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ARBORICULTURAL DEVELOPMENT IMPACT ASSESSMENT REPORT

Liverpool Boys and Girls High School Upgrade Project
18 Forbes St, Liverpool NSW
REVISION E

2nd April 2025

Prepared for
Colliers

Prepared by

Birds Tree Consultancy
Glenn Bird Grad Cert Arboriculture Uni Melb (AQF8) Dip. Hort (Arboriculture) (AQF5)
PO Box 6048 DURAL NSW 2158
PH 0438 892 634
glenn@birdstrees.com.au
www.birdstrees.com.au
ABN 31 105 006 657

Executive Summary

This Arboricultural Development Impact Assessment Report has been commissioned by on behalf the NSW Department of Education (the Applicant) to report on trees within the site of the proposed Liverpool Boys and Girls High School, 18 Forbes St, Liverpool NSW. It has been commissioned to outline the health, condition and stability of these trees as well as their viability for retention within the scope of the proposed development. The scope of this report includes all trees within the site that are potentially impacted by the development.

This report accompanies a Review of Environment Factors that seeks approval for redeveloping the Liverpool Boys and Liverpool Girls High Schools into a single co-educational school, including:
Demolition;

- Construction and operation of a six-storey school building, including school hall and gymnasium;
- Associated parking and building services;
- Tree removal;
- Associated landscaping and play spaces;
- Augmentation of service infrastructure; and
- Associated off-site infrastructure works to support the school, including (but not limited to) services, kiss and drop point and pedestrian crossings.

Refer to the Review of Environmental Factors prepared by Ethos Urban for a full description of works.

The subject Trees are preserved under Section 2 of Liverpool Development Control Plan 2008.

There were 110 trees assessed. There are 34 Trees with high retention value, 75 with medium retention value and 1 trees with low retention value. Tree retention values for trees to be retained or removed for all trees within this report are summarised as follows:

Category	High	Medium	Low	Total
Overall	34	75	1	110
Trees Retained	12	42	1	55
Trees Removed	22	33	0	55

Trees 42, 43, and 160 have evidence of decay or other structural defect within the trunk which places these trees at increased risk of failure. If these trees are proposed for retention, we recommend an ISA (TRAQ) Level 3 Risk Assessment be conducted including internal diagnostic testing to determine the viability of these trees to be retained.

The Tree protection Zone (TPZ) of Trees 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 51, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70, 71, 74, 76, 78, 85, 86, 87, 88, 89, 90, 91 and 165 are encroached by the proposed construction, landscape, stormwater and required earthworks by a total or major encroachment as defined by AS4970-2009 Protection of Trees on Development Sites. These trees will not be viable to be retained and will require removal due to the proposed development.

In order for Trees 22, 23, 24, and 25 to be viable to be retained, the following design modifications would be required.

1. Stormwater to diverted outside of the TPZ or the encroachment including all excavation reduced to less than 10% of the TPZ.
2. Excavation for proposed ramp and paving to not encroach the TPZ by more than 10%.
3. Paving (including subgrades) to be permeable within TPZ.

In order for Trees 51, 53, 54 and 56 to be viable to be retained, the following design modifications would be required.

1. Stormwater to diverted outside of the TPZ or the encroachment including all excavation reduced to less than 10% of the TPZ.
2. Excavation for proposed paving and slab downturn to not encroach the TPZ by more than 10%.
3. All subsoil drainage to be installed using nondestructive excavation methods including Air Spade, manual excavation or vacuum truck operating at less than 1000Psi under the direction and supervision of the Project Arborist with no damage to structural roots (greater than 20mm diameter).

All excavation within the TPZ of the retained subject trees is required to be conducted by non-destructive methods such as Air Spade or vacuum truck operating at less than 1000Psi under the direct supervision of the Project Arborist. No structural roots great er than 20mm are to be damaged.

All other trees are viable to be retained and are to be protected as defined below.

Recommendations for tree retention or removal are summarised as follows:

Tree no.	Species	Recommendations	Comments	Retention Value
21.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to	*High*

			proposed development.	
22.	*Corymbia maculata*	Remove	Not viable to be retained due to proposed development.	*High*
23.	*Corymbia maculata*	Remove	Not viable to be retained due to proposed development.	*High*
24.	*Corymbia maculata*	Remove	Not viable to be retained due to proposed development.	*High*
25.	*Lophostemon confertus*	Remove	Not viable to be retained due to proposed development.	*High*
26.	*Lophostemon confertus*	Remove	Not viable to be retained due to proposed development.	*High*
27.	*Schinus areira*	Remove	Not viable to be retained due to proposed development.	*High*
28.	*Jacaranda mimosifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
29.	*Jacaranda mimosifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
30.	*Melia azedarach*	Remove	Not viable to be retained due to proposed development.	*Medium*
31.	*Jacaranda mimosifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
32.	*Livistona australis*	Remove	Not viable to be retained due to proposed development.	*Medium*
33.	*Cupressus sempervirens*	Remove	Not viable to be retained due to proposed development.	*Medium*
34.	*Cupressus sempervirens*	Remove	Not viable to be retained due to	*Medium*

			proposed development.	
35.	*Robinia pseudoacacia*	Remove	Not viable to be retained due to proposed development.	*Medium*
36.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
37.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
38.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
39.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
40.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
41.	*Corymbia citriodora*	Remove	Not viable to be retained due to proposed development.	*High*
42.	*Eucalyptus sideroxylon*	Remove	Not viable to be retained due to proposed development.	*High*
43.	*Corymbia citriodora*	Remove	Not viable to be retained due to proposed development.	*High*
44.	*Eucalyptus sideroxylon*	Remove	Not viable to be retained due to proposed development.	*High*
45.	*Corymbia citriodora*	Remove	Not viable to be retained due to proposed development.	*High*
46.	*Melia azedarach*	Remove	Not viable to be retained due to proposed development.	*Medium*
47.	*Corymbia citriodora*	Remove	Not viable to be retained due to	*High*

			proposed development.	
48.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.	*High*
49.	*Eucalyptus microcorys*	Retain	Viable to be retained and protected.	*Medium*
50.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*Medium*
51.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
52.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.	*High*
53.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to proposed development.	*Medium*
54.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to proposed development.	*Medium*
55.	*Callistemon viminalis*	Retain	Viable to be retained and protected.	*Medium*
56.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
57.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
58.	*Eucalyptus crebra*	Remove	Not viable to be retained due to proposed development.	*High*
59.	*Eucalyptus scoparia*	Remove	Not viable to be retained due to proposed development.	*Medium*
60.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to proposed development.	*Medium*
61.	*Hibiscus spp*	Remove	Not viable to be retained due to proposed development.	*Medium*

62.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
63.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
64.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
65.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
66.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
67.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to proposed development.	*Medium*
68.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
70.	*Grevillea robusta*	Remove	Not viable to be retained due to proposed development.	*Medium*
71.	*Schinus areira*	Remove	Not viable to be retained due to proposed development.	*Medium*
74.	*Ceratopetalum gummiferum*	Remove	Not viable to be retained due to proposed development.	*Medium*
76.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*Medium*
77.	*Ulmus parvifolia*	Retain	Viable to be retained and protected.	*Medium*
78.	*Sapium sebiferum*	Remove	Not viable to be retained due to proposed development.	*Medium*
81.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*Medium*

82.	*Casuarina cunninghamiana*	Retain	Viable to be retained and protected.	*Medium*
83.	*Callistemon viminalis*	Retain	Viable to be retained and protected.	*Medium*
84.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*Medium*
85.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*Medium*
86.	*Lophostemon confertus*	Remove	Not viable to be retained due to proposed development.	*Medium*
87.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
88.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
89.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
90.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
91.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
95.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*High*
98.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*High*
99.	*Eucalyptus microcorys*	Retain	Viable to be retained and protected.	*High*
100.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*High*
101.	*Eucalyptus sideroxylon*	Retain	Viable to be retained and protected.	*High*

102.	*Eucalyptus sideroxylon*	Retain	Viable to be retained and protected.	*High*
103.	*Eucalyptus scoparia*	Retain	Viable to be retained and protected.	*High*
104.	*Eucalyptus sideroxylon*	Retain	Viable to be retained and protected.	*High*
105.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
106.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
107.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
108.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
109.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
112.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
113.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
114.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
115.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
116.	*Angophora costata*	Retain	Viable to be retained and protected.	*Medium*
117.	*Angophora costata*	Retain	Viable to be retained and protected.	*Medium*
118.	*Angophora costata*	Retain	Viable to be retained and protected.	*Medium*
119.	*Elaeocarpus kirtonii*	Retain	Viable to be retained and protected.	*Medium*
120.	*Callistemon viminalis*	Retain	Viable to be retained and protected.	*Medium*

121.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
122.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
123.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
124.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
125.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
126.	*Jacaranda mimosifolia*	Retain	Viable to be retained and protected.	*Medium*
127.	*Melia azedarach*	Retain	Viable to be retained and protected.	*Medium*
128.	*Corymbia maculata*	Retain	Viable to be retained and protected.	*Medium*
129.	*Corymbia maculata*	Retain	Viable to be retained and protected.	*Medium*
130.	*Melia azedarach*	Retain	Viable to be retained and protected.	*Medium*
131.	*Melia azedarach*	Retain	Viable to be retained and protected.	*Medium*
132.	*Corymbia maculata*	Retain	Viable to be retained and protected.	*Medium*
133.	*Corymbia maculata*	Retain	Viable to be retained and protected.	*Medium*
134.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*Medium*
135.	*Melia azedarach*	Retain	Viable to be retained and protected.	*Medium*
136.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*Medium*
159.	*Calodendrum capense*	Retain	Viable to be retained and protected.	*High*

160.	*Eucalyptus sideroxylon*	Retain	Viable to be retained and protected.	*High*
161.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*Medium*
162.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*Medium*
163.	*Cinnamomum camphora*	Retain	Viable to be retained and protected.	*Low*
164.	*Washingtonia robusta*	Retain	Viable to be retained and protected.	*Medium*
165.	*Plumeria rubra*	Remove	Not viable to be retained due to proposed development.	*Medium*

Contents

1.0 Scope of Works

This Arboricultural Development Impact Assessment Report has been commissioned by on behalf the NSW Department of Education (the Applicant) to report on trees within the site of the proposed Liverpool Boys and Girls High School, 18 Forbes St, Liverpool NSW. It has been commissioned to outline the health, condition and stability of these trees as well as their viability for retention within the scope of the proposed development. The scope of this report includes all trees within the site that are potentially impacted by the development.

This report accompanies a Review of Environment Factors that seeks approval for redeveloping the Liverpool Boys and Liverpool Girls High Schools into a single co-educational school, including:
Demolition;

- Construction and operation of a six-storey school building, including school hall and gymnasium;
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- Tree removal;
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- Associated off-site infrastructure works to support the school, including (but not limited to) services, kiss and drop point and pedestrian crossings.

Refer to the Review of Environmental Factors prepared by Ethos Urban for a full description of works.

On the 2nd November 2024, Glenn Bird of Birds Tree Consultancy attended site and inspected the subject trees from the ground. There was no aerial inspection carried out. A Visual Tree Assessment was undertaken in accordance with Visual Tree Assessment (VTA) guidelines (Mattheck and Breloer, 1994). Tree heights were measured using a Nikon Forestry 550 Heightmeter.

2.0 Site Analysis

2.1 Site

The site is located at 18 Forbes Street, Liverpool, within the Liverpool Local Government Area (LGA). The site is legally described as Lot 1 DP1137425 and has a total area of approximately 74,973m2.

The site comprises a broadly rectangular portion of land which currently contains the existing Liverpool Boys High School, Liverpool Girls High School, and the Gulyangarri Public School, which commenced operations in January 2024 and is located to the east of the wider site.

The site's western portion contains Liverpool Boys High School and Liverpool Girls High School. Liverpool Girls High School in the site's southwest comprises three, two-story buildings. Liverpool Boys High School in the site's northwest, comprises approximately four, two-story buildings, with adjacent at-grade carparking and various sports courts.

2.2 Documentation

This Development Impact Assessment Report has been compiled based on the following documentation provided:

1. NBRS Proposed Site Plan LBGHS-NBRS-00-ZZ-DR-A-0201 Rev 3 dated 13.02.2025.
2. NBRS Landscape Site Plan LBGHS-NBRS-00-XX-DR-L-0002 Rev 3 dated 13.02.2025.
3. Meinhardt Bulk Earthworks Plan C070 Revision T1 dated 19.02.2025.
4. Meinhardt Civil Siteworks Plan C101 Revision T1 dated 19.02.2025.

2.3 Topography

The site is relatively flat and slopes moderately from the highest point at the northwestern boundary at the corner of the Lachlan and Forbes Street frontages. Refer to detailed survey for detailed levels.

2.4 Identification

Trees are as identified in the attached inspection forms in Appendix C and shown in Tree location Plan A01 in Appendix D.

Tree numbering has been retained from previous Birds Tree Consultancy Reports on this site for consistency. Trees 79, 80, 92, 93, 94, 110, 111, 127, 137, 157, 158 have been removed subsequent to these previous reports. Trees 163, 164 and 165 were not previously included on previous reports.

2.5 Soils

Soil material and horizons were not tested for this report.

3.0 Existing Trees

The following trees were inspected from the ground and the following items identified. Please refer also to the attached inspection data in Appendix C.

3.1. Tree 21. *Melaleuca quinquenervia*

This mature tree is approximately 12m tall with a crown spread of 6m. It has a single trunk with a DBH of 760mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.2. Tree 22. *Corymbia maculata*

This mature tree is approximately 22m tall with a crown spread of 9m. It has a single trunk with a DBH of 480mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.3. Tree 23. *Corymbia maculata*

This mature tree is approximately 23m tall with a crown spread of 7m. It has a single trunk with a DBH of 420mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.4. Tree 24. *Corymbia maculata*

This mature tree is approximately 22m tall with a crown spread of 7m. It has a single trunk with a DBH of 420mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.5. Tree 25. *Lophostemon confertus*

This mature tree is approximately 10m tall with a crown spread of 10m. It has a single trunk with a DBH of 480mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.6. Tree 26. *Lophostemon confertus*

This mature tree is approximately 10m tall with a crown spread of 8m. It has a single trunk with a DBH of 450mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.7. Tree 27. *Schinus areira*

This mature tree is approximately 12m tall with a crown spread of 14m. It has a Multiple Stems trunk with a DBH of 883.9mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.8. Tree 28. *Jacaranda mimosifolia*

This mature tree is approximately 10m tall with a crown spread of 10m. It has a single trunk with a DBH of 380mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.9. Tree 29. *Jacaranda mimosifolia*

This mature tree is approximately 10m tall with a crown spread of 10m. It has a single trunk with a DBH of 340mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.10. Tree 30. *Melia azedarach*

This mature tree is approximately 11m tall with a crown spread of 6m. It has a Multiple Stems trunk with a DBH of 300mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.11. Tree 31. *Jacaranda mimosifolia*

This mature tree is approximately 8m tall with a crown spread of 12m. It has a single trunk with a DBH of 500mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.12. Tree 32. *Livistona australis*

This mature tree is approximately 13m tall with a crown spread of 4m. It has a single trunk with a DBH of 0mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.13. Tree 33. *Cupressus sempervirens*

This mature tree is approximately 13m tall with a crown spread of 8m. It has a single trunk with a DBH of 500mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.14. Tree 34. *Cupressus sempervirens*

This mature tree is approximately 12m tall with a crown spread of 6m. It has a single trunk with a DBH of 400mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.15. Tree 35. *Robinia pseudoacacia*

This mature tree is approximately 9m tall with a crown spread of 7m. It has a single trunk with a DBH of 300mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.16. Tree 36. *Platanus x acerifolia*

This mature tree is approximately 19m tall with a crown spread of 16m. It has a single trunk with a DBH of 700mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.17. Tree 37. *Platanus x acerifolia*

This mature tree is approximately 17m tall with a crown spread of 12m. It has a single trunk with a DBH of 470mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.18. Tree 38. *Platanus x acerifolia*

This mature tree is approximately 17m tall with a crown spread of 12m. It has a single trunk with a DBH of 380mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.19. Tree 39. *Platanus x acerifolia*

This mature tree is approximately 15m tall with a crown spread of 9m. It has a single trunk with a DBH of 410mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.20. Tree 40. *Platanus x acerifolia*

This mature tree is approximately 14m tall with a crown spread of 12m. It has a single trunk with a DBH of 360mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.21. Tree 41. *Corymbia citriodora*

This mature tree is approximately 24m tall with a crown spread of 16m. It has a single trunk with a DBH of 870mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.22. Tree 42. *Eucalyptus sideroxylon*

This mature tree is approximately 17m tall with a crown spread of 11m. It has a single trunk with a DBH of 550mm. This tree is in good health, with minimal deadwood and epicormic growth. There is prominent swelling at base indicative of decay. We recommend a TRAQ level 3 risk assessment to determine viability for retention.

Figure 1 - Swelling at base of Tree 42

3.23. Tree 43. *Corymbia citriodora*

This mature tree is approximately 24m tall with a crown spread of 16m. It has a single trunk with a DBH of 810mm. This tree is in good health, with minimal deadwood and epicormic growth. Evidence of decay and cavity in second order junction at approximately 8m. Recommend TRAQ Level 3 risk assessment to determine viability for retention.

Figure 2 - Tree 43 cavity at 8m

3.24. Tree 44. *Eucalyptus sideroxylon*

This mature tree is approximately 15m tall with a crown spread of 11m. It has a single trunk with a DBH of 480mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.25. Tree 45. *Corymbia citriodora*

This mature tree is approximately 17m tall with a crown spread of 12m. It has a single trunk with a DBH of 570mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.26. Tree 46. *Melia azedarach*

This mature tree is approximately 11m tall with a crown spread of 9m. It has a Multiple Stems trunk with a DBH of 399.1mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.27. Tree 47. *Corymbia citriodora*

This mature tree is approximately 19m tall with a crown spread of 12m. It has a single trunk with a DBH of 620mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.28. Tree 48. *Eucalyptus saligna*

This mature tree is approximately 23m tall with a crown spread of 12m. It has a single trunk with a DBH of 520mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.29. Tree 49. *Eucalyptus microcorys*

This mature tree is approximately 20m tall with a crown spread of 14m. It has a Multiple Stems trunk with a DBH of 542mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.30. Tree 50. *Lophostemon confertus*

This mature tree is approximately 7m tall with a crown spread of 3m. It has a Multiple Stems trunk with a DBH of 153mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.31. Tree 51. *Eucalyptus saligna*

This mature tree is approximately 23m tall with a crown spread of 12m. It has a single trunk with a DBH of 560mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.32. Tree 52. *Eucalyptus saligna*

This mature tree is approximately 23m tall with a crown spread of 12m. It has a single trunk with a DBH of 510mm. This tree is in fair health, with minimal deadwood and epicormic growth. Moderate apical dieback. Significant cambium damage at base. Potential evidence of decay. Recommend TRAQ level 3 risk assessment to determine the viability of retention.

3.33. Tree 53. *Melaleuca quinquenervia*

This mature tree is approximately 15m tall with a crown spread of 9m. It has a single trunk with a DBH of 420mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.34. Tree 54. *Melaleuca quinquenervia*

This mature tree is approximately 16m tall with a crown spread of 8m. It has a single trunk with a DBH of 630mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.35. Tree 55. *Callistemon viminalis*

This mature tree is approximately 4m tall with a crown spread of 5m. It has a single trunk with a DBH of 220mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.36. Tree 56. *Eucalyptus saligna*

This mature tree is approximately 23m tall with a crown spread of 14m. It has a single trunk with a DBH of 590mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.37. Tree 57. *Eucalyptus saligna*

This mature tree is approximately 23m tall with a crown spread of 14m. It has a single trunk with a DBH of 870mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.38. Tree 58. *Eucalyptus crebra*

This mature tree is approximately 20m tall with a crown spread of 16m. It has a single trunk with a DBH of 560mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.39. Tree 59. *Eucalyptus scoparia*

This mature tree is approximately 13m tall with a crown spread of 8m. It has a Multiple Stems trunk with a DBH of 300mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.40. Tree 60. *Melaleuca quinquenervia*

This mature tree is approximately 12m tall with a crown spread of 9m. It has a single trunk with a DBH of 640mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.41. Tree 61. *Hibiscus spp*

This mature tree is approximately 4m tall with a crown spread of 4m. It has a Multiple Stems trunk with a DBH of 230mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.42. Tree 62. *Callistemon viminalis*

This mature tree is approximately 6m tall with a crown spread of 5m. It has a single trunk with a DBH of 250mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.43. Tree 63. *Callistemon viminalis*

This mature tree is approximately 5m tall with a crown spread of 4m. It has a Multiple Stems trunk with a DBH of 320mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.44. Tree 64. *Callistemon viminalis*

This mature tree is approximately 6m tall with a crown spread of 4m. It has a Multiple Stems trunk with a DBH of 300mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.45. Tree 65. *Callistemon viminalis*

This mature tree is approximately 6m tall with a crown spread of 6m. It has a Multiple Stems trunk with a DBH of 350mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.46. Tree 66. *Callistemon viminalis*

This mature tree is approximately 4m tall with a crown spread of 5m. It has a Multiple Stems trunk with a DBH of 240mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.47. Tree 67. *Melaleuca quinquenervia*

This mature tree is approximately 19m tall with a crown spread of 8m. It has a single trunk with a DBH of 670mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.48. Tree 68. *Callistemon viminalis*

This mature tree is approximately 5m tall with a crown spread of 5m. It has a Multiple Stems trunk with a DBH of 350mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.49. Tree 70. *Grevillea robusta*

This mature tree is approximately 16m tall with a crown spread of 9m. It has a single trunk with a DBH of 470mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.50. Tree 71. *Schinus areira*

This mature tree is approximately 14m tall with a crown spread of 11m. It has a single trunk with a DBH of 490mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.51. Tree 74. *Ceratopetalum gummiferum*

This mature tree is approximately 5m tall with a crown spread of 4m. It has a single trunk with a DBH of 160mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.52. Tree 76. *Lophostemon confertus*

This mature tree is approximately 10m tall with a crown spread of 9m. It has a single trunk with a DBH of 490mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.53. Tree 77. *Ulmus parvifolia*

This mature tree is approximately 24m tall with a crown spread of 13m. It has a single trunk with a DBH of 460mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.54. Tree 78. *Sapium sebiferum*

This mature tree is approximately 8m tall with a crown spread of 6m. It has a single trunk with a DBH of 230mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.55. Tree 81. *Lophostemon confertus*

This mature tree is approximately 7m tall with a crown spread of 7m. It has a single trunk with a DBH of 290mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.56. Tree 82. *Casuarina cunninghamiana*

This mature tree is approximately 14m tall with a crown spread of 7m. It has a single trunk with a DBH of 300mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.57. Tree 83. *Callistemon viminalis*

This mature tree is approximately 5m tall with a crown spread of 5m. It has a single trunk with a DBH of 280mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.58. Tree 84. *Lophostemon confertus*

This mature tree is approximately 11m tall with a crown spread of 8m. It has a single trunk with a DBH of 300mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.59. Tree 85. *Eucalyptus saligna*

This mature tree is approximately 20m tall with a crown spread of 10m. It has a single trunk with a DBH of 440mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.60. Tree 86. *Lophostemon confertus*

This mature tree is approximately 14m tall with a crown spread of 9m. It has a single trunk with a DBH of 420mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.61. Tree 87. *Eucalyptus saligna*

This mature tree is approximately 18m tall with a crown spread of 8m. It has a single trunk with a DBH of 360mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.62. Tree 88. *Eucalyptus saligna*

This mature tree is approximately 12m tall with a crown spread of 4m. It has a Multiple Stems trunk with a DBH of 260mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.63. Tree 89. *Eucalyptus saligna*

This mature tree is approximately 19m tall with a crown spread of 9m. It has a single trunk with a DBH of 320mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.64. Tree 90. *Eucalyptus saligna*

This mature tree is approximately 18m tall with a crown spread of 9m. It has a single trunk with a DBH of 300mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.65. Tree 91. *Eucalyptus saligna*

This mature tree is approximately 20m tall with a crown spread of 8m. It has a single trunk with a DBH of 310mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.66. Tree 95. *Lophostemon confertus*

This mature tree is approximately 14m tall with a crown spread of 10m. It has a single trunk with a DBH of 540mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.67. Tree 98. *Corymbia citriodora*

This mature tree is approximately 25m tall with a crown spread of 13m. It has a single trunk with a DBH of 600mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.68. Tree 99. *Eucalyptus microcorys*

This mature tree is approximately 22m tall with a crown spread of 16m. It has a single trunk with a DBH of 780mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.69. Tree 100. *Corymbia citriodora*

This mature tree is approximately 24m tall with a crown spread of 16m. It has a single trunk with a DBH of 670mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.70. Tree 101. *Eucalyptus sideroxylon*

This mature tree is approximately 24m tall with a crown spread of 14m. It has a single trunk with a DBH of 540mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.71. Tree 102. *Eucalyptus sideroxylon*

This mature tree is approximately 24m tall with a crown spread of 14m. It has a single trunk with a DBH of 580mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.72. Tree 103. *Eucalyptus scoparia*

This mature tree is approximately 20m tall with a crown spread of 14m. It has a single trunk with a DBH of 600mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.73. Tree 104. *Eucalyptus sideroxylon*

This mature tree is approximately 24m tall with a crown spread of 15m. It has a single trunk with a DBH of 790mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.74. Tree 105. *Robinia pseudoacacia*

This mature tree is approximately 10m tall with a crown spread of 8m. It has a single trunk with a DBH of 380mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.75. Tree 106. *Robinia pseudoacacia*

This mature tree is approximately 10m tall with a crown spread of 8m. It has a single trunk with a DBH of 350mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.76. Tree 107. *Robinia pseudoacacia*

This mature tree is approximately 9m tall with a crown spread of 8m. It has a single trunk with a DBH of 240mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.77. Tree 108. *Robinia pseudoacacia*

This mature tree is approximately 10m tall with a crown spread of 7m. It has a single trunk with a DBH of 250mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.78. Tree 109. *Robinia pseudoacacia*

This mature tree is approximately 10m tall with a crown spread of 8m. It has a single trunk with a DBH of 410mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.79. Tree 112 *Robinia pseudoacacia*

This mature tree is approximately 10m tall with a crown spread of 7m. It has a single trunk with a DBH of 170mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.80. Tree 113. *Robinia pseudoacacia*

This mature tree is approximately 11m tall with a crown spread of 8m. It has a single trunk with a DBH of 270mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.81. Tree 114. *Robinia pseudoacacia*

This mature tree is approximately 11m tall with a crown spread of 8m. It has a single trunk with a DBH of 330mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.82. Tree 115. *Robinia pseudoacacia*

This mature tree is approximately 10m tall with a crown spread of 6m. It has a single trunk with a DBH of 300mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.83. Tree 116. *Angophora costata*

This mature tree is approximately 14m tall with a crown spread of 8m. It has a single trunk with a DBH of 340mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.84. Tree 117. *Angophora costata*

This mature tree is approximately 14m tall with a crown spread of 9m. It has a single trunk with a DBH of 340mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.85. Tree 118. *Angophora costata*

This mature tree is approximately 14m tall with a crown spread of 9m. It has a single trunk with a DBH of 330mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.86. Tree 119. *Elaeocarpus kirtonii*

This mature tree is approximately 6m tall with a crown spread of 3m. It has a single trunk with a DBH of 110mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.87. Tree 120. *Callistemon viminalis*

This mature tree is approximately 5m tall with a crown spread of 3m. It has a Multiple Stems trunk with a DBH of 85.4mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.88. Tree 121. *Melaleuca armillaris*

This mature tree is approximately 10m tall with a crown spread of 5m. It has a Multiple Stems trunk with a DBH of 254.6mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.89. Tree 122. *Melaleuca armillaris*

This mature tree is approximately 10m tall with a crown spread of 5m. It has a Multiple Stems trunk with a DBH of 242.1mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.90. Tree 123. *Melaleuca armillaris*

This mature tree is approximately 11m tall with a crown spread of 6m. It has a Multiple Stems trunk with a DBH of 226.7mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.91. Tree 124. *Melaleuca armillaris*

This mature tree is approximately 10m tall with a crown spread of 5m. It has a Multiple Stems trunk with a DBH of 220.2mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.92. Tree 125. *Melaleuca armillaris*

This mature tree is approximately 8m tall with a crown spread of 4m. It has a single trunk with a DBH of 160mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.93. Tree 126. *Jacaranda mimosifolia*

This mature tree is approximately 16m tall with a crown spread of 9m. It has a single trunk with a DBH of 410mm. This tree is in fair health, with minimal deadwood and epicormic growth.

3.94. Tree 128 *Corymbia maculata*

This mature tree is approximately 22m tall with a crown spread of 8m. It has a single trunk with a DBH of 370mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.95. Tree 129. *Corymbia maculata*

This mature tree is approximately 21m tall with a crown spread of 8m. It has a single trunk with a DBH of 290mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.96. Tree 130. *Melia azedarach*

This mature tree is approximately 10m tall with a crown spread of 7m. It has a single trunk with a DBH of 110mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.97. Tree 131. *Melia azedarach*

This mature tree is approximately 10m tall with a crown spread of 9m. It has a Multiple Stems trunk with a DBH of 269.1mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.98. Tree 132. *Corymbia maculata*

This mature tree is approximately 22m tall with a crown spread of 14m. It has a single trunk with a DBH of 140mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.99. Tree 133. *Corymbia maculata*

This mature tree is approximately 22m tall with a crown spread of 12m. It has a single trunk with a DBH of 670mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.100. Tree 134. *Corymbia citriodora*

This mature tree is approximately 20m tall with a crown spread of 11m. It has a single trunk with a DBH of 380mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.101. Tree 135. *Melia azedarach*

This mature tree is approximately 6m tall with a crown spread of 6m. It has a Multiple Stems trunk with a DBH of 191mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.102. Tree 136. *Corymbia citriodora*

This mature tree is approximately 19m tall with a crown spread of 9m. It has a single trunk with a DBH of 350mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.103. Tree 159 *Calodendrum capense*

This mature tree is approximately 10m tall with a crown spread of 14m. It has a Multiple Stems trunk with a DBH of 418.8mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.104. Tree 160. *Eucalyptus sideroxylon*

This mature tree is approximately 23m tall with a crown spread of 14m. It has a single trunk with a DBH of 660mm. This tree is in good health, with minimal deadwood and epicormic growth. There is a crack/structural defect visible at approximately 10m. We recommend TRAQ level 3 risk assessment to determine viability for retention.

Figure 3 - Structural defect in Tree 160.

3.105. Tree 161. *Corymbia citriodora*

This mature tree is approximately 20m tall with a crown spread of 14m. It has a single trunk with a DBH of 670mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.106. Tree 162. *Corymbia citriodora*

This mature tree is approximately 21m tall with a crown spread of 16m. It has a single trunk with a DBH of 620mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.107. Tree 163. *Cinnamomum camphora*

This Semi Mature tree is approximately 9m tall with a crown spread of 5m. It has a single trunk with a DBH of 140mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.108. Tree 164. *Washingtonia robusta*

This mature tree is approximately 14m tall with a crown spread of 5m. It has a single trunk with a DBH of 0mm. This tree is in good health, with minimal deadwood and epicormic growth.

3.109. Tree 165. *Plumeria rubra*

This mature tree is approximately 7m tall with a crown spread of 6m. It has a trunk with a DBH of 233.5mm. This tree is in good health, with minimal deadwood and epicormic growth.

4.0 Landscape Significance of Trees

4.1 Landscape Significance

The significance of a tree within the landscape is a factor of the health and condition of the tree, vitality, the form of the tree, environmental, cultural, amenity and heritage value.

4.2 Methodology of Determining Landscape Significance

For the purpose of this report, the Significance of a Tree, Assessment Rating System (STARS) as developed by the Institute of Australian Consulting Arborists (IACA) has been implemented. Please refer to Appendix A for greater detail of this assessment system. This system defines Landscape Significance for individual trees as High, Medium or Low Significance.

4.3 Landscape Significance of Subject Trees

Based on our assessment of the subject trees and implementation of the IACA Significance of a Tree, Assessment Rating System, the Landscape Significance of the Subject Trees was determined as shown in Table 1.

Tree no.	Species	Landscape Significance
21.	*Melaleuca quinquenervia*	*High*
22.	*Corymbia maculata*	*High*
23.	*Corymbia maculata*	*High*
24.	*Corymbia maculata*	*High*
25.	*Lophostemon confertus*	*High*
26.	*Lophostemon confertus*	*High*
27.	*Schinus areira*	*High*
28.	*Jacaranda mimosifolia*	*Medium*
29.	*Jacaranda mimosifolia*	*Medium*
30.	*Melia azedarach*	*Medium*
31.	*Jacaranda mimosifolia*	*Medium*
32.	*Livistona australis*	*Medium*
33.	*Cupressus sempervirens*	*Medium*
34.	*Cupressus sempervirens*	*Medium*
35.	*Robinia pseudoacacia*	*Medium*

36.	*Platanus x acerifolia*	*Medium*
37.	*Platanus x acerifolia*	*Medium*
38.	*Platanus x acerifolia*	*Medium*
39.	*Platanus x acerifolia*	*Medium*
40.	*Platanus x acerifolia*	*Medium*
41.	*Corymbia citriodora*	*High*
42.	*Eucalyptus sideroxylon*	*High*
43.	*Corymbia citriodora*	*High*
44.	*Eucalyptus sideroxylon*	*High*
45.	*Corymbia citriodora*	*High*
46.	*Melia azedarach*	*Medium*
47.	*Corymbia citriodora*	*High*
48.	*Eucalyptus saligna*	*High*
49.	*Eucalyptus microcorys*	*Medium*
50.	*Lophostemon confertus*	*Medium*
51.	*Eucalyptus saligna*	*High*
52.	*Eucalyptus saligna*	*High*
53.	*Melaleuca quinquenervia*	*Medium*
54.	*Melaleuca quinquenervia*	*Medium*
55.	*Callistemon viminalis*	*Medium*
56.	*Eucalyptus saligna*	*High*
57.	*Eucalyptus saligna*	*High*
58.	*Eucalyptus crebra*	*High*
59.	*Eucalyptus scoparia*	*Medium*
60.	*Melaleuca quinquenervia*	*Medium*
61.	*Hibiscus spp*	*Medium*
62.	*Callistemon viminalis*	*Medium*
63.	*Callistemon viminalis*	*Medium*
64.	*Callistemon viminalis*	*Medium*
65.	*Callistemon viminalis*	*Medium*
66.	*Callistemon viminalis*	*Medium*
67.	*Melaleuca quinquenervia*	*Medium*
68.	*Callistemon viminalis*	*Medium*
70.	*Grevillea robusta*	*Medium*
71.	*Schinus areira*	*Medium*
74.	*Ceratopetalum gummiferum*	*Medium*
76.	*Lophostemon confertus*	*Medium*
77.	*Ulmus parvifolia*	*Medium*
78.	*Sapium sebiferum*	*Medium*
81.	*Lophostemon confertus*	*Medium*
82.	*Casuarina cunninghamiana*	*Medium*
83.	*Callistemon viminalis*	*Medium*
84.	*Lophostemon confertus*	*Medium*
85.	*Eucalyptus saligna*	*Medium*

86.	*Lophostemon confertus*	*Medium*
87.	*Eucalyptus saligna*	*High*
88.	*Eucalyptus saligna*	*High*
89.	*Eucalyptus saligna*	*High*
90.	*Eucalyptus saligna*	*High*
91.	*Eucalyptus saligna*	*High*
95.	*Lophostemon confertus*	*High*
98.	*Corymbia citriodora*	*High*
99.	*Eucalyptus microcorys*	*High*
100.	*Corymbia citriodora*	*High*
101.	*Eucalyptus sideroxylon*	*High*
102.	*Eucalyptus sideroxylon*	*High*
103.	*Eucalyptus scoparia*	*High*
104.	*Eucalyptus sideroxylon*	*High*
105.	*Robinia pseudoacacia*	*Medium*
106.	*Robinia pseudoacacia*	*Medium*
107.	*Robinia pseudoacacia*	*Medium*
108.	*Robinia pseudoacacia*	*Medium*
109.	*Robinia pseudoacacia*	*Medium*
112.	*Robinia pseudoacacia*	*Medium*
113.	*Robinia pseudoacacia*	*Medium*
114.	*Robinia pseudoacacia*	*Medium*
115.	*Robinia pseudoacacia*	*Medium*
116.	*Angophora costata*	*Medium*
117.	*Angophora costata*	*Medium*
118.	*Angophora costata*	*Medium*
119.	*Elaeocarpus kirtonii*	*Medium*
120.	*Callistemon viminalis*	*Medium*
121.	*Melaleuca armillaris*	*Medium*
122.	*Melaleuca armillaris*	*Medium*
123.	*Melaleuca armillaris*	*Medium*
124.	*Melaleuca armillaris*	*Medium*
125.	*Melaleuca armillaris*	*Medium*
126.	*Jacaranda mimosifolia*	*Medium*
128.	*Corymbia maculata*	*Medium*
129.	*Corymbia maculata*	*Medium*
130.	*Melia azedarach*	*Medium*
131.	*Melia azedarach*	*Medium*
132.	*Corymbia maculata*	*Medium*
133.	*Corymbia maculata*	*Medium*
134.	*Corymbia citriodora*	*Medium*
135.	*Melia azedarach*	*Medium*
136.	*Corymbia citriodora*	*Medium*
159.	*Calodendrum capense*	*Medium*

160.	*Eucalyptus sideroxylon*	*High*
161.	*Corymbia citriodora*	*Medium*
162.	*Corymbia citriodora*	*Medium*
163.	*Cinnamomum camphora*	*Low*
164.	*Washingtonia robusta*	*Medium*
165.	*Plumeria rubra*	*Medium*

Table 1 - Landscape Significance

5.0 Subject Tree Retention Value

5.1 Tree Retention Value Methodology

For the purpose of this report, the Tree Retention Values have been assessed by incorporating Landscape Significance Values as determined in 4.0 with the Useful Life Expectancy of the subject trees and assessing the retention values based on the Tree Retention Value Priority Matrix as developed by the Institute of Australian Consulting Arborists (IACA). Please refer to Appendix B for greater detail on this Tree Retention Value Priority Matrix. This matrix defines Landscape Significance for individual trees as High, Medium or Low Retention Value as well as Priority for Removal.

5.2 Retention Value of Subject Trees

Based on our assessment of the subject trees and implementation of the IACA Tree Retention Value Priority Matrix, the Retention Values of the Subject Trees were determined as shown in Table 2.

Tree no.	Species	Retention Value
21.	*Melaleuca quinquenervia*	*High*
22.	*Corymbia maculata*	*High*
23.	*Corymbia maculata*	*High*
24.	*Corymbia maculata*	*High*
25.	*Lophostemon confertus*	*High*
26.	*Lophostemon confertus*	*High*
27.	*Schinus areira*	*High*
28.	*Jacaranda mimosifolia*	*Medium*
29.	*Jacaranda mimosifolia*	*Medium*
30.	*Melia azedarach*	*Medium*
31.	*Jacaranda mimosifolia*	*Medium*
32.	*Livistona australis*	*Medium*
33.	*Cupressus sempervirens*	*Medium*
34.	*Cupressus sempervirens*	*Medium*
35.	*Robinia pseudoacacia*	*Medium*
36.	*Platanus x acerifolia*	*Medium*
37.	*Platanus x acerifolia*	*Medium*
38.	*Platanus x acerifolia*	*Medium*

39.	*Platanus x acerifolia*	*Medium*
40.	*Platanus x acerifolia*	*Medium*
41.	*Corymbia citriodora*	*High*
42.	*Eucalyptus sideroxylon*	*High*
43.	*Corymbia citriodora*	*High*
44.	*Eucalyptus sideroxylon*	*High*
45.	*Corymbia citriodora*	*High*
46.	*Melia azedarach*	*Medium*
47.	*Corymbia citriodora*	*High*
48.	*Eucalyptus saligna*	*High*
49.	*Eucalyptus microcorys*	*Medium*
50.	*Lophostemon confertus*	*Medium*
51.	*Eucalyptus saligna*	*High*
52.	*Eucalyptus saligna*	*High*
53.	*Melaleuca quinquenervia*	*Medium*
54.	*Melaleuca quinquenervia*	*Medium*
55.	*Callistemon viminalis*	*Medium*
56.	*Eucalyptus saligna*	*High*
57.	*Eucalyptus saligna*	*High*
58.	*Eucalyptus crebra*	*High*
59.	*Eucalyptus scoparia*	*Medium*
60.	*Melaleuca quinquenervia*	*Medium*
61.	*Hibiscus spp*	*Medium*
62.	*Callistemon viminalis*	*Medium*
63.	*Callistemon viminalis*	*Medium*
64.	*Callistemon viminalis*	*Medium*
65.	*Callistemon viminalis*	*Medium*
66.	*Callistemon viminalis*	*Medium*
67.	*Melaleuca quinquenervia*	*Medium*
68.	*Callistemon viminalis*	*Medium*
70.	*Grevillea robusta*	*Medium*
71.	*Schinus areira*	*Medium*
74.	*Ceratopetalum gummiferum*	*Medium*
76.	*Lophostemon confertus*	*Medium*
77.	*Ulmus parvifolia*	*Medium*
78.	*Sapium sebiferum*	*Medium*
81.	*Lophostemon confertus*	*Medium*
82.	*Casuarina cunninghamiana*	*Medium*
83.	*Callistemon viminalis*	*Medium*
84.	*Lophostemon confertus*	*Medium*
85.	*Eucalyptus saligna*	*Medium*
86.	*Lophostemon confertus*	*Medium*
87.	*Eucalyptus saligna*	*High*
88.	*Eucalyptus saligna*	*High*

89.	*Eucalyptus saligna*	*High*
90.	*Eucalyptus saligna*	*High*
91.	*Eucalyptus saligna*	*High*
95.	*Lophostemon confertus*	*High*
98.	*Corymbia citriodora*	*High*
99.	*Eucalyptus microcorys*	*High*
100.	*Corymbia citriodora*	*High*
101.	*Eucalyptus sideroxylon*	*High*
102.	*Eucalyptus sideroxylon*	*High*
103.	*Eucalyptus scoparia*	*High*
104.	*Eucalyptus sideroxylon*	*High*
105.	*Robinia pseudoacacia*	*Medium*
106.	*Robinia pseudoacacia*	*Medium*
107.	*Robinia pseudoacacia*	*Medium*
108.	*Robinia pseudoacacia*	*Medium*
109.	*Robinia pseudoacacia*	*Medium*
112.	*Robinia pseudoacacia*	*Medium*
113.	*Robinia pseudoacacia*	*Medium*
114.	*Robinia pseudoacacia*	*Medium*
115.	*Robinia pseudoacacia*	*Medium*
116.	*Angophora costata*	*Medium*
117.	*Angophora costata*	*Medium*
118.	*Angophora costata*	*Medium*
119.	*Elaeocarpus kirtonii*	*Medium*
120.	*Callistemon viminalis*	*Medium*
121.	*Melaleuca armillaris*	*Medium*
122.	*Melaleuca armillaris*	*Medium*
123.	*Melaleuca armillaris*	*Medium*
124.	*Melaleuca armillaris*	*Medium*
125.	*Melaleuca armillaris*	*Medium*
126.	*Jacaranda mimosifolia*	*Medium*
128.	*Corymbia maculata*	*Medium*
129.	*Corymbia maculata*	*Medium*
130.	*Melia azedarach*	*Medium*
131.	*Melia azedarach*	*Medium*
132.	*Corymbia maculata*	*Medium*
133.	*Corymbia maculata*	*Medium*
134.	*Corymbia citriodora*	*Medium*
135.	*Melia azedarach*	*Medium*
136.	*Corymbia citriodora*	*Medium*
159.	*Calodendrum capense*	*Medium*
160.	*Eucalyptus sideroxylon*	*High*
161.	*Corymbia citriodora*	*Medium*
162.	*Corymbia citriodora*	*Medium*

163.	*Cinnamomum camphora*	*Low*
164.	*Washingtonia robusta*	*Medium*
165.	*Plumeria rubra*	*Medium*

Table 2 – Tree Retention Value

6.0 Impact of Development

6.1 Tree Protection Zone

Tree Protection Zones (TPZs) have been defined for the subject trees in order to define the encroachment of the proposed development in accordance with *AS4970-2009*. The TPZs required have been taken as a circular area with a radius 12 x the diameter at breast height of the tree. This requirement is in line with Australian Standard AS 4970-2009 Protection of Trees on Development Sites. This standard defines a maximum of 10% encroachment to be minimal encroachment. Any encroachment over 10% requires the site arborist to give consideration as to the viability of the tree due to the proposed development.

6.2 Structural Root Zone

Structural Root Zone (SRZs) are defined by AS*4970-2009* as the area of root development required for the structural stability of the tree. The SRZ is required to be assessed only when an encroachment greater than 10% is considered.

Tree no.	Species	TPZ Radius (m)	Encroachment %	SRZ Radius (m) Encroached / Not Encroached
21.	*Melaleuca quinquenervia*	*9.12*	100	3.09
22.	*Corymbia maculata*	*5.76*	100	2.57
23.	*Corymbia maculata*	*5.04*	100	2.57
24.	*Corymbia maculata*	*5.28*	100	2.57
25.	*Lophostemon confertus*	*5.76*	100	2.85
26.	*Lophostemon confertus*	*5.4*	100	2.57
27.	*Schinus areira*	*10.61*	100	3.17
28.	*Jacaranda mimosifolia*	*4.56*	100	2.37
29.	*Jacaranda mimosifolia*	*4.08*	100	2.37
30.	*Melia azedarach*	*3.6*	100	2.15
31.	*Jacaranda mimosifolia*	*6*	100	1.02

32.	*Livistona australis*	*2*	100	N/A
33.	*Cupressus sempervirens*	*6*	100	2.59
34.	*Cupressus sempervirens*	*4.8*	100	2.43
35.	*Robinia pseudoacacia*	*3.6*	100	2.20
36.	*Platanus x acerifolia*	*8.4*	100	3.01
37.	*Platanus x acerifolia*	*5.64*	100	2.57
38.	*Platanus x acerifolia*	*4.56*	100	2.37
39.	*Platanus x acerifolia*	*4.92*	100	2.57
40.	*Platanus x acerifolia*	*4.32*	100	2.37
41.	*Corymbia citriodora*	*10.44*	100	3.24
42.	*Eucalyptus sideroxylon*	*6.6*	100	2.93
43.	*Corymbia citriodora*	*9.72*	100	3.24
44.	*Eucalyptus sideroxylon*	*5.76*	100	2.67
45.	*Corymbia citriodora*	*6.84*	100	2.76
46.	*Melia azedarach*	*4.79*	100	2.37
47.	*Corymbia citriodora*	*7.44*	100	2.93
48.	*Eucalyptus saligna*	*6.24*	0	2.85
49.	*Eucalyptus microcorys*	*6.5*	0	2.73
50.	*Lophostemon confertus*	*2*	0	1.85
51.	*Eucalyptus saligna*	*6.72*	40	2.93
52.	*Eucalyptus saligna*	*6.12*	0	2.67
53.	*Melaleuca quinquenervia*	*5.04*	40	2.47
54.	*Melaleuca quinquenervia*	*7.56*	30	2.85

55.	*Callistemon viminalis*	*2.64*	0	1.94
56.	*Eucalyptus saligna*	*7.08*	40	2.76
57.	*Eucalyptus saligna*	*10.44*	35	3.24
58.	*Eucalyptus crebra*	*6.72*	27	2.85
59.	*Eucalyptus scoparia*	*3.6*	100	2.25
60.	*Melaleuca quinquenervia*	*7.68*	100	2.93
61.	*Hibiscus spp*	*2.76*	100	2.05
62.	*Callistemon viminalis*	*3*	100	2.00
63.	*Callistemon viminalis*	*3.84*	100	2.20
64.	*Callistemon viminalis*	*3.6*	100	2.13
65.	*Callistemon viminalis*	*4.2*	100	2.20
66.	*Callistemon viminalis*	*2.88*	100	2.00
67.	*Melaleuca quinquenervia*	*8.04*	100	2.93
68.	*Callistemon viminalis*	*4.2*	100	2.30
70.	*Grevillea robusta*	*5.64*	100	2.57
71.	*Schinus areira*	*5.88*	100	2.59
74.	*Ceratopetalum gummiferum*	*2*	100	4.86
76.	*Lophostemon confertus*	*5.88*	0	2.57
77.	*Ulmus parvifolia*	*5.52*	0	2.57
78.	*Sapium sebiferum*	*2.76*	0	2.10
81.	*Lophostemon confertus*	*3.48*	0	2.15
82.	*Casuarina cunninghamiana*	*3.6*	0	2.20
83.	*Callistemon viminalis*	*3.36*	0	2.13
84.	*Lophostemon confertus*	*3.6*	0	2.20

85.	*Eucalyptus saligna*	*5.28*	100	2.57
86.	*Lophostemon confertus*	*5.04*	100	2.47
87.	*Eucalyptus saligna*	*4.32*	100	2.37
88.	*Eucalyptus saligna*	*3.12*	100	2.13
89.	*Eucalyptus saligna*	*3.84*	100	2.25
90.	*Eucalyptus saligna*	*3.6*	100	2.20
91.	*Eucalyptus saligna*	*3.72*	100	2.13
95.	*Lophostemon confertus*	*6.48*	0	2.67
98.	*Corymbia citriodora*	*7.2*	0	2.81
99.	*Eucalyptus microcorys*	*9.36*	0	3.09
100.	*Corymbia citriodora*	*8.04*	0	2.93
101.	*Eucalyptus sideroxylon*	*6.48*	0	2.67
102.	*Eucalyptus sideroxylon*	*6.96*	0	2.76
103.	*Eucalyptus scoparia*	*7.2*	0	2.85
104.	*Eucalyptus sideroxylon*	*9.48*	0	3.11
105.	*Robinia pseudoacacia*	*4.56*	0	2.37
106.	*Robinia pseudoacacia*	*4.2*	0	2.25
107.	*Robinia pseudoacacia*	*2.88*	0	1.97
108.	*Robinia pseudoacacia*	*3*	0	2.13
109.	*Robinia pseudoacacia*	*4.92*	0	2.47
112.	*Robinia pseudoacacia*	*2.04*	0	1.82
113.	*Robinia pseudoacacia*	*3.24*	0	2.10

114.	*Robinia pseudoacacia*	*3.96*	0	2.23
115.	*Robinia pseudoacacia*	*3.6*	0	2.20
116.	*Angophora costata*	*4.08*	0	2.25
117.	*Angophora costata*	*4.08*	0	2.25
118.	*Angophora costata*	*3.96*	0	2.25
119.	*Elaeocarpus kirtonii*	*2*	0	1.49
120.	*Callistemon viminalis*	*2*	0	1.36
121.	*Melaleuca armillaris*	*3.06*	0	1.94
122.	*Melaleuca armillaris*	*2.91*	0	1.94
123.	*Melaleuca armillaris*	*2.72*	0	1.88
124.	*Melaleuca armillaris*	*2.64*	0	1.85
125.	*Melaleuca armillaris*	*2*	0	1.82
126.	*Jacaranda mimosifolia*	*4.92*	0	2.47
128.	*Corymbia maculata*	*4.44*	0	2.37
129.	*Corymbia maculata*	*3.48*	0	2.08
130.	*Melia azedarach*	*2*	0	1.68
131.	*Melia azedarach*	*3.23*	0	2.13
132.	*Corymbia maculata*	*2*	0	1.68
133.	*Corymbia maculata*	*8.04*	0	2.93
134.	*Corymbia citriodora*	*4.56*	0	2.37
135.	*Melia azedarach*	*2.29*	0	1.79
136.	*Corymbia citriodora*	*4.2*	0	2.37
159.	*Calodendrum capense*	*5.03*	0	2.37
160.	*Eucalyptus sideroxylon*	*7.92*	0	2.93

161.	*Corymbia citriodora*	*8.04*	0	2.93
162.	*Corymbia citriodora*	*7.44*	0	2.85
163.	*Cinnamomum camphora*	*2*	0	1.65
164.	*Washingtonia robusta*	*2*	0	*N/A*
165.	*Plumeria rubra*	*2.8*	100	1.94

7.0 Recommendations

The subject Trees are preserved under Section 2 of Liverpool Development Control Plan 2008.

Trees 42, 43, and 160 have evidence of decay or other structural defect within the trunk which places these trees at increased risk of failure. If these trees are proposed for retention, we recommend an ISA (TRAQ) Level 3 Risk Assessment be conducted including internal diagnostic testing to determine the viability of these trees to be retained.

The Tree protection Zone (TPZ) of Trees 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 51, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 70, 71, 74, 76, 78, 85, 86, 87, 88, 89, 90, 91 and 165 are encroached by the proposed construction, landscape, stormwater and required earthworks by a total or major encroachment as defined by AS4970-2009 Protection of Trees on Development Sites. These trees will not be viable to be retained and will require removal due to the proposed development.

In order for Trees 22, 23, 24, and 25 to be viable to be retained, the following design modifications would be required.

4. Stormwater to diverted outside of the TPZ or the encroachment including all excavation reduced to less than 10% of the TPZ.
5. Excavation for proposed ramp and paving to not encroach the TPZ by more than 10%.
6. Paving (including subgrades) to be permeable within TPZ.

In order for Trees 51, 53, 54 and 56 to be viable to be retained, the following design modifications would be required.

4. Stormwater to diverted outside of the TPZ or the encroachment including all excavation reduced to less than 10% of the TPZ.
5. Excavation for proposed paving and slab downturn to not encroach the TPZ by more than 10%.
6. All subsoil drainage to be installed using nondestructive excavation methods including Air Spade, manual excavation or vacuum truck operating at less than 1000Psi under the direction and supervision of the Project Arborist with no damage to structural roots (greater than 20mm diameter).

All excavation within the TPZ of the retained subject trees is required to be conducted by non-destructive methods such as Air Spade or vacuum truck operating at less than 1000Psi under the direct supervision of the Project Arborist. No structural roots great er than 20mm are to be damaged.

All other trees are viable to be retained and are to be protected as defined below.

Recommendations for tree retention or removal are summarised as follows:

Tree no.	Species	Recommendations	Comments	Retention Value
21.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to proposed development.	*High*
22.	*Corymbia maculata*	Remove	Not viable to be retained due to proposed development.	*High*
23.	*Corymbia maculata*	Remove	Not viable to be retained due to proposed development.	*High*
24.	*Corymbia maculata*	Remove	Not viable to be retained due to proposed development.	*High*
25.	*Lophostemon confertus*	Remove	Not viable to be retained due to proposed development.	*High*
26.	*Lophostemon confertus*	Remove	Not viable to be retained due to proposed development.	*High*
27.	*Schinus areira*	Remove	Not viable to be retained due to proposed development.	*High*
28.	*Jacaranda mimosifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
29.	*Jacaranda mimosifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
30.	*Melia azedarach*	Remove	Not viable to be retained due to proposed development.	*Medium*
31.	*Jacaranda mimosifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
32.	*Livistona australis*	Remove	Not viable to be retained due to proposed development.	*Medium*
33.	*Cupressus sempervirens*	Remove	Not viable to be retained due to	*Medium*

			proposed development.	
34.	*Cupressus sempervirens*	Remove	Not viable to be retained due to proposed development.	*Medium*
35.	*Robinia pseudoacacia*	Remove	Not viable to be retained due to proposed development.	*Medium*
36.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
37.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
38.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
39.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
40.	*Platanus x acerifolia*	Remove	Not viable to be retained due to proposed development.	*Medium*
41.	*Corymbia citriodora*	Remove	Not viable to be retained due to proposed development.	*High*
42.	*Eucalyptus sideroxylon*	Remove	Not viable to be retained due to proposed development.	*High*
43.	*Corymbia citriodora*	Remove	Not viable to be retained due to proposed development.	*High*
44.	*Eucalyptus sideroxylon*	Remove	Not viable to be retained due to proposed development.	*High*
45.	*Corymbia citriodora*	Remove	Not viable to be retained due to proposed development.	*High*
46.	*Melia azedarach*	Remove	Not viable to be retained due to	*Medium*

			proposed development.	
47.	*Corymbia citriodora*	Remove	Not viable to be retained due to proposed development.	*High*
48.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.	*High*
49.	*Eucalyptus microcorys*	Retain	Viable to be retained and protected.	*Medium*
50.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*Medium*
51.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
52.	*Eucalyptus saligna*	Retain	Viable to be retained and protected.	*High*
53.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to proposed development.	*Medium*
54.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to proposed development.	*Medium*
55.	*Callistemon viminalis*	Retain	Viable to be retained and protected.	*Medium*
56.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
57.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
58.	*Eucalyptus crebra*	Remove	Not viable to be retained due to proposed development.	*High*
59.	*Eucalyptus scoparia*	Remove	Not viable to be retained due to proposed development.	*Medium*
60.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to proposed development.	*Medium*

61.	*Hibiscus spp*	Remove	Not viable to be retained due to proposed development.	*Medium*
62.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
63.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
64.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
65.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
66.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
67.	*Melaleuca quinquenervia*	Remove	Not viable to be retained due to proposed development.	*Medium*
68.	*Callistemon viminalis*	Remove	Not viable to be retained due to proposed development.	*Medium*
70.	*Grevillea robusta*	Remove	Not viable to be retained due to proposed development.	*Medium*
71.	*Schinus areira*	Remove	Not viable to be retained due to proposed development.	*Medium*
74.	*Ceratopetalum gummiferum*	Remove	Not viable to be retained due to proposed development.	*Medium*
76.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*Medium*
77.	*Ulmus parvifolia*	Retain	Viable to be retained and protected.	*Medium*
78.	*Sapium sebiferum*	Remove	Not viable to be retained due to	*Medium*

			proposed development.	
81.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*Medium*
82.	*Casuarina cunninghamiana*	Retain	Viable to be retained and protected.	*Medium*
83.	*Callistemon viminalis*	Retain	Viable to be retained and protected.	*Medium*
84.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*Medium*
85.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*Medium*
86.	*Lophostemon confertus*	Remove	Not viable to be retained due to proposed development.	*Medium*
87.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
88.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
89.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
90.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
91.	*Eucalyptus saligna*	Remove	Not viable to be retained due to proposed development.	*High*
95.	*Lophostemon confertus*	Retain	Viable to be retained and protected.	*High*
98.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*High*
99.	*Eucalyptus microcorys*	Retain	Viable to be retained and protected.	*High*

100.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*High*
101.	*Eucalyptus sideroxylon*	Retain	Viable to be retained and protected.	*High*
102.	*Eucalyptus sideroxylon*	Retain	Viable to be retained and protected.	*High*
103.	*Eucalyptus scoparia*	Retain	Viable to be retained and protected.	*High*
104.	*Eucalyptus sideroxylon*	Retain	Viable to be retained and protected.	*High*
105.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
106.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
107.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
108.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
109.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
112.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
113.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
114.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
115.	*Robinia pseudoacacia*	Retain	Viable to be retained and protected.	*Medium*
116.	*Angophora costata*	Retain	Viable to be retained and protected.	*Medium*
117.	*Angophora costata*	Retain	Viable to be retained and protected.	*Medium*
118.	*Angophora costata*	Retain	Viable to be retained and protected.	*Medium*

119.	*Elaeocarpus kirtonii*	Retain	Viable to be retained and protected.	*Medium*
120.	*Callistemon viminalis*	Retain	Viable to be retained and protected.	*Medium*
121.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
122.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
123.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
124.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
125.	*Melaleuca armillaris*	Retain	Viable to be retained and protected.	*Medium*
126.	*Jacaranda mimosifolia*	Retain	Viable to be retained and protected.	*Medium*
127.	*Melia azedarach*	Retain	Viable to be retained and protected.	*Medium*
128.	*Corymbia maculata*	Retain	Viable to be retained and protected.	*Medium*
129.	*Corymbia maculata*	Retain	Viable to be retained and protected.	*Medium*
130.	*Melia azedarach*	Retain	Viable to be retained and protected.	*Medium*
131.	*Melia azedarach*	Retain	Viable to be retained and protected.	*Medium*
132.	*Corymbia maculata*	Retain	Viable to be retained and protected.	*Medium*
133.	*Corymbia maculata*	Retain	Viable to be retained and protected.	*Medium*
134.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*Medium*
135.	*Melia azedarach*	Retain	Viable to be retained and protected.	*Medium*

136.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*Medium*
159.	*Calodendrum capense*	Retain	Viable to be retained and protected.	*High*
160.	*Eucalyptus sideroxylon*	Retain	Viable to be retained and protected.	*High*
161.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*Medium*
162.	*Corymbia citriodora*	Retain	Viable to be retained and protected.	*Medium*
163.	*Cinnamomum camphora*	Retain	Viable to be retained and protected.	*Low*
164.	*Washingtonia robusta*	Retain	Viable to be retained and protected.	*Medium*
165.	*Plumeria rubra*	Remove	Not viable to be retained due to proposed development.	*Medium*

8.0 REF Deliverable Requirement Reporting

Item	Trees and Landscaping	Relevant Section of Report
1.0	Has an Arboricultural Impact Assessment (AIA) been prepared to support the REF which assesses existing trees within the proposed works area, including street trees, and recommends tree protection measures for trees to be retained?	3.0 Existing Trees 9.0 Pre-Construction Tree Protection Measures 10.0 Site Management Issues 11.0 Tree protection Measures During Construction
2.0	Does the REF discuss the number, species, pot sizes and height of trees to be removed and trees to be planted?	*Refer to Landscape Architects Design*
3.0	Have any tree protection measures set out in the AIA been incorporated in: the design; REF mitigation measures; and the preliminary construction methodology?	

9.0 Pre-Construction Tree Protection Measures

9.1 General

All tree protection works shall be carried out before excavation, grading and site works commence. Tree protection works shall be inspected and approved by a Consulting Arborist meeting AQF Level 5 prior to construction works commencing.

Storage of materials, mixing of materials, vehicle parking, disposal of liquids, machinery repairs and refueling, site office and sheds, and the lighting of fires, stockpiling of soil, rubble or any debris shall not be carried out within the TPZ of existing trees. No backfilling shall occur within the TPZ of existing trees. Trees shall not be removed or lopped unless specific instruction is given in writing by the Superintendent.

9.2 Identification

All trees to be protected shall be clearly identified and all TPZs surveyed.

9.3 Project Arborist

Prior to all site works commencing, a Project Arborist is to be appointed with the responsibility of implementing all Tree Protection Measures in this report as well as compliance with AS4970-2009 Protection of Trees on Development Sites. The Site Arborist is to hold qualifications equivalent of AQF Level 5.

9.4 Protective Fence

Fencing is to be erected around existing trees to be retained. In addition to this protective fencing within the site, Protective Fencing is to be installed to the full extent of the TPZs within the site. This fencing is to be erected prior to any materials being brought on site or before any site, civil works or construction works commence. The fence shall enclose a sufficient area so as to prevent damage to the TPZ as defined on Appendix D Tree Protection Plan and as defined in 5.1 above. Fence to comprise 1800mm high chain wire mesh fixed to 50mm diameter Galvanised steel posts. Panels should be securely fixed top and bottom to avoid separation. No storage of building materials, tools, paint, fuel or contaminants and the like shall occur within the fenced area.

9.5 Mulching

Install mulch to the extent of all tree protection fencing. Use a leaf mulch conforming to AS 4454 which is free of deleterious and extraneous matter such as soil, weeds, sticks and stones and consisting of a minimum of 90% recycled content compliant with AS 4454 (1999) and AS 4419 (1998). All trees marked as to be removed on the proposed development are to be chipped and reused for this purpose. Place mulch evenly and to a depth of 100mm.

9.6 Signage

Prior to works commencing, tree protection signage is to be attached to each tree protection zone, displayed in a prominent position and the sign repeated at 10 metres intervals or closer where the fence changes direction. Each sign shall contain in a clearly legible form, the following information:
Tree protection zone.

- This fence has been installed to prevent damage to the trees and their growing environment both above and below ground and access is restricted.

- No Access within Tree Protection Zone
- The name, address, and telephone number of the developer.

The name and telephone number of the Site Arborist.

9.7 Trunk and Branch Protection

Where a tree is to be retained and a Tree Protection Zone cannot be adequately established due to restricted access, the trunk and branches in the lower crown will be protected by wrapping 2 layers of hessian or carpet underfelt around the trunk and branches for a minimum of 2 m or as lower branches permit, then metal strapping secures 38x50 x2000 mm timber battens together around the trunk (do not nail or screw to the trunk or branches). The number of battens to be used is as required to encircle the trunk and the battens are to extend to the base of the tree (AS4970 2009 Protection of trees on development sites, Figure 3 Examples of Trunk, Branch and ground protection).

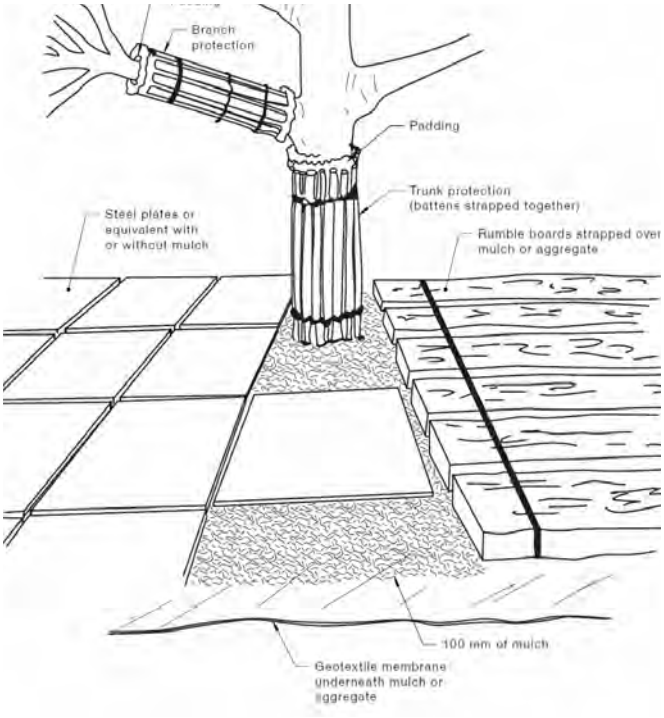


Figure 4 - Trunk Protection

10.0 Site Management Issues

10.1 Soil Compaction

Plant and pedestrian traffic during the construction period will cause significant soil compaction. This will be exacerbated by increased water expected on these soils as result of adjacent construction and weather. Compaction of the soil within the TPZ will reduce the voids between soil peds or particles therefore will reduce the gaseous exchange capacity of the root system which will slow critical metabolic processes. No pedestrian or plant access is permissible to the TPZ.

10.2 Site Access

Sufficient access is required to enable efficient construction. It is essential to delineate access zones or corridors which will provide suitable access without damaging the existing trees to be retained or causing compaction to the root zone.

10.3 Excavation within Tree Protection Area

No excavation is to be carried out within the TPZs of retained trees without the permission and supervision of the Site Arborist (AQF5)

10.4 Possible Contamination / Storage of Materials

The construction site will require the use of many chemicals and materials that are possible contaminants which if not managed will pose a risk to the existing trees. These possible contaminants include fuels, herbicides, solvents and the like. A site-specific Environmental Management Plan shall be provided, and this specific risk identified and addressed.

11.0 Tree Protection Measures During Construction

11.1 Maintenance of Pre-Construction Tree Protection Measures

The Pre-Construction Tree Protection Measures identified in 5.0 above are to be maintained in good and serviceable condition throughout the construction period.

11.2 Possible Contaminants

Do not store or otherwise place bulk materials and harmful materials under or near trees. Do not place spoil from excavations within the TPZs. Prevent wind-blown materials such as cement from harming trees. All possible contaminants are to be stored in a designated and appropriate area with secure chemical spill measures such as a bund in place.

11.3 Physical Damage

Prevent damage to tree. Do not attach stays, guys and the like to trees. No personnel, plant, machinery or materials are to be allowed within the tree protection fencing.

11.4 Compaction

No filling or compaction shall occur over tree roots zones within tree protection fenced areas. Where construction occurs close to or the TPZ of trees to be retained it shall be necessary to install protection to avoid compaction of the ground surface. This protection is to be planks supported clear of the ground fixed to scaffolding.

11.5 Trenching

No Trenching should be necessary within the TPZs or within tree protection fencing. No further trenching is to be carried out without the approval of the Site Arborist. Should any further trenching be required within the TPZs identified, this work is to be carried out by hand and under the supervision of a qualified Arborist.

11.6 Irrigation/Watering

Contractor is to ensure that soil moisture levels are adequately maintained. Apply water at an appropriate rate suitable for the species during periods of little or no rainfall.

11.7 Site Sheds / Amenities/ Storage

Site sheds, site amenities, ablutions and site storage shall be in the area clear of all TPZ. Chemicals and potential contaminants are to be stored appropriately and this storage area is to be enclosed by a chemical spill bund to prevent the potential run off of contaminants in the event of a spillage or accident.

12.0 References

Mattheck, C. Breloer, K. 1993, The Body Language of Trees: A Handbook for Failure Analysis, 12th Impression 2011 The Stationery Office.
AS4970-2009 Protection of Trees on Development Sites: Standards Australia

13.0 Disclaimer

This Appraisal has been prepared for the exclusive use of the Client and Birds Tree Consultancy.
Birds Tree Consultancy accepts no responsibility for its use by other persons. The Client acknowledges that this Appraisal, and any opinions, advice or recommendations expressed or given in it, are based on the information supplied by the Client and on the data inspections, measurements and analysis carried out or obtained Birds Tree Consultancy and referred to in the Appraisal. The Client should rely on the Appraisal, and on its contents, only to that extent.

Every effort has been made in this report to include, assess and address all defects, structural weaknesses, instabilities and the like of the subject trees. All inspections were made from ground level using only visual means and no intrusive or destructive means of inspection were used. For many structural defects such as decay and inclusions, internal inspection is required by means of Resistograph or similar. No such investigation has been made in this case. Trees are living organisms and are subject to failure through a variety of causes not able to be identified by means of this inspection and report.

Appendix A Landscape Significance

IACA Significance of a Tree, Assessment Rating System (STARS) ©
(IACA 2011) ©

In the development of this document IACA acknowledges the contribution and original concept of the Footprint Green Tree Significance & Retention Value Matrix, developed by Footprint Green Pty Ltd in June 2001.

The landscape significance of a tree is an essential criterion to establish the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the *Tree Significance - Assessment Criteria* and *Tree Retention Value - Priority Matrix*, are taken from the IACA Dictionary for Managing Trees in Urban Environments 2009.

This rating system will assist in the planning processes for proposed works, above and below ground where trees are to be retained on or adjacent a development site. The system uses a scale of *High*, *Medium* and *Low* significance in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined.

Tree Significance - Assessment Criteria

1. High Significance in landscape

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- 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 is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- 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 supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- 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.

2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in 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 provides a fair contribution to the visual character and amenity of the local area,
- 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*.

3. Low Significance in landscape

- The tree is in fair-poor condition and good or low vigour;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- 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 is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
- The tree has a wound or defect that has potential to become structurally unsound.

Environmental Pest / Noxious Weed Species

- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
- The tree is a declared noxious weed by legislation.

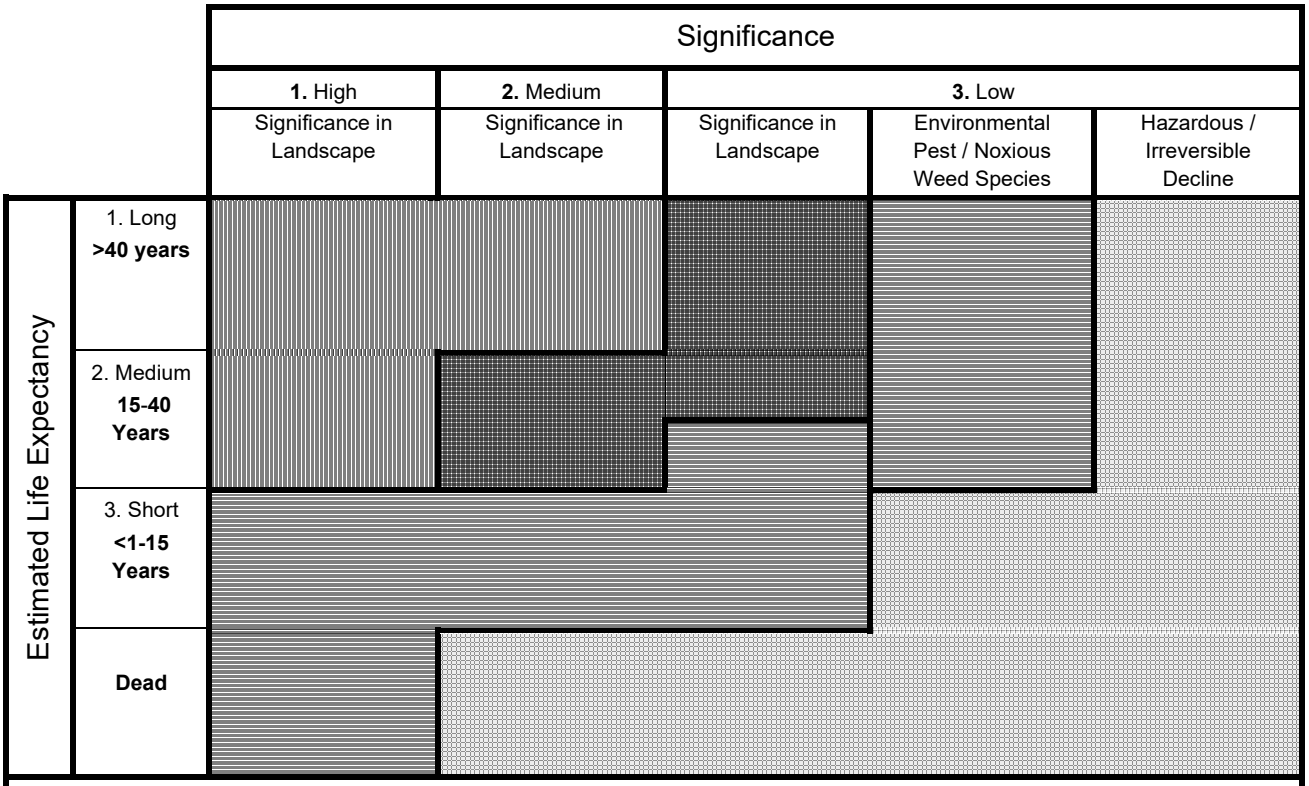
Hazardous/Irreversible Decline

- 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.

The tree is to have a minimum of three (3) criteria in a category to be classified in that group.

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g. hedge.

Appendix B Tree Retention Values



Legend for Matrix Assessment

	Priority for Retention (High) - These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s 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 e.g. pier and beam etc if works are to proceed within the Tree Protection Zone.
	Consider for Retention (Medium) - These trees may be retained and protected. These are considered less critical; however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.
	Consider for Removal (Low) - 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.

REFERENCES

Australia ICOMOS Inc. 1999, *The Burra Charter – The Australian ICOMOS Charter for Places of Cultural Significance*, International Council of Monuments and Sites, www.icomos.org/australia

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

Footprint Green Pty Ltd 2001, *Footprint Green Tree Significance & Retention Value Matrix*, Avalon, NSW Australia, www.footprintgreen.com.au

Appendix C - Tree Inspection Data

Birds Tree Consultancy

Consulting Arborist• Project Management • Horticultural Consultancy • Landscape Management

Inspection Date 2nd October 2024
Site name Liverpool Boys and Girls High School
Address 18 Forbes St, Liverpool NSW

Tree no.	Species	Common Name	Height	Spread(m)	Trunk (single, twin, multiple @)	DBH (mm)	TPZ Radius (m)	Diameter at Root Flare (DRF) (mm)	SRZ radius (m)	Trunk lean	Tree Age	Overall Health & Vigour	Crown Distribution	Structure	Pruning History	Defects	Pest Infestation	Canopy Density	Deadwood	Epicormic Growth	Life expectancy	Env. & Landcape significance	Retention Value	Notes
21	Melaleuca quinquenervia	Broad-leaved Paperbark	12	6	1	760	9.12	850	3.09	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
22	Corymbia maculata	Spotted Gum	22	9	1	480	5.76	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
23	Corymbia maculata	Spotted Gum	23	7	1	420	5.04	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
24	Corymbia maculata	Spotted Gum	22	7	1	440	5.28	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
25	Lophostemon confertus	Queensland Brushbox	10	10	1	480	5.76	700	2.85	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
26	Lophostemon confertus	Queensland Brushbox	10	8	1	450	5.4	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
27	Schinus areira	Pepper Tree, Peruvian Mastic Tree	12	14	Multiple Stems	883.9	10.61	900	3.17	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
28	Jacaranda mimosifolia	Jacaranda	10	10	1	380	4.56	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
29	Jacaranda mimosifolia	Jacaranda	10	10	1	340	4.08	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
30	Melia azedarach	White Cedar	11	6	Multiple Stems	300	3.6	360	2.15	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
31	Jacaranda mimosifolia	Jacaranda	8	12	1	500	6	60	1.02	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
32	Livistona australis	Cabbage Tree Palm	13	4	1	0	2	0	N/A	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	

Tree no.	Species	Common Name	Height	Spread(m)	Trunk (single, twin, multiple @)	DBH (mm)	TPZ Radius (m)	Diameter at Root Flare (DRF) (mm)	SRZ radius (m)	Trunk lean	Tree Age	Overall Health & Vigour	Crown Distribution	Structure	Pruning History	Defects	Pest Infestation	Canopy Density	Deadwood	Epicormic Growth	Life expectancy	Env. & Landcape significance	Retention Value	Notes
33	Cupressus sempervirens	Mediterranean Cypress	13	8	1	500	6	560	2.59	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
34	Cupressus sempervirens	Mediterranean Cypress	12	6	1	400	4.8	480	2.43	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
35	Robinia pseudoacacia		9	7	1	300	3.6	380	2.20	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
36	Platanus x acerifolia	London plane	19	16	1	700	8.4	800	3.01	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
37	Platanus x acerifolia	London plane	17	12	1	470	5.64	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
38	Platanus x acerifolia	London plane	17	12	1	380	4.56	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
39	Platanus x acerifolia	London plane	15	9	1	410	4.92	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
40	Platanus x acerifolia	London plane	14	12	1	360	4.32	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
41	Corymbia citriodora	Lemon-scented Gum	24	16	1	870	10.44	950	3.24	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
42	Eucalyptus sideroxylon	Mugga, Red Ironbark	17	11	1	550	6.6	750	2.93	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	Decay Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	Prominent swelling at base indicative of decay evidence. Recommend TRAQ level 3 risk assessment to determine viability for retention
43	Corymbia citriodora	Lemon-scented Gum	24	16	1	810	9.72	950	3.24	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	Cavity, Decay Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	Evidence of decay and cavity in second order junction at approximately 8m. Recommend TRAQ Level 3 risk assessment to determine viability for retention
44	Eucalyptus sideroxylon	Mugga, Red Ironbark	15	11	1	480	5.76	600	2.67	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
45	Corymbia citriodora	Lemon-scented Gum	17	12	1	570	6.84	650	2.76	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	

Tree no.	Species	Common Name	Height	Spread(m)	Trunk (single, twin, multiple @)	DBH (mm)	TPZ Radius (m)	Diameter at Root Flare (DRF) (mm)	SRZ radius (m)	Trunk lean	Tree Age	Overall Health & Vigour	Crown Distribution	Structure	Pruning History	Defects	Pest Infestation	Canopy Density	Deadwood	Epicormic Growth	Life expectancy	Env. & Landcape significance	Retention Value	Notes
46	Melia azedarach	White Cedar	11	9	Multiple Stems	399.1	4.79	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
47	Corymbia citriodora	Lemon-scented Gum	19	12	1	620	7.44	750	2.93	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
48	Eucalyptus saligna	Sydney Blue Gum	23	12	1	520	6.24	700	2.85	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
49	Eucalyptus microcorys	Tallowood	20	14	Multiple Stems	542	6.5	630	2.73	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
50	Lophostemon confertus	Queensland Brushbox	7	3	Multiple Stems	153	2	250	1.85	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
51	Eucalyptus saligna	Sydney Blue Gum	23	12	1	560	6.72	750	2.93	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
52	Eucalyptus saligna	Sydney Blue Gum	23	12	1	510	6.12	600	2.67	Nil	Mature	Fair (60-69)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Thinning	15%	<5%	21-40 years	High	High	Moderate apical dieback. Significant cambium damage at base. Potential evidence of decay. Recommend TRAQ level 3 risk assessment to determine the viability of retention.
53	Melaleuca quinquenervia	Broad-leaved Paperbark	15	9	1	420	5.04	500	2.47	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
54	Melaleuca quinquenervia	Broad-leaved Paperbark	16	8	1	630	7.56	700	2.85	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
55	Callistemon viminalis	Weeping Bottlebrush	4	5	1	220	2.64	280	1.94	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
56	Eucalyptus saligna	Sydney Blue Gum	23	14	1	590	7.08	650	2.76	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
57	Eucalyptus saligna	Sydney Blue Gum	23	14	1	870	10.44	950	3.24	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
58	Eucalyptus crebra	Narrow-leaved Ironbark	20	16	1	560	6.72	700	2.85	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
59	Eucalyptus scoparia	Wallangarra White Gum	13	8	Multiple Stems	300	3.6	400	2.25	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
60	Melaleuca quinquenervia	Broad-leaved Paperbark	12	9	1	640	7.68	750	2.93	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	

Tree no.	Species	Common Name	Height	Spread(m)	Trunk (single, twin, multiple @)	DBH (mm)	TPZ Radius (m)	Diameter at Root Flare (DRF) (mm)	SRZ radius (m)	Trunk lean	Tree Age	Overall Health & Vigour	Crown Distribution	Structure	Pruning History	Defects	Pest Infestation	Canopy Density	Deadwood	Epicormic Growth	Life expectancy	Env. & Landcape significance	Retention Value	Notes
61	Hibiscus spp		4	4	Multiple Stems	230	2.76	320	2.05	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
62	Callistemon viminalis	Weeping Bottlebrush	6	5	1	250	3	300	2.00	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
63	Callistemon viminalis	Weeping Bottlebrush	5	4	Multiple Stems	320	3.84	380	2.20	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
64	Callistemon viminalis	Weeping Bottlebrush	6	4	Multiple Stems	300	3.6	350	2.13	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
65	Callistemon viminalis	Weeping Bottlebrush	6	6	Multiple Stems	350	4.2	380	2.20	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
66	Callistemon viminalis	Weeping Bottlebrush	4	5	Multiple Stems	240	2.88	300	2.00	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
67	Melaleuca quinquenervia	Broad-leaved Paperbark	19	8	1	670	8.04	750	2.93	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
68	Callistemon viminalis	Weeping Bottlebrush	5	5	Multiple Stems	350	4.2	420	2.30	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
70	Grevillea robusta	Silky Oak	16	9	1	470	5.64	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
71	Schinus areira	Pepper Tree, Peruvian Mastic Tree	14	11	1	490	5.88	560	2.59	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
74	Ceratopetalum gummiferum	NSW Christmas Bush	5	4	1	160	2	2500	4.86	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
76	Lophostemon confertus	Queensland Brushbox	10	9	1	490	5.88	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
77	Ulmus parvifolia	Chinese Elm	13	13	1	460	5.52	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	

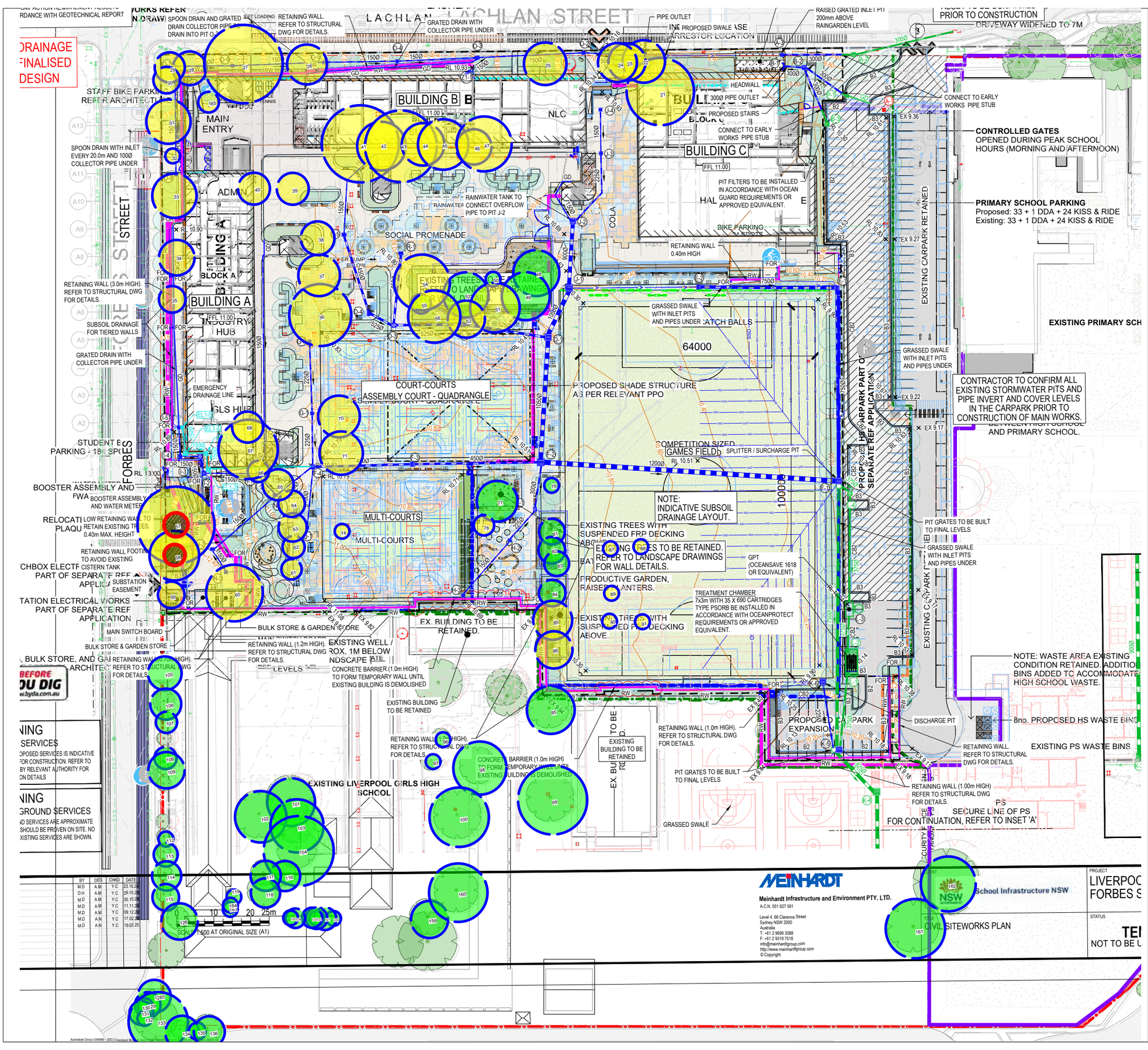
Tree no.	Species	Common Name	Height	Spread(m)	Trunk (single, twin, multiple @)	DBH (mm)	TPZ Radius (m)	Diameter at Root Flare (DRF) (mm)	SRZ radius (m)	Trunk lean	Tree Age	Overall Health & Vigour	Crown Distribution	Structure	Pruning History	Defects	Pest Infestation	Canopy Density	Deadwood	Epicormic Growth	Life expectancy	Env. & Landcape significance	Retention Value	Notes
78	Sapium sebiferum	Chinese Tallow Tree	8	6	1	230	2.76	340	2.10	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
81	Lophostemon confertus	Queensland Brushbox	7	7	1	290	3.48	360	2.15	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
82	Casuarina cunninghamiana	River Oak	14	7	1	300	3.6	380	2.20	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
83	Callistemon viminalis	Weeping Bottlebrush	5	5	1	280	3.36	350	2.13	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
84	Lophostemon confertus	Queensland Brushbox	11	8	1	300	3.6	380	2.20	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
85	Eucalyptus saligna	Sydney Blue Gum	20	10	1	440	5.28	550	2.57	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
86	Lophostemon confertus	Queensland Brushbox	14	9	1	420	5.04	500	2.47	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
87	Eucalyptus saligna	Sydney Blue Gum	18	8	1	360	4.32	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
88	Eucalyptus saligna	Sydney Blue Gum	12	4	Multiple Stems	260	3.12	350	2.13	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
89	Eucalyptus saligna	Sydney Blue Gum	19	9	1	320	3.84	400	2.25	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
90	Eucalyptus saligna	Sydney Blue Gum	18	9	1	300	3.6	380	2.20	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
91	Eucalyptus saligna	Sydney Blue Gum	20	8	1	310	3.72	350	2.13	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
95	Lophostemon confertus	Queensland Brushbox	14	10	1	540	6.48	600	2.67	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
98	Corymbia citriodora	Lemon-scented Gum	25	13	1	600	7.2	680	2.81	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
99	Eucalyptus microcorys	Tallowood	22	16	1	780	9.36	850	3.09	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
100	Corymbia citriodora	Lemon-scented Gum	24	16	1	670	8.04	750	2.93	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	

Tree no.	Species	Common Name	Height	Spread(m)	Trunk (single, twin, multiple @)	DBH (mm)	TPZ Radius (m)	Diameter at Root Flare (DRF) (mm)	SRZ radius (m)	Trunk lean	Tree Age	Overall Health & Vigour	Crown Distribution	Structure	Pruning History	Defects	Pest Infestation	Canopy Density	Deadwood	Epicormic Growth	Life expectancy	Env. & Landcape significance	Retention Value	Notes
101	Eucalyptus sideroxylon	Mugga, Red Ironbark	24	14	1	540	6.48	600	2.67	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
102	Eucalyptus sideroxylon	Mugga, Red Ironbark	24	14	1	580	6.96	650	2.76	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
103	Eucalyptus scoparia	Wallangarra White Gum	20	14	1	600	7.2	700	2.85	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
104	Eucalyptus sideroxylon	Mugga, Red Ironbark	24	15	1	790	9.48	860	3.11	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	
105	Robinia pseudoacacia		10	8	1	380	4.56	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
106	Robinia pseudoacacia		10	8	1	350	4.2	400	2.25	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
107	Robinia pseudoacacia		9	8	1	240	2.88	290	1.97	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
108	Robinia pseudoacacia		10	7	1	250	3	350	2.13	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
109	Robinia pseudoacacia		10	8	1	410	4.92	500	2.47	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
112	Robinia pseudoacacia		10	7	1	170	2.04	240	1.82	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
113	Robinia pseudoacacia		11	8	1	270	3.24	340	2.10	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
114	Robinia pseudoacacia		11	8	1	330	3.96	390	2.23	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
115	Robinia pseudoacacia		10	6	1	300	3.6	380	2.20	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
116	Angophora costata	Sydney Red Gum, Smooth-barked Apple	14	8	1	340	4.08	400	2.25	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
117	Angophora costata	Sydney Red Gum, Smooth-barked Apple	14	9	1	340	4.08	400	2.25	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	

Tree no.	Species	Common Name	Height	Spread(m)	Trunk (single, twin, multiple @)	DBH (mm)	TPZ Radius (m)	Diameter at Root Flare (DRF) (mm)	SRZ radius (m)	Trunk lean	Tree Age	Overall Health & Vigour	Crown Distribution	Structure	Pruning History	Defects	Pest Infestation	Canopy Density	Deadwood	Epicormic Growth	Life expectancy	Env. & Landcape significance	Retention Value	Notes
118	Angophora costata	Sydney Red Gum, Smooth-barked Apple	14	9	1	330	3.96	400	2.25	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
119	Elaeocarpus kirtonii	White Quondong	6	3	1	110	2	150	1.49	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
120	Callistemon viminalis	Weeping Bottlebrush	5	3	Multiple Stems	85.4	2	120	1.36	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
121	Melaleuca armillaris	bracelet Honey-myrtle, needle-leaved Honey-myrtle	10	5	Multiple Stems	254.6	3.06	280	1.94	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
122	Melaleuca armillaris	bracelet Honey-myrtle, needle-leaved Honey-myrtle	10	5	Multiple Stems	242.1	2.91	280	1.94	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
123	Melaleuca armillaris	bracelet Honey-myrtle, needle-leaved Honey-myrtle	11	6	Multiple Stems	226.7	2.72	260	1.88	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
124	Melaleuca armillaris	bracelet Honey-myrtle, needle-leaved Honey-myrtle	10	5	Multiple Stems	220.2	2.64	250	1.85	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
125	Melaleuca armillaris	bracelet Honey-myrtle, needle-leaved Honey-myrtle	8	4	1	160	2	240	1.82	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
126	Jacaranda mimosifolia	Jacaranda	16	9	1	410	4.92	500	2.47	Nil	Mature	Fair (60-69)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
128	Corymbia maculata	Spotted Gum	22	8	1	370	4.44	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	

Tree no.	Species	Common Name	Height	Spread(m)	Trunk (single, twin, multiple @)	DBH (mm)	TPZ Radius (m)	Diameter at Root Flare (DRF) (mm)	SRZ radius (m)	Trunk lean	Tree Age	Overall Health & Vigour	Crown Distribution	Structure	Pruning History	Defects	Pest Infestation	Canopy Density	Deadwood	Epicormic Growth	Life expectancy	Env. & Landcape significance	Retention Value	Notes
129	Corymbia maculata	Spotted Gum	21	8	1	290	3.48	330	2.08	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
130	Melia azedarach	White Cedar	10	7	1	110	2	200	1.68	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
131	Melia azedarach	White Cedar	10	9	Multiple Stems	269.1	3.23	350	2.13	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
132	Corymbia maculata	Spotted Gum	22	14	1	140	2	200	1.68	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
133	Corymbia maculata	Spotted Gum	22	12	1	670	8.04	750	2.93	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
134	Corymbia citriodora	Lemon-scented Gum	20	11	1	380	4.56	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
135	Melia azedarach	White Cedar	6	6	Multiple Stems	191	2.29	230	1.79	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
136	Corymbia citriodora	Lemon-scented Gum	19	9	1	350	4.2	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
159	Calodendrum capense	Cape Chestnut	10	14	Multiple Stems	418.8	5.03	450	2.37	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
160	Eucalyptus sideroxylon	Mugga, Red Ironbark	23	14	1	660	7.92	750	2.93	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	Crack, Decay Evidence	No Evidence	Normal	<5%	<5%	21-40 years	High	High	Crack/structural defect visible at approximately 10m. Recommend TRAQ level 3 risk assessment
161	Corymbia citriodora	Lemon-scented Gum	20	14	1	670	8.04	750	2.93	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
162	Corymbia citriodora	Lemon-scented Gum	21	16	1	620	7.44	700	2.85	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
163	Cinnamomum camphora	Camphor Laurel	9	5	1	140	2	190	1.65	Nil	Semi Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	40+ years	Low	Low	
164	Washingtonia robusta		14	5	1	0	2	0		Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	
165	Plumeria rubra	Frangipani	7	6		233.5	2.8	280	1.94	Nil	Mature	Good (70-79)	Symmetrical	Good	No Evidence	No Evidence	No Evidence	Normal	<5%	<5%	21-40 years	Medium	Medium	

Appendix D - Tree Location Plan



Birds Tree Consultancy
0438 892 634
glenn@birdstrees.com.au
www.birdstrees.com.au

Project: Liverpool Boys & Girls High School
Client: SINSW
DWG: A01 Rev E
Plan: Tree Location Plan
Date: 02 Apr 2025 Scale : 1:1000 @ A3