Randwick City Council
a sense of community

Randwick Street Tree Masterplan



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Background

Randwick City Council has an important resource in its street trees. As with the management of any public resource there are some significant problems associated with this heritage and the management of trees in a coastal environment. Street Tree Master Plan has provided Randwick City Council with an opportunity to develop a comprehensive ecologically based master plan and tree management strategy which seeks to conserve and enrich the environmental heritage of the area, while addressing the important concerns of urban water management, air pollution, environmental amenity and neighbourhood character.

In October 2025, Council adopted our Urban Forest Policy (UFP). The UFP was developed and endorsed. It recognises that trees are a significant component of the urban forest, that they form our tree canopy, but they come with complex management requirements. We have made a commitment to exercising best practice to our tree management practices and a tree inventory database has been created for Council to pro actively manage our existing street trees. This database allows Council staff to record existing street trees health and structure in addition to adding trees to the inventory when they are removed and replaced.

This Street Tree Masterplan **(STMP)** is an update to the previous STMP, formulated in 2008. As previously, this STMP in conjunction with the a list of street tree species will communicate the intent of the master plan amongst residents, and identifying the selected tree species. The STMP also has a masterplan for each precinct within Council, showing a distinctive palette of plant materials.

The Randwick City Local Strategic Planning Statement (LSPS) provides the framework for land use planning and decision making over the next 20 years. The LSPS is consistent with the Community Strategic Plan and outlines our community's land use vision.

Our suite of seven Informing Strategies sits in the middle of our framework. Within this is our Environment Strategy which outlines Council's intent to increase by at least 60%, the number of native and indigenous plantings across Randwick City by 2030 from a 2018 baseline.

This has resulted in consideration of the promotion of indigenous trees and their importance in our landscape. Indigenous trees also have a high resistance to periods of drought which can be exacerbated by climate change. The public consultation outcomes from our Urban Forest Policy also requested to consider tree species, biodiversity, site suitability and variety to ensure we are planting the right tree in the right location with more diversity, especially for native species. A diversity of species also ensures that should the effects of pest and disease and the impacts of climate change affect one tree species, that the remaining tree population will survive.

Council's suite of tree management documents and this STMP seeks to conserve and enrich the environmental heritage of the area, while addressing the important concerns of urban water management, air pollution, environmental amenity and neighbourhood character.

Government Architects NSW has also identified a network of high-quality green space that connects town centres, public transport hubs, and major residential areas known as the Green Grid. The Sydney Green Grid is a strategic planning framework developed to create a connected network of green open spaces—parks, bushland, waterways, and tree-lined streets—across Greater Sydney.

Its goal is to ensure that every resident lives within walking distance of quality green space while improving urban resilience, ecological health, and liveability.

The Green Grid is given effect to the NSW planning system through the Greater Sydney Region Plan – A Metropolis of Three Cities (2018) and the Eastern City District Plan 2018.

Randwick City Council is achieving the aims of the Green Grid with other policies and procedures through the implementation of this STMP.

Our vision for active transport in Randwick City is that:

"Everyone should be able to safely and easily choose to walk or bike more often when moving about, getting daily exercise, enjoying fun and healthy lives and accessing public transport."

The Active Transport Plan sets out a clear pathway for delivering this vision by providing the right infrastructure for people of all ages and abilities to walk and ride around our City safely and easily. Trees are necessary to make walking and riding, more inviting by providing shade for cycling and pedestrian movement on footpaths. For more information on the Active Transport Plan please see:

https://www.randwick.nsw.gov.au/services/transport/active-transport-plan

Randwick City has an extensive road network that is comprised of:

- 271.1km of local roads
- 26.4km of regional roads
- 20.8km of State roads
- 3km of roads owned and controlled by the Department of Housing, Sydney Ports Authority or the Department of Lands

This STMP focuses on our suburban streets with main arterial roads the domain of Transport for NSW and most of our large town centres subject of their own masterplans, with their own planting schemes.

1. The Masterplan Strategy

1.1. PHILOSOPHY

1.1.1. THE VALUE OF STREETS

While streets are always seen as transportation routes, they are also an important part of a matrix of spaces that together make up the landscape of the public realm. In the City of Randwick this public realm encompasses streets, parks, reserves, beaches, sporting facilities and urban areas associated with commercial and civic zones. These spaces, whilst not often fully recognized, are significant contributors to people's daily experience and their absence or deterioration results in a loss of amenity. When viewed from this perspective, it is the areas other than the carriageway, such as the footpaths and the median, which are most significant in contributing to character and amenity.

1.1.2. THE VALUE OF TREES IN STREETS

Trees are potentially the largest and most significant element in the suburban landscape. As such, they provide the greatest opportunity for the development of city identity and neighbourhood character.

Trees promote good mental health by reminding us of seasonal changes throughout the year as the foliage changes. A healthy tree population can contribute to a sense of communal pride. While streets are commonly thought of as transportation routes, they are also an important component of a network of spaces that comprise the public domain landscape.

This public domain includes streets, parks, reserves, beaches, sporting facilities, and urban areas associated with commercial and civic zones. These spaces, while not always fully recognised, play an important role in people's daily lives, and their absence or deterioration results in a loss of amenity.

Given the importance of streets in people's daily experience, the role of street trees in improving this can be broadly categorized into a variety of benefits.

Visual

Within the urban environment street trees play an important role in the establishment of visual

amenity and visual quality. They are significant in making urban environments more legible to their users, for example, in the delineation of road hierarchy. They are also important in manipulating the scale of different types of streets, for example, in reducing the scale of residential streets. Trees can be important in providing visual interest and the aesthetic benefits of their beauty in terms of form, colour, foliage, flowers, etc. Street trees can also provide privacy between streets and houses. Trees can be used to screen undesirable views or activities, as well as providing a unifying element in streets or neighbourhoods.

In many areas of Randwick, views to the ocean often occur. The benefits of maintaining these views need to be balanced with the other benefits of street tree planting. Street tree planting can be designed in these areas to minimize the impact, and even to enhance views by providing scale and enframement.

Habitat for Wildlife

Our natural species needs trees for habitat

and food. Trees provide refuge, food, and safe passage for birds, mammals, insects, bugs, and bees as they migrate throughout our terrain. Increasing the quantity and diversity

of trees contributes to the resilience of our biodiversity and ecosystem.

It is critical that we do not provide isolated pockets of planting but rather connect corridors to ensure that different spaces safely connect with one another. By imitating the structure and diversity of native vegetation, a corridor provides shelter, food, and protection from predators.

Particularly in the coastal area of the City where there are significant stands of indigenous vegetation, the protection and enhancement of wildlife habitats is essential. Street trees can provide habitats for other fauna such as birds. They can also provide wildlife corridors for the movement of birds and animals.

Cleaner Air

Trees contribute to better air quality by absorbing pollutants through their leaves, purifying them, and releasing oxygen back.

1.2. THE BENEFITS OF TREES

For a variety of reasons, including biodiversity conservation, habitat protection, conserving amenity, purifying our air, cooling our City, and contributing to the positive health and well-being of our community, it is critical to protect and enhance the trees and other vegetation in our city. Trees assist to combat climate change by absorbing carbon into the atmosphere (i.e photosynthesis). and storing it in the leaves and soil through the similar process. Trees reduce air temperature by filtering sunlight and reducing heat reflected by artificial surfaces such as bitumen, concrete, steel and glass.

The value of street trees in ameliorating undesirable climatic conditions is important consideration. Street trees are of value in Randwick in providing summer shade for pedestrians, vehicles and, to a lesser extent, providing shelter from the wind, by reducing its speed. Another consideration in locating and selecting street trees is maintaining the access of residents to winter sunlight.

Randwick has many arterial roads carrying high traffic volumes. Street trees can be useful in filtering dust particles and other pollutants from the air as well as providing psychological buffering from traffic noise. Young trees are also net producers of oxygen.

Natural Air Conditioning

Planting the right tree in the right location around the home helps to naturally cool and shade the house. Selecting the right tree will provide shade during summer, whilst dropping leaves in winter to let in the warm sun. This can contribute reducing electricity bills and lowering green house gas emissions.

Reducing Urban Heat Island Effect

The Urban Heat Island Effect is a localised meteorological phenomenon in which a location is warmer than its surroundings due to hard dark surfaces such as roads, roofs, and pavements

that absorb, hold, and radiate heat for extended periods of time. This problem is exacerbated when our cities expand, and hard surfaces replace natural green places. As a result, more rainwater is diverted away from green surfaces and towards stormwater. As a result, water's ability to chill our surroundings is limited.

This effect is amplified on hot days, when temperatures in some places can reach dangerously high levels. Tall trees with dense canopies, especially those above 15 metres, provide the largest cooling benefits to the neighbourhood.

Stormwater Management

Trees contribute to the health of soil by reducing the rate and amount of surface water runoff, thereby delaying peak flows into stormwater systems. At the same time, tree roots, trunks, leaves, canopy, and soil absorb and filter pollutants and nutrients before they reach stormwater, creeks, and rivers, assisting in runoff cleanup. Water sensitive design can be combined with tree management using rain garden tree pits and tree inlet systems.

Streetscape Benefits

Trees promote good mental health by reminding us of seasonal changes throughout the year as the foliage changes. A healthy tree population can contribute to a sense of communal pride. While streets are commonly thought of as transportation routes, they are also an important component of a network of spaces that comprise the public domain landscape. This public domain includes streets, parks, reserves, beaches, sporting facilities, and urban areas associated with commercial and civic zones. These spaces, while not always fully recognised, play an important role in people's daily lives, and their absence or deterioration results in a loss of amenity.

Community Benefits

Trees have an important role in community health and well-being. Trees inspire our community to spend time outside, which helps to reduce obesity, improve mental health, and foster social cohesion. Street trees that are well-planned serve a critical role in connecting our roadways to our parks and green spaces. This encourages children and adults to reconnect with nature, which has been found to improve mental health, reduce stress, and strengthen social bonds. Street trees provide psychological benefits which are difficult to quantify but which may include the vaguely expressed 'enjoyment' or 'good feelings' people associate with trees and pleasant surroundings; a sense of perspective, distance and speed for motorists; a sense of safety and security to motorists and pedestrians where dense plantings are used; a reduction in the psychological impact of a hard urban environment by providing privacy, protection and softness; and some reduction in noise by diffusing, absorbing and masking sound.

Economic Benefits

Trees benefit us by working 24 hours a day, 365 days a year. In the general contents, trees act as natural air filters, cleaning the air we breathe, filtering storm water, producing oxygen for us and other animals to breathe, and providing shade and cooling effects in our neighbourhood. Where there is an abundance of urban canopy, homeowners, businesses, and commercial establishments can reduce their energy on activities such as air conditioning. Tree-lined streets boost the local economy by encouraging people to stay longer in our town centres.

Add Value to Property

The potential for leafy suburbs and streets to add value to home values exists. Planting the correct tree in the right position beautifies the land, cools the home, adds privacy, and gives a

feeling of place, according to research. Planting trees or natural vegetation or dedicating 20% of your yard to trees has also been shown to boost property value.

1.3. PRINCIPLES OF APPROACH

Building on what is there already

Understanding the contribution street trees already make to Randwick, we can analyse existing plantings and use them as one basis for determining future plantings. Council's street tree inventory in the form of TreePlotter is the internal tool that Council's uses for the collection of data of our existing street trees and for any future plantings.

Ecologically sustainable

The STMP has identified that having indigenous species can be a basis for determining future plantings. Preserving and protecting our existing remnant vegetation is important, as these areas create buffers around them and connections between them.

By developing precincts determined in part by physical factors also allows easier selection of a range of trees suitable to that microclimate.

Realising the cultural potential

As major routes to and through places, streets contribute to a sense of place and trees can assist in that sense of place. Trees can mark important community sites, and their preservation can be a point of pride and connection, Trees can also help people develop a deeper connection and attachment to a place and to nature itself.

Effective use of resources

By identifying opportunities in both design and management, this study suggests ways in which costs related to street trees can be reduced, while acknowledging that some cost is inevitable.

Fewest constraints

Our suburban streets provide the fewest constraints when it comes to tree planting. These can include:

- Powerlines are often contained to one side of the street
- Fewer underground services opposed to our town centres
- Permeable areas such as grass in greater lengths and widths
- Public transport and residential traffic in low volumes
- The presence of cul-de-sacs.
- Undisturbed soil profiles that are deep with medium textures and good natural drainage

2. Design Approach

Because roads determine people's movement patterns, both vehicular and pedestrian, they are very significant in shaping people's perception of the place they are moving through. At the broad level, the philosophy of approach is to acknowledge that as roads traverse these places, the landscape of the street should respond to these changes. In this way, roads can be viewed as responsive elements within a larger environment.

The designation of broad precinct types sets up a framework to define these different environments, to enable tree species to be selected that are responsive to the places in which they occur. This study has chosen to use topography and aspect, including maritime influence, as the major determinants for the precincts. This represents an environmental response. As other factors have been influenced by this, too, patterns are revealed. In the development of planting palettes, this approach has the distinct advantage of reducing the number of microclimates within each precinct, allowing the selection of species that will be most successful for the given conditions. Nevertheless, some differences within precincts also emerge, and these result in further differentiation, based on more localized variations in character.

An inventory and assessment of the existing vegetation guide the selection of species for new plantings. It allows Randwick to build on existing successful plantings and acknowledges the extent to which existing plantings can determine character. The master plan is an opportunity to interpret the accrued history of past planting, in order that an informed strategy for the present and future may be developed.

The original plant communities and their present-day remnants have informed this STMP. It should be recognized that however desirable the reconstruction of these original plant associations may be, street tree planting does not provide sufficient scope for this to be done successfully, due to both ecological factors and programmatic issues. Nevertheless, an understanding of the original plant communities, and knowledge of their present-day remnants helped guide this STMP.

Firstly, it gives an understanding of the physical environment in which trees once grew. Excepting the subsequent modifications to the physical environment, this can indicate what can successfully grow there now. This will, of course, include many of the original species found in this association, which can be drawn upon as planting options.

Secondly, it provides an enormous design resource. An understanding of the variety of plant associations and their specific spatial and visual effects reveals the many ways in which different areas can be individualized through a change in plant material. It also implies the use of plants in ways other than the standard avenue planting. In environments where conditions would dictate a high input of resources to achieve this, this can prove particularly useful.

Finally, the use of a limited range of indigenous species will not create true ecological habitats. Strong street tree planting, however, can serve as corridors and buffers for many species as

they move between habitats. This mobility is essential for the survival of a diverse range of animals - to search for food sources and escape encroaching development.

Areas of public open space can also contribute in a number of ways:

- They can contribute to a precinct's character, and so influence the selection of a precinct palette;
- For adjacent roads they can provide a larger potential planting zone, thus minimizing management costs and improving growing conditions; and
- The open space may influence the choice of species along roads that serve as routes to these places. The use of specific planting in approach roads can be used to herald arrival at the destination.

Through assessing precinct character, existing vegetation, original vegetation and its remnants and open spaces, the development of palettes for precinct areas gives the opportunity to create coherent precinct palettes. Distinguishable from each other, they will reinforce the differences between adjacent precincts. At the same time, the number of species provided in the palette allows for variety. The use of selection strategies to differentiate types of planting will further illustrate the character components of a precinct and create a stronger reading of the place.

2.1. OPPORTUNITIES

2.1.1. METHODOLOGY

Street tree planting has potential beyond a contribution to the immediate area. It can play a part in protecting and enhancing indigenous vegetation areas and supporting open space strategies. The types of opportunities that have been identified are:

- buffer streets
- corridor streets
- streets adjacent open space, and
- approach streets

2.1.2. OPPORTUNITIES OVERVIEW

The types of opportunities are described and illustrated below:

Buffer Streets

Streets are identified in this category for their potential to provide buffers to existing areas of indigenous vegetation and to protect and enhance these sensitive areas through sympathetic species selection. This would greatly increase the populations of some remnant species, enhancing their long-term survival. It will also act to signal to surrounding streets the unique character of the surviving bushland.

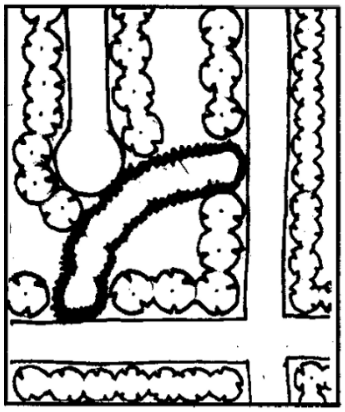


FIGURE 1.0
Buffer Streets

Corridors

Streets are identified in this category for their potential to link areas of existing indigenous vegetation, due to their location between important remnants.

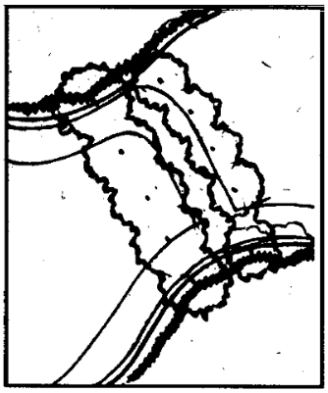


FIGURE 1.1

Sites adjacent to Open Space

These streets have been identified for their potential to use adjacent open spaces for street tree planting. Tree planting in these streets could then be implemented with significantly less ongoing management costs and contribute to both the street and the open space.

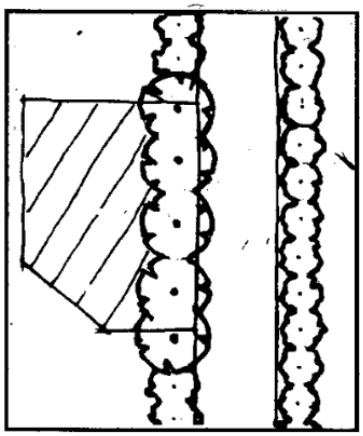


FIGURE 1.2

Open Space Edges

Approach Streets

These streets have been identified for their potential to mark major parks and important areas of open space, by providing landscape cues along the major routes leading from arterial roads.

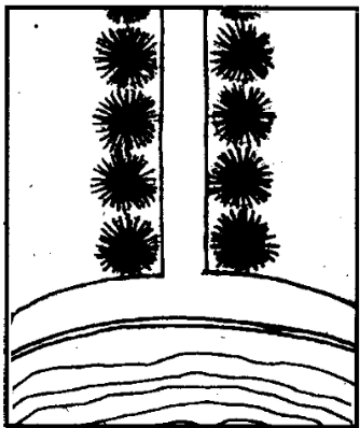


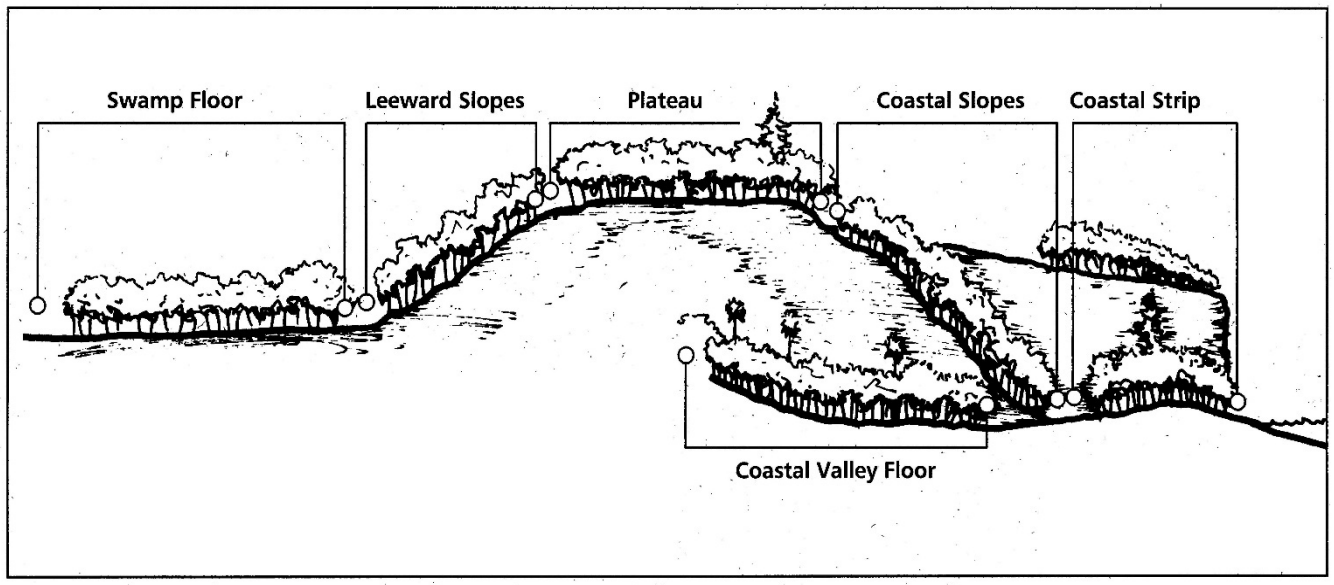
FIGURE 1.3

Approach Streets

2.2. IDENTIFYING PRECINCTS

2.2.1. METHODOLOGY

To divide the City into coherent units, the topographical conditions of the City are used, as shown in the figure below:



Broadscale precinct types are plotted through an analysis of slope, aspect and exposure to coastal influence.

These broadscale precinct types are further divided into sub-precincts. This is based on an analysis of urban form and existing vegetation and other factors that together determined character. To allow for future design development and planting, boundaries have been taken to the nearest cross street, so a change in tree species will not generally occur mid-block.

2.3. PRECINCTS AND THEIR SUB-PRECINCTS

Precinct	Precinct Sub-divisions
Coastal Strip Clovelly, Coogee, South Coogee, Maroubra, Malabar, Little Bay	
Coastal Slopes – Clovelly, Randwick, Coogee, South Coogee, Maroubra, Matraville	1. Coogee Bay Coastal Slopes 2. Maroubra Bay Coastal Slopes
Coastal Valley Floors - Coogee, Randwick, Maroubra -	1. Coogee Valley Floor 2. Maroubra Bay Valley Floor
Plateau Randwick	
Leeward Slopes Randwick, Coogee, South Coogee, Matraville, Malabar, Little Bay, La Perouse	1. Leeward Slopes - north 2. Leeward Slopes - central 3. Leeward Slopes - south
Swamp Valley Floors Kensington, Kingsford, Randwick, Maroubra, Matraville, Chifley, Phillip Bay, La Perouse, Port Botany	1. Swamp Valley Floor - north 2. Swamp Valley Floor - central 3. Swamp Valley Floor - south
Remnant Dune Structures Kensington	1. Remnant Dunes - north and south

2.4. A PLANTING PALETTE FOR EACH PRECINCT

2.4.1. METHODOLOGY

Having defined the major precincts and the sub-precinct divisions, a distinctive palette of plant materials for each precinct has been developed. The methodology employed assessed the character of each area in the precinct, and the contributions to this character of the major existing planting.

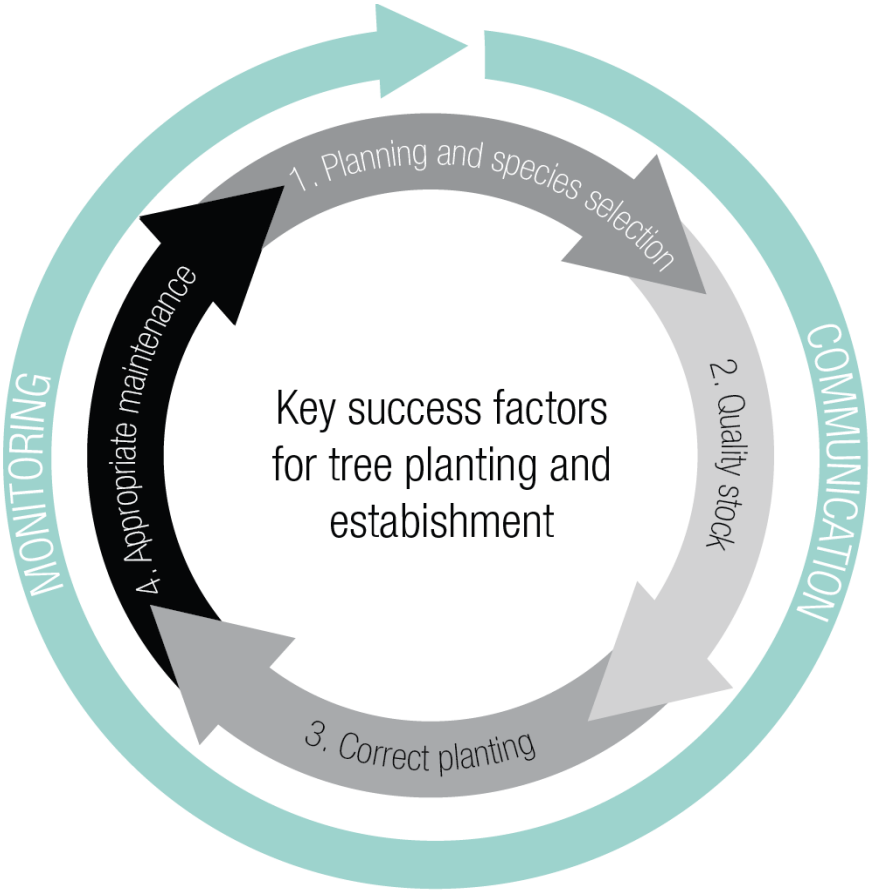
In looking at each precinct the process was to examine the existing trees and to retain all those of value. If a strong character already existed or could be developed by reinforcing those streets with the same or similar species, a palette is developed on this basis. In situations where a strong character was not identifiable, the proposal for new plantings attempts to rectify this. The species for these new plantings have been selected for a variety of reasons:

- creating a strong and distinctive character
- compatibility with any existing planting
- environmental suitability (will it grow there?)
- remnant and indigenous vegetation as a potential cue
- vegetation in nearby open spaces as a potential cue, and
- manageability
- adaptability to changing climate

To read as a cohesive planting design, it is important that a diverse palette is implemented consistently within a precinct. Consequently, once the palettes had been selected, they were further categorized to identify trees for different situations and specific applications.

These can be determined through the conditions of the site prior to planting.

3. Tree planting and establishment



Randwick City Council has an active tree planting program involving staff, contractors and the community. Council staff investigate feasible planting locations throughout the area for suitable planting locations, such as on nature strips, reserves, green corridors and in parks. Council's main planting period occurs during the cooler months, usually around April to September. As most of our street trees are native or indigenous trees that we often source from our Community Nursery, they are usually better suited to local weather conditions, and this tends to give the trees the best possible start to a long life. This is in line with industry best practice guidelines to minimise the stress on new plants, allowing them to establish successfully.

Experience has shown that planting trees with good intentions are not sufficient to achieve a high quality and lasting outcome. Planting and maintenance specifications will be provided to Council's contractors and checks performed to ensure planting is undertaken in accordance with the specifications.

Council purchases most tree stock from commercial trade nurseries. Council also propagates and grows some trees itself in our nursery. Pre-planning is essential particularly when specific species or large numbers of trees are required. Council will, whenever possible, procure trees from nurseries in advance of planting them.

Procuring trees in advance ensures supply and quality, eliminates the need to substitute species and size, and guarantees uniformity.

Planting a good quality tree is essential to the long-term success of the tree. At the time of planting, the tree should:

- be healthy
- not show any signs of pests or disease
- have a uniform habit
- have good balance between the size of the crown and the size of the root system
- have a well-developed and well-formed root system and be free from defects likely to cause the tree to fail in the future.

Good quality tree stock should establish rapidly and grow to maturity with less maintenance requirements than poor quality stock. Poor plant selection can lead to poor vitality and form, susceptibility to pests and diseases, premature death and community dissatisfaction.

3.1. Requirements For Street Tree Planting Sites

Although distances may be varied depending on the tree species and the site. Where trees are to be installed in street verges and in proximity to the road network it is important to establish practical street tree spacing. Trees shall be positioned with consideration to existing site constraints such as light poles, traffic sight lines, bus stops, footpaths and driveways. Existing trees within these distances will not be removed unless the impacts of retaining the tree are found to be unacceptable or cannot be mediated by other means. Council will plant trees where the roadside environment does not prevent the tree from reaching its maximum potential. Some locations will not be suitable for tree planting due to existing or planned infrastructure or utilities.

Trees will be planted in accordance with the Tree Planting Specification and Tree Planting Details set out in the Appendix.

MINIMUM PLANTING DISTANCE

How far should the tree be from another tree?
- Trees growing to five metres at maturity – 5 metres
- Trees between five metres and 10 metres at maturity – 7.5 metres
- Trees over 10 metres at maturity – 10 metres

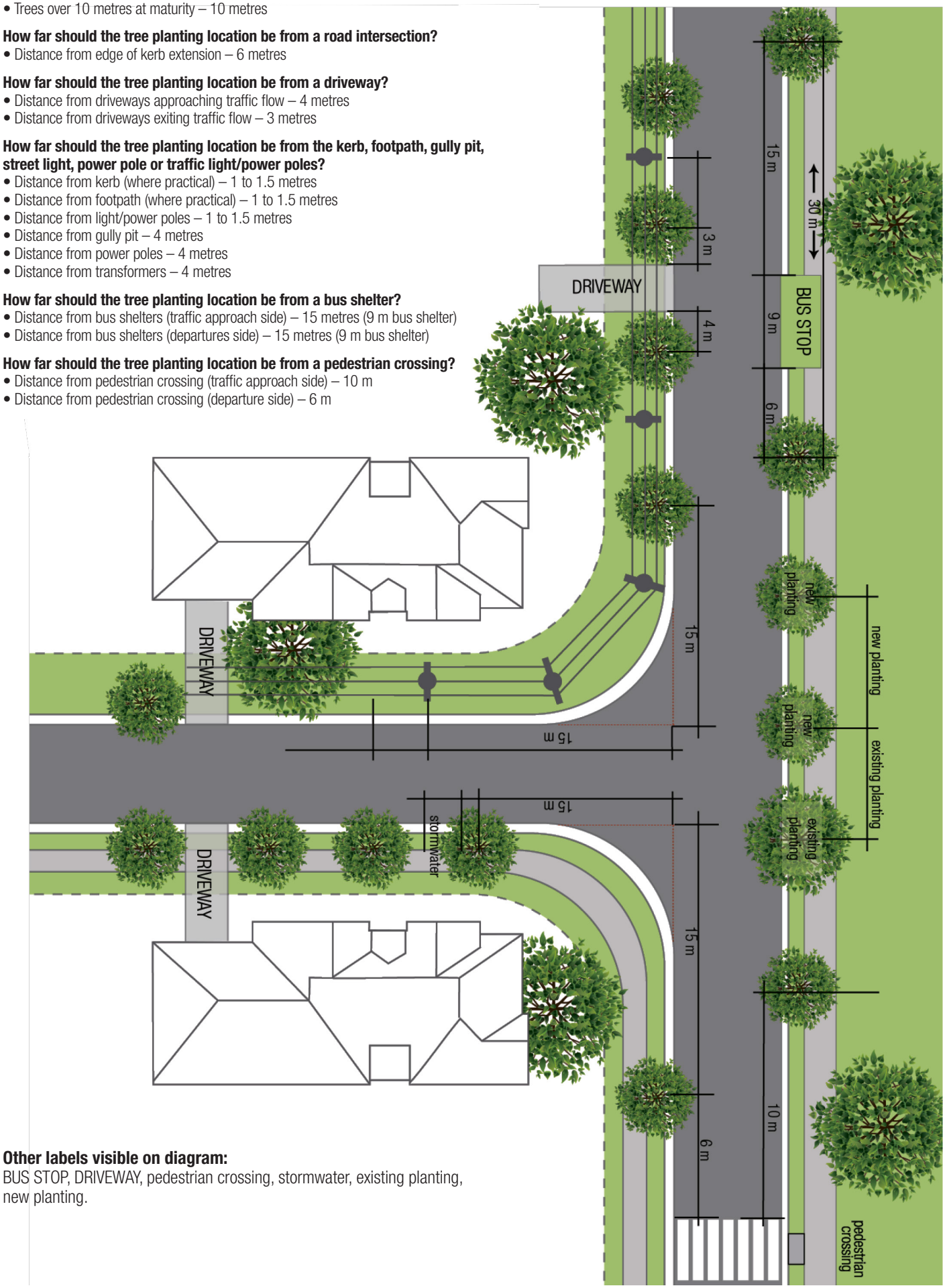
How far should the tree planting location be from a road intersection?
- Distance from edge of kerb extension – 6 metres

How far should the tree planting location be from a driveway?
- Distance from driveways approaching traffic flow – 4 metres
- Distance from driveways exiting traffic flow – 3 metres

How far should the tree planting location be from the kerb, footpath, gully pit, street light, power pole or traffic light/power poles?
- Distance from kerb (where practical) – 1 to 1.5 metres
- Distance from footpath (where practical) – 1 to 1.5 metres
- Distance from light/power poles – 1 to 1.5 metres
- Distance from gully pit – 4 metres
- Distance from power poles – 4 metres
- Distance from transformers – 4 metres

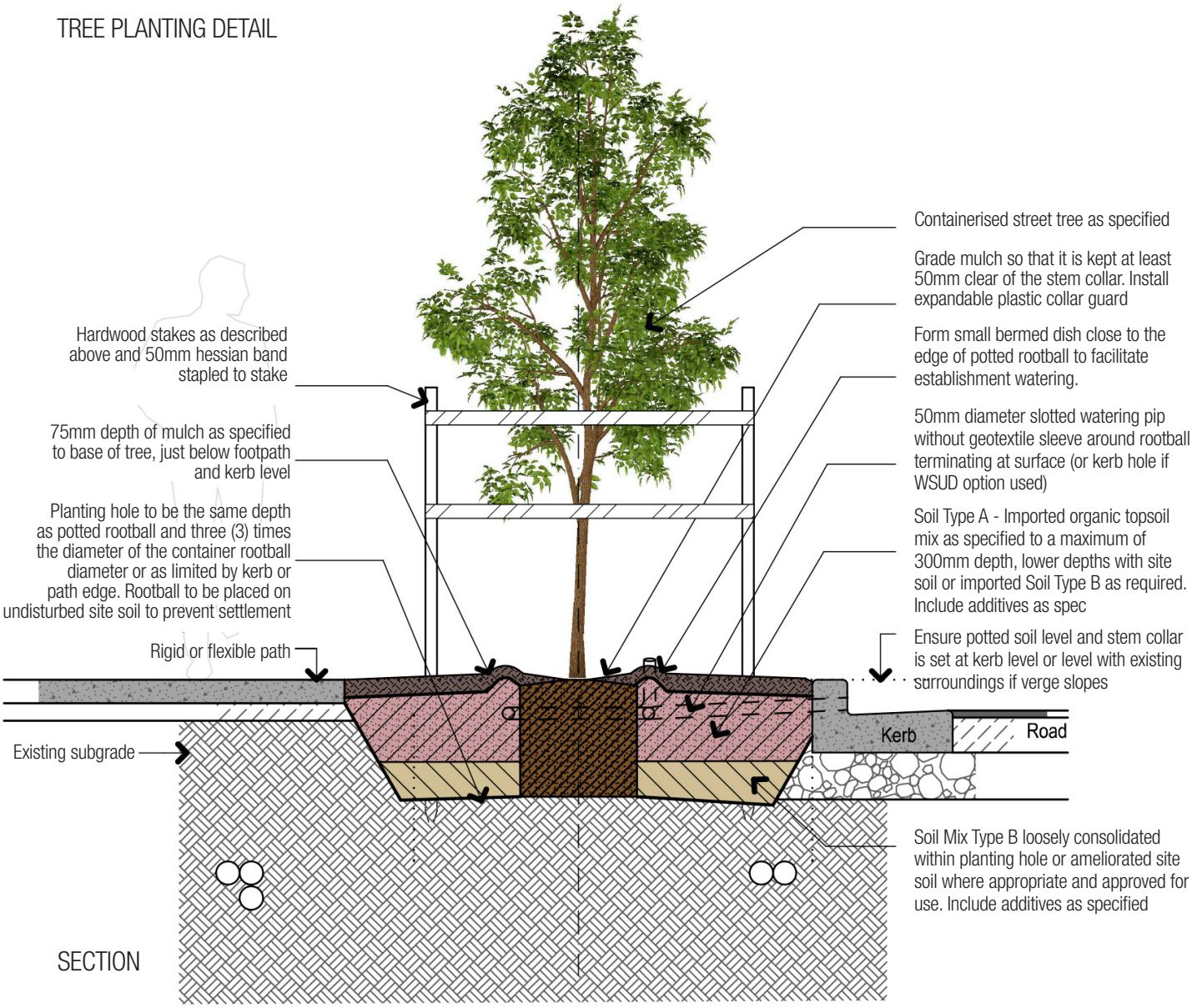
How far should the tree planting location be from a bus shelter?
- Distance from bus shelters (traffic approach side) – 15 metres (9 m bus shelter)
- Distance from bus shelters (departures side) – 15 metres (9 m bus shelter)

How far should the tree planting location be from a pedestrian crossing?
- Distance from pedestrian crossing (traffic approach side) – 10 m
- Distance from pedestrian crossing (departure side) – 6 m



Other labels visible on diagram:
BUS STOP, DRIVEWAY, pedestrian crossing, stormwater, existing planting, new planting.

TREE PLANTING DETAIL



SECTION

Randwick City Council
a sense of community

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30 Frances Street
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www.randwick.nsw.gov.au

