Riverwood Estate – High Retention Tree Preliminary Arboricultural Impact Assessment

NSW Land and Housing Corporation

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Abbreviations

Abbreviation	Description
AQF	Australian Qualifications Framework
AS	Australian Standards
DBH	Diameter at Breast Height
ELA	Eco Logical Australia
m	Metre
mm	Millimetre
NDE	Non-Destructive Excavation
NO	Number

Abbreviation	Description
NSW	New South Wales
SP	Species
SRZ	Structural Root Zone
TPZ	Tree Protection Zone
VTA	Visual Tree Assessment

1. Background

This High Retention Tree (HRT) Preliminary Arboricultural Impact Assessment was prepared for the NSW Land and Housing Corporation to inform design and consider impacts to high retention value trees in relation to the proposed redevelopment of the Riverwood Estate State Significant Precinct (SSP). The subject site is mapped in Figure 1.

The purpose of this report is to:

- undertake a visual tree assessment of the subject trees
- identify the high retention value trees within the site
- assess the current overall health and condition of the subject trees
- identify the high retention value trees within the site that are likely to be affected by the proposed works
- identify high retention value trees that are likely to be removed or retained.
- recommend tree protection measures to minimise adverse impacts

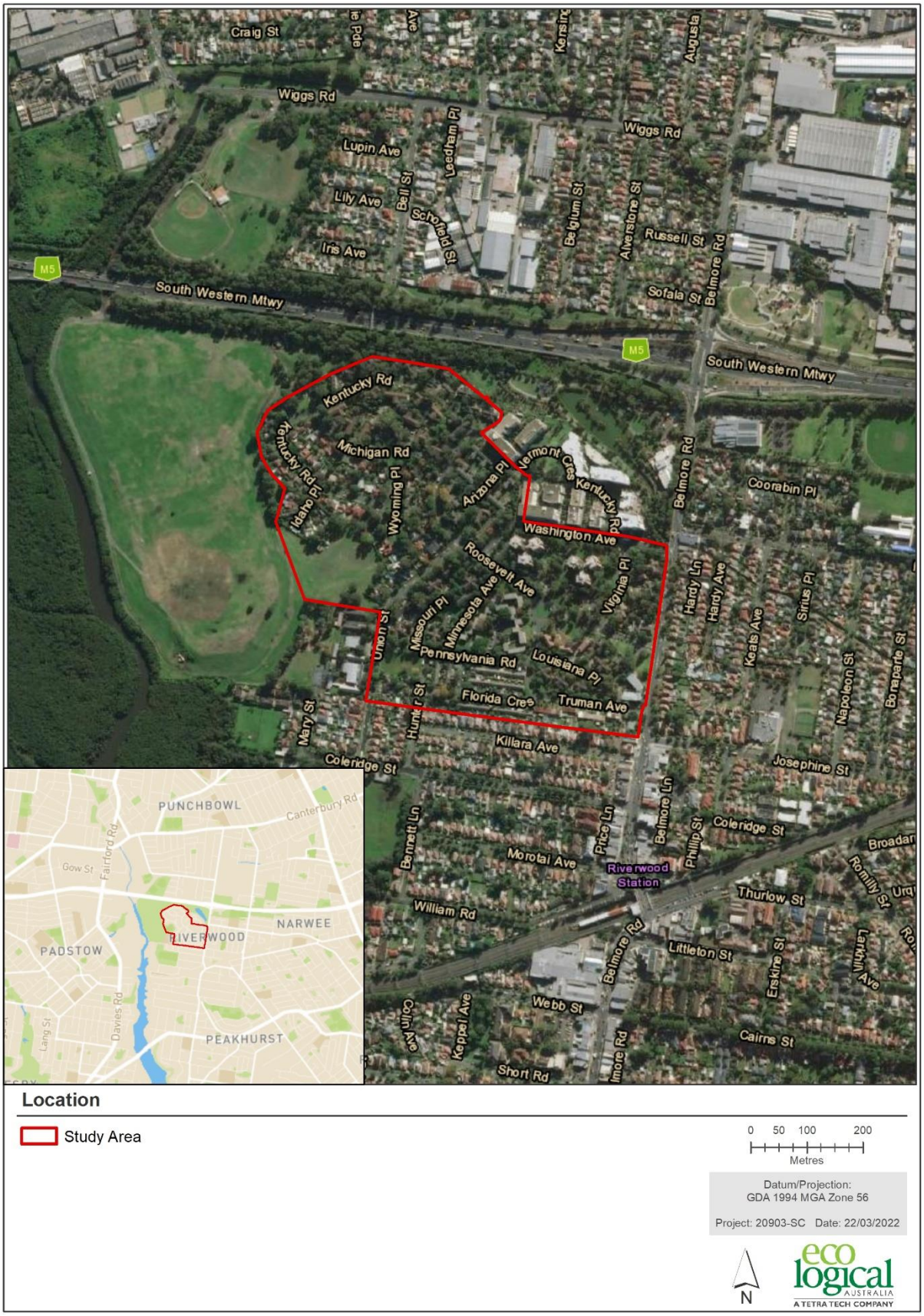

Figure 1: Location

2. Method

2.1 Definition of a tree

A tree is defined under the Australian Standard*, AS 4970-2009, Protection of Trees on Development Sites* as a long lived woody perennial plant greater than (or usually greater than) 3 m in height with one or relatively few main stems or trunks.

The Canterbury Bankstown City Council defines a tree as:

'a tree is defined as a long-lived perennial plant greater than 5 m in height with one or relatively few mains stem or trunks' (Canterbury Bankstown City Council 2015).

2.2 Visual tree assessment

The subject trees were assessed in accordance with a stage one visual tree assessment (VTA) as formulated by Mattheck and Breloer (1994) and practices consistent with modern arboriculture.

A total of **299 high retention value trees** were assessed within the study area. Of these, 150 trees were inspected in February 2021 by AQF Level 5 Consulting Arborist Sophie Diller and the remaining 149 trees were inspected in October 2021 by AQF Level 5 Consulting Arborist David Bidwell.

The following limitations apply to this methodology:

- Tree height was measured using a laser clinometer.
- Diameter at breast height (DBH) was measured using DBH tape.
- Tree canopy was measured by stepping out the distance within the dripline
- Aerial inspections or root mapping were not undertaken.
- Trees were inspected from ground level, without the use of any invasive or diagnostic tools and testing.
- Tree identification was based on broad taxonomical features present and visible from ground level at the time of inspection.
- Trees were inspected and tagged within limits of site access unless stated otherwise (Appendix D).
- The locations of the subject trees were recorded by ELA in the field using hand-held GPS units. Tree locations were matched to field photos or Near map (2021) aerial imagery using geographic information systems (GIS) techniques where possible. Locations of each tree is outlined in Appendix Some changes to the retention value of existing mapped trees were made due to various factors such as changes in tree vigour, condition, structure etc. This includes
    - Trees 129, 130, 131, 134, 146 &152 were previously assessed as being of high retention value in Eco Logical Australia's (ELA) Preliminary Arboricultural Impact Assessment (AIA) (2021). These trees have been reassigned a medium retention value and have therefore been excluded from this report.
    - Trees that were previously assessed as being of low or medium retention value in Eco Logical Australia's (ELA) Preliminary Arboricultural Impact Assessment (AIA) (2021) have been reassigned a high retention value. These trees are as follows:

- Trees 3, 11, 13, 21, 23, 28, 29, 30, 34, 42, 43, 44, 45, 46, 48, 49, 51, 54, 61, 63, 64, 65, 66, 80, 72, 74, 76, 81, 82, 83, 84, 86, 89, 94, 95, 100, 106, 111, 113, 114, 118, 121, 122, 123, 127, 128, 135, 136, 137, 142, 155, 156, 157, 161, 163, 164, 165, 72, 177, 181, 182, 183, 184, 185, 186, 187, 192, 193, 194, 196, 197, 200, 201 and 202.

2.3 Retention value

The retention value or importance of a tree or group of trees, is determined in accordance with the Institute of Australian Consulting Arborists (IACA) Significance of a Tree Assessment Rating System (STARS©), which is summarised in Appendix A. The method considers the Useful Life Expectancy (ULE) and landscape significance of a tree. Trees are provided one of the following ratings:

- **High - priority for retention.** These trees are considered important and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by Australian Standard AS 4970–2009 Protection of trees on development sites.
- **Medium - consider for retention.** These trees are moderately important for retention. Their removal should only be considered if adversely affected by the proposed works and all other alternatives have been considered and exhausted.
- **Low - consider for removal**. These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.
- **Priority for removal.** These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.

2.4 Protection zones

2.4.1 Tree protection zone (TPZ)

The TPZ is a specific area above and below ground and at a distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by the development. The TPZ (as defined by AS 4970-2009) requires restriction of access during the development process. Groups of trees with overlapping TPZs may be included within a single protection area. Tree sensitive measures must be implemented if works are to proceed within the TPZ.

2.4.2 Structural root zone (SRZ)

The SRZ is the area of the root system (as defined by AS 4970-2009) used for stability, mechanical support and anchorage of the tree. It is critical for the support and stability of trees. Severance of roots within the SRZ is not recommended as it may lead to the destabilisation and/or decline of the tree.

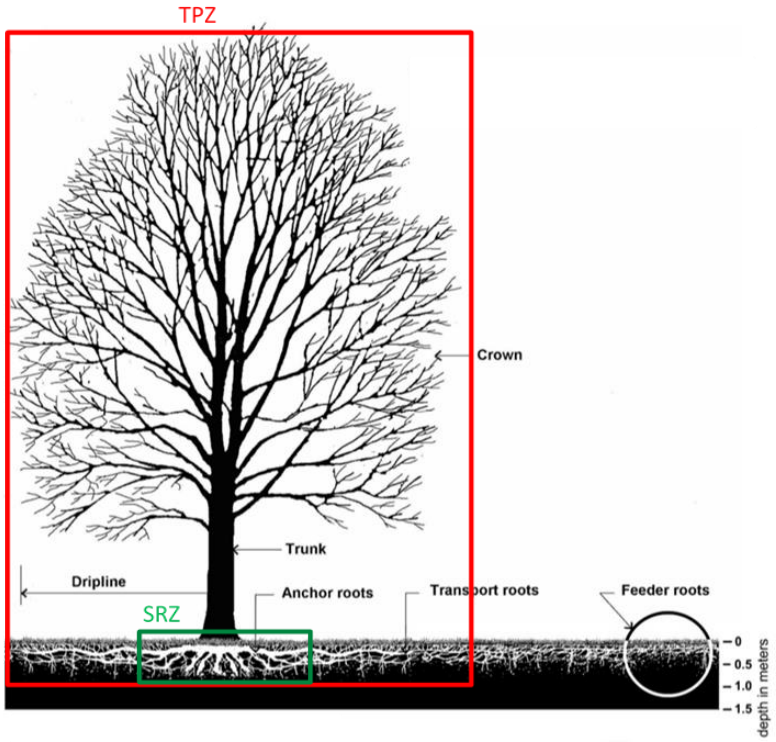

Figure 2: Representative tree structure and indicative TPZ and SRZ

2.5 Potential impacts

Trees may be impacted by physical or chemical damage to roots or above tree parts. Examples include impacts associated with site grading, soil compaction, excavation, stock piling within TPZ as well as changes in site hydrology, changes in soil level and site contamination. The extent of encroachment to the TPZ and SRZ determines the level of potential impact. AS 4970-2009 defines types of encroachment as follows and as illustrated in Appendix B:

- **Major encroachment** - If the proposed encroachment is greater than 10% of the TPZ or inside the SRZ, the project arborist must demonstrate that the tree(s) would remain viable. The location and distribution of roots may be determined through non-destructive excavation (NDE) methods such as hydro-vacuum excavation (sucker truck), Air Spade or manual extraction. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ.
- **Minor encroachment** – If the proposed encroachment is less than 10% of the TPZ, and outside of the SRZ, detailed root investigations should not be required. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ.

For the purposes of this Arboricultural Impact Assessment, impacts are defined as follows:

- **High impact:** The SRZ is directly affected or the proposed encroachment is greater than 20% of the TPZ. Trees may not remain viable if they are subject to high impact. These trees cannot be retained unless the proposal is changed.

- **Medium impact:** If the proposed encroachment is greater than 10% of the TPZ (but less than 20% of the TPZ) and outside of the SRZ, the project arborist may require detailed root investigation to demonstrate that the tree(s) would remain viable. These trees may be retained subject to further investigation and mitigation measures.
- **Low impact:** If the proposed encroachment is less than 10% (total area) of the TPZ, and outside of the SRZ, detailed root investigations should not be required. These trees can be retained.
- **No impact:** No likely or foreseeable encroachment within the TPZ. These trees can be retained.

Impacts are calculated using geographic information systems techniques.

2.6 Proposed action

The proposed actions to either retain or remove each tree are determined by the impact from the proposed design footprint, conversations of intent with the client and corresponding mitigation measures. The following are the definition of these actions:

- **Remove:** Trees that are subject to high impact (>20% TPZ encroachment and /or SRZ encroachment) by the proposed development to the extent whereby retention is not suitable and / or incompatible if the current plans are approved. All tree removal must comply with guidelines specified in section 4 of this report and subject to regulatory approval.
- **Retain:** Trees that are subject to low (<10% TPZ encroachment) or no encroachment (0% TPZ/SRZ encroachment) from the proposed works and / or the tree protection measures outlined in section 4 and / or the tree protection guidelines outlined in Appendix E.
- **Retain with mitigation measures:** Trees that are subject to medium impact (<20% TPZ encroachment) from the proposed works. Some high impact trees however these trees have been identified by the client further investigate to consider the feasibility of retention with mitigation measures have also included in this class. The project arborist will need to confirm the viability of tree retention of these trees, depending on proposed construction methods, and further investigation (i.e. root mapping). If the project arborist deems these trees to be not viable for retention, then additional approvals and/or offset requirements would need to be confirmed.

3. Results and discussion

Results of the preliminary arboricultural impact assessment are summarised in Table 1. Detailed results are included in Appendices C and D. Tree protection guidelines are provided in Appendix E, the proposed site plan is illustrated in Appendix F and site photos are provided in Appendix G.

Only high retention value trees were assessed within the study area. It is assumed that this AIA will be updated at the DA stage once the detailed design of the footprint is finalised. The updated AIA is to include all trees within the study area.

Table 1: Summary of impacts

Proposed action	High impact	Medium impact	Low impact	No impact	Total
Remove	149				149
Retain with mitigation measures	15	13			28
Retain			30	92	122
Total	164	13	30	92	299

3.1 Trees proposed for removal (high impact)

A total of **149 high retention value trees** will be subject to >20% TPZ encroachment by the proposed redevelopment of Riverwood Estate (based on the development footprint available at the time of preparing this report). These trees cannot be sustainably retained under the current proposal and design modification would be required to retain these trees. Tree IDs are outlined in Appendix C and D.

Any loss of trees should be offset with replacement planting in accordance with the relevant offset policy.

3.2 Trees proposed to be retained with mitigation measures (medium impact and additional trees identified by the client)

A total of **13 high retention value trees** will be subject to medium impact (>10% and <20% TPZ encroachment) from the proposed redevelopment of Riverwood Estate. These trees may be retained subject to further investigation and mitigation measures. Tree IDs are as follows:

- Trees 57, 61, 163, 189, 209, 216, 249, 280, 292, 309, 316, 317 and 343

There are an additional **15 high retention value trees** that are high impact however these trees have been identified by the client further investigate to consider the feasibility of retention with mitigation measures. As these trees are currently not viable for retention, consideration to design modifications at detailed design will be required. Therefore, the project arborist will need to confirm the viability for the retention of these trees, depending on proposed construction methods, further investigations (i.e. root mapping) and consultation with the design and construction teams during the detailed design phase. If the project arborist deems these trees to be not viable for retention, then additional approvals and/or offset requirements would need to be confirmed. Tree IDs are as follows:

- Trees 2, 46, 62, 63, 177, 195, 196, 197, 247, 285, 286, 287, 288, 322 and 323

Any loss of trees should be offset with replacement planting in accordance with the relevant offset policy.

3.3 Trees proposed for retention (low and no impact)

A total of **122 high retention value trees** are proposed to be retained as they are subject to low (<10% TPZ encroachment) or no impact (0% TPZ encroachment) from the proposed redevelopment of Riverwood Estate. Tree impacts and IDs are as follows

- **Low impact:** a total of **30 trees** will be subject to low impact (<10% TPZ encroachment) from the proposed works. Retention values and tree IDs are outlined below.
    - Trees 9, 19, 28, 30, 53, 56, 58, 64, 71, 73, 76, 79, 96, 119, 201, 202, 211, 218, 224, 227, 251, 266, 268, 269, 275, 282, 295, 303, 306 and 331
- **No impact:** a total of **92 trees** will be subject to no impact (0% TPZ encroachment) from the proposed works. Tree IDs are outlined in Appendix C and D.

4. Tree protection plan

- All tree pruning and removal is to be carried out by an arborist with a minimum AQF Level 3 qualification in Arboriculture.
- All tree work must be in accordance with Australian Standard *AS 4373-2007, Pruning of Amenity Trees* and the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998).
- Permission must be granted from the relevant consent authority prior to removing or pruning of any of the subject trees. Approved tree works should not be carried out before the installation of tree protection measures.
- Any additional construction activities within the TPZ of the subject trees must be assessed and approved by the project arborist and must comply with *AS 4970-2009 - Protection of trees on development sites.*

Tree protection measures are summarised in Table 2 and further information is in Appendix E.

Table 2: Summary of tree protection measures

Type	More details	Comment
Signage	Appendix E1	Prominently sign posted with 300 mm x 450 mm boards stating, “NO ACCESS - TREE PROTECTION ZONE”.
Tree protection fencing	Appendix E1	Protective cyclone chain wire link fence to be erected around the TPZ to protect and isolate retained trees from the construction works. Existing boundary fencing may be used.
Crown protection	Appendix E2	Where required, crown protection may include the installation of a physical barrier, pruning selected branches to establish clearance, or the tying/bracing of branches.
Trunk and branch protection	Appendix E3	When fencing is not practical or prior to any activities within the TPZ, trunk protection is required and consist of a layer geotextile fabric or similar followed by 1.8 m lengths of softwood timbers spaced evenly around the trunk and secured with a galvanised hoop strap.
Ground protection	Appendix E4	Install and maintain 100mm thick layer of mulch around tree in TPZ. For machine or vehicle access within TPZ geotextile fabric beneath crushed rock or rumble boards may be required.
Soil moisture		Soil moisture levels should be regularly monitored by the project arborist. Temporary irrigation or watering may be required within TPZ.
Root protection and investigation	Appendix E5	If incursions/excavation within the TPZ are unavoidable, root investigation may be needed to determine the extent and location of roots within the area of construction activity using non-destructive excavation (NDE) methods.
Underground services	Appendix E6	All underground services should be routed outside of the TPZ. If underground services need to be installed within the TPZ, they should be installed using horizontal directional drilling (HDD), non-destructive excavation (NDE) methods such as hydro-vacuum, Air Spade or manually excavated trenches.

5. Hold points, inspection and certification

An AQF Level 5 Consulting Arborist needs to be engaged to supervise work within the TPZ, provide advice regarding tree protection and monitor compliance. Once each stage is reached, the work will be inspected and certified by the project arborist and the next stage may commence. Alterations to this schedule may be required due to necessity, however, this shall be through consultation with the project arborist only.

A copy of this report must be available on-site prior to the commencement of works, and throughout the entirety of the project. Hold points have been specified in the schedule of works below to ensure trees are adequately protected during construction. It is the responsibility of the principal contractor to complete each of the tasks.

Pre-construction

Prior to any construction, an onsite meeting should be conducted with attendee's subject but not limited to the project arborist (AQF Level 5 Consulting Arborist), site manager and construction personnel team to walkthrough the tree protection measures requirements. All trees approved for removal are to be indicated clearly with spray paint on trunks.

To ensure the viable retention of the 13 trees (Trees 57, 61, 163, 189, 209, 216, 249, 280, 292, 309, 316, 317 and 343) marked as 'retain with mitigation measures,' along with an additional 15 trees identified by the client for consideration (Trees 2, 46, 62, 63, 177, 195, 196, 197, 247, 285, 286, 287, 288, 322 and 323) construction methods will need to be confirmed in consultation with the project arborist (AQF Level 5) prior to construction. In addition to consulting with the Project Arborist at detailed design and in relation to construction methods, root mapping will also be required to be undertaken to ensure retention is viable. Both the design and construction team should work with the project arborist to avoid SRZ impacts and minimise TPZ impacts.

Permission to remove trees located outside the site boundary is to be sought by the land owner prior to construction and permission must be granted from the relevant consent authority prior to removing any of the subject trees.

During construction

Monthly inspection of trees by the project arborist (or other timing as agreed with the project arborist). Notification to be given prior to the commencement of work within the TPZ, with supervision by the project arborist of any work undertaken in this zone.

Post-construction

Final inspection of trees by project arborist after all major construction has ceased and following the removal of tree protection measures.

6. References

6.1 General references

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Draper, B. and Richards, P., 2009. *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.

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Mattheck, C. and Breloer, H. 1994. 'Field Guide for Visual Tree Assessment' *Arboricultural Journal*, Vol 18 pp 1-23.

Mattheck, C. 2007. *Updated Field Guide for Visual Tree Assessment*. Karlsruhe: Forschungszentrum Karlsruhe.

IACA 2010. IACA *Significance of a Tree, Assessment Rating System (STARS)*, Institute of Australian Consulting Arboriculturalists, Australia, www.iaca.org.au.

Robinson L, 2003. *Field Guide to the Native Plants of Sydney*, 3rd ed, Kangaroo Press, East Roseville NSW

Standards Australia 2003. *Composition, Soil and Mulches, AS 4454 (2003),* Standards Australia, Sydney.

Standards Australia 2007. *Australian Standard: Pruning of amenity trees, AS 4373 (2007),* Standards Australia, Sydney.

Standards Australia 2009. *Australian Standard: Protection of trees on development sites, AS 4970 (2009)*. Standards Australia, Sydney.

6.2 Project specific references

Canterbury Bankstown City Council 2015. *Glossary, Tree Management Manual*. Version 1.0, pg. 37

NSW Land and Housing Corporation 2022. *Revised Master Plan 1 to 2.5k*

Appendix A Tree retention assessment method

A1 Tree Significance Assessment Criteria - STARS©

The tree is to have a minimum of three criteria in a category to be classified in that group.

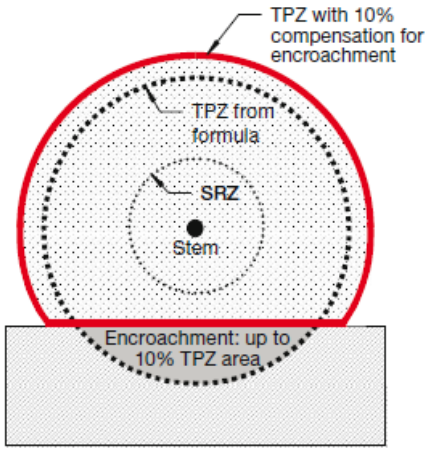
Low	Medium	High
The tree is in fair-poor condition and good or low vigour.	The tree is in fair to good condition and good or low vigour	The tree is in good condition and good vigour
The tree has form atypical of the species	The tree has form typical or atypical of the species	The tree has a form typical for the species
The tree is not visible or is partly visible from the surrounding properties or obstructed by other vegetation or buildings	The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area	The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age.
The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area	The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street	The tree is listed as a heritage item, threatened species or part of an endangered ecological community or listed on Council's significant tree register
The tree is a young specimen which may or may not have reached dimensions to be protected by local Tree Preservation Orders or similar protection mechanisms and can easily be replaced with a suitable specimen	The tree provides a fair contribution to the visual character and amenity of the local area	The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity.
The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa in situ – tree is inappropriate to the site conditions	The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ	The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values.
The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms		The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ – tree is appropriate to the site conditions.
The tree has a wound or defect that has the potential to become structurally unsound.		
Environmental Pest / Noxious Weed The tree is an environmental pest species due to its invasiveness or poisonous/allergenic properties. The tree is a declared noxious weed by legislation.		
Hazardous /Irreversible Decline The tree is structurally unsound and / or unstable and is considered potentially dangerous. The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.		

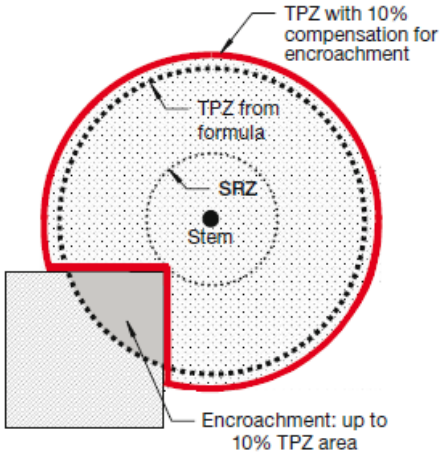
A2 Matrix assessment - STARS©

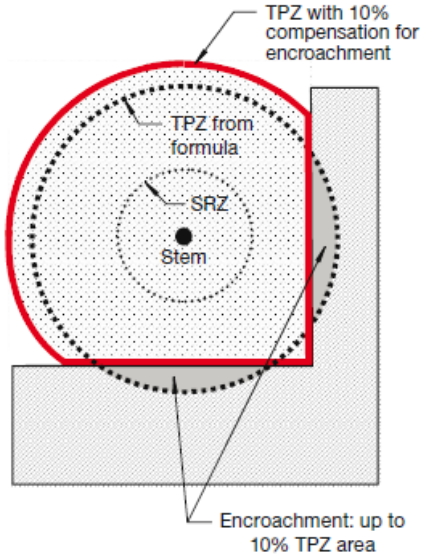
		Tree significance				
		High	Medium	Low		
		Significance in Landscape	Significance in Landscape	Significance in Landscape	Environmental Pest/Noxious Weed Species	Hazardous/ Irreversible Decline
Useful Life Expectancy	Long >40 years					
	Medium 15-40 years					
	Short <1-15 years					
	Dead					

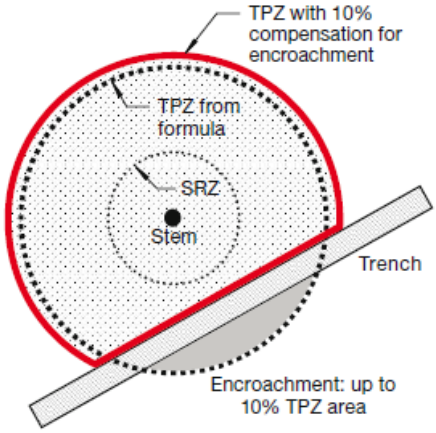
	Priority for retention (High): Tree considered important so should be retained and protected. Design modification or re-location of structure should be considered to accommodate the setbacks as prescribed by the *Australian Standard AS4970 Protection of trees on development sites*. Tree sensitive construction measures must be implemented if works are to proceed within the Tree Protection Zone.
	Consider for retention (Medium): Tree considered less important; however, retention should remain priority. Removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.
	Consider for removal (Low): Tree not considered important for retention, nor requiring special works or design modification to be implemented for their retention.
	Priority for removal: These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.

Appendix B Encroachment into tree protection zones - AS 4970-2009









Appendix C Maps

Figure 3: Tree locations index map

Figure 4: Retention values, page 1

Figure 5: Retention values, page 2

Figure 6: Retention values, page 3

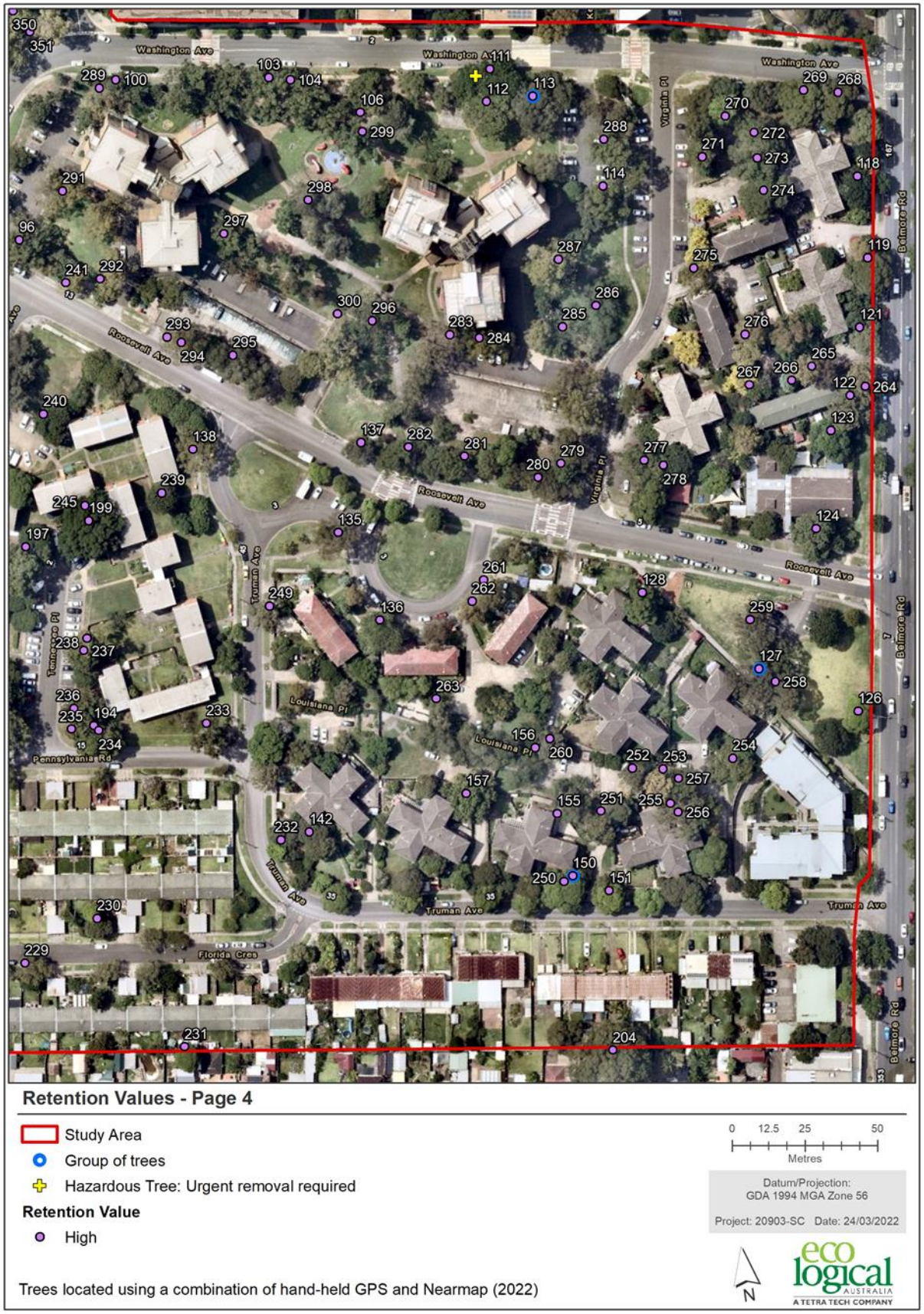


Figure 7: Retention values, page 4

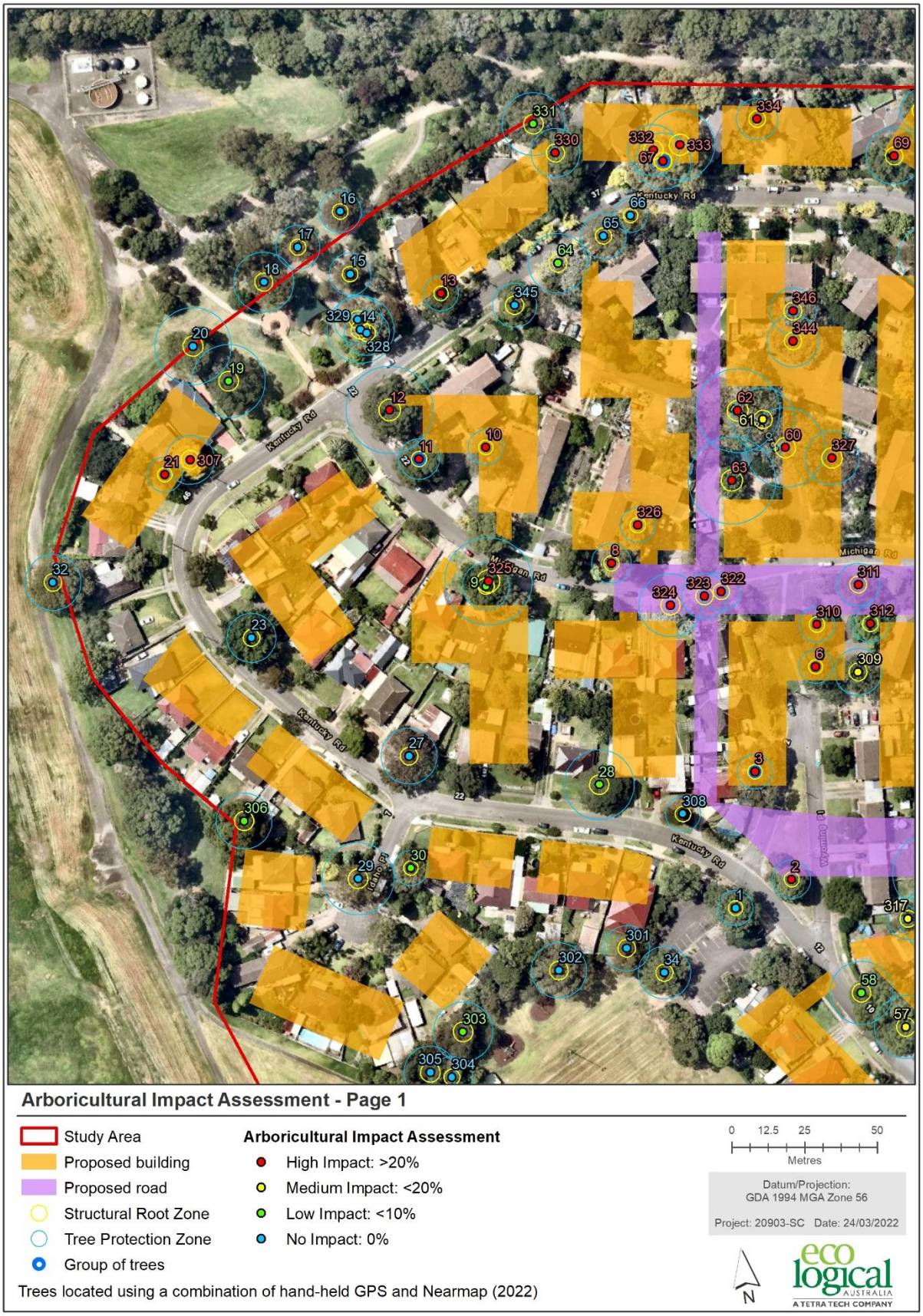


Figure 8: Arboricultural impact assessment, page 1

Figure 9: Arboricultural impact assessment, page 2

Figure 10: Arboricultural impact assessment, page 3

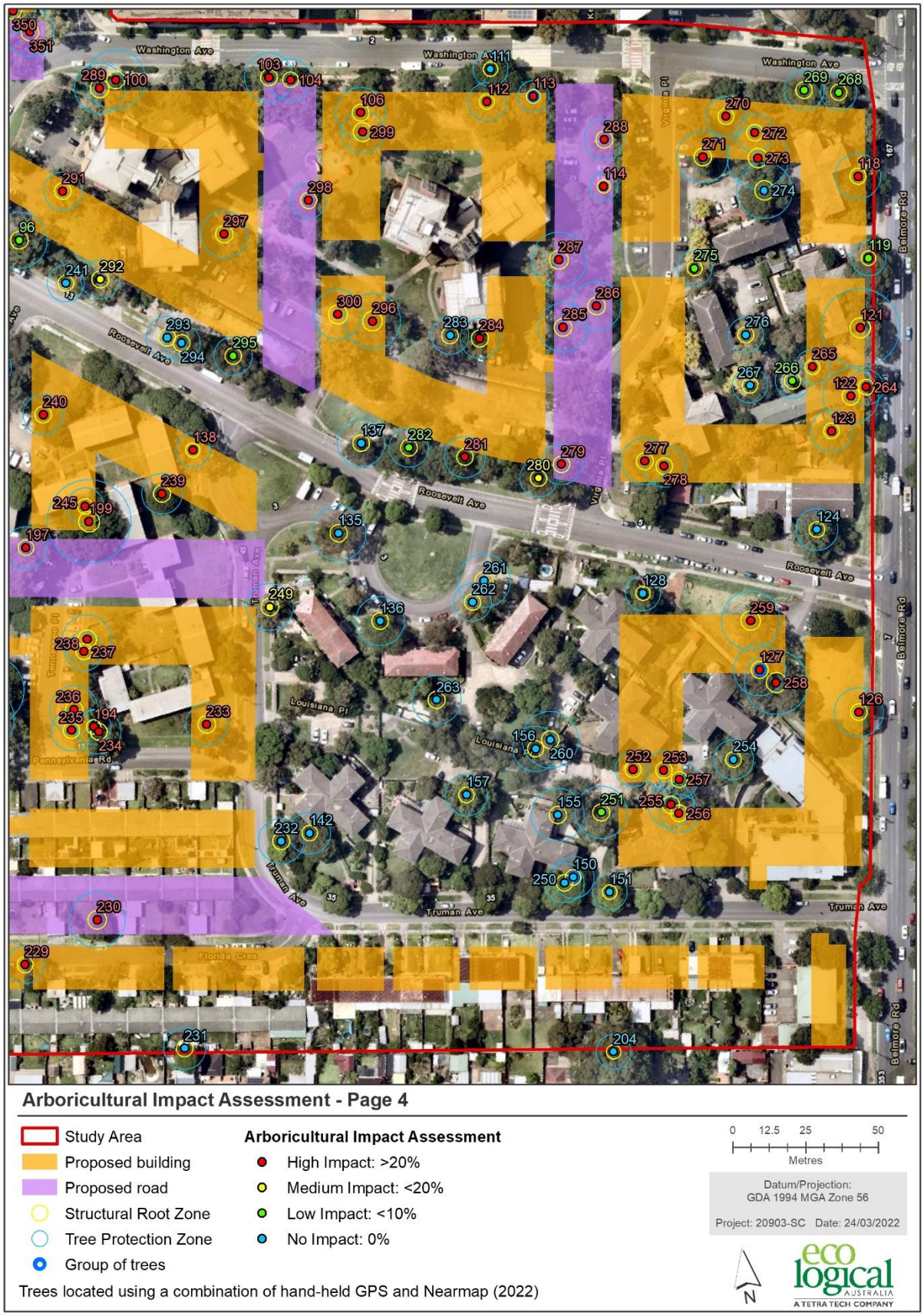


Figure 11: Arboricultural impact assessment, page 4

Figure 12: Proposed Action, page 1

Figure 13: Proposed Action, page 2

Figure 14: Proposed Action, page 3

Figure 15: Proposed Action, page 4

Appendix D Tabulated results of HRT arboricultural assessment

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
1	*Eucalyptus robusta*	1	GPS Unit	16	12	500	Good	Good	Long (>40 years)	High	High	6	2.5	0.0	No	No Impact: 0%	Retain	Mature tree, there are two additional E.robusta and a *Pinus pinastar* in bed
2	*Eucalyptus crebra*	1	GPS Unit	15	8	550	Good	Fair	Long (>40 years)	High	High	6.6	2.6	36.2	Yes	High Impact: >20%	Retain with mitigation measures	multitrunked, dominant, mature Syncarpia in same bed
3	*Eucalyptus haemastoma*	3	GPS Unit	16	12	500	Good	Fair	Medium (15-40 years)	Medium	High	6	2.5	94.4	Yes	High Impact: >20%	Remove	group of 3 private property, pruned, trunk wounds
6	*Liquidambar styraciflua*	1	GPS Unit	18	12	480	Good	Good	Medium (15-40 years)	High	High	5.8	2.4	94.3	Yes	High Impact: >20%	Remove	private property, good form
8	*Corymbia maculata*	1	GPS Unit	21	10	570	Good	Good	Long (>40 years)	High	High	6.8	2.6	31.1	Yes	High Impact: >20%	Remove	good stem taper, branch stub
9	*Platanus × acerifolia*	1	GPS Unit	18	12	670	Good	Good	Long (>40 years)	High	High	8	2.8	4.8	No	Low Impact: <10%	Retain	good vigour, dominant, pruned
10	*Eucalyptus crebra*	1	GPS Unit	20	12	500	Good	Good	Medium (15-40 years)	High	High	6	2.5	93.4	Yes	High Impact: >20%	Remove	private property, deadwood, good form
11	*Eucalyptus saligna*	2	GPS Unit	20	10	580	Good	Poor	Medium (15-40 years)	Medium	High	7	2.6	11.7	Yes	High Impact: >20%	Remove	group of 2 trees, deadwood, first has large basal wound
12	*Eucalyptus saligna*	1	GPS Unit	24	14	1300	Good	Fair	Medium (15-40 years)	High	High	15	3.7	10.3	Yes	High Impact: >20%	Remove	multitrunked, dominant, deadwood, good vigour
13	*Eucalyptus punctata*	1	GPS Unit	16	9	500	Fair	Fair	Medium (15-40 years)	Medium	High	6	2.5	33.0	Yes	High Impact: >20%	Remove	major deadwood, pruned
14	*Eucalyptus moluccana*	1	GPS Unit	20	16	960	Good	Fair	Medium (15-40 years)	High	High	11.5	3.3	0.0	No	No Impact: 0%	Retain	deadwood, good form, dominant, next to large E.sideroxylon
15	*Eucalyptus fibrosa*	1	GPS Unit	19	10	600	Fair	Good	Medium (15-40 years)	High	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	some dieback
16	*Eucalyptus fibrosa*	1	GPS Unit	20	9	600	Good	Good	Long (>40 years)	High	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	good form, good vigour
17	*Eucalyptus fibrosa*	1	GPS Unit	19	9	630	Fair	Fair	Medium (15-40 years)	High	High	7.6	2.7	0.0	No	No Impact: 0%	Retain	deadwood, dieback

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
18	*Eucalyptus fibrosa*	1	GPS Unit	20	11	860	Good	Good	Medium (15-40 years)	High	High	10.3	3.1	0.0	No	No Impact: 0%	Retain	dominant, good leaf growth
19	*Eucalyptus punctata*	1	GPS Unit	18	16	1050	Good	Fair	Long (>40 years)	High	High	12.6	3.4	0.0	No	Low Impact: <10%	Retain	multitrunked, good form and vigour
20	*Eucalyptus acmenoides*	1	GPS Unit	22	11	1100	Fair	Fair	Medium (15-40 years)	High	High	13.2	3.4	0.0	No	No Impact: 0%	Retain	mature, good form and vigour, major branch stubs, occluding trunk wound
21	*Araucaria heterophylla*	1	GPS Unit	19	8	500	Good	Fair	Medium (15-40 years)	Medium	High	6	2.5	95.1	Yes	High Impact: >20%	Remove	multitrunked, private property, next to Cupressus macrocarpa (Monterey Cypress)
23	*Ficus microcarpa*	1	GPS Unit	18	18	700	Good	Fair	Medium (15-40 years)	Medium	High	8.4	2.8	0.0	No	No Impact: 0%	Retain	graffiti, poor location
27	*Eucalyptus sideroxylon*	1	GPS Unit	17	15	800	Good	Fair	Medium (15-40 years)	High	High	9.6	3	0.0	No	No Impact: 0%	Retain	exposed roots, private property
28	*Ficus rubiginosa*	1	GPS Unit	15	15	1000	Fair	Fair	Medium (15-40 years)	Medium	High	12	3.3	9.1	No	Low Impact: <10%	Retain	epicormic, pruned, too close to building, private property
29	*Eucalyptus scoparia*	1	GPS Unit	17	13	1030	Fair	Fair	Medium (15-40 years)	Medium	High	12.4	3.4	0.0	No	No Impact: 0%	Retain	major basal cavity and decay, good support wood, beehive,
30	*Liquidambar styraciflua*	1	GPS Unit	18	13	500	Fair	Good	Medium (15-40 years)	Medium	High	6	2.5	3.0	No	Low Impact: <10%	Retain	private property, constrained by large Cupressus tree
32	*Eucalyptus moluccana*	1	GPS Unit	18	18	800	Good	Good	Medium (15-40 years)	High	High	9.6	3	0.0	No	No Impact: 0%	Retain	minor deadwood, good form
34	*Eucalyptus robusta*	1	GPS Unit	17	17	750	Good	Fair	Medium (15-40 years)	Medium	High	9	2.9	0.0	No	No Impact: 0%	Retain	constrained by gutter and drain, overlapping branches, good vigour and form
35	*Corymbia citriodora*	1	GPS Unit	17	10	500	Good	Good	Long (>40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	semi mature, good form & vigour, growth unimpeded, next to over mature Casuarina glauca
37	*Eucalyptus moluccana*	1	GPS Unit	20	12	800	Good	Fair	Medium (15-40 years)	High	High	9.6	3	0.0	No	No Impact: 0%	Retain	multitrunked good union, dominant, good form and vigour
38	*Eucalyptus moluccana*	1	GPS Unit	18	15	700	Good	Good	Long (>40 years)	High	High	8.4	2.8	0.0	No	No Impact: 0%	Retain	good form and vigour
39	*Melaleuca styphelioides*	1	GPS Unit	11	8	490	Good	Good	Medium (15-40 years)	High	High	5.9	2.5	0.0	No	No Impact: 0%	Retain	good form, good vigour, good location

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42	*Eucalyptus microcorys*	1	GPS Unit	14	7	550	Fair	Fair	Medium (15-40 years)	Medium	High	6.6	2.6	0.0	No	No Impact: 0%	Retain	poor form, codominant stress union, branch stubs, deadwood
43	*Eucalyptus microcorys*	1	GPS Unit	17	9	600	Fair	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	deadwood, branch stubs
44	*Eucalyptus microcorys*	1	GPS Unit	18	9	480	Good	Fair	Medium (15-40 years)	Medium	High	5.8	2.4	0.0	No	No Impact: 0%	Retain	codominant branch at 9m fair union, deadwood, form fair
45	*Eucalyptus punctata*	1	GPS Unit	20	14	990	Fair	Fair	Medium (15-40 years)	Medium	High	11.9	3.3	0.0	No	No Impact: 0%	Retain	trunk base enlarged could indicate cavity, deadwood
46	*Eucalyptus punctata*	1	GPS Unit	20	10	900	Fair	Fair	Medium (15-40 years)	Medium	High	10.8	3.2	60.0	Yes	High Impact: >20%	Retain with mitigation measures	private property, trunk base swollen, cavity possible, over mature
48	*Eucalyptus microcorys*	2	GPS Unit	20	9	570	Good	Good	Medium (15-40 years)	High	High	6.8	2.6	0.0	No	No Impact: 0%	Retain	good form and vigour, group of two, room to grow
49	*Eucalyptus microcorys*	2	GPS Unit	18	8	440	Fair	Fair	Medium (15-40 years)	Medium	High	5.3	2.3	100.0	Yes	High Impact: >20%	Remove	group of two, good form, second has trunk canker
51	*Eucalyptus microcorys*	1	GPS Unit	20	12	600	Good	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	private property, deadwood, epicormic on branch stubs
53	*Eucalyptus microcorys*	1	GPS Unit	19	11	680	Good	Good	Medium (15-40 years)	High	High	8.2	2.8	1.4	No	Low Impact: <10%	Retain	private property, good form and vigour
54	*Corymbia citriodora*	1	GPS Unit	19	14	700	Poor	Fair	Medium (15-40 years)	Medium	High	8.4	2.8	39.1	Yes	High Impact: >20%	Remove	private property, thinning canopy, dieback
55	*Corymbia citriodora*	1	GPS Unit	22	18	900	Good	Good	Long (>40 years)	High	High	10.8	3.2	48.0	Yes	High Impact: >20%	Remove	private property, excellent form and vigour, dominant
56	*Eucalyptus microcorys*	1	GPS Unit	20	16	800	Good	Good	Medium (15-40 years)	High	High	9.6	3	6.3	No	Low Impact: <10%	Retain	private property, good form and vigour, dominant, crown raised
57	*Eucalyptus microcorys*	1	GPS Unit	20	16	900	Good	Fair	Medium (15-40 years)	High	High	10.8	3.2	15.2	No	Medium Impact: <20%	Retain with mitigation measures	codominant good union, private property
58	*Eucalyptus microcorys*	1	GPS Unit	21	20	900	Good	Good	Medium (15-40 years)	High	High	10.8	3.2	4.4	No	Low Impact: <10%	Retain	private property, good form and vigour
60	*Eucalyptus punctata*	1	GPS Unit	22	14	1140	Fair	Fair	Medium (15-40 years)	High	High	13.7	3.5	54.2	Yes	High Impact: >20%	Remove	mature, nesting hollows, good basal flare and form, deadwood, multiple branch wounds, dominant

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
61	*Eucalyptus punctata*	1	GPS Unit	18	15	900	Fair	Fair	Medium (15-40 years)	Medium	High	10.8	3.2	12.7	No	Medium Impact: <20%	Retain with mitigation measures	basal cavity, deadwood
62	*Eucalyptus punctata*	1	GPS Unit	22	16	1200	Fair	Fair	Medium (15-40 years)	High	High	14.4	3.6	34.3	No	High Impact: >20%	Retain with mitigation measures	good basal flare, multiple trunk and branch wounds, deadwood, nest, dominant
63	*Eucalyptus punctata*	1	GPS Unit	19	17	1260	Fair	Fair	Medium (15-40 years)	Medium	High	15	3.6	42.7	No	High Impact: >20%	Retain with mitigation measures	occluded basal trunk wounds, trunk wounds, deadwood, codominant union stress, assess risk
64	*Eucalyptus sideroxylon*	1	GPS Unit	19	18	850	Poor	Fair	Remove (<5 years)	Medium	High	10.2	3.1	0.8	No	Low Impact: <10%	Retain	major branch dieback, branch decay, risk branch failure
65	*Eucalyptus botryoides*	1	GPS Unit	17	15	650	Good	Fair	Medium (15-40 years)	Medium	High	7.8	2.8	0.0	No	No Impact: 0%	Retain	good vigour, trunk collar damage
66	*Eucalyptus sp.*	1	GPS Unit	14	11	480	Poor	Fair	Short (5-15 years)	Medium	High	5.8	2.4	0.0	No	No Impact: 0%	Retain	major branch dieback, large deadwood
67	*Corymbia maculata*	4	GPS Unit	27	15	800	Fair	Fair	Medium (15-40 years)	High	High	9.6	3	59.3	Yes	High Impact: >20%	Remove	group of four, dominant tree has large trunk wounds, good response growth, assess risk,
69	*Eucalyptus botryoides*	1	GPS Unit	20	15	800	Good	Fair	Medium (15-40 years)	High	High	9.6	3	38.2	Yes	High Impact: >20%	Remove	
71	*Eucalyptus tereticornis*	1	GPS Unit	20	15	900	Good	Fair	Medium (15-40 years)	High	High	10.8	3.2	9.4	No	Low Impact: <10%	Retain	dominant, trunk wounds, bird nest, good form, branch failures, assess risk
73	*Eucalyptus moluccana*	1	GPS Unit	18	10	580	Good	Good	Medium (15-40 years)	High	High	7	2.6	9.9	No	Low Impact: <10%	Retain	good form and vigour, growth limited by pavement
75	*Pinus pinaster*	1	GPS Unit	13	6	450	Fair	Fair	Medium (15-40 years)	Medium	High	5.4	2.4	0.0	No	No Impact: 0%	Retain	leaning, asymmetrical canopy, needle dieback
76	*Eucalyptus moluccana*	1	GPS Unit	18	14	860	Fair	Fair	Medium (15-40 years)	Medium	High	10.3	3.1	3.4	No	Low Impact: <10%	Retain	trunk canker and decay, good vigour however risk assessment is recommended
77	*Eucalyptus saligna x botryoide*	1	GPS Unit	24	15	1200	Good	Fair	Medium (15-40 years)	High	High	14.4	3.6	0.0	No	No Impact: 0%	Retain	dominant, good form, codominant good union, habitat
78	*Eucalyptus sideroxylon*	2	GPS Unit	17	13	700	Good	Fair	Medium (15-40 years)	High	High	8.4	2.8	65.5	Yes	High Impact: >20%	Remove	group of 2, one leaning with trunk wound,
79	*Eucalyptus haemastoma*	1	GPS Unit	17	9	500	Good	Good	Medium (15-40 years)	High	High	6	2.5	4.0	No	Low Impact: <10%	Retain	good form and vigour

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80	*Eucalyptus moluccana*	1	GPS Unit	18	17	700	Fair	Fair	Medium (15-40 years)	High	High	8.4	2.8	39.4	Yes	High Impact: >20%	Remove	occluding trunk wound, branch tip dieback, good form, assess risk, basal wounds
81	*Platanus acerifolia*	1	GPS Unit	18	12	1000	Good	Fair	Medium (15-40 years)	Medium	High	12	3.3	0.0	No	No Impact: 0%	Retain	multitrunked, good form, encroached by privet
82	*Platanus acerifolia*	3	GPS Unit	20	8	650	Good	Fair	Medium (15-40 years)	Medium	High	7.8	2.8	0.0	No	No Impact: 0%	Retain	group of 3, first crowded by Cupressus
83	*Eucalyptus scoparia*	1	GPS Unit	17	10	460	Good	Good	Medium (15-40 years)	Medium	High	5.5	2.4	83.9	Yes	High Impact: >20%	Remove	minor deadwood, good form
84	*Eucalyptus scoparia*	2	GPS Unit	16	9	600	Fair	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	100.0	Yes	High Impact: >20%	Remove	group of two, major trunk wounds, branch failures, assess risk
85	*Eucalyptus botryoides*	1	GPS Unit	19	17	760	Good	Fair	Medium (15-40 years)	High	High	9.1	2.9	80.9	Yes	High Impact: >20%	Remove	good form, dominant, room to growth, good heath, deadwood
86	*Corymbia maculata*	1	GPS Unit	19	11	550	Fair	Fair	Medium (15-40 years)	Medium	High	6.6	2.6	0.0	No	No Impact: 0%	Retain	major basal trunk cavity, assess risk, good form
87	*Corymbia maculata*	1	GPS Unit	21	11	580	Good	Fair	Long (>40 years)	Medium	High	7	2.6	0.0	No	No Impact: 0%	Retain	deadwood
88	*Liquidambar styraciflua*	1	GPS Unit	18	12	580	Good	Good	Medium (15-40 years)	High	High	7	2.6	0.0	No	No Impact: 0%	Retain	good form and vigour,
90	*Corymbia citriodora*	1	GPS Unit	22	15	750	Good	Good	Medium (15-40 years)	High	High	9	2.9	40.8	Yes	High Impact: >20%	Remove	dominant, good form and vigour
95	*Corymbia maculata*	1	GPS Unit	20	11	550	Good	Fair	Medium (15-40 years)	Medium	High	6.6	2.6	0.0	No	No Impact: 0%	Retain	semi mature, canker, good basal flare
96	*Eucalyptus saligna*	1	GPS Unit	23	16	800	Fair	Good	Medium (15-40 years)	High	High	9.6	3	6.3	No	Low Impact: <10%	Retain	good form, dominant, minor deadwood
100	*Eucalyptus saligna*	1	GPS Unit	24	13	850	Fair	Fair	Medium (15-40 years)	Medium	High	10.2	3.1	21.2	No	High Impact: >20%	Remove	canker throughout, trunk wounds, codominant, bird nest, assess risk, bird hollows
103	*Eucalyptus botryoides*	1	GPS Unit	17	15	700	Fair	Good	Medium (15-40 years)	High	High	8.4	2.8	26.7	Yes	High Impact: >20%	Remove	good form and vigour, small deadwood
104	*Eucalyptus botryoides*	1	GPS Unit	18	8	600	Good	Fair	Long (>40 years)	Medium	High	7.2	2.7	42.7	Yes	High Impact: >20%	Remove	deadwood, good form and vigour

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106	*Eucalyptus saligna*	1	GPS Unit	25	12	720	Poor	Fair	Medium (15-40 years)	Medium	High	8.6	2.9	96.4	Yes	High Impact: >20%	Remove	branch wounds throughout, assess risk, deadwood, reduced canopy
111	*Melia azedarach*	1	GPS Unit	17	12	500	Good	Fair	Medium (15-40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	weedy exotic, crown raised, deadwood, asymmetrical canopy
112	*Eucalyptus resinifera*	1	GPS Unit	17	13	550	Fair	Good	Medium (15-40 years)	High	High	6.6	2.6	80.4	Yes	High Impact: >20%	Remove	deadwood, dieback, epicormic, good form, dominant
113	*Casuarina glauca*	10	GPS Unit	15	7	450	Good	Good	Medium (15-40 years)	Medium	High	5.4	2.4	62.2	Yes	High Impact: >20%	Remove	group of 10 trees, good vigour, no canker
114	*Corymbia eximia*	1	GPS Unit	18	9	400	Fair	Good	Medium (15-40 years)	Medium	High	4.8	2.3	89.1	Yes	High Impact: >20%	Remove	deadwood, some canker
118	*Liquidambar styraciflua*	1	GPS Unit	17	9	650	Fair	Good	Medium (15-40 years)	Medium	High	7.8	2.8	70.9	Yes	High Impact: >20%	Remove	good form, deadwood, near path, selectively pruned
119	*Eucalyptus fibrosa*	1	GPS Unit	16	10	500	Good	Good	Long (>40 years)	High	High	6	2.5	1.4	No	Low Impact: <10%	Retain	good form, small deadwood
121	*Melaleuca decora*	1	GPS Unit	15	8	1120	Fair	Fair	Medium (15-40 years)	Medium	High	13.4	3.5	57.2	Yes	High Impact: >20%	Remove	overmature, limbs previously pruned, deadwood
122	*Eucalyptus eugenioides*	1	GPS Unit	18	14	800	Fair	Fair	Medium (15-40 years)	Medium	High	9.6	3	79.5	Yes	High Impact: >20%	Remove	leaning, large deadwood, dieback, assess risk, private property
123	*Jacaranda mimosifolia*	1	GPS Unit	14	12	600	Good	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	100.0	Yes	High Impact: >20%	Remove	could not see base, private property
124	*Eucalyptus crebra*	1	GPS Unit	18	13	600	Good	Good	Medium (15-40 years)	High	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	childcare, dominant, good form
126	*Lophostemon confertus*	1	GPS Unit	14	11	700	Good	Fair	Long (>40 years)	Medium	High	8.4	2.8	61.3	Yes	High Impact: >20%	Remove	visible, good form, limbs pruned
127	*Eucalyptus piperita*	2	GPS Unit	18	9	740	Good	Fair	Medium (15-40 years)	Medium	High	8.9	2.9	58.0	Yes	High Impact: >20%	Remove	epicormic on trunk, over mature, fair form, group of two, hollow, large deadwood
128	*Eucalyptus microcorys*	1	GPS Unit	19	10	500	Good	Fair	Medium (15-40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	crown raised, reduced canopy, constrained by fence
135	*Eucalyptus cladocalyx*	1	GPS Unit	18	10	780	Fair	Poor	Medium (15-40 years)	Medium	High	9.4	3	0.0	No	No Impact: 0%	Retain	thinning canopy, wounds, basal cavity, fungal bracket, assess risk

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136	*Platanus sp.*	1	GPS Unit	17	12	700	Good	Good	Medium (15-40 years)	Medium	High	8.4	2.8	0.0	No	No Impact: 0%	Retain	crowded against fence, private property
137	*Allocasuarina littoralis*	1	GPS Unit	17	8	680	Fair	Fair	Medium (15-40 years)	Medium	High	8.2	2.8	0.0	No	No Impact: 0%	Retain	multi-stemmed, thinning canopy
138	*Corymbia citriodora*	1	GPS Unit	19	13	490	Fair	Good	Medium (15-40 years)	Medium	High	5.9	2.5	87.7	Yes	High Impact: >20%	Remove	deadwood, semi mature, thinning canopy
142	*Melaleuca styphelioides*	1	GPS Unit	16	9	600	Good	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	Multi trunked
150	*Lophostemon confertus*	2	GPS Unit	16	9	600	Fair	Good	Long (>40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	group of two, deadwood
151	*Lophostemon confertus*	1	GPS Unit	14	9	500	Fair	Good	Long (>40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	deadwood
155	*Schinus molle*	1	GPS Unit	15	12	760	Fair	Good	Medium (15-40 years)	Medium	High	9.1	2.9	0.0	No	No Impact: 0%	Retain	prune lower branch, vigour fair
156	*Schinus molle*	1	GPS Unit	13	12	650	Fair	Fair	Medium (15-40 years)	Medium	High	7.8	2.8	0.0	No	No Impact: 0%	Retain	broken branch, deadwood, pruned
157	*Platanus acerifolia*	1	GPS Unit	18	12	600	Good	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	private garden, could not see base
161	*Corymbia maculata*	1	GPS Unit	20	8	500	Good	Fair	Medium (15-40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	canopy raised, crowded by palm and fence
162	*Corymbia maculata*	1	GPS Unit	20	10	700	Good	Good	Medium (15-40 years)	High	High	8.4	2.8	33.3	Yes	High Impact: >20%	Remove	good form, vigour and structure, long term growth restricted by fence
163	*Eucalyptus cladocalyx*	1	GPS Unit	19	11	750	Fair	Fair	Medium (15-40 years)	Medium	High	9	2.9	10.3	No	Medium Impact: <20%	Retain with mitigation measures	large deadwood high risk, trunk & branch wounds throughout, no access
164	*Lophostemon confertus*	1	GPS Unit	16	10	500	Fair	Good	Medium (15-40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	some dieback
165	*Lophostemon confertus*	1	GPS Unit	18	10	500	Fair	Fair	Medium (15-40 years)	Medium	High	6	2.5	38.7	Yes	High Impact: >20%	Remove	branches lopped, epicormic shoots, dieback
172	*Eucalyptus cladocalyx*	1	GPS Unit	19	14	750	Fair	Fair	Medium (15-40 years)	Medium	High	9	2.9	23.8	No	High Impact: >20%	Remove	multi trunk, trunk wounds, previous branch failures

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
173	*Eucalyptus microcorys*	1	GPS Unit	20	14	750	Good	Good	Medium (15-40 years)	High	High	9	2.9	35.0	Yes	High Impact: >20%	Remove	dominant, good vigour and form
177	*Eucalyptus microcorys*	1	GPS Unit	18	9	650	Fair	Poor	Medium (15-40 years)	Medium	High	7.8	2.8	32.5	Yes	High Impact: >20%	Retain with mitigation measures	large occluding wound at 13m, crown raised, reduced canopy
181	*Eucalyptus microcorys*	1	GPS Unit	17	9	480	Good	Fair	Medium (15-40 years)	Medium	High	5.8	2.4	0.0	No	No Impact: 0%	Retain	multi-stemmed, good vigour
182	*Eucalyptus saligna*	1	GPS Unit	20	11	500	Fair	Poor	Short (5-15 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	trunk wound at 8m, codominant at 10m, major basal wound, assess risk
183	*Eucalyptus microcorys*	1	GPS Unit	19	7	500	Good	Fair	Medium (15-40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	crossed branch, good vigour
184	*Eucalyptus microcorys*	1	GPS Unit	20	9	700	Good	Fair	Medium (15-40 years)	Medium	High	8.4	2.8	0.0	No	No Impact: 0%	Retain	multitrunked, deadwood
185	*Eucalyptus microcorys*	1	GPS Unit	18	8	480	Good	Fair	Medium (15-40 years)	Medium	High	5.8	2.4	53.7	Yes	High Impact: >20%	Remove	asymmetrical canopy
186	*Eucalyptus microcorys*	1	GPS Unit	19	7	400	Good	Fair	Medium (15-40 years)	Medium	High	4.8	2.3	99.4	Yes	High Impact: >20%	Remove	deadwood, crowded
187	*Eucalyptus microcorys*	1	GPS Unit	19	8	480	Good	Fair	Medium (15-40 years)	Medium	High	5.8	2.4	100.0	Yes	High Impact: >20%	Remove	deadwood, pruned next to wires
188	*Ficus microcarpa*	1	GPS Unit	22	20	1000	Good	Good	Long (>40 years)	High	High	12	3.3	26.4	No	High Impact: >20%	Remove	close to building
189	*Ficus microcarpa*	1	GPS Unit	20	18	1000	Good	Good	Medium (15-40 years)	High	High	12	3.3	11.3	No	Medium Impact: <20%	Retain with mitigation measures	close to building
192	*Platanus acerifolia*	1	GPS Unit	19	11	600	Good	Good	Medium (15-40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	good vigour, crowded, private property
193	*Araucaria heterophylla*	1	GPS Unit	19	8	500	Good	Fair	Medium (15-40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	crowded, asymmetrical canopy, private property
194	*Eucalyptus microcorys*	1	GPS Unit	20	12	500	Good	Fair	Medium (15-40 years)	Medium	High	6	2.5	30.6	Yes	High Impact: >20%	Remove	trunk burnt, codominant at 5m, crown raised, good vigour, dominant
195	*Liquidambar styraciflua*	1	GPS Unit	20	15	500	Good	Good	Medium (15-40 years)	High	High	6	2.5	42.0	Yes	High Impact: >20%	Retain with mitigation measures	good form, small deadwood

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
196	*Liquidambar styraciflua*	1	GPS Unit	18	13	450	Fair	Fair	Medium (15-40 years)	Medium	High	5.4	2.4	100.0	Yes	High Impact: >20%	Retain with mitigation measures	crowded, thin canopy, branch failures, hangers
197	*Eucalyptus microcorys*	1	GPS Unit	20	10	600	Fair	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	77.7	Yes	High Impact: >20%	Retain with mitigation measures	wounds and hollows on branch forks, dominant, deadwood
199	*Ficus microcarpa*	1	GPS Unit	22	18	1200	Good	Fair	Medium (15-40 years)	High	High	14.4	3.6	61.6	Yes	High Impact: >20%	Remove	large branch pruned, close to buildings, good vigour, codominant trunks, assess risk
200	*Corymbia maculata*	1	GPS Unit	23	9	700	Fair	Poor	Medium (15-40 years)	Medium	High	8.4	2.8	68.7	Yes	High Impact: >20%	Remove	asymmetrical canopy, crown lifted one side, trunk and branch wounds
201	*Liquidambar styraciflua*	1	GPS Unit	20	15	650	Good	Fair	Medium (15-40 years)	Medium	High	7.8	2.8	6.8	No	Low Impact: <10%	Retain	private garden, overhanging branch, privet near base
202	*Platanus acerifolia*	1	GPS Unit	18	14	600	Good	Good	Medium (15-40 years)	Medium	High	7.2	2.7	4.7	No	Low Impact: <10%	Retain	good form, private garden
203	*Eucalyptus pilularis*	1	GPS Unit	18	14	600	Good	Fair	Medium (15-40 years)	High	High	7.2	2.7	87.8	Yes	High Impact: >20%	Remove	good form vigour, basal trunk wound monitor
204	*Corymbia citriodora*	1	GPS Unit	23	15	500	Good	Good	Medium (15-40 years)	High	High	6	2.5	0.0	No	No Impact: 0%	Retain	private garden, unable to visualise trunk, measurements are estimates
205	*Platanus × acerifolia*	1	Field Photo	18	15	570	Good	Good	Long (>40 years)	High	High	6.8	2.6	0.0	No	No Impact: 0%	Retain	
206	*Casuarina glauca*	1	GPS Unit	20	12	620	Good	Good	Long (>40 years)	High	High	7.4	2.7	9.4	Yes	High Impact: >20%	Remove	Basal roots and suckers. Multi stemmed
207	*Casuarina glauca*	1	GPS Unit	22	10	520	Good	Good	Long (>40 years)	High	High	6.2	2.5	47.5	Yes	High Impact: >20%	Remove	
208	*Eucalyptus microcorys*	1	GPS Unit	24	14	950	Good	Good	Short (5-15 years)	High	High	11.4	3.2	37.0	Yes	High Impact: >20%	Remove	
209	*Casuarina glauca*	1	Field Photo	18	9	510	Good	Good	Long (>40 years)	Medium	High	6.1	2.5	14.7	No	Medium Impact: <20%	Retain with mitigation measures	Basal roots
210	*Casuarina glauca*	1	GPS Unit	16	12	730	Fair	Fair	Medium (15-40 years)	High	High	8.8	2.9	99.9	Yes	High Impact: >20%	Remove	Street tree. Sparse canopy. Root suckers
211	*Eucalyptus microcorys*	1	GPS Unit	15	18	740	Good	Good	Long (>40 years)	High	High	8.9	2.9	7.9	No	Low Impact: <10%	Retain	

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
212	*Eucalyptus microcorys*	1	Field Photo	18	10	550	Fair	Good	Long (>40 years)	Medium	High	6.6	2.6	100.0	Yes	High Impact: >20%	Remove	
213	*Eucalyptus microcorys*	1	GPS Unit	20	10	560	Good	Good	Long (>40 years)	High	High	6.7	2.6	57.8	Yes	High Impact: >20%	Remove	One of row of four trees. Broken branch lodged in tree
214	*Eucalyptus microcorys*	1	GPS Unit	20	8	430	Good	Good	Long (>40 years)	Medium	High	5.2	2.3	31.6	Yes	High Impact: >20%	Remove	One of four trees in row
215	*Eucalyptus microcorys*	1	GPS Unit	20	9	570	Good	Good	Long (>40 years)	Medium	High	6.8	2.6	22.0	No	High Impact: >20%	Remove	One of row of four trees
216	*Eucalyptus microcorys*	1	GPS Unit	20	15	720	Good	Good	Long (>40 years)	High	High	8.6	2.9	19.1	No	Medium Impact: <20%	Retain with mitigation measures	One of row of four trees
217	*Eucalyptus microcorys*	1	Field Photo	22	14	810	Good	Good	Long (>40 years)	High	High	9.7	3	67.3	Yes	High Impact: >20%	Remove	
218	*Eucalyptus sp.*	1	Field Photo	24	8	500	Good	Good	Long (>40 years)	Medium	High	6	2.5	0.0	No	Low Impact: <10%	Retain	Not tagged. In private area. Probably E. piperita
219	*Eucalyptus sp.*	1	GPS Unit	15	10	500	Good	Good	Long (>40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	Not tagged, private area. Possibly E.piperita
220	*Eucalyptus microcorys*	1	GPS Unit	18	14	550	Good	Good	Long (>40 years)	Medium	High	6.6	2.6	0.0	No	No Impact: 0%	Retain	
221	*Eucalyptus microcorys*	1	GPS Unit	20	15	650	Good	Good	Long (>40 years)	High	High	7.8	2.8	31.9	Yes	High Impact: >20%	Remove	
222	*Eucalyptus microcorys*	1	Field Photo	18	10	550	Good	Good	Long (>40 years)	Medium	High	6.6	2.6	98.3	Yes	High Impact: >20%	Remove	Not tagged. In private area
223	*Corymbia maculata*	1	Field Photo	20	10	590	Good	Good	Long (>40 years)	High	High	7.1	2.7	70.7	Yes	High Impact: >20%	Remove	
224	*Eucalyptus microcorys*	1	Nearmap (2021)	18	14	610	Good	Good	Long (>40 years)	High	High	7.3	2.7	2.4	No	Low Impact: <10%	Retain	Bifurcation
225	*Liquidambar styraciflua*	1	Nearmap (2021)	16	13	590	Fair	Good	Medium (15-40 years)	Medium	High	7.1	2.7	21.1	Yes	High Impact: >20%	Remove	
226	*Cinnamomum camphora*	1	Nearmap (2021)	18	18	700	Fair	Fair	Medium (15-40 years)	High	High	8.4	2.8	84.6	Yes	High Impact: >20%	Remove	Not directly accessed, not tagged, on private land

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
227	*Platanus × acerifolia*	1	Nearmap (2021)	14	18	600	Good	Good	Long (>40 years)	High	High	7.2	2.7	6.9	No	Low Impact: <10%	Retain	On private land, not directly accessed or tagged
228	*Melaleuca quinquenervia*	1	Nearmap (2021)	15	12	800	Good	Fair	Medium (15-40 years)	High	High	9.6	3	33.4	Yes	High Impact: >20%	Remove	Not accessed on private land. Not tagged
229	*Callistemon viminalis*	1	Nearmap (2021)	10	10	540	Fair	Good	Medium (15-40 years)	Medium	High	6.5	2.6	71.3	Yes	High Impact: >20%	Remove	Street tree
230	*Cupressus sp.*	1	Nearmap (2021)	16	7	800	Good	Good	Medium (15-40 years)	Medium	High	9.6	3	81.9	Yes	High Impact: >20%	Remove	On private land, not accessed or tagged
231	*Lophostemon confertus*	1	Nearmap (2021)	15	10	600	Good	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	
232	*Afrocarpus falcatus*	1	Field Photo	12	16	650	Fair	Good	Long (>40 years)	Medium	High	7.8	2.8	0.0	No	No Impact: 0%	Retain	On private land, not accessed or tagged
233	*Eucalyptus saligna*	1	Field Photo	18	14	600	Good	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	92.6	Yes	High Impact: >20%	Remove	Possible termite damage in base. Cockatoo damage
234	*Eucalyptus microcorys*	1	Field Photo	15	12	640	Good	Good	Long (>40 years)	High	High	7.7	2.7	21.4	No	High Impact: >20%	Remove	Bifurcation
235	*Eucalyptus microcorys*	1	Field Photo	20	15	580	Good	Good	Long (>40 years)	High	High	7	2.6	96.1	Yes	High Impact: >20%	Remove	
236	*Eucalyptus microcorys*	1	Field Photo	18	14	690	Good	Good	Long (>40 years)	High	High	8.3	2.8	85.7	Yes	High Impact: >20%	Remove	
237	*Eucalyptus microcorys*	1	Field Photo	20	15	550	Good	Fair	Long (>40 years)	High	High	6.6	2.6	96.8	Yes	High Impact: >20%	Remove	In fenced off area, not accessed or tagged
238	*Eucalyptus saligna*	1	Field Photo	25	15	700	Fair	Fair	Medium (15-40 years)	High	High	8.4	2.8	100.0	Yes	High Impact: >20%	Remove	In fenced off area, not accessed or tagged. Cockatoo damage
239	*Liquidambar styraciflua*	1	GPS Unit	18	12	580	Good	Fair	Medium (15-40 years)	High	High	7	2.6	32.6	Yes	High Impact: >20%	Remove	Hollow in base, well occluded
240	*Liquidambar styraciflua*	1	GPS Unit	16	15	580	Good	Fair	Medium (15-40 years)	High	High	7	2.6	84.3	Yes	High Impact: >20%	Remove	
241	*Casuarina glauca*	1	GPS Unit	15	14	530	Good	Good	Long (>40 years)	Medium	High	6.4	2.5	0.0	No	No Impact: 0%	Retain	Surface roots

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242	*Casuarina glauca*	1	Field Photo	18	12	610	Fair	Good	Medium (15-40 years)	Medium	High	7.3	2.7	0.0	No	No Impact: 0%	Retain	Surface roots
243	*Casuarina glauca*	1	Field Photo	17	15	690	Fair	Fair	Medium (15-40 years)	High	High	8.3	2.8	44.0	Yes	High Impact: >20%	Remove	Surface roots, decay
244	*Liquidambar styraciflua*	1	Nearmap (2021)	18	14	580	Good	Good	Long (>40 years)	High	High	7	2.6	32.3	Yes	High Impact: >20%	Remove	Occluded wound on upper trunk
245	*Lophostemon confertus*	1	Field Photo	15	15	530	Fair	Good	Long (>40 years)	Medium	High	6.4	2.5	82.9	Yes	High Impact: >20%	Remove	Sparse canopy
247	*Liquidambar styraciflua*	1	Field Photo	22	14	580	Good	Good	Long (>40 years)	High	High	7	2.6	91.5	Yes	High Impact: >20%	Retain with mitigation measures	
248	*Callistemon viminalis*	1	Field Photo	18	15	700	Fair	Fair	Medium (15-40 years)	High	High	8.4	2.8	77.6	Yes	High Impact: >20%	Remove	Multi trunked
249	*Melaleuca quinquenervia*	1	GPS Unit	15	13	670	Good	Good	Medium (15-40 years)	Medium	High	8	2.8	16.3	No	Medium Impact: <20%	Retain with mitigation measures	Street tree
250	*Lophostemon confertus*	1	Field Photo	15	11	570	Good	Good	Medium (15-40 years)	Medium	High	6.8	2.6	0.0	No	No Impact: 0%	Retain	Next to tree 150
251	*Melaleuca linariifolia*	1	Field Photo	13	13	750	Good	Good	Medium (15-40 years)	Medium	High	9	2.9	7.4	No	Low Impact: <10%	Retain	
252	*Casuarina glauca*	1	GPS Unit	18	12	500	Good	Good	Long (>40 years)	Medium	High	6	2.5	87.4	Yes	High Impact: >20%	Remove	
253	*Corymbia maculata*	1	GPS Unit	24	14	550	Good	Good	Long (>40 years)	High	High	6.6	2.6	86.1	Yes	High Impact: >20%	Remove	
254	*Tristaniopsis laurina*	1	GPS Unit	10	15	570	Fair	Good	Long (>40 years)	Medium	High	6.8	2.6	0.0	No	No Impact: 0%	Retain	Sparse canopy
255	*Eucalyptus punctata*	1	Field Photo	20	15	650	Fair	Fair	Medium (15-40 years)	High	High	7.8	2.8	40.8	Yes	High Impact: >20%	Remove	Sparse canopy. Tree assessed from other side of fence. Not directly accessed or tagged
256	*Eucalyptus robusta*	1	Field Photo	16	10	550	Fair	Fair	Medium (15-40 years)	Medium	High	6.6	2.6	67.0	Yes	High Impact: >20%	Remove	Tree assessed from other side of fence, in private area not accessed or tagged
257	*Eucalyptus botryoides*	1	Field Photo	18	15	550	Good	Good	Medium (15-40 years)	Medium	High	6.6	2.6	35.7	Yes	High Impact: >20%	Remove	

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258	*Eucalyptus eugenioides*	1	GPS Unit	20	16	910	Fair	Fair	Medium (15-40 years)	High	High	10.9	3.2	23.6	Yes	High Impact: >20%	Remove	Large dead branches
259	*Eucalyptus eugenioides*	1	GPS Unit	18	17	840	Fair	Good	Long (>40 years)	High	High	10.1	3.1	62.7	Yes	High Impact: >20%	Remove	Large dead branches, hollows in trunk
260	*Melaleuca quinquenervia*	1	GPS Unit	15	10	810	Good	Good	Long (>40 years)	Medium	High	9.7	3	0.0	No	No Impact: 0%	Retain	
261	*Corymbia maculata*	1	Field Photo	25	12	760	Good	Good	Medium (15-40 years)	High	High	9.1	2.9	0.0	No	No Impact: 0%	Retain	
262	*Corymbia maculata*	1	GPS Unit	17	8	540	Good	Good	Medium (15-40 years)	Medium	High	6.5	2.6	0.0	No	No Impact: 0%	Retain	
263	*Melaleuca quinquenervia*	1	Field Photo	18	10	700	Good	Good	Long (>40 years)	Medium	High	8.4	2.8	0.0	No	No Impact: 0%	Retain	
264	*Corymbia maculata*	1	GPS Unit	20	8	500	Good	Good	Long (>40 years)	Medium	High	6	2.5	43.4	Yes	High Impact: >20%	Remove	
265	*Eucalyptus sideroxylon*	1	GPS Unit	16	10	500	Fair	Good	Medium (15-40 years)	Medium	High	6	2.5	72.4	Yes	High Impact: >20%	Remove	
266	*Corymbia citriodora*	1	Field Photo	20	9	500	Good	Good	Medium (15-40 years)	Medium	High	6	2.5	6.2	No	Low Impact: <10%	Retain	
267	*Corymbia maculata*	1	Field Photo	25	7	500	Good	Good	Medium (15-40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	
268	*Eucalyptus fibrosa*	1	GPS Unit	15	11	520	Good	Good	Long (>40 years)	Medium	High	6.2	2.5	4.5	No	Low Impact: <10%	Retain	In restricted area. Not directly accessed or tagged
269	*Eucalyptus crebra*	1	GPS Unit	19	16	570	Good	Good	Long (>40 years)	High	High	6.8	2.6	7.6	No	Low Impact: <10%	Retain	
270	*Lophostemon confertus*	1	GPS Unit	16	13	570	Fair	Good	Medium (15-40 years)	Medium	High	6.8	2.6	96.3	Yes	High Impact: >20%	Remove	Sparse canopy
271	*Eucalyptus fibrosa*	1	GPS Unit	22	12	740	Good	Fair	Medium (15-40 years)	High	High	8.9	2.9	50.6	Yes	High Impact: >20%	Remove	Wound at base occluding well
272	*Eucalyptus saligna*	1	Field Photo	16	12	540	Good	Good	Long (>40 years)	Medium	High	6.5	2.6	100.0	Yes	High Impact: >20%	Remove	

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273	*Eucalyptus crebra*	1	Field Photo	25	20	880	Good	Fair	Medium (15-40 years)	High	High	10.6	3.1	54.6	Yes	High Impact: >20%	Remove	Wound at base occluding well. Decay in upper trunk
274	*Eucalyptus fibrosa*	1	Field Photo	23	15	800	Good	Fair	Long (>40 years)	High	High	9.6	3	0.0	No	No Impact: 0%	Retain	Wounds in scaffolds
275	*Corymbia maculata*	1	Field Photo	22	12	500	Good	Good	Long (>40 years)	Medium	High	6	2.5	2.3	No	Low Impact: <10%	Retain	
276	*Corymbia maculata*	1	Field Photo	20	12	500	Good	Good	Long (>40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	
277	*Eucalyptus botryoides*	1	GPS Unit	18	14	670	Good	Good	Long (>40 years)	Medium	High	8	2.8	97.9	Yes	High Impact: >20%	Remove	
278	*Liquidambar styraciflua*	1	Field Photo	16	15	600	Good	Fair	Medium (15-40 years)	Medium	High	7.2	2.7	93.3	Yes	High Impact: >20%	Remove	Tree in restricted area not accessed or tagged
279	*Eucalyptus resinifera*	1	Field Photo	18	14	580	Good	Fair	Long (>40 years)	Medium	High	7	2.6	73.3	Yes	High Impact: >20%	Remove	Sparse canopy, large dead branches
280	*Eucalyptus amplifolia*	1	Field Photo	20	9	540	Good	Good	Medium (15-40 years)	Medium	High	6.5	2.6	11.8	No	Medium Impact: <20%	Retain with mitigation measures	
281	*Eucalyptus microcorys*	1	Field Photo	20	14	590	Fair	Fair	Medium (15-40 years)	Medium	High	7.1	2.7	27.2	Yes	High Impact: >20%	Remove	Large dead branches, minor dieback on canopy
282	*Eucalyptus botryoides*	1	Field Photo	18	15	560	Good	Good	Long (>40 years)	Medium	High	6.7	2.6	4.7	No	Low Impact: <10%	Retain	
283	*Corymbia citriodora*	1	Field Photo	18	15	540	Fair	Good	Medium (15-40 years)	Medium	High	6.5	2.6	0.0	No	No Impact: 0%	Retain	Sparse canopy
284	*Corymbia citriodora*	1	Field Photo	20	9	570	Fair	Good	Medium (15-40 years)	High	High	6.8	2.6	28.4	Yes	High Impact: >20%	Remove	
285	*Schinus molle*	1	GPS Unit	10	16	700	Fair	Fair	Long (>40 years)	Medium	High	8.4	2.8	81.2	Yes	High Impact: >20%	Retain with mitigation measures	Large dead branches
286	*Schinus molle*	1	GPS Unit	14	17	700	Good	Good	Long (>40 years)	Medium	High	8.4	2.8	88.1	Yes	High Impact: >20%	Retain with mitigation measures	
287	*Corymbia maculata*	1	Field Photo	30	15	790	Good	Fair	Medium (15-40 years)	High	High	9.5	3	63.2	Yes	High Impact: >20%	Retain with mitigation measures	Cockatoo damage

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288	*Eucalyptus botryoides*	1	GPS Unit	18	14	580	Good	Good	Medium (15-40 years)	Medium	High	7	2.6	79.8	Yes	High Impact: >20%	Retain with mitigation measures	Large dead branches
289	*Casuarina glauca*	1	Field Photo	20	10	720	Fair	Fair	Medium (15-40 years)	Medium	High	8.6	2.9	16.4	Yes	High Impact: >20%	Remove	Next to Tree 99. Decay in base
290	*Casuarina glauca*	1	GPS Unit	16	10	510	Good	Good	Long (>40 years)	Medium	High	6.1	2.5	68.0	Yes	High Impact: >20%	Remove	
291	*Corymbia citriodora*	1	Nearmap (2021)	22	12	550	Fair	Good	Medium (15-40 years)	Medium	High	6.6	2.6	82.2	Yes	High Impact: >20%	Remove	
292	*Corymbia citriodora*	1	Field Photo	22	9	560	Good	Good	Long (>40 years)	Medium	High	6.7	2.6	15.2	No	Medium Impact: <20%	Retain with mitigation measures	
293	*Eucalyptus amplifolia*	1	Field Photo	18	10	600	Fair	Good	Long (>40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	
294	*Eucalyptus amplifolia*	1	Field Photo	17	8	530	Good	Fair	Medium (15-40 years)	Medium	High	6.4	2.5	0.0	No	No Impact: 0%	Retain	
295	*Casuarina glauca*	1	Field Photo	20	10	550	Good	Good	Long (>40 years)	Medium	High	6.6	2.6	8.0	No	Low Impact: <10%	Retain	
296	*Eucalyptus resinifera*	1	GPS Unit	20	25	800	Good	Fair	Long (>40 years)	High	High	9.6	3	78.2	Yes	High Impact: >20%	Remove	Some epicormic growth
297	*Eucalyptus botryoides*	1	Field Photo	26	15	670	Good	Fair	Long (>40 years)	High	High	8	2.8	100.0	Yes	High Impact: >20%	Remove	Twin stemmed
298	*Casuarina glauca*	1	Field Photo	20	9	510	Good	Good	Long (>40 years)	Medium	High	6.1	2.5	83.1	Yes	High Impact: >20%	Remove	
299	*Casuarina glauca*	1	Field Photo	20	10	610	Good	Good	Long (>40 years)	Medium	High	7.3	2.7	100.0	Yes	High Impact: >20%	Remove	Previous limb failure
300	*Corymbia citriodora*	1	Field Photo	26	12	710	Fair	Good	Long (>40 years)	High	High	8.5	2.9	91.0	Yes	High Impact: >20%	Remove	
301	*Eucalyptus scoparia*	1	Field Photo	15	13	650	Fair	Fair	Medium (15-40 years)	Medium	High	7.8	2.8	0.0	No	No Impact: 0%	Retain	Tree on private property, not accessed or tagged. Assessed from the public park
302	*Eucalyptus scoparia*	1	GPS Unit	20	18	790	Good	Good	Medium (15-40 years)	High	High	9.5	3	0.0	No	No Impact: 0%	Retain	

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
303	*Casuarina glauca*	1	GPS Unit	18	15	850	Good	Fair	Long (>40 years)	Medium	High	10.2	3.1	0.3	No	Low Impact: <10%	Retain	Multi trunked
304	*Casuarina glauca*	1	GPS Unit	16	12	590	Good	Good	Long (>40 years)	Medium	High	7.1	2.7	0.0	No	No Impact: 0%	Retain	
305	*Casuarina glauca*	1	GPS Unit	15	15	750	Good	Good	Long (>40 years)	Medium	High	9	2.9	0.0	No	No Impact: 0%	Retain	
306	*Eucalyptus microcorys*	1	Field Photo	30	20	800	Good	Fair	Medium (15-40 years)	High	High	9.6	3	0.0	No	Low Impact: <10%	Retain	Not accessed or tagged. Assessed from public park. On private property
307	*Cupressus sp.*	1	Field Photo	15	15	700	Good	Fair	Medium (15-40 years)	Medium	High	8.4	2.8	68.3	Yes	High Impact: >20%	Remove	Bifurcation of main stem. On private property, not accessed or tagged, assessed from street.
308	*Araucaria columnaris*	1	Field Photo	16	5	500	Good	Good	Long (>40 years)	Medium	High	6	2.5	0.0	No	No Impact: 0%	Retain	On private property, not accessed directly or tagged. Assessed from street
309	*Quercus palustris*	1	Field Photo	17	15	670	Good	Fair	Medium (15-40 years)	High	High	8	2.8	13.7	No	Medium Impact: <20%	Retain with mitigation measures	Bracket fungi indicating basal and trunk decay. Monitor health. ULE may be shorter
310	*Eucalyptus robusta*	1	Field Photo	16	15	510	Good	Good	Long (>40 years)	Medium	High	6.1	2.5	84.7	Yes	High Impact: >20%	Remove	
311	*Eucalyptus botryoides*	1	Field Photo	16	15	610	Good	Fair	Medium (15-40 years)	Medium	High	7.3	2.7	98.1	Yes	High Impact: >20%	Remove	Previous large limb failure
312	*Jacaranda mimosifolia*	1	Field Photo	15	15	530	Good	Good	Long (>40 years)	Medium	High	6.4	2.5	30.6	No	High Impact: >20%	Remove	
313	*Cupressus torulosa*	1	Nearmap (2021)	17	8	570	Good	Good	Long (>40 years)	Medium	High	6.8	2.6	78.2	Yes	High Impact: >20%	Remove	
314	*Washingtonia robusta*	1	Field Photo	16	5	500	Good	Good	Long (>40 years)	Medium	High	3.5	0	95.7		High Impact: >20%	Remove	Adjacent palm not included as it has not attained sufficient size. Not tagged
315	*Eucalyptus camaldulensis*	1	GPS Unit	30	34	1160	Good	Fair	Long (>40 years)	High	High	13.9	3.5	55.5	Yes	High Impact: >20%	Remove	Significant tree. Contains hollows and epicormic growth.
316	*Eucalyptus camaldulensis*	1	GPS Unit	25	25	900	Good	Fair	Long (>40 years)	High	High	10.8	3.2	11.2	No	Medium Impact: <20%	Retain with mitigation measures	Significant tree. On private land not directly accessed or tagged
317	*Eucalyptus botryoidesxsaligna*	1	GPS Unit	30	15	600	Good	Fair	Long (>40 years)	High	High	7.2	2.7	13.0	No	Medium Impact: <20%	Retain with mitigation measures	On private land, not directly accessed or tagged

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
318	*Casuarina glauca*	1	Field Photo	16	14	740	Good	Fair	Long (>40 years)	Medium	High	8.9	2.9	48.9	Yes	High Impact: >20%	Remove	Previous partial failure of upright. Has occluded
319	*Eucalyptus saligna*	1	Nearmap (2021)	30	15	650	Good	Good	Long (>40 years)	High	High	7.8	2.8	80.7	Yes	High Impact: >20%	Remove	On private property, not directly accessed ir tagged, assessed from street
320	*Jacaranda mimosifolia*	1	GPS Unit	14	16	600	Good	Good	Long (>40 years)	Medium	High	7.2	2.7	50.6	Yes	High Impact: >20%	Remove	On private property, not directly accessed or tagged, assessed from street
321	*Eucalyptus sideroxylon*	1	Field Photo	15	12	600	Fair	Good	Long (>40 years)	Medium	High	7.2	2.7	61.2	Yes	High Impact: >20%	Remove	Sparse canopy
322	*Casuarina glauca*	1	GPS Unit	17	12	550	Fair	Good	Long (>40 years)	Medium	High	6.6	2.6	100.0	Yes	High Impact: >20%	Retain with mitigation measures	Tree on private property, not directly accessed or tagged, assessed from street. Sparse canopy
323	*Eucalyptus sideroxylon*	1	GPS Unit	18	12	650	Fair	Fair	Medium (15-40 years)	Medium	High	7.8	2.8	99.5	Yes	High Impact: >20%	Retain with mitigation measures	Tree on private property, not directly accessed or tagged, assessed from street. Sparse canopy
324	*Eucalyptus cinerea*	1	Field Photo	15	16	900	Fair	Fair	Medium (15-40 years)	High	High	10.8	3.2	80.0	Yes	High Impact: >20%	Remove	Tree on private property, not directly accessed or tagged, assessed from street. Sparse canopy
325	*Melaleuca quinquenervia*	1	GPS Unit	16	12	1350	Good	Fair	Long (>40 years)	Medium	High	15	3.8	20.1	No	High Impact: >20%	Remove	Tree on private property, not directly accessed or tagged, assessed from street
326	*Corymbia maculata*	1	GPS Unit	25	12	500	Good	Good	Long (>40 years)	Medium	High	6	2.5	100.0	Yes	High Impact: >20%	Remove	
327	*Eucalyptus sideroxylon*	1	Field Photo	20	15	770	Good	Fair	Long (>40 years)	Medium	High	9.2	3	72.0	Yes	High Impact: >20%	Remove	
328	*Eucalyptus sideroxylon*	1	Field Photo	18	10	650	Fair	Fair	Medium (15-40 years)	Medium	High	7.8	2.8	0.0	No	No Impact: 0%	Retain	Wounding at base and lower trunk occluding well
329	*Eucalyptus acmenoides*	1	Field Photo	22	10	690	Good	Fair	Medium (15-40 years)	High	High	8.3	2.8	0.0	No	No Impact: 0%	Retain	Hollows in high section of trunk
330	*Eucalyptus saligna*	1	Field Photo	25	20	700	Good	Good	Medium (15-40 years)	High	High	8.4	2.8	22.7	Yes	High Impact: >20%	Remove	Restricted root area
331	*Eucalyptus saligna*	1	Field Photo	25	15	900	Good	Good	Medium (15-40 years)	Medium	High	10.8	3.2	5.6	No	Low Impact: <10%	Retain	Restricted root area
332	*Corymbia maculata*	1	Field Photo	27	14	730	Good	Good	Medium (15-40 years)	High	High	8.8	2.9	85.4	Yes	High Impact: >20%	Remove	Restricted root area

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
333	*Corymbia maculata*	1	Field Photo	28	16	1000	Good	Good	Long (>40 years)	High	High	12	3.3	69.6	Yes	High Impact: >20%	Remove	
334	*Callistemon viminalis*	1	Nearmap (2021)	17	12	590	Good	Good	Medium (15-40 years)	Medium	High	7.1	2.7	87.0	Yes	High Impact: >20%	Remove	Not tagged
335	*Acer buergerianum*	1	Field Photo	15	12	500	Good	Fair	Medium (15-40 years)	Medium	High	6	2.5	100.0	Yes	High Impact: >20%	Remove	Tree on private property, not directly accessed or tagged, assessed from driveway
336	*Eucalyptus moluccana*	1	GPS Unit	17	15	520	Good	Good	Medium (15-40 years)	Medium	High	6.2	2.5	0.0	No	No Impact: 0%	Retain	Attempted ring barking
337	*Eucalyptus longifolia*	1	Field Photo	18	12	700	Good	Good	Long (>40 years)	Medium	High	8.4	2.8	0.0	No	No Impact: 0%	Retain	Bifurcation of stem
338	*Platanus × acerifolia*	1	Nearmap (2021)	20	15	600	Good	Fair	Long (>40 years)	Medium	High	7.2	2.7	49.5	Yes	High Impact: >20%	Remove	Tree on private property, not directly accessed or tagged, assessed from path
339	*Eucalyptus punctata*	1	Field Photo	20	14	660	Fair	Fair	Medium (15-40 years)	Medium	High	7.9	2.8	0.0	No	No Impact: 0%	Retain	Large dead branches
340	*Eucalyptus saligna*	1	Field Photo	18	12	800	Good	Fair	Medium (15-40 years)	Medium	High	9.6	3	0.0	No	No Impact: 0%	Retain	
341	*Eucalyptus moluccana*	1	Field Photo	25	12	600	Good	Good	Long (>40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	
342	*Eucalyptus sideroxylon*	1	GPS Unit	17	15	890	Fair	Fair	Medium (15-40 years)	High	High	10.7	3.2	70.8	Yes	High Impact: >20%	Remove	Launch pruning wound, sparse canopy
343	*Eucalyptus sideroxylon*	1	GPS Unit	17	15	610	Good	Good	Long (>40 years)	Medium	High	7.3	2.7	13.2	No	Medium Impact: <20%	Retain with mitigation measures	
344	*Eucalyptus sideroxylon*	1	Nearmap (2021)	16	15	740	Good	Good	Long (>40 years)	Medium	High	8.9	2.9	87.9	Yes	High Impact: >20%	Remove	
345	*Eucalyptus microcorys*	1	GPS Unit	16	12	630	Fair	Good	Medium (15-40 years)	Medium	High	7.6	2.7	0.0	No	No Impact: 0%	Retain	Ground is badly compacted
346	*Eucalyptus sideroxylon*	1	Field Photo	18	16	660	Good	Good	Long (>40 years)	Medium	High	7.9	2.8	37.4	Yes	High Impact: >20%	Remove	
347	*Eucalyptus sideroxylon*	1	GPS Unit	17	15	620	Good	Good	Long (>40 years)	Medium	High	7.4	2.7	0.0	No	No Impact: 0%	Retain	

Tree	Botanical name	Trees in group	Location	Height (m)	Spread (m)	DHB (mm)	Health	Structure	ULE	Landscape significance	Retention value	TPZ (m)	SRZ (m)	TPZ% encroachment	SRZ encroached	Impact	Proposed action	Notes
348	*Platanus orientalis*	1	Nearmap (2021)	14	17	600	Good	Good	Long (>40 years)	Medium	High	7.2	2.7	0.0	No	No Impact: 0%	Retain	
349	*Liquidambar styraciflua*	1	Field Photo	18	14	640	Good	Good	Medium (15-40 years)	Medium	High	7.7	2.7	0.0	No	No Impact: 0%	Retain	
350	*Corymbia citriodora*	1	GPS Unit	25	15	630	Fair	Good	Medium (15-40 years)	Medium	High	7.6	2.7	75.8	Yes	High Impact: >20%	Remove	Sparse canopy
351	*Eucalyptus botryoides*	1	GPS Unit	16	17	700	Good	Fair	Medium (15-40 years)	Medium	High	8.4	2.8	69.6	Yes	High Impact: >20%	Remove	
352	*Liquidambar styraciflua*	1	Nearmap (2021)	16	14	520	Good	Good	Long (>40 years)	Medium	High	6.2	2.5	100.0	Yes	High Impact: >20%	Remove	
353	*Liquidambar styraciflua*	1	Nearmap (2021)	25	15	810	Good	Good	Long (>40 years)	High	High	9.7	3	29.6	Yes	High Impact: >20%	Remove	
354	*Eucalyptus saligna*	1	Nearmap (2021)	25	20	890	Good	Fair	Medium (15-40 years)	High	High	10.7	3.2	59.2	Yes	High Impact: >20%	Remove	Hollows in main trunk, cockatoo damage

Appendix E Tree protection guidelines

The following tree protection guidelines must be implemented during the construction period if no tree-specific recommendations are detailed.

E1 Tree protection fencing

The TPZ is a restricted area delineated by protective fencing or the use of an existing structure (such as a wall or fence).

Trees that are to be retained must have protective fencing erected around the TPZ (or as specified in the body of the report) to protect and isolate it from the construction works. Fencing must comply with the Australian Standard, AS 4687-2007, Temporary fencing and hoardings.

Tree protection fencing must be installed prior to site establishment and remain intact until completion of works. Once erected, protective fencing must not be removed or altered without the approval of the project arborist.

If the protective fencing requires temporary removal, trunk, branch and ground protection must be installed and must comply with *AS 4970-2009, Protection of Trees on Development Sites*.

Tree protection fencing shall be:

- Enclosed to the full extent of the TPZ (or as specified in the Recommendations and Tree Protection Plan).
- Cyclone chain wire link fence or similar, with lockable access gates.
- Certified and Inspected by the Project Arborist.
- Installed prior to any machinery or material are brought to site and before the commencement of works.
- Prominently sign posted with 300 mm x 450 mm boards stating, “NO ACCESS - TREE PROTECTION ZONE”.

E2 Crown protection

Tree crowns/canopy may be injured or damaged by machinery such as; excavators, drilling rigs, trucks, cranes, plant and vehicles. Where crown protection is required, it will usually be located at least one meter outside the perimeter of the crown.

Crown protection may include the installation of a physical barrier, pruning selected branches to establish clearance, or the tying/bracing of branches.

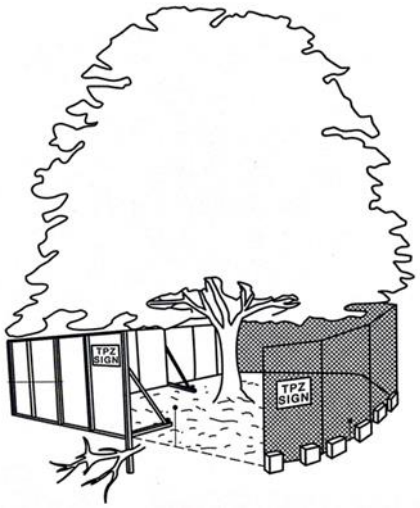
E3 Trunk protection

Where provision of tree protection fencing is impractical or must be temporarily removed, trunk protection shall be installed for the nominated trees to avoid accidental mechanical damage.

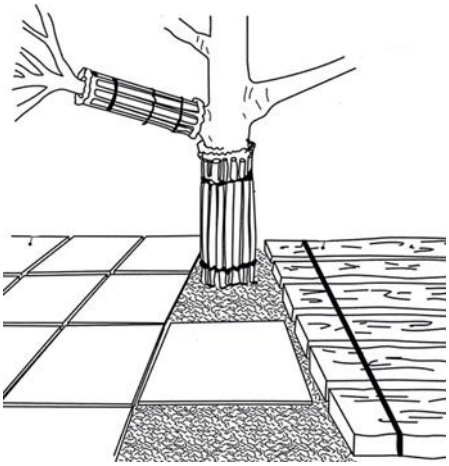
The removal of bark or branches allows the potential ingress of micro-organisms which may cause decay. Furthermore, the removal of bark restricts the trees' ability to distribute water, mineral ions (solutes), and glucose.

Trunk protection shall consist of a layer of either carpet underfelt, geotextile fabric or similar wrapped around the trunk, followed by 1.8 m lengths of softwood timbers aligned vertically and spaced evenly around the trunk (with an approx. 50 mm gap between the timbers).

The timbers must be secured using galvanised hoop strap (aluminium strapping). The timbers shall be wrapped around the trunk but not fixed to the tree, as this will cause injury/damage to the tree.



Tree protection fencing



Trunk protection fencing

E4 Ground protection

Tree roots are essential for the uptake/absorption of water, oxygen and mineral ions (solutes). It is essential to prevent the disturbance of the soil beneath the dripline and within the TPZ of trees that are to be retained. Soil compaction within the TPZ will adversely affect the ability of roots to function correctly.

If temporary access for machinery is required within the TPZ ground protection measures will be required. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Maintain a thick layer of mulch around all retained trees to a depth of 100 mm using coarse pine bark or wood chip material that complies with AS 4454. Where the existing landscape within the TPZ is to remain unaltered (e.g. garden beds or turf) mulch may not be required.

For heavy vehicle access within TPZ, ground protection may include a permeable membrane such as geotextile fabric beneath a layer of crushed rock or rumble boards.

If the grade is to be raised within the TPZ, the material should be coarser or more porous than the underlying material.

E5 Root protection and investigation

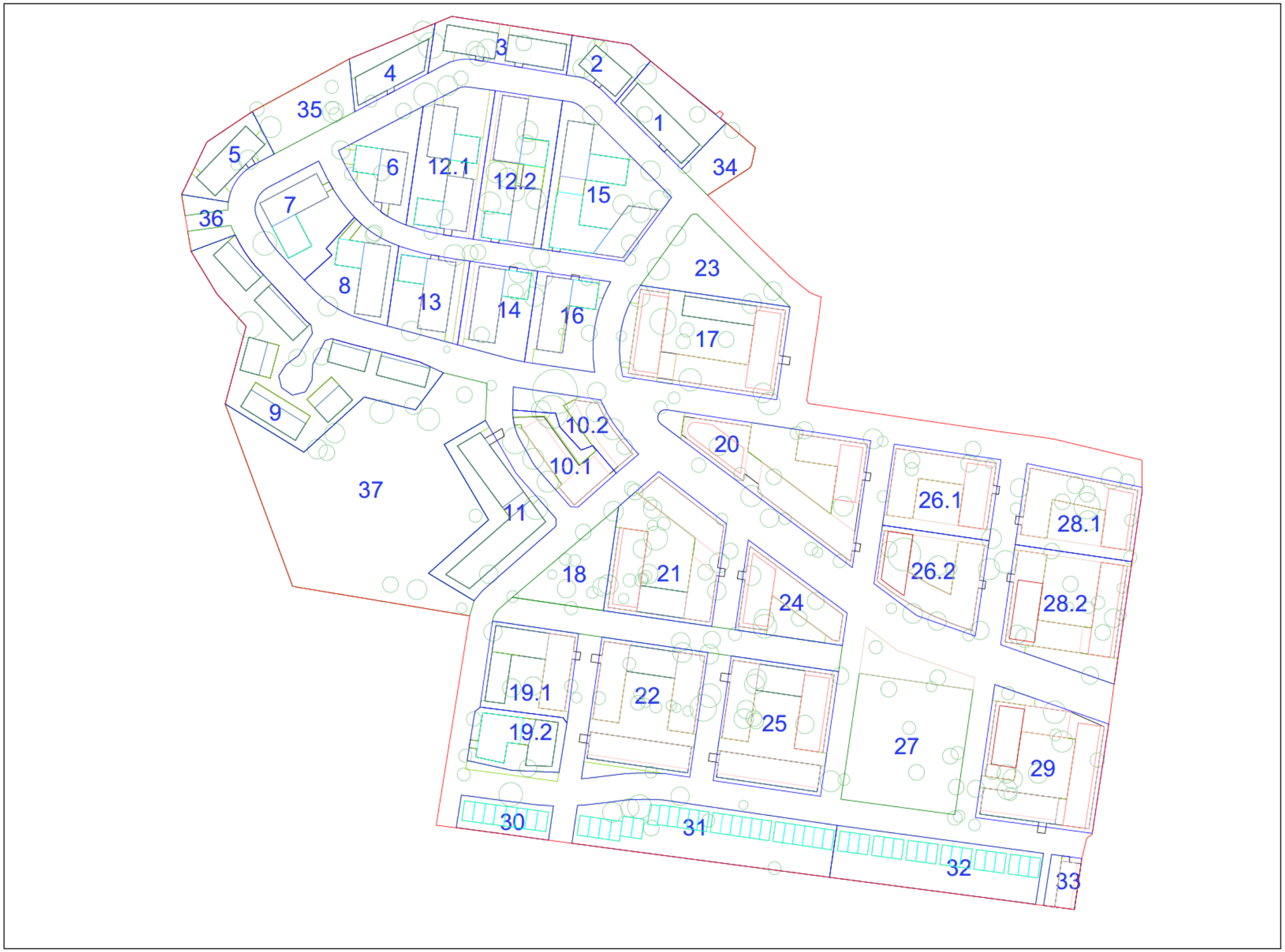
If incursions/excavation within the TPZ are unavoidable, root investigation may be needed to determine the extent and location of roots within the area of construction activity. The location and distribution of roots are found through non-destructive excavation (NDE) methods such as hydro-vacuum excavation (sucker truck), air spade and manual excavation. Root investigation does not guarantee the retention of the tree.

If the project arborist identifies conflicting roots that requiring pruning, they must be pruned with a sharp implement such as; secateurs, pruners, handsaws or a chainsaw back to undamaged tissue. The final cut must be a clean cut.

E6 Underground services

All underground services should be routed outside of the TPZ. If underground services need to be installed within the TPZ, they should be installed using horizontal directional drilling (HDD), non-destructive excavation (NDE) methods such as hydro-vacuum, Air Spade or manually excavated trenches. The horizontal drilling/boring must be at minimum depth of 600 mm below grade. Trenching for services is to be regarded as “excavation”. The project arborist should assess the likely impacts of boring and bore pits on retained trees.

Appendix F Master Plan (NSW Land and Housing Corporation 2022)



Appendix G Site photos

Figure 16: Tree 1

Figure 17: Tree 3 (group of 3)

Figure 18: Tree 6

Figure 19: Tree 10

Figure 20: Tree 11 (group of 2)

Figure 21: Tree 19

Figure 22: Tree 32

Figure 23: Tree 49

Figure 24: Tree 55

Figure 25: Tree 62

Figure 26: Tree 67 (group of 4)

Figure 27: Tree 78 (group of 2)

Figure 28: Tree 84

Figure 29: Tree 100

Figure 30: Tree 150 (group of 2)

Figure 31: Tree 173

Figure 32: Tree 195

Figure 33: Tree 200

Figure 34: Tree 203

Figure 35: Tre 211

Figure 36: Tree 228

Figure 37: Tree 230

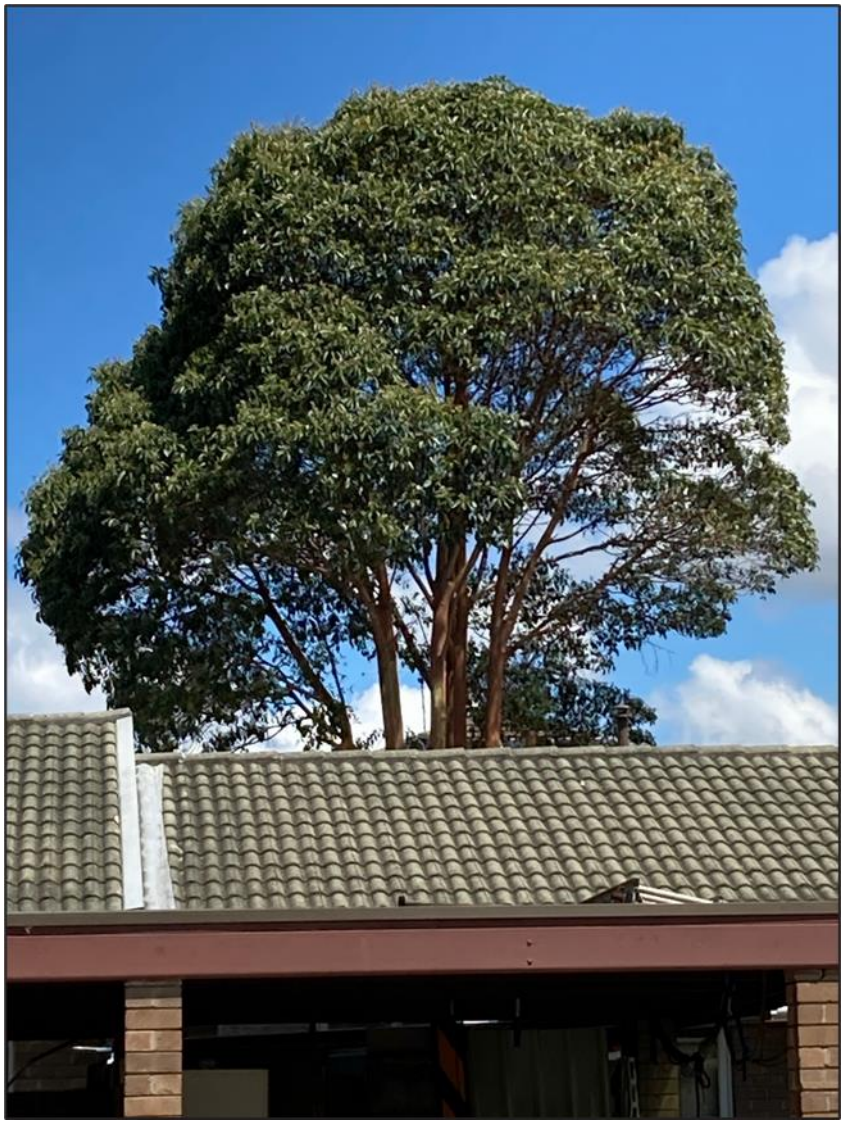


Figure 38: Tre 231

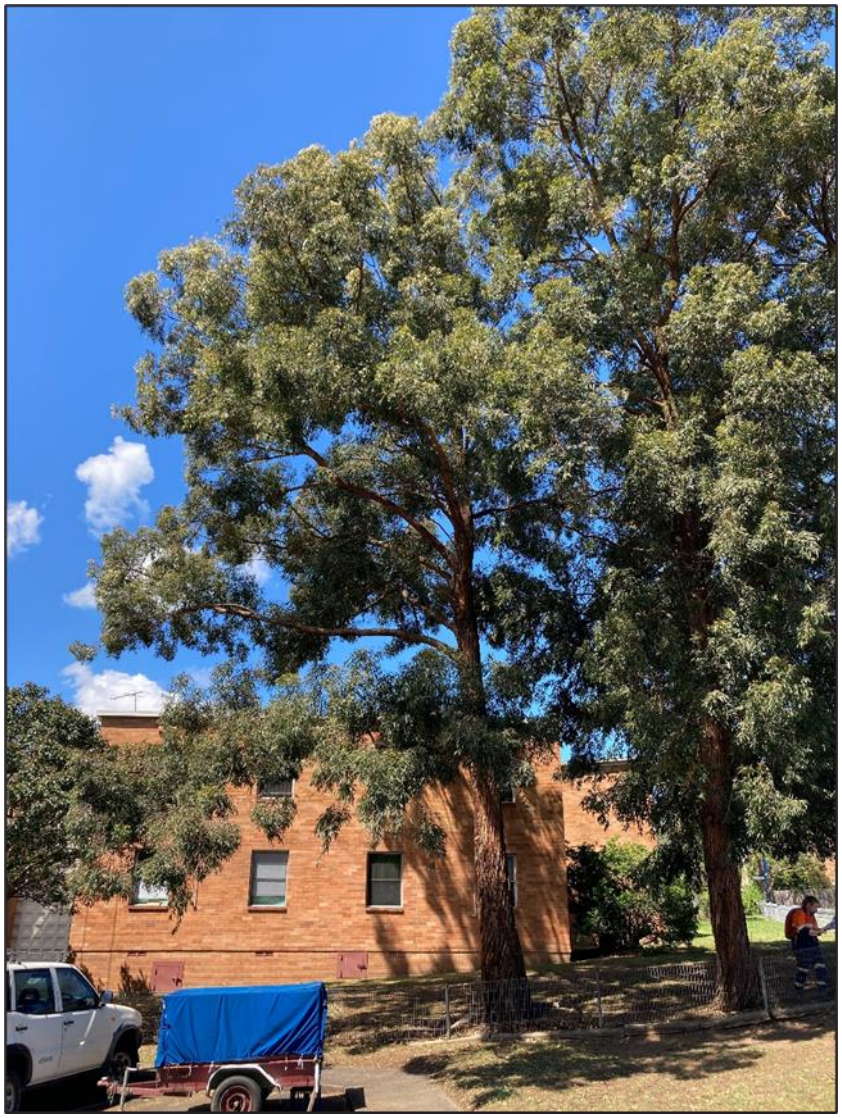


Figure 39: Tree 236

Figure 40: Tree 239

Figure 41: Tree 243

Figure 42: Tree 245

Figure 43: Tree 251

Figure 44: Tree 254

Figure 45: Tree 259

Figure 46: Tree 263

Figure 47: Tree 262

Figure 48: Tree 268

Figure 49: Tree 270

Figure 50: Tree 271

Figure 51: Tree 275

Figure 52: Tree 279

Figure 53: Tree 282

Figure 54: Tree 304

Figure 55: Tree 308

Figure 56: Tree 319

Figure 57: Tree 321

Figure 58: Tree 328

Figure 59: Tree 329

Figure 60: Tree 332

Figure 61: Tree 336

Figure 62: Tree 351

Figure 63: Tree 354

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