EARTHSCAPE HORTICULTURAL SERVICES
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DEVELOPMENT IMPACT ASSESSMENT REPORT

'GRAYTHWAITE'
20 EDWARD STREET, NORTH SYDNEY

Version 5 – 19th October 2011
Revised Part 3a Application

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1 INTRODUCTION

1.1.1 This report was commissioned by Tanner Architects on behalf of Sydney Church of England Grammar School (Shore) to assess the health and condition of two-hundred and forty (240) trees located within or immediately adjacent 'Graythwaite', 20 Edward Street, North Sydney. Graithwaite was purchased by Shore in 2009 with a view to conserving significant buildings and landscape elements and adapting the site for administrative and other school purposes.[1] This report has been prepared to aid in the assessment of a Development Application for the Master Plan development of the property under Part 3A of the *Environmental Planning and Assessment Act* 1979. The report has been amended to accompany the revised Part 3A application for the works, in response to issues raised by North Sydney Council (8 March 2011), the NSW Heritage Council (22 March 2011) and public submissions received by the NSW Department of Planning.

1.1.2 The purpose of this report is to assess the potential impact of the proposed development on the subject trees, together with recommendations for amendments to the design or construction methodology where necessary to minimise any adverse impact. The report also provides recommended tree protection measures to ensure the long-term preservation of the trees to be retained where appropriate.

2 THE SITE

2.1.1 The subject property is a large allotment known as Lot 2 in DP 539853, being 20 Edward Street, North Sydney, also known as 'Graythwaite'. For the purposes of this report the subject allotment will be referred to as "the Site". The site contains an existing two storey stone mansion (Graythwaite), and former Coach House together with a former Convalescent Hospital and single storey brick building (original stables) in the north-east corner. An electrical substation is also located adjacent the south-western corner (near Union Street). The total area of the site is 2.69 hectares.

2.1.2 The north-eastern portion of the site has slight south-westerly gradient becoming steeply sloping in the central portion with a number of steep embankments and terraced open lawn areas. The steeper embankments are heavily vegetated and traversed by pedestrian pathways. A driveway runs alongside the eastern boundary then sweeps around the south side of the mansion to the Coach House providing vehicular access from Union Street. The main driveway has an avenue of Brushbox and Camphor Laurel trees, together with a mixture of other species including Black Locust. The southern, western and part of the northern boundary has a row of large Moreton Bay Figs, and some other *Ficus* species forming a substantial boundary planting. Small-leaf Figs are predominant along the southern side of the central terrace. There are also some isolated Figs (Small-leaf Fig, Port Jackson Fig and Moreton Bay Fig) in the vicinity of Graythwaite.

2.1.3 Soils of this area are typical of the Gymea Landscape Group (as classified in the Soil Landscapes of the Sydney 1:100,000 Sheet), consisting of "shallow to moderately deep (300 – 1000 mm) *Yellow Earths* and *Earthy Sands* on crests and inside of benches and shallow (< 200 mm) *Siliceous Sands* on leading edges of benches; localised *Gleyed Podzolic Soils* and *Yellow Podzolic Soils* on shale lenses; and shallow to moderately deep (< 1000mm) *Siliceous Sands* and *Leached Sands* along Drainage Lines."[2] Soil materials are derived Hawkesbury Sandstone and may be discontinuous with localised rock outcrop.

2.1.4 The original vegetation of this area consisted of open forest & woodland typical of Hawkesbury Sandstone areas.[3] Locally-indigenous tree species formerly occurring in this area included *Angophora costata* (Sydney Red Gum), *Eucalyptus piperita* (Sydney Peppermint) and *Eucalyptus haemastoma* (Scribbly Gum). Other species occurring in this association may include *Pittosporum undulatum* (Native Daphne), *Allocasuarina littoralis* (Black She-Oak), *Corymbia gummifera* (Red Bloodwood), *Eucalyptus globoidea* (White Stringybark), *Eucalyptus sieberi*, (Silvertop Ash) and

Banksia frican (Old Man Banksia). *Glochidion ferdinandi* (Cheese Tree) and *Ficus rubiginosa* (Port Jackson Fig) may also be found on sheltered sites on lower slopes.

SUBJECT TREES

3.1.1 The subject trees were inspected by Earthscape Horticultural Services (EHS) on the 9th April 2010. Each tree has been provided with an identification number for reference purposes denoted on the attached Tree Location Plan (**Appendix 5**), based on the survey prepared by Rygate & Company Pty Ltd, Dwg. Ref No. 73949 dated 3rd February 2010. The numbers used on this plan correlate with the Tree Assessment Schedule (**Appendix 3**).

4 HEALTH AND CONDITION ASSESSMENT

4.1 Methodology

4.1.1 An assessment of each tree was made using the Visual Tree Assessment (VTA) procedure.[4] All of the trees were assessed in view from the ground. No aerial inspection or diagnostic testing has been undertaken as part of this assessment.

4.1.2 The following information was collected for each tree:-

- Tree Species (Botanical & Common Name);
- Approximate height;
- Canopy spread; measured using a metric tape and an average taken.
- Trunk Diameter measured at Breast Height (DBH) (1.4 metres from ground level);
- Live Crown Size; (measured by subtracting the total height of the tree from the lowest point of the crown and multiplying by the average crown spread to give a value in square metres).
- Health & vigour; using foliage size, colour, extension growth, presence of disease or pest infestation, canopy density, presence of deadwood, dieback and epicormic growth as indicators,
- Condition; using visible evidence of structural defects, instability, evidence of previous pruning and physical damage as indicators.
- Suitability of the tree to the site and its existing location; in consideration of damage or potential damage to services or structures, available space for future development and nuisance issues.

This information is presented in a tabulated form in **Appendix 3.**

4.2 Safe Useful Life Expectancy (SULE)

4.2.1 The remaining Safe Useful Life Expectancy [5] of the tree is an estimate of the sustainability of the tree in the landscape, calculated based on an estimate of the average age of the species in an urban area in Sydney, less its estimated current age. The life expectancy of the tree has been further modified where necessary in consideration of its current health and vigour, condition and suitability to the site. The estimated SULE of each tree is shown in **Appendix 3.**

4.2.2 The following ranges have been allocated to each tree:-

- Greater than 40 years (Long)
- Between 15 and 40 years (Medium)
- Between 5 and 15 years (Short)
- Less than 5 years (Transient)
- Dead or immediately hazardous (defective or unstable)

4.3 General Observations

4.3.1 A fill and rubble berm is located along the southern and western boundaries, which has been piled up around the trunks of many of the Moreton Bay Figs. It is understood that this may have been associated with a temporary 'construction track' created around the southern and western boundaries in the 1990's.[7] The mound appears to be made-up of spoil and some construction refuse. The fill placed in direct contact with the trunks and over the main buttress has resulted in some adverse impact on these trees.

4.3.2 The central terrace areas and embankments are overgrown with a number of perennial woody weeds, including Broad-leaf Privet and African Olive and colonising native species such as Pittosporums. Some of the original Fig plantings are also located within this area. It is understood that the local community has been involved in an active plan of weed suppression over a number of years. An attempt has been made to eradicate and suppress the woody weeds, with evidence of dieback in the crown and vascular tissue caused by herbicide damage. These areas also contain a large number of seedlings and immature trees of rainforest origin, including *Alectryon tomentosum* (Rambutan) and *Cryptocarya obovata* (Pepperberry Tree) most of these appear to be self-sown, but it is also possible that there have been deliberate plantings of rainforest species within these areas.

4.3.3 A number of the Camphor Laurels and Brushbox along the main driveway from Union Street also show dieback in the vascular tissue that appears to be caused by previous herbicide damage. As a result, some of these trees are now in a state of decline. This may have been undertaken deliberately in an attempt to eradicate these trees, or it may have occurred accidentally due to herbicide flare (translocation of herbicide from adjacent trees due to root grafting). There is no obvious mechanical damage to the trunks of the trees indicating deliberate poisoning.

4.3.4 A number of the larger Figs contain extensive basal cavities (including T60, T68, T148, T185, T184 & T182). It is beyond the scope of this assessment to carry out detailed diagnostic testing of these trees. However, diagnostic testing using a Picus® Sonic Tomograph is recommended to ascertain the structural integrity of these trees and determine whether they can be retained with a degree of safety.

4.3.5 Tree 163 (Port Jackson Fig) has previously partially overturned. The tree has re-supported itself with a prop root and continued to grow upright. Stability appears to have been compromised by a large in-ground structure (possibly an old sub-surface tank or ornamental pond).

5 LANDSCAPE SIGNIFICANCE

5.1 Methodology for Determining Landscape Significance

5.1.1 The significance of a tree in the landscape is a combination of its amenity, environmental and heritage values. Whilst these values may be fairly subjective and difficult to assess consistently, some measure is necessary to assist in determining the retention value of each tree. To ensure in a consistent approach, the assessment criterion shown in **Appendix 1** have been used in this assessment.

5.1.2 A rating has been applied to each tree to give an understanding of the relative significance of each tree in the landscape and to assist in determining priorities for retention, in accordance with the following categories:-

1. **Significant**
2. **Very High**
3. **High**
4. **Moderate**
5. **Low**
6. **Very Low**

7. Insignificant

5.2 Environmental Significance

5.2.1 A Tree Preservation Order (TPO) applies to all land within the North Sydney Local Government Area (LGA) made under Clause 7 of the North Sydney Local Environment Plan (LEP) 2001 by resolution of Council in 2006. The TPO generally protects all trees of a height of 10 metres or greater, or a crown spread of 10 metres or greater or with a trunk circumference exceeding 1.5 metres (i.e. 470 mm diameter). The TPO also protects any vegetation of a height greater than 5 metres in height on the site of a Heritage Item (as defined under Council's LEP). Port Jackson Figs, Sydney Red Gums and Moreton Bay Figs with a height of 5 metres or greater, or a crown spread of 5 metres or greater and any tree listed on Council's Significant Tree Register are also protected under the TPO. Some exemptions apply. The following trees are exempt (not protected) under the provisions of North Sydney Council's Tree Preservation Order:-

Tree No.	Species	Exemption
122, 124, 128, 130, 133, 143, 149, 150, 150a	*Olea europea var. africana* (African Olive)	Environmental Weed Species
79	*Glochidion ferdinandi* (Cheese Tree)	Dead tree
65	*Populus alba* (Silver Poplar)	Dead tree
215 & 216	*Nerium oleander* (Oleander)	Less than 5 metres in height
217, 218, 219 & 220	*Prunus sp.* (Ornamental Flowering Plum)	Less than 5 metres in height

5.2.2 The remainder of the trees are protected under Council's TPO.

5.2.3 There are no remnant local-indigenous species within the site. All of the trees are non-local native or exotic species that would be of some benefit to native wildlife. All of the trees have been planted or self-sown within the site. Several trees (T115, T210 & T214) contain cavities that may be suitable as nesting hollows for arboreal mammals or birds. A number of trees show signs of regular foraging by Brushtail and Ringtail Possums. Typically these include all of the followings species:-

- *Cinnamomum camphora* (Camphor Laurel)
- *Robinia pseudoacacia* (Black Locust)
- *Sapium sebiferum* (Chinese Tallow tree)
- *Eriobotrya japonica* (Japanese Loquat).

5.2.4 There were no other visible signs of wildlife habitation.

5.2.5 *Ligustrum lucidum* (Large-leaved Privet) [T47, T152, T176 & T189] is scheduled as a Class 4 Noxious Weed under the meaning of the *Noxious Weeds Act* (NSW) 1993 in the North Sydney Local Government Area (LGA). The growth and spread of this plant must be controlled according to the measures specified in a management plan published by the local control authority and the plant may not be sold, propagated or knowingly distributed.

5.2.6 *Eriobotrya japonica* (Japanese Loquat) [T170], *Celtis sinensis* (Chinese Nettle Tree) [T88 & T172], *Cinnamomum camphora* (Camphor Laurel) [T8, T18, T30, T34, T37, T39, T43, T45, T50, T55 & T158], *Erythrina x sykesii* (Indian Coral Tree) [T91-98, T92a, T93a, T137, T137a, T137b &

T138], *Morus nigra* (Mulberry) [T188 & T213], *Schefflera actinophylla* (Umbrella Tree) [T52], *Populus alba* (Silver Poplar) [T65, T67, T101, T102, T103, T111, T54 & T178] *Salix babylonica* (Weeping Willow) [T20] and *Acer negundo* (Box Elder) T187 whilst protected under Council's TPO, are considered Environment Weed Species in many Sydney LGA's.

5.2.7 *Eucalyptus nicolii* (New England Peppermint) [T7] is listed as Vulnerable Species in Schedule 2 of the *Threatened Species Conservation Act* 1995 (NSW) and listed as a Vulnerable Species under the *Environmental Protection and Biodiversity Conservation Act* 1999. Whilst this species is listed as vulnerable in its native habitat, it is a commonly planted ornamental tree in parks, gardens and streetscapes. The species is not endemic to this area and therefore does not have any ecological significance in this context.

5.2.8 None of the other trees are listed as Threatened or Vulnerable Species or form part of Endangered Ecological Communities under the provisions of the *Threatened Species Conservation Act* 1995 (NSW) or the *Environmental Protection and Biodiversity Conservation Act* 1999.

5.3 Heritage Significance

5.3.1 'Graythwaite', including the outbuildings and grounds, is listed as a Heritage Item of State Significance under Schedule 3 of the North Sydney Local Environment Plan (LEP) 2001. The property is also listed as a Heritage Item on the State Heritage Register (*Heritage Act* 1977), has been nominated for inclusion on the Register of the National Estate (2005) and is classified on the National Trust of Australia Register (1981). The site is considered to contain the largest and most significant collections of 19th Century cultural plantings in the North Sydney area.[6]

5.3.2 The site was originally developed in the early-1830's by Thomas Walker (Deputy Commissary General) who constructed a two storey dwelling on the property known as 'Euroka' and the original Stables Building. The original dwelling was constructed on the elevated and flatter north-eastern portion of the site, taking advantage of the views over Sydney Harbour and beyond. The adjacent detached sandstone stables are the oldest examples of stables in North Sydney and were also believed to have been constructed about this time. The lower lawn area near Union Street was originally cultivated as an orchard c.1840 and the area between the house and orchard terraced and a vineyard established about the same time.[7]

5.3.3 During the ownership of Edwin Sayers (mid-1850's), Euroka was extended and subsequently called 'Euroka Villa'. Sayer also established formal gardens around the house and created the extensive terracing, which included a vineyard and orchard. The land is thought to have been used for grazing livestock following the failure of the orchard and vineyard.[7]

5.3.4 During the ownership of the property by Thomas Allwright Dibbs (c.1873), 'Euroka' was substantially altered and added to creating a new Victorian Italianate mansion that he renamed 'Graythwaite'. Graythwaite was constructed in c.1875, together with substantial landscaping and tree planting. The boundary plantings of *Ficus macrophylla* (Moreton Bay Fig) were planted c. 1875, together with the other Fig plantings on the embankments.[7] These include *Ficus rubiginosa f. rubiginosa* & *f. glabrescens* (Port Jackson Fig), *Ficus obliqua* (Small-leaf Fig) and other *Ficus sp.* (Small leaf Fig) [T38]. Other rainforest trees such as the *Stenocarpus sinuatus* (Queensland Firewheel Tree) [T41] and *Cryptocarya obovata* (Pepperberry Tree) [T44] and the tall *Araucaria columnaris* (Cook's Pine) [T49] and the *Dendrocalamas giganteus* (Giant Bamboo) are also likely to have been planted about this time. Whilst the Pepperberry is rare tree in Sydney (a similar specimen is located in Prince Alfred Park constructed about the same time), the other species are fairly typical of the Victorian Era. Remnants of two old Monterey Pines [T210 and stump adjacent T62] are also located within the site. It is understood that Pines may have formed some of the original plantings within the site.[7]

5.3.5 In 1916, Graithwaite was converted to a convalescent hospital following its donation by Thomas Dibbs to the Crown to provide for returned soldiers from the First World War. In 1918, it was further converted to a Hostel for long term cases of disablement. A number of *Washingtonia robusta* (Washington Palms) [T61, T61a, T190, T191 & T202] are thought to have been planted on the south side of Graythwaite about this time. It continued use as a Convalescent Home by the Red Cross up until 1977, and later by the NSW Department of Health.[7] The avenue of Brushbox and Camphor Laurels lining the main driveway from Union Street probably date back to the Inter-war period (c.1915-1940), being fairly typical of this era. The original planting was alternate Brushbox then Camphor Laurel, again characteristic of this period and originally extended along the whole length of the driveway. Later some of these plantings south of the house were removed, possibly due to conflict with views over Sydney Harbour.[1] Two Lombardy Poplars appear to be the remnant of a more extensive row or avenue planting of Poplars. According to the Heritage Branch (DoP), new plantings of Chinese Poplar were planted in the late 1990's to replace Lombardy Poplars that succumbed to Poplar Rust.[7] Only a few of the Chinese Poplars remain.

5.3.6 The gardens have endured a long period of neglect, with much of terraced embankments overgrown with a variety of weed species and other colonising trees including *Ligustrum lucidum* (Large-leaved Privet), *Olea europea var. africana* (African Olive) and *Pittosporum undulatum* (Native Daphne). This now forms a densely vegetated area. A number of weed species have also infested the gardens on the eastern side of the driveway including *Salix babylonica* (Weeping Willow), *Robinia pseudoacacia* (Black Locust) and some semi-mature *Cinnamomum camphora* (Camphor Laurel) which are likely to be progeny of the Inter-war avenue plantings. Regrowth of *Erythrina x sykesii* (Indian Coral Tree) and *Populus alba* (Silver Poplar) at the edges of the terrace areas may reflect earlier plantings of these species.[7]

5.3.7 A number of fairly recent native plantings have been undertaken on the site (since the late 1990's), particularly alongside the main driveway. Most of the species used are indigenous to the Sydney Basin, but are not necessarily locally-indigenous to this site. It is understood that these plantings have been undertaken by local community gardening and 'bush regeneration' groups.[7] These new plantings are completely unsympathetic with the original Victorian plantings and landscape.

5.3.8 A Significant Tree Register also exists within the North Sydney LGA. Trees listed on the register are afforded the same level of protection as the Tree Preservation Order.

5.4 Amenity Value

5.4.1 Criteria for the assessment of amenity values are incorporated into **Appendix 1**. The amenity value of a tree is a measure of its live crown size, visual appearance (form, habit, crown density), visibility and position in the landscape and contribution to the visual character of an area. Generally the larger and more prominently located the tree, and the better its form and habit, the higher its amenity value.

6 RETENTION VALUES

6.1.1 The Retention Values shown in **Appendix 3** and **Appendix 5** have been determined on the basis of the estimated longevity of the trees and their landscape significance rating, in accordance with **Table One**. Together with guidelines contained in **Section 7** (Tree Protection Zones) this information should be used to determine the most appropriate position of building footprints and other infrastructure within the site, with due consideration to other site constraints, to minimise the impact on trees considered worthy of preservation.

TABLE 1 – TREE RETENTION VALUES – ASSESSMENT METHODOLOGY

	Landscape Significance Rating						
Estimated Life Expectancy	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Long - Greater than 40 Years	High Retention Value						
Medium- 15 to 40 Years			Moderate Retention Value				
Short - 5 to 15 years				Low Ret. Value			
Transient - Less than 5 Years					Very Low Retention Value		
Dead or Potentially Hazardous							

TREE PROTECTION ZONES

7.1.1 In order to provide adequate protection for trees nominated as suitable for preservation, Tree Protection Zones (TPZ) are required to provide adequate setbacks from buildings and other infrastructure to minimise adverse impact. The Tree Protection Zone is a radial distance measured from the centre of the trunk of the tree as specified in **Appendix 4**. The intention of the Tree Protection Zone is to minimise incursions to the root system and canopy to ensure the long-term health and stability of each tree to be retained. Incursions to the root zone may occur due to changes in ground levels, (either lowering or raising the grade), trenching or other forms or soil disturbance such as ripping, grading or inverting the soil profile. Tree Protection Zones for each tree are shown in **Appendix 4**. These have been calculated in accordance with AS 4970-2009 (Protection of Trees on Development Sites).[8]

7.2 Structural Root Zone (SRZ)

7.2.1 The Structural Root Zone (SRZ) provides the bulk of mechanical support and anchorage for a tree. Incursions within the SRZ are not recommended as they are likely to result in the severance of woody roots which may lead to the destabilisation and/or demise of the tree. The SRZ for each tree has been shown in **Appendix 4**. These have been calculated in accordance with AS 4970-2009 (Protection of Trees on Development Sites).

7.3 Acceptable Incursions to the Tree Protection Zone.

7.3.1 Where encroachment to the TPZ is unavoidable, an incursion to the TPZ of not exceeding 10% of the area of the TPZ and outside the SRZ may be acceptable. Examples of acceptable incursions are shown in **Appendix 2**. Greater incursions to the TPZ may result in an adverse impact on the tree. Where incursions greater than 10% of the TPZ are unavoidable, exploratory excavation using non-destructive methods may be required to evaluate the extent of the root system affected and determine whether or not the tree can remain viable

7.4 Acceptable Incursions to the Canopy.

7.4.1 The removal of a small portion of the crown (foliage and branches) is generally tolerable provided that the extent of pruning required is less than 10% of the total foliage volume of the tree and the removal of branches does not create large wounds or disfigure the natural form and habit of the tree. All pruning cuts must be undertaken in accordance with AS 4373:2007. This generally involves reduction of the affected branches back to the nearest branch collar at the junction with

the parent branch, rather than at an intermediate point. The latter is referred to as "lopping" and is no longer an acceptable arboricultural practice. Generally speaking, the minimum pruning as required to accommodate any proposed works is desirable. Extensive pruning can result in a detrimental impact on tree health and may lead to exposure of remaining branches to wind forces that they were previously sheltered from, leading to a greater risk of branch failure.

7.4.2 Clearance to between the building line and canopy should take into account any projecting structures, such as balconies, awnings and the roofline and any requirement for temporary scaffolding to be erected during construction (typically 1-1.5 metres wide). High structures should preferably be located outside the canopy dripline (as shown indicatively on the attached plans) in order to avoid or minimise canopy pruning.

8 PROPOSED DEVELOPMENT

8.1.1 The proposed development includes the progressive development of the site in three (3) main stages. The first stage will include the conservation and refurbishment of Graythwaite House and the Coach House and adaptive re-use for school administration and meeting rooms. The Tom O'Neill Building will also be refurbished for multipurpose student activities, together with associated landscape works, stormwater drainage and earthworks on the lower and middle terraces. Site access, parking facilities and fencing will also be improved. The existing masonry wall, steps, fence and gates on the Union Street frontage will be replaced with a new sandstone wall ('plinth'), timber picket fence and gates in a similar position. The existing driveway / roadway from Union Street will be preserved, but a reinforced grass verge may be constructed on the western edge of the driveway to permit vehicle passing.

8.1.2 The second stage will include the development of a new education/administration building to the north of Graythwaite House, demolition of the Ward Building and construction of two new buildings to the east of the House for classrooms and other educational facilities, integrated with existing buildings within Shore.

8.1.3 Stage 3 will involve the construction of new buildings to the west of the Graythwaite House for classrooms and other educational facilities.

9 IMPACT ASSESSMENT

9.1.1 The intention of this assessment is to determine the incursions to the root zones and canopies created by the proposed development and evaluate the likely impact of the proposed works on the subject trees. Details shown on the following plans were used in this assessment:-

Title	**Author**	**Dwg No.**	**Date**
Level 1 Plan	PD Mayoh Architects	0910 / A.100 Rev G	16/09/2011
Level 2 Plan	PD Mayoh Architects	0910 / A.101 Rev G	16/09/2011
Level 3 Plan	PD Mayoh Architects	0910 / A.102 Rev G	16/09/2011
Sections A, B + C	PD Mayoh Architects	0910 / A.161 Rev G	16/09/2011
Construction Management Plan	WSP Environment & Energy	2015_Graythwate_CMP	September 2010
Conservation Management Plan	Tanner Architects	09 0821 / P3	August 2010
Landscape Master Plan	Taylor Brammer Landscape Architects	LT 001/E, LT 002/E,	16/09/2011

Landscape Plan - North	Taylor Brammer Landscape Architects	LT 002/E	20/09/2011
Tree Removal & Retention Plan & Schedule	Taylor Brammer Landscape Architects	LT 003/D, LT 004/D	18/10/2011
Landscape Hardworks	Taylor Brammer Landscape Architects	LT 005/C	16/09/2011
Landscape Softworks	Taylor Brammer Landscape Architects	LT 006/C	16/09/2011
Proposed Front Fence	Tanner Architects	AR.DA.5001 / Rev B	09/05/2011
Concept Stormwater Management Plan	ACOR Appleyard	SY100450 / C1.02 /E	16/06/2011

9.1.2 A summary of the impact of the proposed development on each tree within the site is shown in **Appendix 5**. The following criteria have been examined as part of this assessment:-

- Existing Relative Levels (R.L.);
- Tree Protection Zone (TPZ);
- Structural Root Zone (SRZ);
- Footprint and envelope of the proposed development and temporary structures (scaffolding, hoardings etc);
- Incursions to the TPZ & SRZ, including estimated cut & fill beyond the building footprint;
- Incursions to the tree canopy from the building envelope and temporary structures; and
- Assessment of the likely impact of the works on existing trees.

9.1.3 The proposed development involves the removal of eighty-seven (87) trees of low and very low retention value. These include Tree No.s T2, T6, T10, T11, T12, T13, T14, T15, T16, T17, T19, T20, T21, T23, T27, T28, T29, T31, T32, T33, T35, T36, T47, T50, T52, T59, T62, T64, T65, T66, T67, T68a, T69, T70, T70a, T88, T91, T92, T92a, T93, T93a, T94, T95, T96, T97, T98, T101, T102, T103, T111, T122, T124, T128, T130, T133, T137, T137b, T37c, T138, T139, T143, T149, T150 T152, T153a, T154, T158, T163, T169, T170, T172, T173, T176, T178, T187, T188, T189, T203, T204, T205, T206, T207, T208, T210, T213, T215 & T216. None of these trees are considered significant or worthy of special measures to ensure their preservation. Most of these trees are Environmental Weed Species and are proposed to be removed to make way for more appropriate plantings. It should be noted that T2 (Chinese Tallow) is located on Council's nature strip. Not also that Tree No.s T122, T124, T128, T130, T133, T143, T149, T150 & T153a (all African Olive trees) and T215 & T216 (Oleanders) are exempt from Council's Tree Preservation Order. It should be noted that whilst T163 (a Port Jackson Fig) is considered to be of High Landscape Significance, it has been destabilised and is only supported by a large prop root. As such, the removal of this tree to accommodate the proposed development is considered warranted. Note that Large-leaf Privet (Tree No.s T47, T152, T176 & T189) whilst listed as a Noxious Weed, is protected under Council's TPO where located within the site of a Heritage Item.

9.1.4 The proposed development will also involve the removal of eleven (11) trees of moderate retention value. These include Trees T63 (Woolly Rambutan) T53, T54, T55, T56, T57, T58, (Leyland Cypress), T171 (Carob Bean), T139 (Pittosporum), T193 (Norfolk Island Hibiscus) and T196 (Cooks Pine). These trees are not considered significant, but are in good health and condition and make a fair contribution to the amenity of the site and surrounding properties. Most of these trees are relatively small and could be replaced in the short term with new tree planting elsewhere within the site.

9.1.5 A further seven (7) trees are proposed to be relocated (transplanted) elsewhere within the site. These include Trees T42, T61, T61a, T190, T191 & T201 (all Cotton Palms) and T200

(Frangipani). All of these trees are feasible to transplant with a low risk of fatality provided that the work is undertaken in accordance with proper horticultural practice.

9.1.6 Demolition of the boundary fence and low masonry wall and steps on the Union Street frontage and replacement with a new fence incorporating a sandstone plinth and timber picket fence (together with sandstone piers and automatic gates) is located within the TPZ, of Trees T1, T3, T5 (Chinese Tallow trees on the nature strip), T4 (Brushbox), T7a (Bangalay) and T8 (Camphor laurel). As the new fence is being installed in approximately the same location as the existing fence, the proposed works should not result in any adverse impact on these trees. As a precautionary measure, demolition of the existing fence, wall and steps should be undertaken in accordance with Section 13.18 and any excavations for the footings of the proposed fence and gates should be undertaken in accordance with Section 13.19.

9.1.7 A proposed reinforced turf verge is proposed to be installed along the western side of the existing driveway to permit sufficient clearance for two vehicles approaching in opposite directions to pass one another. This work may involve the demolition of the existing kerb and some grading and levelling along the edge of the roadway within the TPZ/SRZ of Trees T8 (Camphor laurel) and T9, T25 & T26 (Brushbox). Grading and excavations for the sub-base of the reinforced turf may potentially result in some root damage to these trees leading to an adverse impact. In order to minimise any adverse impact on these trees demolition of the existing kerb (where required) should be undertaken in accordance with Section 13.18 and any excavations for the sub-grade of the reinforced turf should be undertaken in accordance with Section 13.19.

9.1.8 Re-grading of the middle and lower grassed terrace areas is located within the TPZ of a number of trees located around the periphery of these areas, with some trees located centrally within the terraces (T159, T160, T165 & T166). Exact new ground levels have not yet been determined, however, grading and removal of soil in these areas may potentially result in root damage to some of the trees in close proximity. In order to minimise any adverse impact on these trees, excavations (reduction in grade) should be limited to no more than 100mm below surface level within the TPZ of trees to be retained and placement of fill should not exceed 150mm above grade within the TPZ. Surface levels should be maintained as existing within the SRZ of all trees in proximity to the terraces. Imported soil materials should be clean friable material equivalent or coarser in texture than the existing site topsoil.

9.1.9 Trenching for the proposed stormwater drainage system is located within the Tree Protection Zones of Trees T8, T30, T34 & T37 (Camphor Laurel), T9, T24, T25, T26, T165, T166, T194 & T192 (Brushbox), T38 (Small-leaf Fig), T211 (Moreton Bay Fig), T214 (Tuckeroo) & T60 (Port Jackson Fig). In instances where the trenching passes within the SRZ (T8, T9, T24, T25, T26 & T38), consideration should be given to installing the pipeline by thrust boring beneath the root plate as detailed in Section 13.20. The Invert level of the pipeline should be at least 1.0 metre below surface level to clear the root plate. Trenching within the TPZ's of the remaining trees should be undertaken in accordance with Section 13.20.

9.1.10 Some pruning of T214 (Tuckeroo) may be required to clear the proposed northern building. The proposed pruning work will not result in any adverse impact on this tree provided that the pruning work is undertaken as recommended. In order to minimise pruning, temporary scaffolding on the northern side of the building should be limited to one metre in width and erected in accordance with Section 13.24.

9.1.11 Further diagnostic testing of T60 has been recommended to ascertain the structural integrity of this tree. If the tree is severely defective, its removal may be warranted.

9.1.12 It is understood that community concern has been raised during the public exhibition process as to the impact on existing trees of alteration to the hydrology of the site as a result of excavations for new building foundations and installation of stormwater drainage. The majority of the stormwater

drainage connects existing buildings and hard surfacing to Union Street and will not interrupt subsurface water flows downslope. Some surface drainage work is also proposed in the central and lower lawn terrace area to improve the usability of the existing turf area. This system will be relatively shallow and again should not have any significant impact on ground water flows. As such, the works should not result in any adverse impact on trees located down slope of the terraces. Construction of the West Building may result in a local disruption to groundwater flows down slope (west) of this building and has the potential to result in some adverse impact on T179 – T183 (Moreton Bay Figs). This potential impact can be mitigated by diverting a portion of the stormwater (otherwise captured & diverted to a detention tank) to a stormwater dispersal trench along the western side of the building upslope of the trees, as proposed in the revised Concept Stormwater Management Plan.

9.1.13 No other trees will be adversely affected by the proposed development.

10 REPLACEMENT PLANTING

10.1.1 In order to compensate for any loss of amenity resulting from the removal of trees to accommodate the proposed development, new trees should be planted in appropriate positions within the site in accordance with the Landscape Plan. Replacement trees should preferably include species that are sympathetic with the original Victorian era of landscape design. These generally include broadleaved evergreen trees (such as Figs and evergreen Oaks), but may include a variety of Australian Native Rainforest trees (e.g. *Flindersia sp*., *Syzygium sp.*, *Acmena sp*., *Stenocarpus sp*., *Waterhousea sp*.), Australian conifers (*Araucaria sp.*, *Callitris sp.* & *Agathis sp.*) [particularly those with symetrical architectural form] and palms including *Washingtonia sp., Jubaea sp*. and *Kentia sp*.). Trees of unusual form or flowering display (e.g. *Brachychiton discolour*, *Stenocarpus sinuatus*, *Grevillea robusta* etc) were also favoured in Victorian landscapes and would be in keeping with the original design. This is consistent with Section 6.5.2 and Section 6.6.11 of the Conservation Management Plan.

11 CONCLUSIONS:-

11.1.1 A total of two hundred and forty (240) trees stand within the site and in close proximity to the boundaries on adjoining properties. These are a mix of native and exotic species in fair to good health and condition. A number of the trees, mostly Figs, are remnant of the original gardens laid out by Thomas Dibbs in 1875. The older plantings are typical of the Victorian era and are considered to be significant. Plantings of Camphor Laurels, Brushbox and Lombardy Poplars are more likely to have occurred in the Inter-war period. Whilst not as significant as the older plantings they are still of heritage importance given the use of the site. The grounds have undergone a long period of neglect, possibly dating back to the 1960's. During this time perennial weeds species and Pittosporums have colonised large areas of the site forming dense thickets. Whilst some attempt has been made to eradicate weeds by the local community there are still densely wooded areas within the site particularly over the steep embankments in the central portion of the site. Some of these include species such as *Erythrina x sykessii, Populus alba* and *Robinia pseudoacacia* that may be progeny of original plantings (or inter-war period plantings) of the same species.

11.1.2 The proposed development will involve the removal of eighty-seven (87) trees of low and very low retention value. None of these trees are considered significant or worthy of special measures to ensure their preservation. Most of these trees are Environmental Weed Species and are proposed to be removed to make way for new, more appropriate plantings. With exception of T163, which is unstable, and T210, which is almost dead, all trees identified as being of heritage significance in the Conservation Management Plan are proposed to be retained as part of the development. Further diagnostic testing of T60 has been recommended to ascertain the structural integrity of this tree. If the tree is severely defective, its removal may be warranted.

11.1.3 The proposed development will involve the removal of a further eleven (11) trees of moderate retention value. These trees are not considered significant, but are in good health and condition and make a fair contribution to the amenity of the site and surrounding properties. Most of these trees are relatively small and could be replaced in the short term with new tree planting elsewhere within the site.

11.1.4 A further seven (7) trees are proposed to be relocated (transplanted) elsewhere within the site. All of these trees are feasible to transplant with negligible risk provided that the work is undertaken in accordance with proper horticultural practice.

11.1.5 Demolition of the boundary fence and low masonry wall and steps on the Union Street frontage and replacement with a new fence should not result in any adverse impact on the adjacent trees provided that the trees are adequately protected during construction (as detailed following).

11.1.6 Grading and excavations for the sub-base of the reinforced turf verge be installed along the western side of the existing driveway may potentially result in some root damage to Trees T8, T9, T25 & T26, leading to an adverse impact on these trees. Avoiding ground level changes will minimise any adverse impact on these trees.

11.1.7 Re-grading of the middle and lower grassed terrace areas may potentially result in root damage to some of the trees in located around the periphery of these areas. However, any adverse impact can be avoided by undertaking these works as recommended.

11.1.8 Trenching for the proposed stormwater drainage system is located within the Tree Protection Zones of a number of trees. Any adverse impact on these trees can be avoided by installing the pipeline by thrust boring where is passes within the SRZ with a minimum of one metre cover in accordance with the following recommendations. Trenching within the TPZ, but outside the SRZ should be carried out in accordance with section 13.20.

11.1.9 Excavations for the foundations of the West Building may potentially disrupt ground water flows to trees located downslope of the building (T179-T183), resulting in some adverse impact on these trees. However, this impact can be mitigated by diverting some of the otherwise captured stormwater to a dispersal trench (or similar) along the western side of the building, upslope of the trees as proposed under the revised concept stormwater management plan.

11.1.10 No other trees will be adversely affected by the proposed development.

12 RECOMMENDATIONS:-

12.1.1 The following Tree Management Plan (Section 13) should be implemented to ensure the long term survival of all trees within the site to be retained as part of the development

12.1.2 As a precautionary measure, demolition of the existing fence, wall and steps on the Union Street frontage should be undertaken in accordance with Section 13.18 and any excavations for the footings of the proposed fence and gates should be undertaken in accordance with Section 13.19.

12.1.3 In order to minimise any adverse impact on Trees T8, T9, T25 & T26, demolition of the existing kerb (where required) should be undertaken in accordance with Section 13.18 and any excavations for the sub-grade of the reinforced turf should be undertaken in accordance with Section 13.19.

12.1.4 In order to minimise any adverse impact on trees located within and around the periphery of the middle and lower terrace areas, all excavations (reduction in grade) should be limited to no more than 100mm below surface level within the TPZ of trees to be retained and placement of fill should not exceed 150mm above grade within the TPZ. Surface levels should be maintained as existing

within the SRZ of all trees in proximity to the terraces. Imported soil materials should be clean friable material, equivalent or coarser in texture than the existing site topsoil.

12.1.5 Proposed stormwater pipelines within the SRZ of trees T8, T9, T24, T25, T26 & T38 should be installed by thrust boring beneath the root plate as detailed in Section 13.20. The Invert level of the pipeline should be at least 1.0 metre below surface level to clear the root plate.

12.1.6 Trenching for the proposed stormwater drainage system within the Tree Protection Zones of Trees T8, T30, T34 & T37 (Camphor Laurel), T9, T24, T25, T26, T165, T166, T194 & T192 (Brushbox), T38 (Small-leaf Fig), T211 (Moreton Bay Fig), T214 (Tuckeroo) and T60 & T205 (Port Jackson Fig) should be undertaken in accordance with Section 13.20.

12.1.7 Further diagnostic testing of T60 is recommended to ascertain the structural integrity of this tree. If the tree is severely defective, its removal to accommodate the proposed development may be warranted

12.1.8 In order to mitigate any adverse impact on T179-T183, a stormwater dispersal trench should be installed on the western side of the building to divert some of the roof water into the soil profile downslope of the building.

Andrew Morton
EARTHSCAPE HORTICULTURAL SERVICES
19th October 2011

13 TREE MANAGEMENT PLAN (TREE PROTECTION SPECIFICATIONS)

13.1 Introduction

13.1.1 This specification provides tree protection measures to be implemented prior to and during construction to ensure the long term health and preservation of trees to be retained as part of the site development.

13.2 Site Arborist

13.2.1 A qualified consulting arborist ('Site Arborist') should be appointed to undertake regular inspections of the site to ensure compliance with the specified tree protection measures and monitor tree health.

13.2.2 The Site Arborist should have the following minimum qualifications:-

- Minimum five (5) years industry experience in the field of arboriculture, horticulture with relevant demonstrated experience in tree management on construction sites; and
- Diploma level qualifications in arboriculture [Australian Qualification Framework (AQF) Level 5];

13.3 Site Management Plan

13.3.1 Prior to commencement of any work on site, the Traffic Management Plan and Site Management Plan should be submitted to the Site Arborist for review and comment in order to resolve any potential issues or conflicts between tree protection and site management & vehicle movements.

HOLD POINT – The Site Management Plan and Traffic Management Plan shall be submitted to the Site Arborist prior to commencement of any work on site.

13.4 Site Inspections

13.4.1 Inspections should be conducted by the Site Arborist in accordance with the following key milestones:-

- Prior to any work commencing on-site (including demolition, earthworks or site clearing) and following installation of tree protection fences or other specified tree protection devices (e.g. Trunk Protection, Ground Protection etc);
- During removal of pavements or demolition of any structure within the Tree Protection Zone of any tree to be retained & protected;
- During any excavation within the nominated Tree Protection Zone of any tree required to be retained & protected;
- At two-monthly intervals during the construction phase;
- Following completion of the building works and prior to commencement of any landscape works;
- During any landscape works within Tree Protection Zones; and
- At the completion of landscape works.

13.4.2 The Project Manager or Construction Manager shall be responsible to notify the Site Arborist prior to any works within the Tree Protection Zone with a minimum of 24 hours notice.

13.5 Certification/Reporting

13.5.1 Following each inspection the Site Arborist shall prepare a Statement of Compliance, certifying whether or not the works have been completed in compliance with this Plan and the conditions of development consent relating to tree protection. The Compliance Statements should contain

photographic evidence where required to demonstrate that the work has been carried out as specified. The Compliance Statements shall be submitted to the Planning NSW at the end of each month.

13.5.2 If conditions have been breached, remedial action shall be recommended to minimise any adverse impact on the subject trees.

13.6 Induction

13.6.1 All contractors, sub-contractors or other persons required to carry out work within Tree Protection Zones should be inducted prior to the commencement of that work. The induction should highlight the following requirements:-

- The requirement to protect trees within the site;
- The specific trees that are to be protected;
- The type of actions that could lead to potential damage (refer **Section 14.9**);
- Maintenance of any protective devices (fencing, trunk protection, ground protection etc) during the proposed works;
- Penalties imposed by Council for breach of Development Consent or breach of Council's Tree Preservation Order; and
- Contact details for the Site Arborist.

13.7 Tree Protection Zones

13.7.1 The Tree Protection Zone (TPZ) is a radial distance measured from the centre of the trunk of the tree as specified in **Appendix 4**. These have been calculated in accordance with AS 4970-2009 (Protection of Trees on Development Sites).[9]

13.7.2 The intention of the TPZ is to ensure protection of the root system and canopy from the potential damage from construction works and ensure the long-term health and stability of each tree to be retained. Incursions to the root zone may occur due to excavations, changes in ground levels, (either lowering or raising the grade), trenching or other forms or soil disturbance such as ripping, grading or inverting the soil profile. Such works may cause damage or loss of part of the root system, leading to an adverse impact on the tree.

13.8 Structural Root Zone (SRZ)

13.8.1 The Structural Root Zone (SRZ) provides the bulk of mechanical support and anchorage for a tree. This is also a radial distance measured from the centre of the trunk as specified in **Appendix 4**. The SRZ has been calculated in accordance with AS 4970-2009 (Protection of Trees on Development Sites). Incursions within the SRZ are not recommended as they are likely to result in the severance of woody roots which may compromise the stability of the tree or lead to its decline and demise.

13.9 Acceptable Incursions to the Tree Protection Zone.

13.9.1 Where encroachment to the TPZ is unavoidable, an incursion to the TPZ of not exceeding 10% of the area of the TPZ and outside the SRZ may be acceptable. Examples of acceptable incursions are shown in **Appendix 2**. Greater incursions to the TPZ may result in an adverse impact on the tree.

13.9.2 Where incursions greater than 10% of the TPZ are unavoidable, exploratory excavation using non-destructive methods may be required to evaluate the extent of the root system affected and determine whether or not the tree can remain viable (refer **Section 14.19**).

13.10 Tree Protection Fencing

13.10.1 All trees within the site to be retained shall be protected prior to and during construction from all activities that may result in detrimental impact by erecting a suitable protective fence beneath the canopy in the positions indicated on the Tree Protection Plan (**Appendix 6**). The fence shall consist temporary chain wire panels 1.8 metres in height, supported by steel stakes as required and fastened together and supported to prevent sideways movement (refer to **Figure 1**). The fence shall be erected prior to the commencement of any work on-site and shall be maintained in good condition for the duration of construction. Where tree protection zones merge together a single fence encompassing the area is deemed to be adequate.

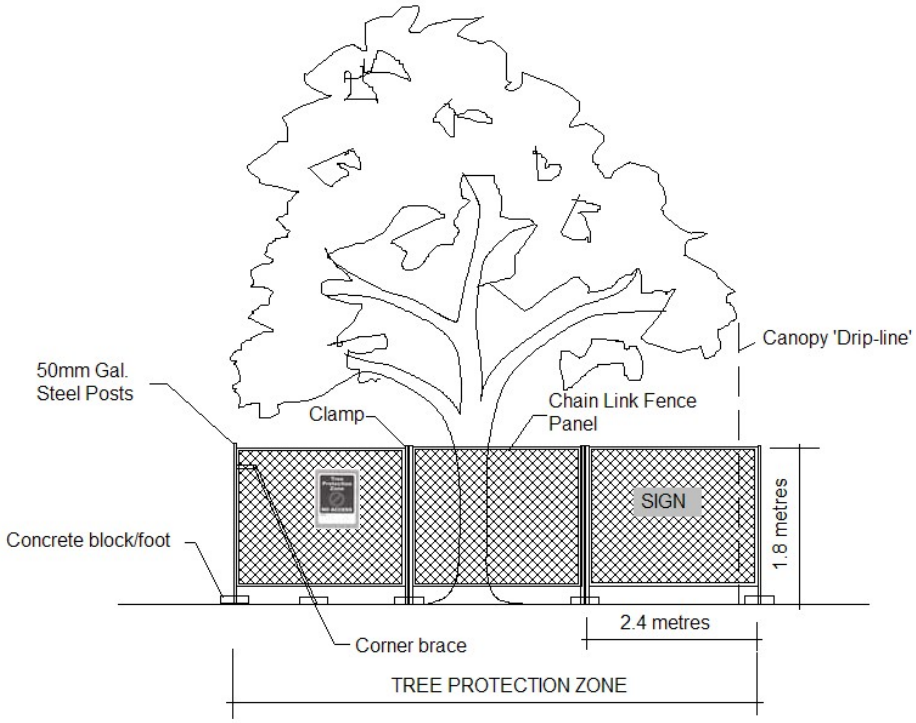


Figure 1 – Detail of Tree Protection Fence

13.11 Prohibited Activities

13.11.1 The following activities should be avoided within specified Tree Protection Zones:-

- Excavations and trenching (with exception of the approved foundations and approved underground services);
- Ripping or cultivation of soil;
- Mechanical removal of vegetation;
- Soil disturbance or movement of natural rock;
- Soil level changes including the placement of fill material (excluding that associated with the approved works);
- Stockpiling of spoil;
- Stockpiling of bulk materials such as soil, gravel, sand or similar materials;
- Storage or stockpiling of building materials, demolition waste, other waste and waste receptacles;
- Disposal of waste materials and chemicals including paint, solvents, cement slurry, fuel, oil and other toxic liquids;
- Movement and storage of plant, equipment & vehicles;
- Erection of site sheds;

- Affixing of signage or hoardings to trees;
- Other physical damage to the trunk or root system; and
- Any other activity likely to cause damage to the tree.

13.11.2 In some instances, proposed building footprints, roadways, services and other infrastructure may overlap with the recommended Tree Protection Zones. Details of the potential issues and recommendations are shown in the attached Impact Assessment Schedule (**Appendix 4**). In these cases, special provisions must be made for the protection of those trees, as per the recommendations column.

13.12 Signage

13.12.1 Signs shall be installed on the Tree Protection Fence to prevent unauthorised movement of plant and equipment or entry to the Tree Protection Zone. The signs shall be securely attached to the fence using cable ties or equivalent. Signs shall be placed at minimum 10 metre intervals. The wording and layout of the sign shall comply with AS 4970-2009 as shown in Figure 2.

Figure 2 – Detail of Tree Protection Sign

13.13 Ground Protection

13.13.1 A 100mm layer of woodchip mulch shall be installed within designated areas of the Tree Protection Zone of nominated trees as indicated on the Tree Protection Plan (**Appendix 6**) to minimise compaction of the underlying soil profile. A Geotextile fabric, such as Geotex® 'ST' Series manufactured by Synthetic Industries or an equivalent product, shall be installed beneath the mulch layer to minimise compaction to the underlying soil profile and limit migration of mulch into the underlying soil profile. Mulch shall be installed and spread by hand to avoid soil disturbance and compaction within the root zone. Ground protection should be installed prior to any site works and maintained in good condition for the duration of the construction period. On completion of the works, ground protection should be removed without damage or disturbance to the underlying soil profile.

13.14 Trunk Protection

13.14.1 Where provision of tree protection fencing is in impractical due to its proximity to the proposed building footprint, trunk protection shall be erected around nominated trees to avoid accidental damage (**Appendix 6**). The trunk protection shall consist of two (2) metre lengths of softwood timbers (90 x 45mm in section) spaced at 100-150mm centres around the trunk and secured together with 2mm galvanised wire or galvanised hoop strap as shown in Figure 3. Recycled timber

(such as demolition waste) may be suitable for this purpose, subject to the approval of the Site Arborist. The timbers shall be wrapped around the trunk, but not fixed to the tree to avoid mechanical injury or damage to the trunk. Trunk protection should be installed prior to any site works and maintained in good condition for the duration of the construction period.

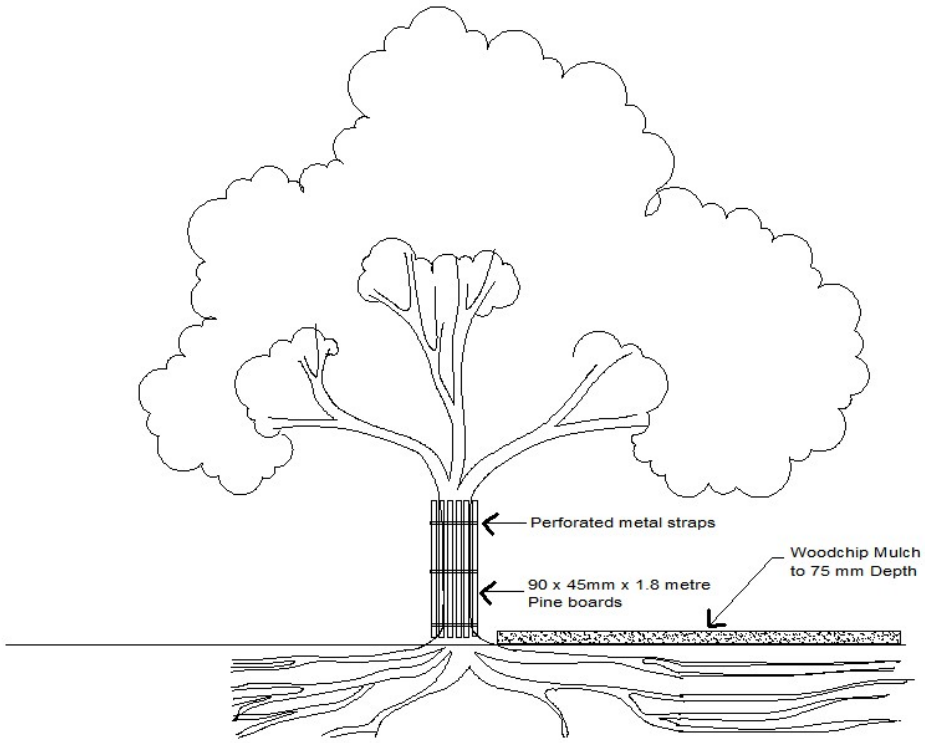


Figure 3 – Detail of Tree Protection Fence

HOLD POINT – The Site Arborist shall inspect Tree Protection Fences, Trunk Protection, Ground Protection and any other specified tree protection devices following their installation and prior to commencement of any other work on site.

13.15 Site Establishment

13.15.1 Where site sheds are required as part of the project, these should be located on existing hardstand areas where possible. Subject to approval of the Site Arborist, site sheds may be located within Tree Protection Zones, provided that they can be installed and removed without disturbance to the ground levels and without damage or pruning of the foliage and branches. Where all-weather surfaces are required beneath or around the site sheds, ground protection shall be installed as per **Section 13.13**. Gravel, roadbase or crushed concrete is *not* suitable for this purpose.

13.15.2 Where temporary services are required, these shall be installed above ground within TPZ's. Where in-ground utilities are required, these shall be installed outside designated Tree Protection Zones. If trenching is required within Tree Protection Zones, the prior approval of the Site Arborist must be sought.

13.15.3 Compounds for storage of equipment and materials shall be located outside designated Tree Protection Zones. No storage or stockpiling of materials is permitted within Tree Protection Zones.

13.15.4 Care shall be taken when operating cranes, drilling rigs and similar equipment near trees to avoid damage to tree canopies (foliage and branches). Under no circumstances shall branches be torn-off by construction equipment. Where there is potential conflict between tree canopy and construction activities, the advice of the Site Arborist must be sought.

13.16 Site Clearing & Tree Removal

13.16.1 Trees to be removed as part of the proposal are nominated in the attached schedule (**Appendix 4**) and indicated on the Tree Protection Plan (**Appendix 6**) with a dashed line. All trees within the Site are protected under Council's Tree Preservation Order. The approval of the North Sydney Council shall be obtained prior to the removal or pruning of any tree protected under the Tree Preservation Order.

13.17 Temporary Construction/Demolition Haul Roads

13.17.1 Temporary construction haul roads shall be limited to the existing site roadways and pathways to avoid soil disturbance and compaction within Tree Protection Zones, as shown on the Tree Protection Plan (**Appendix 6**). If deviation from the designated haul routes and site access points is required for any reason, the approval of the Site Arborist must be obtained.

13.17.2 Where haul roads transect Tree Protection Zones and there is no existing paved surface, temporary ground protection shall be installed. Ground protection shall consist of temporary rumble boards (steel or plywood sheets) underlain by sand or no-fines aggregate (e.g. blue metal) underlain by a suitable geotextile material. The existing topsoil and ground vegetation layer shall be retained intact and undisturbed. Upon completion of demolition and construction works, the rumble boards underlying sub-base material and geotextile material shall be removed without disturbance of the underlying soil profile.

13.18 Demolition Works

13.18.1 Demolition of pathways and paved areas within the Tree Protection Zone of trees to be retained shall be undertaken under the supervision of the Site Arborist. Any asphalt pavement surface and sub-base shall be stripped-off in layers of no greater than 50mm thick using a small rubber tracked excavator or alternative approved method to avoid damage to underlying roots and minimise soil disturbance. The machine shall work within the footprint of the existing paved area to avoid compaction of the underlying soil. The final layer of sub-base material shall be removed using hand tools were required to avoid compaction of the underlying soil profile and damage to woody roots.

13.18.2 Following removal of the pavement surface and sub-base, clean, friable topsoil shall be used to fill in the excavated area and bring flush with surrounding levels (where necessary). Soil shall only be imported and spread when the underlying soil conditions are dry to avoid compaction of the soil profile.

13.18.3 Demolition of the existing retaining walls or other structures, concrete slabs or footings within the Tree Protection Zone of trees to be retained shall be undertaken under the supervision of the Site Arborist. Equipment used in demolition works within Tree Protection Zones shall work only within areas that suitable ground protection has been installed in accordance with **Section 13.12**. Light weight equipment such as small rubber tracked excavators and small 2-3 tonne tipper trucks should be used for demolition works within TPZ's to minimise compaction and ground disturbance.

13.18.4 Care shall be taken during demolition works to avoid damage to the root systems, trunks and lower branches of trees in the vicinity of existing buildings, particularly when using cranes, excavators drilling rigs and the like near or beneath the canopy.

HOLD POINT – Following demolition and prior to excavation of stuctural footings or pavements, the Site Arborist shall inspect the site and verify whether any damage to trees has occurred during demolition works.

13.19 Excavations within Tree Protection Zones

13.19.1 Prior to excavations for foundations of new structures or buildings within Tree Protection Zones, exploratory excavation shall be undertaken by hand or using an Air-spade® device to locate and expose roots along the perimeter of the foundation prior to any mechanical excavation taking place. All care shall be undertaken to preserve root systems intact and undamaged. Any roots less than 50mm in diameter shall be cleanly severed with clean sharp pruning implements at the face of the excavation. The root zone in the vicinity of the excavation shall be kept moist following excavation for the duration of construction to minimise stress on the tree.

13.19.2 Where large woody roots (greater than 50mm diameter) are encountered during excavations, further advice from the Site Arborist shall be sought prior to severance.

HOLD POINT – Following any exploratory excavation and prior to any mechanical excavations for the building footings, the Site Arborist shall inspect and undertake any required root pruning or provide further advise on methods to protect tree roots during construction.

13.20 Underground Services

13.20.1 All proposed stormwater lines and other underground services should be located as far away as practicable from trees to be retained to avoid excavation or trenching within the Tree Protection Zones.

13.20.2 Where the incursion to the Tree Protection Zone is less than 10% of the total TPZ (refer Appendix 4), a chain trenching device may be used for open trenching works. A backhoe or skid steer loader is unacceptable due to the potential for excessive compaction and root damage. Where large woody roots (greater than 50mm in diameter) are encountered during excavation or trenching, these shall be retained intact. If necessary, the service line should be re-routed or conduits inserted beneath woody roots to avoid root severance.

13.20.3 Excavations required for underground services within the Structural Root Zone of any tree to be retained should only be undertaken by sub-surface boring. The Invert Level of the pipe, plus the pipe diameter, must be lower than the estimated root plate (minimum 1.5 metres below ground surface level). Where this is not practical and open trenching is the only alternative, proposed root pruning should be assessed by the arborist to determine continued health and stability of the subject tree.

13.21 Canopy Pruning

13.21.1 All pruning works shall be carried out in accordance with Australian Standard No 4373-2007 – Pruning of Amenity Trees. All pruning work shall be carried out by a qualified and experienced arborist or tree surgeon in accordance with the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998) under the supervision of the Site Arborist.

13.21.2 Where pruning of any tree is required due to unforeseen circumstances, including site access or to facilitate materials handling or construction processes, prior approval for pruning works shall be obtained from North Sydney Council.

13.22 Root Pruning

13.22.1 All root pruning work shall be carried out in accordance with Australian Standard No 4373-2007 – Pruning of Amenity Trees. Written approval from Council may be required under the Tree Preservation Order prior to undertaking this work. All pruning work shall be carried out by a qualified and experienced arborist or tree surgeon in accordance with the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998).

13.22.2 Where root pruning is required, roots shall be severed with clean, sharp pruning implements and retained in a moist condition during the construction phase using Hessian material or mulch where practical. Severed roots shall be treated with a suitable root growth hormone containing the active constituents Indol-3-yl-Butric Acid (IBA) and 1-Naphthylacetic Acid (NAA) to stimulate rapid regeneration of the root system.

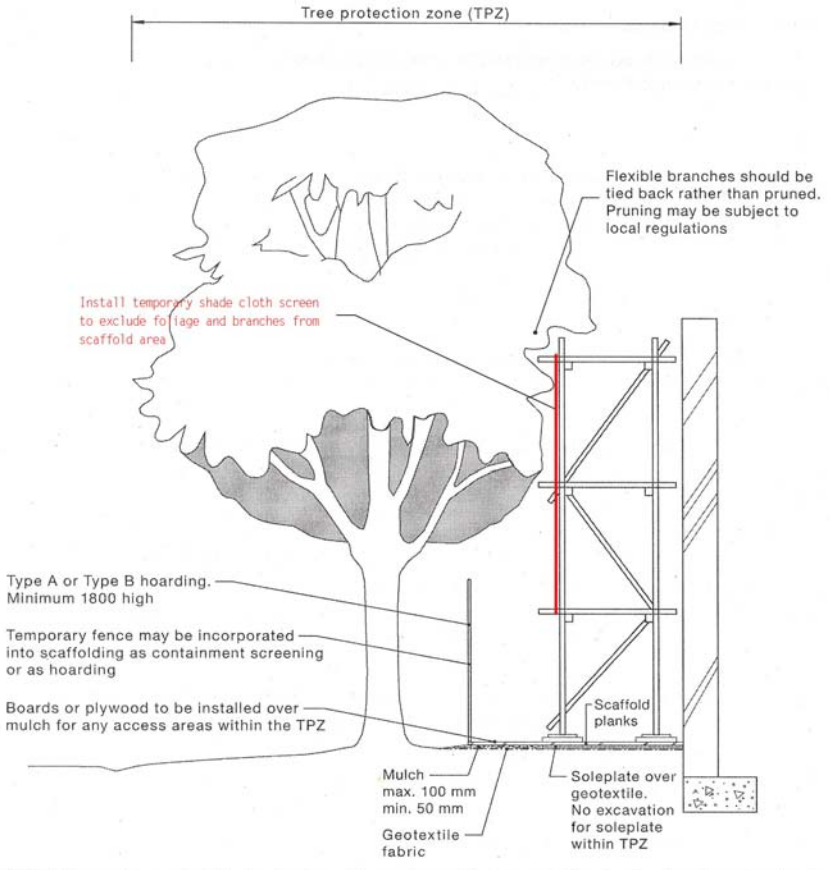
13.23 Tree Damage & Remedial Action

13.23.1 In the event of any tree becoming damaged for any reason during the construction period a the Site Arborist shall be notified to inspect and provide advice on any remedial action to minimise any adverse impact. Such remedial action shall be implemented as soon as practicable and certified by the arborist

13.24 Temporary Scaffolding

Temporary scaffolding shall be erected where required without pruning or removal of branches to accommodate the scaffold. Where foliage or branches project through the scaffold and create a safety hazard, such foliage and branches shall be temporarily excluded from the inner part of the scaffold by affixing a shade cloth screen on the outside of the scaffold, or alternatively temporarily tying back branches where required.

Where scaffold is required to be erected within the Tree Protection Zone of any tree to be retained, suitable ground protection shall be installed to prevent contamination, disturbance and compaction of the soil profile as shown in **Figure 5**.



NOTE: Excavation required for the insertion of support posts for tree protection fencing should not involve the severance of any roots greater than 20 mm in diameter, without the prior approval of the project arborist.

Figure 5 - Detail of Temporary scaffolding within a Tree Protection Zone

REFERENCES:-

[1] Tanner Architects (August 2010)
Graythwaite – Conservation Management Plan Volume 1 – Report No 09-0821
Tanner Architects, Sydney

[2] GA Chapman & CL Murphy (1989)
Soil Landscapes of the Sydney 1:100,000 Sheet
Soil Conservation Service of NSW. Sydney

[3] Benson, Doug & Howell, Jocelyn (1990)
Taken for Granted: the Bushland of Sydney and its Suburbs.
Kangaroo Press & The Royal Botanic Gardens, Sydney, NSW

[4] Mattheck, Dr. Claus & Breloer, Helge (1994) – Sixth Edition (2001)
The Body Language of Trees – A Handbook for Failure Analysis
The Stationery Office, London, England

[5] Barrell, Jeremy (1996)
Pre-development Tree Assessment
Proceedings of the International Conference on Trees and Building Sites (Chicago)
International Society of arboriculture, Illinois, USA

[6] Department of Planning, Heritage Branch (undated)
Heritage Database – Graythwaite and Outbuildings and Grounds
http://www.heritage.nsw.gov.au

[7] Department of Planning, Heritage Branch (March 2001)
State Heritage Register Listing - Graythwaite
http://www.heritage.nsw.gov.au

[8] Council of Standards Australia (August 2009)
AS 4970 – 2009 – Protection of Trees on Development Sites
Standards Australia, Sydney

[9] Council of Standards Australia (August 2009)
AS 4970 – 2009 – Protection of Trees on Development Sites
Standards Australia, Sydney

14 APPENDIX 1 - CRITERIA FOR ASSESSMENT OF LANDSCAPE SIGNIFICANCE

The level of landscape significance has been determined using the following key criteria as a guide:

1. SIGNIFICANT

- The subject tree is listed as a Heritage Item under the Local Environment Plan (LEP) with a local, state or national level of significance; or
- The subject tree forms part of the curtilage of a Heritage Item (building /structure /artefact as defined under the LEP) and has a known or documented association with that item; or
- The subject tree is a Commemorative Planting having been planted by an important historical person (s) or to commemorate an important historical event; or
- The subject tree is scheduled as a Threatened Species as defined under the *Threatened Species Conservation Act* 1995 (NSW) or the *Environmental Protection and Biodiversity Conservation Act* 1999; or
- The tree is a locally indigenous species, representative of the original vegetation of the area and is known as an important food, shelter or nesting tree for endangered or threatened fauna species; or
- The subject tree is a Remnant Tree, being a tree in existence prior to development of the area; or
- The subject tree has a very large live crown size exceeding 300m² with normal to dense foliage cover, is located in a visually prominent in the landscape, exhibits very good form and habit typical of the species and makes a significant contribution to the amenity and visual character of the area by creating a sense of place or creating a sense of identity; or
- The tree is visually prominent in view from surrounding areas, being a landmark or visible from a considerable distance.

2. VERY HIGH

- The tree has a strong historical association with a heritage item (building/structure/artefact/garden etc) within or adjacent the property and/or exemplifies a particular era or style of landscape design associated with the original development of the site; or
- The subject tree is listed on Council's Significant Tree Register; or
- The tree is a locally-indigenous species, representative of the original vegetation of the area and forms part of the assemblage of species of an Endangered Ecological Community;
- The subject tree has a very large live crown size exceeding 200m²; a crown density exceeding 70% Crown Cover (normal-dense), is a very good representative of the species in terms of its form and branching habit or is aesthetically distinctive and makes a positive contribution to the visual character and the amenity of the area.

3. HIGH

- The tree has a suspected historical association with a heritage item or landscape supported by anecdotal or visual evidence; or
- The tree is a locally-indigenous species and representative of the original vegetation of the area and the tree is located within a defined Vegetation Link / Wildlife Corridor or has known wildlife habitat value;
- The subject tree has a large live crown size exceeding 100m²; and
- The tree is a good representative of the species in terms of its form and branching habit with minor deviations from normal (eg crown distortion/suppression) with a crown density of at least 70% Crown Cover (normal); and
- The subject tree is visible from the street and surrounding properties and makes a positive contribution to the visual character and the amenity of the area.

4. MODERATE

- The subject tree has a medium live crown size exceeding 40m²; and
- The tree is a fair representative of the species, exhibiting moderate deviations from typical form (distortion/suppression etc) with a crown density of more than 50% Crown Cover (thinning to normal); and
- The tree makes a fair contribution to the visual character and amenity of the area; and
- The tree is visible from surrounding properties, but is not visually prominent – view may be partially obscured by other vegetation or built forms.
- The tree has no known or suspected historical association

5. LOW

- The subject tree has a small live crown size of less than 40m² and can be replaced within the short term with new tree planting; or
- The tree is a poor representative of the species, showing significant deviations from the typical form and branching habit with a crown density of less than 50% Crown Cover (sparse); and
- The subject tree is not visible from surrounding properties (visibility obscured) and makes a negligible contribution or has a negative impact on the amenity and visual character of the area.

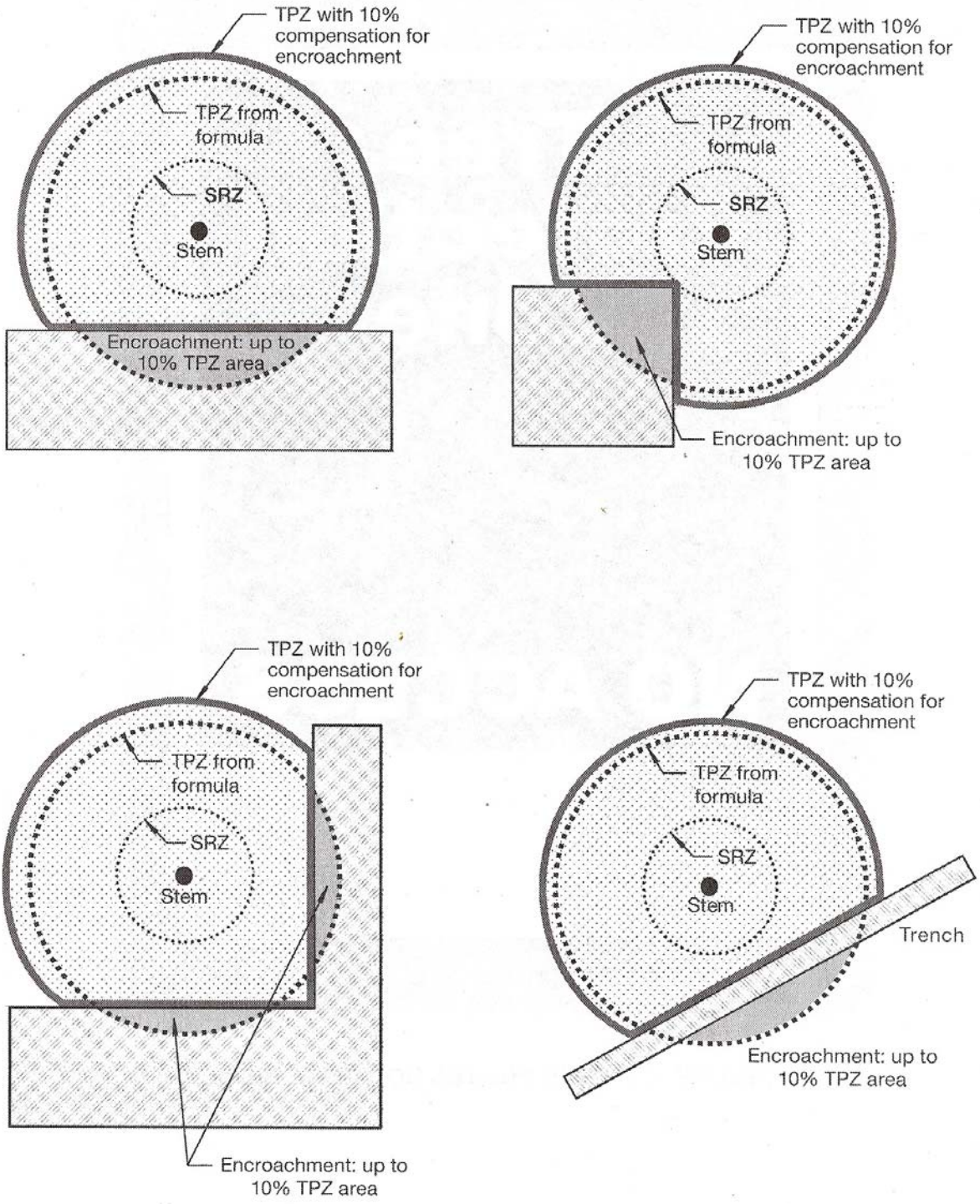
6. VERY LOW

- The subject tree is listed as an Environment Weed Species in the relevant Local Government Area, being invasive, or is a known nuisance species.
- The subject tree is scheduled as exempt (not protected) under the provisions of the local Council's Tree Preservation Order due to its species, nuisance or position relative to buildings or other structures.

7. INSIGNIFICANT

- The tree is a declared Noxious Weed under the *Noxious Weeds Act* (NSW) 1993; or
- The tree is completely dead and has no visible habitat value.

15 APPENDIX 2 – ACCEPTABLE INCURSIONS TO THE TREE PROTECTION ZONE (TPZ)



NOTE: Less than 10% TPZ area and outside SRZ. Any loss of TPZ compensated for elsewhere.

REF:- Council of Standards Australia (August 2009)
AS 4970 – 2009 – Protection of Trees on Development Sites
Standards Australia, Sydney

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	1	***Sapium sebiferum*** (Chinese Tallow tree)	6	7	252	28	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres. Tertiary limbs lopped to clear powerlines	Good	Low foliar insect infestation (Scale)	Long - more than 40 years	5	**moderate**	On-site
	2	***Sapium sebiferum*** (Chinese Tallow tree)	4.5	4	175	10	SM	Appears stable with fair branching structure. Exhibits multiple small wounds on lower trunk due mechanical injury.	Crown lifted to 2 metres. Secondary limbs lopped to clear powerlines	Fair	No Evidence	Short 5-15 Years	5	**low**	On-site
	3	***Sapium sebiferum*** (Chinese Tallow tree)	4.5	4	169	12	SM	Appears stable with fair branching structure. Exhibits multiple small wounds on lower trunk due mechanical injury. 15% epicormic growth.	Crown lifted to 2 metres. Tertiary limbs lopped to clear powerlines	Fair	Low foliar insect infestation (Leaf Miner). Moderate Possum defoliation	Short 5-15 Years	5	**low**	On-site
	4	***Lophostemon confertus*** (Brushbox)	9	11	707	82.5	M	Appears stable with fair branching structure. Moderate dieback in upper crown with 15% deadwood.	Primary limbs lopped south side to clear powerlines	Fair with thinning crown	No Evidence	Short 5-15 Years	2	**moderate**	On-site
	5	***Sapium sebiferum*** (Chinese Tallow tree)	5.5	5	296	22.5	M	Appears stable with poor branching structure. Exhibits multiple moderate wounds due to previous pruning.	Crown lifted to 2 metres. Topped at 2.5 metres & primary limbs lopped to clear powerlines	Fair	No Evidence	Short 5-15 Years	5	**low**	On-site
	6	***Ficus benjamina*** (Weeping Fig)	7.5	9	315	58.5	SM	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL. Crown suppressed on east side due to crowding. Immediately adjacent existing stairs & wall.	Crown lifted to 2 metres.	Very Good	No Evidence	Short 5-15 Years	4	**low**	On-site
	7	***Eucalyptus nicholii*** (New England Peppermint)	9	7	417	49	SM	Appears stable with fair branching structure. Exhibits moderate interior crown dieback with 10% deadwood. Multiple low bark inclusions at 4 metres.	Crown lifted to 3 metres.	Good	No Evidence	Short 5-15 Years	4	**low**	On-site
	7a	***Eucalyptus botryoides*** (Bangalay)	7	7	299	35	SM	Appears stable with fair branching structure. Crown suppressed on north side due to overshadowing. Some dieback with 5% deadwood & 10% epicormic growth.	Crown lifted to 2 metres.	Fair	Multiple insect galls on primary & tertiary limbs. Moderate Lace Lerp infestation	Transient (less than 5 years)	5	**very low**	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
53	8	***Cinnamomum camphora*** (Camphor Laurel)	12	17	650 + 560	170	M	Appears stable with fair branching structure. Large axial wound in primary limb 3 to 4 metres with decay & cavity. Moderate wounds due to previous pruning.	Selectively pruned	Fair with slight thinning crown	Low Possum defoliation.	Medium 15-40 Years	2	high	On-site
46	9	***Lophostemon confertus*** (Brushbox)	8	10	500 + 400	65	M	Appears stable with fair branching structure. Multiple axial wounds on lower trunk (suspected herbicide damage). Low bark inclusion at GL.	Crown lifted to 3 metres.	Good	No Evidence	Medium 15-40 Years	2	high	On-site
	10	***Robinia pseudoacacia*** (Black Locust)	7	6	250 + 160x2	30	M	Appears stable with poor branching structure. Exhibits multiple severe bark inclusions at GL. Moderate axial wounds on primary limbs (sunscald)	No Evidence	Fair with thinning crown	Low Possum defoliation.	Short 5-15 Years	6	very low	On-site
	11	***Robinia pseudoacacia*** (Black Locust)	8	6	300 + 260	36	M	Appears stable with poor branching structure. Exhibits a severe bark inclusion at 1.5 metres, Moderate wounds on primary limbs with evidence of decay.	Selectively pruned to clear powerlines south side	Fair with thinning crown	Low Possum defoliation.	Short 5-15 Years	6	very low	On-site
	12	***Robinia pseudoacacia*** (Black Locust)	7	5	287	20	M	Appears stable with fair branching structure. Moderate wound on lower trunk with evidence of decay. 10% deadwood.	No Evidence	Fair with thinning crown	Low Possum defoliation.	Short 5-15 Years	6	very low	On-site
	13	***Robinia pseudoacacia*** (Black Locust)	7	4	350	16	M	Appears stable with poor branching structure. Exhibits a large axial wound with cambial dieback GL to 5 metres. 20% deadwood.	Selectively pruned	Poor with sparse crown	Moderate Possum defoliation.	Transient (less than 5 years)	6	very low	On-site
	14	***Robinia pseudoacacia*** (Black Locust)	8.5	6	328	33	M	Appears stable with fair branching structure. Moderate wound to lower trunk.	No Evidence	Fair with thinning crown	Low Possum defoliation.	Short 5-15 Years	6	very low	On-site
	15	***Robinia pseudoacacia*** (Black Locust)	8	6	283	24	M	Appears stable with fair branching structure. Exhibits moderate axial wounds to primary limbs (sunscald). Multiple small wounds to lower trunk with evidence of decay.	No Evidence	Fair with thinning crown	Moderate Possum defoliation.	Short 5-15 Years	6	very low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	16	***Robinia pseudoacacia*** (Black Locust)	7	6	341	30	M	Appears stable with poor branching structure. Multiple small wounds to lower trunk with basal cavity. Prominent lean to the west. Multiple axial wounds to primary limbs due sunscald.	No Evidence	Fair with thinning crown	Moderate Possum defoliation.	Transient (less than 5 years)	6	very low	On-site
	17	***Robinia pseudoacacia*** (Black Locust)	9	7	450	42	M	Appears stable with poor branching structure. Exhibits a moderate basal cavity. Large axial wound on lower trunk to 5 metres with decay.	Selectively pruned	Fair with thinning crown	Low Possum defoliation.	Transient (less than 5 years)	6	very low	On-site
54	18	***Cinnamomum camphora*** (Camphor Laurel)	12	10	750	90	OM	Appears stable with fair branching structure. Exhibits a small basal cavity. Large wound on primary limb with decay & cavity.	No Evidence	Poor with sparse crown	Suspected termite infestation (Ring Ant Termite)	Transient (less than 5 years)	2	low	On-site
	19	***Robinia pseudoacacia*** (Black Locust)	9	5	270	35	M	Appears stable with poor branching structure. Exhibits a large axial wound from GL to 4 metres with cambial dieback.	No Evidence	Fair with thinning crown	Moderate Possum defoliation.	Short 5-15 Years	6	very low	On-site
	20	***Salix babylonica*** (Weeping Willow)	13	11	411	121	M	Appears stable with sound branching structure. Minor dieback in upper crown with 10% epicormic growth.	No Evidence	Fair with slight thinning crown	Low Possum defoliation. Low borer infestation.	Medium 15-40 Years	6	low	On-site
	21	***Robinia pseudoacacia*** (Black Locust)	10	10	400 + 420	90	M	Appears stable with poor branching structure. Exhibits a large axial wound from GL to 2 metres with cambial dieback. Severe bark inclusions on primary limbs at 1-2 metres. Moderate axial wounds to primary limbs.	Selectively pruned	Fair with slight thinning crown	Low Possum defoliation.	Transient (less than 5 years)	6	very low	On-site
	23	***Robinia pseudoacacia*** (Black Locust)	7	8	700	40	M	Appears stable with poor branching structure. Exhibits a large wound on lower trunk due previous pruning. Large axial wounds to primary limbs. Fill around trunk.	Topped at 2 metres	Fair	No Evidence	Transient (less than 5 years)	6	very low	On-site
	23a	***Populus simonii*** (Chinese Poplar)	11	4	200	36	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
47	24	***Lophostemon confertus*** (Brushbox)	13	10	755	100	M	Appears stable with fair branching structure. Exhibits multiple large basal wounds with cambial dieback. Moderate dieback in upper crown with 30% deadwood.	Selectively pruned	Fair with thinning crown	No Evidence	Short 5-15 Years	2	moderate	On-site
45	25	***Lophostemon confertus*** (Brushbox)	12	10	800	110	M	Appears stable with fair branching structure.Exhibits a large basal wound with cambial dieback. 40% deadwood.	Selectively pruned. Secondary trunk removed at 1 metre	Poor with sparse crown	No Evidence	Transient (less than 5 years)	2	low	On-site
44	26	***Lophostemon confertus*** (Brushbox)	10	13	600	104	M	Appears stable with fair branching structure. Exhibits multiple large basal wounds with cambial dieback.	Previously topped at 1 metre	Fair with slight thinning crown	No Evidence	Medium 15-40 Years	2	high	On-site
	27	***Robinia pseudoacacia*** (Black Locust)	6	5	160x2	20	SM	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	very low	On-site
	28	***Robinia pseudoacacia*** (Black Locust)	7	6	200	30	SM	Appears stable with sound branching structure. Small basal wound	Selectively pruned	Good	No Evidence	Long - more than 40 years	6	low	On-site
	29	***Robinia pseudoacacia*** (Black Locust)	9	8	340	48	M	Appears stable with sound branching structure. Moderate dieback in upper crown due to 20% deadwood.	No Evidence	Fair with thinning crown	Moderate Possum defoliation.	Short 5-15 Years	6	very low	On-site
55	30	***Cinnamomum camphora*** (Camphor Laurel)	11	10	685	90	M	Appears stable with fair branching structure. Moderate wound at 3 metres with decay in primary limb due previous branch loss. Dieback in all main leaders with decay.	No Evidence	Poor with sparse crown	Moderate Possum defoliation.	Transient (less than 5 years)	2	low	On-site
	31	***Robinia pseudoacacia*** (Black Locust)	10	5	260	35	SM	Appears stable with sound branching structure.	No Evidence	Fair with thinning crown	Moderate Possum defoliation.	Short 5-15 Years	6	very low	On-site
	32	***Robinia pseudoacacia*** (Black Locust)	9	4	300	0	SM	Appears stable with poor branching structure. Sever dieback in upper crown with 90% deadwood.	No Evidence	Poor with sparse crown	No Evidence	Transient (less than 5 years)	6	very low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	33	***Robinia pseudoacacia*** (Black Locust)	11	10	420	80	M	Appears stable with poor branching structure. Multiple high bark inclusions from GL to 1 metre.	No Evidence	Fair with slight thinning crown	Low Possum defoliation.	Short 5-15 Years	6	**very low**	On-site
56	34	***Cinnamomum camphora*** (Camphor Laurel)	13	13	450x3	143	M	Appears stable with sound branching structure. Minor dieback in lower crown with 5% deadwood.	Selectively pruned	Fair with slight thinning crown	No Evidence	Medium 15-40 Years	2	**high**	On-site
	35	***Populus nigra*** **'Italica'** (Lombardy Poplar)	12	3	220	33	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	6	**low**	On-site
	36	***Populus nigra*** **'Italica'** (Lombardy Poplar)	14	4	440	52	M	Stability suspect with poor branching structure. Exhibits a large basal wound and cavity with decay at ground level.	No Evidence	Good	No Evidence	Transient (less than 5 years)	6	**very low**	On-site
57	37	***Cinnamomum camphora*** (Camphor Laurel)	15	15	908	195	M	Appears stable with fair branching structure. Crown suppressed on north side due to crowding. Multiple wounds to tertiary limbs due previous branch loss Ring Ant damage.	No Evidence	Fair with slight thinning crown	Low Ring Ant infestation tertiary limbs	Medium 15-40 Years	2	**high**	On-site
	37a	***Casuarina glauca*** (Swamp Oak)	14	6	303	72	M	Appears stable with sound branching structure. Crown suppressed on west side due to crowding.	No Evidence	Good	No Evidence	Long - more than 40 years	4	**moderate**	On-site
	37b	***Casuarina glauca*** (Swamp Oak)	9	4	194	28	SM	Appears stable with poor branching structure. Main leader distorted at 5 metres due to overshadowing.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	**low**	On-site
50	38	***Ficus sp.*** (Small-leaf Fig)	16	25	2400	400	M	Appears stable with sound branching structure. Multiple small wounds due to previous branch loss.	No Evidence	Very Good	No Evidence	Long - more than 40 years	2	**high**	On-site
	39	***Cinnamomum camphora*** (Camphor Laurel)	20	15	800	255	M	Appears stable with sound branching structure. Suspected basal cavity	Selectively pruned on east side	Good	No Evidence	Long - more than 40 years	3	**high**	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
48	40	***Lophostemon confertus*** (Brushbox)	14	10	561	120	M	Appears stable with fair branching structure. Crown suppressed on south side due to crowding.	Selectively pruned	Fair	No Evidence	Medium 15-40 Years	2	high	On-site
52	41	***Stenocarpus sinuatus*** (Qld Firewheel Tree)	14	8	420 + 300	96	M	Appears stable with fair branching structure. Moderate bark inclusions at GL. Prominent lean to the NE & NW. Moderate wounds due to previous branch loss. Epicormic sprouts from old wound site.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
	42	***Washingtonia robusta*** (Washington Palm)	7	4.5	450	27	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	moderate	On-site
	43	***Cinnamomum camphora*** (Camphor Laurel)	16	9	450	108	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	6	low	On-site
51	44	***Cryptocarya obovata*** (Pepperberry Tree)	18	12	450 + 600	156	M	Appears stable with fair branching structure. Exhibits a high bark inclusion at 1 metre.	Selectively pruned on east side	Very Good	No Evidence	Long - more than 40 years	2	high	On-site
	45	***Cinnamomum camphora*** (Camphor Laurel)	15	7	300	49	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	6	low	On-site
	46	***Lophostemon confertus*** (Brushbox)	14	7	360	28	M	Appears stable with fair branching structure. Exhibits substantial dieback in upper crown with 80% deadwood & 20% epicormic growth.	Selectively pruned	Poor with sparse crown	No Evidence	Transient (less than 5 years)	2	low	On-site
	46a	***Alectryon tomentosum*** (Rambutan)	8	6	200 + 180	36	SM	Appears stable with fair branching structure. Exhibits a high bark inclusion at GL.	No Evidence	Good	No Evidence	Long - more than 40 years	5	moderate	On-site
	47	***Ligustrum lucidum*** (Large-leaved Privet)	7	4	270	24	OM	Appears stable with poor branching structure. Main leader broken out at 4 metres with evidence of decay.	No Evidence	Poor with sparse crown	No Evidence	Transient (less than 5 years)	7	very low	On-site

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CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	48	***Unidentified species***	14	11	350	110	M	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
49	49	***Araucaria columnaris*** (Cook's Pine)	30	3	600	75	M	Appears stable with sound branching structure. Prominent lean to the north. Close to existing building.	No Evidence	Good	Low *Ficus pumila* infestation	Long - more than 40 years	2	high	On-site
	50	***Cinnamomum camphora*** (Camphor Laurel)	11	12	600	96	M	Appears stable with sound branching structure.	No Evidence	Good	High *Ficus pumila* infestation	Medium 15-40 Years	6	low	On-site
	51	***Washingtonia robusta*** (Washington Palm)	10	4.5	350	18	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	moderate	On-site
	52	***Schefflera actinophylla*** (Umbrella Tree)	7	6	340	24	M	Appears stable with fair branching structure. Multiple low bark inclusions at 2 metres.	No Evidence	Fair	No Evidence	Medium 15-40 Years	6	low	On-site
	53	***Cupressocyparis x leylandii*** **'Leighton Green'** (Leyland Cypress)	10	3	360	30	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	moderate	On-site
	54	***Cupressocyparis x leylandii*** **'Leighton Green'** (Leyland Cypress)	9	3	260	27	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	moderate	On-site
	55	***Cupressocyparis x leylandii*** **'Leighton Green'** (Leyland Cypress)	8	3	220	24	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	moderate	On-site
	56	***Cupressocyparis x leylandii*** **'Leighton Green'** (Leyland Cypress)	10	3	330	30	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	moderate	On-site

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CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	57	***Cupressocyparis x leylandii*** **'Leighton Green'** (Leyland Cypress)	9	3	300	27	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	moderate	On-site
	58	***Cupressocyparis x leylandii*** **'Leighton Green'** (Leyland Cypress)	9	3	320	27	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	moderate	On-site
	59	***Cinnamomum camphora*** (Camphor Laurel)	6	7	400	42	SM	Appears stable with fair branching structure.	Previously cut to ground level	Very Good	No Evidence	Long - more than 40 years	6	low	On-site
35	60	***Ficus obliqua*** (Small-leaf Fig)	12	22	1400 + 800	220	M	Appears stable with poor branching structure. Multiple large basal wounds with evidence of decay. Very large cavity in lower trunk.	Selectively pruned	Very Good	No Evidence	Transient (less than 5 years)	2	low	On-site
63	61	***Washingtonia robusta*** (Washington Palm)	15	4	350	16	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
62	61a	***Washingtonia robusta*** (Washington Palm)	14	4	350	16	M	Appears stable with sound branching structure. Exhibits a slight bend in the upper trunk.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
	62	***Pittosporum undulatum*** (Native Daphne)	6	5	200 + 160	30	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
	63	***Alectryon tomentosum*** (Rambutan)	6	6	160	36	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	moderate	On-site
	64	***Omalanthus populifolius*** (Bleeding Heart)	6	6	160	18	M	Appears stable with sound branching structure.	No Evidence	Fair	High foliar insect infestation (Leaf Miner). Moderate Possum defoliation	Short 5-15 Years	5	low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	65	***Populus alba*** (Silver Poplar)	5	4	200	12	SM	Stability suspect with poor branching structure.	No Evidence	Dead	No Evidence	Nil	6	very low	On-site
	66	***Pittosporum undulatum*** (Native Daphne)	6	5	170	30	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	5	low	On-site
	67	***Populus alba*** (Silver Poplar)	10	6	160	48	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the NE, self-corrected.	No Evidence	Good	No Evidence	Short 5-15 Years	6	very low	On-site
26	68	***Ficus obliqua*** (Small-leaf Fig)	14	18	700x3	234	M	Stability suspect with sound branching structure. Exhibits a large basal cavity in lower trunk.	No Evidence	Very Good	No Evidence	Short 5-15 Years	2	moderate	On-site
	68a	***Acacia sp. [parramattensis]*** (Sydney Green Wattle)	12	6	260	54	M	Appears stable with sound branching structure. Exhibits a prominent lean to the NE, self-corrected. Crown supressed on SW side due to crowding.	No Evidence	Fair	No Evidence	Short 5-15 Years	4	low	On-site
	69	***Acacia sp. [parramattensis]*** (Sydney Green Wattle)	13	7	230	63	M	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Short 5-15 Years	4	low	On-site
	70	***Acacia sp. [parramattensis]*** (Sydney Green Wattle)	14	6	280	72	M	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Short 5-15 Years	4	low	On-site
	70a	***Acacia sp. [parramattensis]*** (Sydney Green Wattle)	11	4	150	20	SM	Appears stable with fair branching structure. Upper crown suppressed due to overshadowing.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	5	very low	On-site
1	71	***Ficus macrophylla*** (Moreton Bay Fig)	15	20	1500	260	M	Appears stable with sound branching structure. Multiple small wounds on lower trunk due to previous branch loss. Prominent lean to the north.	Selectively pruned	Good	Low foliar insect infestation (Fig Psyllid)	Long - more than 40 years	2	high	On-site
	71a	***Glochidion ferdinandi*** (Cheese Tree)	9	9	300	63	M	Appears stable with sound branching structure. Crown suppressed on the east side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	moderate	On-site
	72	***Pittosporum undulatum*** (Native Daphne)	13	9	370 + 300	90	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
25	73	***Ficus macrophylla*** (Moreton Bay Fig)	15	12	800	132	M	Appears stable with fair branching structure. Crown suppressed on south side due to crowding. Multiple moderate wounds due previous branch loss with decay in lower trunk	No Evidence	Fair	No Evidence	Medium 15-40 Years	2	high	On-site
25	74	***Ficus obliqua*** (Small-leaf Fig)	15	20	1000	240	M	Appears stable with sound branching structure. Exhibits a small basal wound.	No Evidence	Very Good	Low foliar insect infestation (Figleaf Beetle)	Long - more than 40 years	2	high	On-site
	75	***Pittosporum undulatum*** (Native Daphne)	7	8	270	40	M	Appears stable with sound branching structure. Exhibits a very prominent lean to the east.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
	75a	***Pittosporum undulatum*** (Native Daphne)	9	6	240	36	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
	76	***Pittosporum undulatum*** (Native Daphne)	9	7	280	42	M	Appears stable with sound branching structure. Exhibits a prominent lean to the south (self-corrected).	No Evidence	Good	No Evidence	Medium 15-40 Years	4	moderate	On-site
	77	***Pittosporum undulatum*** (Native Daphne)	7	5	200	20	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
	78	***Pittosporum undulatum*** (Native Daphne)	8	6	230	30	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
	79	***Glochidion ferdinandi*** (Cheese Tree)	8	8	200 + 180	0	OM	Stability suspect with poor branching structure. Exhibits multiple high bark inclusions at GL. Failure of primary limbs at GL.	No Evidence	Dead	Moderate borer infestation	Nil	7	very low	On-site
	80	***Pittosporum undulatum*** (Native Daphne)	11	9	380	81	M	Appears stable with sound branching structure. Exhibits a very prominent lean to the SE.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	moderate	On-site
	83	***Pittosporum undulatum*** (Native Daphne)	10	7	280	49	M	Appears stable with sound branching structure. Exhibits a very prominent lean to the SW (self corrected). Crown suppressed north side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	84	***Melaleuca styphelioides*** (Prickly Paperbark)	7	5	170	35	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	**moderate**	On-site
	85	***Melaleuca styphelioides*** (Prickly Paperbark)	7	5	160	35	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	**moderate**	On-site
	85a	***Melaleuca styphelioides*** (Prickly Paperbark)	7	5	170	35	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	**moderate**	On-site
	86	***Melaleuca styphelioides*** (Prickly Paperbark)	7	5	160	35	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	**moderate**	On-site
	87	***Melaleuca styphelioides*** (Prickly Paperbark)	7	5	160	30	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	**moderate**	On-site
	88	***Celtis sinensis*** (Chinese Nettle Tree)	7	10	330	50	SM	Appears stable with sound branching structure. Upper crown suppressed due to overshadowing.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	**low**	On-site
2	89	***Ficus macrophylla*** (Moreton Bay Fig)	18	24	1400	360	M	Appears stable with sound branching structure.	Selectively pruned over adjacent building.	Very Good	No Evidence	Long - more than 40 years	2	**high**	On-site
3	90	***Ficus macrophylla*** (Moreton Bay Fig)	18	30	2000	390	M	Appears stable with sound branching structure. Crown suppressed on east side due crowding. Moderate wound to primary limb due prev branch loss.	Selectively pruned	Good	No Evidence	Long - more than 40 years	2	**high**	On-site
4	90a	***Ficus macrophylla*** (Moreton Bay Fig)	18	25	2000	350	OM	Appears stable with poor branching structure. Fill material around trunk. Moderate wounds due previous branch loss. Wounds to primary limbs due sunscald.	Selectively pruned	Poor with sparse crown	No Evidence	Transient (less than 5 years)	2	**low**	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	91	***Erythrina x sykesii*** (Indian Coral Tree)	12	8	300 + 250	80	SM	Appears stable with sound branching structure. Fill material around trunk. Upper crown suppressed due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site
	92	***Erythrina x sykesii*** (Indian Coral Tree)	12	6	240	42	SM	Appears stable with fair branching structure. Fill material around trunk. Upper crown suppressed due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site
	92a	***Erythrina x sykesii*** (Indian Coral Tree)	10	5	300	35	SM	Appears stable with fair branching structure. Fill material around trunk. Upper crown suppressed due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site
	93	***Erythrina x sykesii*** (Indian Coral Tree)	12	5	250	25	SM	Appears stable with fair branching structure. Fill material around trunk. Upper crown suppressed due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site
	93a	***Erythrina x sykesii*** (Indian Coral Tree)	12	5	300	35	SM	Appears stable with fair branching structure. Fill material around trunk. Upper crown suppressed due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site
	94	***Erythrina x sykesii*** (Indian Coral Tree)	11	7	290	35	SM	Appears stable with fair branching structure. Fill material around trunk. Upper crown suppressed due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site
	95	***Erythrina x sykesii*** (Indian Coral Tree)	14	10	350x3 + 250x2	90	M	Appears stable with poor branching structure. Fill material around trunk. Multiple high bark inclusions at ground level.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site
	96	***Erythrina x sykesii*** (Indian Coral Tree)	11	8	280	56	SM	Appears stable with fair branching structure. Fill material around trunk. Upper crown suppressed due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site
	97	***Erythrina x sykesii*** (Indian Coral Tree)	9	8	350 + 270	56	SM	Appears stable with fair branching structure. Fill material around trunk. Upper crown suppressed due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	98	***Erythrina x sykesii*** (Indian Coral Tree)	8	8	280	48	SM	Appears stable with fair branching structure. Fill material around trunk. Upper crown suppressed due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	6	**very low**	On-site
5	99	***Ficus macrophylla*** (Moreton Bay Fig)	17	22	1300	352	M	Appears stable with sound branching structure. Fill material around trunk. Old fence embedded in lower trunk.	No Evidence	Good	No Evidence	Long - more than 40 years	2	**high**	On-site
6	100	***Ficus sp.*** (Small-leaf Fig)	15	20	800 + 1100	260	M	Appears stable with fair branching structure. Large basal wound and moderate wounds due previous branch loss. Multiple co-dominant primary limbs.	No Evidence	Good	no Evidence	Short 5-15 Years	2	**moderate**	On-site
	101	***Populus alba*** (Silver Poplar)	12	8	220	80	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the south. Upper crown suppressed ue overshadowing. Moderate dieback with 20% deadwood.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	6	**very low**	On-site
	102	***Populus alba*** (Silver Poplar)	12	8	230 + 160	80	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the SW. Upper crown suppressed ue overshadowing. Moderate dieback with 20% deadwood.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	6	**very low**	On-site
	103	***Populus alba*** (Silver Poplar)	15	9	450	108	M	Appears stable with sound branching structure. Prominent lean to the south.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	**low**	On-site
	104	***Grevillea robusta*** (Silky Oak)	17	9	420	99	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	**moderate**	On-site
	105	***Araucaria cunninghamii*** (Hoop Pine)	8	4	150	24	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	**moderate**	On-site
	106	***Ficus sp.*** (Small-leaf Fig)	10	10	600	80	M	Appears stable with sound branching structure.	Selectively pruned	Good	No Evidence	Medium 15-40 Years	2	**high**	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	106a	***Brachychiton discolor*** (Queensland Lacebark)	12	8	300	56	SM	Appears stable with fair branching structure. Upper crown suppressed due overshadowing.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	high	On-site
7	107	***Ficus macrophylla*** (Moreton Bay Fig)	14	18	550 + 600	216	M	Appears stable with fair branching structure. Upper crown suppressed due overshadowing.	Selectively pruned. Large primary limb removed.	Fair	No Evidence	Medium 15-40 Years	2	high	On-site
8	108	***Ficus macrophylla*** (Moreton Bay Fig)	16	22	1600	308	M	Appears stable with sound branching structure. Exhibits a moderate wound to primary limb with evidence of decay.	Selectively pruned	Good	No Evidence	Long - more than 40 years	2	high	On-site
	109	***Ficus macrophylla*** (Moreton Bay Fig)	12	8	470 + 350	80	M	Appears stable with poor branching structure. Multiple moderate wounds on lower trunk due loss of 2 x primary limbs. 50% epicormic growth.	Selectively pruned	Fair	Moderate termite infestation (Ring Ant)	Short 5-15 Years	2	moderate	On-site
	110	***Jacaranda mimosifolia*** (Jacaranda)	9	8	250	64	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	moderate	On-site
	111	***Populus alba*** (Silver Poplar)	10	10	250 + 270	70	SM	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	low	On-site
9	112	***Ficus macrophylla*** (Moreton Bay Fig)	17	18	700x2	216	M	Appears stable with sound branching structure. Multiple small wounds due to previous pruning. 30% epicormic growth.	Selectively pruned	Fair with slight thinning crown	No Evidence	Medium 15-40 Years	2	high	On-site
	114	***Ficus rubiginosa f. rubiginosa*** (Port Jackson Fig)	10	14	800	98	M	Appears stable with poor branching structure. Multiple moderate wounds due toprevious branch loss. Upper crown suppressed due to overshadowing.	Selectively pruned	Fair with thinning crown	No Evidence	Short 5-15 Years	2	moderate	On-site
37	115	***Ficus macrophylla*** (Moreton Bay Fig)	13	16	750	128	M	Appears stable with fair branching structure. Moderate basal wound. Moderate cavity at 5 metres at branch collar.	Primary limbs previously lopped	Fair with slight thinning crown	No Evidence	Medium 15-40 Years	2	high	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
10	116	***Ficus macrophylla*** (Moreton Bay Fig)	15	16	500 + 450	128	M	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 1 metre. Crown suppressed on NW side due to overshadowing.	Selectively pruned	Fair with slight thinning crown	No Evidence	Medium 15-40 Years	2	high	On-site
11	117	***Ficus macrophylla*** (Moreton Bay Fig)	15	16	1400	192	M	Appears stable with fair branching structure. Large primary limb previously removed at 2 metres.	Selectively pruned	Fair with slight thinning crown	No Evidence	Long - more than 40 years	2	high	On-site
	118	***Eucalyptus saligna*** (Sydney Blue Gum)	20	9	430	144	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	high	On-site
	119	***Pittosporum undulatum*** (Native Daphne)	11	7	240	56	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	moderate	On-site
	120	***Pittosporum undulatum*** (Native Daphne)	12	9	500	81	M	Appears stable with fair branching structure. Exhibits a high bark inclusion at 1 metre. Prominent lean to the SW. Crown suppressed noth side due overshadowing.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	moderate	On-site
29	121	***Ficus sp.*** (Small-leaf Fig)	15	22	2100	242	M	Appears stable with sound branching structure. Multiple co-dominant primary limbs at 1 metre.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
	122	***Olea europea var. africana*** (African Olive)	8	10	500	40	M	Appears stable with fair branching structure. Exhibits multiple co-dominant primary limbs from GL.	No Evidence	Fair	No Evidence	Medium 15-40 Years	6	low	On-site
	123	***Pittosporum undulatum*** (Native Daphne)	7	5	230	20	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
	124	***Olea europea var. africana*** (African Olive)	9	8	180x3	40	M	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at ground level. Prominent lean to the NW.	No Evidence	Fair	No Evidence	Short 5-15 Years	6	very low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	125	***Ficus sp.*** (Small-leaf Fig)	9	7	800	42	OM	Appears stable with poor branching structure. Multiple co-dominant primary limbs at 1 metre. Multiple wounds and decay due previous branch loss.	No Evidence	Poor with sparse crown	No Evidence	Transient (less than 5 years)	2	**low**	On-site
	126	***Pittosporum undulatum*** (Native Daphne)	13	5	280	40	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Short 5-15 Years	4	**low**	On-site
	127	***Pittosporum undulatum*** (Native Daphne)	14	10	400 + 280	120	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	**moderate**	On-site
	128	***Olea europea var. africana*** (African Olive)	12	10	240 + 260	90	M	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL	No Evidence	Fair	No Evidence	Medium 15-40 Years	6	**low**	On-site
	130	***Olea europea var. africana*** (African Olive)	9	7	300	35	M	Stability suspect with fair branching structure. Exhibits a very prominent lean to the SW. Dieback in upper crown with 10% deadwood.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	6	**very low**	On-site
	131	***Pittosporum undulatum*** (Native Daphne)	11	6	220	48	SM	Appears stable with fair branching structure. Crown suppressed on north side due to overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	4	**low**	On-site
	132	***Pittosporum undulatum*** (Native Daphne)	11	6	230	48	SM	Appears stable with fair branching structure. Crown suppressed on north side due to overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	4	**low**	On-site
	133	***Olea europea var. africana*** (African Olive)	9	6	220	30	SM	Appears stable with sound branching structure. Upper crown suppressed due to overshadowing.	No Evidence	Fair	No Evidence	Short 5-15 Years	6	**very low**	On-site
	134	***Glochidion ferdinandi*** (Cheese Tree)	12	10	360 + 200	100	M	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	Long - more than 40 years	4	**moderate**	On-site
	135	***Pittosporum undulatum*** (Native Daphne)	10	8	350	56	M	Appears stable with sound branching structure. Crown suppressed on NE side due to overshadowing	No Evidence	Good	No Evidence	Medium 15-40 Years	4	**moderate**	On-site
	136	***Ficus sp.*** (Small-leaf Fig)	13	15	300x3 +700	120	M	Appears stable with fair branching structure. Exhibits multiple moderate wounds due to previous branch loss.	No Evidence	Good	No Evidence	Long - more than 40 years	2	**high**	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	137	***Erythrina x sykesii*** (Indian Coral Tree)	15	7	484	56	M	Appears stable with fair branching structure. Exhibits a prominent lean to the SE.	No Evidence	Good	Moderate foliar insect infestation (Leaf Miner)	Medium 15-40 Years	6	low	On-site
	137a	***Pittosporum undulatum*** (Native Daphne)	9	6	190	42	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
	137b	***Erythrina x sykesii*** (Indian Coral Tree)	15	10	404	80	M	Appears stable with fair branching structure. Crown suppressed on west side due crowding	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Medium 15-40 Years	6	low	On-site
	137c	***Erythrina x sykesii*** (Indian Coral Tree)	15	8	471	80	M	Appears stable with fair branching structure. Crown suppressed on west side due crowding	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Medium 15-40 Years	6	low	On-site
	138	***Erythrina x sykesii*** (Indian Coral Tree)	15	12	720	96	M	Appears stable with sound branching structure. Exhibits a few broken and suspended primary limbs in upper crown.	No Evidence	Good	Moderate foliar insect infestation (Leaf Miner)	Medium 15-40 Years	6	low	On-site
	139	***Pittosporum undulatum*** (Native Daphne)	10	8	300	64	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	moderate	On-site
	140	***Pittosporum undulatum*** (Native Daphne)	7	7	220	28	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the north.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
27	141	***Ficus sp.*** (Small-leaf Fig)	14	14	1000	196	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
	141a	***Pittosporum undulatum*** (Native Daphne)	7	6	220	30	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the south (self-corrected).	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
	142	***Pittosporum undulatum*** (Native Daphne)	12	9	270 + 360	72	M	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at GL.	No Evidence	Good	No Evidence	Short 5-15 Years	4	low	On-site
	142a	***Pittosporum undulatum*** (Native Daphne)	7	6	180	24	I	Appears stable with fair branching structure. Exhibits a very prominent lean to the south.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	143	***Olea europea var. africana*** (African Olive)	10	8	320	48	M	Appears stable with fair branching structure. Exhibits a very prominent lean to the south, upper crown suppressed due overshadowing.	No Evidence	Dead	No Evidence	Nil	6	very low	On-site
	144	***Ficus sp.*** (Small-leaf Fig)	12	7	500	49	M	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Short 5-15 Years	2	low	On-site
	145	***Pittosporum undulatum*** (Native Daphne)	8	8	320	32	M	Appears stable with fair branching structure. Crown suppressed north side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	low	On-site
	146	***Pittosporum undulatum*** (Native Daphne)	8	7	280	49	M	Appears stable with fair branching structure. Exhibits a very prominent lean to the north. Suppressed south side due overshadowing.	No Evidence	Good	No Evidence	Transient (less than 5 years)	4	very low	On-site
	147	***Pittosporum undulatum*** (Native Daphne)	8	9	400	54	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	moderate	On-site
	148	***Ficus rubiginosa f. rubiginosa*** (Port Jackson Fig)	10	14	700	98	M	Stability suspect with poor branching structure. Exhibits a large basal cavity. Multiple moderate wounds due previous branch loss.	No Evidence	Good	No Evidence	Short 5-15 Years	2	moderate	On-site
	149	***Olea europea var. africana*** (African Olive)	12	7	370	63	M	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Long - more than 40 years	6	low	On-site
	150	***Olea europea var. africana*** (African Olive)	12	7	300	49	M	Appears stable with fair branching structure. Exhibits a very prominent lean to the south	No Evidence	Fair	No Evidence	Medium 15-40 Years	6	low	On-site
24	151	***Ficus sp.*** (Small-leaf Fig)	13	13	800	104	M	Appears stable with fair branching structure. Multiple moderate bark inclusions at 2 metres. Multiple moderate wounds at 3 metres due previous branch loss.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
	152	***Ligustrum lucidum*** (Large-leaved Privet)	7	4	300	12	M	Appears stable with poor branching structure. High diback in crown.	No Evidence	Poor with sparse crown	No Evidence	Transient (less than 5 years)	7	very low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
30	153	***Ficus macrophylla*** (Moreton Bay Fig)	15	14	1200	154	M	Stability suspect with poor branching structure. Exhibits a very large axial wound and cavity from GL to 8 metres with evidence of previous fire damage.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	2	low	On-site
	153a	***Olea europea var. africana*** (African Olive)	8	6	320	0	M	Appears stable with poor branching structure.	No Evidence	Dead	No Evidence	Nil	6	very low	On-site
	154	***Populus alba*** (Silver Poplar)	8	12	330	60	M	Unstable (partially fallen and suspended in adjacent tree) with poor branching structure.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	6	very low	On-site
39	155	***Lophostemon confertus*** (Brushbox)	13	15	650	165	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
	156	***Ficus sp.*** (Small-leaf Fig)	11	12	800	108	M	Stability suspect with poor branching structure. Large failed section (2 x primary limbs broken out) at ground level exposing internal decay in lower trunk.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	2	low	On-site
	157	***Eucalyptus pilularis*** (Blackbutt)	9	6	220	30	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	moderate	On-site
	158	***Cinnamomum camphora*** (Camphor Laurel)	10	10	400 + 340	80	M	Appears stable with fair branching structure. Exhibits severe dieback on west side of crown	No Evidence	Poor with sparse crown	No Evidence	Short 5-15 Years	6	very low	On-site
	159	***Eucalyptus pilularis*** (Blackbutt)	8	7	194	42	I	Appears stable with sound branching structure. Exhibits a prominent lean to the west.	No Evidence	Good	No Evidence	Long - more than 40 years	4	moderate	On-site
28	160	***Ficus sp.*** (Small-leaf Fig)	10	16	800	160	M	Appears stable with fair branching structure. Exhibits multiple co-dominant primary limbs at 1 metre.	No Evidence	Fair with slight thinning crown	No Evidence	Medium 15-40 Years	2	high	On-site
31	161	***Ficus sp.*** (Small-leaf Fig)	16	14	1300	154	M	Appears stable with fair branching structure. Large dead primary limb. Multiple moderate bark inclusions at GL.	No Evidence	Fair	No Evidence	Medium 15-40 Years	2	high	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
31	161a	***Ficus macrophylla*** (Moreton Bay Fig)	13	13	900	117	M	Appears stable with fair branching structure. Crown suppressed on south side due crowding. Multiple moderate wounds to buttress due to prev fire injury.	No Evidence	Fair	No Evidence	Medium 15-40 Years	2	**high**	On-site
	162	***Ficus sp.*** (Small-leaf Fig)	16	12	1200	156	M	Stability suspect with fair branching structure. Exhibits a very prominent lean to the north. Root plate limited by underground concrete tank. Crown suppressed due overshadowing.	Lower limbs selectively pruned	Fair	No Evidence	Short 5-15 Years	2	**moderate**	On-site
32	163	***Ficus rubiginosa f. glabrescens*** (Port Jackson Fig)	15	16	700	240	M	Unstable (Partly overturned & supported by prop root) with fair branching structure. Moderate wound at 4 metres due prev branch loss.	No Evidence	Good	No Evidence	Transient (less than 5 years)	2	**low**	On-site
58	164	***Dendrocalamas giganteus*** (Giant Bamboo)	15	16	80xm	224	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	2	**high**	On-site
40	165	***Lophostemon confertus*** (Brushbox)	11	12	866	96	M	Appears stable with sound branching structure. Exhibits some interior crown dieback with 10% deadwood	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	2	**high**	On-site
41	166	***Lophostemon confertus*** (Brushbox)	12	10	400 +470	90	M	Appears stable with fair branching structure. Exhibits moderate interior crown dieback with 15% deadwood. Moderate basal wound with cambial dieback.	Crown lifted to 3 metres	Fair	No Evidence	Medium 15-40 Years	2	**high**	On-site
33	167	***Ficus obliqua*** (Small-leaf Fig)	15	17	800 + 600	204	M	Appears stable with sound branching structure. Crown suppressed on east side due to crowding. Multiple small wounds due to branch loss.	No Evidence	Good	No Evidence	Long - more than 40 years	2	**high**	On-site
34	168	***Ficus rubiginosa f. glabrescens*** (Port Jackson Fig)	18	25	1800	400	M	Appears stable with sound branching structure. 20% epicormic growth, mainly along lower primary limbs.	No Evidence	Very Good	No Evidence	Long - more than 40 years	2	**high**	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	168a	***Ficus rubiginosa f. glabrescens*** (Port Jackson Fig)	8	8	370	64	SM	Appears stable with fair branching structure. Upper crown suppressed due to overshadowing. Moderate wound at 2 metres due to branch loss.	No Evidence	Fair	No Evidence	Short 5-15 Years	2	moderate	On-site
	169	***Unidentified species***	3	4	150x2	12	M	Appears stable with fair branching structure. Exhibits a prominent lean to the north.	No Evidence	Good	No Evidence	Short 5-15 Years	5	low	On-site
	170	***Eriobotrya japonica*** (Japanese Loquat)	5	7	320	28	M	Appears stable with sound branching structure.	No Evidence	Fair	Low Possum defoliation	Medium 15-40 Years	6	low	On-site
	171	***Ceratonia siliqua*** (Carob Bean)	7	9	350	63	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	moderate	On-site
	172	***Celtis sinensis*** (Chinese Nettle Tree)	9	14	520	126	M	Appears stable with fair branching structure. Exhibits a severe bark inclusion at GL (primary limb). Crown suppressed on east side due to overshadowing.	No Evidence	Good	No Evidence	Long - more than 40 years	6	low	On-site
	173	***Erythrina x sykesii*** (Indian Coral Tree)	10	10	500	80	M	Appears stable with poor branching structure. Exhibits a large wound on the lower trunk with evidence of decay. Upper crown suppressed & distorted due overshadowing.	No Evidence	Fair	High English Ivy infestation. High foliar insect infestation	Short 5-15 Years	6	very low	On-site
22	174	***Ficus macrophylla*** (Moreton Bay Fig)	18	28	2000	420	M	Appears stable with fair branching structure. Multiple moderate wounds on lower trunk due previous pruning with evidence of decay at branch collars.	Lower primary limbs selectively pruned & removed	Good	Low English Ivy infestation	Long - more than 40 years	2	high	On-site
23	175	***Ficus macrophylla*** (Moreton Bay Fig)	18	28	2000	420	M	Appears stable with sound branching structure.	Lower primary & secondary limbs selectively pruned & removed	Fair with slight thinning crown	No Evidence	Long - more than 40 years	2	high	On-site
	176	***Ligustrum lucidum*** (Large-leaved Privet)	9	5	220	30	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	7	very low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
12	176a	***Ficus macrophylla*** (Moreton Bay Fig)	13	12	600	132	M	Appears stable with fair branching structure. Exhibits a large wound to lower trunk and buttress due prev herbicide damage. Decay at wound sites.	Selectively pruned	Fair	No Evidence	Short 5-15 Years	2	**moderate**	On-site
13	177	***Ficus macrophylla*** (Moreton Bay Fig)	16	20	900	280	M	Appears stable with fair branching structure. Exhibits a large wound to lower trunk and buttress due prev herbicide damage. Decay at wound sites.	Selectively pruned - large primary limbs removed	Fair	No Evidence	Medium 15-40 Years	2	**high**	On-site
	178	***Populus alba*** (Silver Poplar)	7	6	200	30	M	Appears stable with poor branching structure. Crown suppressed & distorted due to overshadowing.	No Evidence	Poor with sparse crown	No Evidence	Transient (less than 5 years)	6	**very low**	On-site
14	179	***Ficus macrophylla*** (Moreton Bay Fig)	15	20	1400	240	M	Appears stable with sound branching structure. Exhibits a moderate bark inclusion at 1.5 metres.	Selectively pruned	Good	No Evidence	Long - more than 40 years	2	**high**	On-site
15	180	***Ficus macrophylla*** (Moreton Bay Fig)	17	20	1500	280	M	Appears stable with fair branching structure. Multiple axial wounds on secondary limbs due previous fire injury with decay. Fill over root plate.	Selectively pruned - large primary limbs removed	Good	No Evidence	Medium 15-40 Years	2	**high**	On-site
16	181	***Ficus macrophylla*** (Moreton Bay Fig)	16	18	500x3	252	M	Appears stable with fair branching structure. Multiple elite epicormic sprouts from old pruning wounds.	Previously cut to ground level	Good	No Evidence	Medium 15-40 Years	2	**high**	On-site
17	182	***Ficus macrophylla*** (Moreton Bay Fig)	12	9	650	72	M	Stability suspect with poor branching structure. Exhibits a large basal wound and cavity. Upper crown suppressed due to overshadowing. Large wound due previous branch loss (primary limb).	Selectively pruned	Fair	Moderate Madiera Vine infestation	Transient (less than 5 years)	2	**low**	On-site
	182a	***Eucalypts sp.*** (Gum)	18	8	380	80	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	**moderate**	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
18	183	***Ficus macrophylla*** (Moreton Bay Fig)	5	7	700	28	M	Appears stable with poor branching structure. Exhibits a moderate basal wound due previous pruning. Upper crown suppressed due overshadowing.	Previously cut to ground level	Good	Moderate Madiera Vine infestation	Transient (less than 5 years)	2	low	On-site
19	184	***Ficus macrophylla*** (Moreton Bay Fig)	12	14	800	140	M	Appears stable with poor branching structure. Exhibits a large basal cavity. Suppressed on the east side due to crowding. Moderate wound to primary limb at 4 metres due branch loss with decay at wound site.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
20	185	***Ficus macrophylla*** (Moreton Bay Fig)	13	10	800x2	110	M	Appears stable with poor branching structure. Crown suppressed on east side due to overshadowing. Exhibits a large cavity in the eastern-most trunk	Selectively pruned	Good	No Evidence	Short 5-15 Years	2	moderate	On-site
21	186	***Ficus macrophylla*** (Moreton Bay Fig)	18	24	600 + 1100	408	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
	187	***Acer negundo*** (Box Elder)	10	11	530	99	M	Appears stable with fair branching structure. Multiple small wounds to primary limbs due to previous pruning with elite epicormic sprouts emanating from old pruning wounds (Crown restored)	Primary limbs previously lopped	Good	No Evidence	Medium 15-40 Years	6	low	On-site
	188	***Morus nigra*** (Mulberry)	7	12	180 + 300	72	M	Appears stable with sound branching structure.	No Evidence	Good	Moderate Madiera Vine infestation	Medium 15-40 Years	6	low	On-site
	189	***Ligustrum lucidum*** (Large-leaved Privet)	9	8	180x2 + 300	48	M	Appears stable with poor branching structure. Exhibits large axial wounds to primary limbs with evidence of decay.	No Evidence	Poor with sparse crown	Moderate vine infestation	Transient (less than 5 years)	7	very low	On-site
61	190	***Washingtonia robusta*** (Washington Palm)	15	4	360	20	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
60	191	***Washingtonia robusta*** (Washington Palm)	16	4	370	20	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
59	192	***Lophostemon confertus*** (Brushbox)	8	7	360	35	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	2	high	On-site
	193	***Lagunaria patersonia*** (Norfolk Island Hibiscus)	10	7	450	63	M	Appears stable with sound branching structure.	No Evidence	Fair with slight thinning crown	No Evidence	Medium 15-40 Years	3	moderate	On-site
43	194	***Lophostemon confertus*** (Brushbox)	10	12	530 + 480	72	M	Appears stable with sound branching structure.	Selectively pruned	Good	No Evidence	Long - more than 40 years	2	high	On-site
	195	***Trachycarpus fortunei*** (Chinese Windmill Palm)	4	3	150x2	9	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	2	high	On-site
	196	***Araucaria columnaris*** (Cook's Pine)	12	5	320	60	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the west (self-corrected).	No Evidence	Good	No Evidence	Long - more than 40 years	4	moderate	On-site
	197	***Lophostemon confertus*** (Brushbox)	9	11	551	88	M	Appears stable with sound branching structure. Exhibits moderate interior crown dieback with 20% deadwood. Large basal wound with cambial dieback.	No Evidence	Fair with slight thinning crown	No Evidence	Medium 15-40 Years	2	high	On-site
42	198	***Lophostemon confertus*** (Brushbox)	9	10	250 +320	70	M	Appears stable with sound branching structure. Exhibits some interior crown dieback with 10% deadwood. Crown suppressed NW side due overshadowing	No Evidence	Good	No Evidence	Medium 15-40 Years	2	high	On-site
	199	***Jacaranda mimosifolia*** (Jacaranda)	10	13	500	104	M	Appears stable with fair branching structure. Exhibits multiple moderate wounds due failure of secondary limbs (storm damage).	No Evidence	Good	No Evidence	Medium 15-40 Years	3	moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
	200	***Plumeria acutifolia*** (Frangipani)	4	5	180x2	10	M	Stability suspect with fair branching structure. Exhibits a very prominent lean to the north.	Crown lifted to 2 metres	Good	No Evidence	Short 5-15 Years	5	**low**	On-site
	201	***Washingtonia robusta*** (Washington Palm)	2	3	200	6	I	Appears stable with sound branching structure. Located close to existing pathway.	No Evidence	Good	No Evidence	Long - more than 40 years	5	**moderate**	On-site
	202	***Washingtonia robusta*** (Washington Palm)	16	4	370	20	M	Appears stable with sound branching structure. Located close to existing pathway.	No Evidence	Very Good	No Evidence	Long - more than 40 years	2	**high**	On-site
	203	***Prunus sp.*** (Plum)	4	7	160x2	14	M	Appears stable with fair branching structure. Exhibits a high bark inclusion at GL.	No Evidence	Fair	High Possum defoliation	Short 5-15 Years	5	**low**	On-site
	204	***Punica granatum*** (Pomegranite)	4	6	160	24	M	Appears stable with fair branching structure.	Selectively pruned	Poor with sparse crown	Severe Possum defoliation	Transient (less than 5 years)	5	**very low**	On-site
	205	***Magnolia soulangeana*** (Magnolia)	6	6	220	24	SM	Appears stable with fair branching structure. Exhibits a moderate basal wound due prev. pruning.	Secondary trunk removed at ground level	Fair with slight thinning crown	No Evidence	Medium 15-40 Years	5	**low**	On-site
	206	***Mangifera indica*** (Mango Tree)	3	3	200	6	SM	Appears stable with sound branching structure.	Crown lifted to 1 metre	Good	No Evidence	Medium 15-40 Years	5	**low**	On-site
	207	***Mangifera indica*** (Mango Tree)	4	4	250	12	SM	Appears stable with sound branching structure.	Crown lifted to 1 metre	Good	No Evidence	Medium 15-40 Years	5	**low**	On-site
	208	***Mangifera indica*** (Mango Tree)	3	3	220	6	SM	Appears stable with sound branching structure.	Crown lifted to 1 metre	Good	No Evidence	Medium 15-40 Years	5	**low**	On-site
36	**209**	***Ficus rubiginosa f. rubiginosa*** (Port Jackson Fig)	12	18	1500	198	M	Appears stable with sound branching structure. Exhibits multiple co-dominant primary limbs at 1 metre.	selectively pruned	Very Good	No Evidence	Long - more than 40 years	2	**high**	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
										Vigour	Pest & Disease				
38	210	***Pinus radiata*** (Monterey Pine)	13	8	750	48	OM	Appears stable with poor branching structure. Exhibits severe dieback in upper crown with 50% deadwood. Large wound and cavity at 3 metres with decay.	Selectively pruned to clear powerlines	Poor with sparse crown	High termite infestation	Transient (less than 5 years)	2	low	On-site
	211	***Ficus macrophylla*** (Moreton Bay Fig)	12	20	1800	200	M	Appears stable with fair branching structure. Multiple moderate wounds due to previous pruning.	selectively pruned	Fair with thinning crown	No Evidence	Medium 15-40 Years	2	high	On-site
	212	***Alectryon tomentosum*** (Rambutan)	6	8	150x3	40	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	moderate	On-site
	213	***Morus nigra*** (Mulberry)	7	7	350	35	M	Appears stable with fair branching structure.	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	6	very low	On-site
	214	***Cupaniopsis anacardioides*** (Tuckeroo)	11	14	700	126	M	Appears stable with poor branching structure. Exhibits a moderate wound and cavity at 3 metres in primary limb with decay.	No Evidence	Very Good	No Evidence	Short 5-15 Years	3	moderate	Adjoining property

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	1	***Sapium sebiferum*** (Chinese Tallow tree)	M	3.8	1.85	2.6	Existing fence and low masonry wall offset 2 metres north to be demolished & replaced with sandstone wall & picket fence in a similar position.	Demolition of existing masonry wall and excavations for new fence footings should not result in any adverse impact provided that the work is undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures. Undertake demolition of existing wall in accordance with Section 13.18 and any required excavations for new wall foundations within TPZ in accordance with Section 13.19.
	2	***Sapium sebiferum*** (Chinese Tallow tree)	M	2.6	1.65	1.8	Existing fence and low masonry wall offset 2 metres north to be demolished & replaced with sandstone wall & picket fence in a similar position. Proposed SW drain offset 1.3 metres west. Trenching for SW linne within SRZ.	Proposed works will necessitate removal.	Remove tree
	3	***Sapium sebiferum*** (Chinese Tallow tree)	M	2.5	1.65	1.7	Existing fence and low masonry wall offset 2.1 metres north to be demolished & replaced with sandstone wall & picket fence in a similar position.	Demolition of existing masonry wall and excavations for new fence footings should not result in any adverse impact provided that the work is undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures. Undertake demolition of existing wall in accordance with Section 13.18 and any required excavations for new wall foundations within TPZ in accordance with Section 13.19.
	4	***Lophostemon confertus*** (Brushbox)	M	8.5	3	5.8	Existing fence and low masonry wall offset 1.7 metres south to be demolished & replaced with sandstone wall & picket fence in a similar position. Proposed SW drain offset 7.4 metres west. Trenching for SW line within TPZ.	Demolition of existing masonry wall and excavations for new fence footings should not result in any adverse impact provided that the work is undertaken as recommended. No impact from SW drain.	Retain in accordance with recommended Tree Protection Measures. Undertake demolition of existing wall in accordance with Section 13.18 and any required excavations for new wall foundations within TPZ in accordance with Section 13.19. Install Tree Protection Fence in accordance with Section 13.10.
	5	***Sapium sebiferum*** (Chinese Tallow tree)	M	3.6	2.1	2.4	Existing fence and low masonry wall offset 2.2 metres north to be demolished & replaced with sandstone wall & picket fence in a similar position.	Demolition of existing masonry wall and excavations for new fence footings should not result in any adverse impact provided that the work is undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures. Undertake demolition of existing wall in accordance with Section 13.18 and any required excavations for new wall foundations within TPZ in accordance with Section 13.19.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	6	***Ficus benjamina*** (Weeping Fig)	M	4.7	2.25	3.2	Existing fence and low masonry wall offset 2.6 metres south & steps to west to be demolished & replaced with sandstone wall & picket fence in a similar position.	Proposed to be removed to accommodate new landscape works - inconsistent with other plantings.	Remove tree
	7	***Eucalyptus nicholii*** (New England Peppermint)	P	5.0	2.5	3.4	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	7a	***Eucalyptus botryoides*** (Bangalay)	P	4.5	2.1	3.1	Existing fence and low masonry wall offset 3.3 metres south to be demolished & replaced with sandstone wall & picket fence in a similar position.	Demolition of existing masonry wall and excavations for new fence footings should not result in any adverse impact provided that the work is undertaken as recommended.	To be retained - no special protection measures required.
53	**8**	***Cinnamomum camphora*** (Camphor Laurel)	M	11.3	3.3	7.7	Existing fence and low masonry wall offset 7 metres south to be demolished & replaced with sandstone wall & picket fence in a similar position. Proposed reinforced turf verge approx 1 metre wide west of existing kerb within SRZ/TPZ. Proposed Stormwater line offset 4.5 metres SW & 2.4 metres east. Trenching within SRZ.	Excavations and compaction associated with reinforced turf verge may potentially result in some root damage, leading to an adverse impact. Trenching for SW drain will necessitate severance of woody roots leading to a significant adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading in accordance with Section 13.19. Install SW pipeline to east by thrust boring. Excavate SW pipeline to SW in accordance with Section 13.20.
46	**9**	***Lophostemon confertus*** (Brushbox)	M	8.4	2.9	5.7	Proposed reinforced turf verge approx 1 metre wide west of existing kerb within SRZ/TPZ. Stormwater line offset 2.2 metres east & 8.5 metres west. Trenching to east within SRZ.	Excavations and compaction associated with passing bays may potentially result in some root damage, leading to an adverse impact. Trenching for SW drain will necessitate severance of woody roots leading to a significant adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading in accordance with Section 13.19. Install stormwater pipeline to east by thrust boring in accordance with Section 13.20.
	10	***Robinia pseudoacacia*** (Black Locust)	M	4.9	2.5	3.3	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	11	***Robinia pseudoacacia*** (Black Locust)	M	5.2	2.5	3.5	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	12	***Robinia pseudoacacia*** (Black Locust)	M	3.4	2.1	2.3	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	13	***Robinia pseudoacacia*** (Black Locust)	M	4.2	2.25	2.9	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	14	***Robinia pseudoacacia*** (Black Locust)	M	3.9	2.25	2.7	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	15	***Robinia pseudoacacia*** (Black Locust)	M	3.4	2.1	2.3	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	16	***Robinia pseudoacacia*** (Black Locust)	M	4.1	2.25	2.8	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	17	***Robinia pseudoacacia*** (Black Locust)	M	5.4	2.5	3.7	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
54	**18**	***Cinnamomum camphora*** (Camphor Laurel)	M	9.0	3	6.1	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	19	***Robinia pseudoacacia*** (Black Locust)	M	3.2	2.1	2.2	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	20	***Salix babylonica*** (Weeping Willow)	M	6.2	2.5	4.2	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	21	***Robinia pseudoacacia*** (Black Locust)	M	7.4	2.85	5.1	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	23	***Robinia pseudoacacia*** (Black Locust)	M	8.4	2.9	5.7	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	23a	***Populus simonii*** (Chinese Poplar)	M	3.0	1.65	2.0	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
47	24	***Lophostemon confertus*** (Brushbox)	M	9.1	3.1	6.2	Proposed stormwater line offset 4.5 metres west. Trenching to east within TPZ.	Unlikely to result in any adverse impact.	Retain in accordance with recommended Tree Protection Measures. Undertake trenching for SW pipeline in accordance with Section 13.20
45	25	***Lophostemon confertus*** (Brushbox)	M	9.6	3.1	6.5	Proposed reinforced turf verge approx 1 metre wide west of existing kerb within SRZ/TPZ. Proposed stormwater line offset 2.2 metres east & 8.3 metres west. Trenching to east within SRZ.	Excavations and compaction associated with passing bays may potentially result in some root damage, leading to an adverse impact. Trenching for SW drain will necessitate severance of woody roots leading to a significant adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading in accordance with Section 13.19. Install stormwater pipeline to east by thrust boring in accordance with Section 13.20.
44	26	***Lophostemon confertus*** (Brushbox)	M	7.2	2.75	4.9	Proposed reinforced turf verge approx 1 metre wide west of existing kerb within SRZ/TPZ. Proposed stormwater line offset 2.2 metres east. Trenching to east within SRZ.	Excavations and compaction associated with passing bays may potentially result in some root damage, leading to an adverse impact. Trenching for SW drain will necessitate severance of woody roots leading to a significant adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading in accordance with Section 13.19. Install stormwater pipeline to east by thrust boring in accordance with Section 13.20.
	27	***Robinia pseudoacacia*** (Black Locust)	M	3.6	1.85	2.4	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	28	***Robinia pseudoacacia*** (Black Locust)	M	3.0	1.65	2.0	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	29	***Robinia pseudoacacia*** (Black Locust)	M	4.1	2.25	2.8	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
55	30	***Cinnamomum camphora*** (Camphor Laurel)	M	8.2	2.85	5.6	Proposed stormwater line offset 4.5 metres west. Trenching within TPZ.	Unlikely to result in any adverse impact.	Retain in accordance with recommended Tree Protection Measures. Undertake trenching for SW pipeline in accordance with Section 13.20
	31	***Robinia pseudoacacia*** (Black Locust)	M	3.1	2.1	2.1	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	32	***Robinia pseudoacacia*** (Black Locust)	M	3.6	2.1	2.4	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	33	***Robinia pseudoacacia*** (Black Locust)	M	5.0	2.5	3.4	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
56	34	***Cinnamomum camphora*** (Camphor Laurel)	M	10.8	3.25	7.3	Proposed stormwater line offset 4.8 metres west. Trenching within TPZ.	Unlikely to result in any adverse impact.	Retain in accordance with recommended Tree Protection Measures. Undertake trenching for SW pipeline in accordance with Section 13.20
	35	***Populus nigra*** **'Italica'** (Lombardy Poplar)	M	2.6	1.85	1.8	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - inconsistent with other plantings.	Remove tree
	36	***Populus nigra*** **'Italica'** (Lombardy Poplar)	M	5.3	2.5	3.6	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - inconsistent with other plantings.	Remove tree
57	37	***Cinnamomum camphora*** (Camphor Laurel)	M	10.9	3.3	7.4	Proposed stormwater line offset 6 metres west. Trenching within TPZ.	Unlikely to result in any adverse impact.	Retain in accordance with recommended Tree Protection Measures. Undertaken trench for SW pipeline in accordance with Section 13.20
	37a	***Casuarina glauca*** (Swamp Oak)	M	4.5	2.1	3.1	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	37b	***Casuarina glauca*** (Swamp Oak)	M	2.9	1.65	2.0	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
50	38	***Ficus sp.*** (Small-leaf Fig)	M	15.0	4.4	10.2	Proposed stormwater line offset 6.2 metres west. Trenching within TPZ.	Trenching for SW drain may necessitate severance of woody roots leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Undertaken trench for SW pipeline in accordance with Section 13.20. Install stormwater pipeline to west by thrust boring in accordance with Section 13.20.
	39	***Cinnamomum camphora*** (Camphor Laurel)	M	9.6	3.1	6.5	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
48	40	***Lophostemon confertus*** (Brushbox)	M	6.7	2.75	4.6	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
52	41	***Stenocarpus sinuatus*** (Qld Firewheel Tree)	M	6.8	2.75	4.7	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	42	***Washingtonia robusta*** (Washington Palm)	G	3.5	2.5	2.4	No proposed works within TPZ	Proposed to be transpalnted to accommodate new landscape works	Transplant in accordance with Transplant Specification
	43	***Cinnamomum camphora*** (Camphor Laurel)	M	5.4	2.5	3.7	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
51	44	***Cryptocarya obovata*** (Pepperberry Tree)	M	9.9	3.15	6.7	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	45	***Cinnamomum camphora*** (Camphor Laurel)	M	3.6	2.1	2.4	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	46	***Lophostemon confertus*** (Brushbox)	M	4.3	2.4	2.9	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	46a	***Alectryon tomentosum*** (Rambutan)	M	3.5	2.1	2.4	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	47	***Ligustrum lucidum*** (Large-leaved Privet)	M	3.2	2.1	2.2	No proposed works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	48	***Unidentified species***	M	5.3	2.25	3.6	No proposed works within TPZ	No adverse impact.	Retain in accordance with recommended Tree Protection Measures.
49	49	***Araucaria columnaris*** (Cook's Pine)	M	7.2	2.75	4.9	Proposed new roadway offset 6 metres NE at RL x . Excavation and compaction for pavement sub-grade & kerb within TPZ.	Extent of incursion to root zone is less than 10% of the TPZ, which is considered within acceptable limits. No adverse impact	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for pavement sub-grade within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.
	50	***Cinnamomum camphora*** (Camphor Laurel)	M	7.2	2.75	4.9	Located within footprint of proposed roadway /access ramp to basement car park	Proposed works will necessitate removal.	Remove tree

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	51	***Washingtonia robusta*** (Washington Palm)	G	4.2	2.25	2.9	Proposed new roadway offset 2.9 metres SE at RL x Excavation and compaction for pavement sub-grade & kerb within TPZ. Existing Ward Buildings offset 2-4 metres north to be demolished within TPZ (Stage 2 works). Proposed stormwater line offset 5.3 metres SE.	Extent of incursion to root zone from roadway is less than 10% of the TPZ, which is considered within acceptable limits.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for pavement sub-grade within TPZ in accordance with Section 13.19. Undertake demolition of Ward Buildings in accordance with Section 13.18. Install tree protection fence in accordance with Section 13.10.
	52	***Schefflera actinophylla*** (Umbrella Tree)	M	4.1	2.25	2.8	Located within footprint of proposed new building (Stage 2 Classrooms)	Proposed works will necessitate removal.	Remove tree
	53	***Cupressocyparis x leylandii* 'Leighton Green'** (Leyland Cypress)	M	4.3	2.4	2.9	Located within footprint of proposed new building (Stage 2 Classrooms)	Proposed works will necessitate removal.	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	54	***Cupressocyparis x leylandii* 'Leighton Green'** (Leyland Cypress)	M	3.1	2.1	2.1	Located within footprint of proposed new building (Stage 2 Classrooms)	Proposed works will necessitate removal.	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	55	***Cupressocyparis x leylandii* 'Leighton Green'** (Leyland Cypress)	M	2.6	1.85	1.8	Located within footprint of proposed new building (Stage 2 Classrooms)	Proposed works will necessitate removal.	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	56	***Cupressocyparis x leylandii* 'Leighton Green'** (Leyland Cypress)	M	4.0	2.25	2.7	Located within footprint of proposed new building (Stage 2 Classrooms)	Proposed works will necessitate removal.	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	57	***Cupressocyparis x leylandii* 'Leighton Green'** (Leyland Cypress)	M	3.6	2.1	2.4	Located within footprint of proposed new building (Stage 2 Classrooms)	Proposed works will necessitate removal.	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	58	***Cupressocyparis x leylandii* 'Leighton Green'** (Leyland Cypress)	M	3.8	2.25	2.6	Located within footprint of proposed new building (Stage 2 Classrooms)	Proposed works will necessitate removal.	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	59	***Cinnamomum camphora*** (Camphor Laurel)	M	4.8	2.4	3.3	Located within footprint of proposed new building (Stage 2 Classrooms)	Proposed works will necessitate removal.	Remove tree

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
35	60	***Ficus obliqua*** (Small-leaf Fig)	M	15.0	4.1	10.2	Existing Ward Buildings offset 7.4 metres east to be demolished within TPZ (Stage 2 works). Existing pavements to the south and east to be preserved & resurfaced. Proposed stormwater line offset 7.5 metres SW and 9.6 metres NW. Trench for SW within TPZ.	Proposed demolition works will not result in any adverse impact provided that the works are undertaken as recommended. Open trenching for SW drain will not result in any adverse impact.	To be retained & protected subject to results of further diagnostic testing (Sonic Tomograph test). Install stormwater pipelines within TPZ in accordance with Section 13.20.
63	61	***Washingtonia robusta*** (Washington Palm)	G	4.2	2.25	2.9	Located within footprint of proposed Box Hedge & stormwater line.	Proposed to be transpalnted to accommodate new landscape works	Transplant in accordance with Transplant Specification
62	61a	***Washingtonia robusta*** (Washington Palm)	G	4.2	2.25	2.9	Located within footprint of proposed Box Hedge & stormwater line.	Proposed to be transpalnted to accommodate new landscape works	Transplant in accordance with Transplant Specification
	62	***Pittosporum undulatum*** (Native Daphne)	M	3.4	2.1	2.3	Located within footprint of proposed restored turf embankment.	Proposed works will necessitate removal.	Remove tree
	63	***Alectryon tomentosum*** (Rambutan)	M	3.0	1.65	2.0	Located within footprint of proposed restored turf embankment.	Proposed works will necessitate removal.	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	64	***Omalanthus populifolius*** (Bleeding Heart)	M	3.0	1.65	2.0	Located within footprint of proposed restored turf embankment.	Proposed to be removed to accommodate new landscape works - inconsistent with other plantings.	Remove tree
	65	***Populus alba*** (Silver Poplar)	M	2.4	1.65	1.6	Located within footprint of proposed restored turf embankment.	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	66	***Pittosporum undulatum*** (Native Daphne)	M	2.6	1.65	1.7	Located within footprint of proposed restored turf embankment.	Proposed works will necessitate removal.	Remove tree
	67	***Populus alba*** (Silver Poplar)	M	3.0	1.65	2.0	Located within footprint of proposed restored turf embankment.	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
26	68	***Ficus obliqua*** (Small-leaf Fig)	M	15.0	3.8	10.2	Located within footprint of proposed restored turf embankment. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	68a	***Acacia sp. [parramattensis]*** (Sydney Green Wattle)	M	3.9	2.1	2.7	Located within footprint of proposed restored turf embankment.	Proposed to be removed to accommodate new landscape works - inconsistent with other plantings.	Remove tree
	69	***Acacia sp. [parramattensis]*** (Sydney Green Wattle)	M	3.5	1.85	2.3	Located within footprint of proposed restored turf embankment.	Proposed to be removed to accommodate new landscape works - inconsistent with other plantings.	Remove tree
	70	***Acacia sp. [parramattensis]*** (Sydney Green Wattle)	M	3.4	2.1	2.3	Located within footprint of proposed restored turf embankment.	Proposed to be removed to accommodate new landscape works - inconsistent with other plantings.	Remove tree
	70a	***Acacia sp. [parramattensis]*** (Sydney Green Wattle)	M	2.3	1.3	1.5	Located within footprint of proposed restored turf embankment.	Proposed to be removed to accommodate new landscape works - inconsistent with other plantings.	Remove tree
1	**71**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	3.9	10.2	Located within footprint of proposed restored turf embankment. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10
	71a	***Glochidion ferdinandi*** (Cheese Tree)	M	4.5	2.1	3.1	No proposed works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	72	***Pittosporum undulatum*** (Native Daphne)	M	6.2	2.7	4.2	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
25	**73**	***Ficus macrophylla*** (Moreton Bay Fig)	M	9.6	3.1	6.5	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
25	**74**	***Ficus obliqua*** (Small-leaf Fig)	M	12.0	3.35	8.2	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	75	***Pittosporum undulatum*** (Native Daphne)	M	4.1	2.1	2.8	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	75a	***Pittosporum undulatum*** (Native Daphne)	M	3.6	1.85	2.4	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	76	***Pittosporum undulatum*** (Native Daphne)	M	4.2	2.1	2.9	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	77	***Pittosporum undulatum*** (Native Daphne)	M	3.0	1.65	2.0	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	78	***Pittosporum undulatum*** (Native Daphne)	M	3.5	1.85	2.3	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	79	***Glochidion ferdinandi*** (Cheese Tree)	M	4.4	2.1	3.0	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	80	***Pittosporum undulatum*** (Native Daphne)	M	4.6	2.4	3.1	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	83	***Pittosporum undulatum*** (Native Daphne)	M	4.2	2.1	2.9	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	84	***Melaleuca styphelioides*** (Prickly Paperbark)	M	2.6	1.65	1.7	Located within footprint of proposed restored lawn terrace area. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10
	85	***Melaleuca styphelioides*** (Prickly Paperbark)	M	2.4	1.65	1.6			
	85a	***Melaleuca styphelioides*** (Prickly Paperbark)	M	2.6	1.65	1.7			
	86	***Melaleuca styphelioides*** (Prickly Paperbark)	M	2.4	1.65	1.6			
	87	***Melaleuca styphelioides*** (Prickly Paperbark)	M	2.4	1.65	1.6			
	88	***Celtis sinensis*** (Chinese Nettle Tree)	M	5.0	2.25	3.4	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
2	**89**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	3.8	10.2	Proposed new soft landscape works within TPZ. Lawn terrace area to north to be restored. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Consider carefull removal of existing fill & construction waste for within SRZ.
3	**90**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	4.15	10.2			
4	**90a**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	4.15	10.2			
	91	***Erythrina x sykesii*** (Indian Coral Tree)	M	5.1	2.5	3.5	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	92	***Erythrina x sykesii*** (Indian Coral Tree)	M	3.6	1.85	2.4	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree

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	92a	***Erythrina x sykesii*** (Indian Coral Tree)	M	3.6	2.1	2.4	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	93	***Erythrina x sykesii*** (Indian Coral Tree)	M	3.0	1.85	2.0	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	93a	***Erythrina x sykesii*** (Indian Coral Tree)	M	3.6	2.1	2.4	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	94	***Erythrina x sykesii*** (Indian Coral Tree)	M	3.5	2.1	2.4	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	95	***Erythrina x sykesii*** (Indian Coral Tree)	M	8.4	2.9	5.7	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	96	***Erythrina x sykesii*** (Indian Coral Tree)	M	4.2	2.1	2.9	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	97	***Erythrina x sykesii*** (Indian Coral Tree)	M	5.8	2.6	4.0	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	98	***Erythrina x sykesii*** (Indian Coral Tree)	M	4.2	2.1	2.9	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
5	**99**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	3.75	10.2	Proposed new soft landscape works within TPZ. Lawn terrace area to north to be restored. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Consider carefull removal of existing fill & construction waste for within SRZ.
6	**100**	***Ficus sp.*** (Small-leaf Fig)	M	15.0	3.9	10.2			
	101	***Populus alba*** (Silver Poplar)	M	4.0	1.85	2.7	Located within proposed restored lawn terrace area	Proposed to be removed to accommodate new landscape works - weed species	Remove tree

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	102	***Populus alba*** (Silver Poplar)	M	4.7	2.25	3.2	Located within proposed restored lawn terrace area	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	103	***Populus alba*** (Silver Poplar)	M	5.4	2.5	3.7	Located within proposed restored lawn terrace area	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	104	***Grevillea robusta*** (Silky Oak)	M	5.0	2.5	3.4	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	105	***Araucaria cunninghamii*** (Hoop Pine)	M	2.3	1.3	1.5	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	106	***Ficus sp.*** (Small-leaf Fig)	M	7.2	2.75	4.9	Proposed new soft landscape works within TPZ. Lawn terrace area to north to be restored. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Consider carefull removal of existing fill & construction waste for within SRZ.
	106a	***Brachychiton discolor*** (Queensland Lacebark)	M	4.5	2.1	3.1	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
7	**107**	***Ficus macrophylla*** (Moreton Bay Fig)	M	10.2	3.15	6.9	Proposed new soft landscape works within TPZ. Lawn terrace area to north to be restored. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Consider carefull removal of existing fill & construction waste for within SRZ.
8	**108**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	3.95	10.2			

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	109	***Ficus macrophylla*** (Moreton Bay Fig)	M	7.8	2.85	5.3	Proposed new soft landscape works within TPZ. Lawn terrace area to east to be restored. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Consider carefull removal of existing fill & construction waste for within SRZ.
	110	***Jacaranda mimosifolia*** (Jacaranda)	M	3.8	1.85	2.6			
	111	***Populus alba*** (Silver Poplar)	M	5.9	2.4	4.0	Located within proposed restored lawn terrace area	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
9	**112**	***Ficus macrophylla*** (Moreton Bay Fig)	M	12.0	3.35	8.2	Proposed new soft landscape works within TPZ. Lawn terrace area to east to be restored. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Consider carefull removal of existing fill & construction waste for within SRZ.
	114	***Ficus rubiginosa f. rubiginosa*** (Port Jackson Fig)	M	9.6	3.1	6.5			
37	**115**	***Ficus macrophylla*** (Moreton Bay Fig)	M	9.0	3	6.1			
10	**116**	***Ficus macrophylla*** (Moreton Bay Fig)	M	8.6	3	5.9			
11	**117**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	3.8	10.2			
	118	***Eucalyptus saligna*** (Sydney Blue Gum)	P	5.2	2.5	3.5	Located within proposed restored lawn terrace area	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new turf within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.
	119	***Pittosporum undulatum*** (Native Daphne)	M	3.6	1.85	2.4	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	120	***Pittosporum undulatum*** (Native Daphne)	M	6.0	2.6	4.1	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
29	**121**	***Ficus sp.*** (Small-leaf Fig)	M	15.0	4.2	10.2	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	122	***Olea europea var. africana*** (African Olive)	M	6.0	2.6	4.1	Proposed new soft landscape works within TPZ.	No adverse impact.	Remove tree
	123	***Pittosporum undulatum*** (Native Daphne)	M	3.5	1.85	2.3	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	124	***Olea europea var. africana*** (African Olive)	M	4.3	2.4	2.9	Proposed new soft landscape works within TPZ.	No adverse impact.	Remove tree
	125	***Ficus sp.*** (Small-leaf Fig)	M	9.6	3.1	6.5	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	126	***Pittosporum undulatum*** (Native Daphne)	M	3.4	2.1	2.3	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	127	***Pittosporum undulatum*** (Native Daphne)	M	6.5	2.7	4.4	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	128	***Olea europea var. africana*** (African Olive)	M	4.6	2.4	3.1	Proposed new soft landscape works within TPZ.	No adverse impact.	Remove tree
	130	***Olea europea var. africana*** (African Olive)	M	3.6	2.1	2.4	Proposed new soft landscape works within TPZ.	No adverse impact.	Remove tree
	131	***Pittosporum undulatum*** (Native Daphne)	M	3.3	1.85	2.2	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	132	***Pittosporum undulatum*** (Native Daphne)	M	3.5	1.85	2.3	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	133	***Olea europea var. africana*** (African Olive)	M	3.3	1.85	2.2	Proposed new soft landscape works within TPZ.	No adverse impact.	Remove tree
	134	***Glochidion ferdinandi*** (Cheese Tree)	M	5.5	2.6	3.8	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	135	***Pittosporum undulatum*** (Native Daphne)	M	4.2	2.25	2.9	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	136	***Ficus sp.*** (Small-leaf Fig)	M	14.4	3.6	9.8	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	137	***Erythrina x sykesii*** (Indian Coral Tree)	M	5.8	2.6	4.0	Located within footprint of informal pathway.	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	137a	***Pittosporum undulatum*** (Native Daphne)	M	2.9	1.65	1.9	Proposed new soft landscape works within TPZ.	No adverse impact.	To be retained - no special protection measures required.
	137b	***Erythrina x sykesii*** (Indian Coral Tree)	M	4.9	2.4	3.3	Located within footprint of informal pathway.	Proposed to be removed to accommodate new landscape works - weed species	Remove tree

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	137c	***Erythrina x sykesii*** (Indian Coral Tree)	M	5.7	2.6	3.8	Located within footprint of informal pathway.	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	138	***Erythrina x sykesii*** (Indian Coral Tree)	M	8.6	3	5.9	Located within footprint of informal pathway.	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	139	***Pittosporum undulatum*** (Native Daphne)	M	4.5	2.1	3.1	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	140	***Pittosporum undulatum*** (Native Daphne)	M	3.3	1.85	2.2	Proposed new soft landscape works within TPZ	No adverse impact.	Remove tree
27	**141**	***Ficus sp.*** (Small-leaf Fig)	M	12.0	3.35	8.2	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	141a	***Pittosporum undulatum*** (Native Daphne)	M	3.3	1.85	2.2	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	142	***Pittosporum undulatum*** (Native Daphne)	M	6.0	2.6	4.1	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	142a	***Pittosporum undulatum*** (Native Daphne)	M	2.7	1.65	1.8	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	143	***Olea europea var. africana*** (African Olive)	M	4.8	2.25	3.3	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	144	***Ficus sp.*** (Small-leaf Fig)	M	6.0	2.6	4.1	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	145	***Pittosporum undulatum*** (Native Daphne)	M	4.8	2.25	3.3	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	146	***Pittosporum undulatum*** (Native Daphne)	M	3.4	2.1	2.3	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	147	***Pittosporum undulatum*** (Native Daphne)	M	4.8	2.4	3.3	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	148	***Ficus rubiginosa f. rubiginosa*** (Port Jackson Fig)	M	8.4	2.9	5.7	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	149	***Olea europea var. africana*** (African Olive)	M	4.4	2.4	3.0	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	150	***Olea europea var. africana*** (African Olive)	M	3.6	2.1	2.4	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
24	**151**	***Ficus sp.*** (Small-leaf Fig)	M	9.6	3.1	6.5	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	152	***Ligustrum lucidum*** (Large-leaved Privet)	M	3.6	2.1	2.4	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
30	**153**	***Ficus macrophylla*** (Moreton Bay Fig)	M	14.4	3.6	9.8	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	153a	***Olea europea var. africana*** (African Olive)	M	3.8	2.25	2.6	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	154	***Populus alba*** (Silver Poplar)	M	6.0	2.25	4.1	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
39	**155**	***Lophostemon confertus*** (Brushbox)	M	7.8	2.85	5.3	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	156	***Ficus sp.*** (Small-leaf Fig)	M	9.6	3.1	6.5	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	157	***Eucalyptus pilularis*** (Blackbutt)	P	3.3	1.85	2.2	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	158	***Cinnamomum camphora*** (Camphor Laurel)	M	6.8	2.75	4.7	Located within footprint of proposed restored lawn terrace area. Some grading and level changes may be required within TPZ to restore grass cover.	Proposed works will necessitate removal.	Remove tree
	159	***Eucalyptus pilularis*** (Blackbutt)	P	3.5	1.65	2.4	Located within footprint of proposed restored lawn terrace area. Some grading and level changes may be required within TPZ to restore grass cover.	Grading and levelling may result in potential root damage leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading in accordance with Section 13.19.
28	**160**	***Ficus sp.*** (Small-leaf Fig)	M	9.6	3.1	6.5			
31	**161**	***Ficus sp.*** (Small-leaf Fig)	M	15.0	3.75	10.2	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
31	161a	***Ficus macrophylla*** (Moreton Bay Fig)	M	10.8	3.25	7.3	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	162	***Ficus sp.*** (Small-leaf Fig)	M	14.4	3.6	9.8	Proposed new Building (Stage 3) offset 11.3 metres north at RL 63.67 (400 mm below grade). Excavations for building foundations within TPZ.	Extent of incursion to root zone is less than 10% of the TPZ, which is considered within acceptable limits. No adverse impact	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with section 13.10
32	163	***Ficus rubiginosa f. glabrescens*** (Port Jackson Fig)	M	8.4	2.9	5.7	Proposed new Building (Stage 3) offset 7.8 metres north at RL 67.17 (2 metres above grade). Landscape screening device offset 5.8 metres north. Excavations for building foundations within TPZ. Extensive pruning required to clear building envelope (20% of crown)	Extent of incursion to root zone is less than 10% of the TPZ, which is considered within acceptable limits. Extensive pruning may result in an adverse impact.	Remove tree
58	164	***Dendrocalamas giganteus*** (Giant Bamboo)	G	12.0	3.35	8.2	Proposed new soft landscape works within TPZ	No adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.
40	165	***Lophostemon confertus*** (Brushbox)	M	10.4	3.25	7.1	Located within footprint of proposed restored lawn terrace area. Some grading and level changes may be required within TPZ to restore grass cover. Proposed stormwater line offset 4.1 metres east. Trenching for SW pipeline wthin TPZ.	Grading and levelling may result in potential root damage leading to an adverse impact. Trenching for SW drain may necessitate root severance leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Undertaken trench for SW pipeline in accordance with Section 13.20.

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
41	166	***Lophostemon confertus*** (Brushbox)	M	8.0	2.85	5.5	Located within footprint of proposed restored lawn terrace area. Some grading and level changes may be required within TPZ to restore grass cover. (Check Civil Drawings). Proposed stormwater line offset 5.0 metres west & 5.2 metres south.	Grading and levelling may result in potential root damage leading to an adverse impact. No adverse impact from SW line.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Undertaken trench for SW pipeline in accordance with Section 13.20
33	167	***Ficus obliqua*** (Small-leaf Fig)	M	14.4	3.6	9.8	Proposed new soft landscape works within TPZ	No adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.
34	168	***Ficus rubiginosa f. glabrescens*** (Port Jackson Fig)	M	15.0	4.1	10.2	Proposed retaining wall and pedestrian pathway (Stage 3) offset 13.4 metres north & east at RL 67.17 (2-3 metres above grade). Excavations for wall foundations within TPZ.	Extent of incursion to root zone is less than 10% of the TPZ, which is considered within acceptable limits.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations for new wall foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.
	168a	***Ficus rubiginosa f. glabrescens*** (Port Jackson Fig)	M	4.4	2.4	3.0	Proposed new soft landscape works within TPZ	No adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.
	169	***Unidentified species***	M	2.7	1.85	1.8	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works	Remove tree

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	170	***Eriobotrya japonica*** (Japanese Loquat)	M	3.8	2.25	2.6	Located within footprint of proposed pedestrian pathway (Stage 3 works)	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	171	***Ceratonia siliqua*** (Carob Bean)	M	5.3	2.25	3.6	Located within footprint of proposed pedestrian building (Stage 3 works)	Proposed works will necessitate removal.	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	172	***Celtis sinensis*** (Chinese Nettle Tree)	M	7.8	2.7	5.3	Located within footprint of proposed pedestrian building (Stage 3 works)	Proposed works will necessitate removal.	Remove tree
	173	***Erythrina x sykesii*** (Indian Coral Tree)	M	6.0	2.6	4.1	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
22	**174**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	4.15	10.2	Proposed new Building (Stage 3) offset 12.0 metres south at RL 67.17 (3.8 metres below grade). Excavations for building foundations within TPZ.	Extent of incursion to root zone is less than 10% of the TPZ, which is considered within acceptable limits. Minor pruning may be required to clear the building envelope - no adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations for new wall foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Install ground protection beneath temporary scaffolding in accordance with Section 13.23.
23	**175**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	4.15	10.2	Proposed new Building (Stage 3) offset 13.0 metres south at RL 67.17 (4-5 metres below grade). Excavations for building foundations within TPZ. Existing Coach House offset 4 metres east to be restored.		
	176	***Ligustrum lucidum*** (Large-leaved Privet)	M	3.3	1.85	2.2	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
12	**176a**	***Ficus macrophylla*** (Moreton Bay Fig)	M	7.2	2.75	4.9	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
13	**177**	***Ficus macrophylla*** (Moreton Bay Fig)	M	10.8	3.25	7.3	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	178	***Populus alba*** (Silver Poplar)	M	3.0	1.65	2.0	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
14	**179**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	3.8	10.2	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
15	**180**	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	3.9	10.2	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
16	**181**	***Ficus macrophylla*** (Moreton Bay Fig)	M	12.0	3.35	8.2	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.

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CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
17	182	***Ficus macrophylla*** (Moreton Bay Fig)	M	7.8	2.85	5.3	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	182a	***Eucalypts sp.*** (Gum)	P	5.0	2.4	3.4	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
18	183	***Ficus macrophylla*** (Moreton Bay Fig)	M	8.4	2.9	5.7	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
19	184	***Ficus macrophylla*** (Moreton Bay Fig)	M	9.6	3.1	6.5	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
20	185	***Ficus macrophylla*** (Moreton Bay Fig)	M	14.4	3.6	9.8	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
21	186	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	3.9	10.2	Proposed new Building (Stage 3) offset 13.2 metres SE at RL 63.67 (1.7 metres above grade). Excavations for building foundations within TPZ.	Extent of incursion to root zone is less than 10% of the TPZ, which is considered within acceptable limits. No adverse impact	To be retained - no special protection measures required.
	187	***Acer negundo*** (Box Elder)	M	6.4	2.7	4.3	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	188	***Morus nigra*** (Mulberry)	M	5.9	2.4	4.0	Located within footprint of proposed Building (Stage 3 works)	Proposed works will necessitate removal.	Remove tree
	189	***Ligustrum lucidum*** (Large-leaved Privet)	M	5.8	2.6	3.9	Located within footprint of proposed Building (Stage 3 works)	Proposed works will necessitate removal.	Remove tree
61	190	***Washingtonia robusta*** (Washington Palm)	G	4.3	2.4	2.9	Located within footprint of proposed Box Hedge.	Proposed to be transplanted to accommodate new landscape works	Transplant in accordance with Transplant Specification
60	191	***Washingtonia robusta*** (Washington Palm)	G	4.4	2.4	3.0	Located within footprint of proposed Box Hedge.	Proposed to be transplanted to accommodate new landscape works	Transplant in accordance with Transplant Specification
59	192	***Lophostemon confertus*** (Brushbox)	M	4.3	2.4	2.9	Proposed new soft landscape works within TPZ. Proposed stormwater line offset 3.8 metres NE (within footprint of existing asphalt pavement).	unlikely to result in any adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Undertaken trench for SW pipeline in accordance with Section 13.20.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	193	***Lagunaria patersonia*** (Norfolk Island Hibiscus)	M	5.4	2.5	3.7	Proposed new soft landscape works within TPZ. Proposed stormwater line offset 4.5 metres NE (within footprint of existing asphalt pavement).	Proposed to be removed to accommodate new landscape works - inconsistent with other plantings.	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
43	**194**	***Lophostemon confertus*** (Brushbox)	M	9.2	3.1	6.3	Proposed new soft landscape works within TPZ. Proposed stormwater line offset 4.2 metres NE (within footprint of existing asphalt pavement).	Unlikely to result in any adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10. Undertaken trench for SW pipeline in accordance with Section 13.20.
	195	***Trachycarpus fortunei*** (Chinese Windmill Palm)	G	3.4	1.85	2.3	Proposed new soft landscape works within TPZ	No adverse impact.	To be retained - no special protection measures required.
	196	***Araucaria columnaris*** (Cook's Pine)	M	4.8	2.25	3.3	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works	Undertake replacement planting elsewhere within the site to compensate for loss of amenity.
	197	***Lophostemon confertus*** (Brushbox)	M	6.6	2.7	4.5	Proposed new soft landscape works within TPZ	No adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.
42	**198**	***Lophostemon confertus*** (Brushbox)	M	5.3	2.5	3.6	Proposed new soft landscape works within TPZ	No adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	199	***Jacaranda mimosifolia*** (Jacaranda)	M	7.5	2.6	5.1	Located within footprint of proposed restored lawn area. Some grading and level changes may be required within TPZ to restore grass cover. (Check Civil Drawings)	No adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.
	200	***Plumeria acutifolia*** (Frangipani)	M	3.2	2.1	2.2	Proposed new soft landscape works within TPZ	Proposed to be transplanted to accommodate new landscape works	Transplant in accordance with Transplant Specification
	201	***Washingtonia robusta*** (Washington Palm)	G	2.4	1.65	1.6	Proposed new soft landscape works within TPZ	Proposed to be transplanted to accommodate new landscape works	Transplant in accordance with Transplant Specification
	202	***Washingtonia robusta*** (Washington Palm)	G	2.9	1.85	2.0	Proposed new soft landscape works within TPZ	No adverse impact.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install tree protection fence in accordance with Section 13.10.
	203	***Prunus sp.*** (Plum)	M	3.6	1.85	2.4	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - insignificant specimen	Remove tree
	204	***Punica granatum*** (Pomegranite)	M	2.4	1.65	1.6	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - insignificant specimen	Remove tree
	205	***Magnolia soulangeana*** (Magnolia)	M	3.3	1.85	2.2	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - insignificant specimen	Remove tree
	206	***Mangifera indica*** (Mango Tree)	M	2.4	1.65	1.6	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - insignificant specimen	Remove tree
	207	***Mangifera indica*** (Mango Tree)	M	3.0	1.85	2.0	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - insignificant specimen	Remove tree

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

CMP No.	Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	Minimum Setback Distance (tangent to root plate)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	208	***Mangifera indica*** (Mango Tree)	M	2.6	1.85	1.8	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - insignificant specimen	Remove tree
36	**209**	***Ficus rubiginosa f. rubiginosa*** (Port Jackson Fig)	M	15.0	3.9	10.2	Located within footprint of proposed restored lawn area. Minor grading and level changes may be required within TPZ to restore grass cover. Proposed East Building offset 11.5 metres south at RL x. Minor incursion to TPZ. No incursion to canopy	Grading and levelling may result in potential root damage leading to an adverse impact.	Consider eliminating turf area from beneath crown & alternative installation of low groundcover planting
38	**210**	***Pinus radiata*** (Monterey Pine)	M	9.0	3	6.1	Proposed new soft landscape works within TPZ	Proposed to be removed to accommodate new landscape works - poor specimen	Remove tree
	211	***Ficus macrophylla*** (Moreton Bay Fig)	M	15.0	4.1	10.2	No proposed works within TPZ. Existing asphalt pavement maintained. Proposed stormwater line offset 8.3 metres south & 5.3 metres SE (within footprint of existing asphalt pavement).	unlikely to result in any adverse impact.	Retain in accordance with recommended Tree Protection Measures. Undertake trenching for SW pipeline in accordance with Section 13.20.
	212	***Alectryon tomentosum*** (Rambutan)	M	4.5	2.1	3.1	No proposed works within TPZ. Existing asphalt pavement maintained.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures.
	213	***Morus nigra*** (Mulberry)	M	4.2	2.25	2.9	No proposed works within TPZ. Existing asphalt pavement maintained.	Proposed to be removed to accommodate new landscape works - weed species	Remove tree
	214	***Cupaniopsis anacardioides*** (Tuckeroo)	M	8.4	2.9	5.7	Proposed new building offset 5.7 metres south. Excavations for building foundations within TPZ. Some canopy pruning may be required to clear building envelope. Proposed stormwater line offset 5.1 metres south (within footprint of existing asphalt pavement).	Extent of incursion to root zone from building is less than 10% of the TPZ, which is considered within acceptable limits. Pruning will not result in any adverse impact provided that the work is undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures. Minimise ground level changes within TPZ and undertake any required excavations/grading for new building foundations within TPZ in accordance with Section 13.19. Install any temporary scaffolding in accordance with Section 13.23. Undertake trenching for SW pipeline in accordance with Section 13.20. Undertake any required pruning to clear the building envelope in accordance with Section 13.21