



Coal & Allied Southern Lands

Appendix B: Urban Design Guidelines for Gwandalan

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Appendix B: Urban Design Guidelines for Gwandalan provides detail information on the public domain and built form. It describes how to achieve the principles of Appendix A: Concept Plan Principles for Gwandalan.

The structure of this document is as follows:

- **B1 is the Public Domain Plan for the site.** It includes landscape and urban design treatments for all areas within the development footprint that will be managed by a community body or the local council. It includes information on character, amenity program and sustainability of the streets and parks. It also includes principles for materials selection and assemblage techniques.
- **B2 is the Design Guidelines for individual lots.** It defines the objectives and specific controls that relate to building types, densities, heights, setbacks and private open space.

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B1.1 Public Domain Strategy

Public Domain Strategy

Introduction

The Public Domain Plan addresses:

- design principles for landscape character, amenity, program and sustainability
- design strategies for the proposed public domain.

Public domain objectives

Key objectives that relate to the landscape concept plan for Gwandalan are considered under the headings of:

- character
- amenity
- program
- sustainability

Character objectives:

- To retain the dominance of the natural landscape.
- To enhance and enrich landscape character.
- To reflect on the casual and informal qualities of living in the region.
- To maximize views to natural features within the development.
- To protect the quality of views from adjoining areas within the view catchments of the development.
- To give priority to views to and from the public domain over views to and from private domain.

Amenity objectives:

- To provide shade in the public and private domain.
- To provide comfortable, direct and legible connections for all modes of transport.
- To provide opportunities for resting and weather protection at key locations within the public domain.
- To provide safety for all in the public domain through application of CPTED principles.

Program objectives:

- To provide a diverse range of settings in the public domain that will permit a range of activities for the incoming community.
- To provide settings in the public domain for activities for regional users.
- To provide flexibility in all public domain settings to suit a range of activities.
- To provide access and parking for cars and bicycles at all activity nodes.

Sustainability:

- To plan and design energy efficiency in the built form through use of the topography and vegetation.
- To provide for a water management system in the public domain.
- To integrate water sensitive urban design methods in streets and parks.
- To encourage biodiversity in landscape treatments.

Public domain principles

Character

The plan reinforces two main landscape types and provides an order that relates the settlement pattern to these landscape types. The character of the streets is to be controlled so that development respects and enhances the qualities of the surrounding bush.

- In the Hilltop Precinct the woodland landscape type, dominated by Eucalyptus haemastoma, is to be reinforced. This part of the site will continue to have a woodland character with medium to large lots retaining vegetation that will link the external bushland character to the site. The long serpentine north-south streets that traverse the site will weave between clumps of existing and new tree plantings to form a park like landscape.
- In the Lakefront Precinct, tall trees will be introduced, including the smooth barked apple that is endemic to the site's edges. Streets in this area will be aligned east-west and will fall slightly towards the water to take advantage of proximity of the Lake and the opportunity for views to the water. These streets will be narrower to frame these views. Trees will form avenues leading to the water's edges. This will also allow views from the site to the water along tree lined streets. Parks will be located on this part of the site, providing lush green areas of diverse play where they can take advantage of proximity to the foreshore walk.
- Along the drainage line the landscape character will remain, with dense canopy and rich shrubs and ground covers, providing a bushland thread interweaving the site.

Amenity

The key aspects of amenity embodied in the landscape concept plan are as follows:

- The street layout is designed to provide safe walking and bicycle routes that link the site with its foreshore, its foreshore parks and the existing services. The provision of short blocks encourages permeability and the grid, especially near the town centre, encourages legibility.
- Parallel kerbside parking will occur on all streets. Retention of existing trees and new planting in streets and parks will provide shade for pedestrians. The open ground plane will provide good surveillance for all activities. The main entry will be lit at night for good visibility. Universal access will be provided on all routes.
- Two recreational parks will be located by the foreshore, setback so that clearings are within the development footprint. They will have a focus on active recreation. Parks by the foreshore will be a maximum 600m from any residence, creating walkable access for all residents. The parks will include shelter and picnic facilities.
- The drainage line will be reserved as parkland with a bushland character and provision of some community recreational facilities at the edges within their APZ's.

Program

The Concept Plan provides a diversity of program.

- The parks on the foreshore edge of the development footprint will be programmed to suit the diverse needs of the community. Each park will have a number of nodes or meeting places along its edges. Each will provide controlled access to the foreshore which will limit any broad scale damage to the sensitive shoreline zone.
- The central park will be a village green, adaptable for markets, fetes and community gatherings. The northern park is located by the creek bed and will provide a series of open and intimate spaces for family picnics and barbeques. Both parks will have playgrounds and provision for seating and outdoor eating.
- The outer zone of the Asset Protection Zone provides the potential for additional local recreational places. It will form a linear park that acts as everyone's backyard where local and less formal spaces for safe recreation such as walking, games and meeting can occur as well as being the entry points to the conservation lands.

Sustainability

The landscape concept plan embodies a number of sustainability measures that are integrated into the landscape of the site.

Key components of sustainability are:

- Retention of existing trees.
- Introduction of plantings of endemic species to enhance biodiversity.
- Streets that provide cross linking corridors through the site.
- Introduction of swales in streets with native grass plantings to filter and cleanse first flush water run-off.

B1.2 Street Types

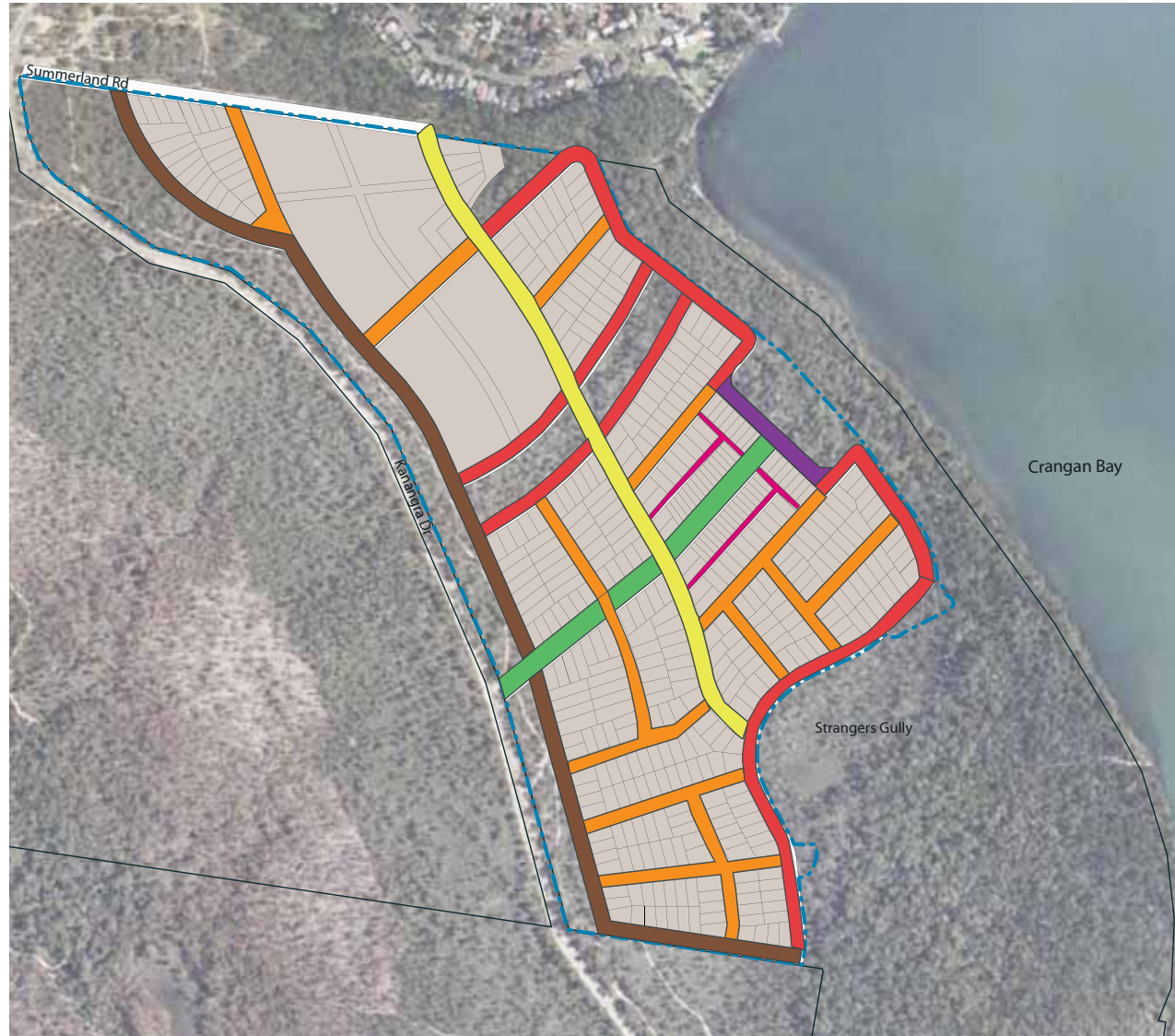


Figure B1.2.1 - Street Types

KEY	
	Street Type A1 Local Street with swale: 20m wide
	Street Type A2 Local Street with bio- swale: 20m wide
	Street Type A3 Local Shop Front street: 20m wide
	Street Type B Local Street: 17m wide
	Street Type C1 Entry Street with central swale: 24m wide
	Street Type C2 Entry street with median: 27m wide
	Street Type D Lane: 6m wide

The streets of Gwandalan are designated as one of four types with three additional sub-types. This will create a diversity and richness that responds to the differing conditions around the site without being constrained by unnecessary complexity. The four types refer to:

- Edge streets that occur on the periphery of the development and include the APZ (Type A).
- Internal streets that form the estate's grid (Type B).
- Wide entry roads that have central medians (Type C).
- Laneways that service areas of higher density (Type D).

The street types, their character, amenity, program and sustainability techniques are described below.

Type A1, A2 and A3 Streets

- These streets are the periphery streets, distinctive because they will have parkland/ bushland on one side and residential housing development on the other. They will be broader, flatter, serpentine parkways that weave along the contours.
- They will be wider spatially, as tree planting will be restricted by APZ requirements. Carriageways will be narrow, and one verge will be dedicated to a swale and buffer planting to filter and protect the conservation areas. The development verge will have a kerb a footpath and discontinuous tree and ground cover planting. Housing setbacks will accommodate the APZ requirements where necessary.
- A minimum of 1.2m wide footpath will be located on the housing/ shop verge, together with turf and Eucalyptus / Angophora plantings in informal/staggered layouts.
- Surface stormwater is to be directed to swales on the bushland verges. Swales will be planted with native grasses and swale tree species that are smaller and denser, providing a layer of lush vegetation in front of the adjoining bushland.
- Where these streets wrap around the formal parks, there will be no swale, but rather an edge with provision for parking.

Type B Streets

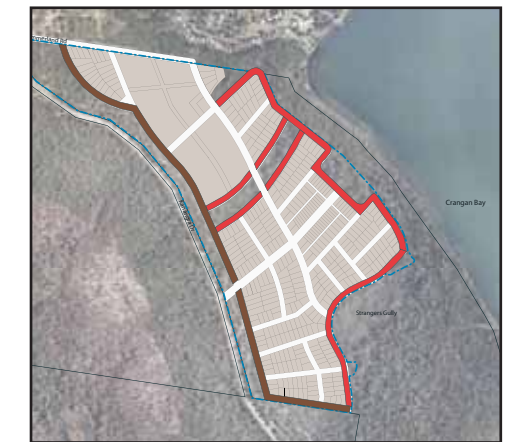
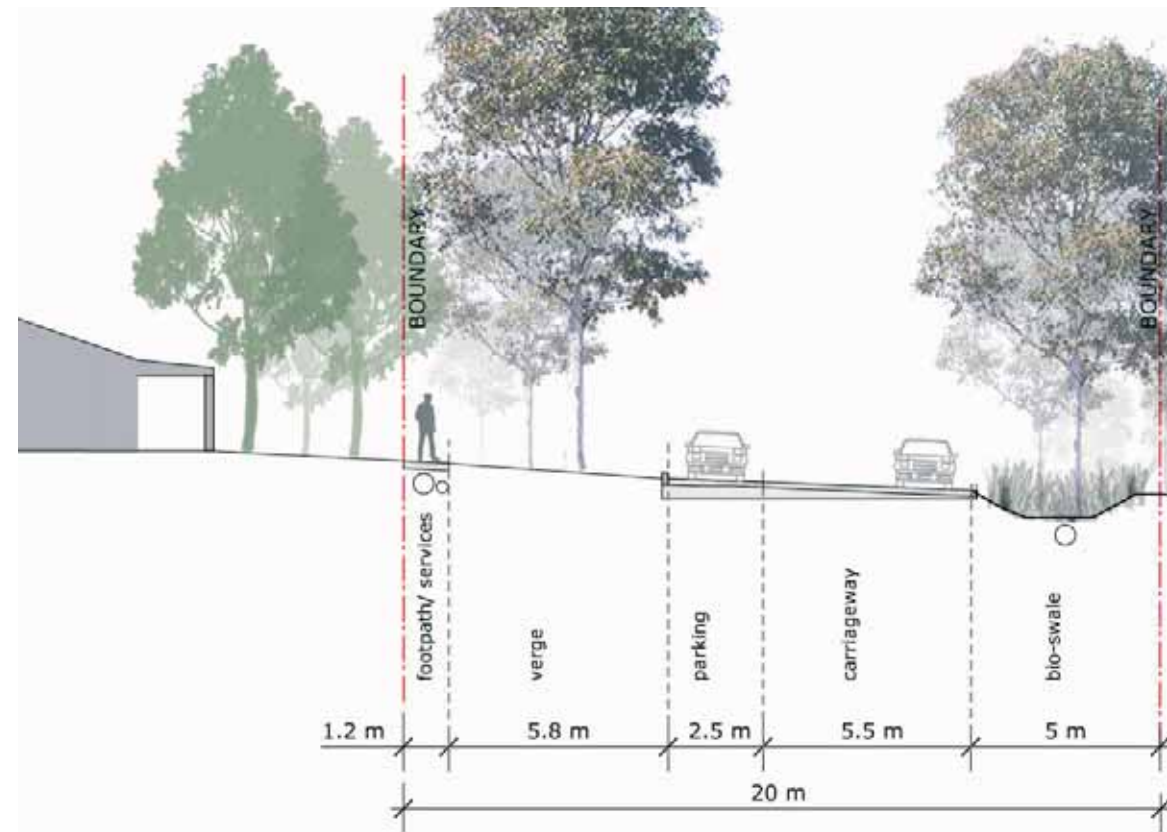
- These are local streets that form the majority of the streets within the development estate.
- In the Hilltop Precinct they will meander through the woodland, between existing trees. They will include parallel parking on both sides and will include wide setbacks to housing. New tree planting will be supplementary to the existing tree structure. The ground plane will include native grasses.
- In the Lakefront precinct these streets will be straight with tall Angophora costata tree plantings. They will be framed by avenues of vegetation which will create view corridors down the site. Tall trees will arch over the streets giving views to the bushland and lake at the terminations of these short streets. The higher density housing will have small street setbacks, reinforcing the idea of the sense of enclosure in these streets. However, setbacks will vary according to the need to retain trees.
- This street type will have 1.2m footpaths on one verge, parallel parking on both sides with, kerbs and gutters.

Type C1 and C2 Streets

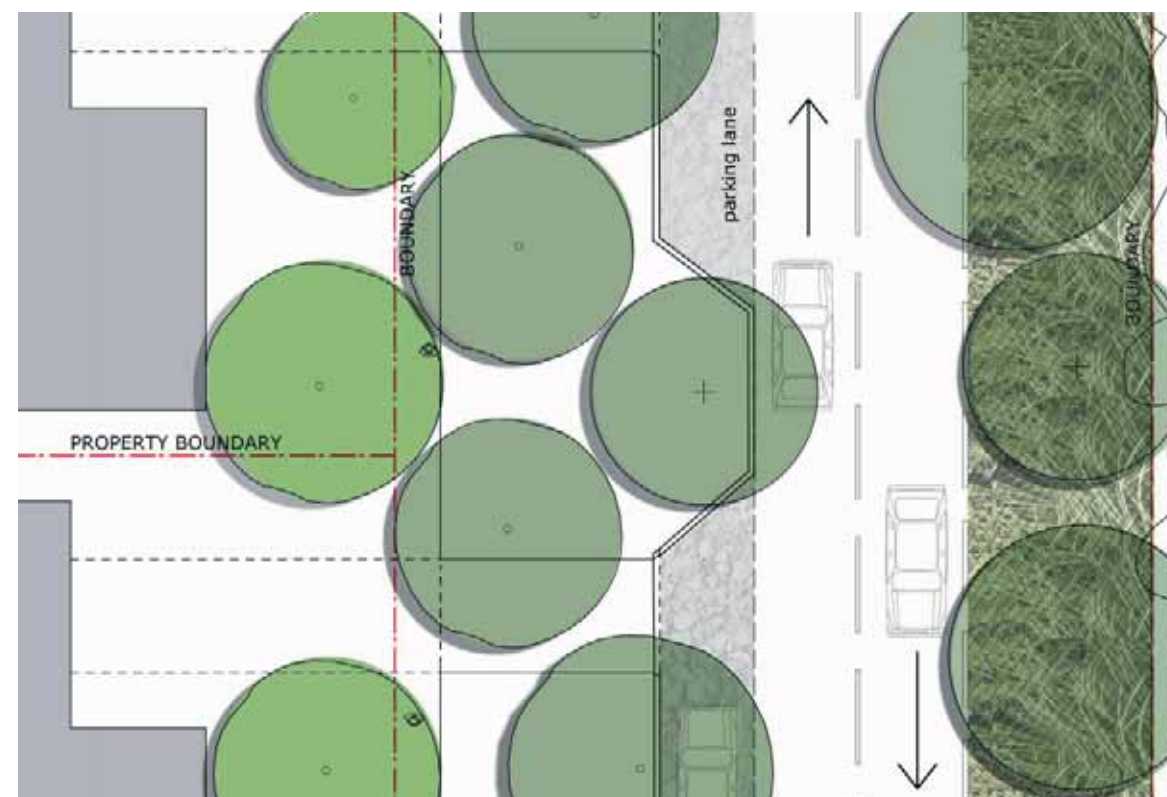
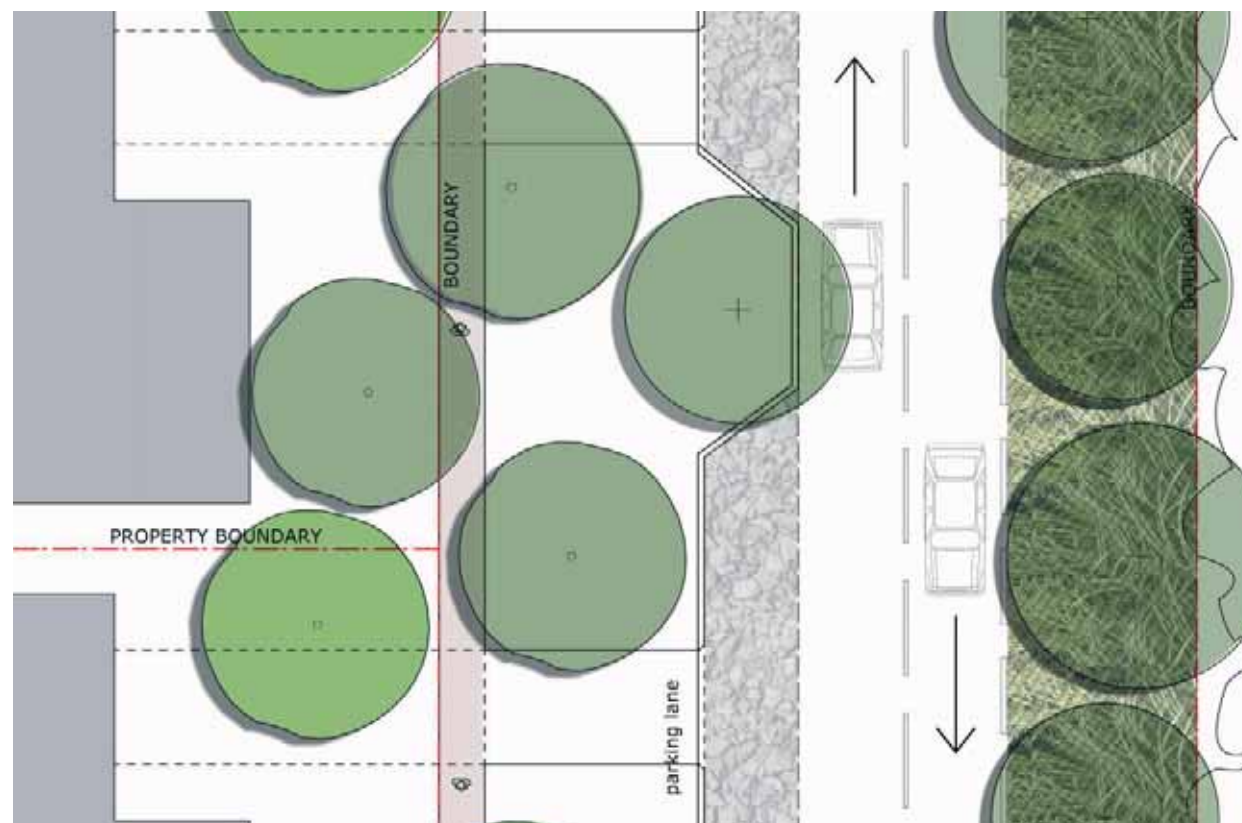
- Type C is the entry street and the main north-south corridor street.
- The entry streets enter the site from Kanangra Drive and follow the ridges to the centre of the site. Ridge roads are distinctive in the sandstone topography of the Sydney Basin, as they offer the easiest and most legible route and form of access. Kanangra Drive is a ridge road and the site itself has three distinct ridges that spur from the main ridge. The central of the three ridge roads is intended to be the main entrance street. It will retain the character of the bushland setting with a wide landscape corridor, a central median and extensive verge tree planting in a regular layout, to provide a legible entry statement. Built form will have varying setbacks. In the village centre there will be smaller setbacks and taller buildings, creating a distinct town centre scale to the street. The street terminates at the Village Green elevated above and beside the foreshore.
- The main collector road that runs north-south should retain the primacy of the bushland setting with a landscaped median with new tree planting, wide verges with tree planting and footpaths. .
- The character of the streets should match the character of the Angophora landscape sub-type, with clear avenues of tree plantings.
- These streets will both have through traffic, a pedestrian footpath and parallel parking on both sides, stormwater swales in the median, street lighting and planting within verges.
- Swales will be planted with native grasses and swale tree species, providing a layer of lush vegetation along the spine of the street and providing stormwater treatment at source by implementation of bio-retention details.
- It is envisioned that these streets will be low speed, allowing cyclists' to be on-road.

Type D Streets

- Type D streets are laneways that service the higher density residential areas. They are intended to be low speed shared ways with no separate pedestrian footpaths.



Location plan

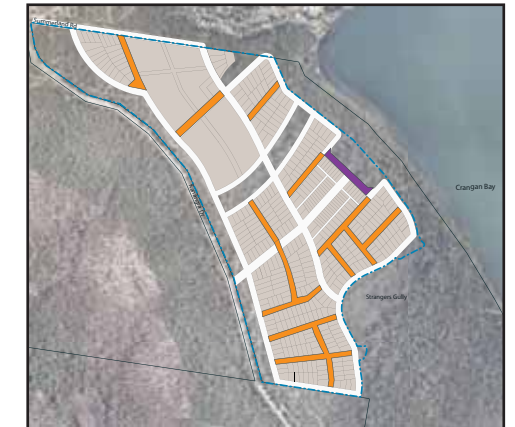
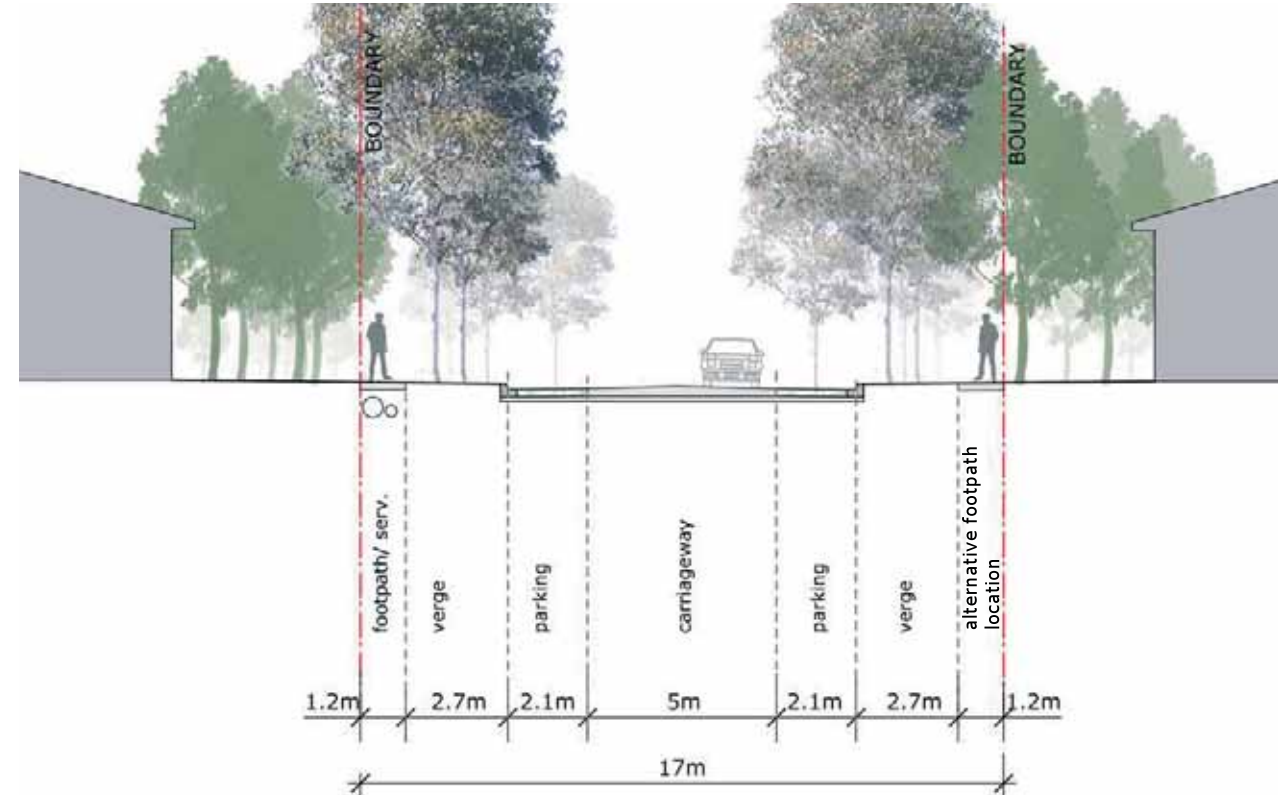
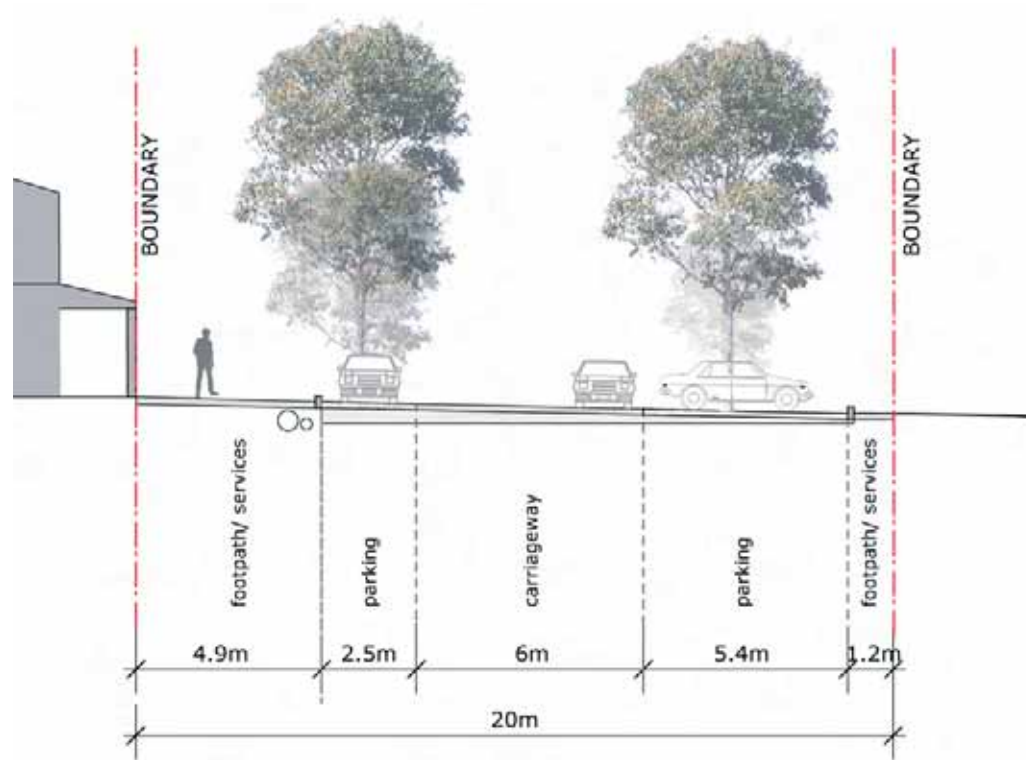


Street Type A1
Local Street with swale :20m wide

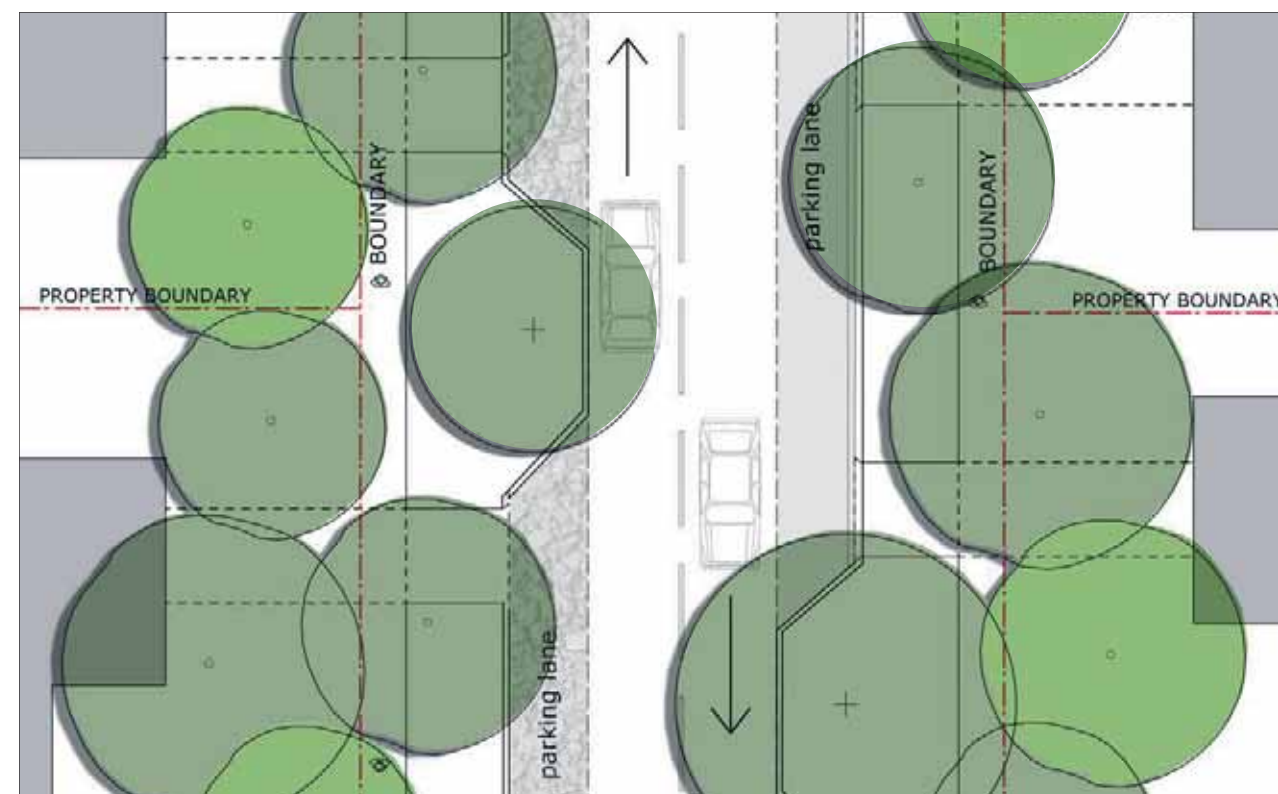
Street Type A2
Local Street with bio-swale :20m wide

Figure B1.2.2 - Street Type A1

Figure B1.2.3 - Street Type A2



Location plan



Street Type A3
Local Shop Front street :20m wide

Figure B1.2.4 - Street Type A3

Street Type B
Local Street :17m wide

Figure B1.2.5 - Street Type B