

PRCUTS STAGE 1

URBAN CANOPY ASSESSMENT REPORT

APRIL 2022



CONTEXT
LANDSCAPE ARCHITECTURE

PRCUTS URBAN CANOPY ASSESSMENT REPORT

2022

by
CONTEXT Landscape Architecture

for
City of Canada Bay Council

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DOCUMENT CONTROL

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A	21.02.2022	Draft for client review	CW
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CONTEXT ACKNOWLEDGES THE WANGAL CLAN, ONE OF 29 TRIBES OF THE EORA NATION AND THE TRADITIONAL CUSTODIANS OF THIS LAND, AND RECOGNISE ELDERS PAST AND PRESENT. THROUGH AUTHENTIC UNDERSTANDING OF THE LANDSCAPE, WE STRIVE TO DEEPEN OUR UNDERSTANDING OF COUNTRY AND OUR RELATIONSHIP WITH ITS PEOPLE.



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01 INTRODUCTION

01 INTRODUCTION

The Parramatta Road Corridor traverses 20 kilometers from Granville in the west to Camperdown in the east. The Corridor includes land adjoining Parramatta Road, and wider focus precincts where future development is considered appropriate based on function and character.

The Parramatta Road Corridor Urban Transformation Strategy (PRCUTS) provides a vision and strategy for how this Corridor will grow and bring new life to local communities. Within PRCUTS, there are three renewal precincts which include land within the City of Canada Bay: Homebush, Burwood and Kings Bay.

PRCUTS aims to renew Parramatta Road and adjacent communities through investments in homes, jobs, transport, open spaces, and public amenity. It presents significant urban renewal opportunities for land within defined development precincts.

In response to PRCUTS, the City of Canada Bay has produced and submitted a planning proposal to the Department of Planning and Environment (DPE) that seeks to deliver Stage 1 of the Strategy. The planning proposal aims to introduce amended planning controls, community infrastructure and sustainability incentives for the three Stage 1 precincts of Kings Bay, Burwood and Homebush North.

The planning proposal has received Gateway approval to progress to public exhibition subject to demonstrating how the PRCUTS canopy targets of minimum 25% canopy cover can be achieved.

The City of Canada Bay has engaged Context to undertake an urban canopy assessment for each of the future precincts and if required to provide recommendations to ensure that best canopy outcomes can be achieved including the minimum percentage target of 25% across each precinct.



PURPOSE AND OBJECTIVES

The primary objective of this study is to assess the urban tree canopy coverage of Canada Bay portion of the Stage 1 PRCUTS precinct areas of Homebush North, Burwood and Kings Bay. This has been undertaken through a 3 step process.

01.

Assessing and testing what urban tree canopy can be achieved under the PRCUTS planning proposal master plans, public Domain Plan and DCP.

02.

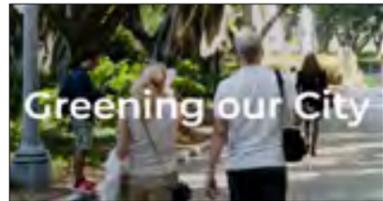
Determine what (if any) changes are required to the proposed documents to achieve a minimum of 25%.

03.

Provide recommendations to ensure the realization of minimum 25% urban tree canopy coverage for each precinct area.

STRATEGIC CONTEXT

There is a substantial amount of policy and strategic documents that supports and fosters the increase of urban canopy across Metropolitan Sydney, Canada Bay LGA and the stage 1 PRCUTS precincts. These documents were reviewed to assist the development of urban canopy assessment methodology and to ensure that the PRCUTS planning proposal would achieve both State Government and the City of Canada Bay Council's urban forest aspirations.



GREENING OUR CITY

Premiers Priority NSW Government, planning Industry & Environment 2022

Increase the tree canopy cover across Greater Sydney by planting 1 million trees by 2022

Greening our City is part of a broader commitment to plant 5 million trees by 2030.



SYDNEY GREEN GRID

Government Architect NSW, 2017

A number of Green Grid projects require consideration within the Homebush North, Burwood, and Kings Bay precincts.

The Sydney Green Grid promotes the creation of a network of high quality open spaces that supports recreation, biodiversity and waterway health.

The Green Grid will create a network that connects strategic, district and local centres, transport hubs, and residential areas, such as Homebush North, Burwood, and Kings Bay.



GREENER PLACES

Government Architect NSW, 2017

The Precincts' streets and open spaces provide an opportunity to embed green infrastructure within the urban environment.

The draft Greener Places policy has been produced by GANSW to guide the design, planning and delivery of green infrastructure across NSW.

The aim is to create healthier and more liveable cities and towns by improving community access to recreation and exercise, supporting walking and cycling connections, and improving the resilience of our urban areas.



URBAN GREEN COVER IN NSW TECHNICAL GUIDELINES

NSW Government, Office of Environment & Heritage

Urban green cover is a key action in minimising and accommodating for the impacts of climate change in our local communities.

The Urban Green Cover in NSW Technical Guidelines provides practical guidance on how to adapt the urban environment through urban green cover projects.

The guidelines will assist NSW built environment professional increase resilience to help prepare for the effects of climate change.



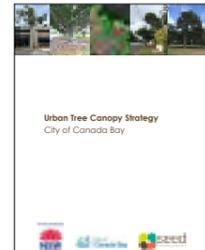
CANADA BAY BIODIVERSITY FRAMEWORK AND ACTION PLAN

City of Canada Bay Council

Current and future communities depend on biodiversity and the ecosystem services it provides to stay healthy and resilient.

The Biodiversity Framework and Action Plan supports the Local Strategic Planning Statement which sets out the 20-year vision for landuse.

The Action Plan embodies a range of themes including native vegetation, urban waterways and foreshores, corridors and connectivity, public spaces, urban habitat and green infrastructure.



URBAN TREE CANOPY STRATEGY

City of Canada Bay

Streets and open spaces are the primary method for achieving an extensive and robust urban tree canopy.

The strategy commits Council to increasing its urban tree canopy cover across the City to at least 25% by 2040.

Priority action themes to deliver this increase in canopy are:

- Protect and value
- Renew and grow
- Support and sustain
- Engage and create
- Manage and resource

BENEFITS OF THE URBAN FOREST

In undertaking any urban canopy assessment, it is important to recognise the value and benefits of the urban forest for both Government and community.

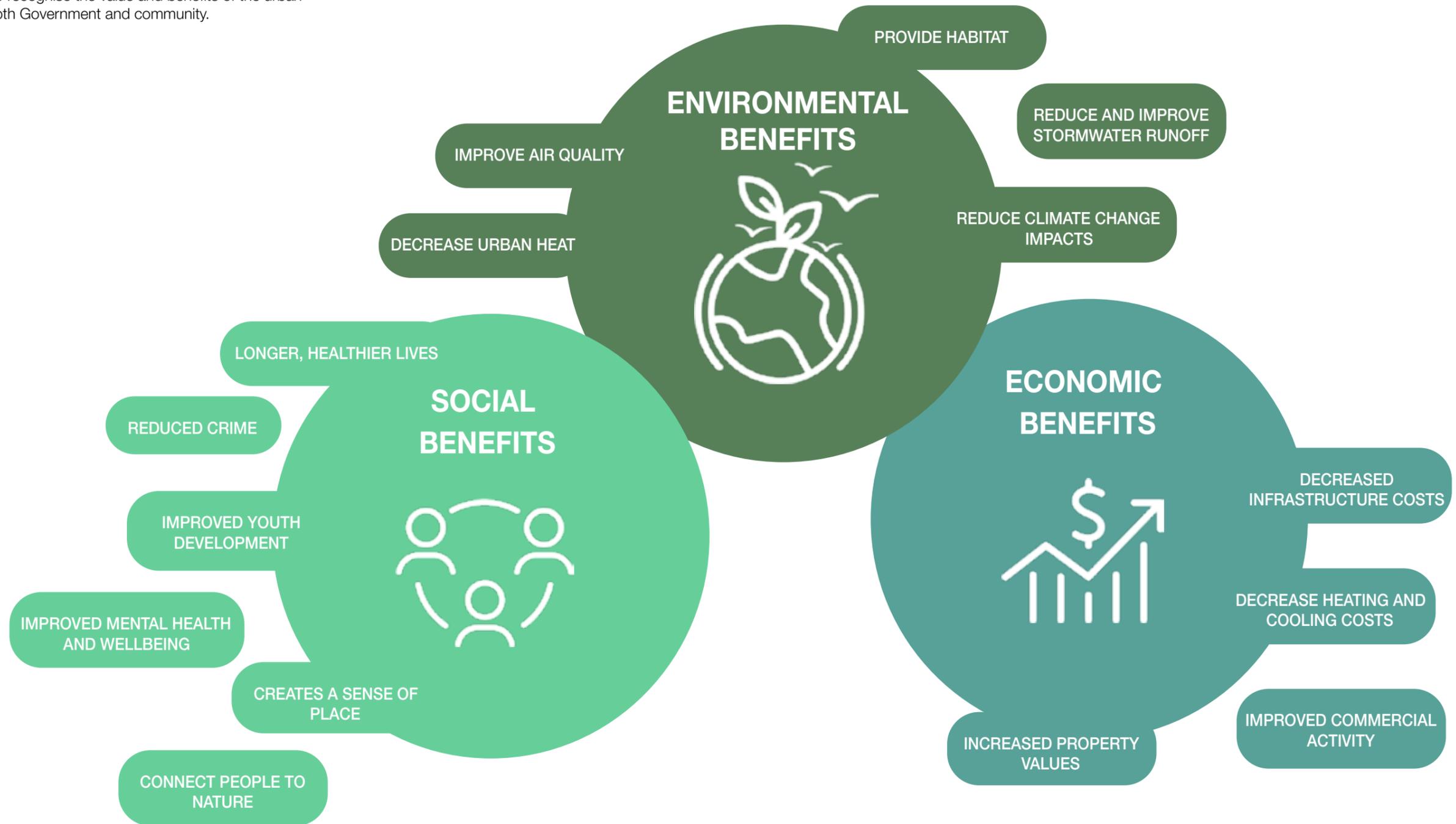


FIGURE 02 - BENEFITS OF URBAN FOREST

02 THE STUDY

02 STUDY AREAS AND SCOPE

HOMEBUSH NORTH PRECINCT

The Homebush North Precinct is located between Sydney Olympic Park's Bicentennial Park to the west and Concord Railway Station to the east. It forms the northernmost portion of the broader Homebush Precinct that extends from the Western Rail Line in its south, northwards along the Northern Rail Line and into Concord West.

It is proposed that the Homebush North Precinct will be transformed into an active and varied town centre, with a mixture of higher density housing and mixed uses, that are supported by a network of green streets near the railway station.

The scope for this precinct for assessment includes:

- George Street;
- Victoria Avenue;
- King Street;
- Station Avenue;
- Station Square, a new open space at the eastern termination of Victoria Avenue adjacent the rail corridor; and
- Victoria Avenue Gates, a new open space at the western end of Victoria Avenue adjacent the existing Sydney Olympic Park entrance.

BURWOOD PRECINCT

The Burwood Precinct is located approximately 500m north of the existing Burwood Town Centre and 1km from Burwood railway station. The existing town centre accommodates a large Westfield shopping centre near Burwood Park, and a smaller shopping plaza south of the station. A wide range of high street retail shops and commercial office buildings are also located along Burwood Road.

The Burwood Precinct will complement the town centre and provide additional housing whilst maintaining the quality of buildings in the area.

The scope for this precinct for assessment includes:

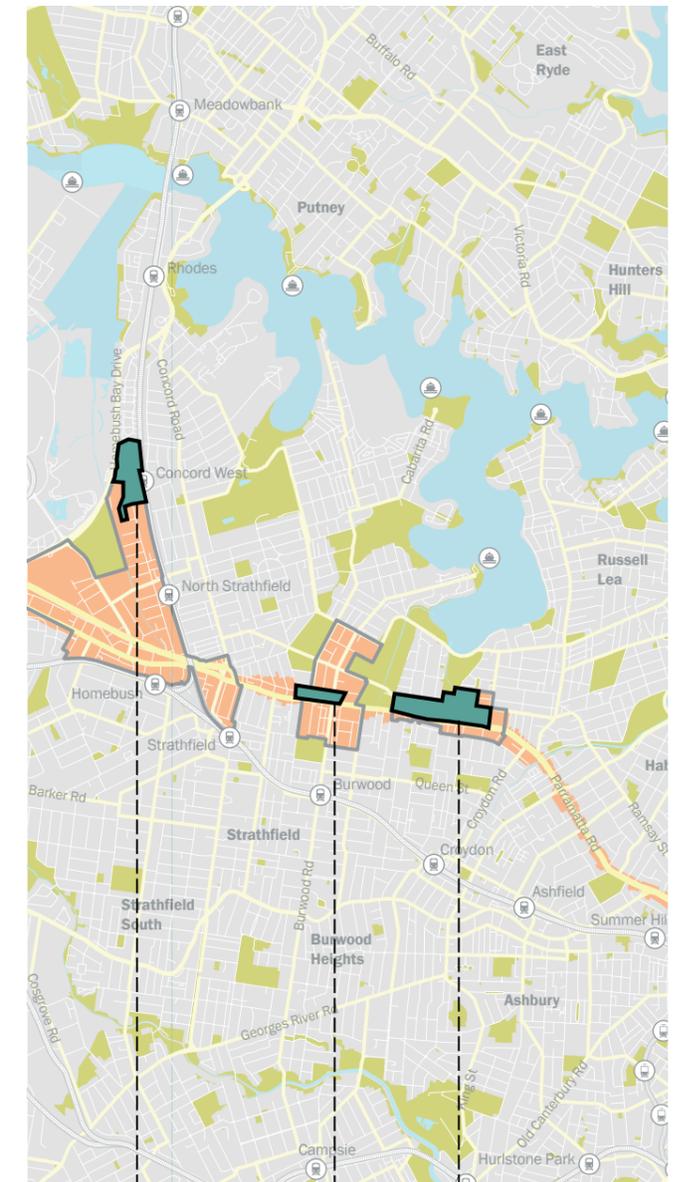
- Parramatta Road (northern side only);
- Burwood Road;
- Burton Street;
- Broughton Street;
- Loftus Street;
- Frankie Lane;
- Neichs Lane;
- The proposed open space at 26-36 Burton Street;
- The proposed open space in the block to the east of Burwood Road, fronting Burton Street; and
- New Shared Street in the Eastern block of the precinct.

KINGS BAY PRECINCT

The Kings Bay Precinct is located between the established activity centres of Five Dock and Burwood, located approximately 1km to the east and west respectively. The precinct will evolve from a low scale industrial precinct into a new mixed use neighbourhood, anchored by a small local centre and offering a range of housing choices.

The scope for this precinct for assessment includes:

- Parramatta Road, limited to the northern side only
- Queens Road
- Spencer Street, including new extensions
- William Street
- Regatta Road
- Harris Road
- Walker Street
- Regatta Road Park
- Spencer Street Plaza
- William Street Park
- Kings Bay East Park



HOMEBUSH NORTH
BURWOOD
KINGS BAY

- Parramatta Road Corridor Transformation Area
- Parramatta Road Corridor Transformation Precinct
- City of Canada Bay Parramatta Road Stage 1 Precincts

LOCATION OF STUDY AREAS

ASSESSMENT METHODOLOGY

EXISTING CANOPY COVERAGE

To understand the existing conditions and each precinct's capacity to reach the required 25% canopy coverage, the existing canopy cover was analysed and assessed. This was undertaken by:

- Utilising the significant tree assessment undertaken for the Public Domain Plan;
- Analysing and documenting the canopy in the private domain from recent aerial photography.

The existing canopy cover was then calculated as a percentage of total precinct area.

CANOPY CAPACITY OF PLANNING PROPOSAL MASTER PLANS AND PUBLIC DOMAIN PLANS

To understand each precinct's canopy capacity, an overall master plan was created using:

- The public domain arrangement from the Public Domain Plan; and
- The urban built form and lot boundaries from the master plan proposals, as prepared by Group GSA.

The City of Canada Bay's Biodiversity Framework, Urban Tree Strategy and draft DCP for precinct were reviewed and all relevant controls that would affect urban canopy outcomes have been itemized and used to inform the street tree setout and arrangement. Where possible, existing trees assumed to be unaffected by the redevelopment were shown as retained.

To ensure feasibility, street lighting, known utilities and indicative driveways were added to the master plans and two canopy scenarios were then created; proposed and aspirational.

The proposed scenario assumes that the overhead electricity wires and infrastructure will be retained in a similar position and arrangement to the existing. The aspirational master plans assumes that all utilities, including the electricity will be bundled and undergrounded. Both master plans utilize the controls and requirements of the draft DCPs.

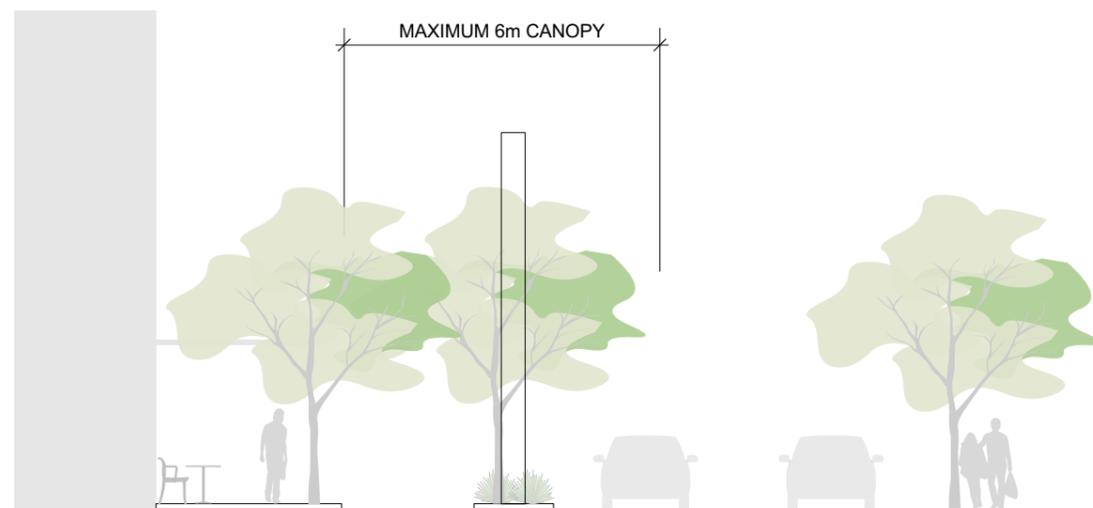
For each scenario, the projected canopy cover was calculated as a percentage of total precinct area. The calculations do not consider any future canopy cover that may be planted on the upper levels of buildings including roof tops. Where trees have been located in the private lot areas, it is assumed that sufficient deep soil or raised garden beds will be allowed for in the future design to ensure the required projected canopy cover can be achieved.



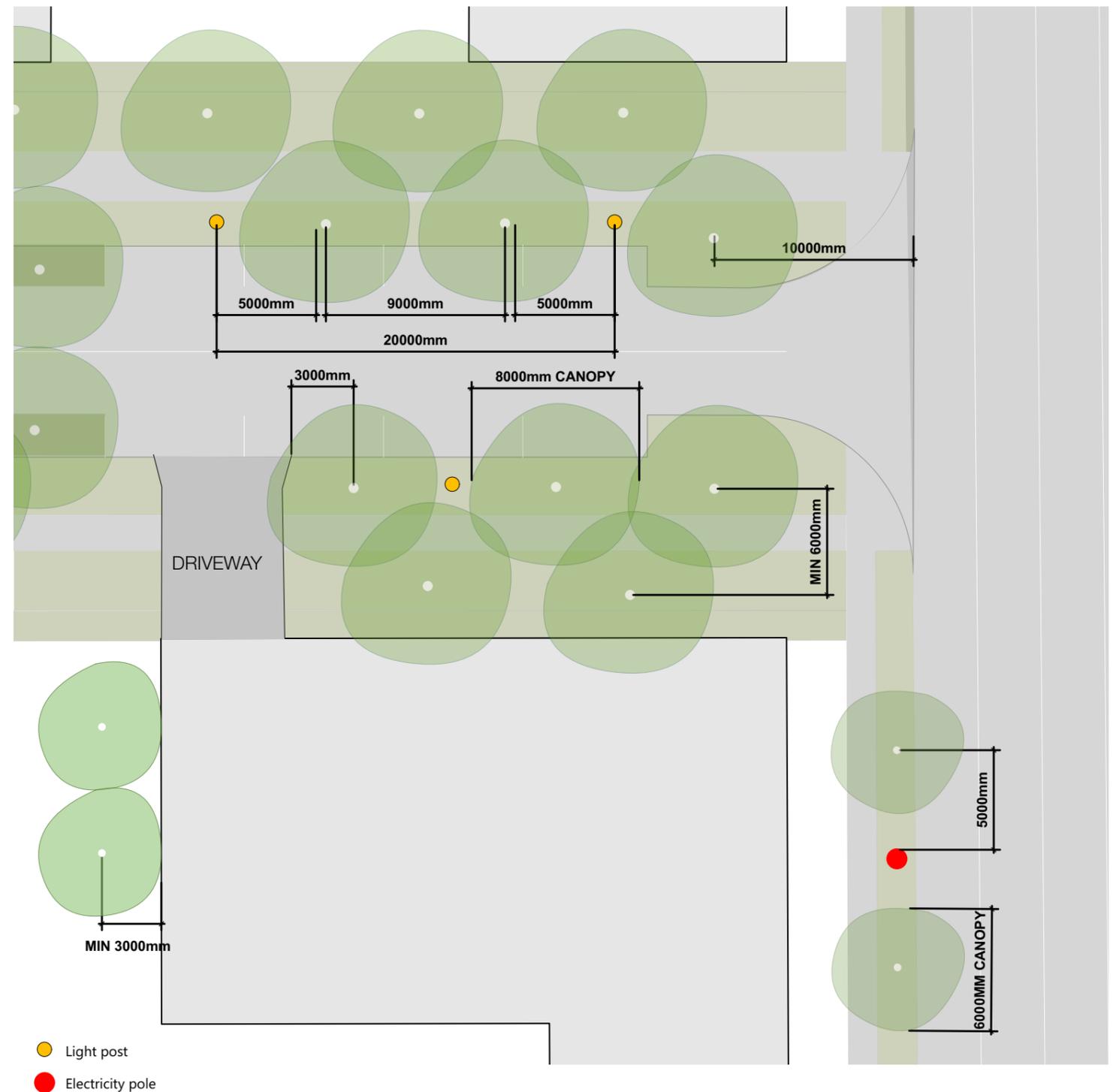
TREE SETOUT ASSUMPTIONS

To ensure that the assessment considers foreseeable urban constraints, the following tree set out assumptions and principles were utilized for each precinct:

- Where possible, trees were evenly spaced along the roadways as shown in Public Domain Plan with a minimum spacing of 6m and maximum spacing of 15m. Average spacing used was approximately 9m. This is in accordance with the spacing requirements as per the relevant landscape design conditions of each precinct's DCP.
- Proposed street lighting is assumed to be installed at 20m centres along all roadways and cycle paths. To ensure adequate lighting levels will be achieved, a minimum 5m clearance from tree trunk to light pole was assumed.
- To ensure appropriate sight lines are achieved for vehicle and pedestrian safety, 10m clearance from street corners and 3m clearance from driveways were allowed for.
- Utilising the principle of planting the 'right tree in the right place' in accordance with Council's Urban Tree Canopy Strategy, medium sized trees of 8m canopy width were allowed for in streets that are not encumbered by overhead powerlines. Where planting needed to occur under powerlines, a 6m canopy is assumed, this is consistent with the canopy width of the trees that are currently planted under powerlines such as Callistemon species. In open space areas, larger trees with a canopy of 12m or greater have been shown.
- It is assumed that the public domain and private lot areas where tree planting is shown is unencumbered by utilities or other latent conditions yet to be identified.



INDICATIVE SECTION OF TREES PLANTED UNDER POWERLINES



TREE SETOUT ASSUMPTIONS

03 HOMEBUSH NORTH PRECINCT

03 HOMEBUSH NORTH

SIGNIFICANT TREE ASSESSMENT

As part of the Public Domain Plan, a preliminary assessment of significant trees within the Homebush North Precinct was undertaken to record location, species, and size.

This allowed for a preliminary mapping of structure root zone (SRZ) and tree protection zone (TPZ), illustrated within the plan adjacent. Further arboricultural assessment is required once detailed design and construction works progress.

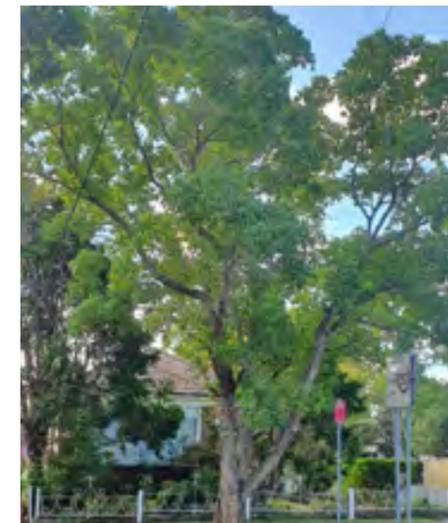
CONCORD WEST PRECINCT									
King Street									
Tree Number	Botanical Name	Common Name	Native/Exotic/Pest	Height (approx.)	Single or Multi trunked	SRZ	TPZ	Canopy Pruned	Significance
1	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	4.9m	30m	N	High
2	Eucalyptus spp.	Rough barked gum	N	15m	S	4.9m	30m	N	High
3	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	4.9m	30m	Y	High
4	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	4.5m	26.4m	Y	High
5	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	6m	55.2m	N	High
6	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5.8m	45.6m	N	High
7	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5.2m	36m	N	High
8	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	5.2m	36m	Y	High
9	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	5m	28.8m	N	High
10	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5.7m	43.2m	N	High
11	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	5m	31.2m	Y	High
12	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	4.8m	36m	N	High
13	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	4.4m	36m	N	High
14	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	4m	24m	Y	High
15	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5.6m	40.8m	Y	High
16	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5.4m	38.4m	N	High
17	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5.4m	38.4m	N	High
18	Jacaranda mimosifolia	Jacaranda	E	12m	S	4.3m	21.6m	N	High
19	Jacaranda mimosifolia	Jacaranda	E	12m	S	4m	21.6m	N	High
20	Triadica sebifera	Chinese tallow	E	7m	S	3.2m	10.8m	N	High
21	Triadica sebifera	Chinese tallow	E	7m	S	3.2m	10.8m	N	High
22	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	5.8m	51.6m	Y	High
23	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	4.4m	36m	N	High
24	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5.5m	49.2m	Y	High
25	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	6m	52.8m	N	High
26	Melaleuca quinquenervia	Broad Leaved Paperbark	N	20m	S	6m	48m	N	High
27	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	6.2m	54m	N	High
28	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5.3m	31.2m	N	High
29	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5m	28.8m	N	High
30	Corymbia maculata	Spotted gum	N	12m	S	3.3m	13.2m	N	High
31	Corymbia maculata	Spotted gum	N	15m	S	3.5m	14.4m	N	High
32	Corymbia maculata	Spotted gum	N	20m	S	4m	19.2m	N	High
33	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	6m	52.8m	N	High
Victoria Avenue									
34	Triadica sebifera	Chinese tallow	E	-	M	-	-	Y	Low
35	Triadica sebifera	Chinese tallow	E	9m	S	3.2m	9.6m	N	Moderate
36	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	S	5m	26.4m	N	High
37	Triadica sebifera	Chinese tallow	E	6m	S	4.2m	18m	Y	Low
38	Triadica sebifera	Chinese tallow	E	9m	M	4.3m	18m	N	High
39	Triadica sebifera	Chinese tallow	E	9m	S	3.6m	14.4m	N	High
40	Triadica sebifera	Chinese tallow	E	12m	M	4.4m	18m	N	High
George Street									
41	Triadica sebifera	Chinese tallow	E	6m	S	3.6m	10.8m	N	Moderate
42	Triadica sebifera	Chinese tallow	E	9m	M	4.4m	18m	N	Moderate
43	Triadica sebifera	Chinese tallow	E	9m	M	4.3m	18m	N	Moderate
44	Platanus x acerifolia	London Plan tree	E	15m	S	5m	28.8m	N	High
45	Eucalyptus spp.	Smooth barked gum	N	20m+	S	4.8m	21.6m	N	High
46	Ficus rubiginosa	Port Jackson Fig	E	25m	S	6.5m	60m	N	Very High
47	Cyprusus spp.	Pine tree	E	20m+	S	4.4m	18m	Y	Moderate
48	Liquidamber styraciflua	Liquid amber	E	12m	S	4.5m	18m	N	Moderate
49	Casuarina spp.	Swamp Oak	N	15m	S	3.4m	8.4m	N	Moderate
50	Casuarina spp.	Swamp Oak	N	15m	S	3.5m	10.8m	N	Moderate
51	Casuarina spp.	Swamp Oak	N	15m	S	3.4m	8.4m	N	Moderate
52	Casuarina spp.	Swamp Oak	N	15m	S	3.2m	7.2m	N	Moderate
53	Casuarina spp.	Swamp Oak	N	15m	S	3.5m	8.4m	N	Moderate
54	Casuarina spp.	Swamp Oak	N	15m	S	3.8m	10.8m	N	Moderate
55	Casuarina spp.	Swamp Oak	N	18m	S	4.2m	14.4m	N	High
56	Casuarina spp.	Swamp Oak	N	18m	S	4.6m	18m	N	High
57	Eucalyptus spp.	Rough barked gum	N	18m	S	4.5m	18m	N	High
58	Corymbia maculata	Spotted gum	N	8m	S	3m	7.2m	N	Low
59	Corymbia maculata	Spotted gum	N	18m	S	3.5m	14.4m	N	High
60	Corymbia maculata	Spotted gum	N	18m	S	3.8m	15.6m	N	High
61	Eucalyptus spp.	Rough barked gum	N	20m	S	4.8m	27.6m	N	High
62	Casuarina spp.	Swamp Oak	N	15m	S	3.8m	13.2m	N	Low
63	Eucalyptus spp.	Rough barked gum	N	20m	S	5m	26.4m	N	High
64	Eucalyptus spp.	Rough barked gum	N	18m	S	4.8m	21.6m	N	High



SIGNIFICANT TREE PLAN - HOMEBUSH NORTH



MATURE MELALEUCA QUINQUENERVIA WITH PRUNED CANOPY TO AVOID OVERHEAD SERVICES LOCATED ON KING STREET



MATURE TRIADICA SEBIFERA WITH FULL CANOPY LOCATED ON VICTORIA AVENUE



MATURE MELALEUCA QUINQUENERVIA WITH FULL CANOPY FORMING AVENUE PLANTING ALONG KING STREET

EXISTING CANOPY ASSESSMENT



EXISTING CANOPY ASSESSMENT - HOMEBUSH NORTH 1:2500 @ A3

LEGEND	
	PRECINCT BOUNDARY
	EXISTING TREES ON PRIVATE LAND
	EXISTING TREES ON PUBLIC LAND

EXISTING CANOPY ANALYSIS SUMMARY

Total area of Precinct	149, 519.41 m ²
Area of canopy cover on private land	13, 922 m ² 9.3%
Area of canopy cover on public land	5,644 m ² 3.7%
Total area of canopy cover	19,566 m ²
Canopy coverage	13%

ANALYSIS FINDINGS

Total existing canopy cover for the Homebush North precinct is 13%, which is slightly lower than the overall canopy coverage of the greater Concord West suburb area which stands at 21.35%.

This area of Concord West is made up of low density housing on residential blocks that are approximately 400-500m² which has resulted in most of the existing canopy being on private land. While these trees will be more difficult to protect, there is an opportunity to significantly increase the overall canopy coverage by planting trees in the proposed public domain.

DCP CONTROLS AND REQUIREMENTS

The draft PRCUTS DCP for Homebush North was analysed for any controls or requirements that would have an impact on canopy outcomes for the precinct, these have been tabled below. The impacts were then used to create the proposed urban canopy master plan to ensure that what is currently proposed in the DCP is tested and the urban canopy outcomes assessed.

CONTROL / REQUIREMENT	LOCATION/AREA AFFECTED	IMPACT ON CANOPY OUTCOMES	DOCUMENT REFERENCE
Size and location of footpaths, laneways, cycleways, planting and parks are to be provided according to Council's PRCUTS Public Domain Plan and PRCUTS Master Plan.	Precinct wide	Right size tree to be planted in the right locations to ensure the aspirations of the Public Domain Plan will be achieved.	DCP - K22.6 Access Network – C4
Pedestrian/ cycle links are to be naturally lit and ventilated, appropriately lit after hours, publicly accessible 24/7, and have clear sight lines from end to end.	Precinct wide	Tree planting arrangement to consider light pole locations to ensure adequate lighting levels are achieved	DCP - K22.6 Access Network – C6
Development is to support the experience and safety of the new Station Square adjacent to Concord West Station. Development directly to the north of the square must: – Ensure that at least 50% of the square receives a minimum of 3h direct solar access in mid-winter (21 June) between 9am and 3pm.	New Square adjacent to Concord West Station	Overshadowing of Station Square may impact the growth of urban canopy.	DCP - K22.7 Public Domain Experience – C7
Where applicable, a portion of the setback area is to provide deep soil zones and tree planting.	Precinct wide	Opportunity for additional urban canopy in the deep soil zones in setback areas.	DCP - K22.8 Street Setbacks – C2
'Undesirable' elements such as vents, electrical substations, or plant and equipment spaces are not permissible within the setback area and should be accommodated within the building.	Precinct wide	Tree planting arrangements and locations will need to consider driveways and other vehicle access points located in laneways and secondary streets.	DCP - K22.8 Street Setbacks – C3
Development to the east of the playing fields along the open space interface: – Setback area to be landscaped and deep soil	Street setbacks	Opportunity for additional urban canopy in the deep soil zones in setback areas	DCP - K22.9 Transitions and Interfaces – C2
Development along the interface to the rail line, the Victoria Avenue Public School and/or Homebush Bay Drive to include: – The setback is to be deep soil to allow for mature vegetation in order to create a buffer.	Victoria Avenue Public School Interface	Opportunity for additional urban canopy in the deep soil zones in setback areas.	DCP - K22.9 Transitions and Interfaces – C3
Entries and private open spaces are encouraged within the 3m or 4.5m landscaped setbacks including a 1-1.5m wide strip of landscaping	Interactive frontages within residential zones	Opportunity for urban canopy in landscape setbacks greater than 1m wide and 0.8m in height (if raised).	DCP - K22.11 interactive Frontages – C3
Existing street trees and landscape features are to be retained wherever possible. All significant trees that are identified as either high or medium significance in PRCUTS Public Domain Plan are to be retained.	Precinct wide	Existing tree canopy to be retained will significantly contribute to the required canopy coverage.	DCP - K22.15 landscape Design – C1
For development along Parramatta Road, a minimum of 1 canopy tree per 10m of length of frontage is to be planted in the 'green edge' setback area, capable of reaching a mature height of at least 10m.	Parramatta Road	Proposed linear public domain spaces to be enhanced with appropriately sized and spaced tree planting.	DCP - K22.15 landscape Design – C1
For development along all other streets (excluding active frontages) a minimum of 1 canopy tree per 15m of frontage is to be planted. New trees are to be capable of a mature height of at least 6m.	All Streets	Consistent Canopy coverage along streets enhancing landscape character	DCP - K22.15 landscape Design – C5
A minimum of 50% projected tree canopy coverage on publicly accessible streets and laneways, unless it can be clearly demonstrated that it is unreasonable to meet this requirement and a suitable urban design outcome can be achieved which would be applicable in this specific instance only.	All accessible streets and laneways precinct wide.	Opportunity for public domain areas to significantly contribute to 25% canopy coverage.	DCP - K22.15 landscape Design – C9
A minimum of 75% projected tree canopy coverage shall be achieved for all parks.	Open space	Opportunity for parks and open space to significantly contribute to 25% canopy coverage by allowing for larger canopy trees to be planted.	DCP - K22.15 landscape Design – C10
A minimum of 15% projected tree canopy coverage shall be achieved for all private land developments.	Mixed use zone	Opportunity for private development areas to contribute to 25% canopy coverage.	DCP - K22.15 landscape Design – C13
Development consent must not be granted unless the development achieves at least 25% canopy cover across the site.	Residential zones	Opportunity for residential development areas to contribute to 25% canopy coverage.	DCP - K22.15 landscape Design – C14

CONTROL / REQUIREMENT	LOCATION/AREA AFFECTED	IMPACT ON CANOPY OUTCOMES	DOCUMENT REFERENCE
50% of the required landscaped area is to be deep soil planting (trees and shrubs) and a preference for native species.		Opportunity for residential development areas to contribute to 25% canopy coverage.	DCP - K22.15 landscape Design – C17
Calculation of deep soil areas is not to include any land that has a length or width less than 1.5m	Residential zones	Front setback areas with 1m landscape strip cannot be calculated as deep soil zones and may not be suitable for tree planting limiting canopy opportunities.	DCP - K22.15 landscape Design – C18
For residential development in the R3 Medium Density Zone, at least 50% of front setback area is required to be deep soil.	Medium Density residential	Opportunity for medium density development areas to contribute to 25% canopy coverage.	DCP - K22.15 landscape Design – C20
<p>Public domain and buildings shall be designed to reduce localised heat created by the urban heat island affect by:</p> <ul style="list-style-type: none"> – Maximising canopy cover on streets designated as streets with ‘interactive frontage’ – Retaining existing street trees, especially those identified as High Significance or Medium Significance in the PRCUTS Public Domain Plan. – Targeting canopy cover of at least 60% over all pedestrian spaces such as footpaths, pedestrian links and the new Station Square. 	Precinct wide	Opportunity for the public domain and development areas to contribute to 25% canopy coverage	DCP - K22.16 Sustainability and Resilience – C4

PROPOSED CANOPY ASSESSMENT

OVERHEAD ELECTRICITY



PROPOSED CANOPY ASSESSMENT - HOMEBUSH NORTH 1:2500 @ A3

PROPOSED CANOPY COVER

Total area of precinct	149, 519 m ²
Loss of existing canopy	0.6%
Total area of public canopy cover	17, 099 m ² 11%
Total area of private canopy cover	27, 020 m ² 18%
Total area of overall canopy cover	43, 242 m ²
Canopy coverage	29%

LEGEND	
	PRECINCT BOUNDARY
	EXISTING TREES ON PRIVATE LAND
	EXISTING TREES ON PUBLIC LAND
	EXISTING TREES REMOVED
	PROPOSED TREES ON PUBLIC LAND
	PROPOSED TREES ON PRIVATE LAND
	EXISTING ELECTRICITY POLES
	PROPOSED LIGHTING

ASPIRATIONAL CANOPY ASSESSMENT

UNDERGROUND ELECTRICITY



ASPIRATIONAL CANOPY ASSESSMENT - HOMEBUSH NORTH 1:2500 @ A3

PROPOSED CANOPY COVER

Total area of precinct	149, 519 m ²
Loss of existing canopy	0.6%
Total area of public canopy cover	19, 126 m ² 13%
Total area of private canopy cover	26, 971 m ² 18%
Total area of overall canopy cover	46, 097 m ²
Canopy coverage	31%

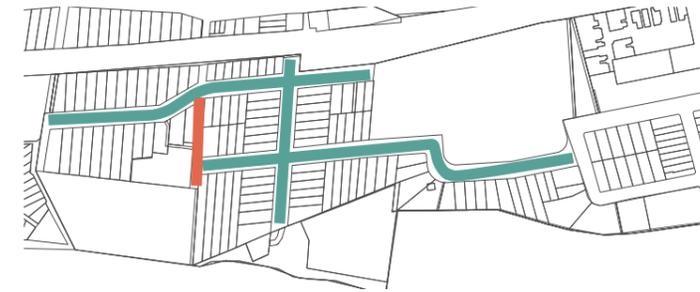
LEGEND

- - - PRECINCT BOUNDARY
- EXISTING TREES ON PRIVATE LAND
- EXISTING TREES ON PUBLIC LAND
- EXISTING TREES REMOVED
- PROPOSED TREES ON PUBLIC LAND
- PROPOSED TREES ON PRIVATE LAND
- EXISTING ELECTRICITY POLES
- PROPOSED LIGHTING

TYPICAL STREET CROSS-SECTIONS

SECTION 01

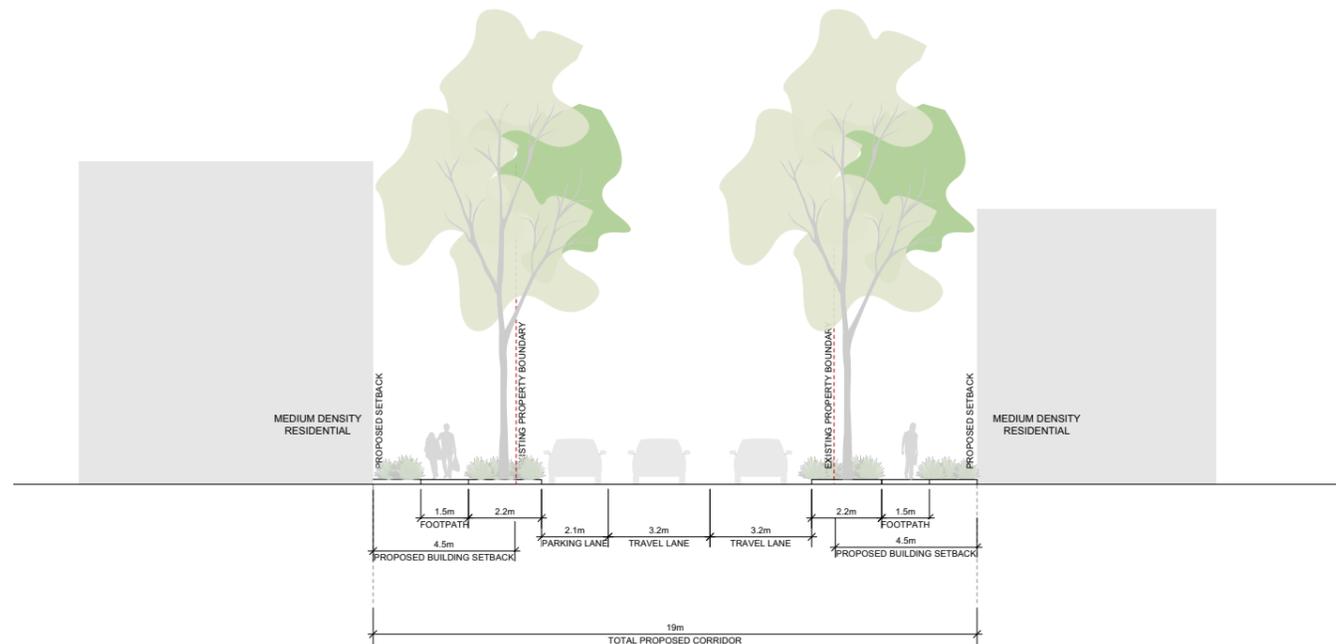
KING STREET, GEORGE STREET AND VICTORIA AVENUE (REFER TO PDP FOR DIMENSIONS AND FURTHER DETAIL)



STREET REFERENCE DIAGRAM

SECTION 02

STATION AVENUE (REFER TO PDP FOR DIMENSIONS AND FURTHER DETAIL)



CANOPY ASSESSMENT FINDINGS FOR HOMEBUSH NORTH

GENERAL

The design principles and features of the Public Domain Plan, Homebush North Master plan and relevant conditions within the DCP will allow for a minimum 29% total canopy cover to be achieved in the Homebush North Precinct. This can be increased to 30% if all electricity infrastructure is underground.

EXISTING TREES

As with most development areas, a loss of existing canopy cover is expected to make way for the construction of new roads, buildings, and infrastructure. From the canopy assessment undertaken it is expected that 0.6% of the existing canopy cover will be lost. It is anticipated, that no tree categorised as high to moderate significance will require removal for the proposed development.

CANOPY PROJECTIONS

From the canopy assessment it is anticipated that the projected canopy requirements for open space and pedestrian spaces can be achieved.

- A minimum of 75% projected tree canopy coverage shall be achieved for all parks (DCP - K22.15 landscape Design – C10)
- 60% over all pedestrian spaces such as footpaths, pedestrian links and the new Station Square (DCP - K22.16 Sustainability and Resilience – C4).

It is anticipated that the projected canopy requirements for each development type can be achieved with the current master plan layout. This is if the deep soil requirements are able to be realised in the detail design. The projected canopy requirements summarised below:

- Mixed use zone – 15% (DCP - K22.15 landscape Design – C11)
- Residential zone – 25% (DCP - K22.15 landscape Design – C14)



ARTIST IMPRESSION OF PROPOSED VIEW INTO STATION SQUARE

04 BURWOOD PRECINCT

04 BURWOOD

SIGNIFICANT TREE ASSESSMENT

As part of the Public Domain Plan, a preliminary assessment of significant trees within the Burwood Precinct was undertaken to record location, species, and size.

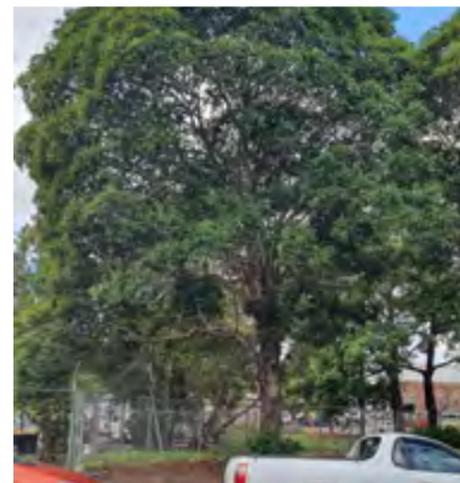
This allowed for a preliminary mapping of structure root zone (SRZ) and tree protection zone (TPZ), illustrated within the plan adjacent.

Further arboricultural assessment will be required as detailed design and construction works progress.

BURWOOD PRECINCT									
Burton Street									
Tree Number	Botanical Name	Common Name	Native/Exotic/Pest	Height (approx.)	Single or Multi trunked	SRZ	TPZ	Canopy Pruned	Significance
1	Triadica sebifera	Chinese tallow	E	7m	M	4m	12.36m	N	Low
2	Triadica sebifera	Chinese tallow	E	9m	S	3.8m	15.6m	N	Low
3	Triadica sebifera	Chinese tallow	E	9m	S	3.8m	15.6m	N	Low
4	Triadica sebifera	Chinese tallow	E	8m	S	3.3m	10.8m	N	Low
5	Cinnamomum camphor	Camphor laurel	P	-	-	-	-	Y	Low
6	Cinnamomum camphor	Camphor laurel	P	-	-	-	-	Y	Low
7	Lophostemon confertus	Brush box	N	7m	S	4m	18m	Y	Low
8	Triadica sebifera	Chinese tallow	E	7m	S	3.7m	13.2m	Y	Low
9	Triadica sebifera	Chinese tallow	E	7m	M	4m	16.8m	N	Low
10	Triadica sebifera	Chinese tallow	E	-	-	-	-	Y	Low
11	Triadica sebifera	Chinese tallow	E	-	-	-	-	Y	Low
12	Triadica sebifera	Chinese tallow	E	-	-	-	-	Y	Low
13	Triadica sebifera	Chinese tallow	E	-	-	-	-	Y	Low
14	Triadica sebifera	Chinese tallow	E	9m	M	4.2m	18m	N	Low
15	Triadica sebifera	Chinese tallow	E	7m	S	-	-	Y	Low
16	Triadica sebifera	Chinese tallow	E	9m	M	5m	25m	N	Low
17	Triadica sebifera	Chinese tallow	E	6m	S	-	-	-	Low
18	Triadica sebifera	Chinese tallow	E	6m	S	-	-	-	Low
19	Triadica sebifera	Chinese tallow	E	12m	M	4.2m	15.2m	N	Low
20	Triadica sebifera	Chinese tallow	E	8m	M	3.8m	11.9m	N	Low
21	Triadica sebifera	Chinese tallow	E	7m	M	4.5m	16.9m	N	Low
Loftus Street									
22	Eucalyptus spp.	Gum Tree	N	16m	S	4.8m	26.4m	N	High
23	Lophostemon confertus	Brush box	N	10m	S	4.4m	21.6m	N	High
24	Lophostemon confertus	Brush box	N	10m	S	4.4m	21.6m	N	High
25	Lophostemon confertus	Brush box	N	10m	S	4.4m	21.6m	N	High
26	Lophostemon confertus	Brush box	N	12m	S	4.8m	24m	N	High
27	Ulmus parvifolia	Chinese Elm	E	9m	S	3.9m	14.4m	N	High
28	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	5.4m	36m	Y	High
29	Melaleuca quinquenervia	Broad Leaved Paperbark	N	9m	S	5.4m	36m	Y	High
30	Ulmus parvifolia	Chinese Elm	E	15m	M	5m	25.9m	N	High
31	Ulmus parvifolia	Chinese Elm	E	15m	M	5.2m	26.4m	N	High
32	Ficus rubiginosa	Port Jackson Fig	E	25m	S	6.5m	60m	N	Very High
Parramatta Road									
33	Livistona australis	Cabbage Tree Palm	N	30m	a	-	-	N	Very High
34	Livistona australis	Cabbage Tree Palm	N	30m	S	-	-	N	Very High
35	Livistona australis	Cabbage Tree Palm	N	30m	S	-	-	N	Very High
36	Araucaria heterophylla	Norfolk Island Pine	E	20m	S	-	-	N	High
37	Schinus molle	Pepper Tree	E	12m	S	-	-	N	Low
38	Schinus molle	Pepper Tree	E	12m	S	-	-	N	Low



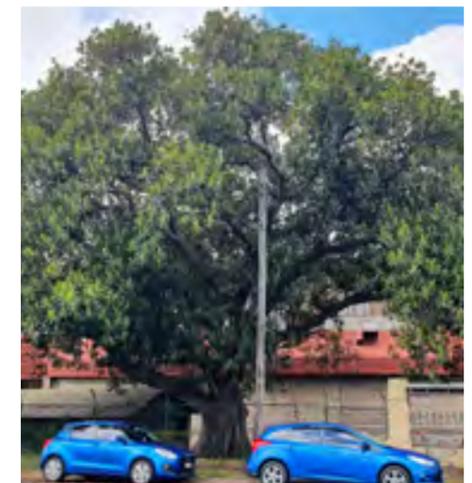
SIGNIFICANT TREE PLAN - BURWOOD



MATURE LOPHOSTEMON CONFERTUS LOCATED ON LOFTUS STREET



HEAVILY PRUNED CINNAMOMUM CAMPHORA LOCATED ON BURTON STREET



MATURE FICUS RUBIGINOSA LOCATED ADJACENT LOFTUS STREET

EXISTING CANOPY ASSESSMENT



EXISTING CANOPY ASSESSMENT - BURWOOD 1:2500 @ A3

LEGEND	
	PRECINCT BOUNDARY
	EXISTING TREES ON PRIVATE LAND
	EXISTING TREES ON PUBLIC LAND

EXISTING CANOPY ANALYSIS SUMMARY

Total area of Precinct	62, 944.23 m ²
Area of canopy cover on private land	3815.26 m ² 6%
Area of canopy cover on public land	2760.42 m ² 4%
Total area of canopy cover	6575.68 m ²
Canopy coverage	10.45 %

ANALYSIS FINDINGS

Total existing canopy cover for the Burwood precinct is 10.45%, which is slightly lower than the overall canopy coverage of the greater suburb of Concord which is 18.23%

This area of Concord is dominated by Burwood and Parramatta Roads that currently have limited canopy opportunities. The commercial building arrangement along Parramatta Road also results in a higher proportion of unplantable areas. Only 4% of the existing canopy is located on public land creating an opportunity for a significant increase in canopy coverage.

DCP CONTROLS AND REQUIREMENTS

The draft PRCUTS DCP for the Burwood Precinct was analysed for any controls or requirements that would have an impact on canopy outcomes for the precinct, these have been tabled below. The impacts were then used to create the proposed urban canopy master plan to ensure that what is currently proposed in the DCP is tested and the urban canopy outcomes assessed.

CONTROL / REQUIREMENT	LOCATION/AREA AFFECTED	IMPACT ON CANOPY OUTCOMES	DOCUMENT REFERENCE
Size and location of footpaths, laneways, cycleways, planting and parks are to be provided according to Council's PRCUTS Public Domain Plan and PRCUTS Master Plan.	Precinct wide	Right size tree to be planted in the right locations to ensure the aspirations of the Public Domain Plan will be achieved.	DCP - K21.7 Access Network – C4
Pedestrian/ cycle links are to be naturally lit and ventilated, appropriately lit after hours, publicly accessible 24/7, and have clear sight lines from end to end.	Precinct wide	Tree planting arrangement to consider light pole locations to ensure adequate lighting levels are achieved	DCP - K21.7 Access Network – C6
New development that fronts onto streets identified as active frontages, including vibrant, friendly and mixed facades must: <ul style="list-style-type: none"> – Minimise the number and width of vehicular driveways across the footpath. – Provide vehicular access off a rear laneway; driveways off Burwood Road and Parramatta Road are strictly prohibited. 	Parramatta road and streets identified as active frontages	Opportunity for consistent canopy along these streets uninterrupted by driveways. Tree planting arrangements and locations will need to consider driveways and other vehicle access points located in laneways and secondary streets.	DCP - K21.8 Public Domain Experience – C1
New development that fronts onto Parramatta Road supports the upgraded strategic walking link ('green edge') along Parramatta Road between Broughton and Loftus Streets. Development is to: <ul style="list-style-type: none"> – Apply coordinated urban and landscape design features that unify the linear green edge along Parramatta Road 	Parramatta Road, between Broughton and Loftus Street	Opportunity for proposed linear public domain spaces to be enhanced with appropriately sized and spaced tree planting	DCP - K21.8 Public Domain Experience – C2
Development is to support the experience and safety of the two new public open spaces along Burton Street. Development that faces the open space must: <ul style="list-style-type: none"> – Ensure that at least 50% of each open space receives a minimum of 3h direct – Solar access in mid-winter (21 June) between 9am and 3pm. 	Burton Street	Overshadowing of Station Square may impact the growth of urban canopy.	DCP - K21.8 Public Domain Experience – C2
Where applicable, a portion of the setback area is to provide deep soil zones and tree planting.	Precinct wide	Opportunity for additional urban canopy in the deep soil zones in setback areas.	DCP - K21.9 Street Wall Heights and Setbacks – C2
'Undesirable' elements such as vents, electrical substations, or plant and equipment spaces are not permissible within the setback area and should be accommodated within the building.	Precinct wide	Tree planting arrangements and locations will need to consider driveways and other vehicle access points located in laneways and secondary streets.	DCP - K21.9 Street Wall Heights and Setbacks – C3
Setback area to be landscaped and at least 50% deep soil;	Burton, Loftus and Broughton Street setbacks	Opportunity for additional urban canopy in the deep soil zones in setback areas	DCP - K21.11 Transition and Interfaces – C2
Along all streets where future public domain is required to be delivered (such as the 'linear green edge' interface to Parramatta Road) <ul style="list-style-type: none"> – Treatment of the set-back area is designed to be an extension of the public footpath area, is publicly accessible 24/7 and focuses on pedestrian amenity. – 50% of the setback is deep soil to allow for mature vegetation in order to create a linear park with trees 	Precinct wide	Opportunity for additional urban canopy in the deep soil zones in setback areas.	DCP - K21.11 Transition and Interfaces – C3
Entries and private open spaces are encouraged within the 3m or 4.5m landscaped setbacks including a 1-1.5m wide strip of landscaping	Interactive frontages within residential zones	Opportunity for urban canopy in landscape setbacks greater than 1m wide and 0.8m in height (if raised).	DCP - K21.12 Interactive Frontage – C3
Existing street trees and landscape features are to be retained wherever possible. All significant trees that are identified as either high or medium significance in PRCUTS Public Domain Plan are to be retained.	Precinct wide	Existing tree canopy to be retained will significantly contribute to the required canopy coverage.	DCP - K21.18 Landscape Design – C1

CONTROL / REQUIREMENT	LOCATION/AREA AFFECTED	IMPACT ON CANOPY OUTCOMES	DOCUMENT REFERENCE
For development along Parramatta Road, a minimum of 1 canopy tree per 10m of length of frontage is to be planted in the 'green edge' setback area, capable of reaching a mature height of at least 10m.	Parramatta Road	Proposed linear public domain spaces to be enhanced with appropriately sized and spaced tree planting.	DCP - K21.18 Landscape Design – C5
For development along all other streets (excluding active frontages) a minimum of 1 canopy tree per 15m of frontage is to be planted. New trees are to be capable of a mature height of at least 6m.	All Streets	Consistent Canopy coverage along streets enhancing landscape character	DCP - K21.18 Landscape Design – C6
A minimum of 50% projected tree canopy coverage on publicly accessible streets and laneways, unless it can be clearly demonstrated that it is unreasonable to meet this requirement and a suitable urban design outcome can be achieved which would be applicable in this specific instance only.	All accessible streets and laneways precinct wide.	Opportunity for public domain areas to significantly contribute to 25% canopy coverage.	DCP - K21.18 Landscape Design – C9
A minimum of 75% projected tree canopy coverage shall be achieved for all parks.	Open space	Opportunity for parks and open space to significantly contribute to 25% canopy coverage by allowing for larger canopy trees to be planted.	DCP - K21.18 Landscape Design – C10
A minimum of 15% projected tree canopy coverage shall be achieved for all private land developments.	Mixed use zone	Opportunity for private development areas to contribute to 25% canopy coverage.	K21.18 Landscape Design – C11
Development consent must not be granted unless the development achieves at least 25% canopy cover across the site.	Residential zones	Opportunity for residential development areas to contribute to 25% canopy coverage.	K21.18 Landscape Design – C12
50% of the required landscaped area is to be deep soil planting (trees and shrubs) and a preference for native species.	Residential zones	Front setback areas with 1m landscape strip cannot be calculated as deep soil zones and may not be suitable for tree planting limiting canopy opportunities.	K21.18 Landscape Design – C15
Calculation of deep soil areas is not to include any land that has a length or width less than 1.5m	Residential zones	Front setback areas with 1m landscape strip cannot be calculated as deep soil zones and may not be suitable for tree planting limiting canopy opportunities.	K21.18 Landscape Design – C16
For residential development in the R3 Medium Density Zone, at least 50% of front setback area is required to be deep soil.	Medium Density residential	Opportunity for medium density development areas to contribute to 25% canopy coverage.	K21.18 Landscape Design – C18

PROPOSED CANOPY ASSESSMENT

OVERHEAD ELECTRICITY



1 PROPOSED CANOPY ASSESSMENT - BURWOOD 1:2500 @ A3

PROPOSED CANOPY COVER

Total area of precinct	62, 944 m ²
Loss of existing canopy	18%
Total area of public canopy cover	14, 632 m ² 23%
Total area of private canopy cover	5, 444 m ² 9%
Total area of overall canopy cover	59, 952 m ²
Canopy coverage	32%

LEGEND

- - - PRECINCT BOUNDARY
- EXISTING TREES ON PRIVATE LAND
- EXISTING TREES ON PUBLIC LAND
- EXISTING TREES REMOVED
- PROPOSED TREES ON PUBLIC LAND
- PROPOSED TREES ON PRIVATE LAND
- EXISTING ELECTRICITY POLES
- PROPOSED LIGHTING

ASPIRATIONAL CANOPY ASSESSMENT

UNDERGROUND ELECTRICITY



ASPIRATIONAL CANOPY ASSESSMENT - BURWOOD 1:2500 @ A3

PROPOSED CANOPY COVER

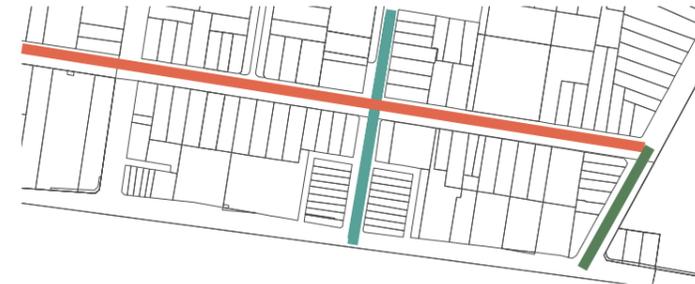
Total area of precinct	62, 944 m ²
Loss of existing canopy	18%
Total area of public canopy cover	15, 834 m ² 25%
Total area of private canopy cover	5, 444 m ² 9%
Total area of overall canopy cover	21, 279 m ²
Canopy coverage	34%

LEGEND	
	PRECINCT BOUNDARY
	EXISTING TREES ON PRIVATE LAND
	EXISTING TREES ON PUBLIC LAND
	EXISTING TREES REMOVED
	PROPOSED TREES ON PUBLIC LAND
	PROPOSED TREES ON PRIVATE LAND
	EXISTING ELECTRICITY POLES
	PROPOSED LIGHTING

TYPICAL STREET CROSS-SECTIONS

SECTION 01 ●

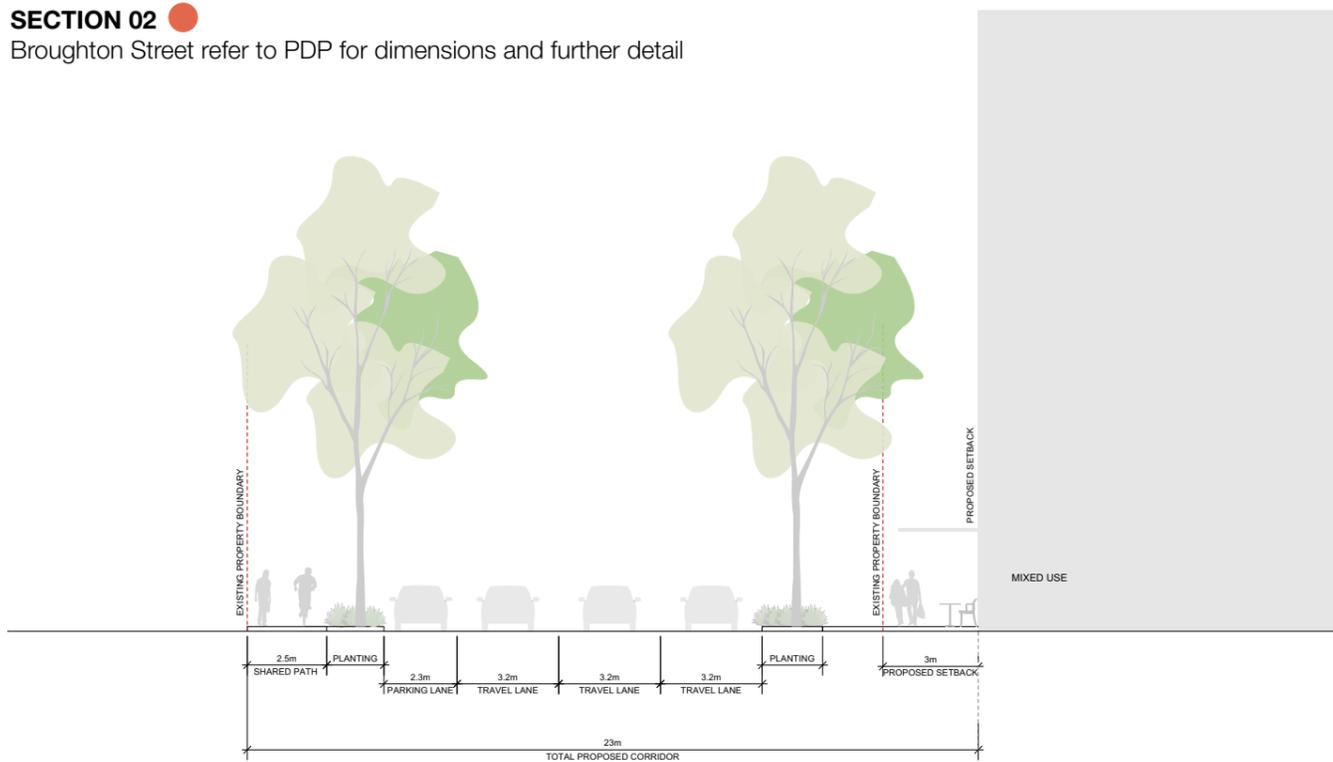
Burwood Road refer to DP for dimensions and further detail



STREET REFERENCE DIAGRAM

SECTION 02 ●

Broughton Street refer to PDP for dimensions and further detail



SECTION 03 ●

Loftus Street refer to PDP for dimensions and further detail



CANOPY ASSESSMENT FINDINGS FOR BURWOOD

GENERAL

The design principles and features of the Public Domain Plan, Burwood Master plan and relevant conditions within the DCP will allow for a minimum 32% total canopy cover to be achieved in the Burwood Precinct. This can be increased to 34% if all electricity infrastructure is underground.

EXISTING TREES

As anticipated, there will be a loss of 18% of the existing canopy cover to make way for the construction of new roads, buildings, and infrastructure. The majority of the trees that are expected to require removal are located on existing private lots. Only one tree from the Significant Tree Assessment has been identified for potential removal, tree no. 37 (*Schinus molle*). This tree has been categorised as being of low significance.

CANOPY PROJECTIONS

From the canopy assessment it is anticipated that the projected canopy requirements for open space and pedestrian spaces can be achieved.

- A minimum of 75% projected tree canopy coverage shall be achieved for all parks (DCP - K21.18 Landscape Design – C10)

There is however a departure from the DCP requirement for a projected tree canopy coverage on publicly accessible streets and laneways. When taking into account the complete width of the road corridor, 50% canopy coverage of this total area cannot be achieved as per DCP - K21.18 Landscape Design – C9. When tested, the canopy coverage currently being achieved in both scenarios was approximately 38-47%.

Apart from Lots A5 and A6, it is anticipated that the projected canopy requirements for all development types can be achieved with the current master plan layout. This is if the deep soil requirements are able to be realised in the detail design. The projected canopy requirements summarised below:

- Mixed use zone – 15% (DCP - K22.15 landscape Design – C11)
- Residential zone – 25% (DCP - K22.15 landscape Design – C14)



ARTIST IMPRESSION OF BURTON STREET

05 KINGS BAY PRECINCT

05 KINGS BAY

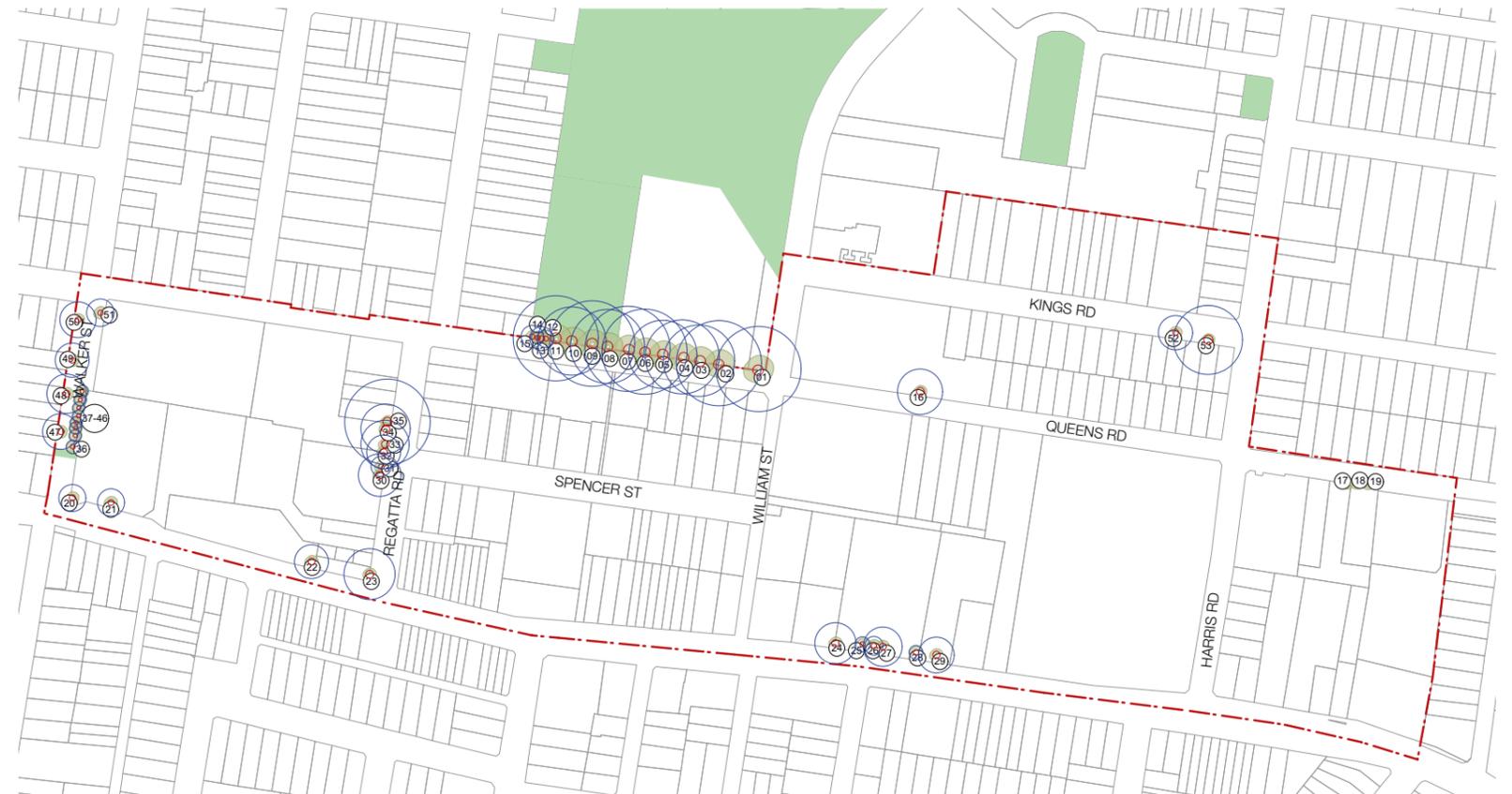
SIGNIFICANT TREE ASSESSMENT

As part of the Public Domain Plan, a preliminary assessment of significant trees within the Kings Bay Precinct was undertaken to record location, species, and size.

This allowed for a preliminary mapping of structure root zone (SRZ) and tree protection zone (TPZ), illustrated within the plan adjacent and where appropriate throughout the concept plans presented herein.

Further arboricultural assessment will be required as detailed design and construction works progress.

KINGS BAY PRECINCT									
Queen Street									
Tree Number	Botanical Name	Common Name	Native/Exotic/Pest	Height (approx.)	Single or Multi trunked	SRZ	TPZ	Canopy Pruned	Significance
1	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	60m	N	Very High
2	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	60m	N	Very High
3	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	50.4m	N	Very High
4	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	54m	N	Very High
5	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	48m	N	Very High
6	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	60m	N	Very High
7	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	60m	N	Very High
8	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	54m	N	Very High
9	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	60m	N	Very High
10	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	48m	N	Very High
11	Ficus microcarpa var. hillii	Hills Weeping Fig	N	20m+	S	6.5m	60m	N	Very High
12	Corymbia maculata	Spotted gum	N	15m	S	3.5m	12m	N	High
13	Eucalyptus spp.	Rough barked gum	N	20m+	S	4m	16.8m	N	High
14	Eucalyptus spp.	Rough barked gum	N	15m	S	3.7m	14.4m	N	High
15	Eucalyptus spp.	Rough barked gum	N	18m	S	3.9m	15.6m	N	High
16	Corymbia maculata	Spotted gum	N	18m	M	5.2m	31.9m	N	High
17	Cinnamomum camphor	Camphor laurel	P	-	-	-	-	Y	Low
18	Cinnamomum camphor	Camphor laurel	P	-	-	-	-	Y	Low
19	Cinnamomum camphor	Camphor laurel	P	-	-	-	-	Y	Low
Parramatta Road									
20	Eucalyptus spp.	Rough barked gum	N	15m	S	4.2m	19.2m	N	High
21	Eucalyptus spp.	Rough barked gum	N	15m	S	4.2m	19.2m	N	High
22	Lophostemon confertus	Brush box	N	12m	S	4.8m	24m	Y	High
23	Lophostemon confertus	Brush box	N	18m	S	5.8m	36m	Y	High
24	Corymbia maculata	Spotted gum	N	18m	S	5m	28.8m	N	High
25	Eucalyptus spp.	Smooth Barker Gum	N	16m	S	3.5m	10.8m	N	Moderate
26	Casuarina spp.	Swamp Oak	N	16m	S	3.6m	13.2m	N	Low
27	Casuarina spp.	Swamp Oak	N	20m+	S	5m	27.6m	N	Moderate
28	Casuarina spp.	Swamp Oak	N	15m	S	3.4m	9.6m	N	Low
29	Corymbia maculata	Spotted gum	N	20m+	S	5m	25.2m	N	High
Regatta Road									
30	Corymbia maculata	Spotted gum	N	18m	S	5.3m	30m	N	High
31	Corymbia maculata	Spotted gum	N	15m	S	3.7m	14.4m	N	High
32	Eucalyptus spp.	Rough barked gum	N	15m	S	4.8m	24m	N	High
33	Eucalyptus spp.	Rough barked gum	N	12m	M	5.4m	34m	N	High
34	Melaleuca quinquenervia	Broad Leaved Paperbark	N	12m	S	5.5m	34.8m	N	High
35	Melaleuca quinquenervia	Broad Leaved Paperbark	N	15m	M	6.5m	60m	N	High
Walker Street									
36	Jacaranda mimosifolia	Jacaranda	E	12m	S	3.6m	9.6m	N	Low
37	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
38	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
39	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
40	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
41	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
42	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
43	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
44	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
45	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
46	Casuarina spp.	Swamp Oak	N	12m	S	2.8m	8.4m	N	Low
47	Lophostemon confertus	Brush box	N	9m	S	4.7m	25.2m	Y	High
48	Lophostemon confertus	Brush box	N	12m	S	4.9m	27.6m	Y	High
49	Lophostemon confertus	Brush box	N	10m	S	4m	24m	Y	High
50	Lophostemon confertus	Brush box	N	12m	S	4.2m	25.2m	Y	High
51	Corymbia maculata	Spotted gum	N	20m+	S	3.8m	19.2m	N	High
King Street									
52	Eucalyptus spp.	Rough barked gum	N	20m+	S	4.2m	24m	N	High
53	Eucalyptus spp.	Rough barked gum	N	20m+	S	6.5m	48.5m	N	High



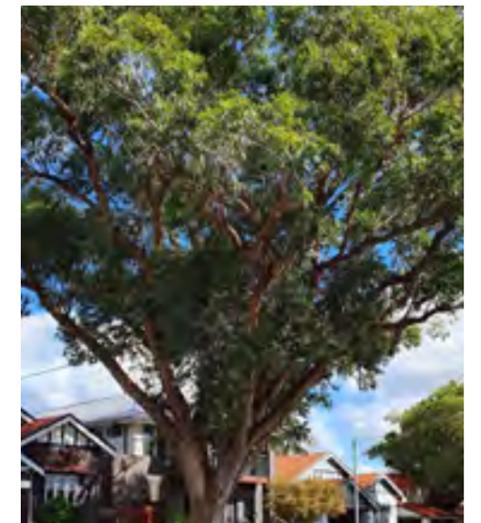
SIGNIFICANT TREE PLAN - KINGS BAY



MATURE LOPHOSTEMON CONFERTUS LOCATED AT THE CORNER OF PARRAMATTA ROAD & REGATTA ROAD



AVENUE PLANTING OF MATURE FICUS MICROCARPA VAR. HILLII ALONG QUEENS ROAD



MATURE EUCALYPTUS SP. LOCATED ON KINGS ROAD

EXISTING CANOPY ASSESSMENT



 EXISTING CANOPY ASSESSMENT - KINGS BAY 1:2500 @ A3

LEGEND

-  PRECINCT BOUNDARY
-  EXISTING TREES ON PRIVATE LAND
-  EXISTING TREES ON PUBLIC LAND

EXISTING CANOPY ANALYSIS

Total area of Precinct	233, 932 m ²
Area of canopy cover on private land	7181 m ² 3.06%
Area of canopy cover on public land	7166 m ² 3.06%
Total area of canopy cover	14, 347 m ²
Canopy coverage	6.13%

ANALYSIS FINDINGS

Total existing canopy cover for the Kings Bay precinct is 6.13%, this is considerably lower than the overall canopy coverage of the greater Five Dock area which is 15.63%. This lower-than-average canopy coverage is most likely because of the current industrial use of the Kings Bay area and the resultant higher proportion of unplatable areas.

There is an equally low proportion of canopy cover on private land as there is on public, allowing for an opportunity to significantly increase the canopy cover across the precinct.

DCP CONTROLS AND REQUIREMENTS

The draft PRCUTS DCP for the Kings Bay Precinct was analysed for any controls or requirements that would have an impact on canopy outcomes for the precinct, these have been tabled below. The impacts were then used to create the proposed urban canopy master plan to ensure that what is currently proposed in the DCP is tested and the urban canopy outcomes assessed.

CONTROL / REQUIREMENT	LOCATION/AREA AFFECTED	IMPACT ON CANOPY OUTCOMES	DOCUMENT REFERENCE
Size and location of footpaths, laneways, cycleways, planting and parks are to be provided according to Council's PRCUTS Public Domain Plan and PRCUTS Master Plan.	Precinct wide	Right size tree to be planted in the right locations to ensure the aspirations of the Public Domain Plan will be achieved.	DCP - K20.7 Access Network – C4
Pedestrian/ cycle links are to be naturally lit and ventilated, appropriately lit after hours, publicly accessible 24/7, and have clear sight lines from end to end.	Precinct wide	Tree planting arrangement to consider light pole locations to ensure adequate lighting levels are achieved	DCP - K20.7 Access Network – C6
New development that fronts onto streets identified as active frontages, including vibrant, friendly and mixed facades must: <ul style="list-style-type: none"> – Minimise the number and width of vehicular driveways across the footpath. – Provide vehicular access off a rear laneway; driveways off Burwood Road and Parramatta Road are strictly prohibited. 	Parramatta road and streets identified as active frontages	Opportunity for consistent canopy along these streets uninterrupted by driveways. Tree planting arrangements and locations will need to consider driveways and other vehicle access points located in laneways and secondary streets.	DCP - K21.8 Public Domain Experience – C1
New development that fronts onto Parramatta Road supports the upgraded strategic walking link ('green edge') along Parramatta Road between Broughton and Loftus Streets. Development is to: <ul style="list-style-type: none"> – Apply coordinated urban and landscape design features that unify the linear – Green edge along Parramatta Road 	Parramatta Road, between Broughton and Loftus Street	Opportunity for proposed linear public domain spaces to be enhanced with appropriately sized and spaced tree planting	DCP – K20.8 Public Domain Experience – C1
Vehicle access and servicing zones are not permitted along a Vibrant Facade.	Street frontages identified as vibrant facades	Opportunity for consistent canopy along these streets uninterrupted by driveways.	DCP – K20.9 – Vibrant Facades - C3
Where applicable, a portion of the setback area is to provide deep soil zones and tree planting.	Precinct wide	Opportunity for additional urban canopy in the deep soil zones in setback areas.	DCP – K20.10 Street Wall Heights and Setbacks – C2
'Undesirable' elements such as vents, electrical substations, or plant and equipment spaces are not permissible within the setback area and should be accommodated within the building.	Precinct wide	Tree planting arrangements and locations will need to consider driveways and other vehicle access points located in laneways and secondary streets.	DCP - K21.9 Street Wall Heights and Setbacks – C3
Setback area to be landscaped and at least 50% deep soil;	Burton, Loftus and Broughton Street setbacks	Opportunity for additional urban canopy in the deep soil zones in setback areas	DCP - K21.11 Transition and Interfaces – C2
Along all streets where future public domain is required to be delivered (such as the 'linear green edge' interface to Parramatta Road) <ul style="list-style-type: none"> – Treatment of the set-back area is designed to be an extension of the public footpath area, is publicly accessible 24/7 and focuses on pedestrian amenity. – 50% of the setback is deep soil to allow for mature vegetation in order to create a linear park with trees 	Precinct wide	Opportunity for additional urban canopy in the deep soil zones in setback areas.	DCP – K20.11 Transition and Interfaces – C3
Entries and private open spaces are encouraged within the 3m or 4.5m landscaped setbacks including a 1-1.5m wide strip of landscaping	Interactive frontages within residential zones	Opportunity for urban canopy in landscape setbacks greater than 1m wide and 0.8m in height (if raised).	DCP K20.12 Interactive Frontages – C3
All landscaping within the front setback is to maintain clear views from the footpath to the development.	Interactive frontages within residential zones	Right size tree with appropriate habit and canopy transparency to ensure views are maintained.	DCP K20.12 Interactive Frontages – C5
Development is to minimise services (i.e. substations, fire services and water services) located within the front setback, along the site frontage or on building facades.	Interactive frontages within residential zones	Opportunity for consistent urban canopy in the deep soil zones in setback areas.	DCP K20.12 Interactive Frontages – C8

CONTROL / REQUIREMENT	LOCATION/AREA AFFECTED	IMPACT ON CANOPY OUTCOMES	DOCUMENT REFERENCE
Existing street trees and landscape features are to be retained wherever possible. All significant trees that are identified as either high or medium significance in PRCUTS Public Domain Plan are to be retained..	All streets	Existing tree canopy to be retained will significantly contribute to the required canopy coverage.	K20.18 Landscape Design – C1
For development along Parramatta Road, a minimum of 1 canopy tree per 10m of length of frontage is to be planted in the 'green edge' setback area, capable of reaching a height of at least 10m.	Parramatta road	Opportunity for consistent and continuous urban canopy to be achieved along sections of Parramatta Road.	K20.18 Landscape Design – C5
For development along all other streets (excluding active frontages) a minimum of 1 canopy tree per 15m of frontage is to be planted, new trees are to be capable of a mature height of at least 6m.	All other streets (excluding active frontages)	Opportunity for some urban canopy coverage to be achieved in other streets.	K20.18 Landscape Design – C6
A minimum of 50% projected tree canopy cover-age on publicly accessible streets and laneways, unless it can be clearly demonstrated that it is unreasonable to meet this requirement and a suitable urban design out-come can be achieved which would be applicable in this specific instance only.	All accessible streets and laneways precinct wide.	Opportunity for public domain areas to significantly contribute to 25% canopy coverage.	K20.18 Landscape Design – C9
A minimum of 75% projected tree canopy coverage shall be achieved for all parks.	All parks and open space precinct wide	Opportunity for parks and open space to significantly contribute to 25% canopy coverage.	K20.18 Landscape Design – C10
A minimum of 15% projected tree canopy coverage shall be achieved for all private land developments. Tree coverage may include trees planted at ground level as well as any trees planted in the upper levels of buildings such as podiums and roofs. It may also include canopy overhanging from an adjoining public domain area.	Mixed use zone	Opportunity for private development areas to contribute to 25% canopy coverage.	K20.18 Landscape De-sign – C11
Development consent must not be granted unless the development achieves at least 25% canopy cover across the site.	Residential zones	Opportunity for residential development areas to contribute to 25% canopy coverage.	K20.18 Landscape Design – C12
50% of the required landscaped area is to be deep soil planting (trees and shrubs) and a preference for native species.	Residential zones	Opportunity for residential development areas to contribute to 25% canopy coverage.	K20.18 Landscape Design – C15
Calculation of deep soil areas is not to include any land that has a length or width less than 1.5m	Residential zones	Front setback areas with 1m landscape strip cannot be calculated as deep soil zones and may not be suitable for tree planting limiting canopy opportunities.	K20.18 Landscape De-sign – C16
For residential development in the R3 Medium Density Zone, at least 50% of front setback area is required to be deep soil.	Medium Density residential	Opportunity for medium density development areas to contribute to 25% canopy coverage.	K20.18 Landscape Design – C18

PROPOSED CANOPY ASSESSMENT

OVERHEAD ELECTRICITY



PROPOSED CANOPY COVER

Total area of precinct	233, 932 m2
Loss of existing canopy	15%
Total area of public canopy cover	32, 938 m2 14%
Total area of private canopy cover	27, 485 m2 12%
Total area of overall canopy cover	60, 423 m2
Canopy coverage	26%

LEGEND

- - - PRECINCT BOUNDARY
- EXISTING TREES ON PRIVATE LAND
- EXISTING TREES ON PUBLIC LAND
- EXISTING TREES REMOVED
- PROPOSED TREES ON PUBLIC LAND
- PROPOSED TREES ON PRIVATE LAND
- EXISTING ELECTRICITY POLES
- PROPOSED LIGHTING

PROPOSED CANOPY ASSESSMENT - KINGS BAY 1:2500 @ A3

ASPIRATIONAL CANOPY ASSESSMENT

UNDERGROUND ELECTRICITY



PROPOSED CANOPY COVER

Total area of precinct	233, 932 m ²
Loss of existing canopy	15%
Total area of public canopy cover	40, 908 m ² 17.5%
Total area of private canopy cover	27, 485 m ² 12%
Total area of overall canopy cover	68, 393 m ²
Canopy coverage	29%

LEGEND

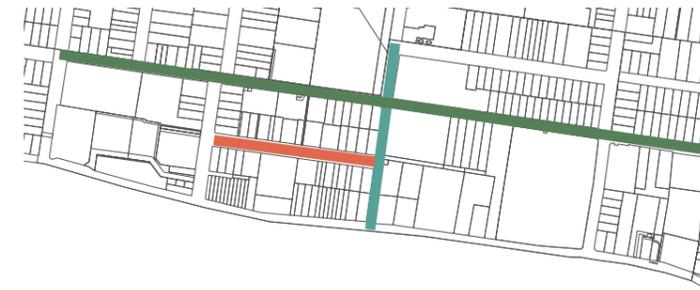
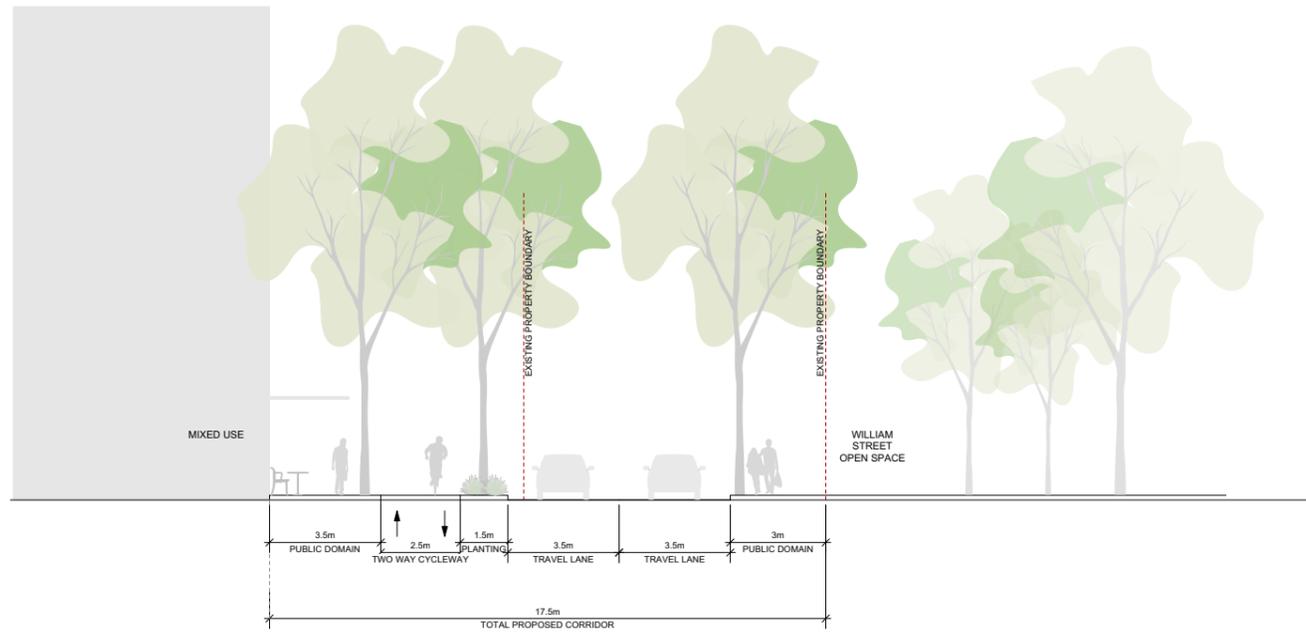
- - - PRECINCT BOUNDARY
- EXISTING TREES ON PRIVATE LAND
- EXISTING TREES ON PUBLIC LAND
- EXISTING TREES REMOVED
- PROPOSED TREES ON PUBLIC LAND
- PROPOSED TREES ON PRIVATE LAND
- EXISTING ELECTRICITY POLES
- PROPOSED LIGHTING

ASPIRATIONAL CANOPY ASSESSMENT - KINGS BAY 1:2500 @ A3

TYPICAL STREET CROSS-SECTIONS

SECTION 01 ●

William Street refer to PDP for dimensions and further detail



STREET REFERENCE DIAGRAM

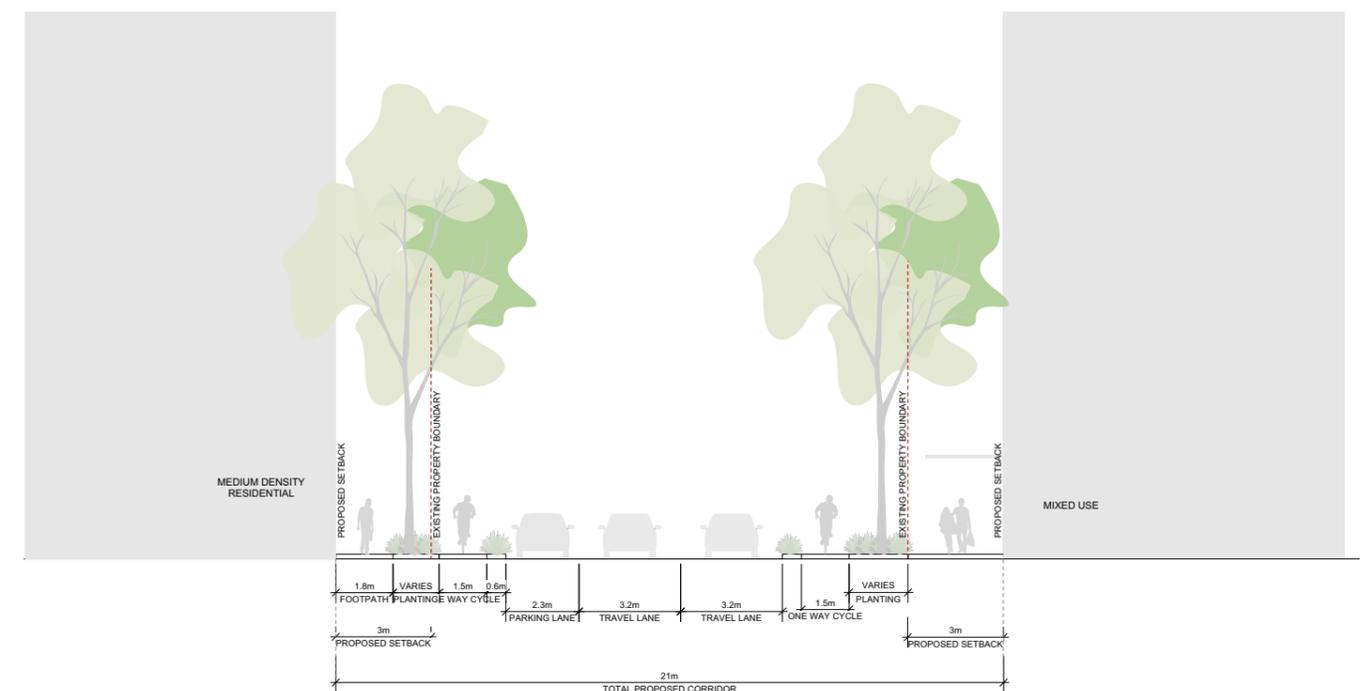
SECTION 02 ●

Spencer Street refer to PDP for dimensions and further detail



SECTION 03 ●

Queens Road refer to PDP for dimensions and further detail



CANOPY ASSESSMENT FINDINGS FOR KINGS BAY

GENERAL

The design principles and features of the Public Domain Plan, Kings Bay Master plan and relevant conditions within the DCP will allow for a minimum 25% total canopy cover to be achieved in the Kings Bay Precinct. This can be increased to 27% if all electricity infrastructure is underground.

EXISTING TREES

As with most development areas, a loss of existing canopy cover is expected to make way for the construction of new roads, buildings, and infrastructure. From the canopy assessment undertaken it is expected that 15% of the existing canopy cover will be lost, resulting also in the loss of four trees of high significance (as noted in the significant tree assessment):

- 23. Lophostemon Confertus
- 24. Corymbia maculata
- 29. Corymbia maculata
- 35. Melaleuca quinquenervia

CANOPY PROJECTIONS

From the canopy assessment is anticipated that the projected canopy requirements for open space and pedestrian spaces can be achieved.

- Publicly accessible streets and laneways (K20.18 Landscape Design – C9)
- Open space – 75% (K20.18 Landscape Design – C10)

There is however a departure from the DCP requirement for a projected tree canopy coverage on publicly accessible streets and laneways. When taking into account the complete width of the road corridor, 50% canopy coverage of this total area cannot be achieved as per K20.18 Landscape Design – C9. When tested, the canopy coverage currently being achieved in both scenarios was approximately 32-40%.

Apart from Lot A2, A3 and C, it is anticipated that the projected canopy requirements for each development type can be achieved with the current master plan layout. This is if the deep soil requirements are able to be realised in the detail design. The projected canopy requirements summarised below:

- Mixed use zone – 15% (K20.18 Landscape Design – C11)
- Residential zone – 25% (K20.18 Landscape Design – C12).



ARTIST IMPRESSION OF SPENCER STREET

06 RECOMMENDATIONS

06 RECOMMENDATIONS

The arrangement of the public domain as depicted in the following documents have been tested and analysed as part of the urban canopy assessment:

- Public Domain Plan,
- Urban design as shown in each master plan; and
- Related development controls in the DCPs.

The proposed urban canopy master plan for each precinct and the resulting urban canopy coverage has shown that a minimum of 25% canopy cover can be achieved and, in most cases, exceeded in all three precinct areas. As such, the following recommendations have been prepared to assist with ensuring that optimal canopy outcomes can be achieved in Homebush North, Burwood and Kings Bay Precinct so that the objectives and aspirations of both Canada Bay City Council and State Government can be achieved for the benefit of the community.

RECOMMENDATION	DOCUMENT AFFECTED
EXISTING TREES	
It is recommended that the condition around the retention of existing trees is retained in all DCPs. It is also recommended that the condition also refers to Australian Standards - AS 4970-2009 Protection of Trees on Development Sites and includes wording that ensures that any existing tree of very high to moderate significance is assessed by a suitably qualified Arborist. This is to ensure that existing trees within private lots will appropriately considered in the design and ongoing management of any development.	PRCUTS DCP K22.15 Landscape Design – C1 K21.18 Landscape Design – C1 K20.18 Landscape Design – C1
Kings Bay master plan be amended to show building footprints that do not impact upon any trees of very high to moderate significance	Kings Bay Master Plan
UTILITIES	
While a significant percentage increase was not proven, it is recommended where possible that the electricity be underground to allow for more significant canopy trees to be established. This will increase the quality and extent of shading and cooling of the urban environment, decreasing the impact urban heat effects.	
CANOPY PROJECTIONS	
From the urban canopy assessments undertaken, it is anticipated that the projected canopy requirements for each private development type can be largely achieved, if the deep soil requirements are realised in the detail design. To ensure that the minimum canopy coverage and optimal growth outcomes are achieved, it is recommended that the DCP includes a condition that will ensure a landscape architect be involved at the commencement of any development master plan to ensure the architectural planning, building footprint and basement engineering result in adequate deep soil zones and podium planter boxes. The deep soil zones should be located in areas where canopy and landscape outcomes will best serve the future users and general architectural amenity. Species selection should consider site suitability, shade requirements of any communal open space and solar access into internal building spaces.	PRCUTS DCP K22.15 Landscape Design K21.18 Landscape Design K20.18 Landscape Design
From the urban canopy assessment, it is anticipated that the projected canopy requirements for open space and pedestrian spaces are achievable targets. To ensure the projected urban canopy coverage will be achieved, it is recommended that the DCP includes wording about the prioritisation of tree planting in the planning and design of all public domain areas. Where possible, it is also recommended that utilities be bundled and located away from tree planting areas.	PRCUTS DCP K22.15 Landscape Design K21.18 Landscape Design K20.18 Landscape Design

RECOMMENDATION	DOCUMENT AFFECTED
<p>A minimum of 50% projected tree canopy coverage on publicly accessible streets and laneways cannot be achieved in the current precinct planning scenarios (with calculation including the entire width of the road corridor). To achieve 50% larger canopy trees and as a result larger soil volumes and verge widths would be required. While this would be an ideal solution, it may not be feasible when taking into consideration other factors and constraints. It is recommended that Council review this condition and consider either increasing the canopy capacity of the streets or decrease the target to a more achievable percentage of 40%.</p>	<p>PRCUTS DCP K20.18 Landscape Design – C9 K21.18 Landscape Design – C9 K22.15 Landscape Design – C9</p>
<p>SHADE & OVERSHADOWING</p>	
<p>The shadow diagrams in the master plan reports suggest that a significant proportion of the public domain will be shade for certain periods of the day. Depending on the duration and density of the overshadowing, this will impact the growth and species suitability. It is recommended that the DCPs be amended to include wording that will encourage all tree species selection be suitable for the micro climatic conditions while also providing a high level of urban amenity.</p>	<p>PRCUTS DCP K22.15 Landscape Design K21.18 Landscape Design K20.18 Landscape Design</p>
<p>TREE SPACINGS</p>	
<p>Taking into account set out constraints in the public domain such as lighting, driveways, utilities and sight lines, the maximum spacings described in the DCP conditions will not be exceeded. It is recommended to that the requirements for trees planted in all streets (not including Parramatta road) push for more aspirational targets and the wording on the DCP be amended to 1 canopy tree per 12m of frontage with minimum mature height of 8m.</p>	<p>PRCUTS DCP K22.15 Landscape Design – C6 K21.18 Landscape Design – C6 K20.18 Landscape Design – C6</p>
<p>SETBACKS</p>	
<p>There is a conflict in conditions around setbacks and deep soil calculations. Interactive frontages within residential zones are required to have 1-1.5m landscape area within the 3-4.5m setback. If the landscape area is under 1.5m wide it cannot be part of the deep soil calculations as the width would make it less ideal for tree planting. It is recommended that the relevant setback condition be amended to allow for a landscape area of 1.5m, this would then allow trees to be planted and an increase of urban canopy that would benefit both the public and private domain.</p>	<p>PRCUTS DCP K22.11 interactive Frontages - C4 K21.12 Interactive Frontage – C3 K20.12 Interactive Frontages – C3 K22.15 landscape Design – C18 K21.18 Landscape Design – C16 K20.18 Landscape Design – C16</p>
<p>BUILDING AWNINGS</p>	
<p>To limit conflict between urban canopy and building awnings, it is recommended that a condition be included in each PRCUTS DCP that includes maximum awning width. The width should allow for pedestrian comfort while also giving ample space for the street trees to grow and thrive.</p>	<p>PRCUTS DCP</p>

07 SPECIES SELECTION

07 SPECIES SELECTION

SELECTION CRITERIA

To achieve the City of Canada Bay's Urban Tree Canopy Strategy vision of 'growing and protecting a resilient and diverse urban forest that characterises the LGA as a cool, tranquil, and connected place to live, work and visit', the underpinning principle of *right tree in the right place* needs to be enforced. Therefore, it is critical that the selection of tree species is appropriate to the localised conditions and constraints of the planting area. It is important that any species selected contributes positively to the amenity, environmental and landscape character values of the area.

Selection criteria for tree species, regardless of whether it's for public or private domain planting should consider the following values and requirements.

AMENITY AND AESTHETIC VALUE

- Mature canopy size
- Height
- Habit
- Shade cast density
- Solar access requirements (evergreen/deciduous)
- Features – such as flowers or fruits

LANDSCAPE PERFORMANCE

- Biodiversity and Habitat value
- Carbon storage capacity
- Air quality improvement capacity
- Transpiration rates
- Longevity

MICROCLIMATE & SITE CONDITIONS

- Soil type and volume
- Orientation and aspect
- Shade tolerance
- Topography
- Frost and heat tolerance
- Climate adaptability
- Water availability
- Inundation tolerance
- Pest and disease

A suggested tree species list has been prepared to assist in guiding the future species selections for each of the PRCUTS stage 1 precincts. The species listed includes trees that have proven performance in the local area and are commercially readily available from quality Sydney based nurseries.

LANDSCAPE DESIGN PRINCIPLES

Species selection should also consider landscape design principles that reinforce the objectives of the Public Domain Plan and to ensure the creation of beautiful and comfortable places for people to live and work in.

The following design objectives should be considered when trees are selected for each precinct's public domain or private development:

- Enhancing of local character and existing landscape features;
- Respecting and responding to the human scale;
- Reinforcing gateways, nodes and entry points;
- Legibility of streetscape and pedestrian hierarchy;
- Enhancing key public domain areas including parks and plazas;
- Solar access, shading and cooling.



ANGOPHRA FLORIBUNDA



CALLISTEMON VIMINALIS



BANKSIA INTEGRIFOLIA



EUCALYPTUS PUNCTATA



ALLOCASUARINA LITTORALIS



FICUS RUBIGNOSA

PROPOSED SPECIES LIST

SUGGESTED SPECIES			USES			CONSIDERATIONS			
Botanic Name	Common Name	Mature Size Height x Width	Street/Plaza	Open space/ Parkland	Private Domain	Deciduous	Indigenous	Native	Exotic
Large > 15m									
<i>Agathis robusta</i>	Queensland Kauri	20-25 x 5m	●	●		Evergreen		●	
<i>Angophra costata</i>	Smooth-barked Apple	12-20 x 8-10m	●		●	Evergreen	●		
<i>Angophra floribunda</i>	Rough-barked Apple	12-20 x 20m		●	●	Evergreen	●		
<i>Corymbia maculata</i>	Spotted Gum	20-30 x 10-25m	●	●	●	Evergreen	●		
<i>Eucalyptus botryoides</i>	Bangalay	20-25 x 15m				Evergreen		●	
<i>Eucalyptus paniculata</i>	Grey Ironbark	20-25 x 15m	●	●	●	Evergreen	●		
<i>Eucalyptus piperita</i>	Sydney Peppermint	15-18 x 10m	●	●		Evergreen		●	
<i>Eucalyptus punctata</i>	Grey Gum	18-25 x 8m	●	●		Evergreen	●		
<i>Eucalyptus resinifera</i>	Red Mahogany	18-20 x 10m		●	●	Evergreen	●		
<i>Ficus microcarpa var. hillii</i>	Hills Weeping Fig	20-25 x 20m	●	●		Evergreen		●	
<i>Ficus rubiginosa</i>	Port Jackson Fig	15-20 x 20m		●	●	Evergreen	●		
<i>Flindersia australis</i>	Crows Ash	15-20 x 7m	●	●		Evergreen		●	
<i>Jacaranda mimosifolia</i>	Jacaranda	15-20 x 12m		●		Deciduous			●
<i>Lophostemon confertus</i>	Brush box	20 x 6-12m	●			Evergreen		●	
<i>Syncarpia glomulifera</i>	Turpentine	20-25 x 10m		●	●	Evergreen	●		
<i>Ulmus parvifolia 'Todd'</i>	Chinese Elm	10 x 15m	●			Deciduous			●
Medium > 8m									
<i>Angophra bakeri</i>	Narrow Leaf Apple	10 x 10m	●	●	●	Evergreen	●		
<i>Allocasuarina littoralis</i>	Black She-oak	8 x 4-7m		●		Evergreen	●		
<i>Banksia integrifolia</i>	Coast Banksia	7-10 x 1-6m	●	●		Evergreen	●		
<i>Brachychiton acerifolia</i>	Illawarra Flame Tree	12 x 6m		●	●	Deciduous		●	
<i>Brachychiton discolor</i>	Queensland Laceback	12 x 7m			●	Deciduous		●	
<i>Cupaniopsis anacardiodes</i>	Tuckeroo	8-10 x 7m	●	●	●	Evergreen		●	
<i>Celtis australis</i>	Southern Hackberry	12 x 8m	●	●	●	Evergreen		●	
<i>Corymbia eximia</i>	Yellow Bloodwood	10-18 x 12m		●	●	Evergreen	●		
<i>Glochidion ferdinandi</i>	Cheese Tree	8-12 x 5-10m	●		●	Evergreen	●		
<i>Fraxinus pennsylvanica 'Urbanite'</i>	Red Ash	12-18 x 8m	●	●	●	Deciduous	●		
<i>Magnolia grandiflora 'Exmouth'</i>	Bull Bay Magnolia	12 x 8m	●	●	●	Evergreen			●
<i>Sapium sebiferum</i>	Chinese Tallow Tree	8 x 8m	●	●	●	Deciduous	●		
<i>Waterhousea floribunda 'Green Avenue'</i>	Weeping Lilly Pilly	12 x 8m	●	●	●	Evergreen		●	
<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	10-12 x 6m	●			Deciduous			●

SUGGESTED SPECIES			USES			CONSIDERATIONS			
Botanic Name	Common Name	Mature Size Height x Width	Street/Plaza	Open space/ Parkland	Private Domain	Deciduous	Indigenous	Native	Exotic
Small <8m									
<i>Angophra hispida</i>	Dwarf Apple	5-7 x 3-5m	●			Evergreen	●		
<i>Backhousia citriodora</i>	Lemon-scented Myrtle	7-10 x 3-5m	●			Evergreen	●		
<i>Callistemon viminalis cv</i>	Bottlebrush	7-10 x 2-4m	●	●		Evergreen	●		
<i>Callistemon salignus</i>	Willow Bottlebrush	7-10 x 5m	●			Evergreen	●		
<i>Elaeocarpus reticulatus</i>	Blue Berry Ash	8-12 x 3-5m	●		●	Evergreen	●		
<i>Elaeocarpus eumundi</i>	Eumundi Quondong	10-18 x 3-6m	●			Evergreen	●		
<i>Lagerstroemia indica</i>	Crepe Myrtle	8 x 4m	●	●		Deciduous			●
<i>Tristaniaopsis laurina</i>	Water Gum	7-10 x 3-6m	●	●	●	Evergreen	●		

08 CONCLUSION

08 CONCLUSION AND ASSESSMENT SUMMARY

The current planning proposal including PRCUTS DCP, urban design master plans and Public Domain Plan for PRCUST stage 1 precincts; Homebush North, Burwood and King Bay allows for the required minimum **25%** canopy cover to be achieved in each precinct area. In all cases, this is a significant increase to the existing canopy coverage currently being experienced at both the precinct and suburb level.

It is recommended that the City of Canada Bay retain, and where possible, strengthen all conditions in each of the PRCUTS DCPs that allows for canopy trees to be planted in both the public and private domains (refer to 06 Recommendations for more detail).

It is also recommended that future species selection considers the amenity and aesthetic values, landscape performance criteria and specific site conditions as well as general landscape design principles to ensure that optimal canopy outcomes can be achieved.

