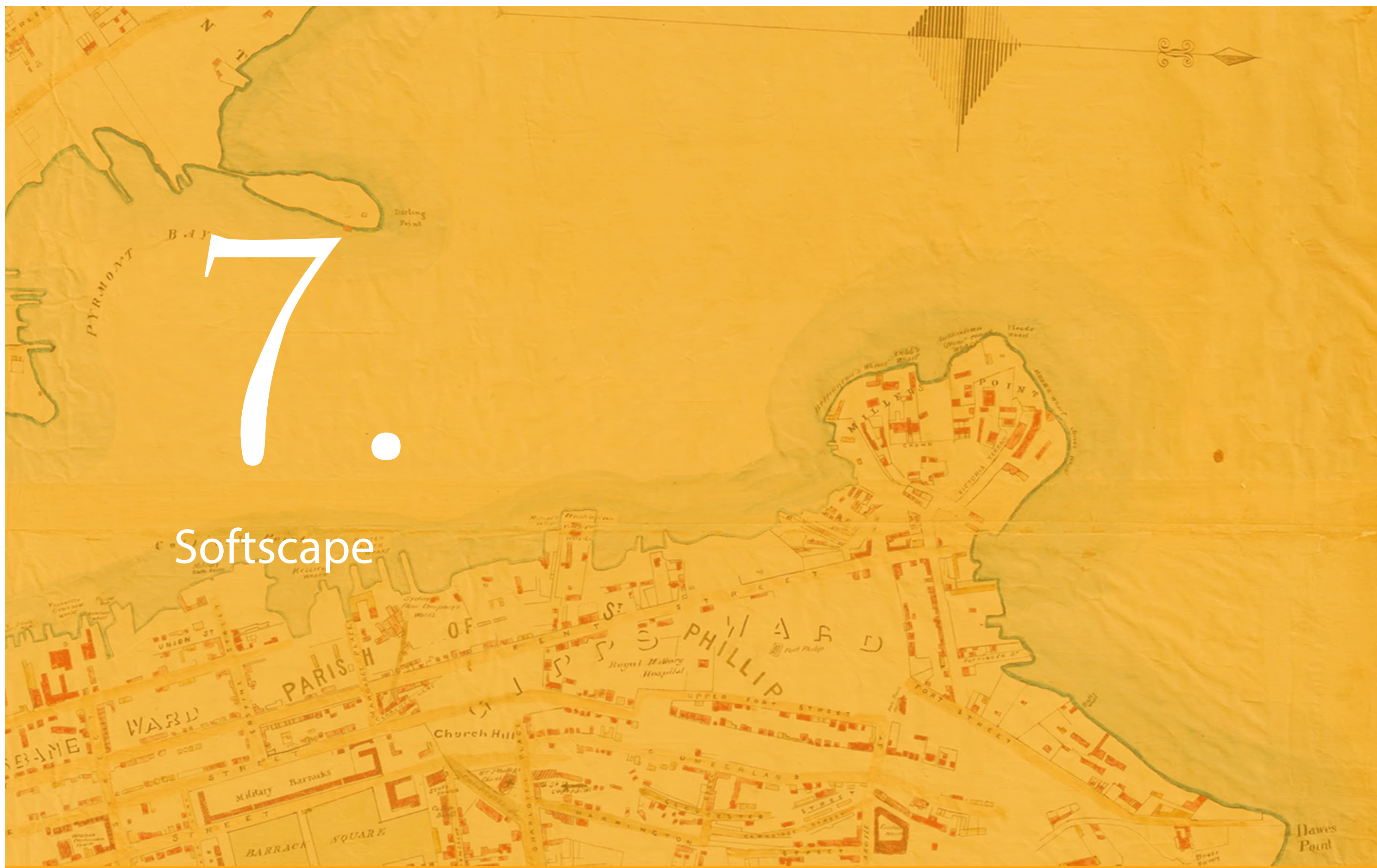


7.

Softscape



7.1

Planting Strategy

AMENITY AND VALUE

The development of a robust tree planting strategy for Barangaroo is an essential ingredient to the success of the public realm. Quality, large scale trees, will assist to mitigate several micro climate challenges and create meaningful, useable spaces. We envisage that trees will be a special component to help unify the different aspects of the public realm and - in the case of Hickson Park - will be the most important factor to ensure that the character of the space is distinctly contrasting to the rest of the public realm.

HICKSON ROAD EXISTING FIG TREES

The Hill's weeping Figs (*Ficus microcarpa* var. *hillii*) along Hickson Road are an excellent example of how historically important this tree is in the growth of the city. The Sussex Street/Hickson road alignment marks the former eastern edge of Cockle Bay prior to the 1830's period. Figs were used extensively for the planting of public streets and parks pre and post war period. The Figs continue a lush, native broadleaf evergreen theme that is consistent with earlier nineteenth century planting schemes and provide high ornamental amenity and biodiversity values in an urban setting.

There is one particular Fig tree, adjacent to the Sussex Hotel's beer garden that is incredibly spectacular. It can be seen all the way from Pyrmont on the other side of the harbour down the axis of City Walk. This tree is listed in the City of Sydney's significant tree register and is older than the other Fig trees along Hickson Road which date from the 1970's. This large Fig appears, based on historic photos, to have been planted c.1947.

SIGNATURE TREE PLANTING

In addition to the significant existing Fig tree planting along Hickson Road the Harbour edge - and many of

the urban parks throughout the CBD - are littered with magnificent signature tree specimens, predominantly figs, that provide a dramatic character to the spaces and escarpments in which they reside. Whether they are among bushland perched on the edges of the water or are stand alone specimens in their own right (including "Fred the Fig" in Tumbalong Park or Mrs Macquarie's Chair in the Botanic Gardens) they exhibit a powerful character that is distinctly memorable.

These trees have become a source of inspiration for several proposed set piece tree planting pieces in Barangaroo South. We have begun to suggest that the best locations for these trees would be where they define dramatic and memorable arrival and departure experiences. They are proposed as a common thread throughout all of the spaces and places and are a strong part of the overall tree planting narrative proposed for Barangaroo South 1B.

HICKSON PARK

Hickson Park is an important part of Barangaroo South's sequence of public spaces with an aspiration is that it will offer one of Sydney's most distinctive urban park experiences. It is to be a destination in its own right, offering a genuine new public place supported by a range of appropriate services, facilities and changing uses.

Hickson Park offers a softer, greener space within the urban precinct for nearby residents, workers and visitors to the site. The primary use and character will be a high quality public park that connects to the future parklands of Central Barangaroo, Hickson Road and Barangaroo Avenue through extensive and varied opportunities for people to spend time in a comfortable landscaped environment. As an overall strategy, Hickson Park should exhibit a strong landscape character, whilst also retaining an urban quality at its fringes and streetscape interfaces. The use of tree planting should contribute to the clear expression of pedestrian thoroughfares and quieter, definition of key views, mitigation of scale and the

creation of more intimate spaces off of the main pedestrian routes. Importantly the choice of species should offer a character of planting that provides rich green tones all year round. Trees should have large spreading canopies in the large lawn spaces of the park and have dense canopies to mitigate the adjacent buildings. The view from above should be considered as the park will provide a green respite for the residents, Crown Sydney and commercial offices that surround the precinct.

The selection of tree species will need to respond to a desire to provide well needed shade. The landscape character should be simple, elegant and in scale with the public character of the place. It should avoid fussiness and a domestic character. However, special smaller areas within the park can be created with a greater level of detail to provide diversity of use and spaces. Areas of shrub planting and a large lawn will provide a stark alternative to the hard landscaping in the commercial core of Barangaroo South.

Notable requirements for the tree planting to be able to respond to this character include.

- Reveal the seasons through the use of a mix of distinctive flowering trees.
- Provide differences of scale and form to provide a variety of places to sit and gather.
- Provision of a richer understory planting layer that will add accent and interest to the ground plane.
- Provide tall clear single trunks that allow key views inwards and outwards beneath the tree canopies.
- Mitigate the impacts of wind to the edges of the park, dining and pedestrian areas.
- Clearly define park entry and exit points.

WATERMANS COVE

The planting within the Cove aims to significantly contribute to this character by providing a distinctly green foil to the backdrop of the buildings behind. It is particularly important therefore that these trees are selected to add height and scale to this part of the Cove to ensure that it becomes an inviting place for people to gravitate to and to spend time in - rather than just move through. We envisage that these trees distinguish the Cove in views from the water and Pyrmont. The Cove is also an important place for continuation of the allee of trees along Wulugul Walk + Boardwalk. The trees have been proposed in a location to strengthen the arc of the Cove but also to permit views through to the Harbour from Watermans Quay and Shipwrights Walk. For the Cove allee planting we have proposed a different tree species than the existing *Celtis Australis* to define the Cove as a particularly special place along Wulugul Walk.

Notable requirements for the Cove avenue tree planting to be able to respond to this character include.

- Composed radially to complement - and reinforce - the circular geometry of the cove.
- Promote a different tree species to the rest of Wulugul Walk to underpin the principle of the Cove as a special place along the Walk.
- Provision of a year round evergreen character to provide shade and "green volume" throughout all times of the year.
- Provide well rounded interlocking tree canopies that complement the urban character of this part of the waterfront.
- Provide appropriate clear trunk heights that do not restrict movement of views.
- Provide canopies and foliage that provides access to winter sun and the provision of adequate shade in summer.

- Promote a continuous tree lined avenue along Wulugul Walk from King Street Wharf to Barangaroo Reserve.
- Provide trees with lighter foliage that permits filtered views across the water and beyond from the adjacent residential and commercial buildings.

Notable requirements for the Cove raised planter tree planting to be able to respond to this character include.

- Promote a distinctly different tree character to the Cove avenue trees through the provision of taller trees with clearer stems to mitigate scale of the adjacent building podium.
- Provision of a year round evergreen character to promote “green volume” throughout all times of the year.
- Select tree species that tolerate planting in tight groups to maximise “green volume” in an otherwise hardscape dominated space.
- To identify Watermans Cove as a special place when looking east from across the Harbour towards the waterfront edge.
- Frame key views from Watermans Quay, Barangaroo Avenue and the Strada to Watermans Cove and then further across the water.
- Clearly define arrival to the Cove and waterfront.
- Provide trees with lighter foliage that permits filtered views across the water and beyond from the adjacent residential and commercial buildings.

BARANGAROO AVENUE

As per Stage 1A Barangaroo Avenue will accommodate a single row of *Harpullia pendula* street trees located in the pavement on both sides of the street. The spacing and positioning of trees has followed the standards set by Stage 1A.

WATERMANS QUAY

Watermans Quay will be planted with a single row of *Eleaocarpus eumundion* on each side of the street. The trees will be located back from the kerb and in line with the proposed light poles on the northern side of the street. On the Southern side the trees are proposed to generally be set back from the edge of the kerb because of the taxi rank in the western portion of the street. This alignment ensures that they can be positioned in a single linear row.

WULUGUL WALK + BOARDWALK

Celtis australis will be planted in the section of Wulugul Walk in front of Crown Sydney so that it continues the avenue that has been planted in Barangaroo Central. Two trees will also be planted to the north of the existing avenue in Stage 1A.

The following section and associated diagrams describe the proposed tree species in further detail and include specific reasons for their selection. Considerable work was conducted with the Barangaroo Delivery Authority to review alternative tree species, these were discounted for various reasons (including suitability for a civic character). They are not included in this report.

PROCUREMENT AND CLIMATE CONDITIONING

In order to secure adequate supply and quality of the tree planting advanced procurement will be required. We also recommend that for some of the key tree planting species, including the proposed Watermans Cove tree planting, that advanced planting of the same species is conducted in Barangaroo Central so that its suitability for the location can be monitored and assured. This advance planting should be conducted as soon as possible.



SOFTSCAPE CHARACTER AREAS

The following key planting character zones have been established. They have guided the selection of tree species so that they respond to the specific character of the spaces and are suitable for the main climatic conditions relating to them. In particular these include exposure to the sun and salt-laden winds.

- Hickson Park
- Streets
- Watermans Cove
- Wulugul Walk and Boardwalk
- Stage 1B DA boundary



TREE PLANTING PALETTE

The following panel demonstrates the variety of tree species utilised in the tree planting strategy. They are explained in further detail on the following pages.



Elaeocarpus eumundi



Magnolia grandiflora 'Exmouth'



Harpullia pendula



Syzigium paniculatum



Waterhousea floribunda



Angophora costata



Ficus var. hillii



Waterhousea floribunda var. 'Green Ave'



Tristaniopsis laurina



Celtis australis



Corymbia maculata



Ficus macrophylla



Corymbia gummifera

TREE PLANTING PRINCIPLES

The proposed tree planting palette has been selected to include a suitable mix of native and exotic species that represent distinct individual special qualities and diversity of colour, tone, form and texture. From a pragmatic perspective tree species will be required to respond, and thrive, under the sites specific microclimate conditions.

In terms of the required tree character and their design related selection, we are interested in promoting trees with particularly distinctive bark, texture and branch and canopy form.

The specific reasons for the tree species selection, including their particular desired character, are included in the following pages.



Note: Tree height and canopy spread are indicative only. Actual sizes depend on a variety of environmental factors including soil type and volume.



HICKSON PARK

Ficus macrophylla up to 15m H x 20m W



WULUGUL WALK + BOARDWALK

Celtis australis up to 13m H x 10m W



Ficus microcarpa var. *hillii* up to 15m H x 5m W



WATERMANS COVE

Corymbia maculata up to 15m H x 10m W



Corymbia gummifera up to 15m H x 10m W



Waterhousea floribunda var. 'Green Avenue' up to 12m H x 8m W

TREE PLANTING AREAS

The following diagram details the locations and tree species for each respective area.

WATERMANS QUAY

- Elaeocarpus eumundi

BARANGAROO AVENUE

- Harpullia pendula

HICKSON PARK

- Magnolia grandiflora 'Exmouth'
- Glochidion fernandi
- Syzigium paniculatum
- Angophora costata
- Tristaniopsis laurina
- Ficus macrophylla
- Ficus microcarpa var. hillii
- Magnolia x soulangeana

WULUGUL WALK

- Celtis australis
- Ficus microcarpa var. hillii

WATERMANS COVE

- Corimbia maculata
- Angophora costata
- Waterhousea floribunda var. 'Green Avenue'
- Ficus microcarpa var. hillii

OTHER

- Existing Hickson Road trees



HICKSON PARK TREE PLANTING
Glochidion fernandi - Cheese Tree

CHARACTERISTICS + SUITABILITY

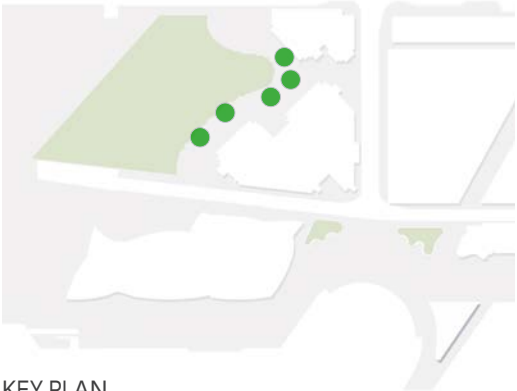
- Evergreen
- Native
- Common to Sydney
- Harbourside Tolerance
- Seasonal Litter
- LOW

DESIGN CONSIDERATIONS

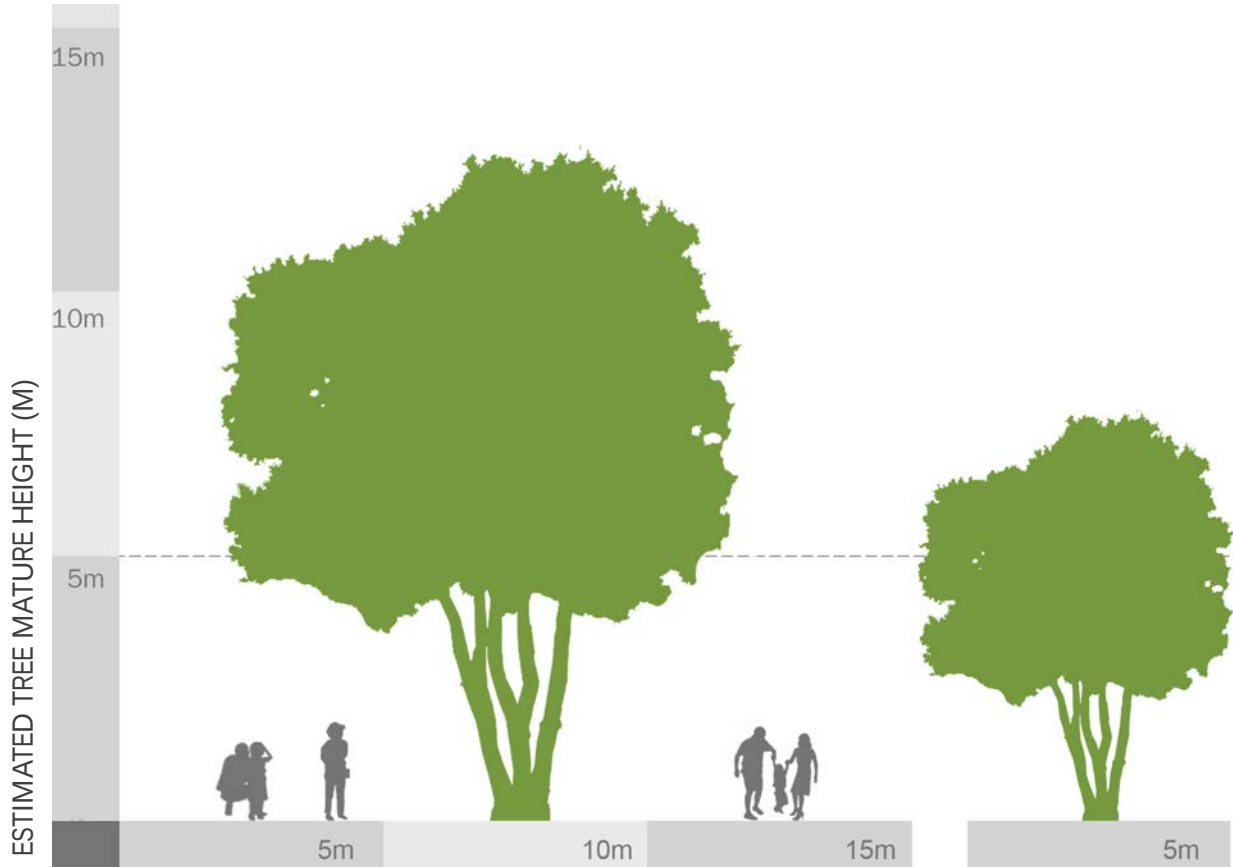
Glochidion fernandi grows as a bushy shrub or up to a medium sized broad tree with a dark green canopy ✓
foliage. The bark is light coloured and slightly flaky ✓
in appearance. Its dense canopy provides shade and ✓
screening properties. The fruits are eaten by several I ✓
species which will encourage wildlife.

ALTERNATIVE SPECIES CONSIDERATION

- Other possible alternative species that were considered include.
- Cupaniopsis anacardioides - concern over more rounded spreading habit and smaller scale
 - Platanus acerifolia - concern over lack of unique character from other CBD streets



KEY PLAN



Note: Tree height and canopy spread are indicative only. Actual sizes depend on a variety of environmental factors including soil type and volume.



HICKSON PARK
Glochidion fernandi

HICKSON PARK TREE PLANTING
Magnolia x soulangeana

CHARACTERISTICS + SUITABILITY

- Evergreen
- Native
- Common to Sydney
- Harbourside Tolerance
- Seasonal Litter
- LOW

DESIGN CONSIDERATIONS

Growing as a multistemmed large shrub or small tree, Magnolia has alternate, simple, shiny, dark green oval shaped leaves on stout stems. It is relatively tolerant to wind and easy to cultivate.

ALTERNATIVE SPECIES CONSIDERATION

- Other possible alternative species that were considered include.
- Ficus rubiginosa and hillii - dismissed because of the preference to keep fig trees as the clear marker entry trees



KEY PLAN



Note: Tree height and canopy spread are indicative only. Actual sizes depend on a variety of environmental factors including soil type and volume.



HICKSON PARK
Magnolia x soulangeana

WATERMANS QUAY TREE PLANTING
Elaeocarpus eumundi - Smooth Leaved Quandong

CHARACTERISTICS + SUITABILITY

Evergreen	✓
Native	✓
Common to Sydney	✓
Harbourside Tolerance	✓
Seasonal Litter	LOW

DESIGN CONSIDERATIONS

Elaeocarpus eumundi is well suited to street tree planting. It has a dense upright character and will provide good “green volume” for this wide street. The clean and upright nature of the tree canopy and trunk is well suited to avoid conflicts with building awnings and facades. A significant shade canopy for this tree is not required as the height of the adjacent buildings (particularly on the northern side of the street) restrict solar access.

ALTERNATIVE SPECIES CONSIDERATION

Other possible alternative species that were considered include.

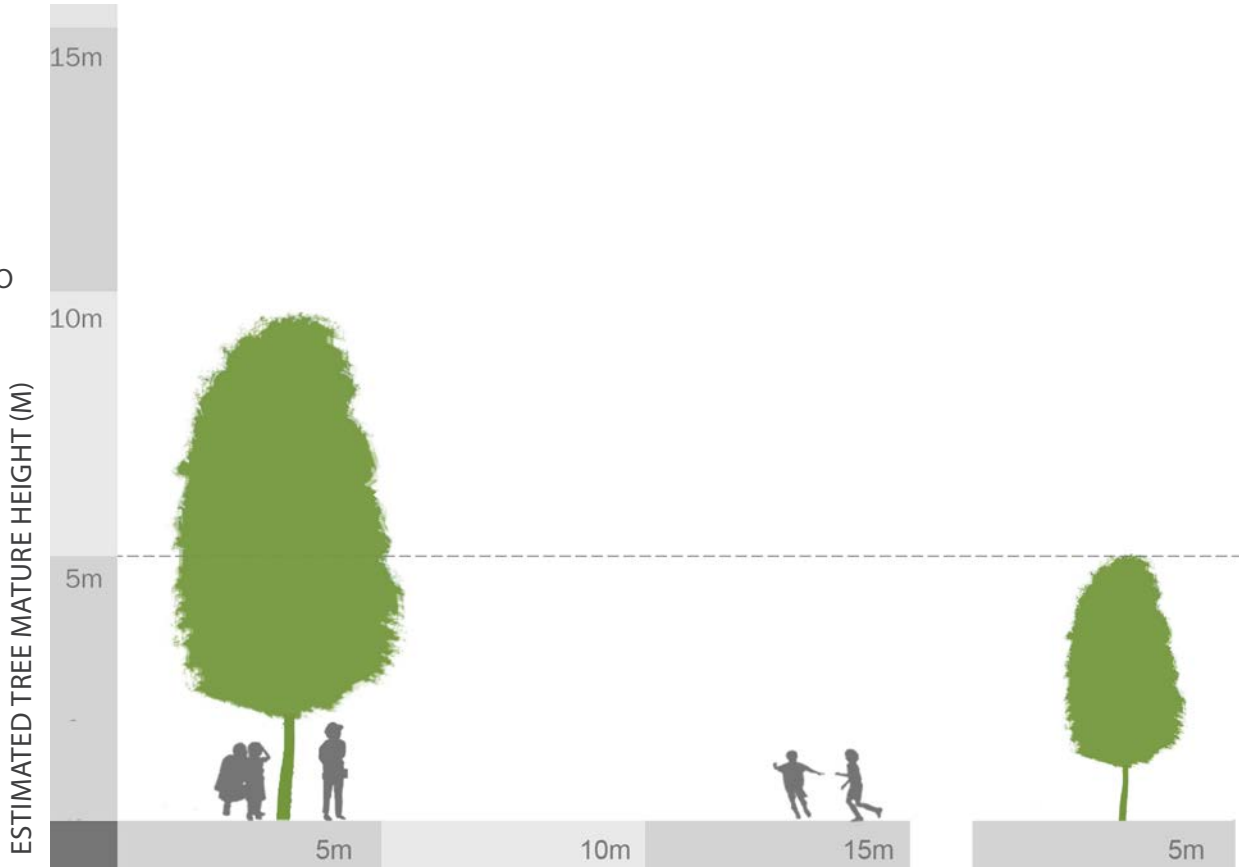
- Cupaniopsis anacardiodes - concern over more rounded spreading habit
- Platanus acerifolia - concern over lack of unique character from other CBD streets
- Flindersia australis - concern over burn from north/north westerly winds and salt spray

LOCATION WHERE CURRENTLY GROWING CLOSE TO SITE

Barangaroo South & Darling Park



KEY PLAN



Note: Tree height and canopy spread are indicative only. Actual sizes depend on a variety of environmental factors including soil type and volume.



WATERMANS QUAY
Elaeocarpus eumundi

BARANGAROO AVENUE TREE PLANTING
Harpullia pendula - Tulipwood

CHARACTERISTICS + SUITABILITY

Evergreen	✓
Native	✓
Common to Sydney	✓
Harbourside Tolerance	✓
Seasonal Litter	LOW

DESIGN CONSIDERATIONS

Harpullia has been approved by the Authority and has been planted along Barangaroo Avenue in Stage 1A. The design intent for the remaining part of Barangaroo Avenue is to continue its existing character all of the way Northwards to the boundary of Central.

ALTERNATIVE SPECIES CONSIDERATION

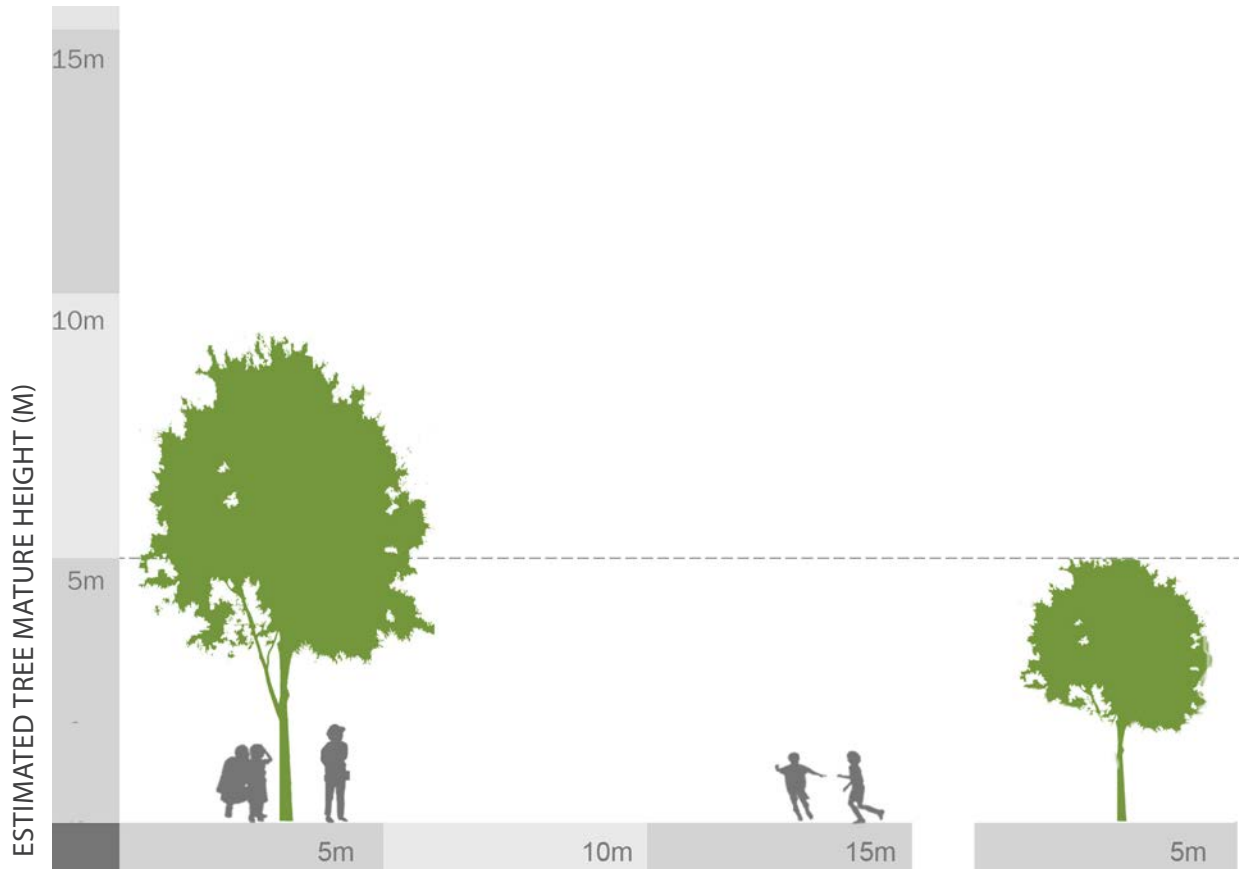
There is no requirement to consider alternative tree species for Barangaroo Avenue. This species has been approved by the Authority.

LOCATION WHERE CURRENTLY GROWING CLOSE TO SITE

Barangaroo South stage 1A street trees



KEY PLAN



Note: Tree height and canopy spread are indicative only. Actual sizes depend on a variety of environmental factors including soil type and volume.



BARANGAROO AVENUE
Harpullia pendula

HICKSON PARK TREE PLANTING
Magnolia grandiflora 'Exmouth' - Exmouth

CHARACTERISTICS + SUITABILITY

Evergreen	✓
Native	✗
Common to Sydney	✓
Harbourside Tolerance	✓
Seasonal Litter	LOW

DESIGN CONSIDERATIONS

Magnolia grandiflora has a large spreading habit and striking white flowers that are in bloom in the summer to autumn. It has been selected as a key tree to define the transition of the edges of the tree belt and the open lawn. It has an impressive large scale when mature and is a great shade tree. The leaves are large and deep green and will provide a strong canopy that will soften the lower edges of the residential towers well.

ALTERNATIVE SPECIES CONSIDERATION

Other possible alternative species that were considered include.

- Ficus rubiginosa and hillii - dismissed because of the preference to keep fig trees as the clear marker entry trees



KEY PLAN



Note: Tree height and canopy spread are indicative only. Actual sizes depend on a variety of environmental factors including soil type and volume.



HICKSON PARK
Magnolia grandiflora 'Exmouth'

HICKSON PARK TREE PLANTING
Syzgium paniculatum - Magenta Cherry

CHARACTERISTICS + SUITABILITY

Evergreen	✓
Native	✓
Common to Sydney	✓
Harbourside Tolerance	✓
Seasonal Litter	LOW

DESIGN CONSIDERATIONS

Syzgium has a medium size and spread and is well suited to be located under and around the larger spreading *Waterhousea* trees to provide a distinct character change to the tree belt edge. The *Syzgium* is a rainforest tree and has a deep green character with semi glossy leaves. Berries can be messy next to pathways and urban areas. Care will need to be taken to procure good single specimen trees as it can also take on a more “shrubby” form.

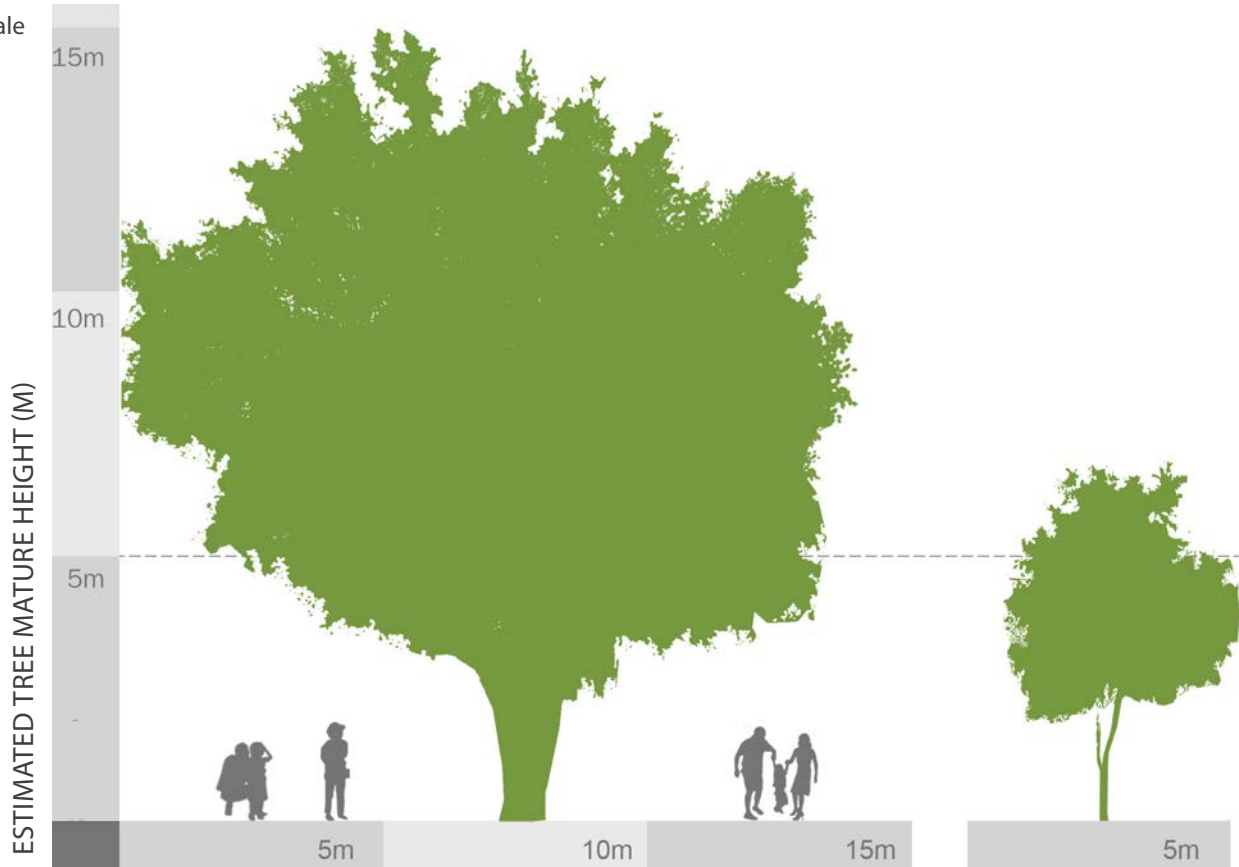
ALTERNATIVE SPECIES CONSIDERATION

Other possible alternative species that were considered include.

- *Cupaniopsis anacardiodes* - concern over smaller scale
- *Platanus acerifolia* - concern over lack of unique character from other CBD streets. Not evergreen



KEY PLAN



Note: Tree height and canopy spread are indicative only. Actual sizes depend on a variety of environmental factors including soil type and volume.



HICKSON PARK
Syzgium paniculatum