

## **REFERRAL RESPONSE – TREES & LANDSCAPING**

**FILE NO:** DA 223/2020/1

**ADDRESS:** Vacluse Road VAUCLUSE 2030

**PROPOSAL:** Demolition of existing seawall and promenade at Shark Beach/Nielsen Park, their reconstruction, together with associated landscape works

**FROM:** Nick Williams - Tree & Landscape Officer

**TO:** Mr D Booth

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### **I refer to the following documents received for this report:**

- Survey Plan No. 18315\_DET\_1a (sheets 2-5), drafted by Survey Plus, dated 20/2/2020.
- Survey Plan No. 18786A (sheets 2-4), drafted by Bee & Lethbridge, dated 12/10/2016.
- Landscape Concept Drawing No's L-100, L-1010, L-200-L203, L-300-L-3030, L-500-L-503, and L-600, drawn by Oculus, dated 18/8/2020.
- Concept plan Drawings referenced OC-L-013 - OC-L-016 drawn by dated 17/8/2020.
- Section Drawings referenced OC-L-020 – OC-L- 024 dated 17/8/2020.
- Stormwater Drainage Plan No. 19587-RBG-ZZ-XX-DR-CV-83-001, drawn by Robert Bird Group, dated 24/6/2020.
- Arboricultural Impact Assessment Report, written by Tree IQ, dated 23<sup>rd</sup> of June 2020.
- Addendum to Arboricultural Impact Assessment Report & Tree Protection Specification (Proposed Holding Bay), written by Tree IQ, dated 11<sup>th</sup> of November 2020.
- Indicative Plant Schedule No. OC-L-025, designed by Oculus, dated 17/8/2020.
- Planting Plan referenced L-500 designed by Oculus dated 27/10/2020.

A site inspection was carried out on. 21<sup>st</sup> of October 2020 and 12<sup>th</sup> of November 2020.

### **Relevant Control:**

- Woollahra Local Environment Plan 2014
- Woollahra Development Control Plan 2015
- The comments and recommendations within this Referral Response have taken into consideration the guidelines established within Australian Standard AS 4373 – Pruning of amenity trees and Australian Standard AS 4970 – Protection of trees on development sites

## COMMENTS

### Proposed tree removal

The majority of those trees proposed to be removed within the works zone are small Tuckeroo trees being approximately 3- 4 metres in height and planted within the last 5 years. The amenity that these trees currently provide can be replaced almost immediately through the planting of advanced tree stock, as proposed.

One *Lophostemon confertus* tree (2 metres in height) is proposed to be removed to accommodate vehicle access into the Holding Bay area 3 (tree referenced 2HB). This is a very small tree and is structurally poor due to a previously failed trunk. There are no issues with the removal of the tree.

The largest trees to be removed as part of the proposal are 2 *Banksia integrifolia* trees (referenced Trees 7 & 9). It is unlikely either tree is part of the original planting of the promenade and park area which is dominated by *Lophostemon* and *Cupaniopsis* trees. Despite both specimens being in good condition I do not consider the retention of either tree to be feasible. Unless considerable design changes were made, the proposed changes to ground levels within the vicinity of the trees would have a negative effect on their root function. In this instance it is also likely that the planting of advanced tree stock can replace the amenity the trees currently provide within the short to medium term (5 - 15 years).

Tree 8 is an over mature specimen in poor condition and identified as having a short useful life expectancy of less than 5 years.

### Planting Plan

The proposed tree and plant species listed within the submitted plant schedule are highly suitable for coastal environments. The number of replacement trees depicted on the planting plan is also considered a satisfactory quantity. All trees listed have the potential to grow large enough to provide shade and other amenity to the site.

### Potential development impacts to trees to be retained

The submitted arboricultural assessment identifies several minor encroachments within the Tree Protection zone radius of several trees to be retained. With the implementation of proper protection methods and arborist supervision these are not likely to have any major impact on these trees.

The Major encroachment identified within the TPZ radius of Tree 13 includes a regrade of existing levels and refurbishment of the promenade surface at this location on the Northern side of the tree. The *General arrangement plan* supplied by Oculus illustrates that the changes to levels within the TPZ of the tree is slight and unlikely to have any major impact on the tree.

### Proposed pruning of trees within the Holding Bay area

Within the proposed Holding Bay, 4 trees are identified as requiring pruning works to provide adequate clearance for work vehicles and machinery. Appendix 3 of the submitted Tree IQ Tree Protection specification dated 11<sup>th</sup> of November 2020 provides details (including photos) of those branches. The loss of these branches is unlikely to be detrimental to the health and structure of these trees or result in any significant loss of amenity within this area of the park.

## RECOMMENDATIONS

Council's Tree and Landscape Officer has determined that the development proposal is satisfactory in terms of tree preservation and landscaping, subject to compliance with the following Conditions of Consent.

### CONDITIONS OF CONSENT

*Please note that the standard conditions of consent are generally modified by the Technical Services Department to suit a particular development application. Please ensure all Technical Services conditions of consent are cut and pasted from this document only, and not inserted as standard conditions using the automatically generated (F3) function*

#### A. General Conditions

##### A.1 Tree Preservation & Approved Landscaping Works

All landscape works shall be undertaken in accordance with the approved landscape plan, arborist report, tree management plan and transplant method statement as applicable.

a) The following trees may be removed:

Council Ref No.	Species	Location	Dimension (metres)
1	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	2 x 1 metres
2	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	4 x 4 metres
2HB	<i>Lophostemon confertus</i> (Brushbox)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.	2 x 1 metres
3	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	4 x 4 metres
4	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	4 x 4 metres
5	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	4 x 4 metres
6	<i>Melaleuca armillaris</i> (Bracelet Honey Myrtle)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	5 x 5 metres
7	<i>Banksia integrifolia</i> (Coastal Banksia)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	8 x 6 metres
8	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	7 x 5 metres
9	<i>Banksia integrifolia</i> (Coastal Banksia)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	7 x 6 metres
10	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	1 x 1 metre
12	<i>Cupaniopsis anacardioides</i>	Refer to Concept Plan	3 x 2

	(Tuckeroo)	Revision B referenced OC-L-013, dated 17/8/2020	metres
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**Note:** Tree/s to be removed shall appear coloured red on the construction certificate plans.

\*This species is exempt from the WMC DCP Chapter E.3 - Tree Management and can be removed without consent.

- b) The following trees shall be pruned in accordance with *Australian Standard Pruning of Amenity Trees* (AS 4373) and *Workcover NSW Code of Practice Amenity Tree Industry*, to the minimum extent necessary to provide clearance to the new development:

Council Ref No.	Species	Location	Approved pruning (extent of pruning)
1HB	<i>Lophostemon confertus</i> (Brushbox)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.	Prune only those branches identified within Appendix 3 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020. Maximum branch diameter to be pruned shall not exceed 150 mm in diameter at final cut.
3HB	<i>Lophostemon confertus</i> (Brushbox)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.	Prune only those branches identified within Appendix 3 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020. Maximum branch diameter to be pruned shall not exceed 200 mm in diameter at final cut.
16HB	<i>Lophostemon confertus</i> (Brushbox)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.	Prune only those branches identified within Appendix 3 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020. Maximum branch diameter to be pruned shall not exceed 125 mm in diameter at final cut.
19HB	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.	Prune only those branches identified within Appendix 3 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020. Maximum branch diameter to be pruned shall not exceed 100

			mm in diameter at final cut.
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**Note:** The tree/s required to be pruned should appear coloured blue on the construction certificate plans.

## A.2 Approved Plans and supporting documents

Reference	Description	Author/Drawn	Date(s)
	Planting Plan (sheets 1 – 3)	Oculus	18/8/2020
OC – L – O25	Indicative Plant schedule and palette	Oculus	18/8/2020
L-500 (Issue D3)	Planting Plan	Occulus	27/10/2020
NIEL/PARK/AIA/B	Arboricultural Impact Assessment Report ( Revision B)	Tree IQ	23 <sup>rd</sup> of June 2020
	Addendum to Arboricultural Impact Assessment Report ( Revision B) & Tree Protection plan (appendix 2)- Proposed Holding Bay	Tree IQ	11 <sup>th</sup> November 2020

## B. Conditions which must be satisfied prior to the demolition of any building or construction

### B.1 Establishment of Tree Protection Zone (TPZ) Fence

Tree Protection Zones shall be established around all trees to be retained and in accordance with Section 4 of the *Australian Standard Protection of Trees on Development Sites* (AS 4970- 2009). Tree protection zones must also comply with the following requirements;

#### a) Tree Protection Zone areas

Council Ref No.	Species	Tree Location	Specification
13	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
14	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
15	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection

			Specification
15HB	<i>Lophostemon confertus</i> (Brush Box)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.	Erect Tree protection zone fencing as depicted within Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.
16	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
16HB	<i>Lophostemon confertus</i> (Brush Box)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.	Erect Tree protection zone fencing as depicted within Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.
17	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification.
17HB	<i>Eucalyptus robusta</i> (Swamp Mahogany)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay), dated 11 November 2020.	Erect Tree protection zone fencing as depicted within Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.
18	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
18HB	<i>Corymnia citriodora</i> (Lemon scented gum)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay), dated 11 November 2020.	Erect Tree protection zone fencing as depicted within Appendix 2 of the submitted Tree IQ Tree Protection specification

			(Holding Bay) dated 11 November 2020.
19	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
19HB	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay), dated 11 November 2020.	Erect Tree protection zone fencing as depicted within Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.
20	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
20HB	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay), dated 11 November 2020.	Erect Tree protection zone fencing as depicted within Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.
21	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
21HB	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay), dated 11 November 2020.	Erect Tree protection zone fencing as depicted within Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay) dated 11 November 2020.
22	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural

			Impact Assessment Report and Tree Protection Specification
23	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
24	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
25	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
26	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
27	<i>Lophostemon confertus</i> (Brush Box)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
28	<i>Eucalyptus robusta</i> (Swamp Mahogany)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	Erect Tree protection zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
29	<i>Cupaniopsis anacardioides</i>	Refer to Concept Plan	Erect Tree protection



	(Tuckeroo)	Revision B referenced OC-L-013, dated 17/8/2020	zone fencing as depicted on Concept Plan 1.2 within the Tree IQ Arboricultural Impact Assessment Report and Tree Protection Specification
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**Note:** Where this condition relates to street trees and the fence cannot be placed at the specified radius, the fencing shall be positioned so that the entire verge (nature strip) area in front of the subject property, excluding existing driveways, footpaths and bus stops is protected.

**Note:** Where this condition relates to trees on private property the radial distance of fencing shall be positioned only within the subject property.

- b) Tree Protection Zones shall be fenced with a 1.8 metre high chainmesh or weldmesh fence and secured to restrict access. The fence shall be established prior to any materials being brought onto the site and before the commencement of works including demolition. The area within the fence shall be mulched and maintained to a depth of 75mm. The soil within the TPZ shall be kept in a moist condition for the duration of the construction works. Unless approved by the site arborist there shall be no access within the TPZ.
- c) Trunk protection shall be installed around the trunks of the following trees:

Council Ref No.	Species
1HB	<i>Lophostemon confertus</i> (Brush Box)
3HB	<i>Lophostemon confertus</i> (Brush Box)
25HB	<i>Corymbia maculata</i> (Spotted Gum)
13	<i>Lophostemon confertus</i> (Brush Box)
14	<i>Lophostemon confertus</i> (Brush Box)
15	<i>Lophostemon confertus</i> (Brush Box)
16	<i>Lophostemon confertus</i> (Brush Box)
17	<i>Lophostemon confertus</i> (Brush Box)
18	<i>Lophostemon confertus</i> (Brush Box)
19	<i>Lophostemon confertus</i> (Brush Box)
20	<i>Lophostemon confertus</i> (Brush Box)
21	<i>Lophostemon confertus</i> (Brush Box)
22	<i>Cupaniopsis anacardioides</i> (Tuckeroo)
23	<i>Cupaniopsis anacardioides</i> (Tuckeroo)
24	<i>Cupaniopsis anacardioides</i> (Tuckeroo)
25	<i>Cupaniopsis anacardioides</i> (Tuckeroo)
26	<i>Cupaniopsis anacardioides</i> (Tuckeroo)
27	<i>Lophostemon confertus</i> (Brush Box)

28	<i>Eucalyptus robusta</i> (Swamp Mahogany)
29	<i>Cupaniopsis anacardioides</i> (Tuckeroo)

Trunk protection shall consist of a padding material such as hessian or thick carpet underlay wrapped around the trunk. Hardwood planks (50mm x100mm or similar) shall be placed over the padding and around the trunk of the tree at 150mm centres. The planks shall be secured with 8 gauge wire at 300mm spacing. Trunk protection shall extend a minimum height of 2 metres or to the maximum possible length permitted by the first branches.

- d) A sign identifying the Tree Protection Zone shall be erected on each side of the protection fence indicating the existence of a TPZ. Signage must be visible from within the development site.
- e) No excavation, construction activity, grade changes, storage of materials, stockpiling, siting of works sheds, preparation of mixes or cleaning of tools is permitted within Tree Protection Zones, unless specified in Condition B.2 of this consent.
- f) Establishment of Ground protection  
Ground protection shall be established within the specified radius from the trunks of the following trees.

Council Ref No.	Species	Tree Location	Radius from Centre of Trunk (Metres)
1HB	<i>Lophostemon confertus</i> (Brush Box)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay), dated 11 November 2020.	Across entire temporary access Road located within the 8.9 metre TPZ radius of the tree
3HB	<i>Lophostemon confertus</i> (Brush Box)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay), dated 11 November 2020.	Across entire temporary access Road located within the 6.8 metre TPZ radius of the tree
25HB	<i>Corymbia maculata</i> (Spotted Gum)	Refer to Appendix 2 of the submitted Tree IQ Tree Protection specification (Holding Bay), dated 11 November 2020.	Across entire temporary access Road within the 9.3 metre TPZ radius of the tree.

Ground protection shall consist of geotech fabric placed directly over the ground surface with 100mm mulch / aggregate / rumble boards strapped over mulch / steel plating over 10mm mulch layer / retention of existing surface.

- g) Temporary access within the TPZ for pedestrian and machinery movements shall only be permitted with the approval of the site arborist or unless specified in this consent.
- h) The site foreman must be made aware of all tree protection requirements associated with these conditions of consent by the project arborist. Any subsequent site personnel and contractors to the site must be made aware of all tree protection requirements by the site foreman.
- i) The project arborist shall provide written certification of compliance with the above condition.

## B.2 Arborists Documentation and Compliance Checklist

The site arborist shall provide written certification that all tree protection measures and construction techniques relevant to this consent have been complied with. Documentation for each site visit shall include:

- A record of the condition of trees to be retained prior to and throughout development;
- Recommended actions to improve site conditions and rectification of non-compliance; and
- Recommendations for future works which may impact the trees

All compliance certification documents shall be kept on site by the Site Foreman.

As a minimum the following intervals of site inspections must be made:

Stage of arboricultural inspection	Action (Compliance documentation and photos shall be included)
Installation of all tree protection located within the works zone area and the holding bay areas (including fencing, trunk and ground protection).	<p>Compliance with tree protection conditions of consent and Appendix 5 of the submitted Tree IQ Arboricultural Impact Assessment and Tree Protection Plan.</p> <p>Compliance with the submitted Tree IQ Tree Protection Plan and specification, dated 11<sup>th</sup> of November 2020.</p>
Pruning works to trees referenced 1HB, 3HB, 16HB & 19HB	<p>Ensure only those branches identified within the submitted Tree IQ Tree Protection specification (Holding Bay), dated 11 November 2020 are pruned.</p> <p>Ensure all pruning works are undertaken in accordance with Australian Standard AS 4373 – Pruning of amenity trees.</p>
Demolition of existing promenade within the TPZ area of Trees 13 – 21, 27 & 28.	All works are to be undertaken in accordance with Section 3.5 of the submitted Tree IQ Arboricultural Impact Assessment and Tree Protection Plan.
Installation of stormwater within 7.2 metres of Tree 13	<p>All excavation is carried out using small hand tools such as mattocks or using compressed air or water jetting only;</p> <p>Pipes and pits are positioned to avoid tree roots</p>

	greater than 50 mm in diameter
Prior to the issue of a Final Occupation Certificate	Supervise the dismantling of tree protection measures

Inspections and compliance documentation shall be made by an arborist with AQF Level 5 qualifications.

Additional site visits shall be made when required by site arborist and/or site foreman for ongoing monitoring/supervisory work.

## **C. Conditions which must be satisfied prior to the issue of any construction certificate**

### **C.1 Tree Management Plan**

The *Construction Certificate* plans and specifications shall show the following information:

- a) Trees to be numbered in accordance with these conditions:
  - shaded green where required to be retained and protected
  - shaded red where authorised to be removed
  - shaded yellow where required to be transplanted
  - shaded blue where required to be pruned
- b) References to applicable tree management plan, arborists report or transplant method statement.

This plan shall be kept on site until the issue of the final occupation certificate.

**Note:** The effect of this condition is that it requires design changes and/or further information to be provided with the *Construction Certificate* drawings and specifications to address specific issues identified during assessment under section 4.15 of the *Act*.

**Note:** Clause 146 of the *Regulation* prohibits the issue of any *Construction Certificate* subject to this condition unless the *Certifying Authority* is satisfied that the condition has been complied with.

**Note:** Clause 145 of the *Regulation* prohibits the issue of any *Construction Certificate* that is inconsistent with this consent.

## **D. Conditions which must be satisfied prior to the commencement of any development work**

Nil

## **E. Conditions which must be satisfied during any development work**

### **E.1 Tree Preservation**

All persons must comply with Council's Development Control Plan (DCP) 2015, Chapter E.3 Tree Management other than where varied by this consent. The DCP applies to any tree with a height greater than 5 metres or a diameter spread of branches greater than 3 metres.

### General Protection Requirements

- a) The TPZ must be maintained during all development work unless otherwise specified within these conditions of consent.
- b) Excavation must cease where tree roots with a diameter exceeding 50mm are exposed. The *principal contractor* must procure an inspection of the exposed tree roots by an arborist with a minimum AQF Level 5 qualification. Excavation must only recommence with the implementation of the recommendations of the arborist.
- c) Where there is damage to any part of a tree the *principal contractor* must procure an inspection of the tree by a qualified arborist immediately. The *principal contractor* must immediately implement treatment as directed by the arborist. The arborist is to supply a detailed report to the appointed certifier.

**Note:** Trees must be pruned in accordance with *Australian Standard AS 4373 "Pruning of Amenity Trees"* and *WorkCover NSW Code of Practice Amenity Tree Industry*.

## E.2 Replacement/Supplementary trees which must be planted

Any replacement or supplementary tree shall be grown in accordance with Tree stock for landscape use (AS 2303:2018). The replacement tree shall be planted in a *deep soil landscaped area* and maintained in a healthy and vigorous condition. If the replacement tree is found to be faulty, damaged, dying or dead before it attains a size whereby it is protected by Council's Tree Preservation Order, it must be replaced with another of the same species which complies with the criteria outlined below.

Species/Type	Planting/Location	Container Size/Size of Tree (at planting)	Minimum Dimensions at Maturity (metres)
2 x <i>Angophora costata</i> (Sydney Pink Gum)	As plotted on the submitted Oculus Planting Plan Drawing L-500 (dated 27/10/2020).	400 litre	9 x 7 metres
5 x <i>Banksia integrifolia</i> (Coastal Banksia)	As plotted on the submitted Oculus Planting Plan Drawing L-500 (dated 27/10/2020).	400 litre	7 x 5 metres
6 x <i>Cupaniopsis anacardioides</i> (Tuckeroo)	As plotted on the submitted Oculus Planting Plan Drawing L-500 (dated 27/10/2020).	400 litre	8 x 5 metres
3 x <i>Eucalyptus obstans</i> (Port Jackson Mallee) or 3 x <i>Banksia serratta</i> (Old Man Banksia)	As plotted on the submitted Oculus Planting Plan Drawing L-500 (dated 27/10/2020).	200 litre	4 x 4 metres

The project arborist shall document compliance with the above condition.

## E.3 Hand excavation within tree root zones

Excavation undertaken within the specified radius from the trunks of the following trees shall be hand dug.

Council	Species	Location	Radius
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Ref No.			from centre of trunk (metres)
13	<i>Lophostemon confertus</i> (Brushbox)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	7.2 metres
14	<i>Lophostemon confertus</i> (Brushbox)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	5.4 metres
15	<i>Lophostemon confertus</i> (Brushbox)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	7.8 metres
16	<i>Lophostemon confertus</i> (Brushbox)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	6 metres
17	<i>Lophostemon confertus</i> (Brushbox)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	7.8 metres
18	<i>Lophostemon confertus</i> (Brushbox)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	6 metres
20	<i>Lophostemon confertus</i> (Brushbox)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	7.2 metres
22	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	7.8 metres
24	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	6 metres
25	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	7.8 metres
26	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	6.6 metres
28	<i>Eucalyptus robusta</i> (Swamp Mahogany)	Refer to Concept Plan Revision B referenced OC-L-013, dated 17/8/2020	6 metres

Small hand tools such as mattocks or using compressed air or water jetting only shall be used. Roots with a diameter equal to or in excess of 50mm shall not be severed or damaged unless approved in writing by the project arborist.

Mechanical excavation is permitted beyond this radius when root pruning by hand along the perimeter line is completed. Exposed roots to be retained shall be covered with mulch or a geotextile fabric and kept in a moist condition and prevented from drying out.

All root pruning must be undertaken in accordance with the Australian Standard 4373 "Pruning of Amenity Trees" and carried out by a qualified Arborist (minimum qualification of Australian Qualification Framework Level 5 or recognised equivalent).

The project arborist shall document compliance with the above condition.

**F. Conditions which must be satisfied prior to any occupation or use of the building (Part 4A of the Act and Part 8 Division 3 of the Regulation)**

Nil

**G. Conditions which must be satisfied prior to the issue of any Subdivision Certificate**

Nil

**H. Conditions which must be satisfied prior to the issue of a Final Occupation Certificate (s109C(1)(c))**

**H.1 Landscaping**

The *principal contractor* or *owner* must provide to *PCA* a works-as-executed landscape plan and certification from a qualified landscape architect/designer, horticulturist and/or arborist as applicable to the effect that the works comply with this consent.

**Note:** This condition has been imposed to ensure that all Landscaping work is completed prior to the issue of the Final Occupation Certificate.

**I. Conditions which must be satisfied during the ongoing use of the development**

Nil

**J. Miscellaneous Conditions**

Nil

**K. Advisings**

**K.1 Pruning or Removing a Tree Growing on Private Property**

Woollahra Municipal Development Control Plan (DCP) 2015, Chapter E.3 Tree Management may require that an application be made to Council prior to pruning or removing any tree. The aim is to secure the amenity of trees and preserve the existing landscape within our urban environment.

Before you prune or remove a tree, make sure you read all relevant conditions.

You can obtain a copy of the DCP from Council's website [www.woollahra.nsw.gov.au](http://www.woollahra.nsw.gov.au) or you may contact Council on 9391-7000 for further advice.

A handwritten signature in black ink, consisting of a stylized 'N' followed by a dot and a long horizontal stroke.

Nick Williams  
**Tree & Landscape Officer**