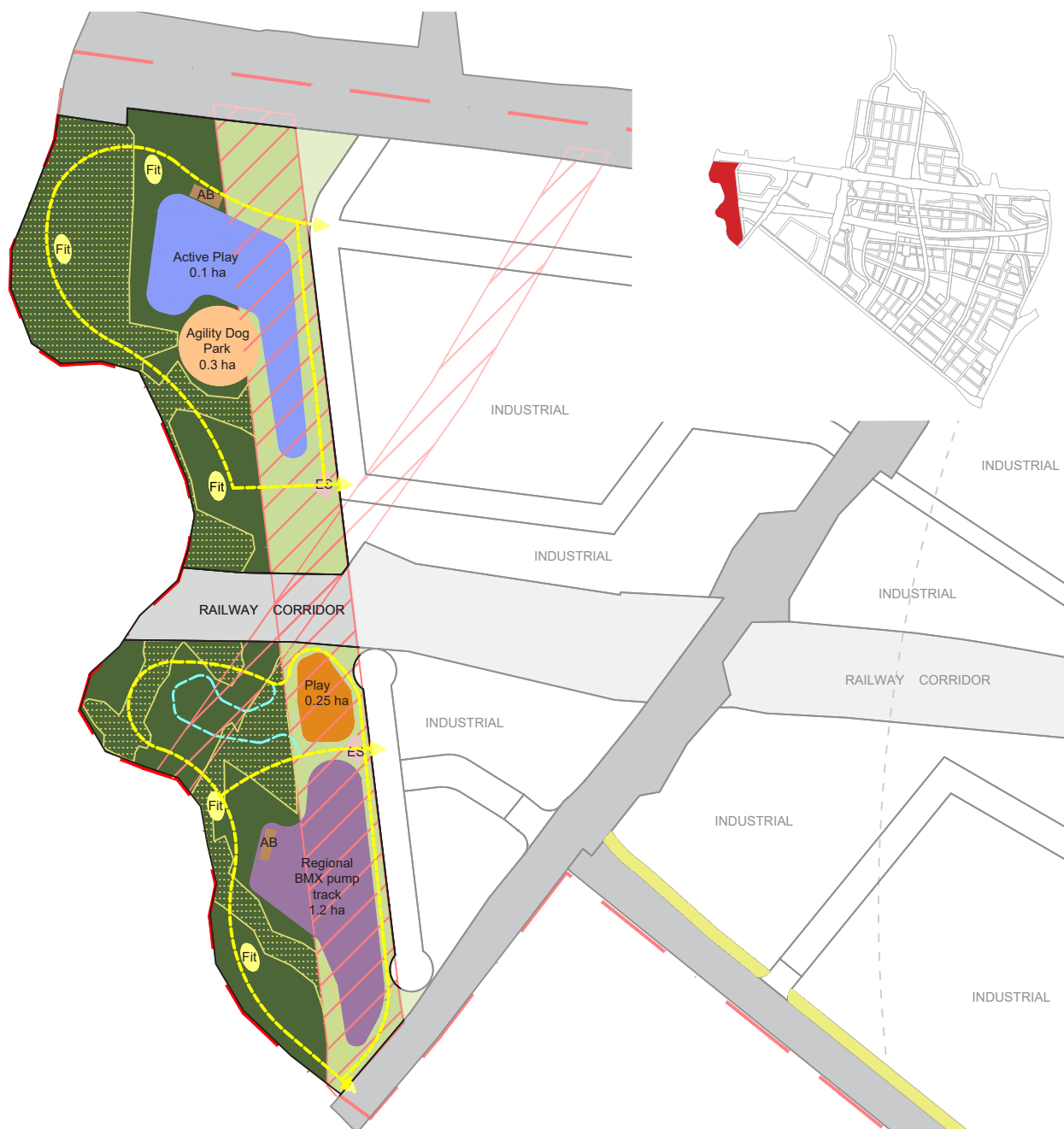


Corymbia 'Scentuous'

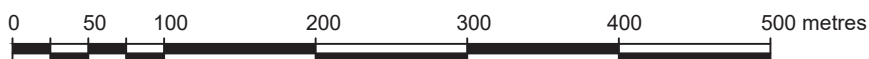


Fraxinus excelsior 'Aurea'

Appendix 5 Open Space Concept Designs



SCALE 1:5000 @ A4




LEGEND

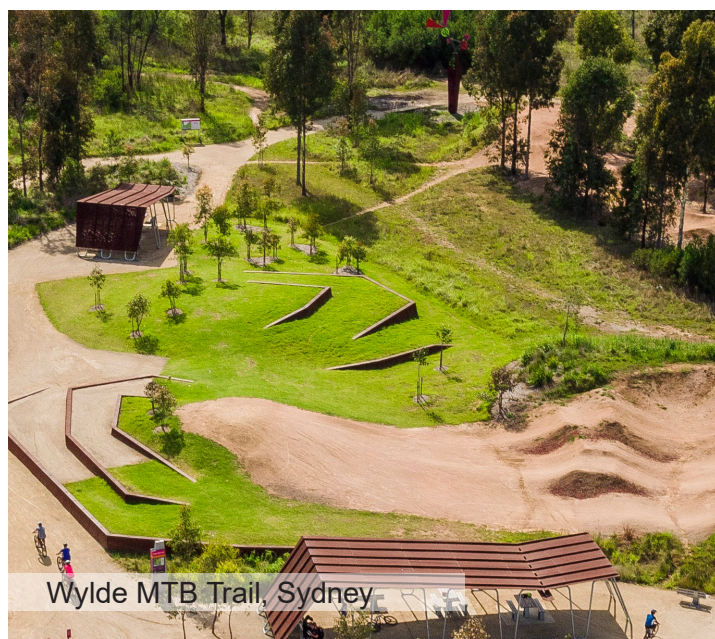
- EXTENT OF LEPPINGTON/ CAMDEN LGA
- SHARED PATH / CYCLE LANE
- PEDESTRIAN PATH
- ▶ ACTIVE MOBILITY CONNECTION TO TOWN NETWORK
- EASEMENT
- REVEGETATION ZONE
- EXISTING TREES TO BE EVALUATED AND RETAINED
- PASSIVE SPACE/LOCAL PARK

- BMX PUMP TRACK
- PLAYGROUND
- ACTIVE PLAY
- DOG PARK
- AB AMENITY BUILDING
- Fit OUTDOOR FITNESS STATION
- ES ENTRY STATEMENT

AREA	12 ha
FUNCTION	<ul style="list-style-type: none">• Recreation• Sport• Nature
HIERARCHY	Regional open space
CONSTRAINTS	<ul style="list-style-type: none">• Riparian Zone / Revegetation• Existing trees/vegetation• Electrical Easement• Railway corridor crossing the open space
KEY ELEMENTS AND OPPORTUNITIES	<p>Revegetate areas outside easement with paths and recreation facilities integrated (eg. recreational shared paths, educational nature walks, fitness stations, picnic areas)</p> <p>Active play and recreational facilities within the electrical easement to maximise the open space use:</p> <ul style="list-style-type: none">• BMX track• Active play (eg. skate park, learning to ride park, water park)• Dog agility park



REFERENCE IMAGES





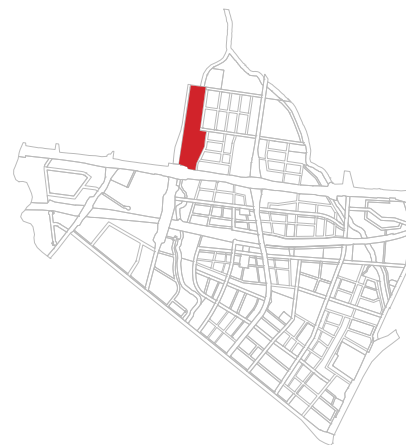
SCALE 1:5000 @ A4



LEGEND

	EXTENT OF LEPPINGTON/ CAMDEN LGA		PLAYGROUND
	SHARED PATH / CYCLE LANE		DOG PARK
	ACTIVE MOBILITY CONNECTION TO TOWN NETWORK		FLEXIBLE USE OPEN SPACE
	RIPARIAN ZONE TO BE PROTECTED		OUTDOOR FITNESS STATION
	CREEKLINE		ENTRY STATEMENT
	REVEGETATION ZONE		
	EXISTING TREES TO BE EVALUATED AND RETAINED		
	PASSIVE SPACE/LOCAL PARK		

AREA	8.6 ha
FUNCTION	<ul style="list-style-type: none"> • Recreation • Nature
HIERARCHY	Neighbourhood open space
CONSTRAINTS	<ul style="list-style-type: none"> • Riparian Protection Zone • Existing trees/vegetation
KEY ELEMENTS AND OPPORTUNITIES	<p>Low impact recreational activities within the riparian protection zone to provide access and active use of the open space while enhancing and protecting the ecological value and existing biodiversity:</p> <ul style="list-style-type: none"> • Recreational shared paths • Educational nature walks • Fitness stations • Picnic and BBQ areas <p>Active play and recreational facilities outside the riparian protection zone:</p> <ul style="list-style-type: none"> • Open flexible lawn area • Nature play spaces • Dog park



REFERENCE IMAGES



The Lizard Log Park, Sydney



First Creek Park, Denver



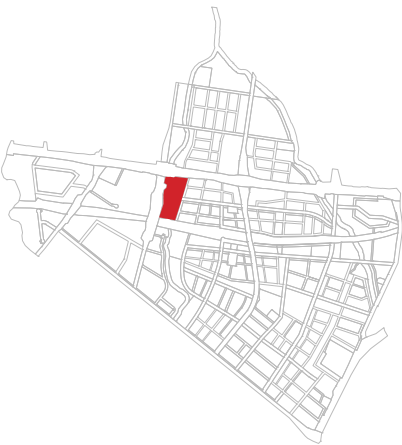
SCALE 1:5000 @ A4



LEGEND

- EXTENT OF LEPPINGTON/ CAMDEN LGA
- SHARED PATH / CYCLE LANE
- PEDESTRIAN PATH
- ▶ ACTIVE MOBILITY CONNECTION TO TOWN NETWORK
- RIPARIAN ZONE TO BE PROTECTED
- CREEKLINE
- REVEGETATION ZONE
- PASSIVE SPACE/LOCAL PARK
- BASIN
- Fit OUTDOOR FITNESS STATION

AREA	4.3 ha
FUNCTION	<ul style="list-style-type: none"> • Recreation • Nature
HIERARCHY	Neighbourhood open space
CONSTRAINTS	<ul style="list-style-type: none"> • Riparian protection zone • Existing trees/vegetation • Basin requirements
KEY ELEMENTS AND OPPORTUNITIES	<p>Low impact recreational activities within the riparian protection zone to provide access and active use of the open space while enhancing and protecting the ecological value and the existing biodiversity:</p> <ul style="list-style-type: none"> • Recreational shared paths • Educational nature walks • Fitness stations • Picnic areas and BBQ areas • Drainage zones



REFERENCE IMAGES



Gardiners Creek Trail, Melbourne





LEGEND

	EXTENT OF LEPPINGTON/ CAMDEN LGA		PLAYGROUND
	SHARED PATH / CYCLE LANE		ACTIVE PLAY
	PEDESTRIAN PATH		DOG PARK
	ACTIVE MOBILITY CONNECTION TO TOWN NETWORK		FLEXIBLE USE OPEN SPACE FOR CIVIC EVENTS
	RIPARIAN ZONE TO BE PROTECTED		BASIN
	CREEKLINE		BUFFER
	REVEGETATION ZONE		OUTDOOR FITNESS STATION
	EXISTING TREES TO BE EVALUATED AND RETAINED		ENTRY STATEMENT
	PASSIVE SPACE/LOCAL PARK		PLAYING FIELD/COURT

AREA	13 ha
FUNCTION	<ul style="list-style-type: none"> • Recreation • Sport • Nature
HIERARCHY	District open space
CONSTRAINTS	<ul style="list-style-type: none"> • Riparian protection zone • Existing Trees / vegetation • Basin requirements
KEY ELEMENTS AND OPPORTUNITIES	<p>Low impact recreational activities within the riparian protection zone to provide access and active use of the open space while enhancing and protecting the ecological value and the existing biodiversity:</p> <ul style="list-style-type: none"> • Recreational shared paths • Educational nature walks • Fitness stations • Picnic and BBQ areas • Drainage zones <p>Active play and recreational facilities outside the riparian protection zone:</p> <ul style="list-style-type: none"> • Local and district playground • Dog park • Open lawn flexible area - major town event • Local sport courts/field with amenity as required • Water retention basin



REFERENCE IMAGES



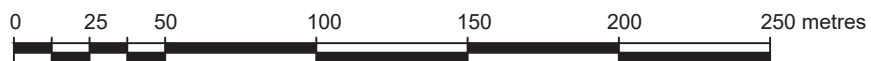
The Domain, Sydney



Nature's Playground, Adelaide zoo



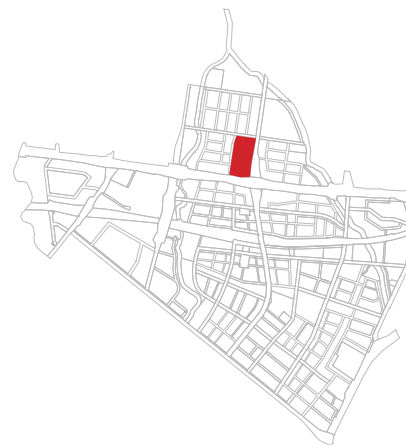
SCALE 1:2500 @ A1
SCALE 1:5000 @ A3



LEGEND

- EXTENT OF LEPPINGTON/ CAMDEN LGA
- SHARED PATH / CYCLE LANE
- ▶ ACTIVE MOBILITY CONNECTION TO TOWN NETWORK
- AQUATIC CENTRE

AREA	5 ha (including 2ha for parking and landscaping)
FUNCTION	<ul style="list-style-type: none"> Indoor sports and recreation Health & Wellbeing
HIERARCHY	District open space
CONSTRAINTS	<ul style="list-style-type: none"> Active transport connection across Bringelly Road. Shared path bridge connection over required here. High traffic volumes along adjacent roadways Existing trees/vegetation
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none"> Aquatic facilities include an indoor 50 metre and 10 lane Olympic pool, training pool, 25 metre leisure pool, heated teaching pool; children's play pool / wave pool / whirl pool/ water slides, diving pool. 10+ year development; 4 indoor sports courts each large enough for netball; Fitness centre incorporating weights, aerobics/Dance/Yoga/Pilates activity room with wooden floor, spin cycle room, spa, sauna, steam room etc. Retractable seating for 1,500 (increasing to 3,500 in stage 2) General amenity, kiosk and café, equipment sales, change, lockers, toilets, crèche facilities for users; Acoustic buffer required along Edmondson avenue and Bringelly road; Minimum 10m landscape buffer to the street to soften the bulk and the scale of the building; Consider the opportunity to define the project stages while providing local access to the existing open space; Consider the opportunity to integrate multiple functions within the new development to contribute to the overall open space network (eg. accessible green roof to integrate additional sport fields and/or local park/play zone potentially integrated with a youth recreation facility).



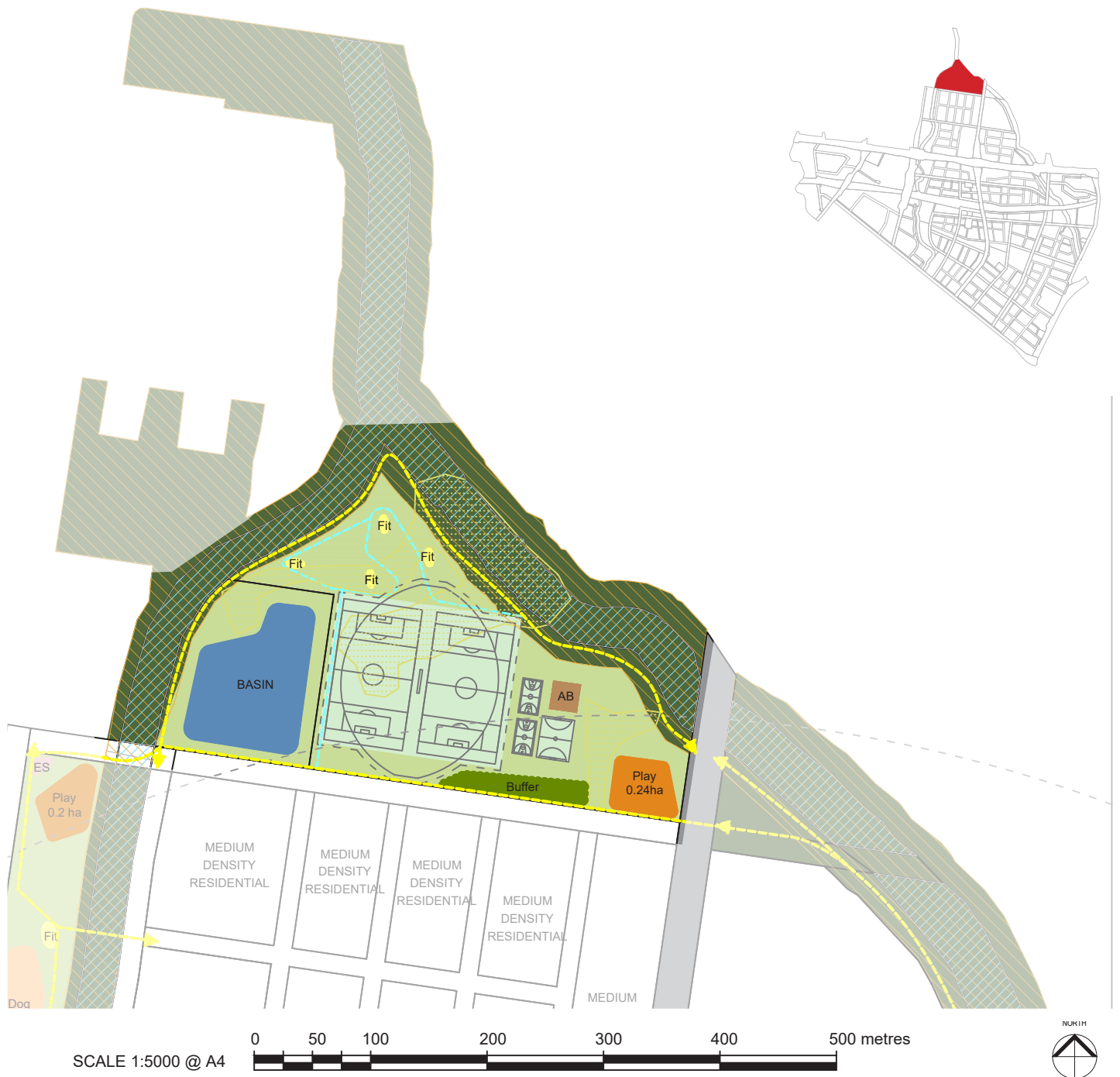
REFERENCE IMAGES



Prince Alfred Park Public Pool, Sydney



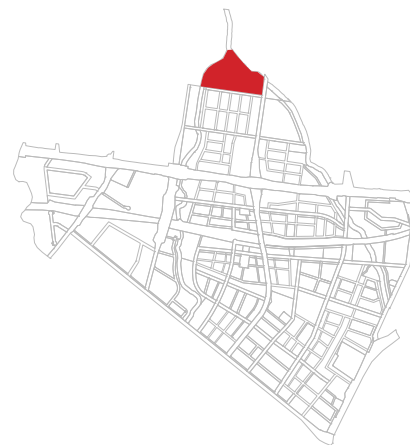
Cloud Town Exhibition Centre, Hangzhou



LEGEND

	SHARED PATH / CYCLE LANE		PLAYGROUND
	PEDESTRIAN PATH		BASIN
	ACTIVE MOBILITY CONNECTION TO TOWN NETWORK		BUFFER
	RIPARIAN ZONE TO BE PROTECTED		AMENITY BUILDING
	CREEKLINE		OUTDOOR FITNESS STATION
	REVEGETATION ZONE		PLAYING FIELD/COURT
	EXISTING TREES TO BE EVALUATED AND RETAINED		
	PASSIVE SPACE/LOCAL PARK		

AREA	8 ha
FUNCTION	<ul style="list-style-type: none"> • Recreation • Sport • Nature
HIERARCHY	District open space
CONSTRAINTS	<ul style="list-style-type: none"> • Riparian protection zone • Existing trees/vegetation • Basin requirements
KEY ELEMENTS AND OPPORTUNITIES	<p>Low impact recreational activities within the riparian protection zone to provide access and active use of the open space while enhancing and protecting the ecological value and the existing biodiversity:</p> <ul style="list-style-type: none"> • Recreational shared paths • Educational nature walks • Fitness stations • Picnic areas and BBQ areas <p>Active play and recreational facilities outside the riparian protection zone:</p> <ul style="list-style-type: none"> • Local and district playground • Amenity building • Multiple sport courts/fields with amenity as required • Water retention basin



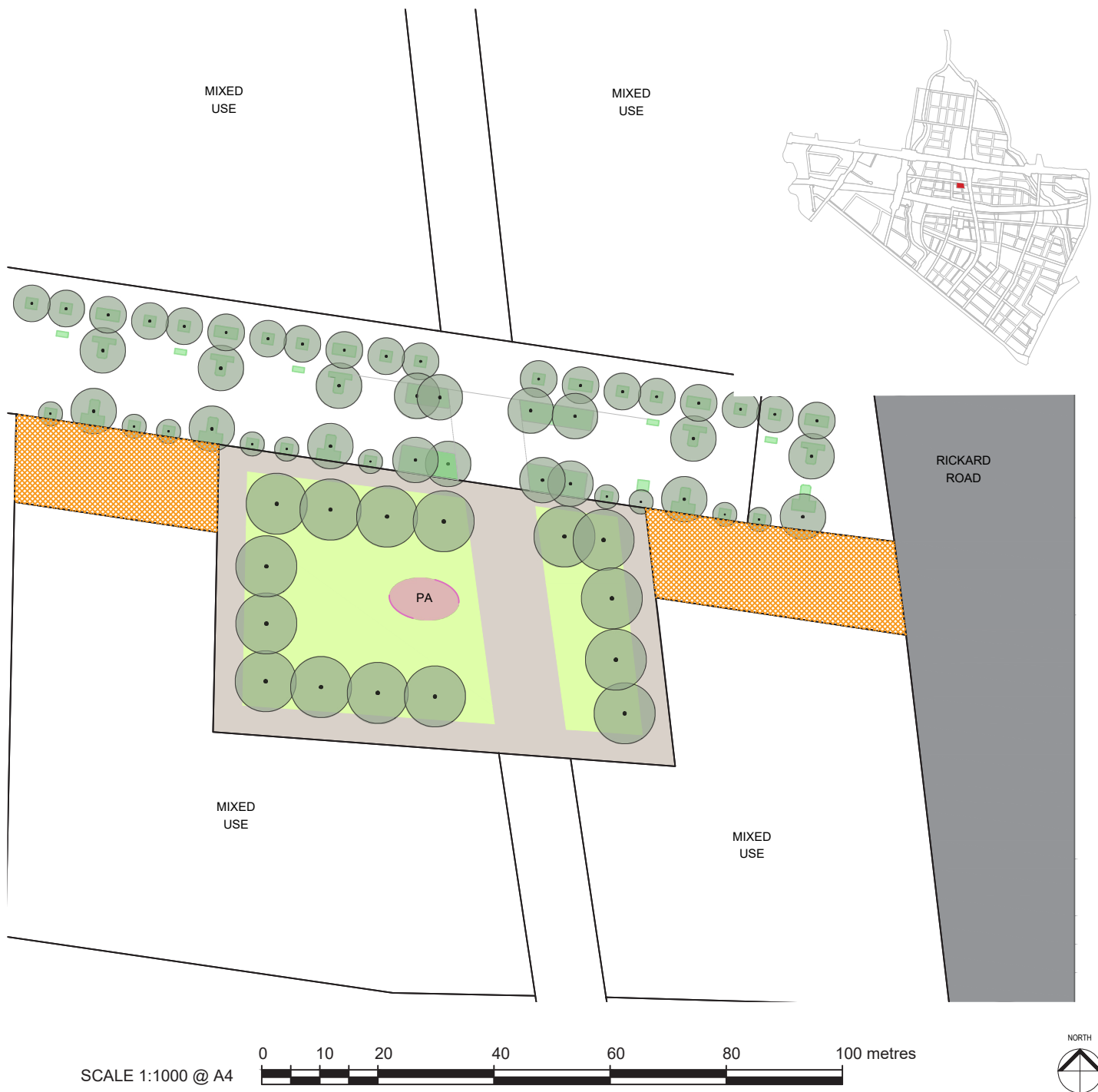
REFERENCE IMAGES



Bilkent International School, Turkey



Vanke Olympic Ice, Baotou



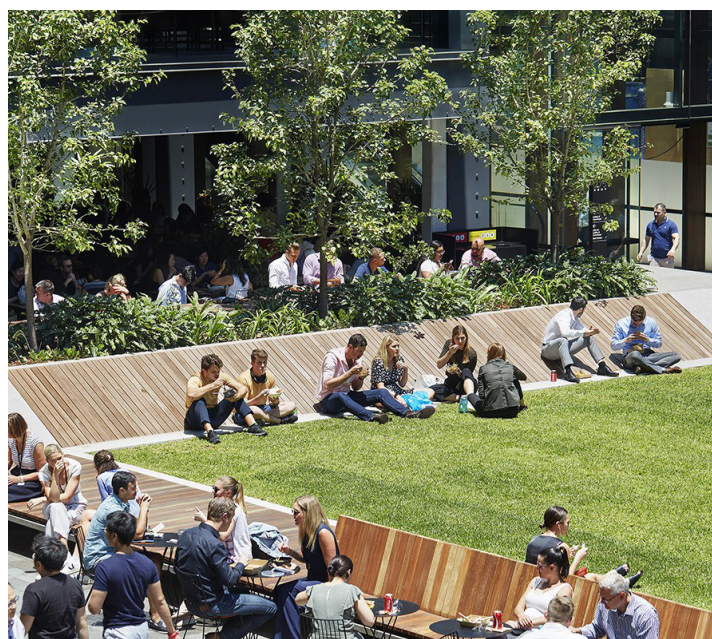
LEGEND

- FLEXIBLE USE OPEN SPACE FOR CIVIC EVENTS
- ACTIVE FRONTAGE / PAVED ZONE
- PUBLIC ART / WATER FEATURE
- TOWN CENTRE STREET LINEAR PARK
- TREES

AREA	0.4 ha
FUNCTION	Recreation
HIERARCHY	Civic plaza
CONSTRAINTS	<ul style="list-style-type: none"> • Maintain a clear N-S Pedestrian Priority street movement corridor • Maintain a clear E-W Linear park movement corridor • Maintain clear movement zone along building interfaces
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none"> • Direct connection with the Linear park (clear links with the active mobility) • Active retail frontage on the perimeter • Canopy tree planting and seating to open lawn edges • Central flexible lawn zone • Public art and water features



REFERENCE IMAGES





SCALE 1:2000 @ A1
SCALE 1:4000 @ A3



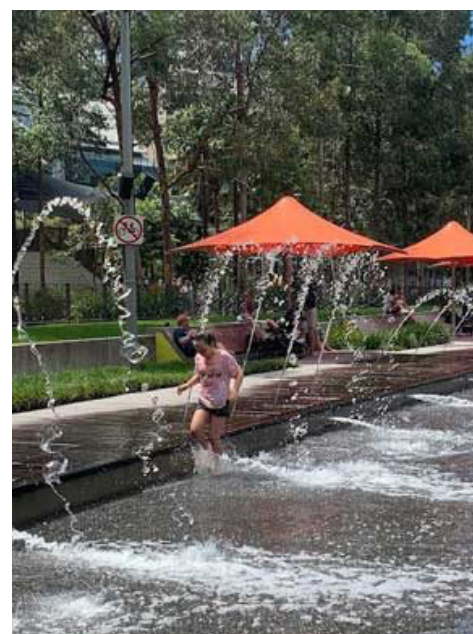
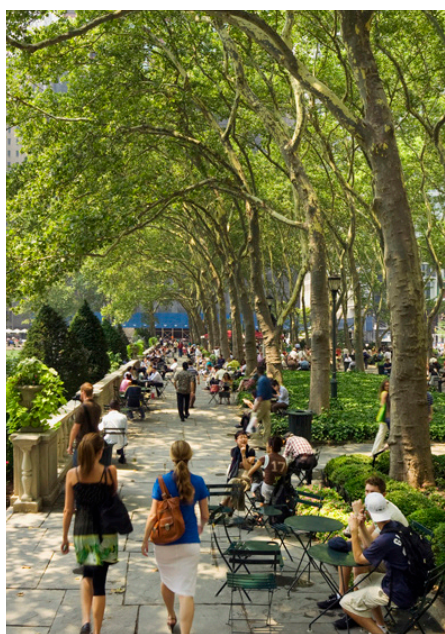
LEGEND

- FLEXIBLE USE OPEN SPACE FOR CIVIC EVENTS
- ACTIVE FRONTAGE / PAVED ZONE
- ES ENTRY STATEMENT
- PA PUBLIC ART / WATER FEATURE
- TOWN CENTRE STREET LINEAR PARK
- TREES

AREA	0.9 ha
FUNCTION	Recreation
HIERARCHY	Civic plaza
CONSTRAINTS	<ul style="list-style-type: none"> • Maintain a clear N-S Pedestrian Priority street movement corridor • Maintain a clear E-W Linear park movement corridor • Roadway intersects open space • Logistics of bus movement at train station • High peak pedestrian traffic volume from public transport
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none"> • Direct connection with the Linear park (clear links with the active mobility) • Active retail frontage on the perimeter • Canopy tree planting and seating to open lawn edges • Seating steps to lawn edges to maximise active edges and flatten lawn areas • Significant interactive water element for urban cooling and play • Central flexible lawn zone • Public art • Entry statement to celebrate arrival point



REFERENCE IMAGES





LEGEND

- FLEXIBLE USE OPEN SPACE FOR CIVIC EVENTS
- ACTIVE FRONTAGE / PAVED ZONE
- PA PUBLIC ART / WATER FEATURE
- TOWN CENTRE STREET LINEAR PARK
- TREES

AREA	0.4 ha
FUNCTION	Recreation
HIERARCHY	Civic plaza
CONSTRAINTS	Maintain a clear E-W Linear park movement corridor
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none"> • Direct connection with the Linear park (clear links with the active mobility) • Direct frontage with streetscape • Central flexible lawn zone • Canopy tree planting and seating to open lawn edges • Interactive water element for urban cooling and play • Public art

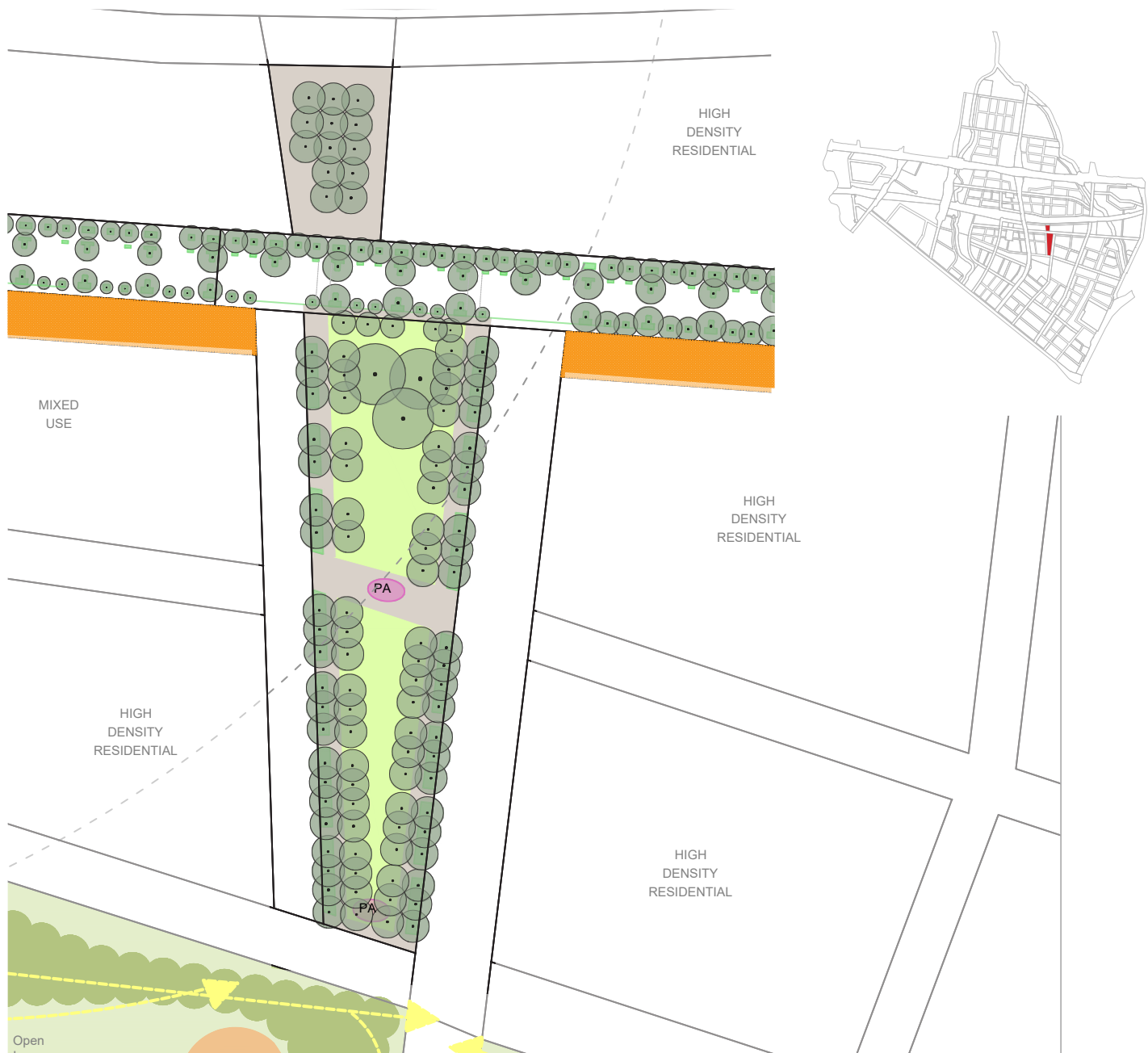


REFERENCE IMAGES



Darling Square, Sydney





SCALE 1:2000 @ A1
SCALE 1:4000 @ A3



LEGEND

- FLEXIBLE USE OPEN SPACE FOR CIVIC EVENTS
- ACTIVE FRONTAGE / PAVED ZONE
- PA PUBLIC ART / WATER FEATURE
- TOWN CENTRE STREET LINEAR PARK
- TREES

AREA	1.1 ha
FUNCTION	Recreation
HIERARCHY	Civic plaza
CONSTRAINTS	Maintain a clear E-W Linear park movement corridor
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none"> • Direct connection with the Linear park (clear links with the active mobility) • Direct frontage with streetscape • Central flexible lawn zone • Public art and water feature



REFERENCE IMAGES





SCALE 1:2500 @ A1
SCALE 1:5000 @ A3

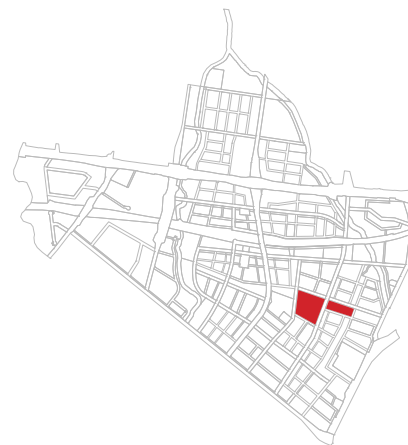


LEGEND

- SHARED PATH / CYCLE LANE
- ▶ ACTIVE MOBILITY CONNECTION TO TOWN NETWORK
- PASSIVE SPACE/LOCAL PARK
- BUFFER
- PLAYGROUND
- ACTIVE PLAY

- WSUD
- AMENITY BUILDING
- ENTRY STATEMENT
- PLAYING FIELD/COURT

AREA	5.4 ha
FUNCTION	<ul style="list-style-type: none"> • Recreation • Sport
HIERARCHY	Neighbourhood open space
CONSTRAINTS	<ul style="list-style-type: none"> • Maintain a clear E-W Green Corridor connection • High traffic volumes roadway (Rickard Road and Byron road)
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none"> • Direct frontage with streetscape • Open flexible lawn area • Local playground • Multiple sport courts/fields with amenity as required • Active play (eg. skate park, learning to ride park, water park) • Entry statement and gathering areas



REFERENCE IMAGES



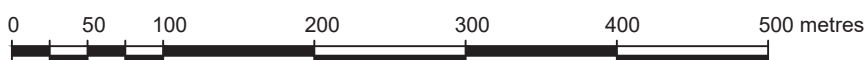
Box Hill Gardens Multi Purpose Area, Sydney



A'beckett Urban Square, Melbourne



SCALE 1:5000 @ A4



LEGEND

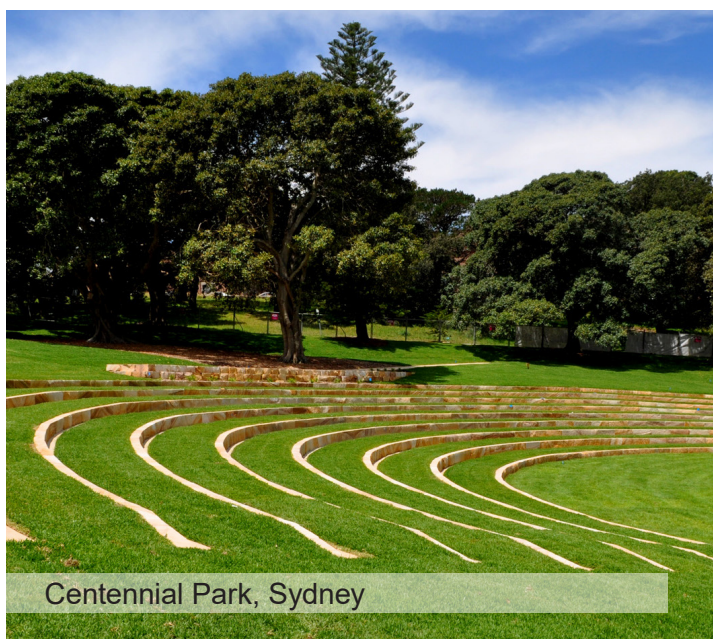
- SHARED PATH / CYCLE LANE
- ▶ ACTIVE MOBILITY CONNECTION TO TOWN NETWORK
- PASSIVE SPACE/LOCAL PARK
- BUFFER
- PLAYGROUND
- ACTIVE PLAY

- GREEN AMPHITHEATRE
- Fit OUTDOOR FITNESS STATION
- ES ENTRY STATEMENT
- PA PUBLIC ART / WATER FEATURE

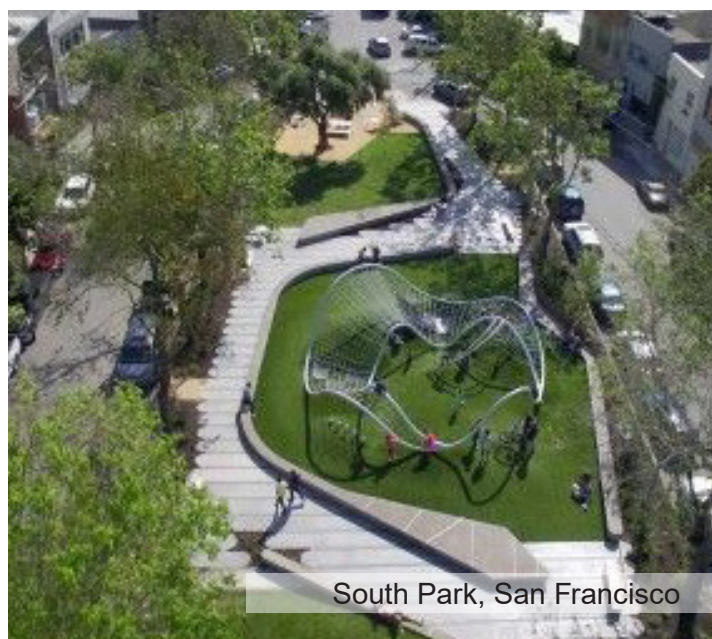
AREA	3.4 ha
FUNCTION	Recreation
HIERARCHY	Neighbourhood open space
CONSTRAINTS	<ul style="list-style-type: none"> • Maintain a clear N-S Pedestrian Priority street movement corridor • High traffic volumes roadway (Rickard Road) • School traffic connection
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none"> • Direct frontage with streetscape • Open flexible lawn areas • Gathering areas • Fitness track • Public art and water feature • Green amphitheatre • Active play (eg. skate park, learning to ride park, water park)



REFERENCE IMAGES



Centennial Park, Sydney



South Park, San Francisco



SCALE 1:2000 @ A1
SCALE 1:4000 @ A3

LEGEND

- PEDESTRIAN PATH
- PASSIVE SPACE/LOCAL PARK
- PLAYGROUND
- TREES

AREA	0.5 ha
FUNCTION	Recreation
HIERARCHY	Local open space
CONSTRAINTS	N.A.
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none"> • Local Playground • Open Lawn • Circuit path • Shade and Shelter • Community Gardens • Through-park connections (desire lines)



REFERENCE IMAGES



Bendigo Hospital, Bendigo



Chelsea Street Park, Redfern



LEGEND

- PEDESTRIAN PATH
- PASSIVE SPACE/LOCAL PARK
- PLAYGROUND
- TREES

AREA	0.5 ha
FUNCTION	Recreation
HIERARCHY	Local open space
CONSTRAINTS	N.A.
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none"> • Local Playground • Open Lawn • Circuit path • Shade and Shelter • Community Gardens • Through-park connections (desire lines)



REFERENCE IMAGES



Yanchep Golf Estate, Perth



Drapers Field, London



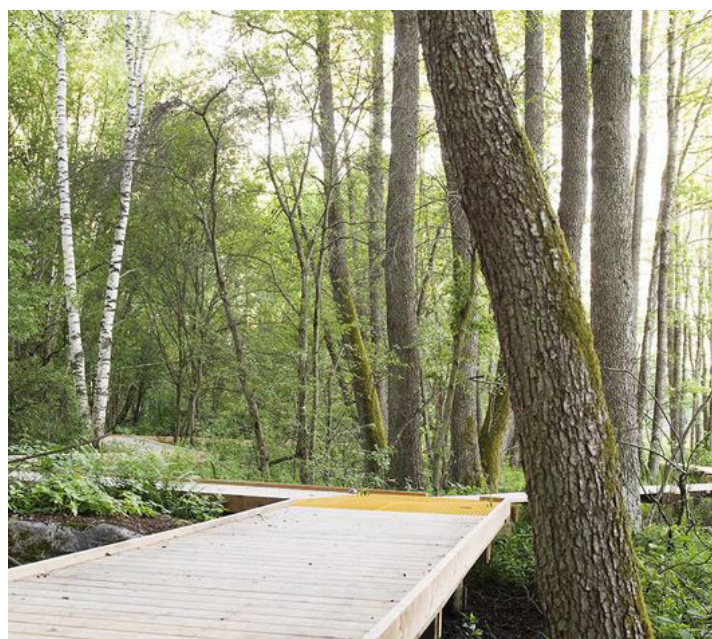
LEGEND

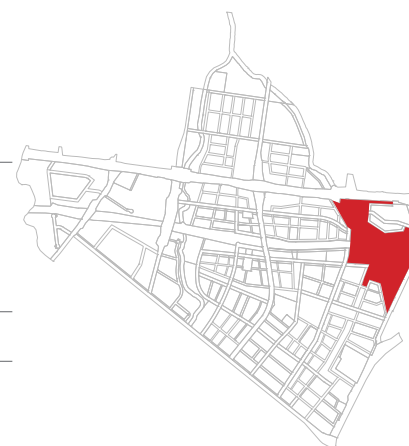
- SHARED PATH / CYCLE LANE
- ▶ ACTIVE MOBILITY CONNECTION TO TOWN NETWORK
- RIPARIAN ZONE TO BE PROTECTED
- CREEKLINE
- REVEGETATION ZONE
- EXISTING TREES TO BE EVALUATED AND RETAINED
- PASSIVE SPACE/LOCAL PARK
- PLAYGROUND

AREA	0.9 ha
FUNCTION	<ul style="list-style-type: none"> • Recreation • Nature
HIERARCHY	Neighbourhood open space
CONSTRAINTS	<ul style="list-style-type: none"> • Riparian protection zone • Existing trees / vegetation
KEY ELEMENTS AND OPPORTUNITIES	<p>Low-impact recreational activities within the riparian protection zone to provide access and active use of the open space while enhancing and protecting the ecological value and the existing biodiversity:</p> <ul style="list-style-type: none"> • Recreational shared paths • Educational nature walks <p>Active play and recreational facilities outside the riparian protection zone:</p> <ul style="list-style-type: none"> • Local playground • Open lawn flexible area



REFERENCE IMAGES





AREA	19 ha
FUNCTION	<ul style="list-style-type: none"> • Recreation • Sport • Nature
HIERARCHY	District open space
CONSTRAINTS	<ul style="list-style-type: none"> • Riparian protection zone • Existing tree/vegetation • Railway corridor overpassing the open space
KEY ELEMENTS AND OPPORTUNITIES	<p>Low impact recreational activities within the riparian protection zone to provide access and active use of the open space while enhancing and protecting the ecological value and the existing biodiversity:</p> <ul style="list-style-type: none"> • Recreational shared paths • Educational nature walks • Fitness stations • Picnic areas <p>Active play outside the riparian protection zone and under the railway crossing to maximise the open space use:</p> <ul style="list-style-type: none"> • Local and district playground • Dog park • Multiple sport courts/fields with amenity as required • Active play (eg. skate park, learning to ride park, water park) • Water retention basin

REFERENCE IMAGES



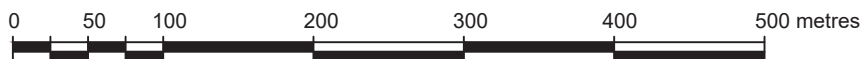
Comtech (II), Bangkok



Skate Park Jardines de Aureà Cuadrado, Spain




SCALE 1:5000 @ A4



LEGEND

- | | | | |
|--|--|--|----------------------------|
| | SHARED PATH / CYCLE LANE | | PLAYING FIELD/COURT |
| | ACTIVE MOBILITY CONNECTION TO TOWN NETWORK | | PUBLIC ART / WATER FEATURE |
| | PLAYGROUND | | |
| | PASSIVE SPACE/LOCAL PARK | | |
| | WSUD | | |
| | OUTDOOR FITNESS STATION | | |
| | ENTRY STATEMENT | | |

AREA	2.8 ha
FUNCTION	Recreation
HIERARCHY	Neighbourhood open space
CONSTRAINTS	N.A.
KEY ELEMENTS AND OPPORTUNITIES	<ul style="list-style-type: none">• Local playground• Fitness stations• Picnic areas• Open lawn areas• Community gardens• Water retention basin• Local sport courts/field with amenity as required



REFERENCE IMAGES

