

CIVICA

ArborSafe

Software Solutions for Tree Inventory Management



Assessment and report by:

Job No:

24 April 2025

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Head of Planning
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The Hayesbery
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Rosebery NSW 2018

Arboricultural Impact Assessment (AIA) Report regarding 115 trees located within the vicinity of the proposed industrial development at 14 Aquatic Drive, Frenchs Forest

Dear Guy,

We are pleased to provide the following Arboricultural Impact Assessment Report for 115 trees within the grounds of 14 Aquatic Drive, Frenchs Forest.

Complete use of this report is authorised under the conditions limiting its use as stated in Appendix A Item 7 of "Arboricultural Reporting Assumptions and Limiting Conditions".

Should you have any queries relating to this report, its recommendations, or the options considered please do not hesitate to contact us on 1300 272 671.

Regards,



Andy Clark

Consulting Arborist
Dip. Hort. (Arb.), AQF Level 5

Version	Date	Author	Rationale
1	11 March 2025	Andy Clark	First Issue
2	24 April 2025	Andy Clark	Update to removal/retention

Table of Contents

1	Executive summary	1
2	Introduction	2
3	Scope.....	2
4	Methodology	2
4.1	Data collection	2
5	Observations.....	4
5.1	Proposed construction.....	4
5.2	Location.....	5
5.3	The subject trees.....	6
5.4	Tree retention values.....	7
5.5	Heritage status	7
5.6	Botanic and environmental status	8
6	Discussion	9
6.1	Determining TPZ encroachment	9
6.2	Impact of proposed development.....	9
7	Tree protection and management recommendations.....	12
7.1	Tree removal	12
7.2	Tree retention	13
7.3	Specific protection measures	14
7.4	Generic protection and reporting measures.....	14
7.5	Activities prohibited within the TPZ	14
7.6	Protective fencing specification	15
7.7	Trunk and ground protection	16
7.8	Tree protection signs.....	17
7.9	Project arborist	17
7.10	Project milestones	17
7.11	Compliance reporting	18
7.12	Proposed pruning.....	18
7.13	Underground service installation	18
7.14	Offset tree planting	19
7.15	Additional excavation/trenching within TPZ's.....	19
8	References	20
	Appendix A. Arboricultural reporting assumptions and limiting conditions.....	21
	Appendix B. Explanation of tree assessment terms.....	22
	Appendix C. Tree retention values	25
	Appendix D. Tree assessment data	27

1 Executive summary

- 1.1 The following is an Arboricultural Impact Assessment Report regarding 115 trees located within the grounds of 14 Aquatic Drive, Frenchs Forest. The subject site was identified by Goodman Property Services (Aust) Pty Ltd (hereinafter referred to as the client) as possessing trees that may be impacted upon by the demolition of the existing infrastructure and the construction of new multi-storey self-storage and warehousing building within a similar footprint.
- 1.2 In part, the project scope was to nominate the subject trees that are suitable for retention/preservation, or require removal to facilitate the proposed development works, as well as identify and reduce potential conflicts between the subject trees and proposed site development. Accurate information on the area required for tree retention and methods/techniques suitable for tree protection during demolition and/or construction have been provided.
- 1.3 A portion of the site fell within a mapped area of Duffy's Forest Ecological Community in the Sydney Basin Bioregion – a listed TEC or Threatened Ecological Community Greater Sydney (NSW Government, 2025).
- 1.4 Ninety-six trees were recommended for retention, with site exclusion being the main protection measure to be employed, with minimal long-term negative impacts envisaged.
- 1.5 One tree, numbered 116, has specific protection measures over and above the recommended generic measures. These include retention of the existing underground cable infrastructure where it lays within the TPZ, or project arborist involvement during excavation works (required to remove it) and restrictions on machinery use.
- 1.6 Tree retention status in relation to the proposed development (refer to Section 5.4 for full details of Retention Value categories):

RV	Description	Total	Remove		Retain	
			located within development footprint	irrespective of future development	with specific protection	with generic protection
A	High retention value trees	12	35, 42		116	44, 126, 134, 136, 143, 144, 145, 148, 154
B	Moderate retention value trees	23				1, 3, 20, 25, 33, 51, 53, 55, 57, 60, 61, 117, 120, 133, 135, 141, 142, 146, 147, 149, 150, 152, 153
C	Low retention value trees	80	38, 39, 40, 43, 45, 46, 48, 71, 72, 77, 78, 87, 88, 89, 90, 91, 92			2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 34, 47, 49, 50, 52, 54, 56, 58, 59, 62, 79, 80, 81, 82, 119, 123, 124, 137, 138, 139, 140, 151, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168

2 Introduction

- 2.1 Civica ArborSafe was engaged by Guy Smith on behalf of the client to complete an Arboricultural Impact Assessment Report on 115 trees located within or adjacent to 14 Aquatic Drive, Frenchs Forest.
- 2.2 The report has been requested as part of a Development Application (DA) that involves the demolition of existing buildings and the construction of new multi-storey self-storage and warehousing building within a similar footprint.
- 2.3 The report was intended to provide information on the subject trees and how they may be impacted upon by the proposed development works. Report findings and recommendations are based upon guidance provided within the Australian Standard AS 4970–2009: *Protection of Trees on Development Sites*.
- 2.4 Observations and recommendations are based upon information provided by the client and an arborist site visit.

3 Scope

- 3.1 Carry out a visual assessment of the nominated trees located within the vicinity of the proposed development works, including trees located within neighbouring properties and/or council administered road verges where necessary. Provide an objective appraisal of the subject trees in relation to their species, estimated age, health, structural condition, useful life expectancy (ULE) and viability within the existing landscape.
- 3.2 Based on the findings of the visual assessment, provide independent recommendations on the retention value of the subject trees.
- 3.3 Identify the subject trees that are retainable or require removal to facilitate the proposed development as shown in the plans provided.
- 3.4 Identify and reduce potential conflicts between the retainable subject trees and the proposed site development by providing accurate information on the area required for successful tree retention and methods/techniques suitable for tree protection during demolition and/or construction.

4 Methodology

4.1 Data collection

- 4.1.1 Tom Axford of Civica ArborSafe carried out a site inspection of the subject trees on 29 January 2025.
- 4.1.2 Trees that are the subject of this report (Figure 3) were identified during discussions with the Client, reviewing relevant supplied development documentation and reviewing the description of a non-exempt 'Tree' as identified within the Northern Beaches Council (NBC) *Removing and pruning trees on private land* (guidance notes) (Northern Beaches Council, 2025) and *Exempt Tree Species List* (Northern Beaches Council, 2025).
- 4.1.3 Pursuant with NBC tree management policy, all site trees above (or estimated to be above) 5m in height have been included within this report. Prominent trees/shrubs <5m have largely been included but some may have been omitted from the report based on their species, current size and/or minimal potential future size and contribution to local amenity.
- 4.1.4 The subject trees were inspected from the ground using the initial component of Visual Tree Assessment (VTA) (Mattheck, 1994). No foliage or soil samples were taken and no aerial, underground or internal investigations were undertaken.

- 4.1.5 Tree height and crown width were estimated and have been provided in a variety of ranges with 5m increments. Trunk diameter at breast height (DBH) and trunk diameter at the root crown (DRC) were measured with a diameter tape and provided to the nearest centimetre. The physical dimensions of trees located on neighbouring properties have been estimated due to restricted access.
- 4.1.6 TPZ encroachment calculations are based upon measurements obtained from using PDF measuring tools and/or scale ruler and/or measurement descriptions from the assessing arborists against plans showing surveyed tree locations calculated within a dedicated TPZ encroachment calculator.
- 4.1.7 It is important to note that TPZ is a theoretical calculation and can be influenced by existing physical constraints such as buildings, drainage channels, retaining walls, etc. (Standards Australia, 2009)
- 4.1.8 Environmental and heritage information was sourced from NSW SEED website. The source of all information in this regard has been referenced accordingly.
- 4.1.9 Data collected on site was analysed alongside the supplied development documentation and plans by Andy Clark, following which relevant findings and recommendations were formulated and collated into report format.
- 4.1.10 Tree protection zones (TPZ) and structural root zones (SRZ) were calculated in accordance with the Australian Standard AS 4970–2009: *Protection of Trees on Development Sites*.
- 4.1.11 Retention values have been determined based upon a modified version of the British Standard BS 5837–2012: *Trees in Relation to Design, Demolition and Construction*.
- 4.1.12 All photographs were taken at the time of the site inspection by the author and may have been altered for brightness, contrast, or have been cropped.
- 4.1.13 Plans of the existing site and of the proposed development were provided to Civica ArborSafe in February, March and April 2025.
- 4.1.14 A limited review has been undertaken of underground service locations (proposed storm water drains, existing power/telecommunications infrastructure) in the preparation of this report.

5 Observations

5.1 Proposed construction

- 5.1.1 The proposed development has been reviewed and in summary consists of the demolition of the existing building and its reconstruction with a new multi-level warehousing/storage unit building located across a similar footprint.
- 5.1.2 Additional works involve various hard and soft landscaping works, minor upgrades/reconfiguration to existing driveway/carparking and removal of various existing decommissioned underground infrastructure.

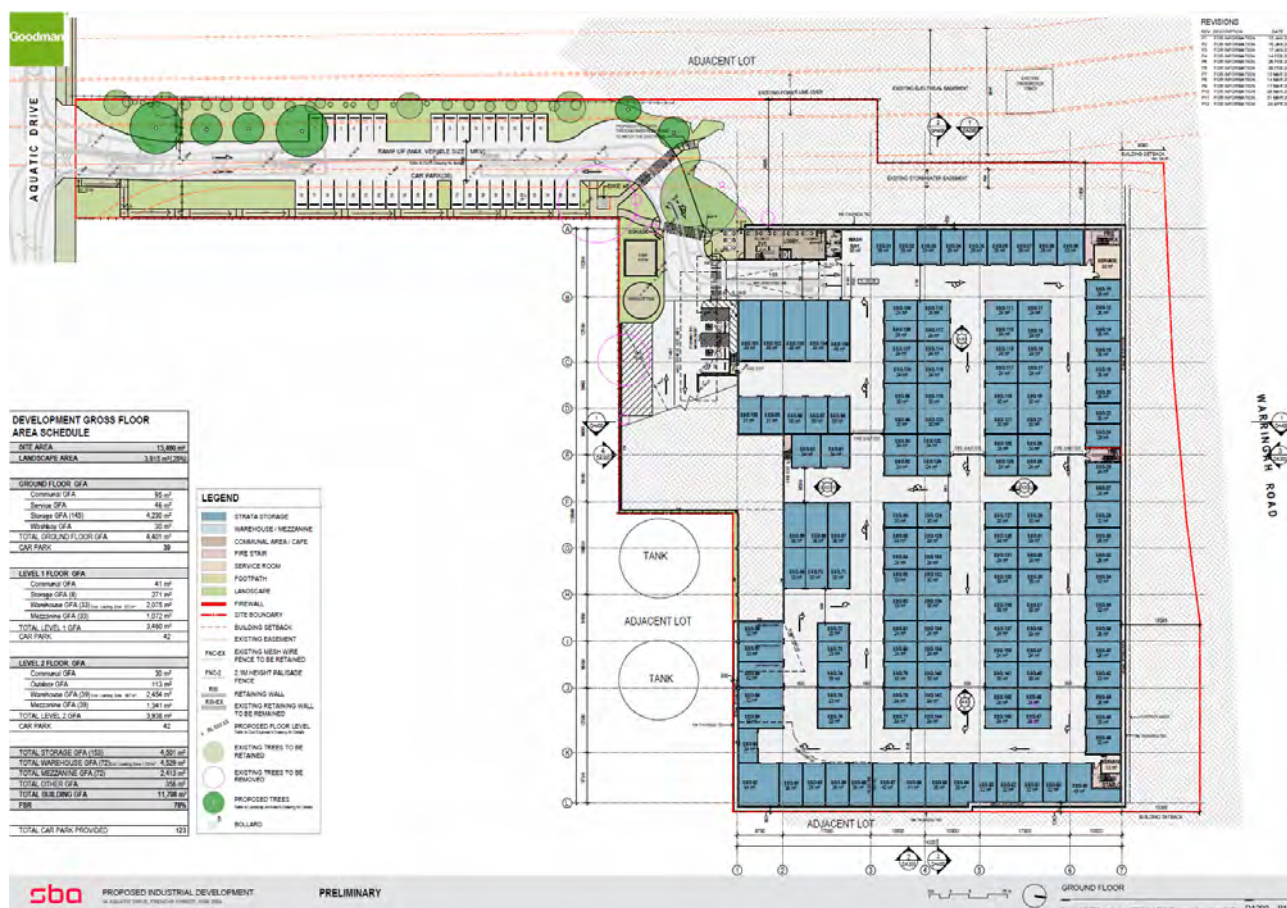


Figure 1. Excerpt from Site Plan / Roof Plan (Dwg. DA200, P12). SBA, 24 April 2025.

- 5.1.3 Plans of the existing site and of the proposed development were provided to Civica ArborSafe in February, March and April 2025 and include (but are not limited to):

- Combined Drawings, Proposed Industrial Development, Project 24103. SBA, April 2025.
- Stormwater Drainage Plan, Ground Floor, Dwg. No. C09431.01-DA41, Issue C. Costin Roe Consulting, 23 April 2025

5.2 Location

- 5.2.1 The development site (Lot 2 of DP1211755) is located within the grounds of 14 Aquatic Drive, Frenchs Forest (Figure 2), which is designated as a B7:Business Park Zone within the Northern Beaches Council Local Government Area (LGA).
- 5.2.2 The site currently holds a disused industrial building which is bounded to the north by Warringah Road, south by Aquatic Drive and by other existing industrial buildings to the east and west.



Figure 2. Whole site image (location). Red lines delineate the site and area containing the subject trees that may be impacted by the proposed development works. Nearmap, 2023.

5.3 The subject trees

- 5.3.1 Trees can be identified on site using white tree tags which are typically located approximately 2.0m from ground level on the south side of the trunk. Trees located on neighbouring properties may not have been tagged.
- 5.3.2 Twenty-nine species were identified across the site with the most prevalent being *Syzygium leuhmannii* (Small-leaved Lilly Pilly), *Angophora costata* (Smooth-barked Apple Myrtle) and *Magnolia grandiflora* (Bull Bay).
- 5.3.3 Twenty-four of the subject trees were species endemic to the local area, with another 73 native to NSW and the remaining 18 being exotic species.
- 5.3.4 The treescape is relatively young with 33 (28.7%) of the existing surveyed trees rated as Semi-mature and a further 53 trees (46.1%) being in the Young/Juvenile category. Twenty-nine trees (25.2%) were rated as Mature specimens.
- 5.3.5 Trees 20, 117, 119, 126, 133, 134, 136, 137, 139, 141, 142, 143, 144, 149, 151, 152, 153, 154, 155, 161, 162, 163, 164 and 165 were identified as species characteristic of *Duffy's Forest Ecological Community*, which is considered a Threatened Ecological Community (TEC) (refer to Figure 5 and 6, and section 5.6 of this Report). The majority of these trees were mature specimens.
- 5.3.6 Trees 4, 5, 6, 7, 8, 14, 17, 18, 21, 24, 38, 39, 45, 46, 47, 48, 54, 56, 58, 62, 72, 82, 87, 88, 89, 90 and 140, planted juvenile Bull Bay Magnolias and Small-leaved Lilly Pilly, are exempt from Council notice due to being under the height requirements listed within the NBC Tree Management Policies. A permit would not be required to remove these trees.

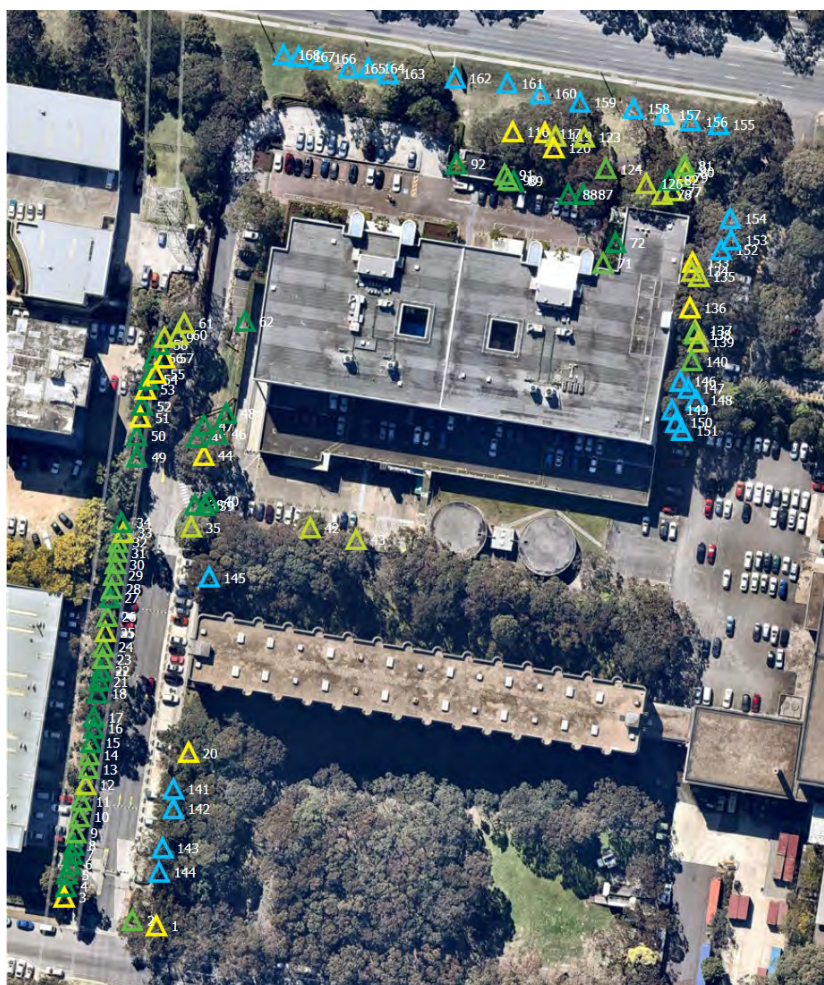


Figure 3. Site map showing the subject trees. Note that icon colour indicates a tree's current risk rating (not Retention Value). Tree attributes can be obtained from Appendix D – Tree Assessment Data. ArborSite, January 2025.



Figure 4. An image showing the growing environment around Tree 44. Tom Axford, January 2025.

5.4 Tree retention values

- 5.4.1 Tree retention values have been determined based upon a modified version of the British Standard BS 5837–2012: *Trees in Relation to Design, Demolition and Construction*. This standard categorises tree retention value, based upon an assessment of a tree's quality (health and structure) and useful life expectancy, into one of four categories – A, B, C and U. Refer to Appendix C for further details.
- 5.4.2 Other criteria such as a tree's physical dimensions, age class, location and its amenity, heritage and/or environmental significance and potential replacement time were also considered. A breakdown of the attributes required for classification in each category can be obtained from Appendix C.
- 5.4.3 In relation to development applications, relevant consent authorities will generally consider:
- **Category A Retention Value** trees as significant and alterations to the design proposal and/or specific protection measures are generally recommended to facilitate successful tree retention post project completion.
 - **Category B Retention Value** trees as a site constraint consideration. Trees in this retention category warrant proportional design consideration and amendment to ensure their viable retention post project completion.
 - **Category C Retention Value** trees are not considered a site constraint and do not generally warrant design consideration or amendment.
 - **Category U Retention Value** trees are considered a site opportunity, as such trees are generally of poor arboricultural quality and normally recommended for removal irrespective of proposed development.

Category	Tree numbers
A	35, 42, 44, 116, 126, 134, 136, 143, 144, 145, 148, 154
B	1, 3, 20, 25, 33, 51, 53, 55, 57, 60, 61, 117, 120, 133, 135, 141, 142, 146, 147, 149, 150, 152, 153
C	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 34, 38, 39, 40, 43, 45, 46, 47, 48, 49, 50, 52, 54, 56, 58, 59, 62, 71, 72, 77, 78, 79, 80, 81, 82, 87, 88, 89, 90, 91, 92, 119, 123, 124, 137, 138, 139, 140, 151, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168
U	

5.5 Heritage status

- 5.5.1 The proposed development site had no trees identified as being within a Heritage Curtilage (NSW Government, 2025).

5.6 Botanic and environmental status

- 5.6.1 A portion of the site fell within a mapped area of *Duffy's Forest Ecological Community* in the Sydney Basin Bioregion – a listed TEC or **Threatened Ecological Community Greater Sydney** (NSW Government, 2025).



Figure 5. Image of SEED map – TEC in green. NSW Government, Accessed March 2025.

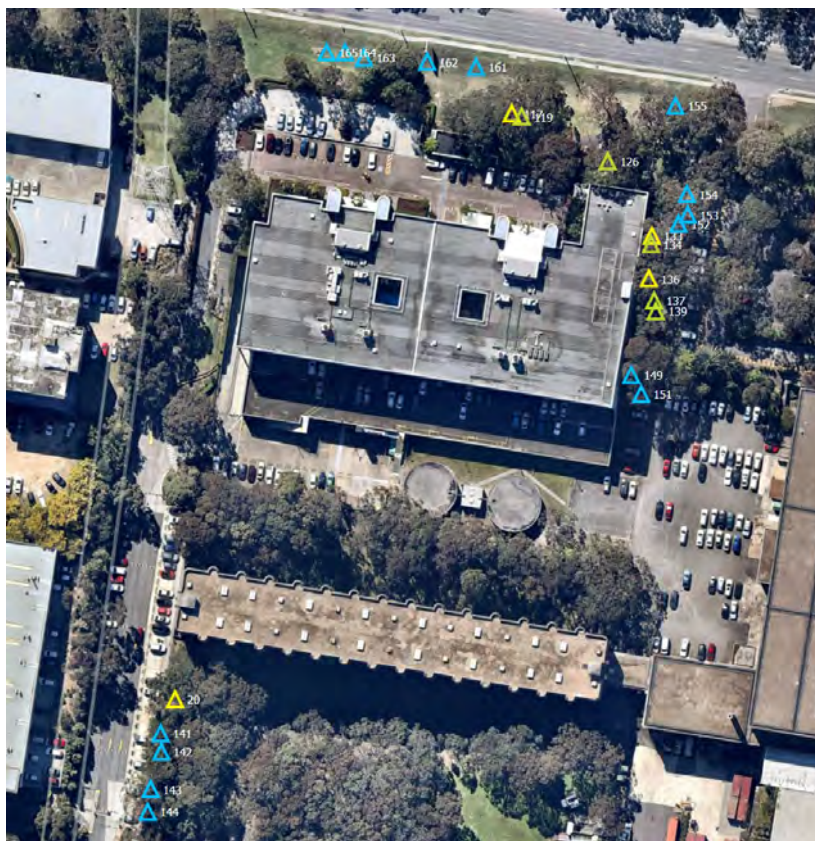


Figure 6. Location of tree species consistent with TEC, Arbor Site, March 2025.

5.6.2 The NSW Office of Planning and Environment (2011) lists Duffy's Forest Ecological Community as:

..... the accepted name for the ecological community that occurs on the ridgetops, plateaus, upper slopes and occasionally mid slopes on Hawkesbury sandstone geology, typically in association with laterite soils and soils derived from shale and laminite lenses. It has the structural form predominantly of open-forest to woodland. The Duffys Forest Ecological Community has been reported from the Warringah, Pittwater, Ku-ring-gai, Hornsby and Manly Local Government Areas, although it may occur elsewhere in the Sydney Basin Bioregion. Bioregions are defined in Thackway and Cresswell (1995). (NSW Government, 2021)

6 Discussion

6.1 Determining TPZ encroachment

- 6.1.1 Major encroachment. As per the Australian Standard AS 4970–2009: *Protection of Trees on Development Sites*, a major encroachment into the TPZ of any tree is considered to occur when it is beyond 10% of the total TPZ area.
- 6.1.2 Trees with major encroachment may require removal or, in certain instances, be retained with specific protection requirements throughout the construction stage.
- 6.1.3 Minor encroachment. Under the aforementioned standard, a minor encroachment is determined as being less than 10% of the total TPZ area. Trees with minor encroachment may be retained with specific, generic or no protection requirements throughout the construction stage.
- 6.1.4 No encroachment. Trees with no encroachment may be retained with generic or no protection requirements throughout the construction stage.
- 6.1.5 For the purposes of this report, trees to be removed or retained have been identified as those:
- Requiring removal due to a level of encroachment into their TPZ that would likely result in a detrimental impact upon their future health and/or stability
 - Retainable and requiring specific protection requirements throughout construction (i.e. generic requirements plus a combination of arborist supervision and careful construction methods within their TPZ)
 - Retainable and requiring generic tree protection measures only (i.e. protective fencing and restriction of activities within the TPZ)

6.2 Impact of proposed development

- 6.2.1 A review of the proposed design has been undertaken in the context of tree retention and removal across the site.
- 6.2.2 The main development impact which affects trees, but not necessarily to the point of requiring immediate removal, is significant root damage/severance due to major TPZ encroachment. Root damage/severance largely occurs due to two main impacts – soil compaction (compacting existing site soil to build on or installing additional fill to raise soil levels) and/or direct root severance (excavation for service installation or lowering surface levels).
- 6.2.3 Negative tree impacts can manifest as either a reduction in health and/or vigour due to root loss (absorption and/or transport roots) resulting in a reduction in water and nutrient absorption capability or on tree stability if larger roots are impacted. Ultimately, the outcome for the trees depends on a number of variable factors including species, age, current health, TPZ encroachment percentage, soil type, topography, previous site use and the proposed design and construction methodology.

- 6.2.4 Compacted soils, especially artificially compacted soils, such as those commonly found under driveways or building platforms, have a higher bulk density down to a deeper level of subsoil. Bulk density is the term used for describing the weight of soil per unit volume. The broad engineering thinking is that the higher the density the more stable the road surface due to less soil movement in expansion, contraction, or compression. A higher bulk density is produced by compacting the soil to reduce available pore space between the soil particles.
- 6.2.5 The effect of compacted soils on plants is somewhat influenced by soil type but generally a reduction in soil pore space reduces the available area for oxygen and water within the soil profile. A reduction in available soil water and/or oxygen inhibits root activity within the soil, as they are essential for root elongation and growth, and the lack of these properties is considered a major limiting factor. Due to this reason, existing infrastructure, such as roads, situated in close proximity to the base of trees can act as root barriers thereby affecting the shape of the TPZ and allowing closer works than would otherwise be permitted.
- 6.2.6 The impact of significant soil level rises across the TPZ generally occurs over a longer time frame, as the stored energy can still be utilised and shifted within the tree even if the long-term use of the affected root is limited, than if the roots were directly severed. Soil level rises generally allows the tree more time to react to the changed growing environment whereas root severance has the same effect, reduction in root function and capability, but on an instantaneous time scale where there is no time for the tree to adjust.
- 6.2.7 Thirteen trees (Tree 45, 46, 48, 71, 72, 77, 78, 87, 88, 89, 90, 91 and 92) will be affected by direct conflict with the proposed construction footprint and would require removal under the current design, however given their small stature, poor pruning history and Low RV (all Category C RV) they should not be considered a constraint on the development.
- 6.2.8 A further six trees – 2 x Category A RV (Tree 35 and 42) and 4 x Category C RV (Tree 38, 39, 40 and 43) – would require removal due to major TPZ encroachment and (largely) limited options for mitigation under the current design. Trees 42 and 43 also raised safety concerns with the Fire Engineer, who recommended removal, as they would be overhanging a proposed fire truck parking bay at the completion of construction.
- 6.2.9 The circular TPZ shown on the plans for Tree 44 (Refer to Figure 7) is slightly misleading as there is a longstanding heavy duty concrete driveway aligned under the tree canopy, immediately south of the trunk (refer to Figure 4). As per section 6.2.5 of this Report, it is considered the majority of roots would be to the north of the tree within the existing garden bed. To get a more accurate model an irregular shaped TPZ model was created, based on the 'theoretical TPZ' area allocated more accurately within the confines of the existing garden bed. The proposed storm pipe alignment (Pit L01 to A15) was calculated at crossing 13m to the north of the tree resulting in a minimal impact to the long term viability of the tree.

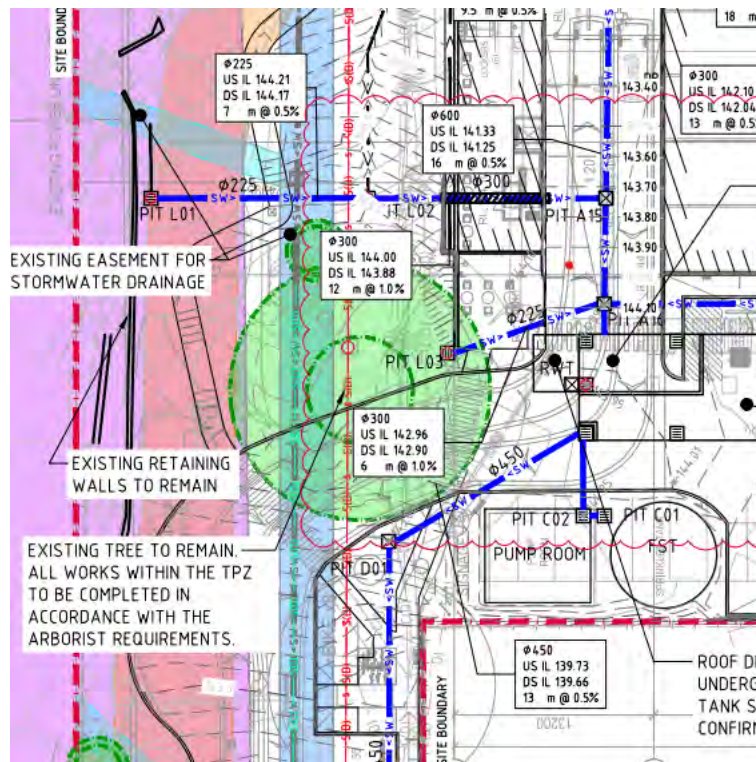


Figure 7. Excerpt of proposed storm pipe alignment above the northern TPZ of Tree 44, Stormwater Drainage Plan, Dwg. No. C09431.01-DA41, Issue C. Costin Roe Consulting, 23 April 2025.

- 6.2.10 The removal of the underground infrastructure, during the demolition of the existing site, can be extremely detrimental to existing trees when completed by excavation methodology within their respective TPZ. To minimise the potential for root damage, some underground cable infrastructure should be retained in situ, Tree 116 being a case in point where defunct external cables are recommended for removal across its western TPZ.
- 6.2.11 The remaining 96 trees have zero to minimal TPZ encroachment and can be retained with generic protection.
- 6.2.12 The assumption of allowable encroachment and minimal long-term health or structural impacts to trees rely on a combination of the following being used – root sensitive construction methods being adhered to within the TPZ, minimal excavation within the TPZ to limit root severance (i.e. construction placed outside the TPZ where possible), fill rather than excavation utilised to affect level changes where possible (i.e. to minimise root severance and allow the tree's root system time to adjust), no construction occurring within the SRZ, compensatory area being available around the unimpacted aspects of the trees, and the enhancement of the existing TPZ area (i.e. mulched, soil conditioning and irrigation when required).

7 Tree protection and management recommendations

7.1 Tree removal

7.1.1 Nineteen trees would require removal require removal, based on the supplied design proposal, to facilitate the development.

Recommendation	Category A High retention value		Category B Moderate retention value		Category C Low Retention value		Category U No retention value	
	Qty	Tree numbers	Qty	Tree numbers	Qty	Tree numbers	Qty	Tree numbers
Remove for development	2	35, 42	0		17	38, 39, 40, 43, 45, 46, 48, 71, 72, 77, 78, 87, 88, 89, 90, 91, 92	0	



Figure 8. Site map showing trees requiring removal to facilitate development.. ArborSite, January 2025.

7.2 Tree retention

7.2.1 Ninety-six trees were recommended for retention and generic, and in one case specific, protection measures during construction to ensure they remain viable following the completion of works.

Recommendation	Category A High retention value		Category B Moderate retention value		Category C Low Retention value	
	Qty	Tree numbers	Qty	Tree numbers	Qty	Tree numbers
Retain with specific protection requirements	1	116	0		0	
Retain with generic protection requirements	9	44, 126, 134, 136, 143, 144, 145, 148, 154	23	1, 3, 20, 25, 33, 51, 53, 55, 57, 60, 61, 117, 120, 133, 135, 141, 142, 146, 147, 149, 150, 152, 153	63	2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 34, 47, 49, 50, 52, 54, 56, 58, 59, 62, 79, 80, 81, 82, 119, 123, 124, 137, 138, 139, 140, 151, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168

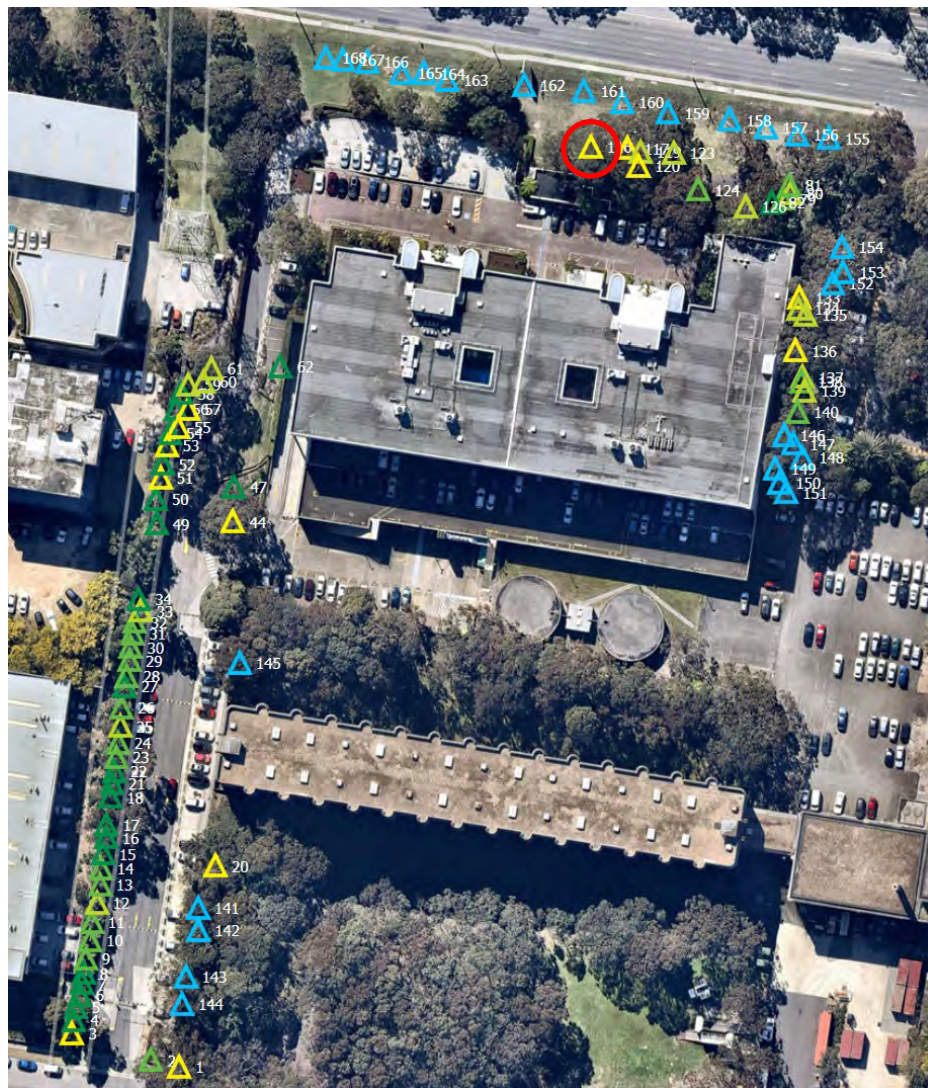


Figure 9. Site map showing all retained trees requiring generic/specific (red circle) protection measures. ArborSite, January 2025.

7.3 Specific protection measures

- 7.3.1 Tree 116 has proposed underground cable infrastructure demolition works within its western TPZ. It is proposed the existing cable is retained in situ to minimise the potential for root damage during excavation works required to retrieve it.
- 7.3.2 In the event of excavation is required, which exceeds 10 percent of the TPZ, it is to be carried out under arborist supervision and/or with the consent of the project arborist.
- 7.3.3 It is recommended that any proposed excavation commence at the outer extent of the TPZ and move inwards to minimise root damage/severance to the subject trees. Excavation should be undertaken using root sensitive techniques such as:
- Excavation using a high-pressure water jet and vacuum truck
 - Excavation using a small, tracked machine with an additional spotter
 - Excavation by hand
- 7.3.4 Where exploratory excavation(s) identifies significant root mass, a modification to the proposed design and/or a revision of individual tree retention/removal status may be required.
- 7.3.5 Roots discovered are to be treated with care and minor roots (<30-40mm in diameter) pruned with a sharp, sterile handsaw or secateurs.
- 7.3.6 All significant roots (>30-40mm in diameter) are to be preserved/protected from desiccation, recorded, photographed and reported to the project arborist for review. At the discretion of the project arborist they may decide that retention of such roots is required for the sake of future tree health or may determine such roots can be pruned without any significant impact on future health.

7.4 Generic protection and reporting measures

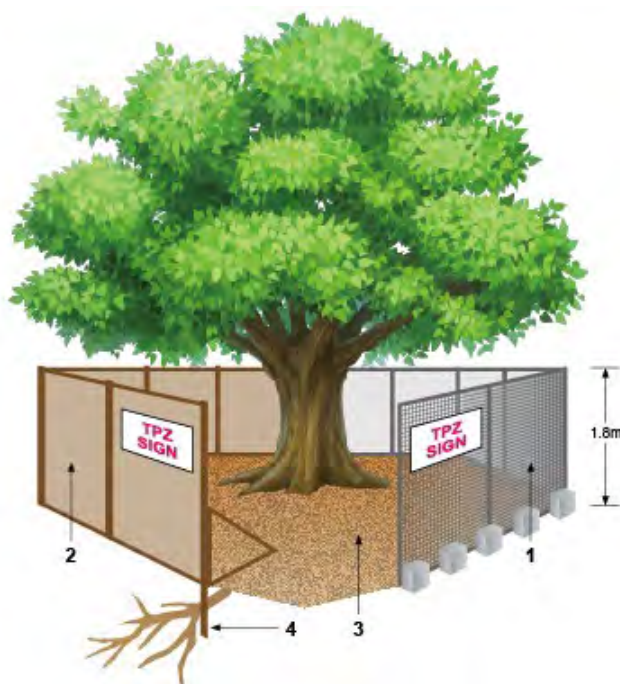
- 7.4.1 All subject trees designated for retention require generic protection during the demolition and/or construction stage. Tree protection measures include a range of:
- Activities restricted within the TPZ
 - Protective fencing
 - Trunk and ground protection
 - Tree protection signage
 - Involvement from the project arborist
 - Project milestones
 - Compliance reporting

7.5 Activities prohibited within the TPZ

- Machine excavation including trenching
- Storage
- Preparation of chemicals, including cement products
- Parking of vehicles and plant
- Refueling
- Dumping of waste
- Wash down and cleaning of equipment
- Placement of fill
- Lighting of fires
- Soil level changes
- Temporary or permanent installation of utilities and signs
- Physical damage to the tree

7.6 Protective fencing specification

- 7.6.1 Tree protective protection fencing is to be installed at the designated TPZ or maximum practicable extent. As a guide fencing is to be erected as per the image below before any machinery or materials are brought to site and before commencement of works (including demolition).
- 7.6.2 In some areas of the site (i.e. protection of trees on neighbouring properties) existing boundary fencing and/or external site fencing may be used as an alternative to protective fencing.
- 7.6.3 Once erected, tree protection fencing must not be removed or altered without approval from the project arborist and/or the responsible authority and is to be secured to restrict unauthorised access.
- 7.6.4 Tree protection fencing is to be a minimum of 1.8 metres high and mesh or wire between posts must be highly visible. Fence posts and supports should have a diameter greater than 20 millimetres and should ideally be freestanding, otherwise be located clear of tree roots.
- 7.6.5 Tree protection fencing must remain intact throughout all proposed construction works and must only be dismantled after their conclusion. The temporary dismantling of tree protection fencing must only be done with the authorisation of the project arborist and/or the responsible authority.
- 7.6.6 The subject trees themselves must also not to be used as a billboard to support advertising material. Affixing nails or screws into the trunks of trees to display signs of any type is not a recommended practice in the successful retention of trees.



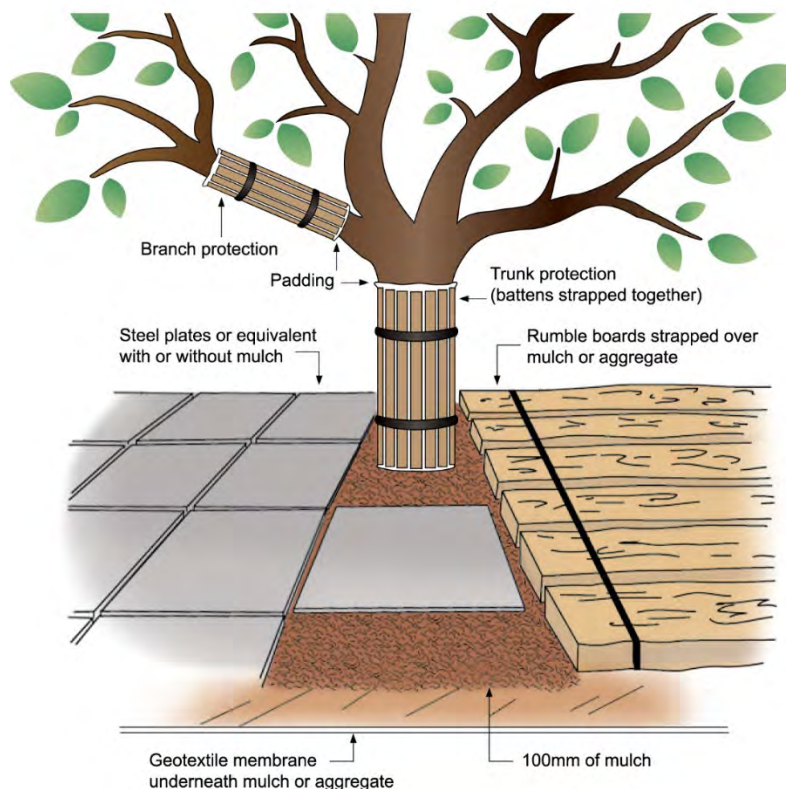
Legend:

- 1. Chain wire mesh panels with shade cloth attached (if required), held in place with concrete feet
- 2. Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ
- 3. Mulch installation across surface of TPZ (at discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage materials of any kind are permitted within the TPZ
- 4. Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

Figure 10. Depicts standard fencing techniques. AS 4970–2009.

7.7 Trunk and ground protection

- 7.7.1 Where proposed works are within the TPZ of retained subject trees, standard protective fencing may not always be a viable method of protection. In these instances trunk protection and/or ground protection should be installed prior to the commencement of site establishment and remain in place until after all proposed works have been completed.
- 7.7.2 Where construction access into the TPZ of retained subject trees cannot be avoided, the root zone of each affected tree must be protected using steel plates or rumble boards strapped over mulch/aggregate until such a time as permanent, above-ground surfacing (cellular confinement system or similar) is installed.
- 7.7.3 Trunk and ground protection is to be undertaken in accordance with the Australian Standard AS 4790–2009: *Protection of Trees on Development Sites* as per the image below.



Notes:

1. For trunk and branch protection use boards and padding that will prevent damage to bark. Boards are to be strapped to trees, not nailed or screwed.
2. Rumble boards should be of a suitable thickness to prevent soil compaction and root damage.

Figure 11. Depicts trunk and ground protection techniques. AS 4790–2009.

7.8 Tree protection signs

- 7.8.1 Signs identifying the TPZ are to be placed at approximate 10 metres intervals around the edge of the TPZ fencing and must be visible from within the development site.



Figure 12. Depicts an example of a tree protection sign. AS 4970–2009.

7.9 Project arborist

- 7.9.1 A project arborist must be commissioned to oversee all tree protection measures, approved works within TPZ's (where necessary) and complete regular monitoring and compliance certification.
- 7.9.2 The project arborist must be suitably experienced and competent in arboriculture, having acquired through training, a minimum qualification in this field under the Australian Qualification Framework (AQF) of Level 5, or an equivalent.
- 7.9.3 Regular site inspections are to be conducted by the project arborist at several, key points during the project to ensure all tree protection recommendations are being adhered to during demolition and/or construction. Such inspections will also allow for any alterations in tree health and/or additional tree protection or remediation measures to be identified and addressed.

7.10 Project milestones

- 7.10.1 The following visits and milestones are recommended as a guide as to when on-site inspections by the project arborist are required:

Item	Purpose of Visit	Timing of Visit(s)	Prerequisites
1	Pre-start induction	Following sign-off from Item 1. Contractor to provide a minimum of five (5) days' advance notice for this visit.	Prior to commencement of works. All parties involved in the project to attend.
2	Supervision of works in TPZ's, including all regrading and excavations	Whenever there is work planned to be performed within the TPZ's. Contractor to provide a minimum of five (5) days' advance notice for such visits.	
3	Regular site inspections	Minimum frequency monthly for the duration of the project.	The checklist must be completed by the project arborist at each site inspection and be signed by both parties.
4	Final sign off	Following completion of all works.	Practical completion of works and prior to tree protection removal.

7.11 Compliance reporting

- 7.11.1 Following each site inspection, the project arborist is to prepare a report detailing the health and structural condition of the subject trees designated for retention. These reports should certify whether the works are being undertaken in accordance with the consent/conditions relating to tree protection and management.
- 7.11.2 These reports should contain photographic evidence (where applicable) to demonstrate that all tree protection and management recommendations are being carried out as specified.
- 7.11.3 Matters to be monitored and contained in these reports must include tree health and structural condition, the appropriateness and effectiveness of tree protection measures and any potential impact(s) on retained subject trees relating to conducted works which may arise from changes to the endorsed plans.
- 7.11.4 After completion, the reports shall be submitted to the project manager (as well as the clients' nominated representative where required).
- 7.11.5 If any tree protection conditions are found to have been breached, clear remedial action specifications must be specified, and the responsible authority notified.

7.12 Proposed pruning

- 7.12.1 It is anticipated that minor pruning only may be required, largely centred on reduction or crown lifting to facilitate site access during construction, of no greater than 10% of any one trees total crown area. Such pruning is considered to have minimal long term health impact to the tree.
- 7.12.2 To ensure that a high standard of works is achieved, all tree pruning and/or removal works must be completed in accordance with the Australian Standard AS 4373–2007: *Pruning of Amenity Trees* and be undertaken by a suitably qualified arborist (minimum AQF Level 3).
- 7.12.3 Branch reduction pruning (where required) must focus on the removal of smaller diameter branches where feasible and remove no greater than 10% of total crown mass. Branches no greater than 50mm in diameter are to be removed unless specifically approved by the project arborist.

7.13 Underground service installation

- 7.13.1 The installation of underground services (including drainage) must not encroach within the TPZ of any retained subject tree unless authorised by the project arborist and/or the responsible authority in which case underground boring will invariably be recommended.
- 7.13.2 The boring of services is to occur at a minimum depth of 800 millimetres (top of pipe) below the existing grade for trees with a trunk DBH of <100 centimetres, 950 millimetres for trees with a trunk DBH of 100-150 centimetres and 1100 millimetres for trees with a trunk DBH of >150 centimetres.
- 7.13.3 To minimise soil disturbance associated with service installation, communal service lines must be used where appropriate. The entry and exit pits for boring must also be positioned outside the designated TPZ for each tree.

7.14 Offset tree planting

- 7.14.1 Offset plantings must reflect the number of subject trees removed and the initial loss of amenity and biomass at a ratio of 1:1, or a rate designated by the responsible authority. Replacement trees are to be sourced from a reputable supplier and planted after the completion of all proposed works and at a time of year conducive to successful tree planting and establishment.
- 7.14.2 Replacement tree species must suit their location on the site in terms of their potential physical dimensions at maturity and their tolerance(s) to the surrounding environmental conditions e.g. water and climate sensitive selections. To avoid unethical or unprofessional species selection and/or their placement within the landscape, replacement species must be selected in consultation with a consulting arborist, who can also assist in implementing successful tree planting and establishment techniques.
- 7.14.3 Replacement tree species must have the genetic potential to reach physical dimensions at maturity that are comparable to those trees which have been removed.
- 7.14.4 A mixture of family, genus and species within the replacement tree planting list is considered desirable to help build resilience within the overall tree population on site, and surrounding area.
- 7.14.5 Newly planted trees will likely require maintenance and after planting care for a period of 2–3 years to ensure successful establishment. Plantings which fail during the establishment period are to be removed and replaced like for like.
- 7.14.6 Maintenance schedules may include (but not be limited to) watering, mulching, staking, guarding and formative pruning.

7.15 Additional excavation/trenching within TPZ's

- 7.15.1 In the event additional excavation is required within the TPZ of subject trees designated for retention/preservation, this is only to be conducted with the express consent of the project arborist and/or the responsible authority.
- 7.15.2 Upon review these excavations may be required to be conducted using techniques that are sensitive to tree roots to avoid unnecessary damage.

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Appendix A. Arboricultural reporting assumptions and limiting conditions

1. Any legal description provided to the consultant is assumed to be correct. Any titles and ownership of any property are assumed to be good. No responsibility is assumed for matters legal in character.
2. It is assumed that any property/project is not in violation of any applicable codes, ordinances, statutes or other government regulations.
3. Care has been taken to obtain all information from reliable sources. All data has been verified in so far as possible, however, the consultant can neither guarantee nor be responsible for the accuracy of the information provided by others.
4. The consultant shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.
5. Loss or alteration of any part of this report invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by anyone but the person to whom it is addressed, without the prior written consent of the consultant.
7. Neither all nor any part of the contents of this report, nor any copy thereof, shall be used for any purpose by anyone but the person to whom it is addressed, without the written consent of the consultant. Nor shall it be conveyed by anyone, including the Client, to the public through advertising, public relations, news, sales or other media, without the written consent of the consultant.
8. This report and any values expressed herein represent the opinion of the consultant and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
9. Sketches, diagrams, graphs and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys unless expressed otherwise.
10. Information contained in this report covers only those items that were examined and reflect the condition of those items at the time of inspection.
11. Inspection is limited to visual examination of accessible components without dissection, excavation or probing. There is no warranty or guarantee expressed or implied that the problems or deficiencies of the plants or property in question may not arise in the future.

Appendix B. Explanation of tree assessment terms

Tree number: Refers to the individual identification number assigned within the ArborSafe software to each assessed tree on the site and the number which appears on the tree's tag.

Tree location: Refers to the easting and northing coordinates assigned to the location of the tree as obtained from the geo-referenced aerial image within the ArborSafe software.

Tree species: Provides the botanic name (genus, species, sub-species, variety and cultivar where applicable) in accordance with the International Code of Botanical Nomenclature (ICBN), and the accepted common name.

Trees in group: The number of trees encompassing a collective assessment of more than one tree. Typically grouped trees have similar attributes that can be encompassed within one data record.

Height: The estimated range in metres attributed to the tree from its base to the highest point of the canopy. Where required height will be estimated to the nearest metre.

Diameter at Breast Height (DBH): Refers to the tree's estimated trunk diameter measured 1.4m from ground level for a single trunked tree. These estimates increase in 50mm increments. Where required DBH will be measured to give an accurate measurement for single trunked trees, trees with multiple trunks, significant root buttressing, bifurcating close to ground level or trunk defects and will be measured as per the Australian Standard AS 4970–2009: *Protection of Trees on Development Sites*.

Tree Protection Zone (TPZ): A specified area above and below ground and at a given distance measured radially away from the centre of the tree's trunk and which is set aside for the protection of its roots and crown. It is the area required to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development. The radius of the TPZ is calculated by multiplying its DBH by 12. TPZ radius = DBH × 12. (Note "Breast Height" is nominally measured as 1.4m from ground level). TPZ is a theoretical calculation and can be influenced by existing physical constraints such as buildings, drainage channels, retaining walls, etc. (Standards Australia, 2009).

Structural Root Zone (SRZ): The area close to the base of a tree required for the tree's anchorage and stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres. SRZ radius = $(D \times 50)0.42 \times 0.64$ (Standards Australia, 2009).

Canopy spread: The estimated range in metres attributed to the spread of the tree's canopy on its widest axis. Where required crown spread will be estimated to the nearest metre.

Origin: Refers to the origin of the species and its type.

Category	Description
Indigenous	Occurs naturally in the local area and is native to a given region or ecosystem.
State Native	Occurs naturally within State but is not indigenous.
Australian Native	Occurs naturally within Australia and its territories but is not a State native or indigenous.
Exotic Evergreen	Occurs naturally outside of Australia and its territories and typically retains its leaves throughout the year.
Exotic Deciduous	Occurs naturally outside of Australia and its territories and typically loses its leaves at least once a year.

Health: Refers to the health and vigour of the tree.

Category	Description
Excellent	Canopy full with even foliage density throughout, leaves are entire and are of an excellent size and colour for the species with no visible pathogen damage. Excellent growth indicators, e.g. seasonal extension growth. Exceptional specimen.
Good	Canopy full with minor variations in foliage density throughout, leaves are entire and are of good size and colour for the species with minimal or no visible pathogen damage. Good growth indicators, none or minimal deadwood.
Fair	Canopy with moderate variations in foliage density throughout, leaves not entire with reduced size and/or atypical in colour, moderate pathogen damage. Reduced growth indicators, visible amounts of deadwood, may contain epicormic growth.
Poor	Canopy density significantly reduced throughout, leaves are not entire, are significantly reduced in size and/or are discoloured, significant pathogen damage. Significant amounts of deadwood and/or epicormic growth, noticeable dieback of branch tips, possibly extensive.
Dead	No live plant material observed throughout the canopy, bark may be visibly delaminating from the trunk and/or branches.

Age: Refers to the life cycle of the tree.

Category	Description
Young	Newly planted small tree not fully established may be capable of being transplanted or easily replaced.
Juvenile	Tree is small in terms of its potential physical size and has not reached its full reproductive ability.
Semi-mature	Tree in active growth phase of life cycle and has not yet attained an expected maximum physical size for its species and/or its location.
Mature	Tree has reached an expected maximum physical size for the species and/or location and is showing a reduction in the rate of seasonal extension growth.
Senescent	Tree is approaching the end of its life cycle and is exhibiting a reduction in vigour often evidenced by natural deterioration in health and structure.

Structure: Refers to the structure of the tree from roots to crown.

Category	Description
Good	Sound branch attachments with no visible structural defects, e.g. included bark or acute angled unions. No visible wounds to the trunk and/or root plate. No fungal pathogens present.
Fair	Minor structural defects present, e.g. apical leaders sharing common union(s). Minor damage to structural roots. Small wounds present where decay could begin. No fungal pathogens present.
Poor	Moderate structural defects present, including bifurcations with included bark with union failure likely within 0–5 years. Wounding evident with cavities and/or decay present. Damage to structural roots.
Hazardous	Significant structural defects with failure imminent (3–6 months). Defects may include active splits and/or partial branch or root plate failures. Tree requires immediate arboricultural works to alleviate the associated risk.

Useful Life Expectancy (ULE): Useful life expectancy refers to an expected period of time the tree can be retained within the landscape before its amenity value declines to a point where it may detract from the appearance of the landscape and/or presents a greater risk and/or more hazards to people and/or property. ULE values consider tree species, current age, health, structure and location. ULE values are based on the tree at the time of assessment and do not consider future changes within the tree's location and environment which may influence the ULE value.

Category
0 Years
<5 Years
5–10 Years
10–15 Years
15–25 Years
25–50 Years
>50 Years

Defects: Visual observations made of the presenting defects of the tree and its growing environment that are, or have the capacity to impact upon, the health, structural condition and/or the useful life expectancy of the tree. Defects may include adverse physical traits or conditions, signs of structural weaknesses, plant disease and/or pest damage, tree impacts to assets or soil related issues.

Tree significance: Includes environmental, social or historical reasons why the tree is significant to the site. The tree may also be rare under cultivation or have a rare or localised natural distribution.

Arborist actions: A list of arboricultural and/or plant health care works that are aimed at maintaining or improving the tree's health, structural condition or form. Actions may also directly or indirectly reduce the risk potential of the tree such as via the removal of a particular branch or the moving of infrastructure from under its canopy.

Appendix C. Tree retention values

Based upon a modified version of the British Standard BS 5837–2012: *Trees in relation to design, demolition and construction* – recommendations.

Category and definition	Criteria (including sub-categories where appropriate)		
	1. Arboricultural qualities	2. Landscape qualities	3. Cultural and environmental values
Category A			
Trees of High Quality with an estimated remaining life expectancy of at least 25 years and of dimensions and prominence that it cannot be readily replaced in <20 years.	Trees that are particularly good examples of their species, especially if rare or unusual (in the wild or under cultivation); or those that are important components of groups or avenues.	Trees or groups of significant visual importance as arboricultural and/or landscape features. (e.g. feature and landmark trees).	Trees, groups or plant communities of significant conservation, historical, commemorative or other value (e.g. remnant trees, aboriginal scar trees, critically endangered plant communities, trees listed specifically within a Heritage statement of significance).
Category B			
Trees of Moderate Quality with an estimated remaining life expectancy of 15–25 years and of dimensions and prominence that cannot be readily replaced within 10 years.	Trees that might be included within Category A but are downgraded because of diminished condition such that they are unlikely to be suitable for retention beyond 25 years.	Trees that are visible from surrounding properties and/or the street but make little visual contribution to the wider locality.	Trees with conservation or other cultural value (trees within conservation areas or landscapes described within a statement of significance, locally indigenous species).
Category C			
Trees of Low Quality with an estimated remaining life expectancy of 5–15 years, or young trees that are easily replaceable.	Trees of very limited value or such impaired condition that they do not qualify in higher categories.	Trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.
Category U			
Trees in such a condition that they cannot realistically be retained as viable trees in the context of the current land use for longer than 5 years.	<p>Trees that have a severe structural defect that are not remediable such that their failure is expected within 12 months.</p> <p>Trees that will become unviable after removal of other Category U trees (e.g. where for whatever reason the loss of companion shelter cannot be mitigated by pruning).</p> <p>Trees that are dead or are showing signs of significant, immediate and irreversible overall decline.</p> <p>Trees infected with pathogens of significance to the health and or safety of other trees nearby</p> <p>Low quality trees suppressing adjacent trees of better quality.</p> <p>Noxious weeds or species categorised as weeds within the local area.</p> <p>Note: Category U trees can have existing or potential conservation value* which might make it desirable to preserve.</p>		

* Where trees would otherwise be categorised as U, B or C but have significant identifiable conservation, heritage or landscape value even though only for the short term, they may be upgraded, although they might be suitable for retention only.

Tree quality

		Health**			
		Excellent/ Good	Fair	Poor	Dead
Structure	Good	A	B	C	U
	Fair	B	B	C	U
	Poor	C	C	U	U
	Hazard *	U	U	U	U

* Structural hazard that cannot be remediated through mitigation works to enable safe retention.

** Trees of short term reduced health that can be remediated via basic, low cost plant health care works (e.g. mulching, irrigation etc.) may be designated in a higher health rating to ensure correct retention value nomination.

Category A	Typically trees in this category are of high quality with an estimated remaining life expectancy of at least 25 years and of dimensions and prominence that it cannot be readily replaced in <20 years. The tree may make significant amenity contributions to the landscape and may make high environmental contributions. In some cases, trees within this category may not meet the above criteria, however possess significant heritage or ecological value. Trees of this retention value warrant design consideration and amendment to ensure their viable retention.
Category B	Typically trees in this category are of moderate quality with an estimated remaining life expectancy of 15–25 years and prominence of size dimensions that cannot be readily replaced within 10 years. They may make moderate amenity contributions to the landscape and make low/moderate environmental contributions. Trees with this retention value warrant lesser design consideration in an attempt to allow for their retention.
Category C	Trees in this category are of low quality with an estimated remaining life expectancy of 5–15 years, or young trees that are easily replaceable, may have poor health and/or structure, are easily replaceable, or are of undesirable species and do not warrant design consideration.
Category U	Trees in this category are found to be in such a condition that they cannot realistically be retained as viable trees in the context of the current land use for longer than five years. These trees may be dead and/or of a species recognised as a weed that resulted in them being unretainable.

Appendix E. Tree assessment data

Tree no.	Botanical Name	Common Name	Origin	Trees in group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	TLE (Yrs.)	Defects	Significance	Development Phase	Arborist comments	Tree Quality Score	Tree Retention value subcategory	Recommendation
1	<i>Eucalyptus scoparia</i>	Wallangarra White Gum	State Native	1	90	104	10.8	366.44	3.4	15-20	15-20	Fair	Poor	Mature	5-10	Co-dominant stems; Crack(s)/split(s); Deadwood/stubs > 100mm; Decay; Dieback; Fungal fruiting body(s); Hanger(s); Previous failure(s); Wound(s);	Avenue tree; Amenity value/shade; Particularly old/venerable; Significant habitat - nests/hollows;		29-01-2025 : Tom Axford : ASAFE Tree assessed. 06023-Modest health remains. Nest upper canopy.	B	1	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
2	<i>Corymbia maculata</i>	Spotted Gum	State Native	1	25	29	3.0	28.27	2.0	10-15	<5	Good	Good	Semi-Mature	>50	Deadwood/stubs < 30mm; Suppressed;	Amenity value/shade;		29-01-2025 : Tom Axford : ASAFE Tree assessed. 06023-Located on nature strip assumed to be a council tree.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
3	<i>Eucalyptus microcorys</i>	Tallowwood	State Native	1	70	81	8.4	221.67	3.0	5-10	5-10	Good	Poor	Mature	15-25	Crossing/rubbing branches; Deadwood/stubs < 30mm; Epicormic growth; Inappropriate location; Poor pruning; Uncharacteristic form; Weak union(s); Wound(s);	Amenity value/shade;			B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
4	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	15-25	Suppressed; Wound(s);	Attractive landscape feature; Screen value; Avenue tree;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
5	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	15-25		Attractive landscape feature; Avenue tree; Screen value;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
6	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	15-25		Attractive landscape feature; Avenue tree; Screen value;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
7	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Fair	Juvenile	15-25	Co-dominant stems; Included bark; Pests/insects;	Attractive landscape feature; Avenue tree; Screen value;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
8	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	15-25	Suppressed;	Attractive landscape feature; Avenue tree; Screen value;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
9	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	20	23	2.4	18.10	1.8	5-10	<5	Good	Fair	Juvenile	15-25	Co-dominant stems; Deadwood/stubs < 30mm; Included bark;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
10	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Fair	Juvenile	15-25	Co-dominant stems; Crossing/rubbing branches; Included bark; Poor pruning;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
11	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	20	23	2.4	18.10	1.8	5-10	<5	Good	Fair	Juvenile	15-25	Co-dominant stems; Included bark;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
12	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	30	35	3.6	40.72	2.1	5-10	<5	Good	Fair	Semi-Mature	15-25	Co-dominant stems; Crossing/rubbing branches; Included bark; Poor pruning; Wound(s);	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
13	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	25	29	3.0	28.27	2.0	5-10	<5	Good	Fair	Semi-Mature	15-25	Co-dominant stems; Included bark;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
14	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Fair	Fair	Juvenile	5-10	Co-dominant stems; Crossing/rubbing branches; Dieback; Epicormic growth; Included bark; Poor pruning; Wound(s);	Avenue tree;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
15	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	15-25	Deadwood/stubs < 30mm; Epicormic growth; Poor pruning;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
16	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	5-10	<5	Good	Good	Juvenile	15-25	Co-dominant stems;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
17	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	15-25		Avenue tree; Screen value; Attractive landscape feature;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
18	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	15-25		Avenue tree; Screen value; Attractive landscape feature;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
20	<i>Eucalyptus sieberi</i>	Silvertop Ash	Indigenous	1	60	69	7.2	162.86	2.8	15-20	10-15	Good	Fair	Mature	10-15	Deadwood/stubs > 60mm; Epicormic growth; Wound(s);	Within group; Amenity value/shade;		29-01-2025 : Tom Axford : ASAFE Tree assessed. 06023-Dimensions estimated from car park. Tree located ~5m E, down slope from car park. Storm water swale ~2m E.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
21	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	15-25	Suppressed;	Avenue tree; Screen value; Attractive landscape feature;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
22	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	5-10	<5	Good	Good	Young	15-25		Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
23	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	15-25		Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
24	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Fair	Young	15-25	Suppressed;	Avenue tree; Screen value; Attractive landscape feature;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
25	<i>Eucalyptus piperita</i>	Sydney Peppermint	State Native	1	58	80	7.0	152.18	3.0	10-15	10-15	Good	Fair	Mature	15-25	Crossing/rubbing branches; Deadwood/stubs < 30mm; Epicormic growth; Inappropriate location; Poor pruning; Uncharacteristic form; Unsuitable to site conditions; Wound(s);	Avenue tree; Amenity value/shade;		Regular lopping of tree for power line clearance has resulted in poor structure.	B	1,2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
26	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	5-10	<5	Good	Good	Juvenile	15-25	Suppressed;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
27	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	15	17	2.0	12.57	1.6	6	<5	Good	Good	Juvenile	15-25	Co-dominant stems;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
28	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	5-10	<5	Good	Fair	Juvenile	15-25	Co-dominant stems; Wound(s);	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
29	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	20	23	2.4	18.10	1.8	5-10	<5	Good	Good	Juvenile	15-25	Co-dominant stems; Epicormic growth;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
30	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	5-10	<5	Good	Good	Juvenile	15-25	Co-dominant stems;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
31	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	6	<5	Good	Good	Juvenile	15-25	Damaging infrastructure; Poor pruning; Suppressed; Wound(s);	Attractive landscape feature; Avenue tree; Screen value;		Prune to give road sign ~500mm clearance and maintain sightlines.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
32	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	15-25	Co-dominant stems; Included bark;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
33	<i>Eucalyptus microcorys</i>	Tallowwood	State Native	1	60	87	7.2	162.86	3.1	10-15	10-15	Good	Poor	Mature	15-25	Damaging infrastructure; Deadwood/stubs > 30mm; Epicormic growth; Inappropriate location; Poor pruning; Uncharacteristic form; Unsuitable to site conditions; Wound(s);	Avenue tree; Amenity value/shade;		Regular lopping of tree for power line clearance has resulted in poor structure.	B	1,2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
34	<i>Syzygium leuhmannii</i>	Small-leaved Lilly Pilly	State Native	1	10	12	2.0	12.57	1.5	5-10	<5	Good	Good	Juvenile	15-25	Suppressed;	Attractive landscape feature; Avenue tree; Screen value;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
35	<i>Eucalyptus microcorys</i>	Tallowwood	State Native	1	80	92	9.6	289.53	3.2	15-20	10-15	Good	Fair	Mature	25-50	Co-dominant stems; Deadwood/stubs > 30mm; Included bark; Previous failure(s);	Attractive landscape feature; Amenity value/shade;		Trunk located 2.6m north of existing kerb edge. Major encroachment from proposed storm drain alignment and landscaping.	A	2	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
38	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	>50		Amenity value/shade;	Exempt tree due to small size	Major encroachment from proposed storm drain alignment and landscaping.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.

Tree no.	Botanical Name	Common Name	Origin	Trees in group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	TLE (Yrs.)	Defects	Significance	Development Phase	Arborist comments	Tree Quality Score	Tree Retention value subcategory	Recommendation
39	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	>50	Suppressed;	Amenity value/shade;	Exempt tree due to small size	Major encroachment from proposed storm drain alignment and landscaping.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
40	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	6	<5	Good	Good	Juvenile	>50	Suppressed;	Amenity value/shade;		Major encroachment from proposed storm drain alignment and landscaping.	C	2	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
42	<i>Eucalyptus microcorys</i>	Tallowwood	State Native	1	45	52	5.4	91.61	2.5	20-30	5-10	Good	Good	Semi-Mature	25-50	Co-dominant stems; Deadwood/stubs > 30mm; Previous failure(s);	Attractive landscape feature; Amenity value/shade;		Trunk located 1.35m south of existing kerb edge. Adjacent a proposed retaining wall and also overhangs proposed Fire truck area. Removed due to major TPZ encroachment and for safety considerations.	A	2	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
43	<i>Eucalyptus scoparia</i>	Wallangarra White Gum	State Native	1	35	40	4.2	55.42	2.3	10-15	<5	Good	Poor	Mature	10-15	Epicormic growth; Poor pruning; Suckers; Uncharacteristic form; Unsuitable to site conditions; Weak union(s);			Adjacent a proposed retaining wall and also overhangs proposed Fire truck area. Removed due to major TPZ encroachment and safety considerations.	C	1	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
44	<i>Eucalyptus saligna</i>	Sydney Blue Gum	State Native	1	74	115	8.9	247.73	3.5	20-30	15-20	Good	Good	Mature	15-25	Borers/termites; Damaging infrastructure; Deadwood/stubs > 100mm; Epicormic growth; Wound(s);	Protected species; Rare or localised distribution; Amenity value/shade; Attractive landscape feature; Significant due to age/size;		The vast majority of roots are expected to be within the existing garden bed area resulting in an abnormal, extended shaped TPZ area where any incursion would likely to have a greater impact. Storm drain proposed 13m to north of the tree.	A	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
45	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	15-25		Amenity value/shade;	Exempt tree due to small size	Tree situated within proposed Storm drain alignment.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
46	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Young	15-25		Attractive landscape feature;	Exempt tree due to small size	Tree situated within proposed Storm drain alignment.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
47	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	>50		Amenity value/shade;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
48	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	>50		Amenity value/shade;	Exempt tree due to small size	Tree situated within proposed building footprint.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
49	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	5-10	<5	Good	Good	Juvenile	>50	Co-dominant stems;	Screen value; Amenity value/shade;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
50	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	5-10	<5	Good	Good	Juvenile	>50		Screen value; Amenity value/shade;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
51	<i>Eucalyptus saligna</i>	Sydney Blue Gum	State Native	1	65	75	7.8	191.13	2.9	10-15	10-15	Good	Poor	Mature	10-15	Crack(s)/split(s); Deadwood/stubs > 100mm; Epicormic growth; Excessive end weight; Inappropriate location; Poor pruning; Uncharacteristic form; Unsuitable to site conditions; Wound(s);	Amenity value/shade;		Regular lopping of tree for power line clearance has resulted in poor structure. Trunk splits associated with rapid growth.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
52	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	>50		Screen value; Amenity value/shade;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
53	<i>Eucalyptus saligna</i>	Sydney Blue Gum	State Native	1	50	58	6.0	113.10	2.6	5-10	5-10	Good	Poor	Mature	5-10	Co-dominant stems; Deadwood/stubs > 100mm; Epicormic growth; Inappropriate location; Poor pruning; Uncharacteristic form; Unsuitable to site conditions; Wound(s);	Amenity value/shade;		Regular lopping of tree for power line clearance has resulted in poor structure.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
54	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	>50	Suppressed;	Screen value; Amenity value/shade;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
55	<i>Eucalyptus saligna</i>	Sydney Blue Gum	State Native	1	42	49	5.0	79.80	2.5	10-15	5-10	Good	Poor	Semi-Mature	10-15	Deadwood/stubs > 30mm; Epicormic growth; Inappropriate location; Poor pruning; Uncharacteristic form; Unsuitable to site conditions;	Amenity value/shade;		Regular lopping of tree for power line clearance has resulted in poor structure.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
56	<i>Photinia robusta</i>	Large-leaved Photinia	Exotic Evergreen	30	10	12	2.0	12.57	1.5	<5	Group	Good	Good	Semi-Mature	25-50		Avenue tree; Screen value; Attractive landscape feature; Hedge tree; Within group; Amenity value/shade;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
57	<i>Eucalyptus saligna</i>	Sydney Blue Gum	State Native	1	57	64	6.8	146.98	2.7	5-10	10-15	Good	Poor	Mature	10-15	Deadwood/stubs > 30mm; Epicormic growth; Inappropriate location; Poor pruning; Uncharacteristic form; Unsuitable to site conditions;	Amenity value/shade;		Regular lopping of tree for power line clearance has resulted in poor structure.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
58	<i>Magnolia grandiflora</i>	Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Juvenile	15-25		Screen value; Amenity value/shade;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
59	<i>Eucalyptus robusta</i>	Swamp Mahogany	State Native	1	30	35	3.6	40.72	2.1	10-15	5-10	Good	Poor	Semi-Mature	10-15	Deadwood/stubs > 30mm; Epicormic growth; Inappropriate location; Poor pruning; Suppressed; Uncharacteristic form; Unsuitable to site conditions; Wound(s);	Amenity value/shade;		Regular lopping of tree for power line clearance has resulted in poor structure.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
60	<i>Eucalyptus saligna</i>	Sydney Blue Gum	State Native	1	47	62	5.6	99.93	2.7	10-15	5-10	Good	Poor	Mature	10-15	Deadwood/stubs > 60mm; Epicormic growth; Inappropriate location; Poor pruning; Suppressed; Uncharacteristic form; Unsuitable to site conditions;	Amenity value/shade;		Regular lopping of tree for power line clearance has resulted in poor structure.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
61	<i>Eucalyptus robusta</i>	Swamp Mahogany	State Native	1	51	78	6.1	117.67	3.0	10-15	5-10	Good	Good	Semi-Mature	25-50	Co-dominant stems; Crossing/rubbing branches; Deadwood/stubs > 30mm; Epicormic growth; Exposed root(s); Previous failure(s);	Within group; Attractive landscape feature; Amenity value/shade;		Trunk located 1.5m west of existing kerb edge.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
62	<i>Callistemon citrinus</i>	Crimson Bottlebrush	State Native	14	10	12	2.0	12.57	1.5	<5	Group	Good	Good	Juvenile	10-15		Avenue tree; Screen value; Hedge tree; Attractive landscape feature; Within group;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
71	<i>Elaeocarpus eumundii</i>	Smooth-leaved Quandong	State Native	6	10	12	2.0	12.57	1.5	5-10	<5	Excellent	Excellent	Semi-Mature	25-50	Co-dominant stems;	Screen value; Within group;		Tree situated within proposed building footprint.	C	2	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
72	<i>Syzygium smithii</i>	Lilly Pilly	State Native	4	10	12	2.0	12.57	1.5	<5	<5	Good	Fair	Juvenile	10-15	Epicormic growth;	Screen value; Hedge tree; Within group;	Exempt tree due to small size	Tree situated within proposed building footprint.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
77	<i>Syzygium paniculatum</i>	Magenta Brush Cherry	State Native	1	10	12	2.0	12.57	1.5	5-10	<5	Fair	Fair	Semi-Mature	10-15	Deadwood/stubs < 30mm; Excessive thinning; Pests/insects; Suppressed;	Within group; Amenity value/shade;		Located witin close proximity of existing infrastructure and proposed works. Removal also recommended to create working space.	C	2	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
78	<i>Syzygium paniculatum</i>	Magenta Brush Cherry	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Semi-Mature	15-25	Suppressed;	Amenity value/shade;		Located witin close proximity of existing infrastructure and proposed works. Removal also recommended to create working space.	C	2	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
79	<i>Angophora floribunda</i>	Rough-barked Apple Myrtle	State Native	1	20	23	2.4	18.10	1.8	10-15	<5	Good	Good	Semi-Mature	25-50	Deadwood/stubs < 30mm; Epicormic growth;	Amenity value/shade; Attractive landscape feature;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
80	<i>Angophora floribunda</i>	Rough-barked Apple Myrtle	State Native	1	20	23	2.4	18.10	1.8	10-15	5-10	Good	Good	Semi-Mature	15-25	Deadwood/stubs < 30mm; Epicormic growth; Suppressed;	Amenity value/shade; Attractive landscape feature;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
81	<i>Angophora floribunda</i>	Rough-barked Apple Myrtle	State Native	1	20	23	2.4	18.10	1.8	5-10	<5	Good	Good	Semi-Mature	25-50	Co-dominant stems; Deadwood/stubs < 30mm; Epicormic growth;	Amenity value/shade; Attractive landscape feature;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
82	<i>Camellia sasanqua</i>	Sasanqua Camellia	Exotic Evergreen	5	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Semi-Mature	25-50	Co-dominant stems;	Amenity value/shade; Within group;	Exempt tree due to small size		C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
87	<i>Magnolia grandiflora</i> 'Little Gem'	Dwarf Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Poor	Semi-Mature	5-10	Epicormic growth; Poor pruning; Uncharacteristic form; Wound(s);		Exempt tree due to small size	Located witin close proximity of existing infrastructure and proposed works. Removal also recommended to create working space.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
88	<i>Magnolia grandiflora</i> 'Little Gem'	Dwarf Bull Bay	Exotic Evergreen	1	10	12	2.0	12.57	1.5	<5	<5	Good	Poor	Semi-Mature	<5	Epicormic growth; Poor pruning; Suppressed; Uncharacteristic form; Wound(s);		Exempt tree due to small size	Located witin close proximity of existing infrastructure and proposed works. Removal also recommended to create working space.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
89	<i>Cyathea cooperi</i>	Rough Tree Fern	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Semi-Mature	15-25		Amenity value/shade; Screen value;	Exempt tree due to small size	Located witin close proximity of existing infrastructure and proposed works. Removal also recommended to create working space.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.

Tree no.	Botanical Name	Common Name	Origin	Trees in group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	TLE (Yrs.)	Defects	Significance	Development Phase	Arborist comments	Tree Quality Score	Tree Retention value subcategory	Recommendation
90	<i>Cyathea cooperi</i>	Rough Tree Fern	State Native	1	10	12	2.0	12.57	1.5	<5	<5	Good	Good	Semi-Mature	15-25	Co-dominant stems;	Amenity value/shade; Screen value;	Exempt tree due to small size	Located witin close proximity of existing infrastructure and proposed works. Removal also recommended to create working space.	C	3	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
91	<i>Cyathea cooperi</i>	Rough Tree Fern	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Mature	15-25		Amenity value/shade; Screen value;		Located witin close proximity of existing infrastructure and proposed works. Removal also recommended to create working space.	C	2	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
92	<i>Cyathea cooperi</i>	Rough Tree Fern	State Native	1	20	23	2.4	18.10	1.8	6	<5	Good	Good	Mature	15-25	Co-dominant stems;	Amenity value/shade; Screen value;		Located witin close proximity of existing infrastructure and proposed works. Removal also recommended to create working space.	C	2	Remove - tree located within proposed development footprint or has major encroachment into its TPZ.
116	<i>Eucalyptus globoides</i>	White Stringybark	State Native	1	70	80	8.4	221.67	3.0	10-15	10-15	Good	Fair	Mature	25-50	Co-dominant stems; Deadwood/stubs > 100mm; Epicormic growth; Mechanical damage to root(s); Poor pruning; Soil compaction; Soil grade changes; Soil problems;	Amenity value/shade; Attractive landscape feature;		Existing underground cable infrastructure, proposed for decommissioning, is to be left insitu rather than damaging roots by excavating through the outer western TPZ to remove.	A		Retain tree with specific protection requirements (i.e. Generic measures plus supervision of works within the TPZ and/or use of root sensitive construction techniques).
117	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	45	55	5.4	91.61	2.6	10-15	5-10	Good	Fair	Mature	25-50	Co-dominant stems; Deadwood/stubs > 30mm; Epicormic growth; Mechanical damage to root(s); Soil compaction; Soil grade changes; Soil problems;	Within group; Screen value; Amenity value/shade; Attractive landscape feature;			B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
119	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	30	35	3.6	40.72	2.1	5-10	5-10	Good	Poor	Mature	5-10	Co-dominant stems; Deadwood/stubs > 30mm; Epicormic growth; Mechanical damage to root(s); Poor pruning; Soil compaction; Soil grade changes; Soil problems; Suppressed; Uncharacteristic form; Wound(s);	Amenity value/shade;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
120	<i>Eucalyptus globoides</i>	White Stringybark	State Native	1	45	50	5.4	91.61	2.5	10-15	10-15	Good	Fair	Mature	15-25	Co-dominant stems; Deadwood/stubs > 60mm; Epicormic growth; Poor pruning; Soil compaction; Suppressed;	Within group; Amenity value/shade; Attractive landscape feature;			B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
123	<i>Eucalyptus globoides</i>	White Stringybark	State Native	1	30	35	3.6	40.72	2.1	5-10	5-10	Good	Fair	Semi-Mature	15-25	Deadwood/stubs > 30mm; Epicormic growth; Excessive end weight; Suppressed;	Amenity value/shade; Attractive landscape feature;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
124	<i>Magnolia grandiflora</i> 'Little Gem'	Dwarf Bull Bay	Exotic Evergreen	1	15	17	2.0	12.57	1.6	6	<5	Fair	Good	Semi-Mature	25-50		Attractive landscape feature; Amenity value/shade;			C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
126	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	65	75	7.8	191.13	2.9	15-20	15-20	Good	Good	Mature	25-50	Co-dominant stems; Epicormic growth;	Amenity value/shade; Attractive landscape feature; Significant due to age/size;			A		Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
133	<i>Corymbia gummifera</i>	Red Bloodwood	Indigenous	1	45	64	5.4	91.61	2.7	15-20	5-10	Good	Poor	Mature	5-10	Canker(s); Co-dominant stems; Deadwood/stubs > 60mm; Decay; Epicormic growth; Resin exudation/kink; Wound(s);	Within group; Screen value; Amenity value/shade;			B	1,2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
134	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	60	69	7.2	162.86	2.8	20-30	10-15	Good	Good	Mature	>50	Co-dominant stems; Crossing/rubbing branches; Deadwood/stubs > 30mm; Epicormic growth; Resin exudation/kink;	Within group; Amenity value/shade; Attractive landscape feature;			A	1,2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
135	<i>Glochidion ferdinandi</i>	Cheese Tree	State Native	1	35	55	4.2	55.42	2.6	5-10	5-10	Good	Fair	Semi-Mature	25-50	Co-dominant stems; Crossing/rubbing branches; Epicormic growth; Included bark; Suppressed;	Within group; Attractive landscape feature; Amenity value/shade;			B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
136	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	81	93	9.7	296.81	3.2	15-20	15-20	Good	Good	Mature	>50	Crossing/rubbing branches; Deadwood/stubs > 60mm;	Attractive landscape feature; Amenity value/shade; Outstanding example of species; Significant due to age/size;			A	1,2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
137	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	25	29	3.0	28.27	2.0	5-10	<5	Good	Fair	Semi-Mature	10-15	Crossing/rubbing branches; Inappropriate location; Suppressed; Wound(s);	Within group; Amenity value/shade;		Trees 137, 138 and 139 are supporting each other. Any attempt to remove one of the three would result in the remaining two possibly requiring removal. Tree is not viable long term but presents a low risk presently.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
138	<i>Glochidion ferdinandi</i>	Cheese Tree	State Native	1	35	40	4.2	55.42	2.3	5-10	5-10	Good	Fair	Semi-Mature	25-50	Co-dominant stems; Crossing/rubbing branches; Included bark; Suppressed; Wound(s);	Within group; Amenity value/shade;		Trees 137, 138 and 139 are supporting each other. Any attempt to remove one of the three would result in the remaining two possibly requiring removal. Tree is not viable long term but presents a low risk presently.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
139	<i>Corymbia gummifera</i>	Red Bloodwood	Indigenous	1	20	23	2.4	18.10	1.8	5-10	<5	Good	Poor	Semi-Mature	10-15	Crossing/rubbing branches; Decay; Epicormic growth; Inappropriate location; Suppressed; Wound(s);	Within group; Amenity value/shade;		Trees 137, 138 and 139 are supporting each other. Any attempt to remove one of the three would result in the remaining two possibly requiring removal. Tree is not viable long term but presents a low risk presently.	C	1	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
140	<i>Olea africana</i>	African Olive	Exotic Evergreen	1	15	17	2.0	12.57	1.6	5-10	5-10	Good	Fair	Semi-Mature	15-25	Inappropriate location; Suppressed; Undesirable species;	Within group; Weed;	Exempt tree due to small size	Priority weed, remove tree and poison stump.	C	3	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
141	<i>Eucalyptus sieberi</i>	Silvertop Ash	Indigenous	1	40	46	4.8	72.38	2.4	10-15	10-15	Good	Fair	Semi-Mature	25-50	Wound(s);	Amenity value/shade;		Dimensions estimated from car park. Tree located ~5m E, down slope from car park. Storm water swale ~2m E.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
142	<i>Eucalyptus sieberi</i>	Silvertop Ash	Indigenous	1	40	46	4.8	72.38	2.4	10-15	10-15	Good	Fair	Semi-Mature	25-50	Deadwood/stubs > 100mm; Poor pruning; Wound(s);	Amenity value/shade;		Dimensions estimated from car park. Tree located ~5m E, down slope from car park. Storm water swale ~2m E.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
143	<i>Eucalyptus sieberi</i>	Silvertop Ash	Indigenous	1	95	109	11.4	408.28	3.4	20-30	15-20	Good	Good	Mature	25-50	Deadwood/stubs > 100mm;	Amenity value/shade; Attractive landscape feature; Significant due to age/size;		Dimensions estimated from car park. Tree located ~5m E, down slope from car park. Storm water swale ~2m E.	A		Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
144	<i>Eucalyptus sieberi</i>	Silvertop Ash	Indigenous	1	75	86	9.0	254.47	3.1	15-20	15-20	Good	Good	Mature	25-50	Deadwood/stubs > 100mm;	Amenity value/shade; Attractive landscape feature;		Dimensions estimated from car park. Tree located ~5m E, down slope from car park. Storm water swale ~2m E.	A		Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
145	<i>Eucalyptus racemosa</i>	Scribbly Gum	State Native	1	70	81	8.4	221.67	3.0	15-20	10-15	Good	Good	Mature	>50		Amenity value/shade;		Dimensions estimated from car park. Tree located ~4m E, down slope from car park.	A		Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
146	<i>Eucalyptus</i> sp.	Eucalypt	State Native	1	45	52	5.4	91.61	2.5	15-20	5-10	Good	Good	Semi-Mature	>50		Amenity value/shade; Attractive landscape feature;		Tree added and potentially on the neighbouring property. Insufficient reproductive material for positive ID. ~3m E of outside wall of existing building.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
147	<i>Lophostemon confertus</i>	Queensland Box	State Native	1	30	35	3.6	40.72	2.1	10-15	5-10	Good	Good	Semi-Mature	>50	Crossing/rubbing branches;	Amenity value/shade;		Tree added and potentially on the neighbouring property. Not tagged. ~3m E of outside wall of existing building.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
148	<i>Eucalyptus punctata</i>	Grey Gum	State Native	1	70	81	8.4	221.67	3.0	15-20	15-20	Good	Good	Mature	>50	Crossing/rubbing branches; Suppressed;	Amenity value/shade; Attractive landscape feature;		Tree added and potentially on the neighbouring property. Not tagged. ~5m E of outside wall of existing building.	A		Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
149	<i>Corymbia gummifera</i>	Red Bloodwood	Indigenous	1	35	40	4.2	55.42	2.3	15-20	5-10	Good	Excellent	Semi-Mature	>50				Tree added and potentially on the neighbouring property. Not tagged. ~4m E of outside wall of existing building.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
150	<i>Eucalyptus</i> sp.	Eucalypt	State Native	1	45	52	5.4	91.61	2.5	10-15	5-10	Good	Good	Semi-Mature	>50	Crossing/rubbing branches; Deadwood/stubs < 30mm; Previous failure(s); Suppressed;	Amenity value/shade; Attractive landscape feature;		Tree added and potentially on the neighbouring property. Insufficient reproductive material for positive ID. ~3m E of outside wall of existing building.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
151	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	20	23	2.4	18.10	1.8	5-10	5-10	Good	Fair	Semi-Mature	25-50	Suppressed;	Amenity value/shade;		Tree added and potentially on the neighbouring property. Not tagged. Heavily suppressed. ~6m E of outside wall of existing building.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
152	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	60	69	7.2	162.86	2.8	15-20	10-15	Good	Fair	Mature	25-50	Crossing/rubbing branches; Suppressed;	Amenity value/shade; Attractive landscape feature;		Tree added and potentially on the neighbouring property. Not tagged. ~8m E of outside wall of existing building.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
153	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	40	46	4.8	72.38	2.4	10-15	10-15	Good	Fair	Mature	25-50	Deadwood/stubs < 30mm; Epicormic growth; Suppressed;	Amenity value/shade; Attractive landscape feature;		Tree added and potentially on the neighbouring property. Not tagged. ~8m E of outside wall of existing building.	B	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
154	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	70	81	8.4	221.67	3.0	15-20	10-15	Good	Good	Mature	>50	Deadwood/stubs < 30mm; Epicormic growth;	Amenity value/shade; Attractive landscape feature; Significant due to age/size;		Tree added and potentially on the neighbouring property. Not tagged. ~8m E of outside wall of existing building.	A	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
155	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	15	17	2.0	12.57	1.6	6	<5	Good	Good	Juvenile	>50	Co-dominant stems;			Tree added due to dimensions.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
156	<i>Corymbia maculata</i>	Spotted Gum	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	>50	Co-dominant stems;			Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
157	<i>Corymbia maculata</i>	Spotted Gum	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	>50	Co-dominant stems;				C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).

Tree no.	Botanical Name	Common Name	Origin	Trees in group	DBH Total (cm)	DRB (cm)	Radial TPZ (m)	TPZ area (m2)	Radial SRZ (m)	Tree Height (m)	Canopy (m)	Health	Structure	Age	TLE (Yrs.)	Defects	Significance	Development Phase	Arborist comments	Tree Quality Score	Tree Retention value subcategory	Recommendation
158	<i>Eucalyptus</i> sp.	Eucalypt	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	>50	Co-dominant stems;			Tree added due to dimensions. Not tagged. Insufficient reproductive material available for positive ID.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
159	<i>Casuarina cunninghamiana</i>	River She-oak	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	>50	Co-dominant stems;			Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
160	<i>Casuarina cunninghamiana</i>	River She-oak	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	>50	Poor pruning;			Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
161	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	>50		Amenity value/shade;		Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
162	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Fair	Juvenile	5-10	Included bark; Poor pruning; Wound(s);			Tree added due to dimensions. Not tagged. Insufficient reproductive material available for positive ID.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
163	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	15	17	2.0	12.57	1.6	6	<5	Good	Good	Juvenile	>50		Amenity value/shade;		Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
164	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	15	17	2.0	12.57	1.6	6	<5	Good	Good	Juvenile	>50		Amenity value/shade;		Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
165	<i>Angophora costata</i>	Smooth-barked Apple Myrtle	Indigenous	1	15	17	2.0	12.57	1.6	6	<5	Good	Good	Juvenile	>50		Amenity value/shade;		Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
166	<i>Banksia integrifolia</i>	Coast Banksia	State Native	1	15	17	2.0	12.57	1.6	6	<5	Good	Good	Juvenile	>50	Co-dominant stems;	Amenity value/shade;		Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
167	<i>Banksia integrifolia</i>	Coast Banksia	State Native	1	15	17	2.0	12.57	1.6	6	<5	Good	Good	Juvenile	>50	Co-dominant stems;	Amenity value/shade;		Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).
168	<i>Casuarina cunninghamiana</i>	River She-oak	State Native	1	15	17	2.0	12.57	1.6	5-10	<5	Good	Good	Juvenile	>50	Co-dominant stems;	Amenity value/shade;		Tree added due to dimensions. Not tagged.	C	2	Retain tree with generic protection requirements (i.e. protective fencing and restriction of activities within the TPZ).

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