



ARBORICULTURE CONSULTANCY
AUSTRALIA

ARBORICULTURAL IMPACT ASSESSMENT



PREPARED FOR:

LANDCOM
Level 14, 60 Station Street
Parramatta NSW 2150

ASSESSMENT AREA:

Lots 1-7 – DP 25566
Lot 1 – DP 329959
53-57 Bolong Road & 4 Beinda Street
Bomaderry NSW 2541

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DATE: 19th April 2024

REF: LANDCOM – Bomaderry – V1 2024

DOCUMENT CONTROL

RELEASE DATE	RECIPIENT	EMAIL ADDRESS	VERSION CONTROL
18 th April 2024	Emily Hou	ehou@landcom.nsw.gov.au	Initial Issue
AUTHORSHIP:	Sibone Nadin Dip Arb AQF V- Arboriculture ISA (TRAQ) Accreditation (No: 267038)	   	
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EXECUTIVE SUMMARY

This report acknowledges the Wodi Wodi Country and the people of the Yuin Nation as the traditional custodians and extends respect to the Elders, past, present, and emerging of the land upon which the site is situated.

Emily Hou, acting on behalf of Landcom, has commissioned this Arboricultural Impact Assessment to accompany an application to Shoalhaven City Council for the proposed residential development of 53-57 Bolong Road and 4 Beinda Street, Bomaderry NSW 2541.

This assessment is part of the NSW Government's "*Build to Rent*" pilot program, involving the consolidation of Lots 1-7 DP 25566 and Lot 1 DP 329959.

The proposal includes demolition of the existing residential dwellings and associated infrastructure, along with vegetation removal and earthworks to facilitate the building works.

The project will entail the construction of a residential building comprising 60 at-grade apartments, on-site parking, extensive landscaping, and extensions to public footpaths.

The purpose of this assessment is to quantify the potential impact of the proposed development on the site's tree population, retaining High Retention Valued Trees where feasible, and provide adequate setbacks to retain the existing dominant canopy trees along the Beinda Street boundary.

Additionally, there was an emphasis on avoiding impact on the tree population within the curtilage of the adjoining property known as "Greenleaves", a residence and garden of local heritage significance.

The site assessment was undertaken on 12th and 13th December 2023 by Principal Arborist Sibone Nadin.

- 1 High Retention Value tree is impacted and not retainable.
- 25 Moderate Retention Value trees are impacted and not retainable.
- 30 Very Low to Low Retention Value trees are impacted and not retainable.
- 7 High Retention Value trees are retainable, subject to the prescribed protection measures.
- 14 Moderate Retention Value trees are retainable, subject to the prescribed protection measures.
- 2 Very Low to Low Retention Value trees are retainable, subject to the prescribed protection measures.

The author is satisfied that the proposed development has largely achieved its objectives by preserving sustainable High Retention Value and Hollow Bearing trees, with the exception of T75.

The inability to retain T75 stems from the considerable size of its' Tree Protection Zone (TPZ), which covers a significant portion of the site. Despite diligent efforts to accommodate its preservation, the constraints imposed by the TPZ made retention unfeasible.

The author has reviewed the proposed landscaping plan and plant schedule prepared by Edmiston Jones and is satisfied that the proposed landscaping plan will adequately compensate for any ecological or amenity loss associated with the required tree removal.

In addition, the author is satisfied that the species selection is consistent with the existing character and streetscape of the surrounding area and will enhance the visual amenity of the site and surrounding streetscape.

This Executive Summary intends only to provide the reader with an overview of the findings and recommendations outlined in this report and must be read in conjunction with the entire report.



Sibone Nadin *Dip. (Arboriculture) AQF Level 5*

Principal Arborist

Arboriculture Consultancy Australia

19th April 2024

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1. INTRODUCTION

The report acknowledges the Wodi Wodi Country and the people of the Yuin Nation as the traditional custodians and extends respect to the Elders, past, present, and emerging of the land upon which the site is situated.

Landcom has commissioned Arboriculture Consultancy Australia to conduct an Arboricultural Impact Assessment (AIA) of the trees situated within and adjacent to the subject site located at 53 - 57 Bolong Road and 4 Beinda St, Bomaderry NSW 2541.

This assessment is part of the NSW Government's "Build to Rent" pilot program, involving the consolidation of lots 1-7 DP 25566 and lot 1 DP 329959.

The proposal includes demolition of the existing residential dwellings and associated infrastructure, along with vegetation removal and earthworks to facilitate the civil works.

The project will entail the construction of a residential building comprising 60 at-grade apartments, on-site parking, extensive landscaping, and extensions to public footpaths.

2. OBJECTIVES

The purpose of this assessment is to establish the arboricultural merit (value) of trees and quantify the potential impact of the proposed development on the site's tree population, ensuring the preservation of the amenity, biodiversity, cultural, and heritage value is the primary objective.

3. SCOPE

This Arboricultural Impact Assessment (AIA) will identify all trees within the site boundary and adjacent properties (including public lands) that may be impacted by the proposed development and recommend tree protection measures necessary to protect retained trees throughout the project's construction phases.

In accordance with industry standards, the author will establish the arboricultural merit (value) of trees and provide an understanding of their relative significance in the landscape to determine priorities for retention, removal, and protection.

The assessment applies to vegetation defined as a tree in the Dictionary of Shoalhaven City Council's *Shoalhaven Development Control Plan (DCP) 2014* and any other vegetation that the author may consider fundamental to the conclusions drawn in this report.

This report has been prepared in accordance with section 2.3.5 of the *Australian Standard for Protection of Trees on Development Sites (4970-2009)* and Wingecarribee Shire Council's *Submission Requirements for Consulting Arborists Report*.

4. LIMITATIONS OF THE ASSESSMENT

Limitations are matters and occurrences which are outside of the Authors' control. The following limitations may influence the extensity of the study and the conclusions which can be drawn:

- Trees are biological entities subject to changes in their environment. Conclusions derived from the Visual Tree Assessment (VTA) are the Author's professional opinion, resulting from observations made on the day of inspection. Therefore, any subsequent observations may differ.
- GPS plotting and GIS software were utilised in this report. GPS accuracy depends on sufficient signal quality; the author makes no representation as to the accuracy of the positions depicted. Marginal deviation may occur and result in a variation of the specified encroachment values.
- At the time of the assessment, the author utilised the plans, reports, and any other sources deemed essential for the conclusions outlined in section 7.3, Document Review.

Any subsequent amendments to the proposed plans after the assessment may affect the accuracy of the assessment and the results. The author cannot provide a guarantee or warranty regarding its accuracy after such changes.

5. DESCRIPTION OF STUDY AREA

The site is situated in the locality of Bomaderry, within the local government area (LGA) of the City of Shoalhaven.

The study area is formally defined as Lots 1-7 – DP 25566 and Lot 1 – DP 329959, collectively zoned R3 Medium Density Residential by the Shoalhaven City Council. The combined land area is approximately 5,915m².

The subject sites are described as relatively level and poorly maintained residential allotments comprising two residential dwellings, outbuildings, and associated infrastructure.

The land is significantly modified and primarily cleared, with a collective mixture of exotic vegetation surrounding the existing dwellings.

The native tree population was primarily observed along the Beinda Street frontage, particularly along the Northwestern area of the boundary.

The native species present encompass different stages of growth, comprising immature, semi-mature, and mature individuals of both *Corymbia maculata* (Spotted Gum) and *Glochidion ferdinandi* (Cheese Tree).

Other native species observed throughout the site included *Grevillea robusta* (Silky Oak), *Acacia spp.* (Acacia), *Ficus spp.* (Fig), *Brachychiton acerifolius* (Illawarra Flame Tree), and *Lophostemon confertus* (Brush Box).

The exotic species are a collective mixture of mid-canopy ornamental species and include *Photinia*, *Malus spp.* (Crab Apple), *Lagunaria patersonii* (Norfolk Island Hibiscus) and *Cupressus macrocarpa* (Monterey Cypress).

Several environmental weed species were observed within the study area, including *Ligustrum lucidum* (Broad-leaved Privet), *Pittosporum undulatum* (Sweet Pittosporum), and a single *Syagrus romanzoffiana* (Cocos Palm).

The property boundary has been defined by cadastral datasets extracted from Nearmap aerial imagery and cross-referenced with the NSW Government Planning Portal (Property Report).

For the purposes of this assessment, the combined land area will be referred to as "the site". The extent of the site is denoted in blue, as shown in Figures 1 and 2 and will include all adjacent properties (including public lands) that may be impacted by the proposal.



Figure 1: Area of assessment denoted in blue (NearMaps, 2024).

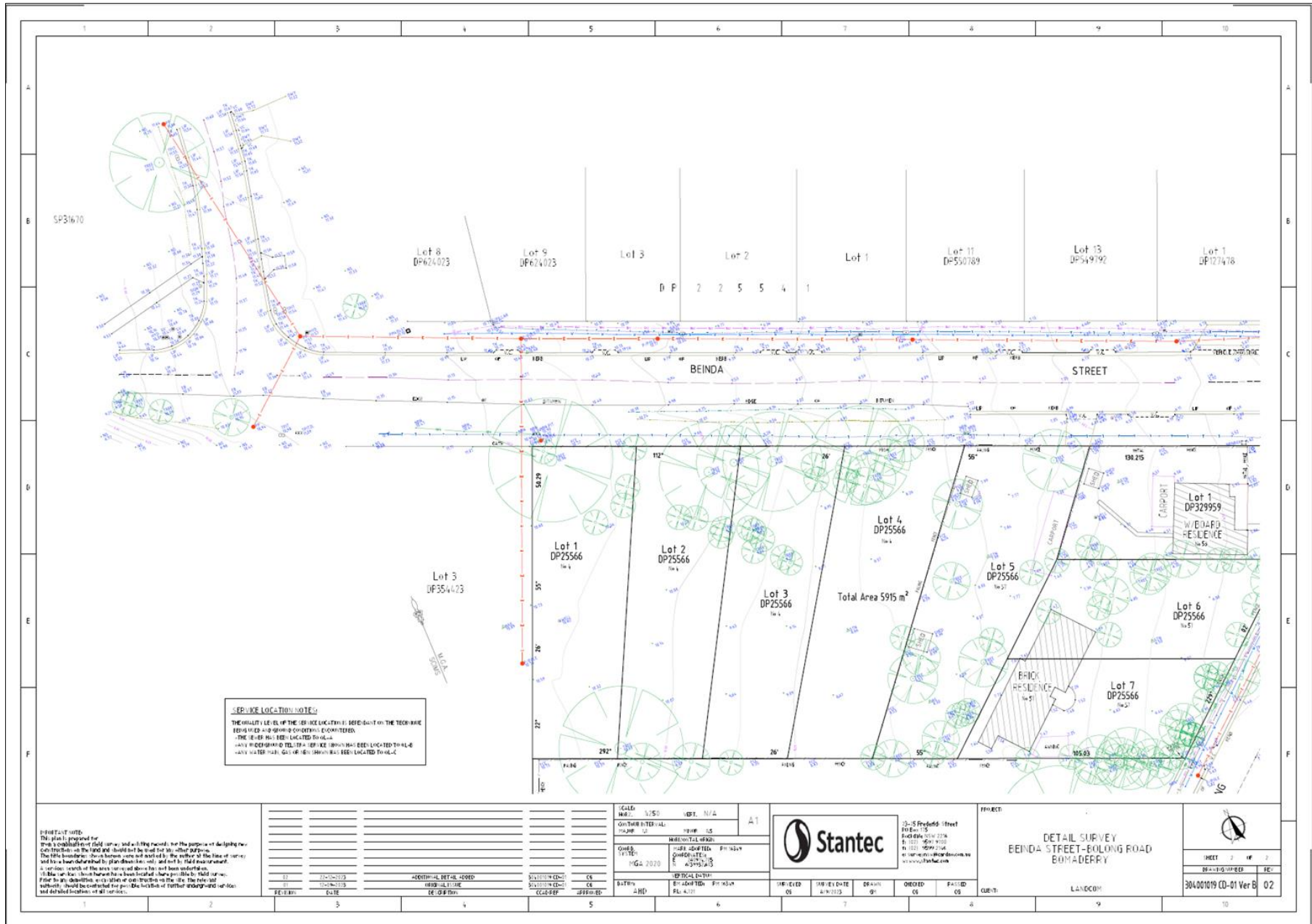


Figure 2: Site Analysis Plan (Stantec, 2024).

6. PROPOSED DEVELOPMENT

The proposal calls for the demolition of the existing residential dwellings and associated infrastructure, selective vegetation removal and earthworks to facilitate the construction of 60 apartments, on-site parking, landscaping, and extensions to public footpaths.

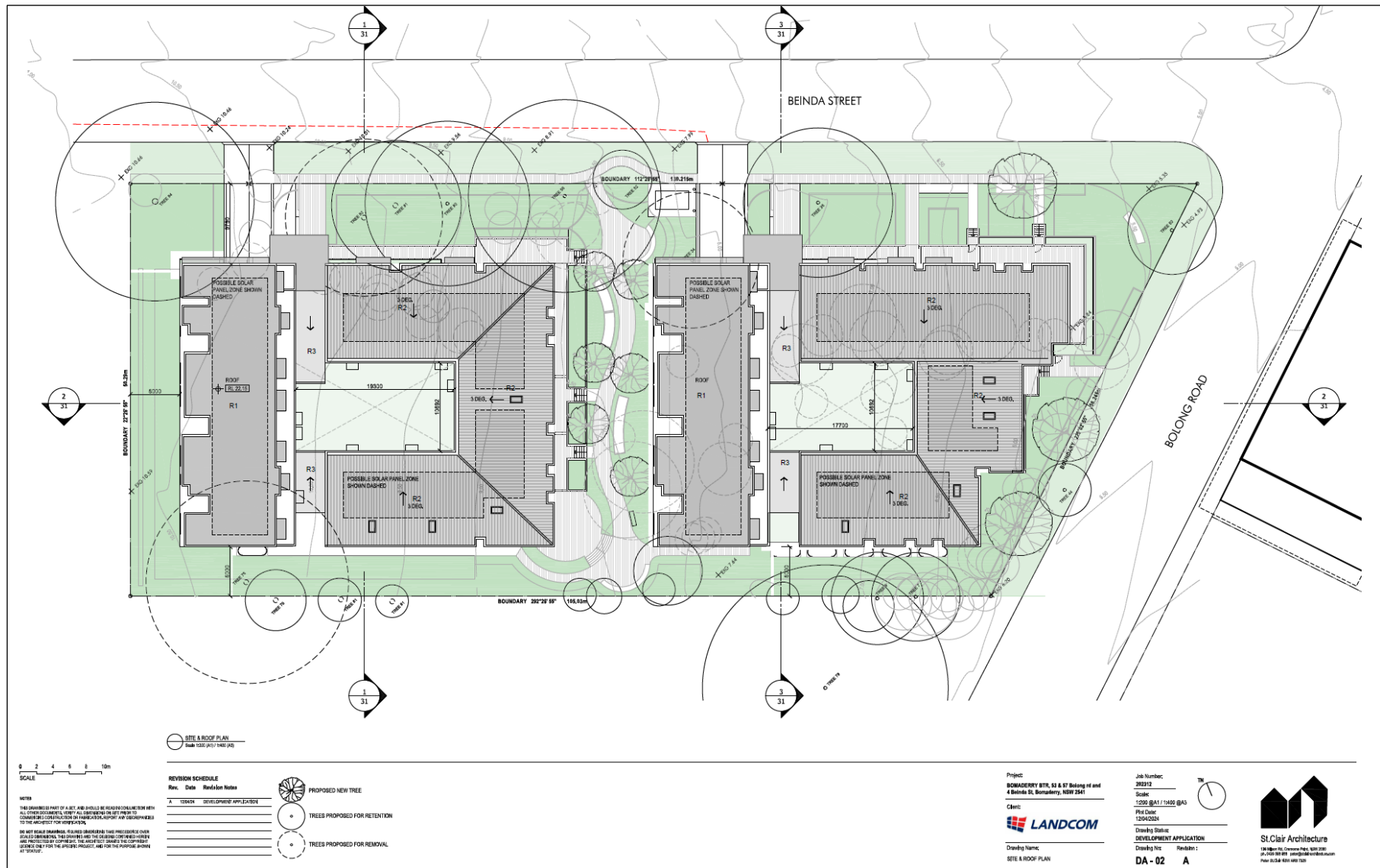


Figure 3: Site and Roof Plan (St Claire Architecture, 2024).

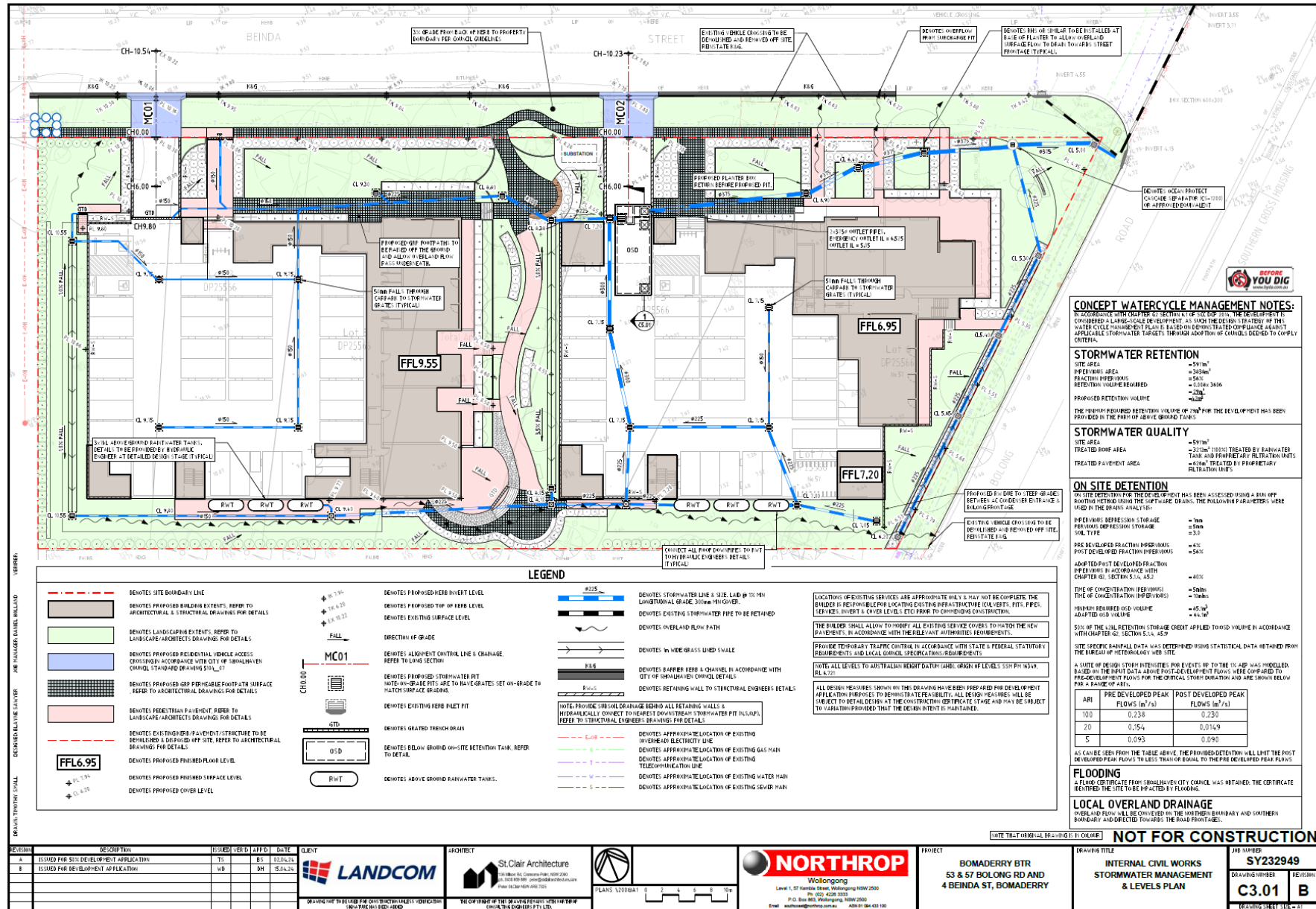


Figure 4: Internal Civil Works and Stormwater Management and Levels Plan (Nothrop, 2024).

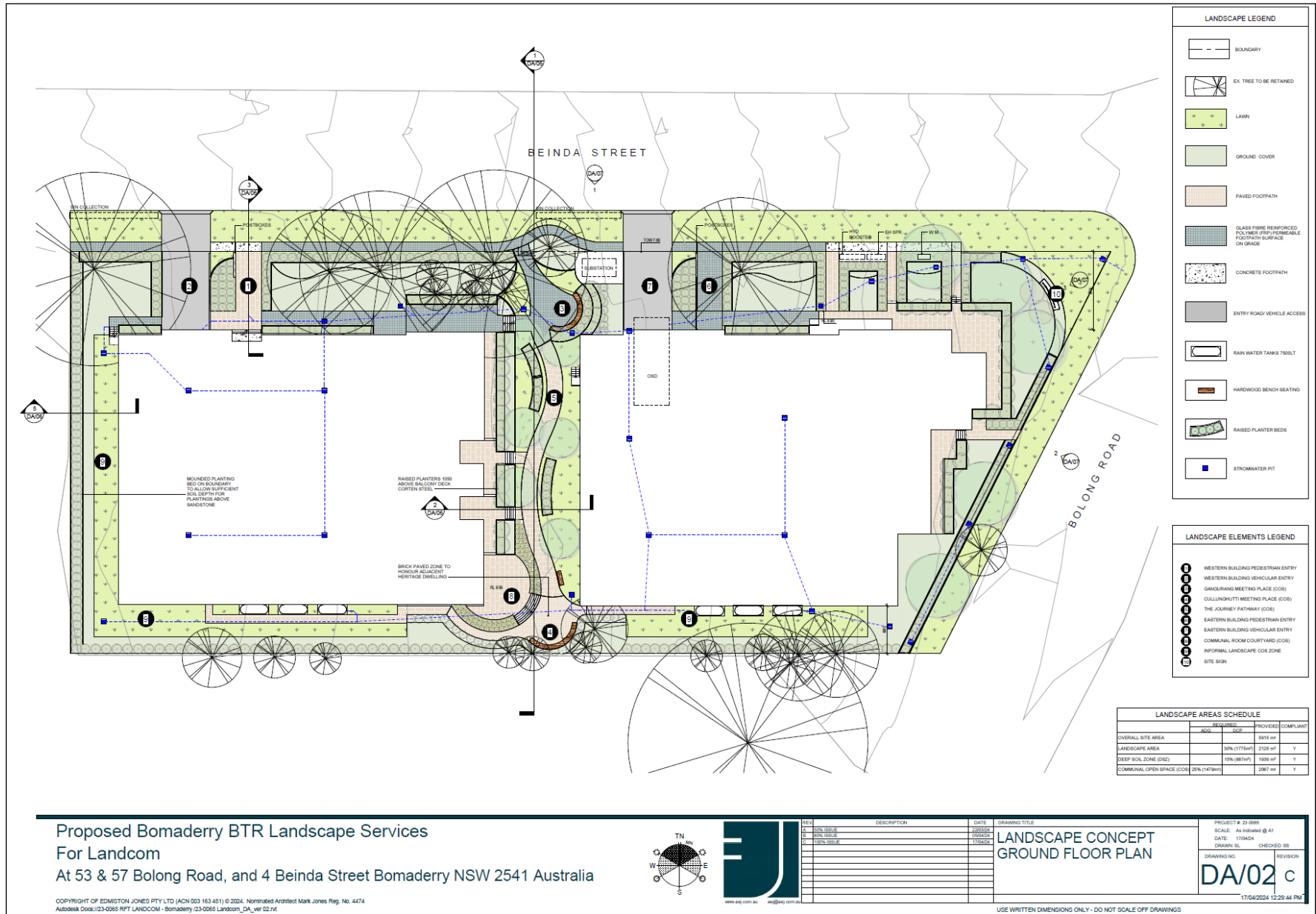


Figure 5: Landscaping Plan (Edmiston Jones, 2024).

7. LEGISLATION REVIEW

A Legislation Review was undertaken to ensure that the recommendations outlined in this report:

- meet the provisions of applicable Federal, State and Local Government environmental legislation;
- comply with all relevant Australian Standards; and
- identify potential non-conformance.

7.1 FEDERAL, STATE AND LOCAL PLANNING REVIEW

At the time of the assessment, the following legislation, environmental planning instruments, publications and mapping tools were applied and form the foundation of the recommendations outlined in this report:

- *Biodiversity Conservation Act 2016*;
- *Environment Planning and Assessment Act, 1979*;
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*;
- *Biosecurity Act, 2015*;
- *National Parks and Wildlife Act 1974 (NPW Act)*;
- *Shoalhaven Local Environmental Plan 2014*;
- *Shoalhaven Development Control Plan*;
- *Planning For Bushfire Protection 2019*;
- *The Central Resource for Sharing and Enabling Environmental Data in NSW (SEED)*;
- *Department of Agriculture, Water and the Environment - A Protected Matters Report*;
- *NSW Planning Portal – Property Report*;
- *Aboriginal Heritage and Information Management System (AHIMS)*; and
- *Biodiversity Values Map and Threshold Tool (BMAT)*.

7.2 STANDARDS REVIEW

At the time of the assessment, the following standards were applied and form the foundation of the recommendations outlined in this report:

- *AS 4970:2009 Protection of Trees on Development Sites*;
- *AS 4373-2007 Pruning of Amenity Trees*;
- *AS 4454-2003 Composts, soil conditioner and mulches*;
- *AS 2303:2018 Tree Stock for Landscape Use*; and
- *Safe Work Australia Guide to Managing Risks of Tree Trimming and Removal Work*.

7.3 DOCUMENT REVIEW

The following plans and documents were utilised and referenced for the preparation of the report:

Table 1: Document Review Schedule

DOCUMENT	AUTHOR	REFERENCE	DATE	VERSION
Detail Survey Revision 2	Stantec	304001019CD-01	08/09/2023	B
Demolition Plan	St Clair Architecture	DA-81	12/04/2024	A
Site and Roof Plan	St Clair Architecture	DA-02	12/04/2024	A
Internal Civil Works Stormwater Management & Levels Plan	Northrop	C3.01	15/04/2024	B
Landscape Concept Ground Floor Plan	Edmiston Jones	DA/02	16/04/2024	C
Flora & Fauna Assessment	Cumberland Ecology	23162RP1	18/04/2024	1 DRAFT
Statement of Heritage Impact	Heritage 21	10193	28/03/2024	1 DRAFT
Aboriginal Heritage Due Diligence Assessment	Kelleher Nightingale Consulting	2327	01/2024	1

8. METHODOLOGY

8.1 FIELD ASSESSMENT

The field assessment was undertaken on 12th and 13th December 2023. Sibone Nadin of Arboriculture Consultancy Australia Pty Ltd assessed Eighty-five (85) individuals or groups of trees.

In accordance with section 2.3.2 of AS 4970:2009, the following data was systematically collected:

- Botanical name and common name;
- Dimensions;
- Canopy (m), crown density and class;
- Age class, health and structure;
- Safe Useful Life Expectancy (SULE) and sub-rating;
- Landscape significance, Retention and Habitat values;
- Tree Protection Zone (TPZ) and Structural Root Zone (SRZ);
- Encroachment values and impact; and
- Comments and results.

All tree data and dimensions were collected using a diameter tape, digital angle app and compass. The author estimated the height.

Trimble GPS survey equipment and software, a Teflon hammer, binoculars, steel probes and a telescopic torch may also be utilised during the field assessment.

All data was digitally recorded in the field, and all photographs were taken by the author at the time of the assessment unless otherwise indicated.

Photographs may be cropped or altered for clarity. The data is presented in a tabulated form in Appendix 1 - Tree Assessment Schedule.

8.2 TREE SPECIES IDENTIFICATION

In some instances, a complete taxonomical identification process is not possible, given mature foliage is not always accessible. The author will specify the genus of the tree in the tree assessment schedule (e.g., *Euc sp.*) Such incomplete identification will have no bearing on the tree protection provisions provided by the author.

8.3 ARBORICULTURAL MERIT

The following methodology describes the author's process to establish the arboricultural merit (value) of trees and provide an understanding of the tree's relative significance in the landscape to determine priorities for retention, removal, and protection (Morton, Determining the Retention Value of Trees, 2003).

8.3.1 VISUAL TREE ASSESSMENT

The physical structure and vigour were evaluated using the Visual Tree Assessment (VTA) procedure by Mattheck and Breloer. The assessment was undertaken from the ground level. Therefore, they will not utilise the employment of any digital diagnostic equipment or electronic equipment of any kind upon the subject tree or trees unless specified.

8.3.2 CROWN CLASS

Crown class is a term used to describe the position of an individual tree in the forest canopy and refers to the bulk of the tree crowns in the size class or cohort being examined. Crown classes are used to generally describe tree vigour, tree form, growing space, and access to sunlight (DeYoung, 2021).

8.3.3 LANDSCAPE SIGNIFICANCE

Landscape Significance has been determined using Morton's Criteria for Determining Landscape Significance.

The Landscape Significance is a combination of the amenity, environmental, and heritage values of the subject tree and other factors that increase or diminish amenity, heritage and environmental values (Morton, Determining the Retention Value of Trees, 2003).

To ensure a consistent approach, the assessment criteria shown in Appendix 2 have been used in this assessment.

8.3.4 SAFE USEFUL LIFE EXPECTANCY (SULE)

SULE and SULE Sub Ratings are determined using an adapted version of Barrell's SULE methodology.

This approach estimates the tree's sustainability in the landscape based on the species' average age, less its estimated current age in an urban environment.

The tree's life expectancy can be further modified to consider the current health, structural integrity, vigour, and suitability to the site (Barrell, 2009).

The criteria for the assessment of SULE are attached in Appendix 3.

8.3.5 RETENTION VALUE

Retention Value is a combination of the Landscape Significance values (heritage, ecological and amenity value) together with the estimated SULE. This method provides a consistent approach when determining trees' Retention Values.

The Retention Value rating is further applied to each tree to assist in determining priorities for retention, removal, and protection (Morton, Determining the Retention Value of Trees, 2003).

The Retention Value Matrix is attached in Appendix 3.

8.4 TREE PROTECTION ZONES

The Tree Protection Zone (TPZ) is a radial distance measured from the centre of the tree's trunk. The Tree Protection Zone (TPZ) is a combination of the crown and root area that requires protection and restricted access during the construction phase.

8.4.1 STRUCTURAL ROOT ZONES

The Structural Root Zone (SRZ) is the critical support area of a tree's root system. This area is to be protected and restricted during the construction phase. Any works that alters the SRZ or damage the roots will lead to the tree's destabilisation and failure.

8.4.2 TPZ & SRZ IMPACT CATEGORIES

The following categories define the levels of encroachment into a Tree Protection Zone (TPZ):

- **NO IMPACT**

There is no encroachment within the TPZ of the subject tree. No further investigation is required.

- **MINOR IMPACT**

The proposed encroachment is less than 10% (total area) of the TPZ and outside the SRZ. No further investigation is typically required. The area lost to encroachment should be compensated elsewhere.

- **MAJOR IMPACT**

The proposed encroachment is greater than 10% (total area), and the SRZ may be impacted. Passive construction techniques may be used for minor works within this area, provided that the area within the structural root zone is not impacted. Exploratory excavation using non-destructive methods may be required to evaluate the extent of the root system.

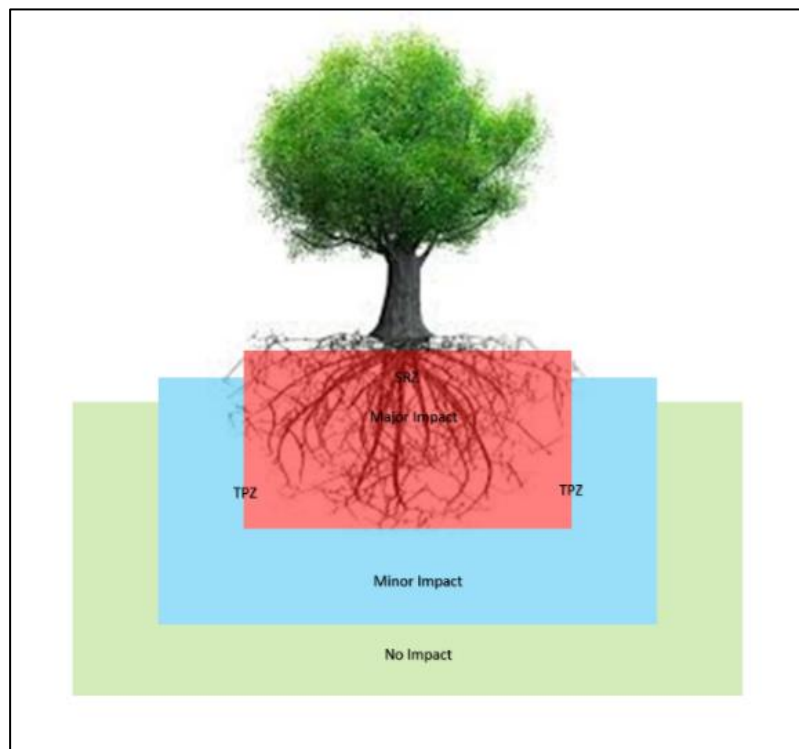


Figure 6: Impact Zones (Nadin, 2024).

9. LEGISLATIVE REVIEW RESULTS

9.1 CONSENT AUTHORITY

The site has been assessed under the provisions of the *State Environmental Planning Policy (Biodiversity & Conservation) 2021*. This policy applies to land zoned R3 within the Local Government Area of the City of Shoalhaven.

Removal of or any actions regarding the subject trees is not permitted without consent from Shoalhaven City Council.

It is incumbent on the property owner to seek all appropriate approvals prior to any tree works within the subject site. The recommendations outlined in this report are **not** an assurance of removal or retention.

9.2 ENVIRONMENTAL SIGNIFICANCE

To aid in the environmental assessment of ecological communities, all ecological communities have key diagnostic characteristics and condition thresholds. These characteristics and conditions determine whether the referral, assessment, approval and compliance provisions are likely to apply.

Where an endangered ecological community has been identified, the author will use the key indicator species of the ecological community to apply the appropriate Landscape Significance rating to the site trees.

A Protected Matters search was undertaken using the Australian Government - Department of Agriculture, Water and the Environment Protected Matters Search Tool.

The search has identified that the following four (4) endangered or critically endangered ecological communities *may* occur in the study area:

- *Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community;*
- *Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland;*
- *Illawarra and south coast lowland forest and woodland ecological community; and*
- *River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria.*

Following the identification that the study area is potentially mapped as containing an ecological community, Cumberland Ecology has undertaken further assessment.

The assessment findings will be used as a foundation for determining the Landscape Significance rating of the tree population and assist in decision-making regarding the conservation and management of the tree population.



Figure 7: SEED Map Search Result (NSW Government, 2024).

9.3 CULTURAL SIGNIFICANCE

It is an offence to harm or desecrate an Aboriginal object or declared Aboriginal Place. Therefore, it is incumbent on the property owner to ensure any works on this subject site do not modify, harm or desecrate a declared Aboriginal Place without an Aboriginal Heritage Impact Permit issued under the National Parks and Wildlife Act 1974 (NPW Act).

To ensure due diligence, the author conducted a search prior to the site assessment using the Office of the Environment and Heritage Aboriginal Heritage Information Management System (AHIMS). The search parameters were extended to include a 200 m buffer surrounding the site. No Aboriginal heritage was identified within 200 meters of 4 Beinda Street, Bomaderry, NSW 2541.

Further review of the Aboriginal Heritage Due Diligence Assessment, prepared by Kelleher Nightingale Consulting Pty Ltd, confirmed in section 1.3 Summary and Findings: "*The due diligence assessment and associated visual inspection of the proposed works did not identify any Aboriginal archaeological sites, objects, or areas of archaeological potential within the study area*" (Kelleher Nightingale Consulting, 2024).

Based on the findings derived from the AHIMS results and the Due Diligence Assessment, the author will provide recommendations for tree management, including potential removal where deemed appropriate in accordance with relevant regulations and guidelines.

9.4 HERITAGE AND COMMEMORATIVE SIGNIFICANCE

The State Heritage Inventory under the Heritage Act 1977 holds information about protected heritage items in NSW. Items which are of State Significance are listed on the State Heritage Register. The site is not listed, nor is it located in the vicinity of any State Heritage items.

The author reviewed Schedule 5 of the *Shoalhaven Local Environmental Plan 2014*. The site is not situated in a Heritage Conservation Precinct, nor does it contain a heritage item.

However, the author acknowledges the site's proximity to "Greenleaves" – a residence and garden of local heritage significance.

On 18th April 2024, a search was conducted on the National Trust of Australia's Register of Significant Trees. The site trees were not listed on the register, and no historical reference or evidence was found to suggest that the subject site tree population constitutes a commemorative planting.

A further review of section 7.2 General Conclusion of the Statement of Heritage Impact, prepared by Heritage 21, concluded that "*Heritage 21 is therefore confident that the proposed development complies with pertinent heritage controls and would engender neutral impact on the heritage significance of the subject site and the heritage item located in the vicinity of the site*" (Heritage 21, 2024).

9.5 KOALA HABITAT PROTECTION

State Environmental Planning Policy (Biodiversity and Conservation) 2021 aims to encourage the conservation and management of natural vegetation areas that provide habitat for Koalas to support a permanent free-living population over their present range and reverse the current trend of Koala population decline.

This policy is applicable to the Local Government Area (LGA) of the City of Shoalhaven.

However, given that the subject site is less than one (1) hectare in size and there is no approved Koala Management Plan (KPOM) in place, it is understood that no further action or application of this policy is required.

9.6 WILDLIFE & HABITAT

The Flora and Fauna Assessment conducted by Cumberland Ecology identified hollow-bearing trees T56, T75, T80, and T82 within the project area. The management of these hollow-bearing trees during both the demolition and construction phases must be undertaken in accordance with the pre-clearing and clearing surveys outlined by Cumberland Ecology.

These measures are essential for ensuring the protection and preservation of fauna species throughout the project's development stages.

9.7 BIODIVERSITY OFFSET SCHEME (BOS) THRESHOLD

The Biodiversity Offsets Scheme (BOS) Threshold is used to determine when an accredited assessor will be required to determine the impacts of a proposal.

The *Biodiversity Conservation Regulation 2017* sets out threshold levels for when the BOS applies. The threshold has two elements:

- whether the amount of native vegetation being cleared exceeds a threshold area, or
- whether the impacts occur on an area mapped on the Biodiversity Values Map.

The author reviewed the Flora and Fauna Assessment prepared by Cumberland Ecology. Based on the report's findings, the proposed clearing is below the 0.25 hectare clearing threshold and entry into the BOS will not be triggered.

Based on pre-lodgement discussions with Shoalhaven City Council (Council), it was determined that the areas identified as exotic-dominated grasslands within the subject land could likely be excluded from the areas assessed as native vegetation. On this basis, the Project would only require the clearing of approximately 0.17 ha, and therefore not trigger entry into the BOS (Cumberland Ecology, 2024).

9.8 BUSHFIRE PRONE LAND

The *NSW Rural Fire Service Document Planning for Bush Fire Protection 2019* (PBP) provides the development standards for designing and building on bushfire-prone land in New South Wales.

In accordance with section 4.14 of the *Environmental Planning and Assessment Act 1979*, all Development Applications on bushfire-prone land must meet the requirements of PBP 2019.

The subject site has not been identified as bushfire-prone land by the NSW Rural Fire Service; therefore, the author will not consider the requirements of the PBP 2019 when determining the impact of the proposal.

9.9 BIOSECURITY DUTY

All plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose.

Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable (NSW Legislation, 2015).

Under the *Biosecurity Act 2015*, *Ligustrum lucidum* (Broad-leaved Privet), *Pittosporum undulatum* (Sweet Pittosporum), and *Syagrus romanzoffiana* (Cocos Palm) are classified as weed species.

To address potential biosecurity risks, it is advised that these trees be recommended for removal, irrespective of the proposed development footprint.

This measure aims to prevent, eliminate, or minimise the identified biosecurity hazards.

10. FIELD RESULTS
 10.1 TREE LOCATION AND TPZ INCURSION PLAN (NearMap Overlay)

GPS plotting and GIS software were used in conjunction with the site survey to create the tree location plan.

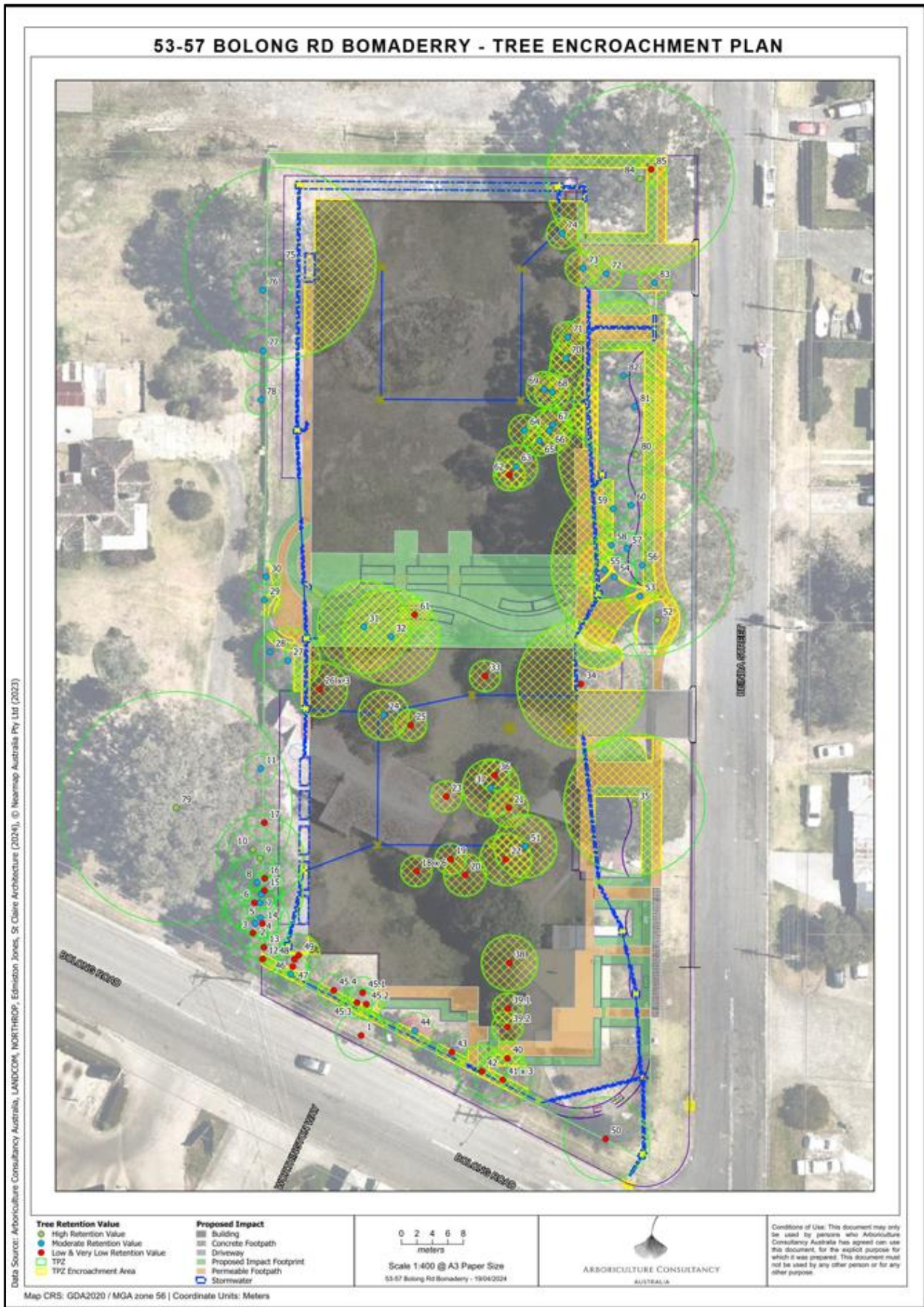


Figure 8: TPZ Incursion Plan- Overlaid by the author (NearMaps, 2024).



Figure 9: TPZ Incursion Plan- Overlaid by the author (NearMaps, 2024).

10.2 IMPACT SUMMARY

For ease of interpretation, the following summary identifies impacted trees to be removed, or retained, and protected. The data is presented in a tabulated form in Appendix 1 - Tree Assessment Schedule.

As per section 3.3.4 of AS 4970:2009, if the author can demonstrate that the percentage of encroachment is acceptable, the tree may be retained.

If the author cannot demonstrate that the tree will remain viable, the tree will require removal.

Table 2: Impact Schedule

TREE NO.	TYPE	RETENTION VALUE	LIKELY IMPACT	INCURSION %	RESULT
1	NATIVE	LOW	MINOR < 10%	8.89%	REMOVE
2	KOALA USE SPECIES	MODERATE	MINOR < 10%	0.23%	RETAIN & PROTECT
7	EXOTIC	MODERATE	MINOR < 10%	2.86%	RETAIN & PROTECT
9	KOALA USE SPECIES	HIGH	MINOR < 10%	1.55%	RETAIN & PROTECT
12	EXOTIC	VERY LOW	MAJOR > 10%	21.70%	REMOVE
13	EXOTIC	VERY LOW	MINOR < 10%	8.71%	REMOVE
18 (x6)	WEED SPECIES	VERY LOW	MAJOR > 10%	100.00%	REMOVE
19	WEED SPECIES	VERY LOW	MAJOR > 10%	100.00%	REMOVE
20	WEED SPECIES	VERY LOW	MAJOR > 10%	100.00%	REMOVE
21	EXOTIC	VERY LOW	MAJOR > 10%	100.00%	REMOVE
22	WEED SPECIES	VERY LOW	MAJOR > 10%	100.00%	REMOVE
23	NATIVE	LOW	MAJOR > 10%	100.00%	REMOVE
24	NATIVE	MODERATE	MAJOR > 10%	100.00%	REMOVE
25	WEED SPECIES	LOW	MAJOR > 10%	100.00%	REMOVE
26 (x3)	EXOTIC	LOW	MAJOR > 10%	93.75	REMOVE
27	NATIVE	MODERATE	MAJOR > 10%	47.83%	REMOVE
28	KOALA USE SPECIES	MODERATE	MAJOR > 10%	13.11%	RETAIN & PROTECT
29	NATIVE	MODERATE	MAJOR > 10%	30.28%	REMOVE
30	NATIVE	MODERATE	MAJOR > 10%	29.18	REMOVE
31	EXOTIC	MODERATE	MAJOR > 10%	100.00%	REMOVE
32	EXOTIC	MODERATE	MAJOR > 10%	100.00%	REMOVE
33	EXOTIC	LOW	MAJOR > 10%	100.00%	REMOVE
34	NATIVE	LOW	MAJOR > 10%	81.42%	REMOVE
35	NATIVE	HIGH	MAJOR > 10%	49.77	RETAIN & PROTECT
36	WEED SPECIES	VERY LOW	MAJOR > 10%	100.00%	REMOVE
37	NATIVE	MODERATE	MAJOR > 10%	100.00%	REMOVE
38 (x3)	EXOTIC	LOW	MAJOR > 10%	100.00%	REMOVE

TREE NO.	TYPE	RETENTION VALUE	LIKELY IMPACT	INCURSION %	RESULT
39.1	WEED SPECIES	LOW	MAJOR > 10%	100.00%	REMOVE
39.2	WEED SPECIES	LOW	MAJOR > 10%	100.00%	REMOVE
40	WEED SPECIES	LOW	MAJOR > 10%	79.25%	REMOVE
41 (x3)	EXOTIC	LOW	MAJOR > 10%	42.70%	REMOVE
42	EXOTIC	LOW	MAJOR > 10%	53.65%	REMOVE
43	WEED SPECIES	LOW	MAJOR > 10%	39.56%	REMOVE
44	NATIVE	MODERATE	MAJOR > 10%	32.37%	REMOVE
45.1	NATIVE	LOW	MAJOR > 10%	10.82%	REMOVE
45.2	NATIVE	LOW	MAJOR > 10%	42.14%	REMOVE
45.3	NATIVE	LOW	MAJOR > 10%	38.21%	REMOVE
45.4	NATIVE	LOW	MAJOR > 10%	37.83%	REMOVE
46	NATIVE	MODERATE	MAJOR > 10%	35.83%	REMOVE
47	NATIVE	LOW	MAJOR > 10%	38.40%	REMOVE
48	WEED SPECIES	LOW	MAJOR > 10%	25.03%	REMOVE
49	NATIVE	LOW	MAJOR > 10%	26.51%	REMOVE
50	WEED SPECIES	LOW	MINOR < 10%	2.54%	REMOVE
51	WEED SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
52	KOALA USE SPECIES	HIGH	MAJOR > 10%	33.22%	RETAIN & PROTECT
53	KOALA USE SPECIES	MODERATE	MAJOR < 10%	64.99%	REMOVE
54	KOALA USE SPECIES	MODERATE	MAJOR > 10%	18.39%	RETAIN & PROTECT
55	KOALA USE SPECIES	MODERATE	MAJOR > 10%	49.81%	REMOVE
56	KOALA USE SPECIES	MODERATE	MAJOR > 10%	42.64%	RETAIN & PROTECT
57	KOALA USE SPECIES	MODERATE	MINOR < 10%	1.12%	RETAIN & PROTECT
58	KOALA USE SPECIES	MODERATE	MAJOR > 10%	55.29%	REMOVE
59	KOALA USE SPECIES	MODERATE	MAJOR > 10%	48.96%	REMOVE
60	KOALA USE SPECIES	MODERATE	MAJOR < 10%	4.31%	RETAIN & PROTECT
61	WEED SPECIES	LOW	MAJOR > 10%	100.00%	REMOVE
62	NATIVE	LOW	MAJOR > 10%	100.00%	REMOVE
63	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
64	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
65	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
66	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
67	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
68	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE

TREE NO.	TYPE	RETENTION VALUE	LIKELY IMPACT	INCURSION %	RESULT
69	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
70	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
71	KOALA USE SPECIES	MODERATE	MAJOR > 10%	99.96%	REMOVE
72	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
73	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
74	KOALA USE SPECIES	MODERATE	MAJOR > 10%	100.00%	REMOVE
75	KOALA USE SPECIES	HIGH	MAJOR > 10%	31.49%	REMOVE
80	KOALA USE SPECIES	HIGH	MAJOR > 10%	38.80%	RETAIN & PROTECT
81	KOALA USE SPECIES	MODERATE	MAJOR > 10%	33.22%	RETAIN & PROTECT
82	KOALA USE SPECIES	MODERATE	MAJOR > 10%	55.76%	REMOVE
83	KOALA USE SPECIES	MODERATE	MAJOR > 10%	88.63%	REMOVE
84	KOALA USE SPECIES	HIGH	MAJOR > 10%	27.55%	RETAIN & PROTECT
85	KOALA USE SPECIES	LOW	MAJOR > 10%	78.88%	REMOVE

11. OBSERVATIONS AND DISCUSSION

11.1 The primary objective was to determine the arboricultural merit (value) of the tree population on-site and retain High Retention Valued and Hollow Bearing (HB) Trees, where feasible, and provide adequate setback to retain the existing dominant canopy trees along the Beinda Street boundary.

Additionally, there was an emphasis on avoiding impact on the tree population located within the curtilage of the adjoining property known as "Greenleaves," a residence and garden of local heritage significance.

11.2 Subject T1 and T50 are situated on the verge of Bolong Road. T1 is a small *Callistemon* (Bottlebrush), and T50 is a locally listed weed species, *Ligustrum lucidum* (Broad-leaved Privet). Both specimens have been poorly pruned to facilitate powerline and pedestrian clearance (Figure 10).

T1 is impacted by 8.89%, and T50 is impacted by 2.54% from the proposed landscaping and stormwater. While the author acknowledges that the subject trees are public assets and could be retained using trenchless construction methodology (underboring), they are rated as having a Low Retention Value and are not suitable specimens given their conflict with the powerlines and pedestrian access.

Irrespective of the proposed development footprint, the author recommends removing the subject trees.



Figure 10: T1 (L) and T50 (R) Located on Bolong Road (Nadin, 2024).

11.3 The tree population on the adjoining boundary of 59 Bolong Street, "Greenleaves", comprises a collective mixture of exotic and native species. An adequate setback of 6m has been incorporated into the design to ensure the proposal does not adversely impact the neighbouring trees, particularly T79, a prominent, High Retention Value *Corymbia maculata* (Spotted Gum).

T2, T7, and T9 are impacted by less than 3% from the construction of a portion of the wastewater system and rainwater tanks.

This impact is considered minor under the provisions of *AS 4970:2009 Protection of Trees on Development Sites*; however, the proposal will necessitate the removal of the existing fence and site trees and the demolition of existing buildings.

Tree protection conditions have been prescribed to protect the trees, ensuring both the canopy and the roots remain undamaged during the project's demolition, tree removal, and construction phases. Subject to the Tree Protection conditions being adhered to as prescribed, the author is satisfied that the following neighbouring trees will remain sustainable:

- T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T76, T77, T78, and T79.

11.4 The proposal includes two buildings separated by a green spine for pedestrian access and communal outdoor space.

The required earthworks, development footprint, and wastewater works will adversely impact the following site trees:

- T18 (x6), T19, T20, T21, T22, T23, T24, T25, T26 (x3), T27, T29, T30, T31, T32, T33, T34, T36, T37, T38 (x3), T39.1, T39.2, T51, T53, T55, T58, T59, T61, T62, T63, T64, T65, T66, T67, T68, T69, T70, T71, T72, T73, T74, T83 and T85.

These subject trees comprise a mixture of poorly maintained weed and exotic species such as *Ligustrum lucidum* (Broad-leaved Privet), *Cupressus macrocarpa* (Monterey Cypress), *Syagrus romanzoffiana* (Cocos Palm) and *Photinia spp.*

The native species include self-seeded *Glochidion ferdinandi* (Cheese Tree), semi-mature *Corymbia maculata* (Spotted Gum), and *Grevillia robusta* (Silky Oak).

The subject trees have been classified according to their Retention Value, which ranges from Very Low to Moderate.

This Retention Value is primarily influenced by their weed status, semi-mature age class, low landscape significance, and short SULE (Safe Useful Life Expectancy) ratings.

The author is satisfied that the subject trees do not necessitate a design review and that the proposed landscaping plan adequately compensates for their removal.



Figure 11: T26 x3 (L) and T37 (R) are to be removed (Nadin, 2023).

11.5 The mature and dominant *Corymbia maculata* (Spotted Gum), identified as T82, situated on the Beinda Street boundary, is noted as a hollow-bearing tree (HB).

Under the current proposal, the Tree Protection Zone (TPZ) is subject to a major impact of 55.76% from the excavation, building footprint, stormwater, and driveway construction. Additionally, approximately 15% of the Southern canopy will require removal due to the height of the proposed residential building.

The author acknowledges that the subject tree is hollow-bearing and dominant, noting that retention could be achieved by utilising passive construction methodology or an alternative design.

However, a wound with bracket fungus was observed at the base, diminishing the sustainability of the specimen and reducing its' typically High Retention Value to Moderate. The author has not requested a design review to retain the subject tree.



Figure 12: Basal wound and bracket fungus observed in T82 (Nadin, 2023).

11.6 The proposed building footprint does not affect the following trees; however, they are impacted landscaping, a portion of the stormwater along Beinda Street and a portion of the Bolong Road boundary.

Theoretically, the author could retain the subject trees by implementing trenchless construction methodology (underboring); however, these trees are a mixture of landscaped trees and self-seeded trees that have not been maintained or poorly pruned due to a conflict with the overhead powerline (Figure 13).

- The subject trees, namely T12, T13, T14, T15, T16, T17 T40, T41 (x3), T42, T43, T44, T45.1, T45.2, T45.3, T45.4, T46, T47, T48 and T49.

The species comprise a mix of *Photinia spp.* (Photina), *Pittosporum undulatum* (Sweet Pittosporum), *Ligustrum lucidum* (Broad-leaved Privet), self-seeded *Glochidion ferdinandi* (Cheese Tree), and one small *Brachychiton acerifolius* (Illawarra Flame Tree).

The subject trees have been classified according to their Retention Value, which ranges from Very Low to Low.

This Retention Value is primarily influenced by their weed status, semi-mature age class, low landscape significance, and short SULE (Safe Useful Life Expectancy) rating.

The author is satisfied that the subject trees do not necessitate a design review and that the proposed Landscaping Plan adequately compensates for their removal.



Figure 13: Tree population along the Bolong Road frontage (Nadin, 2023).

11.8 The mature and dominant *Corymbia maculata* (Spotted Gum), identified as T75, is noted as a hollow-bearing tree (HB).

Under the current proposal, the Tree Protection Zone (TPZ) is subject to a major impact of 31.49% from the excavation, stormwater, and building footprint. Additionally, approximately 30% of the Northern side of the canopy will require removal due to the height of the proposed residential building.

The author acknowledges that all reasonable efforts to redesign the project while considering tree preservation have been exhausted. Despite diligent efforts, avoiding the Tree Protection Zone (TPZ) while meeting the residential requirements of the project remains unfeasible.



Figure 14: T75 (Hollow Bearing) (Nadin, 2023).

11.9 T35, a mature and dominant *Lophostemon confertus* (Brush Box), T52 (verge tree), T54, T56 (HB), T57, T60, T80 (HB), T81, and T84, all *Corymbia maculata* (Spotted Gum) are situated along the Beinda Street boundary.

Theoretically, the subject trees are impacted between 4.31% and 49.77% by the construction of the building footprint, stormwater, and landscaping.

Typically, impacts over 10% may necessitate removal of the tree. However, the author has proposed passive measures to reduce and mitigate the impact.

These measures include ensuring an adequate setback of 9.750 meters for the building, as well as minimizing the cut-and-fill activities beyond the building footprint within the Tree Protection Zone (TPZ), redirecting the stormwater or utilizing underboring techniques within the TPZ of the subject trees, constructing retaining walls above grade and constructing the footpaths using at-grade, Polymer (FRP) Permeable material.

The author is satisfied that the subject trees will remain sustainable if these tree protection provisions are adhered to as prescribed.



Figure 15: Mature dominant trees along the Beinda Street frontage (Nadin, 2023).

11.10 T17, T28, T57, and T60 are subject to no or a minor impact (under 10%) from the Landscaping Plan. The author is satisfied that the subject trees will remain sustainable, subject to the prescribed Tree Protection Conditions in Appendix 4.

11.11 The author is satisfied that the proposed development has largely achieved its objectives by preserving sustainable High Retention Value and Hollow Bearing Trees, with the exception of T75.

The inability to retain T75 stems from the considerable size of its Tree Protection Zone (TPZ), which covers a significant portion of the site. Despite diligent efforts to accommodate its preservation, the constraints imposed by the TPZ made retention unfeasible.

Furthermore, the author acknowledges that exhaustive attempts were made to redesign the project while prioritizing tree preservation and affirms that all reasonable measures were taken to address tree preservation within the project's constraints.

In summary:

- 1 High Retention Value tree is impacted and not retainable.
- 25 Moderate Retention Value trees are impacted and not retainable.
- 30 Very Low to Low Retention Value trees are impacted and not retainable.

- 7 High Retention Value trees are retainable subject to the prescribed protection measures.
- 14 Moderate Retention Value trees are retainable subject to the prescribed protection measures.
- 2 Very Low to Low Retention Value trees are retainable subject to the prescribed protection measures.

12. RECOMMENDATIONS

The following recommendations are based on the plans specified in section 7.3 – Document Review and observations made on the day of assessment. The author cannot comment on subsequent revisions and design alterations which have not been provided for review.

12.1 CONSENT AUTHORITY

Consent from the Shoalhaven City Council must be obtained prior to the pruning or removal of any trees on the site. Upon issue of development consent, the tree management conditions must be carefully reviewed.

The recommendations outlined in this report are **not** an assurance of removal or retention.

12.2 TREES REQUIRING REMOVAL UNDER THE CURRENT PROPOSAL

The following sixty-nine (69) trees are subject to a major encroachment and are not retainable under the current proposal:

T12, T18 (x6), T19, T20, T21, T22, T23, T24, T25, T26(x3), T27, T29, T30, T31, T32, T33, T34, T36, T37, T38 (x3), T39.1, T39.2, T40, T41 (x3), T42, T43, T44, T45.1, T45.2, T45.3, T45.4, T46, T47, T48, T49, T51, T53, T55, T58, T59, T61, T62, T63, T64, T65, T66, T67, T68, T69, T70, T71, T72, T73, T74, T75, T82, T83 and T85.

12.3 TREES RETAINABLE UNDER THE CURRENT PROPOSAL

The following twenty-four (24) trees are retainable subject to the prescribed Tree Protection Conditions in Appendix 4.

T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T28, T35, T52, T54, T56, T57, T60, T76, T77, T78, T79, T80, T81 and T84.

12.4 ADDITIONAL TREES RECOMMENDED FOR REMOVAL

The following seven (7) trees are retainable under the current proposal; however, irrespective of the proposed development footprint, they are recommended for removal as they are environmental weed species.

T1, T13, T14, T15, T16, T17, and T50.

12.5 REMEDIAL WORKS

Any remedial maintenance works should be performed in accordance with *Section 7.2 Crown Maintenance of AS: 4373-2007 Pruning of Amenity Trees* and performed by an AQF level III Arborist.

12.6 TREES RECOMMENDED FOR REPLACEMENT

The author has reviewed the proposed landscaping plan and plant schedule prepared by Edmiston Jones and is satisfied that the proposed landscaping plan will adequately compensate for any ecological or amenity loss associated with the required tree removal.

In addition, the author is satisfied that the species selection is consistent with the existing character and streetscape of the surrounding area and will enhance the visual amenity of the site and surrounding streetscape.

12.7 PROJECT ARBORIST

Prior to the commencement of any civil works, a Project Arborist, holding a minimum Australian Qualification Framework Level 5 (AQF5) as a Consulting Arborist, must be appointed to oversee any activities within the Tree Protection Zones of the subject trees.

The Project Arborist is responsible for supervising and inspecting works as recommended in this report or as specified in any Conditions of Consent associated with the approved development application.

Upon completion of the works, including any remediation measures, the Project Arborist must provide the Council with Compliance Certification, guaranteeing activities comply with regulatory requirements and prescribed standards.

12.8 PROTECTION OF NEIGHBOURING TREES

During the demolition and construction phases of the project, neighbouring trees along the boundary of 59 Bolong Street, Bomaderry, must be adequately protected.

This directive encompasses trees T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T76, T77, T78, and T79.

To ensure the preservation of these trees, the boundary fence within the Tree Protection Zone (TPZ) of the designated trees must be manually removed to prevent damage to their canopies and roots.

Trees adjacent to those within the site are to be cut down to ground level, and the stumps are to be removed by grubbing, employing methods that prevent damage to the integrated root systems.

Supervising all activities within the TPZ of the designated trees falls under the responsibility of the project arborist. They are tasked with advising on any necessary remedial pruning or works to safeguard the trees. Compliance Certification demonstrating adherence to these conditions will be provided to the Council.

12.9 CONSTRUCTION WORKS AND TREE REMOVAL

During the excavation, tree removal and construction phases of the project, the subject trees along the Beinda Road must be adequately protected.

This directive encompasses trees TPZ of T35, T52, T53, T54, T55, T56, T57, T58, T59, T80, T81, T82 and T84.

All stormwater management within their Tree Protection Zones (TPZ) will be constructed manually or using trenchless construction methodology (underboring).

Trees adjacent to those within the site are to be cut down to ground level, and the stumps are to be removed by grubbing, employing methods that prevent damage to the integrated root systems and the canopies of adjacent trees.

Supervising all activities within the TPZ of the designated trees falls under the responsibility of the project arborist. They are tasked with advising on any necessary remedial pruning or works to safeguard the trees. A Compliance Certification demonstrating adherence to these conditions will be provided to the Council.

12.10 TREE PROTECTION WORKS

As a condition of consent, all trees approved for removal must be marked on-site and recorded in the Tree Location Plan.

Prior to any tree removal, both the project arborist and site manager must verify that all marked trees align with those identified in section 10.1 - Tree Location and Tree Protection Zone (TPZ) Incursion Plan.

Establishing an exclusion zone along the perimeters of the TPZ for the subject trees is imperative before any work begins. TPZ fencing should be installed around these zones in adherence to AS 4373:2007.

Any deviations from the designated design, type of fencing, or movement of the TPZ fencing are strictly prohibited unless authorised by the project arborist.

Further, more detailed tree protection conditions are outlined in Appendix 4, Tree Protection Conditions. These measures must be adhered to and for part of the Conditions of Consent.

13. CONCLUSION

This Arboricultural Impact Assessment has been prepared for the proposed residential development of 53-57 Bolong Road and 4 Beinda Street, Bomaderry NSW 2541.

- Seventy (76) trees are adversely impacted or recommended for removal under the current proposal.
- Twenty-four (24) individual trees and all neighbouring trees are retainable under the current proposal.

Tree Protection Conditions have been prepared in accordance with *Australian Standard AS 4970-2009 Protection of Trees on Development Sites*.

Subject only to the Tree Protection Conditions being implemented as prescribed, the author is satisfied that all retained trees will remain sustainable.

The author is satisfied that all alternatives to reduce and mitigate the impact, where feasible, have been considered, and all recommendations made by the author to reduce the impact have been adopted.

The author is also satisfied that the proposed landscaping plan will adequately compensate for any ecological loss from the required tree removal and improve the visual amenity of the site and surrounding streetscape.



Sibone Nadin *Dip. (Arboriculture) AQF Level 5*

Principal Arborist

Arboriculture Consultancy Australia

18th April 2024.

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APPENDIX 1: TREE ASSESSMENT SCHEDULE

Table 3: Tree Assessment Data – 12th and 13th December 2023.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
					NORTH	SOUTH	EAST	WEST																				
1	ROADSIDE VERGE	<i>Callistemon</i>	Bottlebrush	< 5m	1.5	1.5	1.0	1.0	PARTIAL 40 - 85%	CO-DOMINANT	0.270	0.390	NATIVE	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	5. LOW	LOW	NO HABITAT SIGHTED	3.24	2.23	MINOR < 10%	8.89%	MULTIPLE IMPACTS	The subject tree has been poorly pruned for power line clearance.	REMOVE. Irrespective of the proposed development footprint, the subject tree deviates from its typical form and detracts from the amenity of the site.
2	NEIGHBOURING PROPERTY	<i>Corymbia maculata</i>	Spotted Gum	12	6.0	6.0	4.0	6.0	FULL 85 - 100%	DOMINANT	0.370	0.520	KOALA USE SPECIES	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	4.44	2.51	MINOR < 10%	0.23%	LANDSCAPING PLAN	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
3	NEIGHBOURING PROPERTY	<i>Photinia spp.</i>	Photinia	< 5m	1.5	1.5	1.5	1.5	PARTIAL 40 - 85%	SUPPRESSED	0.120	0.130	EXOTIC	SEMI-MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.00	1.40	NO IMPACT	0.00%	NO IMPACT	The subject is a poorly formed tree that is part of an overgrown hedgerow.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST																				
4	NEIGHBOURING PROPERTY	<i>Corymbia maculata</i>	Spotted Gum	12	1.5	1.5	1.5	1.5	PARTIAL 40 - 85%	CO-DOMINANT	0.220	0.280	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.64	1.94	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.			
5	NEIGHBOURING PROPERTY	<i>Glochidion ferdinandii</i>	Cheese Tree	8	3.0	2.0	3.0	1.0	PARTIAL 40 - 85%	CO-DOMINANT	0.130	0.210	NATIVE	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	1.72	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.			
6	NEIGHBOURING PROPERTY	<i>Pittosporum undulatum</i>	Sweet Pittosporum	12	5.0	4.0	6.0	2.0	SPARSE <40%	CO-DOMINANT	0.320	0.380	EXEMPT WEED SPECIES	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	6. VERY LOW	LOW	NO HABITAT SIGHTED	3.84	2.20	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.			

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
					NORTH	SOUTH	EAST	WEST																				
7	NEIGHBOURING PROPERTY	<i>Cupressus macrocarpa</i>	Monterey Cypress	14	6.0	6.0	3.0	3.0	SPARSE <40%	CO-DOMINANT	0.450	0.670	EXOTIC	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	4. MODERATE	MODERATE	NO HABITAT SIGHTED	5.40	2.80	MINOR < 10%	2.86%	WASTEWATER/SEWER	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	
8	NEIGHBOURING PROPERTY	<i>Cupressus macrocarpa</i>	Monterey Cypress	14	5.0	3.0	2.0	5.0	PARTIAL 40 - 85%	CO-DOMINANT	0.290	0.490	EXOTIC	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	4. MODERATE	MODERATE	NO HABITAT SIGHTED	3.48	2.45	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	
9	NEIGHBOURING PROPERTY	<i>Corymbia maculata</i>	Spotted Gum	14	6.0	7.0	5.0	4.0	FULL 85 - 100%	DOMINANT	0.470	0.540	KOALA USE SPECIES	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	3. HIGH	HIGH	NO HABITAT SIGHTED	5.64	2.55	MINOR < 10%	1.55%	WASTEWATER/SEWER	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT				
				NORTH	SOUTH	EAST	WEST																					
10	NEIGHBOURING PROPERTY	<i>Corymbia maculata</i>	Spotted Gum	14	2.5	2.5	2.5	FULL 85 - 100%	CO-DOMINANT	0.260	0.330	KOALA USE SPECIES	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	3. HIGH	HIGH	NO HABITAT SIGHTED	3.12	2.08	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	
11	NEIGHBOURING PROPERTY	<i>Glochidion ferdinandii</i>	Cheese Tree	6	3.0	3.0	3.0	FULL 85 - 100%	DOMINANT	0.130	0.420	NATIVE	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	2.30	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	
12	ON-SITE	<i>Photinia spp.</i>	Photinia	< 5m	2.5	4.0	4.0	4.0	PARTIAL 40 - 85%	CO-DOMINANT	0.150	0.340	EXOTIC	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.00	2.10	MAJOR > 10%	21.70%	MULTIPLE IMPACTS	The subject is a poorly formed tree that is part of an overgrown hedgerow.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT																								
					NORTH	SOUTH	EAST	WEST																																												
					13	ON-SITE	<i>Photinia spp.</i>	Photinia																					< 5m	2.5	4.0	4.0	4.0	PARTIAL 40 - 85%	CO-DOMINANT	0.150	0.340	EXOTIC	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.00	2.10	MINOR < 10%	8.71%	MULTIPLE IMPACTS	The subject is a poorly formed tree that is part of an overgrown hedgerow.	REMOVE. Irrespective of the proposed development footprint, the subject tree deviates from its typical form and detracts from the amenity of the site.
					14	ON-SITE	<i>Photinia spp.</i>	Photinia																					< 5m	2.5	4.0	4.0	4.0	PARTIAL 40 - 85%	CO-DOMINANT	0.150	0.340	EXOTIC	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.00	2.10	NO IMPACT	0.00%	NO IMPACT	The subject is a poorly formed tree that is part of an overgrown hedgerow.	REMOVE. Irrespective of the proposed development footprint, the subject tree deviates from its typical form and detracts from the amenity of the site.
15	ON-SITE	<i>Photinia spp.</i>	Photinia	< 5m	2.5	4.0	4.0	4.0	PARTIAL 40 - 85%	CO-DOMINANT	0.150	0.340	EXOTIC	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.00	2.10	NO IMPACT	0.00%	NO IMPACT	The subject is a poorly formed tree that is part of an overgrown hedgerow.	REMOVE. Irrespective of the proposed development footprint, the subject tree deviates from its typical form and detracts from the amenity of the site.																									

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT	
				NORTH	SOUTH	EAST	WEST																					
16	ON-SITE	<i>Photinia spp.</i>	Photinia	< 5m	2.5	4.0	4.0	4.0	PARTIAL 40 - 85%	CO-DOMINANT	0.150	0.340	EXOTIC	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.00	2.10	NO IMPACT	0.00%	NO IMPACT	The subject is a poorly formed tree that is part of an overgrown hedgerow.	REMOVE. Irrespective of the proposed development footprint, the subject tree deviates from its typical form and detracts from the amenity of the site.
17	ON-SITE	<i>Glochidion ferdinandi</i>	Cheese Tree	6	2.5	2.5	2.5	2.5	FULL 85 - 100%	CO-DOMINANT	0.190	0.330	NATIVE	SEMI-MATURE	POOR	BORER	3. SHORT - 5 TO 15 YEARS	3D - Trees that require substantial remedial tree care and are only suitable for retention in the short term.	4. MODERATE	LOW	NO HABITAT SIGHTED	2.28	2.08	NO IMPACT	0.00%	NO IMPACT	The Southern leader has been removed.	REMOVE. Irrespective of the proposed development footprint, the subject tree is no longer sustainable, and removal is recommended.
18 (X6)	ON-SITE	<i>Ligustrum lucidum</i>	Broad-leaved Privet	< 5m	3.0	3.0	3.0	0.0	FULL 85 - 100%	CO-DOMINANT	0.110	0.160	EXEMPT WEED SPECIES	SEMI-MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.00	1.53	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is an overgrown cluster of self-seeded weed species.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				HEIGHT (m)	NORTH	SOUTH	EAST	WEST																							
				HEIGHT (m)	NORTH	SOUTH	EAST	WEST																							
				HEIGHT (m)	NORTH	SOUTH	EAST	WEST																							
19	ON-SITE	<i>Ligustrum lucidum</i>	Broad-leaved Privet	6	3.0	3.0	0.0	4.0	PARTIAL 40 - 85%	CO-DOMINANT	0.160	0.350	EXEMPT WEED SPECIES	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.00	2.13	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is an overgrown weed species.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.			
20	ON-SITE	<i>Ligustrum lucidum</i>	Broad-leaved Privet	7	1.5	3.0	2.0	0.0	PARTIAL 40 - 85%	CO-DOMINANT	0.230	0.290	EXEMPT WEED SPECIES	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.76	1.97	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is an overgrown weed species.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.			
21	ON-SITE	<i>Unidentified spp.</i>	Unidentified Exotic	< 5m	2.5	3.0	3.0	0.0	SPARSE <40%	CO-DOMINANT	0.210	0.260	EXOTIC	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.52	1.88	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.			

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT				
				NORTH	SOUTH	EAST	WEST																								
																												CANOPY (m)			
22	ON-SITE	<i>Ligustrum lucidum</i>	Broad-leaved Privet	6	5.0	4.0	3.0	5.0	FULL 85 - 100%	CO-DOMINANT	0.280	0.700	EXEMPT WEED SPECIES	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	3.36	2.85	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is an overgrown weed species.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.			
23	ON-SITE	<i>Acacia spp.</i>	<i>Acacia spp.</i>	< 5m	1.5	1.5	0.0	1.5	SPARSE <40%	DOMINANT	0.150	0.300	NATIVE	OVER-MATURE	POOR	BORER	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	5. LOW	LOW	NO HABITAT SIGHTED	2.00	2.00	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree has approximately 80% dieback and is growing against the wall of the residence. The tree has been previously topped and is suckered growth.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.			
24	ON-SITE	<i>Glochidion ferdinandi</i>	Cheese Tree	12	5.0	5.0	5.0	5.0	FULL 85 - 100%	DOMINANT	0.270	0.870	NATIVE	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	3.24	3.12	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.			

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT	
				NORTH	SOUTH	EAST	WEST																					
25	ON-SITE	<i>Ligustrum lucidum</i>	Broad-leaved Privet	< 5m	4.0	2.0	3.0	2.0	PARTIAL 40 - 85%	CO-DOMINANT	0.170	0.200	EXEMPT WEED SPECIES	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	6. VERY LOW	LOW	NO HABITAT SIGHTED	2.04	1.68	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is an overgrown weed species.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
26 (X3)	ON-SITE	<i>Cupressus macrocarpa</i>	Monterey Cypress	12	6.0	4.0	4.0	4.0	PARTIAL 40 - 85%	CO-DOMINANT	0.300	0.390	EXOTIC	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	3.60	2.23	MAJOR > 10%	93.75%	BUILDING FOOTPRINT	The subject trees have been planted approximately 1m apart as a hedgerow. The internal canopies are bare due to competition.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
27	ON-SITE	<i>Glochidion ferdinandi</i>	Cheese Tree	10	4.5	4.5	4.5	4.5	FULL 85 - 100%	CO-DOMINANT	0.350	0.360	NATIVE	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	4.20	2.15	MAJOR > 10%	47.83%	MULTIPLE IMPACTS	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT		
				NORTH	SOUTH	EAST	WEST																				
28	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	12	1.5	1.5	1.5	1.5	FULL 85 - 100%	CO-DOMINANT	0.130	0.150	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	1.49	MAJOR > 10%	13.11%	LANDSCAPING PLAN	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
29	ON-SITE	<i>Glochidion ferdinandii</i>	Cheese Tree	10	3.5	3.5	3.5	3.5	FULL 85 - 100%	CO-DOMINANT	0.180	0.330	NATIVE	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.16	2.08	MAJOR > 10%	30.28%	LANDSCAPING PLAN	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
30	ON-SITE	<i>Glochidion ferdinandii</i>	Cheese Tree	< 5m	1.5	1.5	1.5	1.5	FULL 85 - 100%	CO-DOMINANT	0.100	0.180	NATIVE	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	1.61	MAJOR > 10%	29.18%	LANDSCAPING PLAN	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				HEIGHT (m)	NORTH	SOUTH	EAST	WEST																							
				HEIGHT (m)	NORTH	SOUTH	EAST	WEST																							
				HEIGHT (m)	NORTH	SOUTH	EAST	WEST																							
31	ON-SITE	<i>Cupressus macrocarpa</i>	Monterey Cypress	12	2.0	5.0	5.0	5.0	PARTIAL 40 - 85%	CO-DOMINANT	0.500	0.650	EXOTIC	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	6.00	2.76	MAJOR > 10%	100.00%	MULTIPLE IMPACTS	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.			
32	ON-SITE	<i>Cupressus macrocarpa</i>	Monterey Cypress	12	6.0	1.0	6.0	5.0	PARTIAL 40 - 85%	CO-DOMINANT	0.520	0.610	EXOTIC	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	6.24	2.69	MAJOR > 10%	100.00%	MULTIPLE IMPACTS	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.			
33	ON-SITE	<i>Malus spp.</i>	Crab Apple	< 5m	5.0	5.0	5.0	5.0	FULL 85 - 100%	CO-DOMINANT	0.140	0.580	EXOTIC	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2A - Trees that may only live between 15 and 40 more years.	5. LOW	LOW	NO HABITAT SIGHTED	2.00	2.63	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.			

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST																				
34	ON-SITE	<i>Grevillia robusta</i>	Silky Oak	15	5.0	5.0	5.0	5.0	5.0	5.0	FULL 85 - 100%	DOMINANT	0.690	0.850	NATIVE	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2B - Trees that may live for more than 40 years but may be removed for safety or nuisance reasons.	5. LOW	LOW	NO HABITAT SIGHTED	8.28	3.09	MAJOR > 10%	81.42%	MULTIPLE IMPACTS	The subject tree holds minor deadwood throughout the canopy.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	
35	ON-SITE	<i>Lophostemon confertus</i>	Brush Box	14	6.0	6.0	6.0	6.0	6.0	6.0	FULL 85 - 100%	DOMINANT	0.760	0.900	NATIVE	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	3. HIGH	HIGH	NO HABITAT SIGHTED	9.12	3.17	MAJOR > 10%	49.77%	MULTIPLE IMPACTS	The subject tree has exposed roots that are mechanically damaged on the southern side. Otherwise, it is typical of the species with no notable defects.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	
36	ON-SITE	<i>Ligustrum lucidum</i>	Broad-leaved Privet	6	3.0	3.0	3.0	3.0	3.0	3.0	PARTIAL 40 - 85%	CO-DOMINANT	0.130	0.270	EXEMPT WEED SPECIES	MATURE	POOR	BORER	3. SHORT - 5 TO 15 YEARS	3B - Trees that may live for more than 15 years but may be removed for safety or nuisance reasons.	6. VERY LOW	VERY LOW	NO HABITAT SIGHTED	2.00	1.91	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is an overgrown weed species.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT	
				HEIGHT (m)	NORTH	SOUTH	EAST																					WEST
				HEIGHT (m)	NORTH	SOUTH	EAST																					WEST
				HEIGHT (m)	NORTH	SOUTH	EAST																					WEST
39.2	ON-SITE	<i>Ligustrum lucidum</i>	Broad-leaved Privet	12	2.5	2.5	2.5	2.5	FULL 85 - 100%	CO-DOMINANT	0.130	0.460	EXEMPT WEED SPECIES	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.00	2.39	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is an overgrown weed species.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
40	ON-SITE	<i>Pittosporum undulatum</i>	Sweet Pittosporum	< 5m	2.0	3.0	2.5	2.0	FULL 85 - 100%	CO-DOMINANT	0.100	0.130	EXEMPT WEED SPECIES	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.00	1.40	MAJOR > 10%	79.25%	LANDSCAPING PLAN	The subject tree is an overgrown weed species.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
41 (X3)	ON-SITE	Mixed species	Mixed Species	< 5m	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.300	0.400	EXOTIC	MATURE	POOR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	3.60	2.25	MAJOR > 10%	42.70%	MULTIPLE IMPACTS	The subject trees are a cluster of small mixed, overgrown exotic species located in the corner of the allotment.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
					NORTH	SOUTH	EAST	WEST																				
42	ON-SITE	<i>Lagunaria patersonii</i>	Norfolk Island Hibiscus	< 5m	3.0	2.0	2.0	4.0	FULL 85 - 100%	CO-DOMINANT	0.280	0.380	EXOTIC	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	4. MODERATE	LOW	NO HABITAT SIGHTED	3.36	2.20	MAJOR > 10%	53.65%	MULTIPLE IMPACTS	The subject tree has been pruned on the Eastern side for power line clearance, posing a potential conflict with overhead powerlines.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
43	ON-SITE	<i>Ligustrum lucidum</i>	Broad-leaved Privet	< 5m	2.0	3.0	2.0	3.0	PARTIAL 40 - 85%	CO-DOMINANT	0.140	0.270	EXEMPT WEED SPECIES	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	5. LOW	LOW	NO HABITAT SIGHTED	2.00	1.91	MAJOR > 10%	39.56%	MULTIPLE IMPACTS	The subject tree has been pruned on the Eastern side for power line clearance, posing a potential conflict with overhead powerlines.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
44	ON-SITE	<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	< 5m	3.0	3.0	3.0	3.0	SPARSE <40%	DOMINANT	0.200	0.300	NATIVE	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.40	2.00	MAJOR > 10%	32.37%	MULTIPLE IMPACTS	The subject tree has been pruned on the Eastern side for power line clearance, posing a potential conflict with overhead powerlines.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
					NORTH	SOUTH	EAST	WEST																				
45.1	ON-SITE	<i>Glochidion ferdinandii</i>	Cheese Tree	< 5m	2.0	2.0	2.0	2.0	FULL 85 - 100%	CO-DOMINANT	0.170	0.280	NATIVE	SEMI-MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS 2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.04	1.94	MAJOR > 10%	10.82%	MULTIPLE IMPACTS	The subject trees are small, poorly formed species due to suppression from adjacent vegetation. The subject trees pose a potential conflict with overhead powerlines.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	
45.2	ON-SITE	<i>Glochidion ferdinandii</i>	Cheese Tree	< 5m	2.0	2.0	2.0	2.0	FULL 85 - 100%	CO-DOMINANT	0.170	0.280	NATIVE	SEMI-MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS 2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.04	1.94	MAJOR > 10%	42.14%	MULTIPLE IMPACTS	The subject trees are small, poorly formed species due to suppression from adjacent vegetation. The subject trees pose a potential conflict with overhead powerlines.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	
45.3	ON-SITE	<i>Glochidion ferdinandii</i>	Cheese Tree	< 5m	2.0	2.0	2.0	2.0	FULL 85 - 100%	CO-DOMINANT	0.170	0.280	NATIVE	SEMI-MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS 2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.04	1.94	MAJOR > 10%	38.21%	MULTIPLE IMPACTS	The subject trees are small, poorly formed species due to suppression from adjacent vegetation. The subject trees pose a potential conflict with overhead powerlines.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
					NORTH	SOUTH	EAST	WEST																				
45.4	ON-SITE	<i>Glochidion ferdinandii</i>	Cheese Tree	< 5m	2.0	2.0	2.0	2.0	FULL 85 - 100%	CO-DOMINANT	0.170	0.280	NATIVE	SEMI-MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.04	1.94	MAJOR > 10%	37.83%	MULTIPLE IMPACTS	The subject trees are small, poorly formed species due to suppression from adjacent vegetation. The subject trees pose a potential conflict with overhead powerlines.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
46	ON-SITE	<i>Glochidion ferdinandii</i>	Cheese Tree	6	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.190	0.510	NATIVE	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.28	2.49	MAJOR > 10%	35.83%	MULTIPLE IMPACTS	The subject trees are small, poorly formed species due to suppression from adjacent vegetation. The subject trees pose a potential conflict with overhead powerlines.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
47	ON-SITE	<i>Glochidion ferdinandii</i>	Cheese Tree	8	2.0	1.0	3.0	2.0	PARTIAL 40 - 85%	CO-DOMINANT	0.150	0.600	NATIVE	MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3D - Trees that require substantial remedial tree care and are only suitable for retention in the short term.	5. LOW	LOW	NO HABITAT SIGHTED	2.00	2.67	MAJOR > 10%	38.40%	MULTIPLE IMPACTS	The subject tree has been poorly pruned for footpath and power line clearance. The subject trees pose a potential conflict with overhead powerlines.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST																				
48	ON-SITE	<i>Pittosporum undulatum</i>	Sweet Pittosporum	< 5m	5.0	2.0	1.0	4.0	PARTIAL 40 - 85%	SUPPRESSED	0.180	0.240	EXEMPT WEED SPECIES	MATURE	POOR	NO EVIDENCE			2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	2. MEDIUM - 15 TO 40 YEARS	5. LOW	LOW	NO HABITAT SIGHTED	2.16	1.82	MAJOR > 10%	25.03%	MULTIPLE IMPACTS	The subject tree is an overgrown weed species.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	
49	ON-SITE	<i>Glochidion ferdinandi</i>	Cheese Tree	8	5.0	5.0	1.0	4.0	PARTIAL 40 - 85%	CO-DOMINANT	0.230	0.280	NATIVE	MATURE	POOR	NO EVIDENCE			2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	2. MEDIUM - 15 TO 40 YEARS	5. LOW	LOW	NO HABITAT SIGHTED	2.76	1.94	MAJOR > 10%	26.51%	MULTIPLE IMPACTS	The subject tree is biased to the West due to competing vegetation.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	
50	ON-SITE	<i>Ligustrum</i>	Privet spp.	8	6.0	6.0	1.0	4.0	SPARSE <40%	DOMINANT	0.450	0.400	EXEMPT WEED SPECIES	MATURE	POOR	NO EVIDENCE			3A - Trees that may only live between 5 and 15 more years.	3. SHORT - 5 TO 15 YEARS	5. LOW	LOW	NO HABITAT SIGHTED	5.40	2.25	MINOR < 10%	2.54%	MULTIPLE IMPACTS	The subject tree is over-mature and exhibits a poor live crown ratio. The subject tree has been poorly pruned for power line clearance.	REMOVE. Irrespective of the proposed development footprint, the subject tree is a weed species and is recommended for removal.	

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT		
				NORTH	SOUTH	EAST	WEST																				
51	ON-SITE	<i>Syagrus romanzoffiana</i>	Cocos Palm	14	2.5	2.5	2.5	2.5	FULL 85 - 100%	DOMINANT	0.340	0.380	EXEMPT WEED SPECIES	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	4. MODERATE	MODERATE	NO HABITAT SIGHTED	4.08	2.20	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
52	ROADSIDE VERGE	<i>Corymbia maculata</i>	Spotted Gum	12	4.0	3.0	5.0	4.0	FULL 85 - 100%	CO-DOMINANT	0.300	0.450	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	3. HIGH	HIGH	NO HABITAT SIGHTED	3.60	2.37	MAJOR > 10%	33.22%	LANDSCAPING PLAN	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
53	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	10	1.5	1.5	1.5	1.5	FULL 85 - 100%	CO-DOMINANT	0.140	0.190	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	1.65	MAJOR > 10%	64.99%	LANDSCAPING PLAN	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT			
				CANOPY (m)																								
				NORTH	SOUTH	EAST	WEST																					
54	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	13	2.0	2.0	2.0	2.0	FULL 85 - 100%	CO-DOMINANT	0.240	0.280	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.88	1.94	MAJOR > 10%	18.39%	MULTIPLE IMPACTS	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
55	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	14	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.340	0.420	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	4.08	2.30	MAJOR > 10%	49.81%	MULTIPLE IMPACTS	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
56	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	20	>10	>11	>12	>13	FULL 85 - 100%	DOMINANT	0.980	1.300	KOALA USE SPECIES	MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2A - Trees that may only live between 15 and 40 more years.	3. HIGH	MODERATE	HOLLOW BEARING TREE	11.76	3.69	MAJOR > 10%	42.64%	MULTIPLE IMPACTS	The DBH and Base were estimated to have been due to a lack of access. Socket wound on the Northwestern side at approximately 10m. An aerial assessment would be required to determine if the socket wound contained habitat.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)	CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
					NORTH	SOUTH	EAST	WEST																				
57	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	6	1.0	2.5	3.0	2.0	PARTIAL 40 - 85%	CO-DOMINANT	0.120	0.160	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	5. LOW	MODERATE	NO HABITAT SIGHTED	2.00	1.53	MINOR < 10%	1.12%	LANDSCAPING PLAN	The subject tree is biased to the East due to the adjacent failed tree. Approximately 60% vine choked.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
58	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	< 5m	1.5	1.5	1.5	1.5	FULL 85 - 100%	CO-DOMINANT	0.100	0.130	KOALA USE SPECIES	IMMATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	1.40	MAJOR > 10%	55.29%	MULTIPLE IMPACTS	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
59	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	6	2.0	2.0	2.0	2.0	FULL 85 - 100%	CO-DOMINANT	0.160	0.300	KOALA USE SPECIES	SEMI-MATURE	POOR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	2.00	MAJOR > 10%	48.96%	LANDSCAPING PLAN	The subject tree has an atypical basal formation and is biased to the North.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT			
				CANOPY (m)																								
				NORTH	SOUTH	EAST	WEST																					
60	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	6	1.5	1.5	1.5	1.5	FULL 85 - 100%	CO-DOMINANT	0.110	0.140	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	1.45	MINOR < 10%	4.31%	LANDSCAPING PLAN	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
61	ON-SITE	<i>Ligustrum lucidum</i>	Broad-leaved Privet	7	2.5	1.0	1.0	1.0	PARTIAL 40 - 85%	CO-DOMINANT	0.090	0.110	EXEMPT WEED SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2C - Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	5. LOW	LOW	NO HABITAT SIGHTED	2.00	1.31	MAJOR > 10%	100.00%	LANDSCAPING PLAN	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
62	ON-SITE	<i>Grevilla robusta</i>	Silky Oak	7	1.0	1.0	2.0	1.0	PARTIAL 40 - 85%	CO-DOMINANT	0.170	0.230	NATIVE	SEMI-MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3A - Trees that may only live between 5 and 15 more years.	5. LOW	LOW	NO HABITAT SIGHTED	2.04	1.79	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree maintains a poor live crown ratio. The canopy contains deadwood, and approximately 30% of the live crown remains.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				CANOPY (m)																					
				NORTH	SOUTH	EAST	WEST																		
63	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	12	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.230	0.310	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	TPZ (m)	2.76	2.02	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
64	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	14	0.0	2.5	2.5	0.0	PARTIAL 40 - 85%	CO-DOMINANT	0.170	0.190	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.04	1.65	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	
65	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	< 5m	0.5	0.5	0.5	0.5	FULL 85 - 100%	CO-DOMINANT	0.080	0.110	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	5. LOW	MODERATE	NO HABITAT SIGHTED	2.00	1.31	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.	

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				HEIGHT (m)	NORTH	SOUTH	EAST	WEST																							
				HEIGHT (m)	NORTH	SOUTH	EAST	WEST																							
				HEIGHT (m)	NORTH	SOUTH	EAST	WEST																							
66	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	14	3.0	4.0	4.0	1.0		PARTIAL 40 - 85%	CO-DOMINANT	0.240	0.320	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.88	2.05	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.		
67	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	14	3.0	2.0	3.0	3.0		PARTIAL 40 - 85%	CO-DOMINANT	0.180	0.220	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.16	1.75	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.		
68	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	14	0.0	2.5	3.0	2.5		PARTIAL 40 - 85%	CO-DOMINANT	0.190	0.220	KOALA USE SPECIES	SEMI-MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.28	1.75	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.		

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT				
				NORTH	SOUTH	EAST	WEST																						
																										CANOPY (m)			
69	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	14	0.0	3.0	0.0	4.0	PARTIAL 40 - 85%	CO-DOMINANT	0.190	0.250	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.28	1.85	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.					
70	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	12	3.0	3.0	3.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.160	0.220	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	1.75	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.					
71	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	12	2.0	2.0	1.0	3.0	FULL 85 - 100%	CO-DOMINANT	0.130	0.190	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	1.65	MAJOR > 10%	99.96%	BUILDING FOOTPRINT	The subject tree has an atypical basal (curved) formation and is biased to the North with a self-corrected lean.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.					

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT				
				NORTH	SOUTH	EAST	WEST																						
																										CANOPY (m)			
72	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	13	2.5	2.5	2.5	2.5	FULL 85 - 100%	CO-DOMINANT	0.170	0.260	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	TPZ (m) 2.04	SRZ (m) 1.88	MAJOR > 10%	100.00%	DRIVEWAY	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.					
73	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	14	2.0	2.0	2.0	2.0	FULL 85 - 100%	CO-DOMINANT	0.190	0.270	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.28	1.91	MAJOR > 10%	100.00%	MULTIPLE IMPACTS	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.					
74	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	12	2.0	2.0	2.0	2.0	FULL 85 - 100%	CO-DOMINANT	0.120	0.270	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	1.91	MAJOR > 10%	100.00%	BUILDING FOOTPRINT	The subject tree is typical of the species. No notable defects were observed.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.					

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				NORTH	SOUTH	EAST	WEST																				
75	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	24	>10	>10	>10	FULL 85 - 100%	DOMINANT	1.030	1.350	KOALA USE SPECIES	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1B - Trees that could be made suitable for retention in the long-term by remedial tree care.	2. VERY HIGH	HIGH	HOLLOW BEARING TREE	12.36	3.75	MAJOR > 10%	31.49%	MULTIPLE IMPACTS	The subject tree is slightly overextended to the East, with minor deadwood throughout the crown.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
76	NEIGHBOURING PROPERTY	<i>Grevillia robusta</i>	Silky Oak	14	4.0	4.0	4.0	FULL 85 - 100%	CO-DOMINANT	0.310	0.440	NATIVE	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	3.72	2.34	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
77	NEIGHBOURING PROPERTY	<i>Grevillia robusta</i>	Silky Oak	14	4.0	4.0	4.0	FULL 85 - 100%	CO-DOMINANT	0.220	0.280	NATIVE	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.64	1.94	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				NORTH	SOUTH	EAST	WEST																				
78	NEIGHBOURING PROPERTY	<i>Ficus spp.</i>	Fig Tree	8	6.0	6.0	6.0	6.0	FULL 85 - 100%	CO-DOMINANT	0.140	0.500	NATIVE	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	2.47	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
79	NEIGHBOURING PROPERTY	<i>Corymbia maculata</i>	Spotted Gum	25	>10	>10	>10	>10	FULL 85 - 100%	DOMINANT	1.280	1.700	KOALA USE SPECIES	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	2. VERY HIGH	HIGH	NO HABITAT SIGHTED	15.00	4.14	NO IMPACT	0.00%	NO IMPACT	The subject tree is typical of the species. No notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
80	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	24	>10	>10	>10	>10	FULL 85 - 100%	DOMINANT	0.840	1.070	KOALA USE SPECIES	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	3. HIGH	HIGH	HOLLOW BEARING TREE	10.08	3.40	MAJOR > 10%	38.80%	MULTIPLE IMPACTS	Due to the stone slabs within the subsoil, the buttress of the subject tree subject is raised on the Northern and Southern extent of the trunk. The trunk taper and crown typical of the species with no notable defects were observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST																				
81	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	24	>10	>10	>10	>10	>10	>10	7.0	FULL 85 - 100%	CO-DOMINANT	0.660	0.890	KOALA USE SPECIES	MATURE	POOR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2B - Trees that may live for more than 40 years but may be removed for safety or nuisance reasons.	3. HIGH	MODERATE	NO HABITAT SIGHTED	7.92	3.15	MAJOR > 10%	33.22%	MULTIPLE IMPACTS	Due to the stone slabs within the subsoil, the subject trees have raised torsion roots on the western side. The trunk and canopy are biased to the East, and the lean is uncorrected.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.
82	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	24	10.0	8.0	4.0	>10				PARTIAL 40 - 85%	CO-DOMINANT	0.800	1.200	KOALA USE SPECIES	MATURE	POOR	BRACKET FUNGUS	3. SHORT - 5 TO 15 YEARS	3D - Trees that require substantial remedial tree care and are only suitable for retention in the short term.	2. VERY HIGH	MODERATE	HOLLOW BEARING TREE	9.60	3.57	MAJOR > 10%	55.76%	MULTIPLE IMPACTS	The subject tree has a socket wound on the Northern side at approximately 8m. The tree is biased to the North with an uncorrected lean. The author observed a Bracket fungus at the base on the Eastern side.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.
83	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	14	2.5	2.5	2.5	2.5				FULL 85 - 100%	CO-DOMINANT	0.160	0.300	KOALA USE SPECIES	SEMI-MATURE	POOR	NO EVIDENCE	2. MEDIUM - 15 TO 40 YEARS	2A - Trees that may only live between 15 and 40 more years.	4. MODERATE	MODERATE	NO HABITAT SIGHTED	2.00	2.00	MAJOR > 10%	88.63%	DRIVEWAY	The subject tree displays a poorly formed, included junction.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.

TREE NUMBER	LOCATION	BOTANICAL NAME	COMMON NAME	HEIGHT (m)				CANOPY (m)				CROWN DENSITY	CROWN CLASS	DBH (m)	BASE (m)	TYPE	AGE CLASS	STRUCTURE	PEST OR DISEASE	SULE RATING	SULE SUB-RATING	L/ SIGNIFICANCE	RETENTION VALUE	HABITAT	TPZ (m)	SRZ (m)	ENCROACHMENT	ENCROACHMENT %	PRIMARY IMPACT	COMMENT	RESULT
				NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST																				
84	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	24	>10	>10	>10	>10	>10	>10	FULL 85 - 100%	DOMINANT	1.010	1.224	KOALA USE SPECIES	MATURE	FAIR	NO EVIDENCE	1. LONG - OVER 40 YEARS	1A - Structurally sound trees located in positions that can accommodate future growth.	3. HIGH	HIGH	NO HABITAT SIGHTED	12.12	3.60	MAJOR > 10%	27.55%	MULTIPLE IMPACTS	Due to the stone slabs within the subsoil, the subject tree has exposed roots on the Southwestern side. Minor mechanical damage to the exposed roots was observed.	RETAIN & PROTECT. The subject tree is retainable subject to tree protection conditions.	
85	ON-SITE	<i>Corymbia maculata</i>	Spotted Gum	< 5m	1.5	1.5	1.5	1.5	1.5	PARTIAL 40 - 85%	CO-DOMINANT	0.130	0.200	KOALA USE SPECIES	SEMI-MATURE	POOR	NO EVIDENCE	3. SHORT - 5 TO 15 YEARS	3C - Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	5. LOW	LOW	NO HABITAT SIGHTED	2.00	1.68	MAJOR > 10%	78.88%	LANDSCAPING PLAN	The canopy has failed at 3m.	REMOVE. The subject tree is adversely impacted under the current proposal and not retainable.		

APPENDIX 2: CRITERIA FOR ASSESSMENT OF LANDSCAPE SIGNIFICANCE

Table 4: Criteria for Landscape Significance Assessment Matrix (Morton, Determining the Retention Value of Trees, 2006).

1. SIGNIFICANT	<ul style="list-style-type: none"> •The subject tree is listed as a Heritage Item under the Local Environment Plan (LEP) with a local, state or national level of significance; or •The subject tree forms part of the curtilage of a Heritage Item (building /structure /artifact as defined under the LEP) and has a known or documented association with that item; or •The subject tree is a Commemorative Planting having been planted by an important historical person (s) or to commemorate an important historical event; or •The subject tree is scheduled as a Threatened Species or is a key indicator species of an Endangered Ecological Community as defined under the Threatened Species Conservation Act 1995 (NSW) or the Environmental Protection and Biodiversity Conservation Act 1999; or •The tree is a locally indigenous species, representative of the original vegetation of the area and is known as an important food, shelter or nesting tree for endangered or threatened fauna species; or •The subject tree is a Remnant Tree, being a tree in existence prior to development of the area; or •The subject tree has a very large live crown size exceeding 300m² with normal to dense foliage cover, is located in a visually prominent in the landscape, exhibits very good form and habit typical of the species and makes a significant contribution to the amenity and visual character of the area by creating a sense of place or creating a sense of identity; or •The tree is visually prominent in view from surrounding areas, being a landmark or visible from a considerable distance.
2. VERY HIGH	<ul style="list-style-type: none"> •The tree has a strong historical association with a heritage item (building/structure/artifact/garden etc) within or adjacent the property and/or exemplifies a particular era or style of landscape design associated with the original development of the site; or •The subject tree is listed on Council’s Significant Tree Register; or •The tree is a locally indigenous species and representative of the original vegetation of the area and the tree is located within a defined Vegetation Link / Wildlife Corridor or has known wildlife habitat value; or •The subject tree has a very large live crown size exceeding 200m²; a crown density exceeding 70% Crown Cover (normal-dense), is a very good representative of the species in terms of its form and branching habit or is aesthetically distinctive and makes a positive contribution to the visual character and the amenity of the area.
3. HIGH	<ul style="list-style-type: none"> •The tree has a suspected historical association with a heritage item or landscape supported by anecdotal or visual evidence; or •The tree is a locally indigenous species and representative of the original vegetation of the area; or •The subject tree has a large live crown size exceeding 100m²; and •The tree is a good representative of the species in terms of its form and branching habit with minor deviations from normal (eg crown distortion/suppression) with a crown density of at least 70% Crown Cover (normal); and •The subject tree is visible from the street and surrounding properties and makes a positive contribution to the visual character and the amenity of the area.
4. MODERATE	<ul style="list-style-type: none"> •The subject tree has a medium live crown size exceeding 40m²; and •The tree is a fair representative of the species, exhibiting moderate deviations from typical form (distortion/suppression etc) with a crown density of more than 50% Crown Cover (thinning to normal); and •The tree makes a fair contribution to the visual character and amenity of the area; and •The tree is visible from surrounding properties but is not visually prominent – view may be partially obscured by other vegetation or built forms. •The tree has no known or suspected historical association.
5. LOW	<ul style="list-style-type: none"> •The subject tree has a small live crown size of less than 40m² and can be replaced within the short term with new tree planting; or •The tree is a poor representative of the species, showing significant deviations from the typical form and branching habit with a crown density of less than 50% Crown Cover (sparse); and •The subject tree is not visible from surrounding properties (visibility obscured) and makes a negligible contribution or has a negative impact on the amenity and visual character of the area.
6. VERY LOW	<ul style="list-style-type: none"> •The subject tree is listed as an Environment Weed Species in the relevant Local Government Area, being invasive, or a nuisance species. •The subject tree is scheduled as exempt (not protected) under the provisions of the local Council’s Tree Preservation Order due to its species, nuisance or position relative to buildings or other structures.
7. INSIGNIFICANT	<ul style="list-style-type: none"> •The tree is a declared Noxious Weed under the Noxious Weeds Act (NSW) 1993

APPENDIX 3: CRITERIA FOR THE ASSESSMENT OF SULE AND RETENTION VALUE

Table 5: Criteria for SULE and Sub-categories (Barrell, 2009).

SAFE USEFUL LIFE CATEGORIES & SUBCATEGORIES				
1. LONG SULE	2. MEDIUM SULE	3. SHORT SULE	4. REMOVE	5. SMALL, YOUNG OR PRUNED
Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.	Trees that appeared to be retainable at the time of assessment for 15-40 years with an acceptable level of risk.	Trees that appeared to be retainable at the time of assessment for 5-15 years with an acceptable level of risk.	Trees that should be removed within the next 5 years.	Trees that can be reliably moved or replaced.
(A) Structurally sound trees located in positions that can accommodate future growth	(A) Trees that may only live between 15 and 40 more years.	(A) Trees that may only live between 5 and 15 more years.	(A) Dead, dying, suppressed or declining trees because of disease or inhospitable conditions.	(A) Small trees less than 5 meters in height.
(B) Trees that could be made suitable for retention in the long-term by remedial tree care.	(B) Trees that may live for more than 40 years but may be removed for safety or nuisance reasons.	(B) Trees that may live for more than 15 years but may be removed for safety or nuisance reasons.	(B) Dangerous trees through instability or the recent loss of adjacent trees.	(B) Young trees less than 15 years old but over 5 meters.
(C) Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long-term retention.	(C) Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.	(C) Trees that may live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.	(C) Dangerous trees through structural defects including cavities, decay, included bark, wounds or poor form.	(C) Formal hedges and trees intended for regular pruning to artificially control growth.
	(D) Trees that could be made suitable for retention in the medium term by remedial tree care	(D) Trees that require substantial remedial tree care and are only suitable for retention in the short term.	(D) Damaged trees that are clearly not safe to retain.	
			(E) Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for a new planting.	
			(F) Trees that are damaging or may cause damage to existing structures within 5 years.	
			(G) Trees that will become dangerous after removal of other trees for the reasons given in (a) to (e).	
			(H) Trees in category (a) to (g) that have a high wildlife habitat value and, with appropriate treatment, could be retained subject to regular review.	

Table 6: Retention Value Matrix (Morton, Determining the Retention Value of Trees, 2003).

SULE RATING	LANDSCAPE SIGNIFICANCE RATING						
	1. SIGNIFICANT	2. VERY HIGH	3. HIGH	4. MODERATE	5. LOW	6. VERY LOW	7. INSIGNIFICANT
LONG SULE	HIGH RETENTION VALUE						
MEDIUM SULE			MODERATE RETENTION VALUE				
SHORT SULE					LOW- VERY LOW RETENTION VALUE		
TRANSIENT < 5 YEARS							
REMOVE							

APPENDIX 4: TREE PROTECTION CONDITIONS

A copy of these conditions must be available to all contractors associated with the project prior to the commencement of works and made available throughout the duration of the project.

1. CONDITIONS OF CONSENT

Consent from the Shoalhaven City Council **must** be obtained prior to the pruning or removal of any trees on the site.

Upon the issue of development consent for the proposed development, the Conditions of Consent regarding tree management must be carefully reviewed. The recommendations outlined in this report are **not** an assurance of removal or retention.

A copy of this Arboricultural Impact Assessment Report is to be available at the development work site at all times for reference in accordance with the Development Consent issued by Council in respect of the proposed development.

2. SCHEDULE OF WORKS

The proposed work schedule has been prepared to ensure that the recommendations presented in this report are strictly observed.

It is the intention of this report that actions are to be undertaken in accordance with the following:

- *Work Health and Safety Act, 2011,*
- *Work Health and Safety Regulations; 2011,*
- *Safe Work Australia Guide to Managing Risks of Tree Trimming and Removal Work, 2016*
- *AS: 4970-2009 Protection of Trees on Development Sites, 2009*
- *AS: 4373 -2007 Pruning of Amenity Trees, and*
- *AS: 4454 -2012 Composts, Soil Conditioners and Mulch (Standards Australia, 2015).*

3. PROJECT MANAGEMENT

Prior to the commencement of any civil works, a Project Arborist, holding a minimum Australian Qualification Framework Level 5 (AQF5) as a Consulting Arborist, must be appointed to oversee any activities within the Tree Protection Zones of the subject trees.

The Project Arborist is responsible for supervising and inspecting works as recommended in this report or as specified in any Conditions of Consent associated with the approved development application.

Upon completion of the works, including any remediation measures, the Project Arborist must provide the Council with Compliance Certification, guaranteeing activities comply with regulatory requirements and prescribed standards.

3.1 ON-SITE PERSONNEL

It is the principal contractor's responsibility is to ensure the Tree Protection Measures are strictly adhered to and that all construction personnel (supervisors, contractors, labourers, machinery operators, and truck drivers) are made aware of these Tree Protection Conditions.

4.2 TREE PROTECTION FENCING PLAN

The proposed tree protection fencing, denoted in red, will undergo review and certification on the day of installation.

Once installed, it cannot be repositioned unless approved by the Project Arborist. The fencing must remain in place until construction is completed to facilitate the landscaping works.



Figure 16: Indicative TPZ fencing layout denoted in red (Nadin, 2024).

5. TREE-SENSITIVE CONSTRUCTION METHODOLOGY

5.1. CANTILEVERED BUILDING SECTIONS

A cantilevered building section is an above-grade foundation (no-dig) to be installed where construction within the TPZ cannot be avoided. The construction methodology protects the root system from load-bearing construction activities that typically require strip footings (trenching) to construct a foundation.

The system is installed by strategically placing load-bearing piers between the roots of trees and constructing a cantilevered (floating) surface on top of the beams. The finish of the foundation can be either steel mesh grids, concrete or paving.

The construction methodology can be applied to various applications such as walls, retaining walls and other landscape structures. The system must be installed within the provisions of these Tree Protection Conditions; and

- be installed above the existing natural gradient (no-dig) minimum (75mm);
- include Watering / Gaseous exchange vents where prescribed;
- include a layer of gravel (minimum (50mm)
- be appropriate for the site conditions and anticipated load requirements;
- encompass the area of TPZ encroachment; and
- be installed under the supervision of the project arborist.

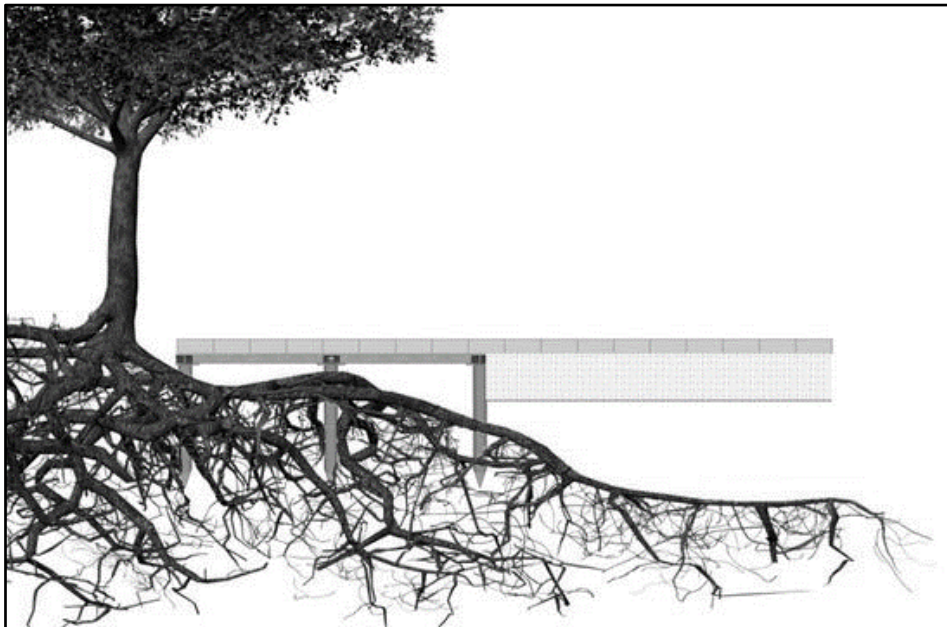


Figure 17: Example of a cantilevered building section (External Works, 2022).

5.2 PERMEABLE ROAD SURFACES AND PAVING

A passive and permeable cellular confinement system (Geo Cell) is an above-grade (no-dig) system to be installed where construction within the TPZ cannot be avoided.

The construction methodology protects the root system from load-bearing construction activities that typically require strip footings (trenching) to construct a foundation.

The system must be installed within the provisions of these TPC and:

- be installed above the existing natural gradient (no-dig);
- be appropriate for the site conditions and anticipated load requirements;
- encompass the area of TPZ encroachment;
- be installed as per manufacturers' or engineers' specifications, and
- be installed under the supervision of the project arborist.



Figure 18: Example of Geo Cell System (CORE Landscape Products, 2023).

6. GENERAL TREE PROTECTION WORKS

All trees to be retained must be protected in accordance with *Australian Standards- Protection of Trees on Development Sites (AS 4970-2009)*.

Prior to any tree removal, the project arborist and site manager should confirm that all marked trees correspond with trees denoted in section 10.1 - Tree Location and TPZ Incursion Plan.

Trees approved for removal or transplanting should be marked on-site and documented in the Tree Location Plan.

An exclusion zone must be established along the TPZ perimeters of the subject trees prior to work commencing.

The TPZ fencing is to be installed around the perimeter of these zones and in accordance with *AS: 4373:2007*.

Variations to the design and type of the fencing or any movement of the TPZ fencing are strictly prohibited unless authorised by the project arborist.

6.1 RESTRICTED ACTIVITY WITHIN THE TREE PROTECTION ZONE

The following activities are strictly prohibited within the specified Tree Protection Zone:

- mechanical removal of vegetation, including the extraction of stumps;
 - mechanical excavation, including trenching;
 - erection of site sheds and waste receptacles;
 - storage or dumping of building materials such as gravel, road base and the like;
 - preparation or disposal of any toxic chemicals, including cement, fuel, oil and solvents;
 - movement and parking of vehicles and plant without ground protection;
 - refuelling of mechanical equipment;
 - wash down and cleaning of equipment;
 - stockpiling demolition waste, spoil or fill;
 - the lighting of fires;
 - soil level changes;
 - temporary or permanent installation of utilities and signs, and
 - any other activity likely to cause physical damage to the tree or roots.
- (Standards Australia, 2009).

6.2 BRANCH AND TRUNK PROTECTION

No pruning of branches is to occur without prior consent from the Council.

Where deemed necessary, trunk and branch protection must be installed prior to any works commencing, and the project arborist will specify the materials and methodology.

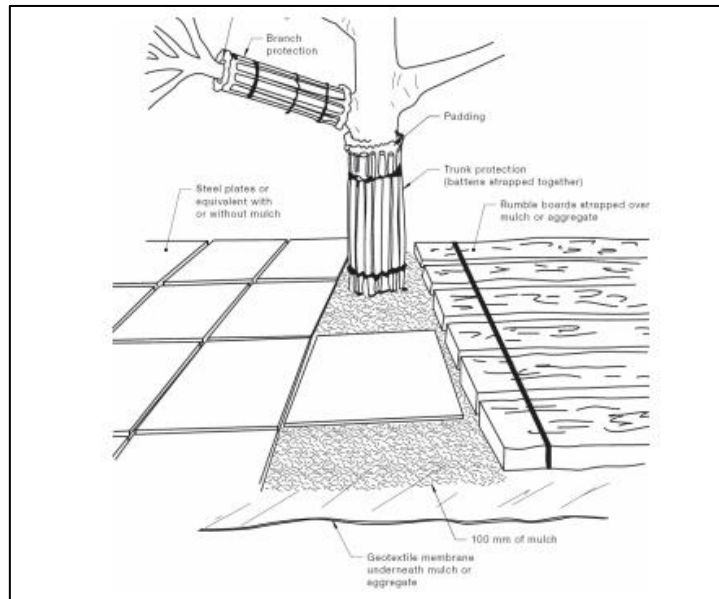


Figure 19: Branch and trunk Protection example (Standards Australia, 2009).

6.3 FENCING AND SCAFFOLDING TYPE

All TPZ fencing or scaffolding is to be installed prior to any works commencing and designed and installed in accordance with 4.3 of AS 4970-2009, prior to any works commencing, and:

- Any variations to the fencing or scaffolding type and any movement are strictly prohibited unless authorised by the project arborist;
- Fencing is to be constructed of chain wire mesh panels (minimum 1.8m) with shade cloth (if specified), located outside of the SRZ and held in place by temporary concrete-filled fence bases;
- Where scaffolding is required, it should be erected outside the TPZ;
- Where it is essential for scaffolding to be erected within the TPZ, branch removal should be minimised. This can be achieved by designing scaffolding to avoid branches or tying back branches;
- Where pruning is unavoidable, it must be specified by the project arborist in accordance with AS 4373-2007;
- The ground below the scaffolding should be protected by boarding (e.g. scaffold board or plywood sheeting) and
- Any boarding should be placed over a layer of mulch and waterproof sheeting to prevent soil contamination and compaction and remain in situ during the construction phase.

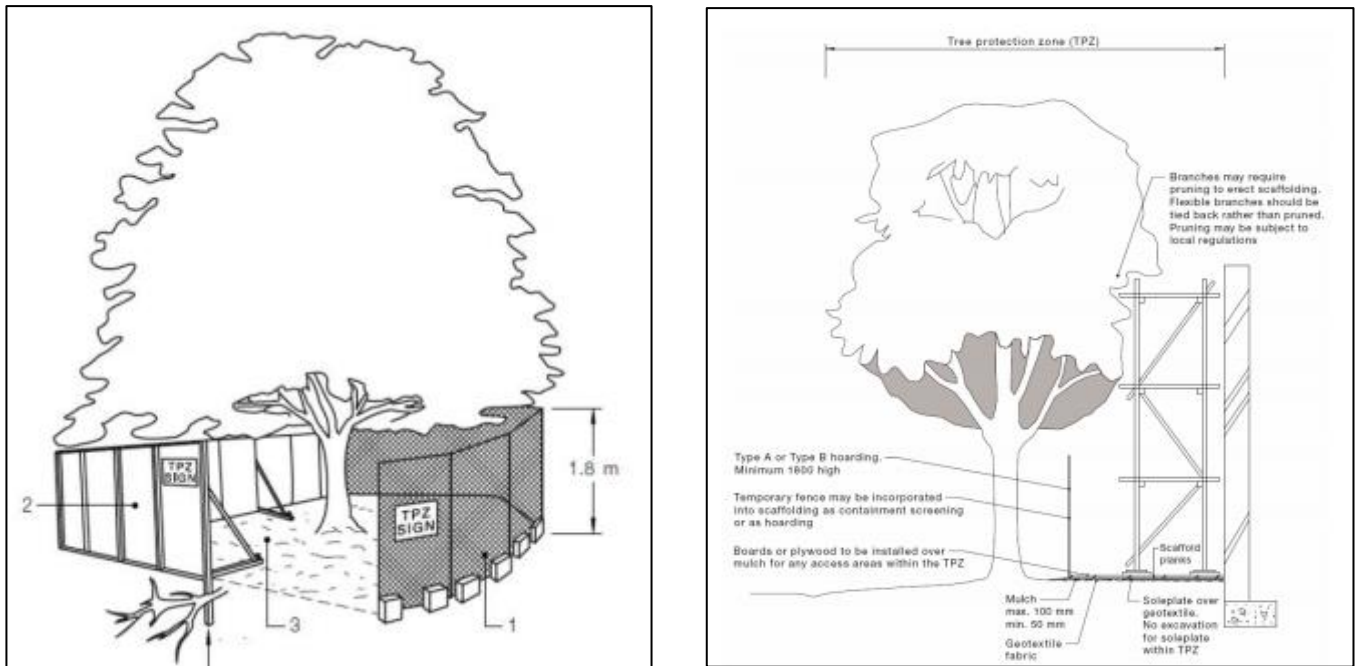


Figure 20: TPZ Fencing and Scaffolding Specifications (Standards Australia, 2009).

6.4 SIGNS

Signs identifying the Tree Protection Zone are to be placed around the Tree Protection Fencing perimeter to prevent unauthorised access.

The signs are to have the project arborist’s contact details clearly identifiable and shall be highly visible throughout the duration of the project and securely attached using cable ties or an equivalent product.

6.5 SITE ACCESS AND EGRESS

Access and egress shall be reduced to one area to minimise compaction and encroachment of the site’s TPZ areas. The erection of fencing is not permitted around any TPZ zones for means of access or egress without the prior consent of the project arborist.

6.6 INSTALLING UNDERGROUND SERVICES WITHIN THE TPZ

If applicable, all excavation within the TPZ must be undertaken under the project arborist's direct supervision.

All excavation within the TPZ must be either undertaken by hand or using non - destructive dry hydro excavation methodology and under the project arborist's direct supervision. There shall be no use of strip excavation construction adjacent to or within the TPZ of any retained tree.

If machinery is required, the trenching must be undertaken with a gummy bucket and rubber skid steer tracks with a maximum weight of three (3) tonnes. The machinery is to be operated in a backward direction toward the extremity of the defined TPZ area.

Natural soil levels are to be retained with no change to the gradient. Topsoil removed from the site is preferable for backfilling the trench. If adequate topsoil cannot be retrieved from the site, general-purpose garden soil is to be used.

Upon completion of backfilling, the area of the TPZ is to be watered, and the area of excavation is to be mulched to a depth no greater than 100 mm.

6.7 BOARDING OF TEMPORARY ROADWAYS

Where the protection zone requires a reduction to accommodate a temporary road, the road surface should be boarded to a distance agreed to by the arborist and the project manager.

An alternative to boards would be 150mm of mulch or 100mm of gravel on a geotextile base. If scaffolding is necessary close to or within a protection zone, erect additional fencing to provide sufficient space for the scaffolding. Leave the ground between the fence and the building works undisturbed and protected by boarding. Cover the ground first with geotextile fabric and then a layer of sand (50mm plus) to allow levelling of the boards. Leave the boards in place until the building works are completed.

6.8 GROUND PROTECTION

To prevent possible soil compaction and root damage within the TPZ, all machinery is to operate, where possible, outside the defined TPZ zone and operate in a backward direction toward the extremity of any defined TPZ area.

For temporary access within the TPZ, a layer of mulch no greater than 150 mm, timber boards or interlocked steel plates on 100 - 150 mm of mulch or gravel on a geotextile base is to be applied at the discretion of the Project Arborist.

All machinery must use rubber-tracked skid steer tracks to distribute the machinery's weight and reduce the likelihood of compaction.

6.9 TREE WORKS

All tree removal, pruning, crown uplifting, crown reduction, thinning, dead wooding and stump grinding must be conducted by an AQF level III Arborist.

If applicable, trees that have been approved for removal or transplanting should be marked on-site and documented in the Tree Location Map.

Before removal, the Project Arborist and Site Manager should confirm that all marked trees correspond with trees denoted in the Tree Location Map.

6.10 ROOT PROTECTION

Where the project arborist identifies roots to be pruned within or on the outer edge of the TPZ, they shall be pruned with a final cut to undamaged wood. Pruning cuts shall be made with a sharp tool. Pruning wounds shall NOT be treated with dressings or paints (Standards Australia, 2009).

No roots are to be cut without prior consent from the project arborist, regardless of size.

The cutting of roots is to be avoided, with the preference for the installation of the service pipe to go under all roots where possible.

Where roots are exposed within the TPZ by excavation, multiple layers of damp hessian sheeting shall be used to cover all exposed roots to prevent drying. The moisture levels are to be maintained throughout this process.

6.11 TREE PRUNING

The minimum pruning required to accommodate any proposal is preferable. For example, removing a small portion of the crown (foliage and branches) is acceptable, provided that the extent of pruning is less than 10% of the total foliage volume and does not alter the natural form and habit of the tree.

All tree removal, pruning, crown uplifting, crown reduction, thinning, dead wooding and stump grinding must be conducted by an AQF level III Arborist.

6.12 STUMP REMOVAL

Stumps located within the TPZs of trees to be retained shall be grubbed-out by hand or using a mechanical stump grinder and in a manner that does not damage the roots of the retained tree.

Where trees or stumps are to be removed within the SRZ of any trees to be retained, consideration should be given to cutting the stump close to ground level and retaining the root crown intact.

Trees and stumps within the Tree Protection Zone of other trees to be retained shall not be pulled out using excavation equipment.

All directional drilling, if required, shall be undertaken at a minimum depth of 1200 mm and in accordance with AS 4970-2009 section 4.5.5.

6.13 FAUNA PROTECTION

Any clearing of trees, shrubs or groundcovers (including weeds) within the site lands should be conducted to ensure no fauna is harmed or displaced.

Any injured native fauna shall be rescued and transferred to the care of the NSW Wildlife Information, Rescue and Education Service WIRES (Ph: 1300 094 737).

6.14 HYGIENE PROTOCOL

As a precautionary measure, hygiene procedures are essential across the site. Such hygiene protocols have the additional benefit of limiting the potential to facilitate the introduction or spread of weed propagules throughout the area of the site.

Basic principles include avoiding the transport of sediment onto and off-site by cleaning all work clothing, gloves, tools and machinery. In some cases, a solution of 70% ethanol or methylated spirits in 30% water may be sufficient to disinfect equipment prior to use.

The report, 'Arrive Clean, Leave Clean' (Commonwealth of Australia, 2015) provides further information and best practice methods to reduce the spread of these pathogens from the adjoining lands.

6.15 GREEN WASTE

All green waste derived from the project shall either be retained and used on-site or chipped and removed from the site and treated at a licenced green waste facility.

6.16 MULCH

The area within the Tree Protection Zone shall be mulched as instructed by the Project Arborist. The mulch must be maintained to a maximum depth of 100 mm using a material that complies with AS: 4454 -2012 *Composts, Soil Conditioners and Mulch* (Standards Australia, 2015).

6.17 WATERING

The Project Arborist shall regularly monitor soil moisture levels. Temporary irrigation or watering may be required within the Tree Protection Zone. Any form of irrigation should be installed and maintained by a competent individual (Standards Australia, 2009).

6.18 WEED REMOVAL

Weed management aims to remove and control all environmental and priority weeds that occur within the subject site and prevent further encroachment of weeds from adjoining areas.

Specific "duties" under the *Biodiversity Act (2015)* regarding mandatory measures, regional measures, prohibited matter or biosecurity zones may apply.

The control and management protocols outlined by the NSW Department of Primary Industries will be followed where a weed species is identified.

Ground weeds should be removed by hand and without soil disturbance or controlled by a suitable herbicide.

6.19 REPLACEMENT PLANTING

As per Council requirements, replacement planting must be undertaken prior to final Arboricultural Certification, and evidence of the replacement planting is to be provided with the certification.

7. REPORTING AND KEY PERFORMANCE INDICATORS

The project arborist determines the required Key Performance Indicators (KPIs). The Project Arborist will produce a certification report based on the monitoring undertaken within the site.

- 7.1 Following each hold point, the project arborist shall prepare a report detailing the Tree Protection Zones and retained trees' condition.
- 7.2 Reports should certify whether the works have been completed according to the Tree Protection Conditions prepared according to *AS: 4970-2009 Protection of Trees on Development Sites*.
- 7.3 Reports will contain photographic evidence to demonstrate that the work has been carried out as specified.
- 7.4 Matters to be monitored and included in these reports should consist of tree condition, tree protection measures and the impact of site works which may arise from changes to the approved plans.
- 7.5 Any areas of non-compliance shall be notified to Council if tree protection conditions have been breached.
- 7.6 Reports should contain remedial action and specifications to mitigate any adverse impact on the subject trees.
- 7.7 Certification will be granted upon the final inspection and completion of any remedial works.

Table 7: Certification Phases and Hold Points

STAGE	WORKS TO BE CERTIFIED
PRE-CONSTRUCTION	<ul style="list-style-type: none"> • Pre-construction inspection with all representatives prior to works commencing. • Documentation review of the conditions of consent issued by the consent authority. • Trees approved for removal are clearly marked. • Any variations to the consent conditions are addressed. • TPZ is established, fenced and mulched. • HOLD POINT • PRE-CONSTRUCTION CERTIFICATION IS ISSUED.
CONSTRUCTION PHASE	<ul style="list-style-type: none"> • Briefing with all relevant representatives by the project arborist prior to the commencement of works. • Inspection of all equipment is as specified in the Tree Protection Conditions. • All works within the TPZ are to be supervised by the project arborist. • Periodic inspections as per Conditions of Consent. • The area of trenching has been restored and mulched. • Remediation works are undertaken if required. • HOLD POINT • STAGE 2 PROGRESS CERTIFICATION COMPLETED.
POST-CONSTRUCTION	<ul style="list-style-type: none"> • Final inspection of trees by Project Arborist after all construction works have been completed and all landscaping- remedial works have been undertaken. • Removal of TPZ fencing. • FINAL CERTIFICATION IS ISSUED.