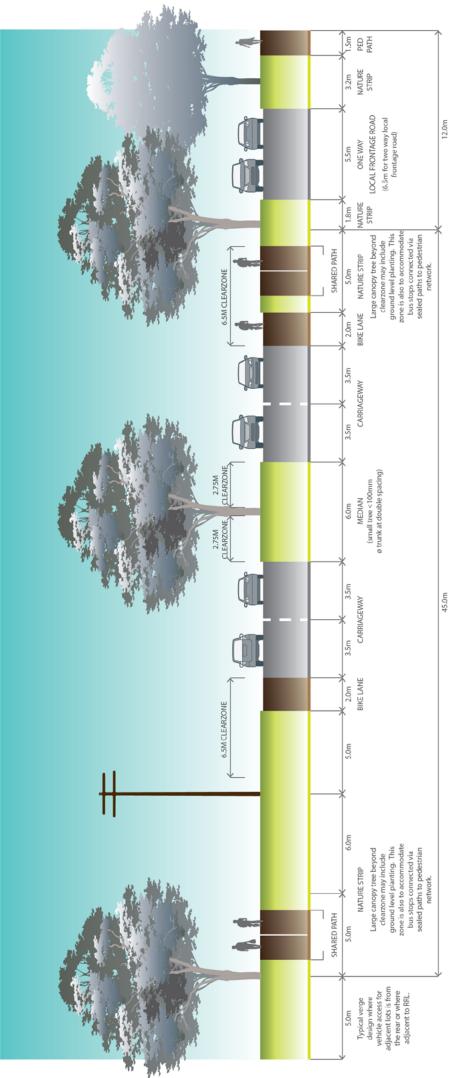
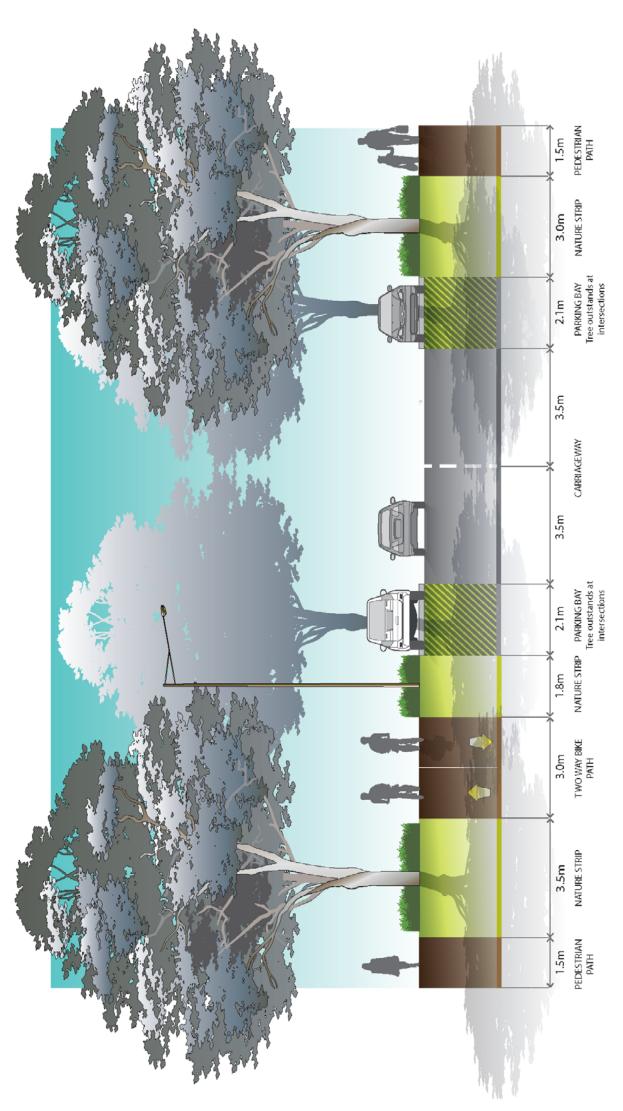


- Includes typical residential interface both sides
 - Minimum street tree mature height 15 metres
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- 6.5m Clearzone assumes 80km/hr speed limit where required clearzones are to be consistent with VicRoads guidelines
- The location of 66kv power poles and adjacent street trees in outer separator may be swapped, to the satisfaction of the responsible authority.

Cross Section 4a



- Includes typical residential interface both sides
- Minimum street tree mature height 15 metres
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- 6.5m Clearzone assumes 80km/hr speed limit where required clearzones are to be consistent with VicRoads guidelines
- The location of 66kv power poles and adjacent street trees in outer separator may be swapped, to the satisfaction of the responsible authority.

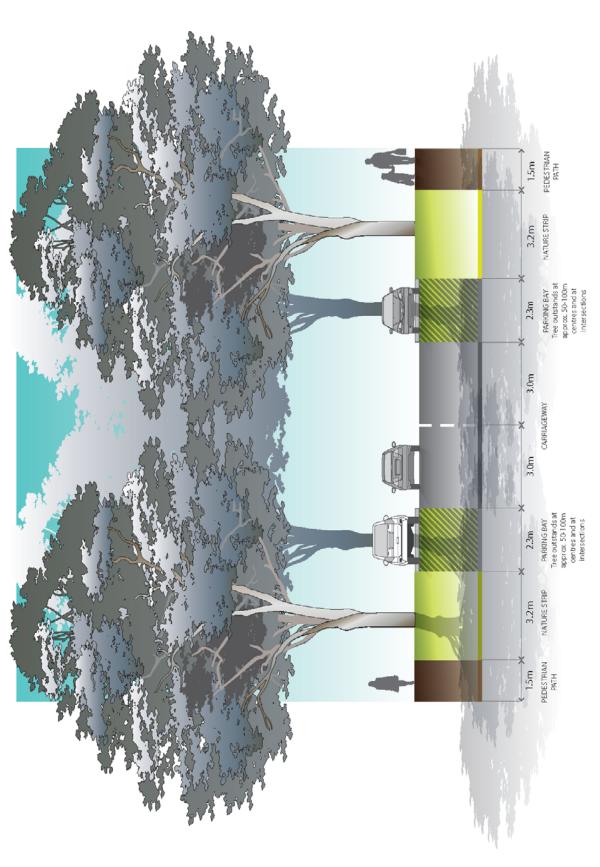


- Minimum street tree mature height 15 metres
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Where roads abut school drop-offzones and thoroughfares, grassed nature strip should be replaced with pavement. Canopy tree planting must in incorporated into any additional pavement.

Cross Section 5 - Tameit North Precinct Structure Plan

Connector Street (25.5m)

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



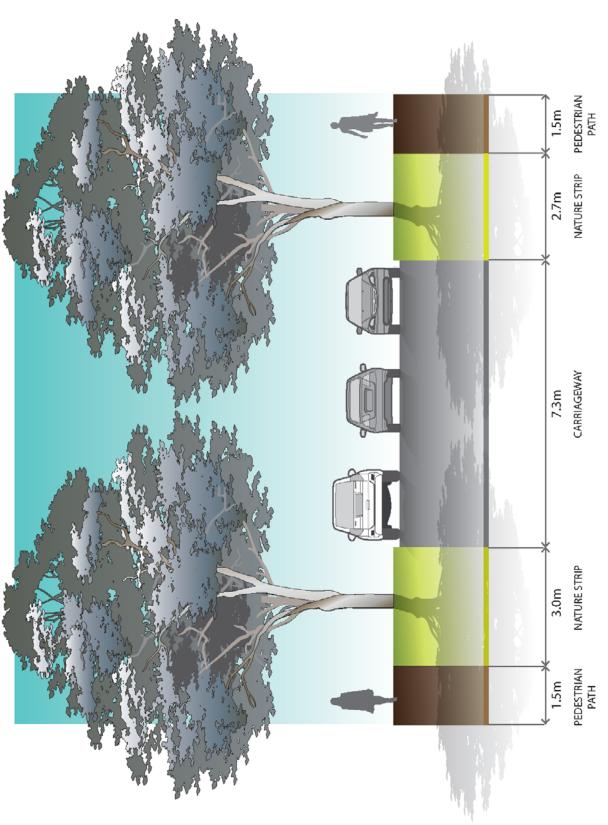
- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)

MDA METHOROGITAN

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

Local Access Level 2 (20m)

Cross Section 6 - Tameit North Precinct Structure Plan

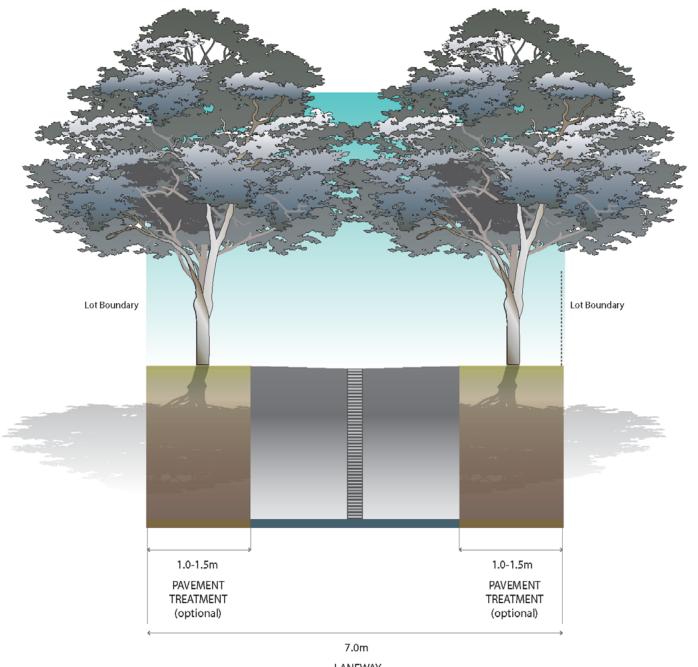


Minimum street tree mature height 12 metres

Cross Section 7 - Tameit North Precinct Structure Plan

Local Access Level 1 (16m)

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



LANEWAY with central drainage

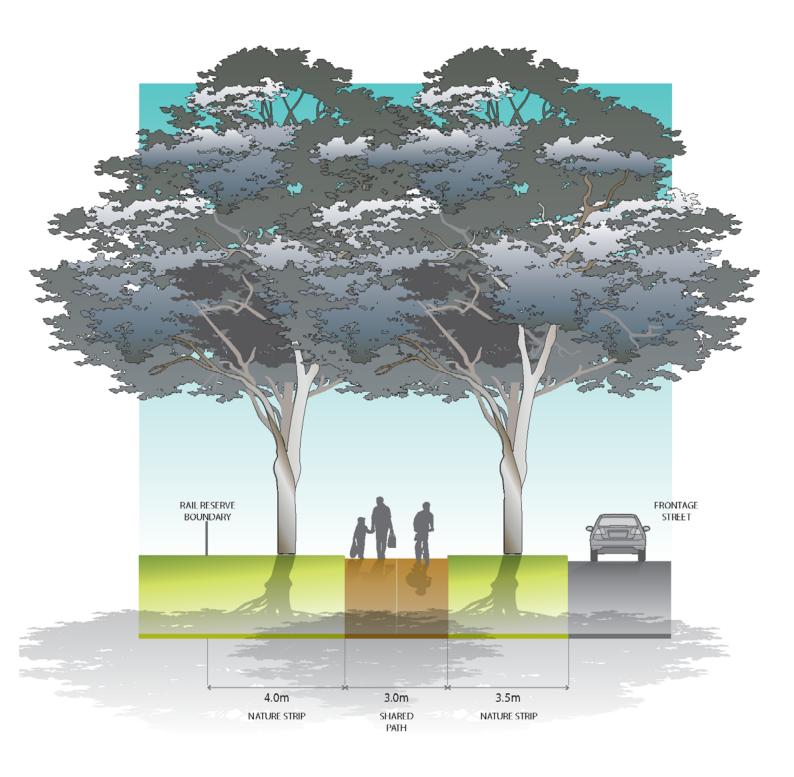
NOTES:

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

Laneway (7.0m)

Cross Section 8 - Tarneit North Precinct Structure Plan



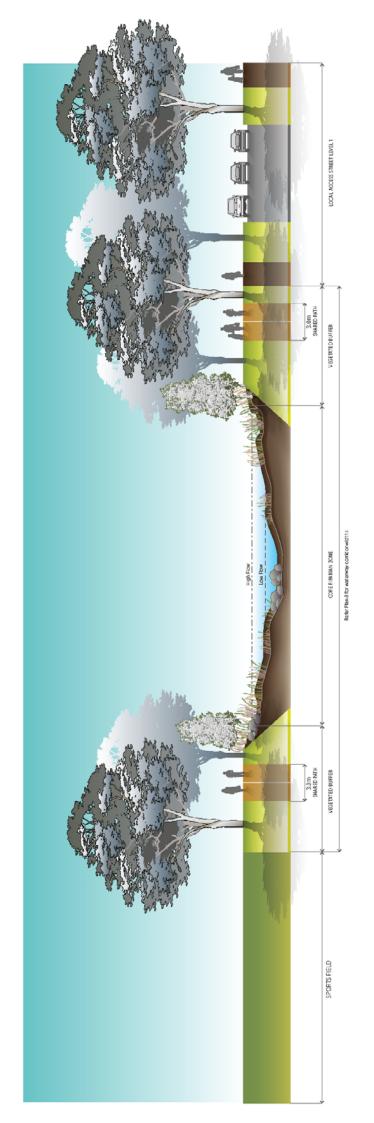


Rail Reserve Interface

Cross Section 9 - Tarneit North Precinct Structure Plan



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



Constructed Waterway Interface

Cross Section 10 - Tarneit North Precinct Structure Plan



NOTES:

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

NOTES:

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



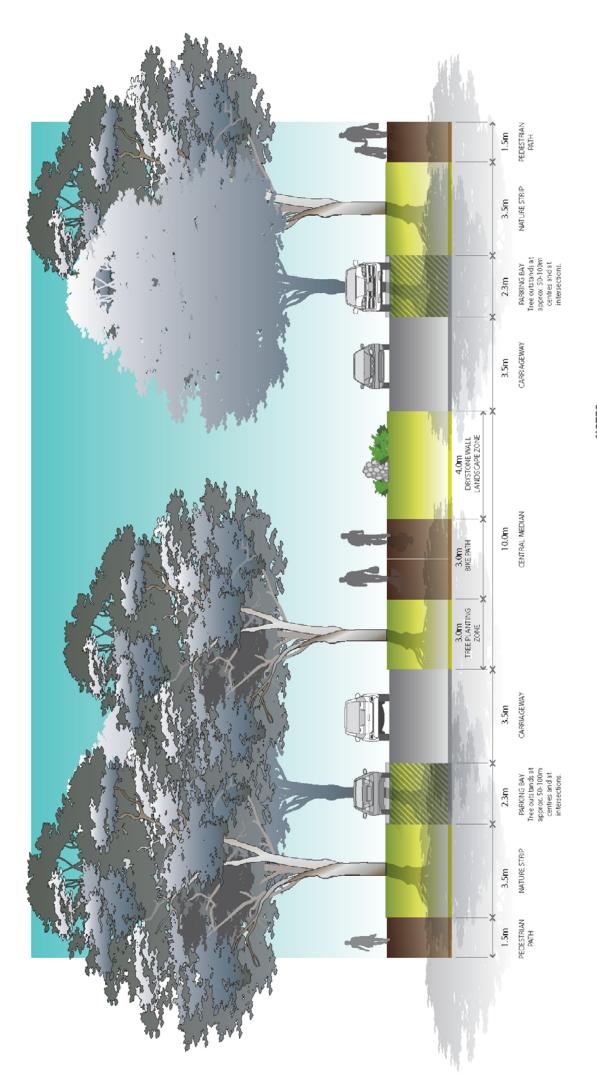
Cross Section 11 - Tarneit North Precinct Structure Plan

Town Centre Main Street



 Final design for the water feature / water quality treatment is flexible and can be determined with responsible authority waterway does not need to be continuous.





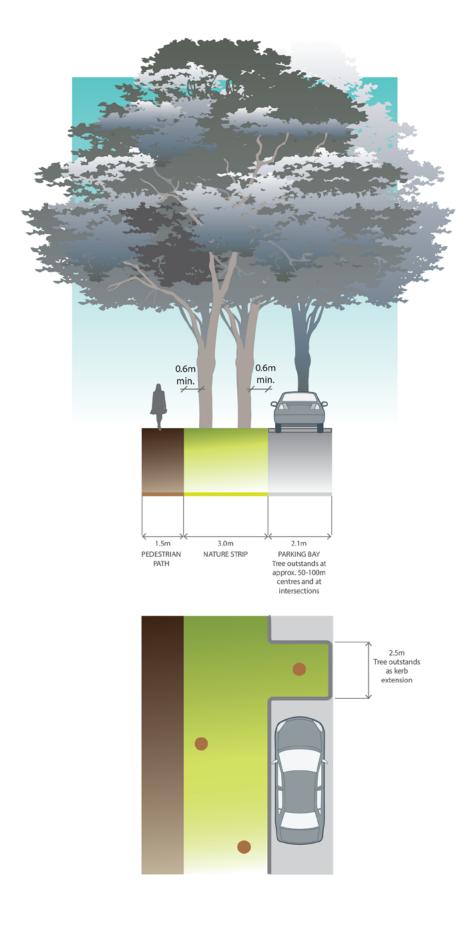
For stone wall in median:

- Breaks (not more than two in any 150m stretch) to accommodate street / pedestrian crossings may be provided.
 - Construction methods to protect wall should be utilised.
- As an alternative, a cross section which accommodates the dry stone wall within a
 widened verge may be considered (as an adaptation of the connector two-way bike
 path cross-section). This is subject to breaks in the wall being minimised via rear
 loaded dwellings (eliminating cross-overs) and subject to approval by Council.

Cross Section 13 - Tarneit North Precinct Structure Plan



- Electricity transmission easement running alongside proposed connector street. Transmission easements features landscaping and shared path trail. Verge of connector road integrates with the landscaping within easement.
 - Easement to also be a focus for water quality treatment where practical.
- Planting should be small to medium sized indigenous trees to outer edge of electricity easement eg. Red Flowering Gum (Corymbia ficifolia), and planting associated with water quality treatment (wetlands, rain gardens etc).

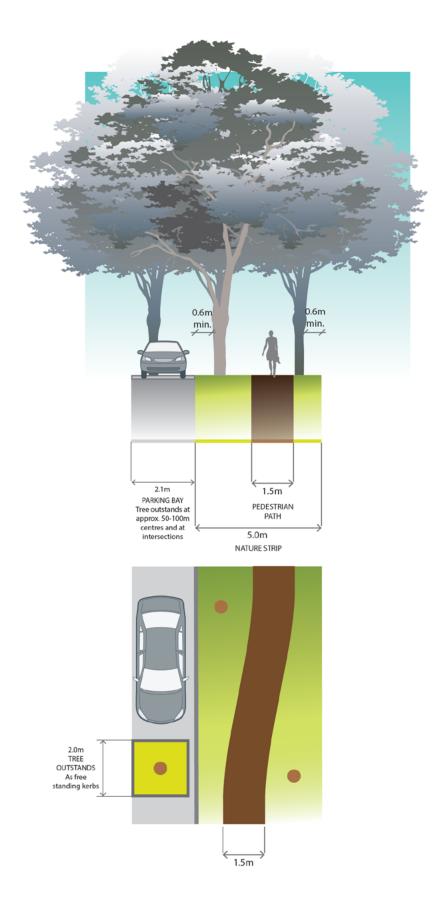


Connector Street (25.5m) Variation - Varying tree placement in nature strip



Variation 1

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

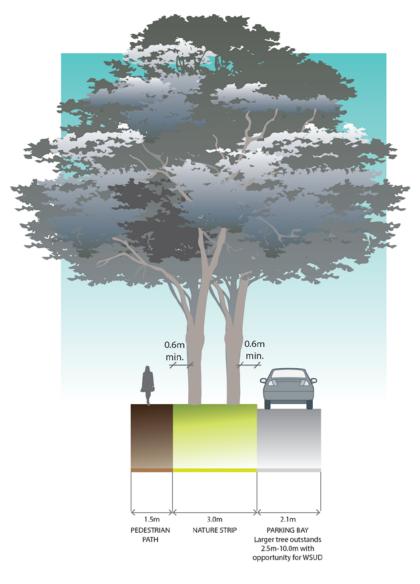


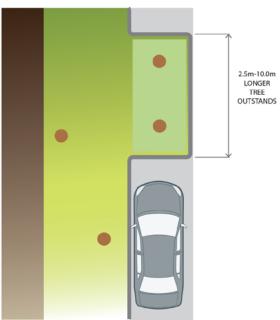
Connector Street (25.5m) Variation - Meandering footpath in nature strip



Variation 2

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





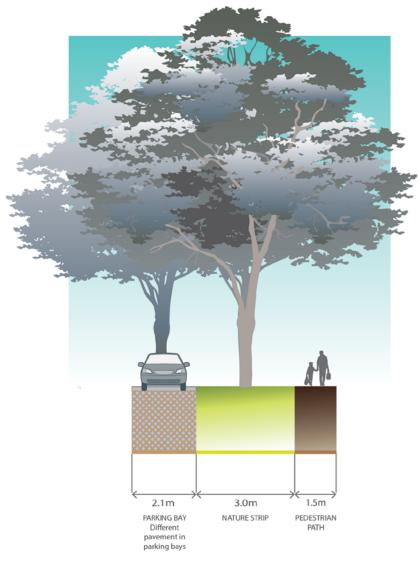
Connector Street (25.5m) Variation - Longer tree outstands

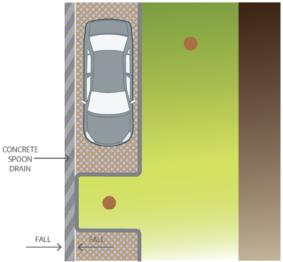


NOTES:

Variation 3

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



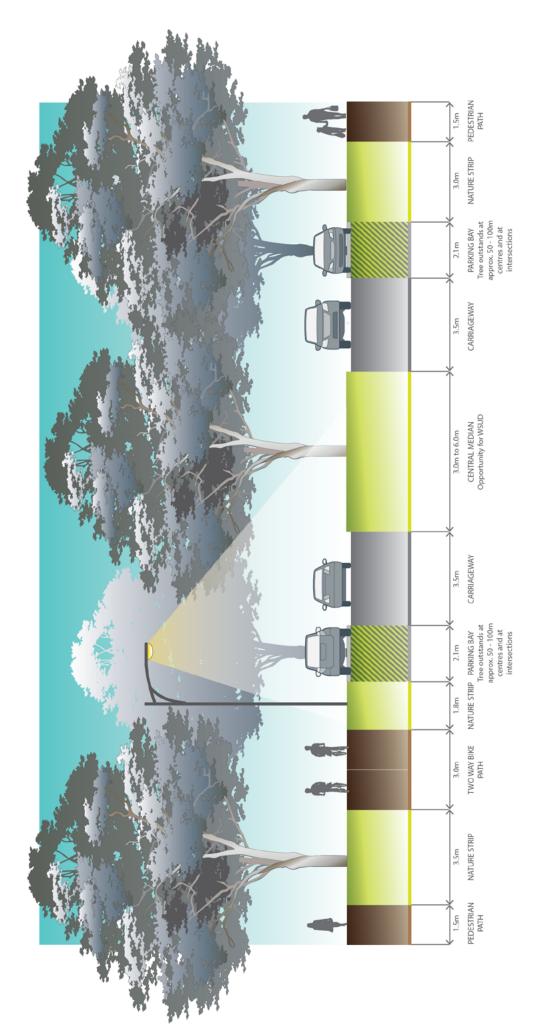


Connector Street (25.5m) Variation - Different pavement in parking bays

Variation 4

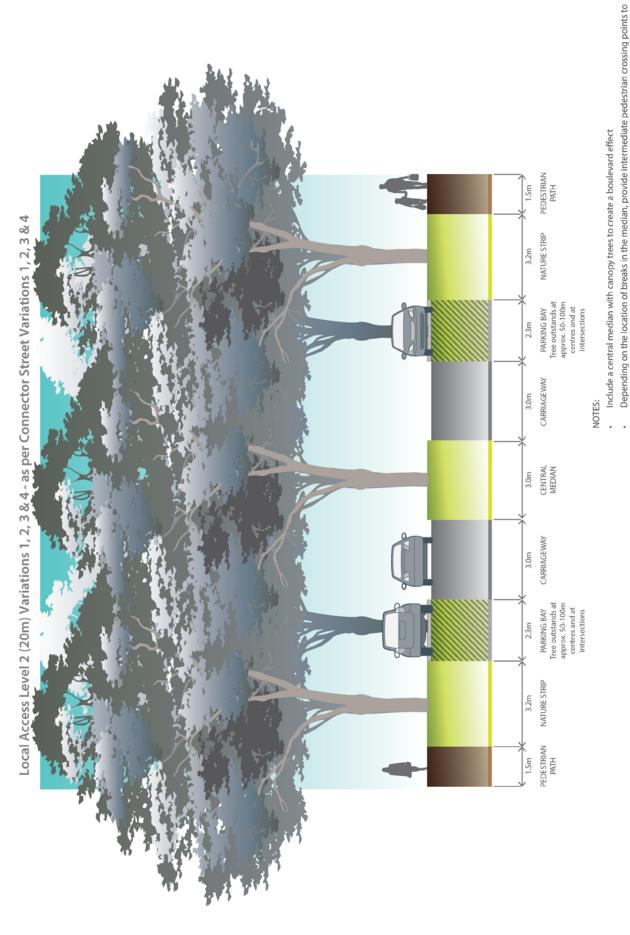


- · A pavement treatment other than asphalt applied to parking bays
- Spoon drain between carriageway and parking bay shown as an alternative drainage treatment



- Include a central median with large canopy trees to create a boulevard effect. Trees are to be centrally planted in median.
- Topsoil used in central medians is to be sandy loam, with a minimum depth of 200mm. The surface of medians is to be free-draining with a minimum cross fall of 2%, and is to be planted with warm season grasses.
- In areas where high pedestrian volumes are expected (e.g. around schools and town centres), central medians should be paved with harder wearing surfaces such as granitic sand or other pavements.
- Any garden beds in central medians are to be offset 1.5m from back of kerb.
- Kerb to central median is to be SM2 Semi-mountable kerb.
- Depending on the location of breaks in the median, provide intermediate pedestrian crossing points to accommodate mid-block crossings
- An alternative boulevard treatment can be achieved through a wider verge on one side capable of accommodating a double row of canopy trees.
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.





Local Access Street Level 2 (23.0m) Variation Variation 6

Boulevard treatment

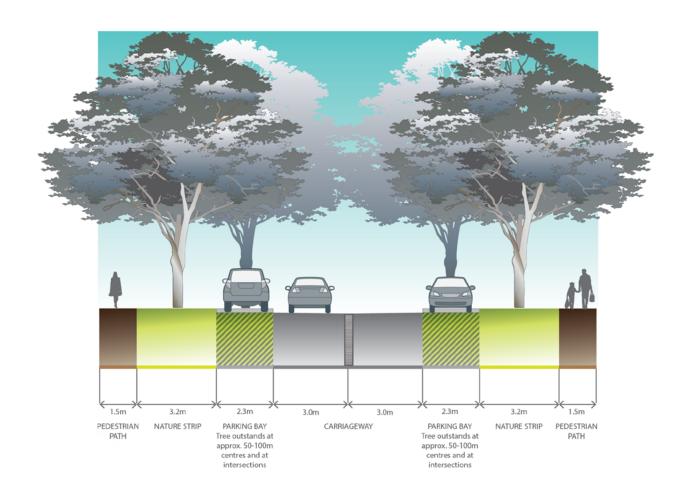


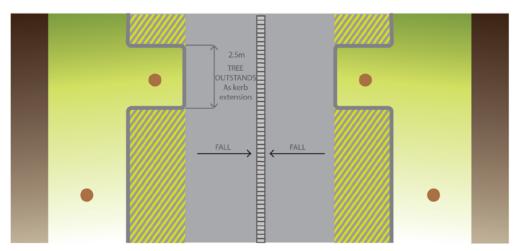
Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

An alternative boulevard treatment can be achieved through a wider verge on one side capable of

accommodating a double row of canopy trees

accommodate mid-block crossings



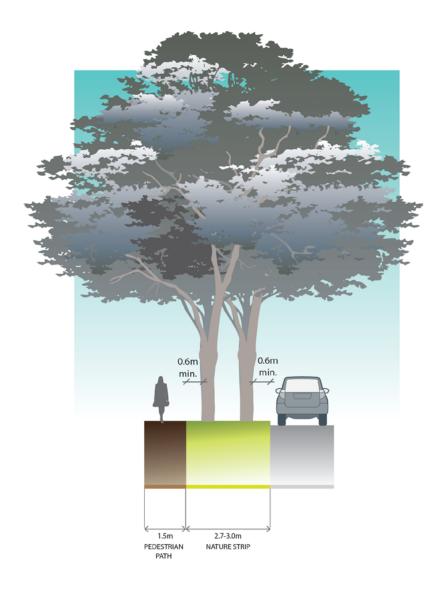


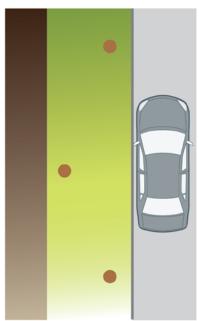
Local Access Level 2 (20m) Variation - Central Drainage



Variation 7

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

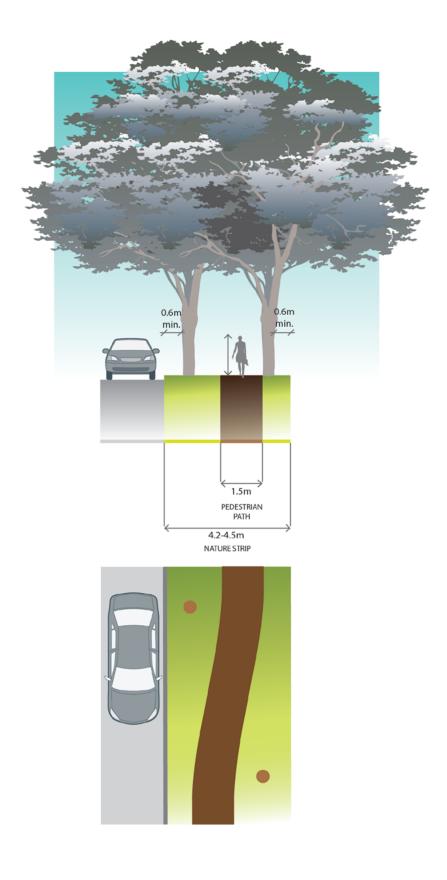




Local Access Level 1 (16.0m) Variation - Varying tree placement
Variation 8 in nature strip



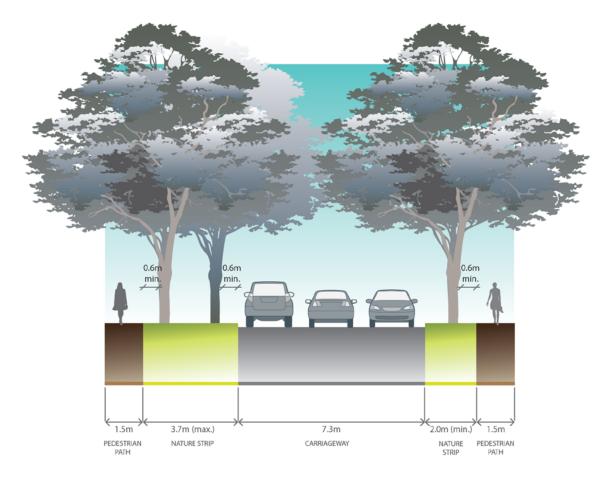
- Tree planting in varying locations in nature strip, in groups or clusters
- Minimum offset of tree trunks 0.6m from back of kerb and footpath edge

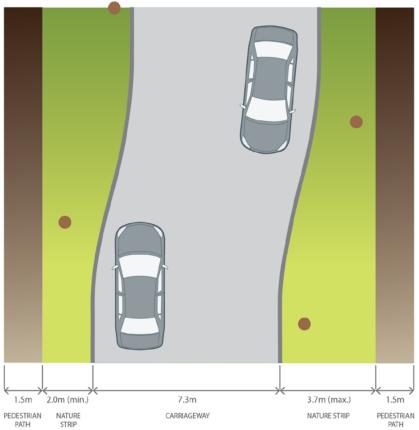


Local Access Level 1 (16.0m) Variation - Meandering footpath Variation 9



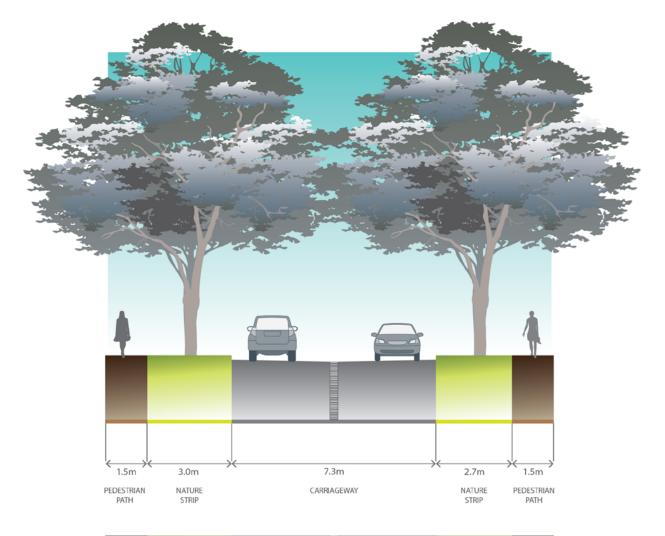
- Footpath in varying locations in nature strip
- Tree placement adjusts in response to footpath location
- Minimum offset of footpath 1.0m from back of kerb and 0.6m from tree trunks
- Design of meandering footpath is to consider bin placement on nature strips, access to letter boxes for mail delivery,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

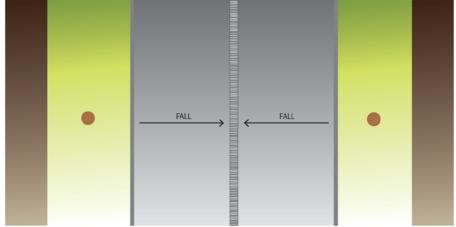




Local Access Street Level 1 (16.0m) Variation - Varying nature strip MPA WITHOUTH WIGHT WITHOUTH WITHO

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

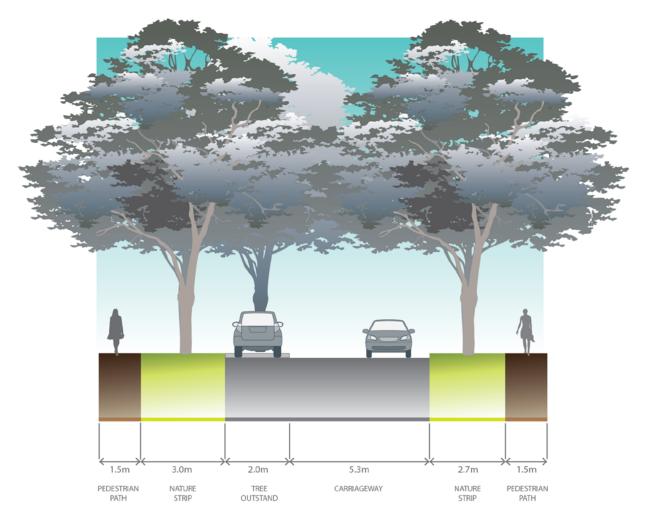


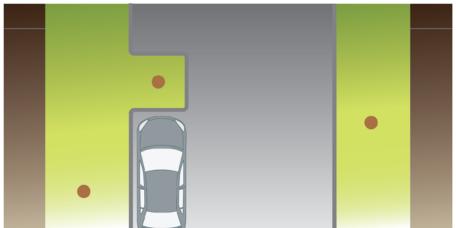


Local Access Street Level 1 (16.0m) Variation - Central Drainage Variation 11



- · Carriageway drains to central drainage line rather than sides
- Central drainage line to include pavement treatment other than asphalt
- Kerbs are to be B2 Barrier Kerb
- Appropriate for short streets (less than 60m) with minimal through traffic or for frontage roads





Local Access Street Level 1 (16.0m) Variation-Tree outstands



Variation 12

- Include tree outstands at approx 50 100m centres on one side only
- Road design to ensure passage of emergency vehicles is accommodated
- Functional layout of the kerb outstands to be to the satisfaction of the responsible authority



4.5 Appendix E - SERVICE PLACEMENT GUIDELINES

Standard road cross sections

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

Non-standard road cross sections

To achieve greater diversity of streetscape outcomes, which enhances character and amenity of these new urban areas, non-standard road cross sections are required. Non-standard road cross sections will also be necessary to address local needs, such as fully sealed verges for high pedestrian traffic areas in town centres and opposite schools. This PSP contains suggested non-standard 'variation' road cross sections (refer Appendix D), however other non-standard outcomes are encouraged.

For non-standard road cross sections where service placement guidance outlined in Figure 003 and 004 in the *Engineering Design and Construction Manual for Subdivision in Growth Areas* (April 2011) is not applicable, the following service placement guidelines will apply.

TABLE NOTES

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

	UNDER PEDESTRIAN PAVEMENT	UNDER NATURE STRIPS	DIRECTLY UNDER TREES ¹	UNDER KERB	UNDER ROAD PAVEMENT ²	WITHIN ALLOTMENTS	NOTES
SEWER	Possible	Preferred	Possible	No	Possible	Possible ³	
POTABLE WATER	Possible ⁴	Preferred	Preferred	No	Possible	No	Can be placed in combined trench with gas
RECYCLED WATER	Possible ⁴	Preferred	Preferred	No	Possible	No	
GAS	Possible ⁴	Preferred	Preferred	No	No	No	Can be placed in combined trench with potable water
ELECTRICITY	Preferred ⁴	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
FTTH / TELCO	Preferred ⁴	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
DRAINAGE	Possible	Possible	Possible	Preferred	Preferred	Possible ³	
TRUNK SERVICES	Possible	Possible	Possible	Possible	Preferred	No	

General principles for service placement

- Place gas and water on one side of road, electricity on the opposite side
- Place water supply on the high side of road
- Place services that need connection to adjacent properties closer to these properties
- Place trunk services further away from adjacent properties
- Place services that relate to the road carriageway (eg. drainage, street light electricity supply) closer to the road carriageway
- Maintain appropriate services clearances and overlap these clearances wherever possible
- Services must be placed outside of natural waterway corridors or on the outer edges of these corridors to avoid disturbance to existing waterway values.



4.6 Appendix F - OPEN SPACE DELIVERY GUIDE

PASSIVE RECREATION PARK

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

NEIGHBOURHOOD LOCAL PARK

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

DISTRICT LOCAL PARK (1HA OR GREATER)

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

MUNICIPAL PARK (5HA OR GREATER)

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

REGIONAL PARK

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

LINEAR PARK

To provide pedestrian/cyclist links in a parkland setting.

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



form part of a wider path/track network. While the primary function of Linear Reserve is pedestrian & cyclist access, these parks may serve additional purpose such as storm water conveyance, fauna movement and ecological/biodiversity protection.

NEIGHBOURHOOD

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

DISTRICT

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

MUNICIPAL

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

REGIONAL

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

TOWN SQUARE/URBAN PARK

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

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

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

