

#### EARTHSCAPE HORTICULTURAL SERVICES

Arboricultural, Horticultural and Landscape Consultants

ABN 36 082 126 027

## ARBORICULTURAL ASSESSMENT REPORT

# PROPOSED MASTER PLAN LORETO NORMANHURST 91-93 PENNANT HILLS ROAD, NORMANHURST

## January 2021

Prepared for: Loreto Normanhurst

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#### 1 INTRODUCTION

- 1.1.1 This report was commissioned by Allen Jack + Cottier on behalf of Loreto Normanhurst to assess the health and condition of approximately four-hundred and eighty (480) trees located within Loreto Normanhurst, 91-93 Pennant Hills Road, Normanhurst. The report has been prepared to aid in the preparation of a Master Plan to guide the future development of the site and upgrade of existing facilities within the site.
- 1.1.2 This report supports a SSDA submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This application is SSD by way of clause 8 and schedule 1 under *State Environmental Planning Policy* (State and Regional Development) 2011 on the basis that the development is for the purpose of an existing school and has a Capital Investment Value of more than \$20 million. This report has been prepared having regard to the Secretary's Environmental Assessment Requirements issued for the project by DPE, ref no SEAR 8996 issued on 12 January 2018.
- 1.1.3 Specifically, this application relates to a staged SSDA within the meaning of Section 4.12 of the EP&A Act, with this application being the Concept Proposal for a new site wide Master Plan for the existing Loreto Normanhurst School. In addition, consent is also sought for the Stage 1 detailed design works for a new on campus student boarding facility, landscaping works, and some demolition works to the buildings between Mary Ward and existing dining room building and associated works to make good existing [refer separate Arboricultural Impact Assessment Report Detailed Stage 1 Works (Boarding House)] and a new Through Site Link and associated car parking facilities [refer separate Arboricultural Impact Assessment Report Detailed Stage 1 Works (Car Parks + Through Site Link)].
- 1.1.4 The purpose of this report is to identify selected trees within the site, provide information on their current health and condition, determine their remaining Safe Useful Life Expectancy (SULE) and assess their significance in the landscape in order to determine their suitability for preservation (Retention Value) in the context of any future development. Tree Protection Zones (TPZs) and Structural Root Zones (SRZs) have also been calculated for each tree in accordance with AS 4970:2009 in order to define the constraints to any future development works and facilitate the layout and design of the site. This report also provides a summary of the potential impacts of both the Detailed Stage 1 Works and the proposed future works forming part of the overall concept Master Plan as requested by DPE.
- 1.1.5 This report has been prepared in accordance with Hornsby Council's *Arboricultural (Tree) Report Guidelines* (March 2016) and Sections 2.3.2-2.3.5 of the Australian Standard for *Protection of Trees on Development Sites* (AS 4970:2009).

#### 2 THE SITE

2.1.1 The subject property is comprised of a number of allotments as outlined in the following table:-

Address	Lot	Plan
16 Mount Pleasant Avenue	Lot 5	DP 1218765
	Lot 16	DP 6612
30 – 62 Mount Pleasant Avenue	Lots 20 – 23 and 25 – 36	DP 6612
	Lot 1	DP 34834
91 – 93 Pennant Hills Road	Lot 1	DP 114580
	Lot 3	DP 1217496

Address	Lot	Plan
	Lot 1 – Lot 3	DP 1218765
	Lot B	DP327538
24 – 28 Mount Pleasant Avenue	Lot 1	DP 809066
6 Mount Pleasant Avenue	Lot C	DP 366271
14 Mount Pleasant Avenue	Lot 4	DP1218765
89 Pennant Hills Road	Lot 1	DP136156

- 2.1.2 For the purposes of this report, the subject allotments will be referred to as 'the site'. The total area of the site is approximately 13.02 hectares. The site is zoned Low Density Residential [R2] under the *Hornsby Local Environmental Plan 2013* (HLEP). The site contains a number of buildings and facilities, on-grade car parking areas, extensive lawns and gardens, hard courts and playing fields comprising the School, together with a large bushland area in the southern portion of the site (not included in this assessment). The site has a moderate south-westerly gradient with a number of terraced areas. The site contains a large number of mature and semi-mature trees. These include a variety of locally-indigenous, non-local native and exotic (introduced) species.
- 2.1.3 The soils of this area are typical of the Glenorie Soil Landscape Group (as classified in the *Soil Landscapes of the Sydney 1:100,000 Sheet*), consisting of "shallow to moderately deep (less than 1000mm) *Red Podzolic Soils* on crests, moderately deep (700 1500 mm) *Red & Brown Podzolic Soils* on upper slopes and deep (greater than 2000mm) *Yellow Podzolic Soils* on lower slopes". Soil materials are derived from Wianamatta shales. The landscape of the area generally consists of undulating to rolling low hills with slopes of 5-20%.
- 2.1.4 The original vegetation of this area consisted of tall open forest (Blue Gum High Forest) which was progressively logged for timber-getting from early in the nineteenth century then cleared for agricultural use (mainly orchards and market gardens) and later for residential development. The dominant locally-indigenous tree species found in this area include *Eucalyptus saligna* (Sydney Blue Gum) and *Eucalyptus pilularis* (Blackbutt). Other species occurring in this vegetation community may include *Syncarpia glomulifera* (Turpentine), *Eucalyptus paniculata* (Grey Ironbark), *Angophora floribunda* (Rough Barked Apple), *Eucalyptus acmenoides* (White Mahogany), *Angophora costata* (Sydney Red Gum), *Eucalyptus resinifera* (Red Mahogany) and *Allocasuarina torulosa* (Forest Oak).

#### 3 SUBJECT TREES

3.1.1 The subject trees were inspected by Earthscape Horticultural Services (EHS) on the 10<sup>th</sup> July 2018. 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 Lockley Land Title Solutions, Dwg. Ref No. 44200DT [B] dated 18/06/2018. The numbers used on this plan correlate with the Tree Assessment Schedule (**Appendix 3**). Tree No.s T7a, T48a, T77, T79, T86a, T86b, T86c, T86d, T87a, T96a, T159, T160, T161, T162, T176a, T176b, T195a, T195b, T196a, T196b, T196c and T242a were not shown on the original survey and have been plotted on the drawing in their approximate positions.

#### 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.<sup>3</sup> 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 laser distance measurer in four directions and an average taken);
  - Trunk diameter (measured with a diameter tape at 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);
  - Maturity Class the Maturity Class for each tree has been divided into the following categories:-
    - OM Over-mature greater than 80% of the life expectancy for the species;
    - Mature 50-80% of the life expectancy for the species;
    - SM Semi-mature -20-50% of the life expectancy for the species;
    - I Immature less than 20% of the life expectancy for the species.
  - **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); and
  - **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).
- 4.1.3 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<sup>4</sup> 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, 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)
- 4.2.1 SULE ratings are intended to provide a general overview of the long term sustainability of the trees within the site in consideration of these factors. The allocated ranges are not intended to be absolute. This information is useful in guiding future planning by highlighting the probable lifespan of individual trees, for which a clear pattern may emerge. This information may be helpful in forecasting likely tree senescence and planning for replacement planting to ensure continuity in tree canopy across the site. It should be noted that SULEs *may* be extended or reduced depending

on the way trees are managed. Intervention and remedial works may extend the SULE of some trees.

#### 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 environmental, heritage and amenity 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 a consistent approach, the assessment criteria 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 Tree Management Controls

Prescribed Trees within the Hornsby Local Government Area (LGA) are protected under the provisions of Part 1, Section B.6 (Tree and Vegetation Preservation) of the *Hornsby Development Control Plan 2013* (HDCP) [revised March 2018] made pursuant to Clause 9 of the *State Environmental Planning Policy (Vegetation in Non-rural Areas) 2017* (SEPP VNRA). The HDCP generally protects all tree species with the potential to grow to a height of more than three (3) metres, all trees growing within a Heritage Conservation Area (regardless of their species) and all trees growing within land listed as a Heritage Item under the HLEP. Some exemptions apply. The following trees are exempt (not protected) under the provisions of the HDCP:-

Tree No.	Species	Exemption
T203, T204	Cinnamomum camphora (Camphor Laurel)	Noxious Weed, Environmental Weed Species
T189, T207	Acer negundo (Box Elder)	Environmental Weed Species
T236*, T237*, T238* & T239*	Syagrus romanzoffianum (Cocos Palm)	Undesirable Species
T26	Mangifera indica (Mango Tree)	Fruit tree
T100, T101	Prunus sp. (Plum tree)	Fruit tree
T205, T206	Malus sp (Apple)	Fruit tree

T5, T200	Erythrina sp. (Coral Tree)	Environmental Weed Species					
Т33	Lagunaria 7atersonia (Norfolk Island Hibiscus)	Undesirable Species					
T20, T27 & T136	Robinia pseudoacacia 'Frisia' (Golden Robinia)	Undesirable Species					
T76, T183, T250	Gleditsia triacanthos (Honey Locust)	Undesirable Species					
T477*	Eucalyptus saligna (Sydney Blue Gum)	Dead tree					

<sup>\*</sup> Note that these trees are located within the adjoining property.

The remainder of the trees are protected under the HDCP 2013.

#### 5.2.2 Wildlife Habitat

Angophora costata (Sydney Red Gum) [T51, T52, T57, T59, T111, T242a, T321, T356, T368, T371, T396, T399, T440 & T446], Angophora floribunda (Rough-barked Apple) [T471, T472, T474, T479, T481 & T484] Eucalyptus acmenioides (White Mahogany) [T259, T260, T325, T326, T343 & T497], Eucalyptus paniculata (Grey Ironbark) [T43, T265, T349, T365, T381, T470, T485 & T486], Eucalyptus pilularis (Blackbutt) [T40, T41, T230, T252, T253, T254, T255, T256, T258, T264, T319, T333, T338, T348, T351, T360, T374, T393, T462, T465, T466 & T467], Eucalyptus resinifera (Red Mahogany) [T257], Eucalyptus saligna (Sydney Blue Gum) [T241, T246, T261, T262, T263, T324, T347, T357, T378, T382, T384, T392, T397, T400, T402, T403, T406, T416, T421, T431, T451, T452, T453, T454, T455, T456, T457, T458, T461, T468, T473, T475, T476, T477, T478, T480, T483, T487, T488, T489, T490, T491, T492 & T493] and Syncarpia glomulifera (Turpentine) [T248, T249, T251, T329, T334, T339, T344, T352, T358, T359, T366, T372, T379, T385, T387, T395, T412, T432, T442, T448, T493a, T494, T495 & T496] are all locally-indigenous species, characteristic of the original vegetation community formerly in this area. The majority of these trees appear to be self-sown progeny of the original forest with some planted trees. All of these trees would be of some benefit to native wildlife. Trees T40, T43, T246, T253, T254, T255, T256, T259, T265, T451, T452, T453, T454, T485, T489, T493 are likely to be remnant of the original forest.

A number of the trees contain cavities that may be suitable as nesting hollows for arboreal mammals or birds. These include Trees T88, T198 & T254. Several trees exhibited evidence of foraging by Brushtail or Ringtail Possums (including Trees T5, T26, T79, T203 & T204). There were no other visible signs of wildlife habitation.

#### 5.2.3 Noxious Plants & Environmental Weeds

Cinnamomum camphora (Camphor Laurel) [T139, T141, T144, T203 & T204] is scheduled as a potential 'Biosecurity Risk' ('Priority Weed' – formerly 'Noxious Weed') within NSW under the provisions of the *Biosecurity Act 2015*. The growth of this plant species must be managed in a manner that continuously inhibits the ability of the plant to spread (so far as is reasonably practicable) and the plant must not be sold, propagated or knowingly distributed. Note that Trees T139, T141 and T144 are located within the Heritage Item and are therefore protected under Hornsby Council's Tree Management Controls.

Olea europaea var africana (African Olive) [T196] is scheduled as a potential 'Biosecurity Risk' ('Priority Weed' – formerly 'Noxious Weed') within the Greater Sydney Region under the provisions of the *Biosecurity Act 2015*. This species must be eradicated from the land.

Liquidambar styracflua (Liquidambar) [T36, T104, T106, T114, T115, T116, T121, T126, T185, T201, T202 & T242] is considered to be a nuisance species in some Local Government Areas (LGAs) within the Sydney Metropolitan Area. This species is protected under Hornsby Council's Tree Management Controls.

#### 5.2.4 Threatened Species & Ecological Communities

Eucalyptus scoparia (Willow Gum) [T9, T10, T310, T390 & T424] is listed as Endangered 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 endangered & vulnerable, 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 of this site.

Syzygium paniculatum (Magenta Cherry or Lilly Pilly) [T151, T152, T153, T155, T156, T190a, T190b] is listed as a Vulnerable Species on Schedule 2 of the *Threatened Species Conservation Act* 1995 (NSW) and a Nationally Vulnerable species under the *Environmental Protection and Biodiversity Conservation Act* 1999. Whilst this species is listed as vulnerable, it is a commonly planted ornamental tree and is not endemic to this area. As such, it does not have any ecological significance in the context of this site.

The National Parks and Wildlife Service (NPWS) 1:25000 Mapping Series (Native Vegetation of the Cumberland Plain)<sup>5</sup> indicates that remnants of Blue Gum High Forest (BGHF) may exist within the site. BGHF is listed as a Critically Endangered Ecological Community (EEC) under the *Threatened Species Conservation Act* 1995 (NSW) and the *Environment Protection and Biodiversity Conservation Act* 1999. The NSW Scientific Community has determined that highly modified relics of this vegetation community may persist as small clumps of trees without a native understorey. As such, small groups and individual remnants of locally-indigenous trees may form part of this vegetation community even if they are not contiguous with any bushland area or larger stand of trees.

are all locally-indigenous species, characteristic of the original vegetation community formerly in this area. The majority of these trees appear to be self-sown progeny of the original forest with some planted trees. All of these trees would be of some benefit to native wildlife. Trees T40, T43, T246, T253, T254, T255, T256, T259, T265, T451, T452, T453, T454, T485, T489, T493 are likely to be remnant of the original forest.

Angophora costata (Sydney Red Gum) [T51, T52, T57, T59, T111, T242a, T321, T356, T368, T371, T396, T399, T440 & T446], Eucalyptus pilularis (Blackbutt) [T40, T41, T230, T252, T253, T254, T255, T256, T258, T264, T319, T333, T338, T348, T351, T360, T374, T393, T462, T465, T466 & T467] and Eucalyptus saligna (Sydney Blue Gum) [T241, T246, T261, T262, T263, T324, T347, T357, T378, T382, T384, T392, T397, T400, T402, T403, T406, T416, T421, T431, T451, T452, T453, T454, T455, T456, T457, T458, T461, T468, T473, T475, T476, T477, T478, T480, T483, T487, T488, T489, T490, T491, T492 & T493] are all Positive Diagnostic Species of BGHF.<sup>6</sup> Eucalyptus resinifera (Red Mahogany) [T257], Angophora floribunda (Rough-barked Apple) [T471, T472, T474, T479, T481 & T484] Eucalyptus acmenioides (White Mahogany) [T259, T260, T325, T326, T343 & T497], Eucalyptus paniculata (Grey Ironbark) [T43, T265, T349, T365, T381, T470, T485 & T486], Eucalyptus resinifera (Red Mahogany) [T257], and Syncarpia glomulifera (Turpentine) [T248, T249, T251, T329, T334, T339, T344, T352, T358, T359, T366, T372, T379, T385, T387, T395, T412, T432, T442, T448, T493a, T494, T495 & T496] are all associated canopy species, occurring less frequently in this EEC. A number of these trees appear to have been planted within the site or are self-sown progeny of the original forest and a number of trees are remnant, existing prior to the residential development of this area (refer Section 5.2.2). All remnant trees are considered to form part of the BGHF EEC.

#### 5.2.1 Biodiversity, Bushfire & Riparian Lands

The southern portion of the site in the vicinity of the 'bushland' area contains 'Terrestrial Biodiversity as indicated on Council's Natural Resources Biodiversity Map forming part of the HLEP 2013. This relates to the presence of the BGHF EEC.

#### 5.3 Heritage Significance

#### 5.3.1 Heritage Items

The subject property (including 91-93 Pennant Hills Road and 16-22 Mount Pleasant Avenue) is listed as an item of Environmental Heritage [Item 607] under Schedule 5, Part 1 of the *Hornsby Local Environmental Plan* (HLEP) 2013. This item is described as a school and former convent displaying characteristic elements from the late Victorian and Federation Era. This includes a sandstone and cast iron gate way and fence (Pennant Hills Road frontage) and notable trees typical of this era (including Brushbox [T17, T28 & T95], Canary Island Palms [T18, T21, T22 & T25], Hoop Pine [T39, T61, T62 & T64], Bunya Pine (now removed), Norfolk Island Pine [T13]) and other plantings typical of the Inter-War Period (1919-1939) including Butia (Jelly) Palm [T75] and Camphor Laurels [T139, T141 & T144].

Loreto Normanhurst was established as boarding school in 1897. The original convent building was designed by Sheerin and Hennessy and constructed by W. E. Graham.

The Loreto Convent Group, including the grounds, gates and cemetery area also listed as an item of Environmental Heritage (Archaeological Site) [Item A60] under Schedule 5, Part 3 of the *Hornsby Local Environmental Plan* (HLEP) 2013.

#### 5.3.2 Heritage Conservation Area

The site is *not* located within a Heritage Conservation Area under Schedule 5, Part 2 of the HLEP 2013.

#### 5.3.3 Significant Tree Register

Hornsby Council does not currently maintain a Register of Significant Trees

#### 5.3.4 General

In addition to the trees noted to be of Heritage Significance in **Section 5.3.1**, T86a (Port Jackson Fig), T90 (Moreton Bay Fig), T97 (Cook Pine), T23 (Plum Pine) T186 & T188 (Queensland Lacebark) and T88 (Red Oak) were probably planted in the late Victorian Federation Era, being typical of this era and of a size and estimated aged consistent with this time frame. T147, a large English Oak, may also have been planted during this period.

#### 5.4 Amenity Value

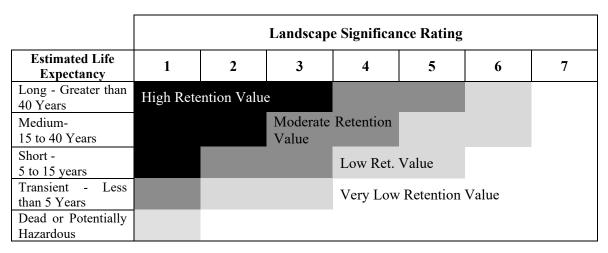
5.4.1 Criteria for the assessment of amenity values are incorporated into **Appendix 1**. The amenity value of a tree is a measure of its live crown size, visual appearance (form, habit, crown density), visibility and position in the landscape and contribution to the visual character of an area. Generally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

#### 6 TREE 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



#### TABLE 2 – TREE RETENTION PRIORITES.

6.1.2 The following table describes the implications of the retention values on site layout and design.

RETENTION VALUE	RECOMMENDED ACTION
"High"	<ul> <li>These trees considered worthy of preservation; as such careful consideration should be given to their retention as a priority.</li> <li>Proposed site design and placement of buildings and infrastructure should consider the recommended setbacks as discussed in the following section (refer also Appendix 2) to avoid any adverse impact on these trees.</li> <li>In addition to Tree Protection Zones, the extent of the canopy (canopy drip-line) should also be considered, particularly in relation to high rise developments. Significant pruning of the trees to accommodate the building envelope or temporary scaffolding is generally not acceptable.</li> </ul>
"Moderate"	<ul> <li>The retention of these trees is desirable, but not essential.</li> <li>These trees should be retained as part of any proposed development if possible. However, these trees are considered less critical for retention.</li> <li>If these trees must be removed, replacement planting should be considered in accordance with Council's Tree Replenishment Policy to compensate for loss of amenity (refer also Section 9).</li> </ul>
"Low"	<ul> <li>These trees are not considered to worthy of any special measures to ensure their preservation, due to current health, condition or suitability. They do not have any special ecological, heritage or amenity value, or these values are substantially diminished due to their SULE.</li> <li>These trees should not be considered as a constraint to the future development of the site.</li> </ul>
"Very Low"	<ul> <li>These trees are considered potentially hazardous or very poor specimens, or may be environmental or noxious weeds.</li> <li>The removal of these trees is therefore recommended regardless of the implications of any proposed development.</li> </ul>

#### 7 TREE PROTECTION ZONES

7.1.1 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).<sup>8</sup>

7.1.2 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.

#### 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. 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).
- 7.2.2 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.

#### 7.3 Acceptable Encroachments 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.
- 7.3.2 Where incursions greater than 10% of the TPZ are unavoidable, exploratory excavation using nondestructive 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 Encroachments 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.

#### 7.5 Legal Protection

7.5.1 Notwithstanding the above recommendations, Council may require a greater setback from certain types of structures to ensure the on-going legal protection of the tree (i.e. its legal status under Council's Tree Management Controls). In Hornsby Shire, a tree located within three (3) metres of the foundation of an approved building (excluding detaches garages, carports and other ancillary buildings) is *not* protected under the HDCP. The measurement is taken from the trunk of the tree at ground level to the foundation of the building. As such, if a tree is considered worthy of preservation, Council is unlikely to approve the construction of a dwelling or building within three (3) metres of the tree (regardless of whether this can be undertaken without having an adverse impact on its health or longevity).

#### 8 PROPOSED DEVELOPMENT

8.1.1 The proposed development includes the Concept Proposal for a new site wide Master Plan for the existing Loreto Normanhurst School. In addition, consent is also sought for the Stage 1 detailed design works for a new on campus student boarding facility, landscaping works, and some demolition works to the buildings between Mary Ward and existing dining room building and associated works to make good existing [refer separate Arboricultural Impact Assessment Report Detailed Stage 1 Works (Boarding House)] and a new Through Site Link and associated car parking facilities [refer separate Arboricultural Impact Assessment Report - Detailed Stage 1 Works (Car Parks + Through Site Link)].

#### 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		
Stage 1 Works	AJ+C	A0003 [6]	09/12/2020		
Indicative extent of Future Envelopes	AJ+C	A0004 [6]	09/12/2020		

- 9.1.2 A summary of the impact of the proposed development on each tree within the site is shown in **Appendix 4**. 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 In addition to the trees proposed to be removed for the Detailed Stage 1 Works (refer to the previous reports), future works forming part of the concept Master Plan will also necessitate the removal of a number of other trees in the future. These include the following: -
  - Four (4) trees of Low Retention Value, being Tree No.s T216 & T217 (Weeping Bottlebrush), T218 (Coastal Myall) and T225 (Red Flowering Gum). None of these trees are considered significant or worthy of special measures to ensure their preservation. The removal of these

trees to accommodate the proposed development is therefore considered warranted in this instance.

- Six (6) trees of Moderate Retention Value, being Tree No.s T65 & T67 (Jacaranda) T66 (Golden Elm), T138 (Coast Banksia) and T176 & T221 (Chinese Elm). 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. In order to compensate for loss of amenity resulting from the removal of these trees to accommodate the proposed development, consideration should be given to replacement planting within the site in accordance with Section 11.
- Three (3) trees of High Retention Value, being Tree No.s TT139 (Camphor Laurel), T220 (Chinese Elm) and T222 (Queensland Kauri). Of these Trees T220 & T222 do not have any special ecological or heritage significance, but are in good health and condition and make a positive contribution to the amenity of the site. T139 is thought to have been planted in the Inter-War period and therefore does form part of the heritage fabric of the site (refer to Section 5.3.1). It should be noted however that this species is also now scheduled as a Biosecurity Risk (refer to Section 5.2.3). At this stage and without the benefit of detailed design, there are no feasible options that can be recommended that would permit these trees to be retained. In order to compensate for loss of amenity resulting from the removal of these trees to accommodate the proposed development, consideration should be given to replacement planting within the site in accordance with Section 11.
- 9.1.4 It should be noted that none of these trees are proposed to be removed at this stage of the development.

#### 10 RECOMMENDED TREE PROTECTION MEASURES

#### 10.1 Tree Protection Plan

10.1.1 The following Tree Protection Measures should be read in accordance with the Tree Protection Plan (**Appendix 6**). The Tree Protection Plan (TPP) indicates the position of tree protection devices and other recommended measures to ensure the protection of trees within the site to be retained as part of the proposed development.

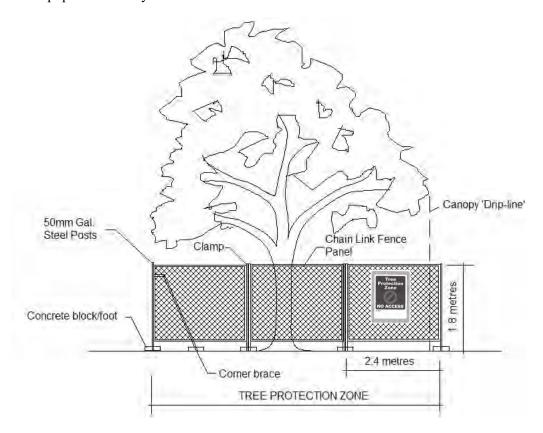
#### 10.2 Prohibited Activities

- 10.2.1 The following activities should be avoided within specified Tree Protection Zones (refer **Appendix 4 & 6** for extent of the TPZ for each tree):-
  - Excavations and trenching (with exception of the approved remediation works, underground services, building foundations or pavement sub-grade);
  - Soil disturbance, surface grading, compaction, tyning, ripping or cultivation of soil;
  - Mechanical removal of vegetation, including extraction of tree stumps;
  - Soil level changes including the placement of fill material (excluding imported validated fill for remediation works or placement of fill for approved works)
  - Movement and storage of plant, equipment & vehicles (except within defined temporary haul roads, where ground protection has been installed, or within the footprint of existing floor slabs or paved areas);
  - Erection of site sheds (except where approved by the site arborist);
  - Affixing of signage, barricades or hoardings to trees;
  - Storage of building materials, waste and waste receptacles;
  - Stockpiling of spoil or fill;
  - Stockpiling of bulk materials, such as soil, sand, gravel, roadbase or the like;

- Stockpiling of demolition waste;
- Disposal of waste materials and chemicals including paint, solvents, cement slurry, fuel, oil and other toxic liquids;
- Other physical damage to the trunk or root system; and
- Any other activity likely to cause damage to the tree.

#### **10.3** Tree Protection Fencing

- 10.3.1 Trees [all trees to be retained, as indicated on the TPP] 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 to the full extent of the Tree Protection Zone, excluding the footprint of the proposed works and areas within adjoining properties, as indicated on the Tree Protection Plan. As a minimum, the fence should consist of temporary chain wire panels of 1.8 metres in height, supported by steel stakes as required and fastened together and supported to prevent sideways movement using corner braces where required. 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. Existing site boundary fences may form part of the enclosure.
- 10.3.2 Appropriate signage shall be installed on the fencing to prevent unauthorised movement of plant and equipment or entry to the Tree Protection Zone.



**Figure 1 – Detail of Tree Protection Fence** 

#### 10.4 Tree Protection Signs

10.4.1 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

#### 10.5 Trunk Protection

10.5.1 Trunk protection boarding shall be erected around Trees [specified trees to be retained as indicated on the TPP] to avoid accidental damage, as indicated on the Tree Protection Plan (Appendix 6). The trunk protection shall consist of a layer of carpet underfelt (or similar) wrapped around the trunk, followed by 1.8 metre lengths of softwood timbers (90 x 45mm in section) aligned vertically and spaced evenly around the trunk at 150mm centres (i.e. with a 50mm gap) 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 Project Arborist. The timbers shall be wrapped around the trunk (over the carpet underfelt), 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. Carpet underfelt (alone) is sufficient for trees with a trunk diameter of less than 200mm. This shall be wrapped around the trunk in a double layer and held in place with heavy-duty fibre reinforced adhesive tape (e.g. Gaffer Tape).



Figure 3 – Detail of Trunk Protection

#### 10.6 Demolition Works within Tree Protection Zones

10.6.1 Demolition of paved areas within the Tree Protection Zones (TPZs) of trees [all trees to be retained as indicated on the TPP] shall be undertaken under the supervision of a qualified Arborist [Australian Qualification Framework (AQF) Level 5].

- 10.6.1 Concrete pavements shall be demolished by breaking the slab into manageable sections (using a rock hammer or similar) and asphalt pavements shall be removed by breaking the topcoat into manageable pieces. The broken sections shall be carefully lifted and folded over the remaining paved surface to minimise disturbance and compaction of the underlying soil profile. Special care shall be taken where underlying woody roots have lifted or displaced the pavement. Any plant or equipment used in demolition work shall operate within the footprint of existing paved areas and avoid traversing soft landscape areas. Where this is unavoidable, suitable ground protection shall first be installed in accordance with **Section 8.16**.
- 10.6.2 The pavement sub-base within the TPZ shall be gradually removed (where required) in layers of no greater than 50mm thick using a small rubber tracked excavator or alternative approved method to avoid excessive disturbance and compaction of the underlying soil profile and damage to underlying roots and minimise. The machine shall work within the footprint of the existing path footprint 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 avoid damage to any underlying woody roots.
- 10.6.3 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 within new landscape areas. Soil shall only be imported and spread when the underlying soil conditions are dry to avoid compaction of the soil profile. Where there is insufficient recovered site topsoil for this purpose, any imported material shall be free of rocks, vegetation, heavy clay or other extraneous matter and supplied and spread in accordance with **Section 8.11**. Any imported soil material should be similar in texture to the existing site topsoil.
- 10.6.4 Demolition of existing walls, kerbs and other structures within the TPZ of trees [all trees to be retained as indicated on the TPP] shall be undertaken under the supervision of a qualified Arborist [AQF level 5]. The structures shall be demolished using equipment on stationed outside the TPZ where possible or within the footprint of existing hardstand areas.
- 10.6.5 Care shall be taken to avoid the root systems, trunks and lower branches of trees in the vicinity of the structures during demolition works, with special attention required during demolition of the footings and other sub-surface members to avoid damage to woody roots. An observer ('spotter') shall be employed to assist the plant operator in order to detect and avoid damage to underlying woody roots during demolition. Trunk and/or branch protection shall be installed where there is a potential risk of damage to trees in proximity or overhead of the work.

#### 10.7 Excavations within Tree Protection Zones

- 10.7.1 Prior to any mechanical excavations for building foundations or pavement sub-grade within the TPZs of Trees [all trees to be retained as indicated on the TPP] exploratory excavation using non-destructive techniques shall be taken along the perimeter of the structure or pavement within the TPZ. Non-destructive excavation techniques may include the use of hand-held implements, air pressure (using an Air-spade® device) or water pressure. The exploratory excavation shall be undertaken along the perimeter of the foundation or pavement (within the TPZ) to the depth of the foundation or to a maximum of 800mm from surface levels, to locate and expose any woody roots prior to any mechanical excavation.
- 10.7.2 All care shall be undertaken to preserve woody roots intact and undamaged during exploratory excavation. Any roots encountered of less than 50mm in diameter may 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 moisture stress on the tree.

- 10.7.3 Where large woody roots (greater than 50mm diameter) are encountered during exploratory excavations, further advice from a qualified arborist shall be sought prior to severance. Where necessary, (to avoid severing large woody roots) consideration should be given to the installation of an elevated structure (e.g. pier and beam footing, suspended slab or floor supported on piers, cantilevered slab, up-turned edge beam etc) in preference to structures requiring a deep edge beam or continuous perimeter strip footing. The beam section of any pier and beam footing should be placed **above** grade to avoid excavation within the SRZ. Pier footings intersecting large woody roots should be slightly offset where necessary to avoid root severance.
- 10.7.4 For masonry walls or fences it may be acceptable to delete continuous concrete strip footings and replace with suspended in-fill panels (eg steel or timber pickets, lattice etc) fixed to pillars. For paved areas, consideration should be given to raising the proposed pavement level and using a porous fill material in preference to excavation where large woody roots are found within the subbase.

#### 10.8 Underground Services

- 10.8.1 All proposed stormwater lines and other underground services should be located outside TPZs of trees proposed to be retained wherever possible or installed by alternative measures. Alternative measures include suspending pipelines beneath the floor of a building or structure (to avoid excavation with the TPZ), non-destructive excavation methods or Horizontal Directional Drilling (HDD). Where the installation of service lines within TPZs is unavoidable, the pipelines or conduits should be installed as follows.
- 10.8.2 Where the extent of the incursion to the root zone is less than 10% of the TPZ including any excavations for benching and shoring the trench, the pipeline or conduit may be installed by open trenching using standard construction methods (excavator or trenching machine). 10% of the TPZ is equivalent to one-third of the TPZ radius on one side (refer to **Appendix 2**). Refer to **Appendix 4** for radial distances of TPZs for each tree.
- 10.8.3 Trenching for underground services and stormwater pipes within the TPZs of Trees [any to be retained as indicated on the TPP], non-destructive excavation methods must be adopted in accordance with Section 8.7. Where large woody roots are encountered during excavation or trenching (root diameter greater than 50mm), these shall be retained intact wherever possible (e.g. by tunnelling beneath roots and inserting the pipeline or conduit beneath or re-routing the service etc). Where this is not practical and root pruning is the only alternative, proposed root pruning should be assessed by a qualified arborist [AQF 5] to evaluate the potential impact on the health and stability of the subject tree.
- 10.8.4 Installation of underground services and stormwater pipes within the SRZ of Trees [any tree to be retained as indicated on the TPP], shall only be undertaken by Horizontal Directional Drilling (HDD) (also referred to as sub-surface boring or Micro-tunnelling for large diameter pipes). The Invert Level of the pipe, plus the pipe diameter, must be lower than the estimated root zone depth as specified. At this site a minimum depth of 1 metre to the invert level of the pipe is specified.

#### 10.9 Pavements

10.9.1 Proposed paved areas within the TTPZs of Trees [all trees to be retained as indicated on the TPP] shall be placed at or slightly above grade where possible to minimise excavations within the root zone and avoid severance and damage of woody roots. The pavement sub-base material should be supplied and installed in accordance with Section 8.10.

#### 10.10 Pavement Sub-base

10.10.1 Pavement sub-base material within TPZs of trees [all trees to be retained as indicated on the TPP] shall be a coarse, gap-graded material such as 20 – 50mm crushed basalt (Blue Metal) or equivalent no-fines gravel material to provide some aeration and moisture permeation to the root zone. Note that road base or crushed sandstone or other similar material containing a high percentage of fines is unacceptable for this purpose. The fill material should be consolidated using a non-vibrating roller or similar to minimise compaction of the underlying soil. A permeable geotextile may be used beneath the sub-base to prevent migration of the stone into the sub-grade and provide greater load capacity.

#### 10.11 Placement of Fill Material

- 10.11.1 Placement of fill material within the TPZs of Trees [any trees to be retained as indicated on the TPP] to be retained should be avoided wherever possible. Where placement of fill is unavoidable, the material shall be a well-drained friable material, equivalent in texture to the existing site topsoil material. The fill should be free from rocks, vegetation and other extraneous material complying with AS 4419:2003 (Soils for Landscaping and Garden Use).
- 10.11.2 The fill may be lightly consolidated, but shall not be compacted to engineering standards. No fill material should be placed in direct contact with the trunk.
- 10.11.3 Plant and equipment used to place and spread fill material should be stationed outside the TPZ where possible. Where not possible, suitable ground protection should be installed in accordance with **Section 8.14** to avoid compaction of the underlying soil profile and root zone.

#### 10.12 Canopy & Root Pruning

- 10.12.1 Canopy pruning of Trees [any tree nominated for pruning as indicated on the TPP] shall be carried out in accordance with Australian Standard 4373-2007 Pruning of Amenity Trees. All pruning work shall be carried out by a qualified and experienced arborist or tree surgeon [Australian Qualification Framework Level 3] in accordance with the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998). No branches of greater than 100mm in diameter should be removed or pruned without further advice from a Consulting Arborist [Australian Qualification Framework Level 5].
- 10.12.2 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.

#### 10.13 Tree Damage

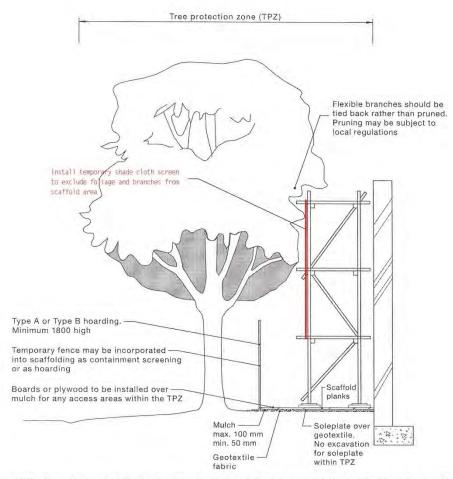
- 10.13.1 Care shall be taken when operating cranes, drilling rigs and similar equipment near trees to avoid damage to tree canopies (foliage and branches). Under no circumstances shall branches be torn-off by construction equipment. Where there is potential conflict between tree canopy and construction activities, the advice of the Site Arborist must be sought.
- 10.13.2 In the event of any tree becoming damaged for any reason during the construction period a consulting arborist [Australian Qualification Framework Level 5] shall be engaged 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.

#### 10.14 Tree Removal

- 10.14.1 The removal of Trees [all trees nominated for removal as indicated on the TPP] shall be carried out by an experienced tree surgeon in accordance with the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998). Care shall be taken to avoid damage to other trees during the felling operation.
- 10.14.2 Stumps located within the TPZs of trees to be retained shall be grubbed-out where required using a mechanical stump grinder (or by hand where less than 150mm in diameter) without damage to the root system of other trees. Where trees to be removed are within the SRZ of any trees to be retained, consideration should be given to cutting the stump close to ground level and retaining the root crown intact. Stumps within the Tree Protection Zone of other trees to be retained shall **not** be pulled out using excavation equipment or similar.

#### 10.15 Temporary Scaffolding

10.15.1 Where temporary scaffolding must be erected within the TPZ of trees [all trees to be retained as indicated on the TPP] (as indicated in Appendix 6), the scaffold shall be erected in accordance with Figure 5. Where foliage or branches project through the scaffold and create a safety hazard, this 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 (refer to Figure 5), or alternatively temporarily tying back branches where required. The pruning or removal of branches to accommodate the scaffold should be avoided wherever possible. Suitable ground protection shall be installed beneath the scaffold as shown in Figure 5 to prevent contamination, disturbance and compaction of the soil profile within the scaffold zone during construction.



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

10.15.2 Where pruning or removal of branches to accommodate temporary scaffolding is unavoidable, all such pruning work shall be undertaken in accordance with **Section 8.8**.

#### 10.16 Ground Protection

- 10.16.1 A 100mm layer of woodchip mulch or washed river sand shall be installed within designated areas of the TPZs of trees [all trees nominated for retention] as indicated on the Tree Protection Plan (Appendix 6) to minimise compaction of the underlying soil profile during construction activity and haulage. A Geotextile fabric, such as Geotex® 'ST' Series manufactured by Synthetic Industries or an equivalent product, shall be installed beneath the mulch/sand layer to minimise compaction to the underlying soil profile and limit migration of mulch into the underlying soil profile. Mulch/sand shall be installed and spread by hand to avoid soil disturbance and compaction within the root zone.
- 10.16.2 To minimise displacement of woodchip/sand in highly trafficked areas, 20mm thick marine ply sheets, truck mats (such as Envirex Versadeck® access mats) (refer **Figure 6**) or rumble boards should be placed over the top of the woodchip/sand. Rumble boards can be constructed with timber sleepers or similar spaced with no more than 200mm gaps between boards and held together with galvanised hoop strap or similar (refer **Figure 7**).



Figure 6 – Showing typical detail for truck mats.



Figure 7 – Showing typical detail for rumble boards.

10.16.3 Ground protection shall 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 shall be removed without damage or disturbance to the underlying soil profile.

#### 11 REPLACEMENT PLANTING

- 11.1.1 In order to compensate for loss of amenity resulting from the removal of trees to accommodate the proposed development, an equivalent number of new trees capable of attaining a height of at least twelve (12) metres at maturity should be planted within the site.
- 11.1.2 Replacement trees should preferably include some locally indigenous species. These will be most appropriate to the site conditions and be most valuable in terms of preserving the landscape

character and wildlife habitat of the area. The following species are appropriate to the site conditions and could be considered for replacement planting:-

### Local native Species:-

- Eucalyptus saligna (Sydney Blue Gum) and
- Eucalyptus pilularis (Blackbutt).
- Syncarpia glomulifera (Turpentine)
- Eucalyptus paniculata (Grey Ironbark)
- Angophora floribunda (Rough Barked Apple)
- Eucalyptus acmenoides (White Mahogany)
- Angophora costata (Sydney Red Gum)
- Eucalyptus resinifera (Red Mahogany)
- Allocasuarina torulosa (Forest Oak)
- Acmena smithii (Lillypilly)
- Elaeocarpus reticulatus (Blueberry Ash)

#### Suitable Non-local Native Species:-

- Backhousia citriodora (Lemon-scented Myrtle)
- Agathis robusta (Queensland Kauri)#
- Araucaria columnaris (Cook Pine)#
- Araucaria cunninghamii (Hoop Pine)#
- Brachychiton discolor (Queensland Lacebark)#
- Lophostemon confertus (Brushbox)#
- Stenocarpus sinuatus (Queensland Firewheel Tree)
- Scolopia braunii (Flintwood)
- Doryphora sassafras (Sassafras)
- *Castanospermum australe* (Blackbean)
- Flindersia australis (Crows Foot Ash)#
- Stenocarpus sinuatus (Qld Firewheel Tree)
- Syzygium paniculatum (Magenta Cherry)#
- Syzygium oleosum (Blue Cherry)
- Syzygium leuhmannii (Small Leaf Lillypilly)
- Waterhousea floribunda (Weeping Lilly Pilly)#.
- Elaeocarpus grandis
- Elaeocarpus kirtonii
- Elaeocarpus eumundii
- Toona ciliata (Red Cedar)
- Ceratopetalum apetalum (Coachwood)
- Corymbia maculata (Spotted Gum)
- Ficus rubiginosa f. glabrescens (Port Jackson Fig)#

#### Suitable Exotic species:-

- Nyssa sylvatica (Tupelo)
- Liriodendron tulipifera (Tulip Tree)
- Jacaranda mimosifolia (Jacaranda)
- Magnolia grandiflora (Bullbay Magnolia)#
- Ginko biloba (Maidenhair Tree)
- Butia capitata (Jelly Palm)#
- Cedrus deodara (Himalayan Cedar)
- Cryptomeria japonica (Japanese Cedar)
- Ouercus rubra (Red Oak)

- Quercus palustris (Pin Oak)
- *Ulmus parvifolia* (Chinese Elm)

# Denotes species characteristic of the Late Victorian and Federation Era.

Tuo

**Andrew Morton**EARTHSCAPE HORTICULTURAL SERVICES 29<sup>th</sup> January 2021

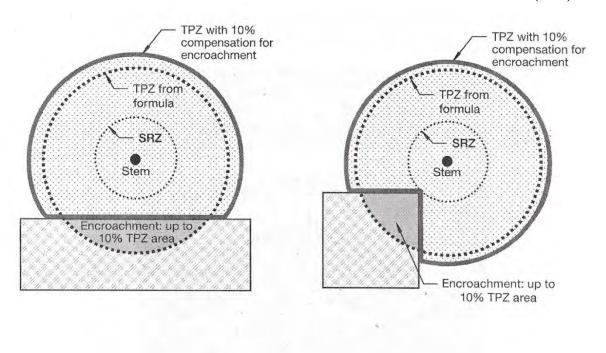
#### APPENDIX 1 - CRITERIA FOR ASSESSMENT OF LANDSCAPE SIGNIFICANCE

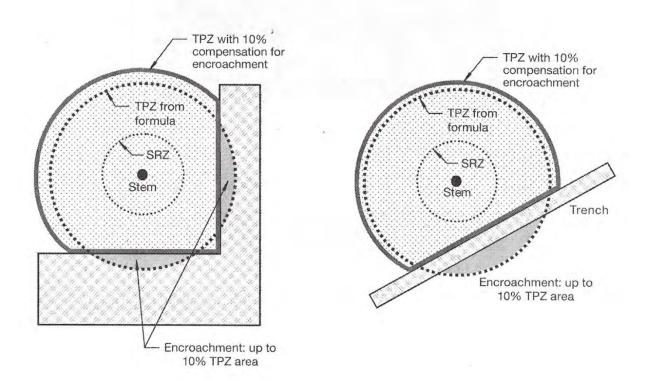
RATING	HERITAGE VALUE	ECOLOGICAL VALUE	AMENITY VALUE				
	The subject tree is listed as a Heritage Item under the Local Environment Plan (LEP) with a local, state or national level of significance or is listed on Council's Significant Tree Register	The subject tree is scheduled as a Threatened Species as defined under the Threatened Species Conservation Act 1995 (NSW) or the Environmental Protection and Biodiversity Conservation Act 1999	The subject tree has a very large live crown size exceeding 300m² with normal to dense foliage cover, is located in a visually prominent position in the landscape, exhibits very good form and habit typical of the species				
1. SIGNIFICANT	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	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	The subject tree 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				
	The subject tree is a Commemorative Planting having been planted by an important historical person (s) or to commemorate an important historical event	The subject tree is a Remnant Tree, being a tree in existence prior to development of the area	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.	The tree is a locally-indigenous species, representative of the original vegetation of the area and is a dominant or associated canopy species of an Endangered Ecological Community (EEC) formerly occurring in the area occupied by the site.	The subject tree has a very large live crown size exceeding 200m <sup>2</sup> ; a crown density exceeding 70% (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	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 100m <sup>2</sup> ; The tree is a good representative of the species in terms of its form and branching habit with minor deviations from normal (e.g. crown distortion/suppression) with a crown density of at least 70% (normal); 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 tree has no known or suspected historical association, but does not detract or diminish the value of the item and is sympathetic to	The subject tree is a non-local native or exotic species that is	The subject tree has a medium live crown size exceeding 40m <sup>2</sup> ;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% (thinning to normal); and				
	the original era of planting.	protected under the provisions of this DCP.	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 makes a fair contribution to the visual character and amenity of the area.				
5. LOW	The subject tree detracts from heritage values or diminishes the value of a heritage item	The subject tree is scheduled as exempt (not protected) under the provisions of this DCP due to its species, nuisance or position relative to buildings or other structures.	The subject tree has a small live crown size of less than 40m² and can be replaced within the short term (5-10 years) with new tree planting				
6. VERY LOW	The subject tree is causing significant damage to a heritage Item.	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 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. 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% (sparse).				
7. INSIGNIFICA NT	The tree is completely dead and has no visible habitat value	The tree is a declared Noxious Weed under the Noxious Weeds Act (NSW) 1993 within the relevant Local Government Area.	The tree is completely dead and represents a potential hazard.				

Ref:- Morton, A (2006) Determining the Retention Value of Trees on Development Sites

TreeNet - Proceedings of the 7<sup>th</sup> National Street Tree Symposium 2006 Government of South Australia Department for Transport, Energy and Infrastructure

#### 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

#### **REFERENCES:-**

<sup>1</sup> Chapman GA & Murphy CL (1989)

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Soil Conservation Service of NSW. Sydney

<sup>2</sup> Benson, Doug & Howell, Jocelyn (1990)

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Kangaroo Press & The Royal Botanic Gardens, Sydney, NSW

<sup>3</sup> Mattheck, Dr. Claus & Breloer, Helge (1994) – Sixth Edition (2001)

The Body Language of Trees - A Handbook for Failure Analysis

The Stationery Office, London, England

<sup>4</sup> Barrell, Jeremy (1996)

**Pre-development Tree Assessment** 

Proceedings of the International Conference on Trees and Building Sites (Chicago)

International Society of arboriculture, Illinois, USA

<sup>5</sup> National Parks and Wildlife Service of NSW (October 2002)

Native Vegetation of the Cumberland Plain - 1:25000 Mapping Series (Map 10 of 16)

NPWS, Sydney NSW

<sup>6</sup> Tozer, Mark (2003)

The Native Vegetation of the Cumberland Plain, Western Sydney: Systematic Classification and Field Identification of Communities

Cunninghamia 8 (1) 2003, (Journal of Plant Ecology for Eastern Australia)

National Herbarium of NSW, Botanic Gardens Trust, Sydney

<sup>7</sup> Office of Environment and Heritage (

State Heritage Inventory – Heritage Database

Loreto Convent Group, grounds Gates and Cemetery

http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=1780857

<sup>8</sup> 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										
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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
1	Jacaranda mimosifolia (Jacaranda)	7	10	369	50		Appears stable with sound branching structure. Exhibits a prominent lean to the north-west. Crown suppressed on the east side due to crowding.	Crown lifted to 3 metres. Deadwooded	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
2	Cupressus glabra (Arizona Cypress)	14	10	580	130	М	Appears stable with sound branching structure. Exhibits 10% interior crown deadwood.	Crown lifted to 3 metres.	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
3	Cupressus glabra (Arizona Cypress)	12	7	389	73.5	М	Appears stable with fair branching structure. Exhibits a prominent lean to the north-west.	Crown lifted to 3 metres.	Good	Moderate borer infestation at junctions of PLs	Long - more than 40 years	4	Moderate	On-site
4	Cupressus glabra (Arizona Cypress)	14	8	600	96	М	Appears stable with fair branching structure. Exhibits a prominent lean to the north-west. Multiple moderate bark inclusions at 1-2 metres.	Crown lifted to 3 metres.	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
5	<i>Erythrina sp.</i> (Coral Tree)	9	9	548	72	M	Appears stable with fair branching structure. Exhibits moderate dieback in upper crown due possum defoliation with 25% deadwood. Some decay in branch collars due previous pruning.	Crown lifted to 3 metres.	Fair with thinning crown	High Possum defoliation.	Short 5-15 Years	6	Low	On-site
6	Prunus sp. (Ornamental Flowering Peach)	3	4	242	8	ОМ	Appears stable with poor branching structure. Exhibits a moderate basal cavity with decay in old branch stubs/branch collars due previous pruning.	Previously lopped at 1.5 - 2 metres (crown restored)	Fair with thinning crown	Low borer infestation.	Transient (less than 5 years)	5	Very Low	On-site
7	Melaleuca quinquenervia (Broad-leaved Paperbark)	14	10	700	120	M	Appears stable with fair branching structure. Exhibits multiple co-dominant leaders at 1-2 metres with moderate included bark at junctions. Multiple aerial roots from 2 metres to GL.	No Evidence	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	3	Moderate	On-site
7a	Photinia x fraseri 'Robusta' (Chinese Hawthorn)	7	9	200x5	45	М	Appears stable with fair branching structure. Exhibits multiple co-dominant leaders at GL. 25% epicormic growth due to previous pruning.	Crown lifted to 3 metres.	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
8	Melaleuca quinquenervia (Broad-leaved Paperbark)	14	8	637	88	М	Appears stable with fair branching structure. Exhibits multiple co-dominant leaders at 2-3 metres with moderate included bark at junctions of PLs & SLs.	Crown lifted to 3 metres.	Good	No Evidence	Long - more than 40 years	3	High	On-site
9	Eucalyptus scoparia (Willow Gum)	12	5	271	30	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the south (self-corrected). 30% epicormic growth due previous pruning. Located in rrow garden bed close to retaining wall.	Crown lifted to 5 metres. Deadwooded.	Fair with slightly thinning crown	Suspected Thaumastocorid infestation	Short 5-15 Years	5	Low	On-site
10	Eucalyptus scoparia (Willow Gum)	14	8	369	96	SM	Appears stable with fair branching structure. 10% epicormic growth due previous pruning. Located in rrow garden bed close to retaining wall.	Deadwooded	Good	Suspected Thaumastocorid infestation	Medium 15-40 Years	4	Moderate	On-site
11	Lophostemon confertus (Brushbox)	10	9	443	72	SM	Appears stable with fair branching structure. Exhibits multiple co-dominant leaders at 1 metre with moderate included bark at junctions of PLs	Crown lifted to 3 metres.	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
12	Lophostemon confertus (Brushbox)	15	5.5	347	71.5	SM	Appears stable with sound branching structure. Exhibits a moderate basal wound at due to mechanical injury.	Crown lifted to 3 metres.	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
13	Araucaria heterophylla (Norfolk Island Pine)	32	9	904	270	М	Appears stable with sound branching structure.	Crown lifted to 3 metres.	Good	No Evidence	Long - more than 40 years	2	High	On-site
14	Lophostemon confertus (Brushbox)	9	9	401	63	SM	Appears stable with sound branching structure. Exhibits 10% interior crown deadwood.	Crown lifted to 2 metres.	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	4	Moderate	On-site
15	Melaleuca quinquenervia (Broad-leaved Paperbark)	16	11	800	154	M	Appears stable with fair branching structure. Exhibits multiple high bark inclusions at 1-2 metres. Located close to asphalt carpark. Roots lifting and displacing asphalt pavement.	Crown lifted to 2 metres.	Good	No Evidence	Long - more than 40 years	3	High	On-site
16	Citharexylum spinosum (Fiddlewood)	10	9	240x2	72	SM	Appears stable with sound branching structure. Multiple epicormic sprouts (15%) due previous pruning.	Crown lifted to 2 metres.	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
17	Lophostemon confertus (Brushbox)	16	14	1200	196	М	Appears stable with sound branching structure.	Crown lifted to 3 metres. Deadwooded	Good	No Evidence	Long - more than 40 years	1	High	On-site
18	Phoenix canariensis (Canary Island Palm)	11	6	580	30	М	Appears stable with sound branching structure.	Lower fronds removed	Very Good	No Evidence	Long - more than 40 years	2	High	On-site
19	Cupressus leylandii 'Naylors Blue' (Leyland Cypress)	16	9	551	130.5	М	Appears stable with sound branching structure.	Crown lifted to 2 metres.	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
20	Robinia pseudoacacia 'Frisia' (Golden Robinia)	8	9	318	54	М	Appears stable with poor branching structure. Exhibits a high bark inclusion at 2.5 metres.	Crown lifted to 2 metres.	Good	No Evidence	Medium 15-40 Years	6	Low	On-site
21	Phoenix canariensis (Canary Island Palm)	13	7	573	42	М	Appears stable with sound branching structure.	Lower fronds removed	Good	No Evidence	Long - more than 40 years	2	High	On-site
22	Phoenix canariensis (Canary Island Palm)	12	7	503	42	М	Appears stable with sound branching structure.	Lower fronds removed	Very Good	No Evidence	Long - more than 40 years	2	High	On-site
23	<b>Podocarpus elatus</b> (Brown or Plum Pine)	18	11	691	176	М	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 1.5-2 metres, with partly welded junction.	Crown lifted to 5 metres. Deadwooded	Very Good	No Evidence	Long - more than 40 years	2	High	On-site
24	Liriodendron tulipifera (Tulip Tree)	14	7	347	77	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres. Deadwooded	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
25	Phoenix canariensis (Canary Island Palm)	9	7	503	35	М	Appears stable with sound branching structure.	Lower fronds removed	Very Good	No Evidence	Long - more than 40 years	2	High	On-site
26	<b>Mangifera indica</b> (Mango Tree)	5	7	150x4	28	М	Appears stable with fair branching structure. Exhibits moderate dieback in upper crown due possum defoliation with 20% deadwood.	Crown lifted to 2 metres.	Fair with thinning crown	High Possum defoliation.	Short 5-15 Years	6	Very Low	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
27	Robinia pseudoacacia 'Frisia' (Golden Robinia)	9	7	207	49	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 2 metres, at junction of co-dominant PLs. Multiple epicormics emanating from old pruning wounds.	Crown lifted to 2 metres. Previously lopped at 3 metres.	Good	No Evidence	Short 5-15 Years	6	Very Low	On-site
28	Lophostemon confertus (Brushbox)	17	16	1252	240	M	Appears stable with fair branching structure. Exhibits a high bark inclusion at GL, at junction of PL.	Selectively pruned & deadwooded. Crown lifted to 3 metres.	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	1	High	On-site
29	Corymbia maculata (Spotted Gum)	22	10	510	190	M	Appears stable with sound branching structure. Crown supressed on south-west side due to crowding (former Camphor Laurel to SW)	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
31	Camellia sasanqua (Sasanqua)	6	7	150x4	28	M	Appears stable with poor branching structure. Exhibits multiple large wounds due dieback in vascular tissue in lower trunk due suspected root rot disease with decay evident.	Crown lifted to 2 metres.	Fair with slightly thinning crown	Suspected Root Rot disease.	Transient (less than 5 years)	4	Very Low	On-site
32	<b>Cedrus deodara</b> (Himalayan Cedar)	17	14	662	182	М	Appears stable with sound branching structure. Leader possibly broken out previously at 15 metres.	Crown lifted to 5 metres. Deadwooded	Very Good	No Evidence	Long - more than 40 years	2	High	On-site
33	Lagunaria patersonia (Norfolk Island Hibiscus)	15	7	389	98	М	Appears stable with sound branching structure. Exhibits a prominent lean to the north.	Crown lifted to 3 metres.	Very Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
34	<b>Podocarpus elatus</b> (Brown or Plum Pine)	13	7	287	84	М	Appears stable with sound branching structure. Exhibits a prominent lean to the north-west (self-corrected).	Crown lifted to 2 metres. Deadwooded	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
35	<b>Cedrus deodara</b> (Himalayan Cedar)	19	13	678	221	М	Appears stable with sound branching structure. Exhibits a very prominent lean to the north (self-corrected).	Crown lifted to 3 metres.	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	3	High	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Ratinq	Retention Value	Location	
36	<b>Liquidambar</b> s <b>tyraciflua</b> (Liquidambar)	18	20	803	280	М	Appears stable with fair branching structure. Exhibits multiple small wounds due previous branch loss with decay in branch collars and stubs. Multiple extended lateral PLs.	Crown lifted to 4 metres. Selectively pruned & some PLs lopped to clear adjacent building.	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site	
37	Bauhinia variegata (Orchid Tree)	9	5	169	35	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the south.	Crown lifted to 2 metres.	Good	No Evidence	Medium 15-40 Years	5	Low	On-site	
38	Acer palmatum (Japanese Maple)	5	8.5	150x4	25.5	М	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at GL.	Crown lifted to 2 metres.	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site	
39	Araucaria cunninghamii (Hoop Pine)	35	9	898	297	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site	
40	Eucalyptus pilularis (Blackbutt)	22	20	1076	300	М	Appears stable with sound branching structure.	Selectively crown thinned & deadwooded	Very Good	No Evidence	Medium 15-40 Years	1	High	On-site	
41	Eucalyptus pilularis (Blackbutt)	10	5	280	30	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the south-west. Crown suppressed east side due overshadowing. Main leader distorted with bend in trunk at 3 metres.	No Evidence	Fair	Moderate borer infestion in lower trunk	Short 5-15 Years	4	Low	On-site	
42	Araucaria cunninghamii (Hoop Pine)	10	6	401	48	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site	
43	Eucalyptus paniculata (Grey Ironbark)	18	15	570 + 430	225	М	Appears stable with sound branching structure.	Deadwooded	Very Good	Low vine infestation	Long - more than 40 years	1	High	Nature strip	
44	Casuarina glauca (Swamp Oak)	11	3	150	27	SM	Appears stable with fair branching structure.	No Evidence	Fair with thinning crown	Severe vine infestation	Short 5-15 Years	5	Low	Nature strip	
45	Casuarina glauca (Swamp Oak)	11	3	200	27	SM	Appears stable with fair branching structure.	No Evidence	Fair with thinning crown	Severe vine infestation	Short 5-15 Years	5	Low	Nature strip	

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location		
45a	Corymbia maculata (Spotted Gum)	25	8	525	120	M	Appears stable with sound branching structure. Exhibits multple small basal wounds due to borer infestation.	Deadwooded	Very Good	Low borer infestation	Long - more than 40 years	3	High	Nature strip		
46	Corymbia maculata (Spotted Gum)	22	9	510	144	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site		
48	Casuarina glauca (Swamp Oak)	14	4	200	44	SM	Appears stable with fair branching structure.	No Evidence	Fair with slightly thinning crown	High vine infestation	Short 5-15 Years	4	Low	On-site		
48a	Stenocarpus sinuatus (Queensland Firewheel Tree)	5	2.5	137	8.75	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site		
49	Photinia x fraseri 'Robusta' (Chinese Hawthorn)	6	11	200x4	55	М	Appears stable with fair branching structure. Exhibits 30% epicormic growth.	Deadwooded	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site		
50	<b>Cedrus deodara</b> (Himalayan Cedar)	15	10	535	130	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site		
51	Angophora costata (Sydney Red Gum)	11	7	299	49	SM	Appears stable with sound branching structure. Crown suppressed on the south side due to crowding.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site		
52	Angophora costata (Sydney Red Gum)	12	8	312	72	SM	Appears stable with sound branching structure. Exhibits a low bark inclusion at 5 metres at junction of PL.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site		
53	Acacia binervia (Coastal Myall)	9	8	200 + 240	56	М	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL at junction of co-dominant leaders.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site		
54	Acacia binervia (Coastal Myall)	9	7	344	42	М	Appears stable with sound branching structure. Exhibits a prominent lean to the west.	Crown lifted to 3 metres.	Fair	No Evidence	Short 5-15 Years	4	Low	On-site		

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location		
55	Acacia binervia (Coastal Myall)	7	6	226	24	М	Appears stable with fair branching structure. Exhibits a high bark inclusion at junction of PL at 2 metres. 20% deadwood.	Crown lifted to 3 metres.	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site		
56	Acacia binervia (Coastal Myall)	7	6	306	24	М	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 1 metre at junction of co-dominant leaders. 70% deadwood.	Crown lifted to 3 metres.	Poor with sparse crown	No Evidence	Transient (less than 5 years)	5	Very Low	On-site		
57	Angophora costata (Sydney Red Gum)	12	5	223	25	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site		
58	Acacia binervia (Coastal Myall)	11	9	366	81	М	Appears stable with sound branching structure. Exhibits a prominent lean to the west.	Crown lifted to 3 metres.	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site		
59	Angophora costata (Sydney Red Gum)	12	8	344	56	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the north (self corrected).	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site		
60	Jacaranda mimosifolia (Jacaranda)	7	6	223	30	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the west.	Crown lifted to 3 metres.	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site		
61	Araucaria cunninghamii (Hoop Pine)	16	14	1035	196	М	Appears stable with fair branching structure. Main leader broken out at 14 metres due suspected previous storm damage.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site		
62	Araucaria cunninghamii (Hoop Pine)	24	9	1070	207	М	Appears stable with sound branching structure.	No Evidence	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	1	High	On-site		
63	Eucalyptus sideroxylon (Mugga Ironbark)	15	11	605	121	М	Stability suspect with sound branching structure. Crown suppressed on west side due crowding. Very prominent lean to the east. Located within very small traffic island surrounded by asphalt pavement.	Crown lifted to 6 metres. Deadwooded.	Very Good	Moderate borer infestation in TLs	Short 5-15 Years	3	Moderate	On-site		
64	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	16	14	1025	210	М	Appears stable with fair branching structure. Main leader broken out at 14 metres due suspected previous storm damage.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site		

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65	Jacaranda mimosifolia (Jacaranda)	11	10	430	90	М	Appears stable with fair branching structure. Exhibits a high bark inclusion at 1 metre at junction of co-dominant PLs. Moderate wound at 2.5 metres due vehicle damage.	Lopped at 3 metres (crown restored)	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site	
66	Ulmus glabra 'Lutescens' (Golden Elm)	8	9	424	54	М	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 0.8 metres.	Crown lifted to 2 metres. Deadwooded.	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site	
67	Jacaranda mimosifolia (Jacaranda)	10	10	465	80	М	Appears stable with sound branching structure.	Crown lifted to 2 metres.	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site	
68	Tibouchina macrantha (Lasiandra)	5	5	80x2 + 60	15	SM	Appears stable with sound branching structure. Exhibits multiple co-dominant leaders at GL.	Crown lifted to 2 metres.	Good	No Evidence	Medium 15-40 Years	5	Low	On-site	
69	<b>Ginko biloba</b> (Maidenhair Tree)	13	7	200	77	SM	Appears stable with sound branching structure. Located within small raised garden area surrounded by pavement.	Crown lifted to 3 metres.	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site	
70	Lagerstroemia indica (Crepe Myrtle)	7	6	207	30	SM	Appears stable with fair branching structure. Exhibits multple epicormic sprouts emanating from old pruning wounds.	Lopped at 3 metres (crown restored)	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site	
71	Archontophoenix cunninghamii (Bangalow Palm)	11	4	220 + 210	16	М	Appears stable with poor branching structure. Exhibits a prominent lean to the north and south (self-corrected). Severe bark inclusion at GL. Located with narrow raised planter.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site	
72	Archontophoenix cunninghamii (Bangalow Palm)	11	4	200 + 220	16	М	Appears stable with poor branching structure. Exhibits a prominent lean to the north and south (self-corrected). Severe bark inclusion at GL. Located with narrow raised planter.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site	
73	Archontophoenix cunninghamii (Bangalow Palm)	10	5	274	15	М	Appears stable with sound branching structure. Located with narrow raised planter.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site	

			APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE													
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location		
74	Archontophoenix cunninghamii (Bangalow Palm)	9	4	180x3	16	SM	Appears stable with poor branching structure. Exhibits multiple high bark inclusions at GL (3 x codominant trunks). Located with narrow raised planter.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site		
75	<b>Butia capitata</b> (Jelly Palm)	9	5	404	20	М	Appears stable with sound branching structure. Exhibits a very prominent lean to the north.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site		
76	Gleditsia triacanthos (Honey Locust)	12	13	376	117	SM	Appears stable with sound branching structure. Exhibits a promminent lean to the south-west.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	6	Low	On-site		
77	<b>Quercus robur</b> (English Oak)	10	12	350	96	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site		
79	Magnolia soulangeana (Magnolia)	7	5	130x6	20	SM	Appears stable with sound branching structure. Exhibits multiple trunks at GL.	Crown lifted to 3 metres	Good	Moderate Possum defoliation	Short 5-15 Years	4	Low	On-site		
80	Ginko biloba (Maidenhair Tree)	13	7	420	77	M	Appears stable with fair branching structure. Exhibits multiple high bark inclusions at 1-3 metres at junctions of PLs. Prominent lean to the west (self-corrected).	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site		
83	Juniperus chinensis 'Variegata' (Variegated Chinese Juniper)	7	5	180x2 + 150	25	М	Appears stable with fair branching structure. Exhibits a very prominent lean to the west. Located with a small garden surrounded by pavement. 10% deadwood.	Crown lifted to 2 metres	Fair	No Evidence	Short 5-15 Years	5	Low	On-site		
84	Quercus robur (English Oak)	7	9	248	45	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site		
85	Platanus orientalis (Oriental Plane)	11	7	255	63	SM	Appears stable with sound branching structure. Bend in trunk at 2 metres.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site		

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86	Castanospermum australe (Blackbean)	12	9	410 + 350	81	M	Appears stable with fair branching structure. Exhibits a large wound in lower trunk /former branch collar due previous pruning (large PL) with decay evident. Prominent lean to the north-west.	Crown lifted to 3 metres. Deadwooded.	Very Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site	
86a	Ficus rubiginosa f. glabrescens (Port Jackson Fig)	25	18	800 + 850	414	М	Appears stable with fair branching structure. Exhibits multiple moderate wounds previous branch branch loss SLs at 10, 13 & 20 metres. Two trunks at GL.	Selectively pruned & deadwooded	Good	No Evidence	Medium 15-40 Years	2	High	On-site	
86b	Trachycarpus fortunei (Chinese Windmill Palm)	5	3	200	6	М	Appears stable with sound branching structure. Upper crown suppressed due to overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site	
86c	Trachycarpus fortunei (Chinese Windmill Palm)	7	3	200x2	9	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site	
86d	Trachycarpus fortunei (Chinese Windmill Palm)	5	3	200	9	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site	
87	Elaeocarpus reticulatus (Blueberry Ash)	8	4	188	20	М	Appears stable with fair branching structure. Exhibits multiple occluded axial wounds from GL to 1 metre. Prominent lean to the west.	Crown lifted to 4 metres	Good	No Evidence	Short 5-15 Years	5	Low	On-site	
87a	Elaeocarpus reticulatus (Blueberry Ash)	8	4	169	20	М	Stability suspect with sound branching structure. Prominent lean to the north-west.	Crown lifted to 4 metres	Good	No Evidence	Short 5-15 Years	5	Low	On-site	
88	<b>Quercus rubra</b> (Red Oak)	13	16	755	160	М	Stability suspect with fair branching structure. Exhibits multiple moderate wounds and cavities in PLs due previous pruning at 4 + 6 metres. Very prominent lean to the SE. Upper crown suppressed/distorted due to overshadowing. Evidence decay in lower trunk root crown.	Selectively pruned & deadwooded	Good	Root rot and butt rot disease (Ganoderma sp.)	Transient (less than 5 years)	2	Low	On-site	
89	Lophostemon confertus (Brushbox)	17	9	408	135	SM	Appears stable with sound branching structure. Crown suppressed on the south side due crowding.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site	

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89a	Elaeocarpus reticulatus (Blueberry Ash)	8	4.5	197	27	М	Appears stable with sound branching structure. Crown suppressed on SW side due overshadowing.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
90	Ficus macrophylla (Moreton Bay Fig)	20	20	1200	360	М	Appears stable with sound branching structure. Exhibits a moderate bark inclusion at 1.5 metres at junction of co-dominant leaders.	No Evidence	Good	No Evidence	Long - more than 40 years	2	High	On-site
91	Jacaranda mimosifolia (Jacaranda)	10	9	312	72	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the NE.	Deadwooded	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
92	<b>Quercus palustris</b> (Pin Oak)	12	8	350	80	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
93	<b>Eucalyptus</b> <b>sideroxylon</b> (Mugga Ironbark)	25	17	901	289	М	Appears stable with sound branching structure. Exhibits multiple large occluded axial wounds east and west side from GL to 6 metres due suspected previous lightning strike.	Deadwooded & Selectively Crown Thinned.	Good	No Evidence	Medium 15-40 Years	2	High	On-site
94	Eucalyptus sideroxylon (Mugga Ironbark)	15	15	643	195	M	Appears stable with fair branching structure. Exhibits a very prominent lean to the west. Crown suppressed NE side due to overshadowing. Bend in trunk at 4 metres with co-dominant leaders.	Deadwooded & Selectively Crown Thinned.	Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
95	Lophostemon confertus (Brushbox)	20	13	1124	234	М	Appears stable with sound branching structure. Exhibits a small wound on lower trunk at 0.5-1.0 metres.	Deadwooded	Good	No Evidence	Medium 15-40 Years	2	High	On-site
96	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	19	9	580	153	SM	Appears stable with sound branching structure. Located in small garden area surrounded by masonry reatining walls on north, south and east sides.	Lower PLs lopped to clear shade sails	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
96a	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	10	7	248	63	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

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97	Araucaria columnaris (Cook Pine)	20	7	580	126	М	Appears stable with sound branching structure. Exhibits a prominent lean to the NE (self-corrected). Co-dominant leaders at 10 metres.	No Evidence	Very Good	No Evidence	Long - more than 40 years	2	High	On-site
98	<b>Quercus palustris</b> (Pin Oak)	11	10	401	90	SM	Appears stable with sound branching structure. Located on steep sandstone flag paved embankment.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	3	High	On-site
100	<b>Prunus sp.</b> (Plum tree)	8	8	300x2 + 400	48	ОМ	Stability suspect with poor branching structure. Exhibits multiple severe bark inclusions at GL	Selectively pruned.	Fair	No Evidence	Transient (less than 5 years)	4	Very Low	On-site
101	<b>Prunus sp.</b> (Plum tree)	3	3	350	3	ОМ	Stability suspect with poor branching structure.	Cut to stump at 1.5 metres	Poor with sparse crown	No Evidence	Transient (less than 5 years)	4	Very Low	On-site
102	Ficus macrophylla (Moreton Bay Fig)	9	9	400	63	SM	Appears stable with sound branching structure. Located close to existing dwelling (< 4 metres)	No Evidence	Very Good	Low Fig Psyllid infestation	Long - more than 40 years	4	Moderate	On-site
103	<b>Quercus robur</b> (English Oak)	9	15	350x2 + 400	105	М	Appears stable with poor branching structure. Exhibits multiple moderate wounds to PLs and SLs due previous pruning with decay evident. Multiple extended lateral PLs.	Pollarded at 5-6 metres (crown restored)	Good	No Evidence	Short 5-15 Years	3	Moderate	On-site
104	Liquidambar styraciflua (Liquidambar)	15	15	694	195	М	Appears stable with sound branching structure. Exhibits a moderate wound at 5 metres due branch loss (SL). Crown suppressed south side due crowding.	Selectively pruned & deadwooded.	Good	No Evidence	Long - more than 40 years	3	High	Nature strip
106	Liquidambar styraciflua (Liquidambar)	16	13	497	169	М	Appears stable with sound branching structure. Crown suppressed north side due crowding.	Deadwooded	Good	No Evidence	Long - more than 40 years	3	High	Nature strip
107	Hymenosporum flavum (Native Frangipani)	10	4.5	264	36	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
107a	Hymenosporum flavum (Native Frangipani)	8	4	111	28	I	Appears stable with sound branching structure.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	5	Low	On-site

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107b	Castanospermum australe (Blackbean)	6	4.5	191	18	ı	Appears stable with fair branching structure.	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
111	Angophora costata (Sydney Red Gum)	14	12	398	120	М	Appears stable with sound branching structure. Fruiting bodies growing at GL near trunk.	No Evidence	Fair	Suspected butt rot disease (Gymnopilus sp.)	Short 5-15 Years	3	Moderate	On-site
112	Acacia binervia (Coastal Myall)	13	8	439	88	М	Appears stable with sound branching structure. Exhibits 30% interior crown deadwood.	Crown lifted to 3 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
113	Acacia binervia (Coastal Myall)	11	8	382	64	М	Appears stable with sound branching structure. Crown suppressed on north side due to crowding. Exhibits 20% interior crown deadwood.	Crown lifted to 3 metres	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
114	Liquidambar styraciflua (Liquidambar)	13	16	634	176	М	Appears stable with fair branching structure. Exhibits multiple small lesions on trunk & PLs with dark exudate due suspected canker infection.	No Evidence	Fair	Suspected Canker infection	Short 5-15 Years	3	Moderate	Nature strip
115	Liquidambar styraciflua (Liquidambar)	15	9	459	117	М	Appears stable with sound branching structure.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	3	High	Nature strip
116	<b>Liquidambar</b> <b>styraciflua</b> (Liquidambar)	17	13	611	195	М	Appears stable with sound branching structure. Crown suppressed north side due crowding.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	3	High	Nature strip
117	Jacaranda mimosifolia (Jacaranda)	8	8	334	40	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the south-west (self-corrected). Located close to existing driveway.	Crown lifted to 3 metres	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
118	Cryptomeria japonica (Japanese Cedar)	16	10	557	140	М	Appears stable with sound branching structure.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	2	High	On-site
119	Cupressus sempervirens 'Stricta' (Italian Cypress)	11	2	150 + 200	22	М	Appears stable with fair branching structure. Exhibits multiple high bark inclusions from GL to 2 metres. Crown suppressed east side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site

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120	Cupressus glabra (Arizona Cypress)	16	9	900	117	М	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at 1-5 metres at junctions of PLs & SLs.	Selectively pruned & deadwooded	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
121	<i>Liquidambar</i> <i>styraciflua</i> (Liquidambar)	16	9	462	126	М	Appears stable with sound branching structure. Crown suppressed on the west side due to crowding.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
122	Araucaria cunninghamii (Hoop Pine)	16	7	525	98	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
123	Acmena smithii (Lillypilly)	6	7	120x3 + 150	28	М	Appears stable with fair branching structure. Exhibits multiple co-dominant PLs at GL. 20% deadwood.	Crown lifted to 2 metres. Deadwooded	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
124	Fraxinus Raywood (Claret Ash)	13	12	392	132	М	Appears stable with sound branching structure. Crown suppressed on the north-east side due crowding.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	3	High	On-site
125	Fraxinus Raywood (Claret Ash)	12	8	395	80	М	Appears stable with sound branching structure. Crown suppressed on the west side due crowding.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
126	<b>Liquidambar</b> <b>styraciflua</b> (Liquidambar)	11	7	411	63	SM	Appears stable with sound branching structure. Crown suppressed on the west side due crowding.	Selectively pruned	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
127	<b>Cedrus deodara</b> (Himalayan Cedar)	9	11	525	77	М	Appears stable with sound branching structure. Exhibits moderate dieback with 20% deadwood due previous compaction and soil disturbance. Exhibits a very prominent lean to the north (self corrected).	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
127a	Elaeocarpus reticulatus (Blueberry Ash)	10	4	175	32	М	Appears stable with sound branching structure.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
128	<b>Cedrus deodara</b> (Himalayan Cedar)	14	9	541	112.5	М	Appears stable with sound branching structure. Exhibits moderate dieback with 30% deadwood due previous compaction and soil disturbance.	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	3	Moderate	On-site

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129	Araucaria cunninghamii (Hoop Pine)	16	9	627	130.5	SM	Appears stable with sound branching structure.	Crown lifted to 1 metre	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
130	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	17	14	726	182	М	Appears stable with sound branching structure. Minor dieback with 5% deadwood.	Deadwooded	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	3	Moderate	Nature strip
136	Robinia pseudoacacia 'Frisia' (Golden Robinia)	9	7	334	49	М	Appears stable with fair branching structure. Exhibits multiple modrate bark inclusions at 1-5 metres at junctions of PLs.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	6	Very Low	On-site
138	<b>Banksia integrifolia</b> (Coast Banksia)	8	7	277	56	М	Appears stable with sound branching structure. Crown suppressed on south side due to overshadowing. Prominent lean to the north.	Crown lifted to 1 metre	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
139	Cinnamomum camphora (Camphor Laurel)	12	15	500x3	165	М	Appears stable with fair branching structure. Exhibits multiple co-dominant PLs at 1 metre.	Previously cut to 1 metre (crown restored)	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	2	High	On-site
140	Ulmus parvifolia (Chinese Elm)	6	10	287	40	SM	Appears stable with sound branching structure. Crown suppressed on north side due to overshadowing.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
141	<b>Cinnamomum</b> <b>camphora</b> (Camphor Laurel)	13	12	1100	138	М	Appears stable with fair branching structure. Exhibits multiple co-dominant PLs at 1 metre.	Deadwooded & Selectively Crown Thinned. Previously cut to stump at 1 metre	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	2	High	On-site
143	Castanospermum australe (Blackbean)	11	8	270 + 310	72	SM	Appears stable with fair branching structure. Exhibits a high bark inclusion from GL to 1 metre at junction of co-dominant leaders. Moderate wound at 1.2 meters due branch loss with decay evident.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

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144	<b>Cinnamomum</b> <b>camphora</b> (Camphor Laurel)	16	15	971	210	М	Appears stable with sound branching structure. Exhibits multiple co-dominant PLs at 1.2 metres.	Deadwooded & Selectively Crown Thinned. Previously cut to stump at 1 metre (crown restored).	Good	No Evidence	Medium 15-40 Years	2	High	On-site
145	Ulmus parvifolia (Chinese Elm)	6	10	204	40	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the south. Upper crown suppressed due to overshadowing.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
146	<b>Quercus palustris</b> (Pin Oak)	12	10	350	100	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
147	<b>Quercus robur</b> (English Oak)	16	24	1400	336	М	Appears stable with fair branching structure. Exhibits multipl large wounds at 3 metres due previous pruning. Large axial wound from GL to 3 metres with decay evident due suspected lightning strike.	Selectively crown thinned and deadwooded.	Good	Previous High termite infestation (treated)	Short 5-15 Years	1	High	On-site
148	Livistona australis (Cabbage Tree Palm)	6	5	350	15	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
148a	Howea forsteriana (Kentia Palm)	6	4	150x2	12	SM	Appears stable with fair branching structure. Twin trunked at GL. Located close to existing building <2 metres	No Evidence	Very Good	No Evidence	Short 5-15 Years	4	Low	On-site
148b	Howea forsteriana (Kentia Palm)	8	4	201	8	М	Appears stable with sound branching structure. Located close to existing building <2 metres	No Evidence	Very Good	No Evidence	Short 5-15 Years	4	Low	On-site
149	Camellia sasanqua (Sasanqua)	5	8	100x8	24	М	Appears stable with fair branching structure. Exhibits multiple high bark inclusions at GL.	Crown lifted to 2 metres	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
150	Ulmus parvifolia (Chinese Elm)	8	10	280	60	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

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151	Syzygium paniculatum (Magenta Cherry)	8	6	344	36	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 0.8 metres with welded junction.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
151a	Trachycarpus fortunei (Chinese Windmill Palm)	5	2.5	200	3.75	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
152	Syzygium paniculatum (Magenta Cherry)	8	6	220 + 145	36	SM	Appears stable with fair branching structure.	Crown lifted to 2 metres	Fair	Low Foliar insect infestation	Medium 15-40 Years	4	Moderate	On-site
153	Syzygium paniculatum (Magenta Cherry)	7	5	170x2	25	I	Appears stable with fair branching structure. Exhibits a low bark inclusion at GL.	Crown lifted to 3 metres	Fair	Moderate Foliar insect infestation	Medium 15-40 Years	5	Low	On-site
154	Sapium sebiferum (Chinese Tallow tree)	10	5	354	30	М	Appears stable with sound branching structure.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
154a	Trachycarpus fortunei (Chinese Windmill Palm)	5	2.5	200	3.75	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
155	Syzygium paniculatum (Magenta Cherry)	9	6	258	42	SM	Appears stable with fair branching structure. Located close to existing tennis court.	Crown lifted to 3 metres	Good	Moderate Foliar insect infestation	Medium 15-40 Years	4	Moderate	On-site
156	Syzygium paniculatum (Magenta Cherry)	7	4	191	20	I	Appears stable with sound branching structure. Located close to existing tennis court.	Crown lifted to 3 metres	Fair	Moderate Foliar insect infestation	Medium 15-40 Years	5	Low	On-site
157	Sapium sebiferum (Chinese Tallow tree)	8	7	287	35	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
159	Metasequoia glyptostroboides (Dawn Redwood)	13	8	490	88	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	3	High	On-site

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160	Juniperus chinensis 'Pfitzeriana' (Juniper)	3.5	5	240	12.5	М	Appears stable with fair branching structure.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
161	Thuja plicata (Western Red Cedar)	6	4	500	20	SM	Appears stable with poor branching structure. Exhibits multiple co-dominant PLs at GL.	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
162	Juniperus chinensis 'Pfitzeriana' (Juniper)	3	5	240	10	М	Appears stable with fair branching structure.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
165	Jacaranda mimosifolia (Jacaranda)	11	14	350 + 225	98	М	Appears stable with sound branching structure.	Selectively crown thinned & deadwooded	Good	No Evidence	Long - more than 40 years	3	High	On-site
167	<b>Cyathea cooperi</b> (Rough Tree Fern)	3	2	90	2	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
169	Acer palmatum (Japanese Maple)	7	8	150x5	40	М	Appears stable with sound branching structure.	Deadwooded	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
170	Sapium sebiferum (Chinese Tallow tree)	8	7	334	42		Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
172	Populus nigra 'Italica' (Lombardy Poplar)	22	8	449	136	M	Appears stable with sound branching structure.	Crown lifted to 5 metres. Deadwooded.	Fair	Low Poplar Rust infection	Short 5-15 Years	4	Low	On-site
173	Populus nigra 'Italica' (Lombardy Poplar)	9	3	182	18	SM	Appears stable with fair branching structure.	Crown lifted to 2 metres	Fair	Low Poplar Rust infection	Short 5-15 Years	5	Low	On-site
174	Populus nigra 'Italica' (Lombardy Poplar)	13	4.5	312	45	SM	Appears stable with fair branching structure.	Crown lifted to 2 metres	Fair	Low Poplar Rust infection	Short 5-15 Years	4	Low	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
175	Ulmus parvifolia (Chinese Elm)	12	15	449	150	М	Appears stable with sound branching structure. Located within small raised planter.	Deadwooded. Selectively crown thinned.	Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
176	Ulmus parvifolia (Chinese Elm)	16	16	554	224	М	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 1.5 metres (welded junction). Located within small raised planter.	Crown lifted to 2 metres. Deadwooded. Selectively crown thinned.	Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
176a	Archontophoenix cunninghamii (Bangalow Palm)	8	3	170 + 150x2	15	SM	Appears stable with poor branching structure. Exhibits multiple high bark inclusions at GL (3 x codominant trunks).	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
176b	Archontophoenix cunninghamii (Bangalow Palm)	11	4	220 + 240x2	16	М	Appears stable with poor branching structure. Exhibits multiple high bark inclusions at GL (3 x codominant trunks).	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
177	Betula sp [nigra] (Tropical Birch)	20	9	376	126	М	Appears stable with sound branching structure. Located close to footpath on north and east sides.	Crown lifted to 7 metres	Good	No Evidence	Long - more than 40 years	3	High	On-site
178	Betula sp [nigra] (Tropical Birch)	18	11	334	143	М	Appears stable with sound branching structure.	Crown lifted to 3 metres. Deadwooded.	Good	No Evidence	Long - more than 40 years	3	High	On-site
179	Betula sp [nigra] (Tropical Birch)	17	12	455	132	М	Appears stable with sound branching structure.	Crown lifted to 3 metres. Deadwooded. Selectively pruned.	Good	No Evidence	Long - more than 40 years	3	High	On-site
180	<b>Magnolia</b> <b>grandiflora</b> (Bullbay Magnolia)	14	8	376	100	М	Appears stable with fair branching structure. Exhibits a low bark inclusion at 1.2 metres.	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
181	Ulmus parvifolia (Chinese Elm)	14	15	440 + 500	165	М	Appears stable with fair branching structure. Exhibits a very prominent lean to the south. Moderate cavity and decay in lower trunk. Located within small raised planter box.	Crown lifted to 4 metres. Deadwooded.	Good	No Evidence	Short 5-15 Years	3	Moderate	On-site
183	Gleditsia triacanthos (Honey Locust)	9	7	178	35	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the north-east. Located close to existing building (< 1 metre)	Crown lifted to 5 metres	Good	No Evidence	Transient (less than 5 years)	6	Very Low	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
185	<b>Liquidambar</b> <b>styraciflua</b> (Liquidambar)	15	18	685	198	М	Appears stable with sound branching structure.	Crown lifted to 3 metres and deadwooded	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	3	Moderate	On-site
186	Brachychiton discolor (Queensland Lacebark)	20	12	946	144	М	Appears stable with sound branching structure. Exhibits multiple co-dominant leaders at 6 metres. 5% deadwood.	Selectively pruning & deadwooded	Good	No Evidence	Medium 15-40 Years	2	High	On-site
188	Brachychiton discolor (Queensland Lacebark)	12	10	796	100	М	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at junctions of PLs at 1 & 2 metres.	Selectively pruning & deadwooded	Good	No Evidence	Long - more than 40 years	2	High	On-site
189	<b>Acer negundo</b> (Box Elder)	8	11	350x2	66	М	Appears stable with fair branching structure. Exhibits a prominent lean to the east. Exhibits a high bark inclusion from GL to 1 metre.	Selectively pruning & deadwooded	Good	No Evidence	Medium 15-40 Years	6	Low	On-site
190	Tristaniopsis laurina (Water Gum)	7	5	287	25	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the south (self-corrected).	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
190a	Syzygium paniculatum (Magenta Cherry)	11	9	334	81	SM	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at junction of co-dominant leaders at 2 metres and junction of PL at 2.5 metres.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
190b	Syzygium paniculatum (Magenta Cherry)	11	9	385	81	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
192	Sapium sebiferum (Chinese Tallow tree)	5	5	236	15	SM	Appears stable with sound branching structure. Growing on steep embankment.	Selectively pruned & deadwooded.	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
193	Sapium sebiferum (Chinese Tallow tree)	5	4	236	12	SM	Appears stable with sound branching structure. Growing on steep embankment. Exhibits a very prominent lean to the north-east (self-corrected).	Selectively pruned & deadwooded.	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
194	Sapium sebiferum (Chinese Tallow tree)	6	5	255	20	SM	Appears stable with fair branching structure. Growing on steep embankment. Multiple epib=cormic sprouts emanating from old pruning wounds at 2.5 metres.	Lopped at 2.5 metres (crown restored)	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
195	Eucalyptus robusta (Swamp Mahogany)	12	12	510	96	М	Appears stable with sound branching structure. Located within small traffic island. Lifting and displacing asphalt pavement.	Crown lifted to 2 metres. Deadwooded.	Good	No Evidence	Short 5-15 Years	3	Moderate	On-site
195a	Row of 8 x  Allocasuarina torulosa (Forest Oak)	8	5	229	35	SM	Appears stable with fair branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
195b	Row of 5 x <b>Syzygium australe</b> (Lillypilly)	5	5	150	25	SM	Appears stable with fair branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	Nature strip
196	Lagerstroemia indica (Crepe Myrtle)	5	7	300	21	М	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
196a	Acmena smithii (Lillypilly)	8	7	309	42	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
196b	Pittosporum undulatum (Sweet Pittosporum)	7	4	166	20	SM	Appears stable with fair branching structure.	Crown lifted to 2 metres	Good	No Evidence	Short 5-15 Years	5	Low	On-site
196c	Olea europaea var africana (African Olive)	6	6	150x3	24	SM	Appears stable with poor branching structure. Exhibits multiple moderate bark inclusions at GL.	Crown lifted to 2 metres	Good	No Evidence	Short 5-15 Years	6	Very Low	On-site
197	<b>Tibouchina</b> <b>granulosa</b> (Lasiandra)	4	4	160	12	SM	Appears stable with sound branching structure.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
198	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	18	14	646	168	М	Appears stable with sound branching structure. Some dieback with 10% deadwood. Exhibits multiple axial wound on trunk at 5 metres with decay and part cavity. Moderate wound and suspected cavity at 10 metres at junction of PLs.	Deadwooded	Fair with slightly thinning crown	Suspected Phellinus sp. (Bracket Fungus) infection at 5 metres	Short 5-15 Years	3	Moderate	Nature strip
199	Callistemon salignus (Willow Bottlebrush)	7	7	380	42	М	Appears stable with poor branching structure. Exhibits a broken suspended TL at 3-4 metres. Moderate wound at 4 metres due branch loss. Multiple high bark inclusions at 1 metre at junctions of PLs.	Crown lifted to 2 metres. Lopped to clear domestic powerline	Good	No Evidence	Short 5-15 Years	4	Low	Nature strip
200	Erythrina crista- galli (Cockscomb Coral)	4	5	180 + 150	10	SM	Appears stable with fair branching structure.	Crown lifted to 2 metres. Deadwooded.	Fair	No Evidence	Short 5-15 Years	6	Very Low	Nature strip
201	Liquidambar styraciflua (Liquidambar)	18	14	739	210	М	Appears stable with sound branching structure. Exhibits a moderate wound and decay at 3 metres.	Selectively pruned & deadwooded	Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
202	<b>Liquidambar</b> <b>styraciflua</b> (Liquidambar)	16	18	860	216	M	Appears stable with poor branching structure. Exhibits multiple co-dominant PLs at 7 metres (7). Multiple low bark inclusions at 2 metres. Crown suppressed on the east side due to crowding.	Selectively pruned & deadwooded	Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
203	Phoenix canariensis (Canary Island Palm)	5	6	600	24	ı	Appears stable with sound branching structure.	Crown lifted to 1 metre.	Very Good	No Evidence	Long - more than 40 years	6	Low	On-site
203a	Cinnamomum camphora (Camphor Laurel)	8	7	180x3	42	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate Possum defoliation	Short 5-15 Years	7	Very Low	On-site
204	Cinnamomum camphora (Camphor Laurel)	9	9	380	63	SM	Appears stable with sound branching structure.	Selectively pruned.	Good	Moderate Possum defoliation	Long - more than 40 years	7	Very Low	On-site
205	<i>Malus sp</i> (Apple)	5	5	200	20	М	Appears stable with fair branching structure.	Selectively pruned.	Fair with thinning crown	No Evidence	Short 5-15 Years	6	Very Low	On-site

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206	<i>Malus sp</i> (Apple)	5	7	350	28	М	Appears stable with fair branching structure.	Selectively pruned.	Fair with thinning crown	No Evidence	Short 5-15 Years	6	Very Low	On-site
206a	Melaleuca styphelioides (Prickly Paperbark)	8	10	500	80	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
207	Acer negundo (Box Elder)	5	6	229	24	I	Appears stable with sound branching structure. Located close to existing dwelling (< 1 metre)	Crown lifted to 2 metres	Very Good	No Evidence	Short 5-15 Years	6	Very Low	On-site
208	<b>Pyrus salicifolia</b> (Silver Pear)	5	5	150	25	ОМ	Appears stable with poor branching structure.	Selectively pruned.	Poor with sparse crown	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
209	Corymbia maculata (Spotted Gum)	20	14	650	238	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	Nature strip
210	Agathis robusta (Queensland Kauri)	18	5	300	65	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
211	Jacaranda mimosifolia (Jacaranda)	6	6	255	30	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the west (self-corrected).	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
212	Jacaranda mimosifolia (Jacaranda)	6	8	331	32	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres. Deadwooded.	Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
213	Melaleuca quinquenervia (Broad-leaved Paperbark)	7	5	255 + 220	25	SM	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL.	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	Nature strip
214	Melaleuca quinquenervia (Broad-leaved Paperbark)	7	6	357	30	SM	Appears stable with fair branching structure. Exhibits a large wound on trunk in branch collar of PL at 1 metre due branch loss.	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	Nature strip

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216	Callistemon viminalis (Weeping Bottlebrush)	7	6	140 + 185	30	М	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL. Upper canopy suppressed due to overshadowing. Very prominent lean to the NW (self-corrected).	Crown lifted to 2 metres	Good	No Evidence	Short 5-15 Years	5	Low	On-site
217	Callistemon viminalis (Weeping Bottlebrush)	5	6	170x2	24	M	Appears stable with fair branching structure. Upper crown suppressed on west side due to overshadowing. Located close to existing crib-lock retaining wall.	Crown lifted to 1 metre	Good	No Evidence	Short 5-15 Years	5	Low	On-site
218	Acacia binervia (Coastal Myall)	9	10	480	70	M	Appears stable with sound branching structure. Located close to existing crib-lock retaining wall. Prominent lean to the west (self-corrected).	Crown lifted to 2 metres. Deadwooded.	Very Good	No Evidence	Short 5-15 Years	4	Low	On-site
220	Ulmus parvifolia (Chinese Elm)	13	16	497	160	М	Appears stable with sound branching structure.	Crown lifted to 3 metres. Deadwooded. Selectively pruned	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
221	Ulmus parvifolia (Chinese Elm)	8	10	366	60	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the south. Located close to existing building.	Crown lifted to 2 metres. Deadwooded. Selectively pruned	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
222	Agathis robusta (Queensland Kauri)	16	5	424	65	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
225	Corymbia ficifolia (WA Red Flowering Gum)	10	11	360	44	M	Appears stable with poor branching structure. Exhibits multiple severe bark inclusions at 2.5 metres at junction of co-dominant extended lateral PLs. 15% deadwood.	Selectively pruned & deadwooded	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
226	Eucalyptus botryoides (Bangalay)	20	18	440 + 420 + 450	270	М	Appears stable with poor branching structure. Exhibits multiple moderate wounds to lower trunk due borer damage. Multiple small bark inclusions at junction of co-dominant leaders close to GL.	Crown lifted to 3 metres	Fair	Severe longicorn borer infestation	Short 5-15 Years	3	Moderate	Nature strip

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227	Melaleuca quinquenervia (Broad-leaved Paperbark)	9	5	392	35	М	Appears stable with fair branching structure. Exhibits multiple high bark inclusions at 1 metre.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Low	Nature strip
228	Melaleuca quinquenervia (Broad-leaved Paperbark)	8	3	210	15	SM	Appears stable with poor branching structure. Exhibits a high bark inclusion at 1.5 metres.	No Evidence	Poor with sparse crown	No Evidence	Transient (less than 5 years)	5	Very Low	Nature strip
229	Eucalyptus punctata (Grey Gum)	22	16	825	256	М	Appears stable with sound branching structure. Exhibits a small axial wound in trunk at 2.5 metres with decay evident. 20% epicormic growth 15% deadwood.	No Evidence	Good	Moderate Phellinus sp. (Bracket Fungus) infection at 2.5 metres.	Long - more than 40 years	3	High	Nature strip
230	Eucalyptus pilularis (Blackbutt)	20	8	360	136	SM	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL at junction of basal sprout/PL.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
231	Eucalyptus punctata (Grey Gum)	16	11	436	110		Appears stable with poor branching structure. Exhibits a large wound on lower trunk with decay evident. Prominent lean to the east. 30% epicormic growth 20% deadwood. Leader suppressed with poor form and habit.	Crown lifted to 2 metres	Fair with thinning crown	High Phellinus sp. (Bracket Fungus) infection at 0.5 metres.	Transient (less than 5 years)	4	Very Low	Nature strip
232	Eucalyptus punctata (Grey Gum)	22	14	586	196	M	Appears stable with fair branching structure. Exhibits multiple small axial wounds in trunk with decay evident.	Crown lifted to 4 metres	Fair	Moderate Phellinus sp. (Bracket Fungus) infection at 2 + 5 metres.	Short 5-15 Years	3	Moderate	Nature strip
233	Eucalyptus punctata (Grey Gum)	20	15	653	225	M	Appears stable with sound branching structure. Exhibits multiple axial splits in vascular tissue from GL to 2 metres.	Crown lifted to 3 metres	Good	Moderate Nectria sp. (Canker) infection on trunk at 2 metres	Long - more than 40 years	3	High	Nature strip
234	Eucalyptus tereticornis (Forest Red Gum)	24	8	484	48	М	Appears stable with sound branching structure. Exhibits multiple axial splits in vascular tissue from GL to 2 metres.	Crown lifted to 2 metres. Deadwooded.	Good	No Evidence	Long - more than 40 years	3	High	Nature strip

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235	Eucalyptus punctata (Grey Gum)	20	12	548	156	М	Appears stable with sound branching structure. Exhibits a moderate wound and cavity at 4.5 metres. 15% deadwood and 20% epicormic growth.	Deadwooded.	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	3	Moderate	Nature strip
236	Syagrus romanzoffianum (Cocos Palm)	10	5	229	15	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	Low	Nature strip
237	Syagrus romanzoffianum (Cocos Palm)	7	4	204	8	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	Low	Nature strip
238	Syagrus romanzoffianum (Cocos Palm)	7	4	226	8	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	Low	Nature strip
239	Syagrus romanzoffianum (Cocos Palm)	7	4	245	8	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	Low	Nature strip
240	Eucalyptus punctata (Grey Gum)	20	14	573	154	М	Appears stable with fair branching structure. Exhibits multiple axial wounds at 2-3 metres with decay evident.	No Evidence	Good	Moderate Phellinus sp. (Bracket Fungus) infection at 2.5 metres.	Medium 15-40 Years	3	Moderate	Nature strip
241	Eucalyptus saligna (Sydney Blue Gum)	18	9	330 + 300	117	SM	Appears stable with fair branching structure. Exhibits a low bark inclusion at 0.8 metres.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	Nature strip
242	Liquidambar styraciflua (Liquidambar)	12	10	400 + 350	100	М	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL at junction of co-dominant leaders.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
242a	Angophora costata (Sydney Red Gum)	9	3.5	178	21	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	Nature strip
243	Melaleuca quinquenervia (Broad-leaved Paperbark)	9	4	411	28	SM	Appears stable with fair branching structure. Exhibits multple high bark inclusions at 1-2 metres.	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	Nature strip

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244	Melaleuca quinquenervia (Broad-leaved Paperbark)	9	3	242	21	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 2 metres.	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	Nature strip
245	Melaleuca quinquenervia (Broad-leaved Paperbark)	6	2	178	8	1	Appears stable with fair branching structure. Upper crown suppressed due to overshadowing.	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	Nature strip
246	Eucalyptus saligna (Sydney Blue Gum)	18	18	838	270	М	Appears stable with fair branching structure. Exhibits a low bark inclusion at 3 metres a junction of co-domiannt leaders.	Deadwooded	Good	Low borer infestation in lower trunk.	Medium 15-40 Years	1	High	Nature strip
247	Eucalyptus grandis (Flooded Gum)	25	24	978	480	М	Appears stable with fair branching structure. Exhibits multiple extended lateral PLs	Deadwooded	Good	No Evidence	Long - more than 40 years	2	High	Nature strip
248	Syncarpia glomulifera (Turpentine)	8	5	320 + 180	30	SM	Appears stable with fair branching structure. Exhibits a multiple bark inclusion at GL.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
249	Syncarpia glomulifera (Turpentine)	8	6	433	42	SM	Appears stable with fair branching structure.	PLs selectively pruned to clear domestic powerlines	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
249a	Araucaria columnaris (Cook Pine)	11	5	330	45	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the south (self-corrected).	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
250	Gleditsia triacanthos (Honey Locust)	12	14	500	112	М	Appears stable with sound branching structure.	Deadwooded. Selectively crown thinned.	Good	No Evidence	Long - more than 40 years	6	Low	On-site
251	Syncarpia glomulifera (Turpentine)	13	6	320x2	66	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
252	Eucalyptus pilularis (Blackbutt)	20	8	350	112	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the south-east.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
253	Eucalyptus pilularis (Blackbutt)	20	12	586	168	М	Appears stable with sound branching structure. Exhibits a prominent lean to the south-east (self-corrected).	Crown lifted to 2 metres. Deadwooded.	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
254	Eucalyptus pilularis (Blackbutt)	25	10	713	170	М	Appears stable with poor branching structure. Exhibits a moderate cavity in trunk at 13 metres. Suspected cavity at junction of co-dominant PLs at 10 metres. Crown suppressed on the east side due to crowding.	No Evidence	Good	Suspected Nectria sp infection at 13 metres (east side).	Short 5-15 Years	1	Moderate	On-site
255	Eucalyptus pilularis (Blackbutt)	25	20	1057	400	M	Appears stable with sound branching structure. Exhibits a prominent lean to the north.	Deadwooded	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
256	Eucalyptus pilularis (Blackbutt)	30	10	697	150	М	Appears stable with sound branching structure. Exhibits a slight lean to the west.	No Evidence	Good	No Evidence	Long - more than 40 years	1	High	On-site
257	Eucalyptus resinifera (Red Mahogany)	14	6	268	42	SM	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
258	Eucalyptus pilularis (Blackbutt)	16	6	446	72	SM	Stability suspect with fair branching structure. Exhibits large axial wound from GL to 2 metres. Very prominent lean to the north-east (self-corrected).	Selectively pruned.	Fair	Moderate borer infestion in lower trunk	Transient (less than 5 years)	4	Very Low	On-site
259	Eucalyptus acmenioides (White Mahogany)	13	12	589	120	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	1	High	On-site
260	Eucalyptus acmenioides (White Mahogany)	10	8	160x3	56	SM	Appears stable with sound branching structure. Some dieback with 10% deadwood and 10% epicormic growth.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
261	Eucalyptus saligna (Sydney Blue Gum)	15	6	299	72	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the north.	No Evidence	Very Good	Moderate Bullseye borer infestation	Long - more than 40 years	4	Moderate	On-site
262	Eucalyptus saligna (Sydney Blue Gum)	14	6	341	66	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate Bullseye borer infestation	Long - more than 40 years	4	Moderate	On-site

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263	Eucalyptus saligna (Sydney Blue Gum)	23	8	446	152	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
264	Eucalyptus pilularis (Blackbutt)	14	8	497	72	SM	Appears stable with fair branching structure. Moderate basal wound with enlarged lower trunk (bottlebutt) due to suspected internal cavity. Moderate wound at 4.5 metres due to branch loss.	No Evidence	Fair	Suspected termite infestation	Short 5-15 Years	4	Low	On-site
265	Eucalyptus paniculata (Grey Ironbark)	18	10	503	90	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
266	Eucalyptus grandis (Flooded Gum)	25	10	382	130	SM	Appears stable with sound branching structure. Exhibits multiple extended lateral PLs.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
301	Melaleuca styphelioides (Prickly Paperbark)	4	4	70x3	16	ı	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at GL.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
302	Acacia decurrens (Black Wattle)	6	5	169	25	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the west.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
303	Acacia decurrens (Black Wattle)	5	4	100x2	16	I	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL	No Evidence	Poor with sparse crown	Severe borer infestation	Transient (less than 5 years)	5	Very Low	On-site
304	Allocasuarina torulosa (Forest Oak)	5	3	143	9	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the west.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
305	Melaleuca styphelioides (Prickly Paperbark)	6	3	131	15	I	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at junction of codominant PLs at 3.5 metres.	No Evidence	Fair	No Evidence	Medium 15-40 Years	5	Low	On-site
306	Eucalyptus sp. (Eucalypt)	5	6	191	12	SM	Stability suspect with poor branching structure. Exhibits a very prominent lean to the north-west. Poor form and habit.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
307	Corymbia maculata (Spotted Gum)	23	11	739	198	М	Appears stable with sound branching structure.	No Evidence	Very Good	No evidence	Long - more than 40 years	2	High	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
308	Corymbia maculata (Spotted Gum)	22	10	646	170	М	Appears stable with sound branching structure.	No Evidence	Very Good	No evidence	Long - more than 40 years	2	High	On-site
309	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	10	6	379	48	SM	Appears stable with fair branching structure. Crown suppressed on the west side due to overshadowing. Main lader suppressed & distorted. Prominent lean to the east.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site
310	Eucalyptus scoparia (Willow Gum)	12	7	258	77	SM	Appears stable with poor branching structure. Crown suppressed on the north-east side due to overshadowing. Prominent lean to the east. Exhibits some dieback with 25% deadwood and 40% epicormic growth.	No Evidence	Poor with sparse crown	No Evidence	Short 5-15 Years	5	Low	On-site
311	Eucalyptus tereticornis (Forest Red Gum)	18	8	373	80	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
312	Eucalyptus crebra (Narrow-leaved Ironbark)	13	5	229	45	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
313	Corymbia maculata (Spotted Gum)	11	5	213	35	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
314	Corymbia maculata (Spotted Gum)	15	7	420	70	М	Appears stable with sound branching structure. Crown suppressed on the west side due to crowding.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
315	Corymbia maculata (Spotted Gum)	20	8	497	128	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
316	Eucalyptus sp. (Scribbly Gum)	6	5	185	10	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the west. Multiple moderate wounds from GL to 1 metre due borer damage.	No Evidence	Fair	Low borer infestation.	Short 5-15 Years	5	Low	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
317	Eucalyptus pilularis (Blackbutt)	12	8	318	48	SM	Stability suspect with poor branching structure. Exhibits a large wound at GL with decay due previous branch loss (main leader broken out at 0.3 metres). Very prominent lean to the north-west (self-corrected).	No Evidence	Fair	Moderate borer infestation.	Transient (less than 5 years)	5	Very Low	On-site
318	Corymbia maculata (Spotted Gum)	18	9	382	117	М	Appears stable with sound branching structure.	Deadwooded	Good	No Evidence	Long - more than 40 years	3	High	On-site
319	Eucalyptus pilularis (Blackbutt)	9	5	201	30	ı	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
320	Corymbia maculata (Spotted Gum)	8	4	159	24	ı	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
321	Angophora costata (Sydney Red Gum)	17	7	293	77	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
322	Eucalyptus sp. (Scribbly Gum)	7	6	277	30	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
323	Casuarina cunninghamiana (River Oak)	6	3	182	15	_	Appears stable with fair branching structure. Exhibits a moderate occluded axial wound on lower trunk from GL to 1.5 metres. Upper crown suppressed due overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
324	Eucalyptus saligna (Sydney Blue Gum)	23	6	325	102	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
325	Eucalyptus acmenioides (White Mahogany)	11	4	188	20	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
326	Eucalyptus acmenioides (White Mahogany)	13	5	248	40	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
327	Eucalyptus sp. (Eucalypt)	5	5	150	20	I	Appears stable with poor branching structure. Exhibits a very prominent lean to the west. 50% epicormic growth and 10% deadwood.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
328	Corymbia eximia (Yellow Bloodwood)	22	14	538	238	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
329	Syncarpia glomulifera (Turpentine)	8	5	226	40	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
330	Eucalyptus sp. (Scribbly Gum)	6	4	169	16	I	Appears stable with sound branching structure. Exhibits a prominent lean to the east. Small wound on lower trunk due to mechanical injury.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
332	Eucalyptus crebra (Narrow-leaved Ironbark)	12	6	197	60	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
333	Eucalyptus pilularis (Blackbutt)	14	4	182	36	1	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
334	Syncarpia glomulifera (Turpentine)	10	5	239	45	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
336	Corymbia maculata (Spotted Gum)	9	4	175	16	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
337	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	11	4	140	28	I	Appears stable with sound branching structure. Exhibits a prominent lean to the south-east.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
338	Eucalyptus pilularis (Blackbutt)	20	4	255	32	SM	Appears stable with sound branching structure. Exhibits a moderate occluded axial wound from GL to 1 metre.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
339	Syncarpia glomulifera (Turpentine)	9	4	162	32	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
340	Eucalyptus punctata (Grey Gum)	11	5	150	40	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
341	Corymbia maculata (Spotted Gum)	10	5	175	35	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
342	Corymbia maculata (Spotted Gum)	23	10	621	170	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
343	Eucalyptus acmenioides (White Mahogany)	8	5	140 + 115	20	I	Appears stable with fair branching structure. Exhibits twin co-dominant trunks at GL.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
344	Syncarpia glomulifera (Turpentine)	7	5	169	30	ı	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
345	Eucaltptus sp. (Eucalypt)	15	14	583	182	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
346	Corymbia maculata (Spotted Gum)	11	4	166	20	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
347	Eucalyptus saligna (Sydney Blue Gum)	20	6	283	60	SM	Appears stable with sound branching structure. Exhibits a moderate occluded wound at GL due to mechanical injury.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
348	Eucalyptus pilularis (Blackbutt)	15	8	255	88	SM	Appears stable with sound branching structure. Upper crown suppressed due to overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site
349	Eucalyptus paniculata (Grey Ironbark)	22	10	510	160	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	Moderate	On-site

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350	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	16	7	293	56	SM	Stability suspect with sound branching structure. Exhibits a very prominent lean to the south.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
351	Eucalyptus pilularis (Blackbutt)	12	8	213	40	I	Appears stable with fair branching structure. Exhibits a prominent lean to the south-east. Upper crown suppressed due to overshadowing. Poor form and habit. Distorted leader.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
352	Syncarpia glomulifera (Turpentine)	10	6	245	54	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
353	Acacia implexa (Hickory Wattle)	13	4	229	40	М	Appears stable with fair branching structure. Exhibits a prominent lean to the west. Moderate dieback with 30% deadwood and 25% epicormic growth.	Deadwooded	Poor with sparse crown	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
354	Eucalyptus crebra (Narrow-leaved Ironbark)	10	7	255	35	SM	Appears stable with sound branching structure. Crown suppressed on the east side due to crowding.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
355	Casuarina cunninghamiana (River Oak)	11	3	182	30	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
356	Angophora costata (Sydney Red Gum)	18	8	360	96	М	Appears stable with poor branching structure. Exhibits a severe bark inclusion at 2 metres at junction of co-dominant leaders.	No Evidence	Fair	Low borer infestation.	Short 5-15 Years	3	Moderate	On-site
357	Eucalyptus saligna (Sydney Blue Gum)	20	9	408	90	SM	Appears stable with fair branching structure. Exhibits multiple (x3) co-dominant leaders at 12 metres.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
358	Syncarpia glomulifera (Turpentine)	10	5	178	40	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

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359	Syncarpia glomulifera (Turpentine)	9	5	220	40	SM	Appears stable with poor branching structure. Exhibits a severe bark inclusion with fracture at 2.5 metres at junction of co-dominant leaders.	No Evidence	Good	No evidence	Transient (less than 5 years)	5	Very Low	On-site
360	Eucalyptus pilularis (Blackbutt)	20	12	481	168	М	Appears stable with sound branching structure.	No Evidence	Good	No evidence	Long - more than 40 years	3	High	On-site
361	Corymbia maculata (Spotted Gum)	20	4	261	40	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
362	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	14	7	414	42	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the north.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	3	Moderate	On-site
363	Eucalyptus tereticornis (Forest Red Gum)	18	7	322	84	SM	Appears stable with sound branching structure. Crown suppressed on the west side due to crowding. 10% deadwood.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
364	Corymbia maculata (Spotted Gum)	16	9	385	126	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
365	Eucalyptus paniculata (Grey Ironbark)	20	8	376	144	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
366	Syncarpia glomulifera (Turpentine)	7	4	140	24	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
367	Corymbia maculata (Spotted Gum)	22	9	478	162	М	Appears stable with fair branching structure. Exhibits a moderate wound at 9 metres due branch loss with decay evident. Prominent lean to the east (self-corrected).	No Evidence	Fair	Moderate Phellinus sp. (Bracket Fungus) infection at 9 metres.	Medium 15-40 Years	3	Moderate	On-site

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368	Angophora costata (Sydney Red Gum)	16	4	169	40	I	Appears stable with fair branching structure. Exhibits co-dominant leaders at 5 metres.	No Evidence	Fair with thinning crown	Moderate borer infestation at junctions of PLs (5 metres)	Short 5-15 Years	5	Low	On-site
369	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	18	6	287	84	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
370	Casuarina cunninghamiana (River Oak)	15	4	220	52	SM	Appears stable with fair branching structure. Crown suppressed on the north side due to crowding.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
371	Angophora costata (Sydney Red Gum)	23	9	366	99	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
372	Syncarpia glomulifera (Turpentine)	8	6	140 + 170	42	SM	Appears stable with fair branching structure. Exhibits a high bark inclusion at 0.5 metres at junction of co-dominant leaders.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
373	Eucalyptus tereticornis (Forest Red Gum)	12	5	248	35	SM	Appears stable with fair branching structure.	No Evidence	Poor with sparse crown	Severe Possum defoliation	Transient (less than 5 years)	4	Low	On-site
374	Eucalyptus pilularis (Blackbutt)	11	5	201	25	ı	Appears stable with sound branching structure. Exhibits a modeerate wound on lower trunk due to mechanical injury.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
375	Casuarina cunninghamiana (River Oak)	7	3	140	18	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
376	Eucalyptus globoidea (White stringybark)	9	5	229	10	SM	Appears stable with poor branching structure. Exhibits multiple severe bark inclusions at junctions of PLs at 2 & 3 metres	No Evidence	Good	No Evidence	Transient (less than 5 years)	4	Low	On-site
377	Melaleuca styphelioides (Prickly Paperbark)	8	6	160 + 180 + 200	48	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

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378	Eucalyptus saligna (Sydney Blue Gum)	18	7	325	84	SM	Appears stable with fair branching structure. Exhibits a high bark inclusion at GL.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
379	Syncarpia glomulifera (Turpentine)	9	5	160x2	37.5	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
380	Casuarina cunninghamiana (River Oak)	11	3	150	27	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
381	Eucalyptus paniculata (Grey Ironbark)	18	6	322	84	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
382	Eucalyptus saligna (Sydney Blue Gum)	25	5	271	65	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
383	Corymbia maculata (Spotted Gum)	22	8	366	152	SM	Appears stable with sound branching structure. Crown suppressed on the east side due to crowding. Exibits a prominent lean to the east (self-corrected).	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
384	Eucalyptus saligna (Sydney Blue Gum)	10	5	172	30	1	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
385	Syncarpia glomulifera (Turpentine)	8	5	156	35	ı	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
386	Casuarina cunninghamiana (River Oak)	9	3	159	24	ı	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
387	Syncarpia glomulifera (Turpentine)	10	4	226	32	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site

						Α	PPENDIX 3 - TREE HEALTH AND	CONDITION A	SSESSI	MENT SCHED	ULE			
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Health Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
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388	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	8	3	146	15	I	Appears stable with sound branching structure.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
389	Eucalyptus tereticornis (Forest Red Gum)	10	4	201	36	I	Appears stable with fair branching structure. Exhibits prominent lean to the south. 15% deadwood.	No Evidence	Fair with thinning crown	Moderate possum defoliation	Short 5-15 Years	5	Low	On-site
390	Eucalyptus scoparia (Willow Gum)	7	3	134	18	I	Appears stable with sound branching structure. Exhibits 30% epicormic growth.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
391	Eucalyptus punctata (Grey Gum)	9	5	150 + 160	35	ı	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Medium 15-40 Years	4	Moderate	On-site
392	Eucalyptus saligna (Sydney Blue Gum)	20	10	400	130	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
393	Eucalyptus pilularis (Blackbutt)	18	6	299	78	SM	Appears stable with sound branching structure. Crown suppressed on the north side due to crowding.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
394	Eucalyptus tereticornis (Forest Red Gum)	15	4	236	40	I	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Long - more than 40 years	5	Moderate	On-site
395	Syncarpia glomulifera (Turpentine)	9	5	191	40	1	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
396	Angophora costata (Sydney Red Gum)	12	4	178	40	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
397	Eucalyptus saligna (Sydney Blue Gum)	20	9	395	144	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
398	Corymbia maculata (Spotted Gum)	8	4	159	8	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
399	Angophora costata (Sydney Red Gum)	10	4	191	20	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
400	Eucalyptus saligna (Sydney Blue Gum)	25	11	433	220	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	2	High	On-site
401	Eucalyptus punctata (Grey Gum)	6	4	166	18	I	Appears stable with sound branching structure. Crown suppressed on the east side due to overshadowing.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
402	Eucalyptus saligna (Sydney Blue Gum)	10	5	191	35	I	Appears stable with sound branching structure. Crown suppressed on the east side due to overshadowing.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
403	Eucalyptus saligna (Sydney Blue Gum)	16	16	541	224	М	Appears stable with sound branching structure. Exhibits multiple (x3) co-dominant leaders at 8 metres.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
404	Corymbia maculata (Spotted Gum)	9	4	191	24	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
405	Corymbia maculata (Spotted Gum)	15	5	258	60	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
406	Eucalyptus saligna (Sydney Blue Gum)	18	8	328	104	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
406a	Eucalyptus microcorys (Tallowwood)	3.5	3	131	4.5	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
407	Eucalyptus haemastoma (Scribbly Gum)	8	7	264	42	SM	Appears stable with sound branching structure. Crown suppressed on the east side due to overshadowing.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
408	Eucalyptus tereticornis (Forest Red Gum)	14	10	475	70	М	Appears stable with fair branching structure. Exhibits a high bark inclusion at 6 metres at junction of PL.	No Evidence	Fair with slightly thinning crown	Low borer infestation.	Medium 15-40 Years	3	Moderate	On-site
409	Eucalyptus haemastoma (Scribbly Gum)	7	6	252	24	SM	Stability suspect with fair branching structure. Exhibits multiple large wounds at GL due mechanical injury with secondary borer damage and decay evident. Prominent lean to the east.	No Evidence	Fair	High borer infestation	Short 5-15 Years	4	Low	On-site
410	Eucalyptus tereticornis (Forest Red Gum)	14	8	369	72	М	Appears stable with sound branching structure. Exhibits a prominent lean to the south-west (self-corrected).	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
411	Eucalyptus tereticornis (Forest Red Gum)	15	6	338	54	SM	Appears stable with sound branching structure.	No Evidence	Good	Low borer infestation.	Long - more than 40 years	4	Moderate	On-site
412	Syncarpia glomulifera (Turpentine)	9	4	230+ 220	32	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 0.3 metres.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
413	Eucalyptus grandis (Flooded Gum)	13	7	315	70	SM	Appears stable with fair branching structure. Exhibits a large wound on lower trunk and multiple occluded wounds due borer damage.	No Evidence	Good	High borer infestation	Short 5-15 Years	4	Low	On-site
414	Eucalyptus grandis (Flooded Gum)	15	12	427	120	SM	Appears stable with sound branching structure. Exhibits multiple extended lateral PLs.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
415	Eucalyptus sp. (Eucalypt)	14	6	325	54	SM	Stability suspect with poor branching structure. Suspected fracture in trunk at 1.8 metres with adaptive growth. Exhibits some dieback with 10% deadwood.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
416	Eucalyptus saligna (Sydney Blue Gum)	13	7	283	63	SM	Appears stable with sound branching structure. Exhibits co-dominant leaders at 2 metres.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
417	Eucalyptus punctata (Grey Gum)	16	7	395	77	SM	Appears stable with sound branching structure. Exhibits some dieback with 10% deadwood.	Deadwooded	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	4	Moderate	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
418	Eucalyptus punctata (Grey Gum)	20	10	516	120	М	Appears stable with sound branching structure. Exhibits a small wound at 3 metres on west side. Prominent lean to the east (self-corrected). 5% deadwood.	Selectively pruned & deadwood	Good	Suspected Phellinus sp. (Bracket Fungus) infection at 3 metres.	Long - more than 40 years	3	High	On-site
419	Eucalyptus punctata (Grey Gum)	17	8	328	88	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the east (self-corrected). Crown suppressed on the west side.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
420	Eucalyptus punctata (Grey Gum)	11	8	325	56	SM	Stability suspect with fair branching structure. Exhibits a very prominent lean to the east (self-corrected). Soil heave on the west side (root plate lifted).	Selectively pruned & deadwood	Very Good	No Evidence	Short 5-15 Years	4	Low	On-site
421	Eucalyptus saligna (Sydney Blue Gum)	14	8	357	80	SM	Appears stable with sound branching structure. Exhibits a moderate wound at 1.8 metres due borer damage.	No Evidence	Good	Moderate borer infestation	Long - more than 40 years	4	Moderate	On-site
422	Callistemon viminalis (Weeping Bottlebrush)	6	6	155 +185	30	SM	Appears stable with sound branching structure. Crown suppressed on the west side due to crowding.	Crown lifted to 2 metres	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
423	Casuarina glauca (Swamp Oak)	14	5	290	60	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
424	Eucalyptus scoparia (Willow Gum)	15	11	417	110	М	Appears stable with sound branching structure. Exhibits a prominent lean to the east. Some deadwood with 10% deadwood and 10% epicormic growth.	Crown lifted to 3 metres. Deadwooded	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	3	High	On-site
425	Casuarina glauca (Swamp Oak)	14	4	261	48	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Fair	No Evidence	Medium 15-40 Years	4	Moderate	On-site
426	Corymbia maculata (Spotted Gum)	23	15	710	270	М	Appears stable with sound branching structure.	Deadwooded	Very Good	No Evidence	Long - more than 40 years	2	High	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Ratinq	Retention Value	Location
427	Corymbia maculata (Spotted Gum)	11	5	191	30	I	Appears stable with sound branching structure.	Deadwooded	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
428	Corymbia maculata (Spotted Gum)	11	4	178	12	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
429	Corymbia maculata (Spotted Gum)	9	6	207	36	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
430	Corymbia eximia (Yellow Bloodwood)	6	6	210	24		Appears stable with fair branching structure. Exhibits a high bark inclusion at junction of PL at GL. Located close to existing sewer inspection port.	Crown lifted to 2 metres.	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
431	Eucalyptus saligna (Sydney Blue Gum)	10	5	207	30	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
432	Syncarpia glomulifera (Turpentine)	6	4	178	18	I	Appears stable with sound branching structure. Crown suppressed on north-east side due to overshadowing.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
433	Ficus rubiginosa (Port Jackson Fig)	8	10	373	70	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
434	Eucalyptus grandis (Flooded Gum)	20	13	475	169	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
435	Eucalyptus grandis (Flooded Gum)	20	8	417	120	SM	Appears stable with sound branching structure. Exhibits multiple moderate wounds on lower trunk due to borer damage.	No Evidence	Fair	Moderate borer infestation	Medium 15-40 Years	3	Moderate	On-site
436	Eucalyptus grandis (Flooded Gum)	15	8	338	72	SM	Appears stable with fair branching structure. Main leader suppressed/distorted due overshadowing.	No Evidence	Fair	No Evidence	Medium 15-40 Years	4	Moderate	On-site
437	Corymbia maculata (Spotted Gum)	18	11	392	132	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Health Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
438	Eucalyptus grandis (Flooded Gum)	23	14	631	238	М	Appears stable with sound branching structure. Exhibits multiple extended lateral PLs. Moderate wound on lower trunk due borer damage.	No Evidence	Very Good	Low borer infestation	Long - more than 40 years	3	High	On-site
439	Eucalyptus punctata (Grey Gum)	16	7	328	63	SM	Appears stable with sound branching structure. Crown suppressed on west side due to overshadowing.	Selectively pruned & deadwood	Good	Low borer infestation	Medium 15-40 Years	4	Moderate	On-site
440	Angophora costata (Sydney Red Gum)	8	6	213	30	SM	Appears stable with fair branching structure. Upper crown suppressed due to overshadowing. Prominent lean to the north. Exhibits some dieback with 10% deadwood and 10% epicormic growth.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
441	Eucalyptus punctata (Grey Gum)	23	10	465	170	М	Appears stable with sound branching structure.	Deadwooded	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
442	Syncarpia glomulifera (Turpentine)	7	4	169	24	I	Appears stable with sound branching structure.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
443	Eucalyptus sp. (Eucalypt)	14	5	398	40	SM	Appears stable with fair branching structure. Exhibits multiple moderate wounds to lower trunk due to borer damage. 10% deadwood.	Selectively pruned & deadwood	Fair with thinning crown	High borer infestation	Short 5-15 Years	4	Low	On-site
444	Eucalyptus punctata (Grey Gum)	24	11	567	154	М	Appears stable with sound branching structure.	Deadwooded	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
445	Corymbia maculata (Spotted Gum)	11	6	261	48	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
446	Angophora costata (Sydney Red Gum)	16	11	439	121	М	Appears stable with sound branching structure. Exhibits a prominent lean to the east (self corrected). Crown suppressed on the west side due to crowding.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site

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447	Eucalyptus punctata (Grey Gum)	22	9	494	126	М	Appears stable with fair branching structure. Crown suppressed on the south side due to crowding. Exhibits multiple small wounds on the upper trunk due to suspected canker infection.	No Evidence	Fair	Suspected Canker infection.	Short 5-15 Years	3	Moderate	On-site
448	Syncarpia glomulifera (Turpentine)	10	9	478	81	SM	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
449	Corymbia citriodora (Lemon-scented Gum)	15	9	366	63	SM	Appears stable with sound branching structure. Crown suppressed east side due to crowding.	Deadwooded	Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
450	Corymbia citriodora (Lemon-scented Gum)	9	4	156	12	I	Appears stable with fair branching structure. Crown suppressed south-west side due to overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	Nature strip
451	Eucalyptus saligna (Sydney Blue Gum)	23	20	1099	280	М	Appears stable with fair branching structure. Exhibits a large wound on the lower trunk from GL to 2 metres due borer damage. Multiple moderate occluded wounds due borer damage.	Selectively pruned & deadwood	Fair with slightly thinning crown	High borer infestation	Short 5-15 Years	2	Moderate	Nature strip
452	Eucalyptus saligna (Sydney Blue Gum)	22	16	726	160	М	Appears stable with fair branching structure. Exhibits a large wound on lower trunk from GL to 2.5 metres due borer damage affecting 90% circumference. Moderate dieback in upper crown with 20% deadwood.	Selectively pruned & deadwood	Fair with thinning crown	Severe borer infestation	Transient (less than 5 years)	2	Low	Nature strip
453	Eucalyptus saligna (Sydney Blue Gum)	20	13	500	156	М	Appears stable with sound branching structure. Crown suppressed on the east side due to crowding.	Deadwooded	Fair	No Evidence	Long - more than 40 years	2	High	Nature strip
454	Eucalyptus saligna (Sydney Blue Gum)	15	10	600	70	М	Appears stable with sound branching structure. Exhibits multiple moderate wounds to lower trunk due to borer damage.	Selectively pruned & deadwood	Fair	High borer infestation	Short 5-15 Years	2	Moderate	Nature strip
455	Eucalyptus saligna (Sydney Blue Gum)	10	12	363	48	SM	Appears stable with sound branching structure. Crown heavily suppressed on north side due to overshadowing.	Selectively pruned & deadwood	Good	No Evidence	Medium 15-40 Years	2	Moderate	Nature strip

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456	Eucalyptus saligna (Sydney Blue Gum)	7	5	175	20	I	Appears stable with poor branching structure. Upper crown suppressed due to overshadowing. Some dieback in upper crown with 10% deadwood.	Deadwooded	Fair with thinning crown	Low borer infestation	Short 5-15 Years	5	Low	Nature strip
457	Eucalyptus saligna (Sydney Blue Gum)	9	6	271	30	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
458	Eucalyptus saligna (Sydney Blue Gum)	7	4	159	20	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	Nature strip
459	Pittosporum undulatum (Sweet Pittosporum)	5	5	150x2	25	SM	Appears stable with fair branching structure.	No Evidence	Good	Moderate Pittosporum Borer infestation	Short 5-15 Years	5	Low	Nature strip
461	Eucalyptus saligna (Sydney Blue Gum)	9	4	130	24	I	Appears stable with sound branching structure.	No Evidence	Very Good	Moderate borer infestation. Moderate Madeira Vine infestation.	Medium 15-40 Years	5	Low	Nature strip
462	Eucalyptus pilularis (Blackbutt)	7	3	140	12	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	Nature strip
463	Elaeocarpus reticulatus (Blueberry Ash)	5	3	100	15	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	Nature strip
464	Pittosporum undulatum (Sweet Pittosporum)	4	5	150x2	20	М	Appears stable with poor branching structure. Exhibits multiple moderate wounds due to borer damage.	No Evidence	Fair with thinning crown	High Pittosporum Borer infestation	Transient (less than 5 years)	5	Very Low	Nature strip
465	Eucalyptus pilularis (Blackbutt)	7	4	150	20	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	Nature strip
466	Eucalyptus pilularis (Blackbutt)	9	5	194	25	I	Appears stable with fair branching structure. Exhibits a prominent lean to the north. Co-dominant leaders at 2.5 metres.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip

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467	Eucalyptus pilularis (Blackbutt)	6	3	137	15	I	Appears stable with fair branching structure. Main leader distorted.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	Nature strip
468	Eucalyptus saligna (Sydney Blue Gum)	10	5	264	35	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the east with distorted leader.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
469	Pittosporum undulatum (Sweet Pittosporum)	4.5	4	120	18	I	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	Nature strip
470	Eucalyptus paniculata (Grey Ironbark)	12	5	200	25	SM	Appears stable with fair branching structure.	Crown lifted to 6 metres. Deadwooded	Fair	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
471	Angophora floribunda (Rough- barked Apple)	6	2	100	8	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	Nature strip
472	Angophora floribunda (Rough- barked Apple)	8	4	120	16	I	Appears stable with fair branching structure. Crown suppressed on the west side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	Nature strip
473	Eucalyptus saligna (Sydney Blue Gum)	14	5	350	40	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the east (self-corrected).	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
474	Angophora floribunda (Rough- barked Apple)	11	5	293	30	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due to branch loss. Crown suppressed on south side due to overshadowing.	No Evidence	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
475	Eucalyptus saligna (Sydney Blue Gum)	14	8	287	72	SM	Appears stable with fair branching structure. Crown suppressed on east side due to overshadowing with poor form and habit.	No Evidence	Fair	No Evidence	Short 5-15 Years	4	Low	Nature strip
476	Eucalyptus saligna (Sydney Blue Gum)	7	3	159	12	I	Appears stable with poor branching structure. Crown suppressed and distorted due to overshadowing with poor form and habit.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	Nature strip

						Α	PPENDIX 3 - TREE HEALTH AND	CONDITION A	SSESSI	MENT SCHED	ULE			
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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Ratinq	Retention Value	Location
477	Eucalyptus saligna (Sydney Blue Gum)	11	2	540	0	ОМ	Stability suspect with poor branching structure.	No Evidence	Dead	Severe borer infestation	Nil	7	Very Low	Nature strip
478	Eucalyptus saligna (Sydney Blue Gum)	14	14	570	112	М	Appears stable with sound branching structure. Exhibits a prominent lean to the north-east.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
479	Angophora floribunda (Rough- barked Apple)	7	5	188	20	I	Appears stable with fair branching structure. Exhibits a very prominent lean to the east (self-corrected). Heavily suppressed on west side due to overshadowing.	No Evidence	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	5	Low	Nature strip
480	Eucalyptus saligna (Sydney Blue Gum)	20	10	500	100	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	Nature strip
481	Angophora floribunda (Rough- barked Apple)	9	6	296	24	M	Appears stable with sound branching structure. Exhibits multiple small wounds due branch loss. Some dieback with 10% deadwood.	No Evidence	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
482	Pittosporum undulatum (Sweet Pittosporum)	4	3	150	12	М	Appears stable with poor branching structure.	No Evidence	Poor with sparse crown	High Pittosporum Borer infestation	Short 5-15 Years	5	Low	Nature strip
483	Eucalyptus saligna (Sydney Blue Gum)	15	4	382	28	SM	Appears stable with fair branching structure. Exhibits a moderate wound due borer damage at 1.2 metres. Poor form and habit.	No Evidence	Fair with thinning crown	Moderate borer infestation	Short 5-15 Years	4	Low	Nature strip
484	Angophora floribunda (Rough- barked Apple)	7	5	287	15	М	Appears stable with poor branching structure. Exhibits a large dead section (secondary leader) due to borer damage with decay evident. Poor form and habit.	No Evidence	Fair with thinning crown	Moderate borer infestation	Short 5-15 Years	5	Low	Nature strip
485	Eucalyptus paniculata (Grey Ironbark)	20	15	621	270	М	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	2	High	Nature strip
486	Eucalyptus paniculata (Grey Ironbark)	11	7	500	56	М	Appears stable with fair branching structure. Crown suppressed on west side due to overshadowing with poor form and habit.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip

						Α	PPENDIX 3 - TREE HEALTH AND	MENT SCHED	ULE					
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
487	Eucalyptus saligna (Sydney Blue Gum)	20	8	424	120	М	Appears stable with fair branching structure. Exhibits a prominent lean to the west (self-corrected).	No Evidence	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
488	Eucalyptus saligna (Sydney Blue Gum)	8	4	166	20	I	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Medium 15-40 Years	5	Low	Nature strip
489	Eucalyptus saligna (Sydney Blue Gum)	22	15	713	270	М	Appears stable with sound branching structure. Exhibits a basal stub with an Internal Pipe Cavity due previous termite infestation. 20% epicormic growth.	Deadwooded	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	2	High	Nature strip
490	Eucalyptus saligna (Sydney Blue Gum)	10	10	382	60	SM	Appears stable with fair branching structure. Exhibits multiple co-dominant PLs at 2 metres. Poor form and habit.	Deadwooded	Fair	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
491	Eucalyptus saligna (Sydney Blue Gum)	12	6	194	54	1	Appears stable with fair branching structure. Crown suppressed on north side due to overshadowing. Poor form and habit.Twin trunked at base.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	Nature strip
492	Eucalyptus saligna (Sydney Blue Gum)	14	3	160x2	27	I	Appears stable with fair branching structure. Poor form and habit.Twin trunked at base.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	Nature strip
493	Eucalyptus saligna (Sydney Blue Gum)	22	18	800	270	M	Appears stable with fair branching structure. Exhibits a moderate wound at 9 metres due branch loss (PL). Multiple co-dominant PLs at 4-5 metres. Exhibits a prominent lean to the north.	Selectively pruned & deadwooded	Good	No Evidence	Long - more than 40 years	3	High	Nature strip
493.1	Syncarpia glomulifera (Turpentine)	12	5	325	60	SM	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
494	Syncarpia glomulifera (Turpentine)	10	5	382	50	М	Appears stable with fair branching structure. Exhibits a prominent lean to the north. Crown suppressed on the south side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
495	Syncarpia glomulifera (Turpentine)	12	8	309	72	М	Appears stable with sound branching structure. Crown suppressed on the west side due to crowding.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
496	Syncarpia glomulifera (Turpentine)	12	8	389	72	М	Appears stable with sound branching structure. Crown suppressed on the east side due to crowding.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
497	Eucalyptus acmenioides (White Mahogany)	15	8	398	104	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip
501	Syagrus romanzoffianum (Cocos Palm)	11	4.5	248	18	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	Low	4 Mt Pleasant Street
502	<b>Syzygium australe</b> (Lillypilly)	6	5	232	22.5	SM	Appears stable with poor branching structure. Exhibits a prominent lean to the north-west.	Previously lopped at 3 + 4 metres (crown restored)	Good	Low vine infestation (Morning Glory)	Short 5-15 Years	5	Low	4 Mt Pleasant Street
503	Viburnum odoratissimum (Sweet Viburnum)	4	5	120 + 70	20	SM	Appears stable with fair branching structure.	Previously lopped at 2 + 4 metres (crown restored)	Good	No Evidence	Long - more than 40 years	5	Moderate	4 Mt Pleasant Street
504	Camellia sasanqua (Sasanqua)	4.5	4	100	18	SM	Appears stable with sound branching structure. Located close to existing dwelling (< 3 metres). Exhibits a prominent lean to the east (self-corrected).	No Evidence	Very Good	No Evidence	Long - more than 40 years	6	Low	4 Mt Pleasant Street
505	Photinia x fraseri 'Robusta' (Chinese Hawthorn)	4.5	6	120x6	21	M	Appears stable with poor branching structure. Exhibits some dieback with 15% deadwood.	Previously lopped at 2 + 4 metres (crown restored)	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	4 Mt Pleasant Street
506	<b>Camellia japonica</b> (Camellia)	4	3	100	9	SM	Appears stable with sound branching structure. Located close to existing dwelling (< 3 metres).	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	6	Low	4 Mt Pleasant Street
507	Callistemon viminalis (Weeping Bottlebrush)	4	3	160	9	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the north-east.	No Evidence	.Fair	Severe vine infestation (Climbing Fig)	Short 5-15 Years	5	Low	4 Mt Pleasant Street

				APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE											
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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Vigour	Pest & Disease	Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location	
508	Pittosporum tenuifolium (Kohuhu)	5	5	100 + 150	20	М	Appears stable with fair branching structure. Exhibits a very prominent lean to the north-east.	No Evidence	.Fair	Severe vine infestation (Climbing Fig)	Short 5-15 Years	5	Low	4 Mt Pleasant Street	
509	Pittosporum undulatum (Sweet Pittosporum)	4	6	200	18	SM	Unstable with poor branching structure. Exhibits a very prominent lean to the north-east & corresponding uplifting of rootplate to the southwest.	No Evidence	Poor with sparse crown	Severe vine infestation (Climbing Fig)	Transient (less than 5 years)	5	Very Low	4 Mt Pleasant Street	
510	Pittosporum undulatum (Sweet Pittosporum)	6	6	334	24	М	Appears stable with fair branching structure. Exhibits a prominent lean to the south-east (self-corrected). Crown suppressed north side due to previous pruning.	Crown lifted to 2 metres	.Fair	Moderate vine infestation	Short 5-15 Years	4	Low	4 Mt Pleasant Street	
600	Eucalyptus punctata (Grey Gum)	15	8	350	88	SM	Appears stable with sound branching structure. Upper crown suppressed on west side due to overshadowing with distorted leader.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site	
601	Casuarina glauca (Swamp Oak)	13	4	217	40	SM	Appears stable with fair branching structure.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site	
602	Eucalyptus grandis (Flooded Gum)	25	9	420	171	М	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site	
603	Corymbia eximia (Yellow Bloodwood)	12	11	446	110	SM	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site	
604	Corymbia maculata (Spotted Gum)	8	4	150	12	Ι	Appears stable with sound branching structure. Upper crown suppressed due to overshadowing with distorted leader.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site	
605	Acacia decurrens (Black Wattle)	8	8	210	56	М	Appears stable with sound branching structure.  Moderate wound at 3 metres due to branch loss (PL).	No Evidence	Good	Low borer infestation	Short 5-15 Years	4	Low	On-site	
606	Acacia decurrens (Black Wattle)	9	7	245	56	М	Appears stable with sound branching structure. Exhibits a prominent lean to the west.	No Evidence	Good	Low borer infestation	Short 5-15 Years	4	Low	On-site	

			APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE										
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation					
1	Jacaranda mimosifolia (Jacaranda)	М	5.0	2.2	78.5	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.					
2	Cupressus glabra (Arizona Cypress)	М	7.0	2.6	151.9	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.					
3	Cupressus glabra (Arizona Cypress)	М	4.7	2.2	68.3	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.					
4	Cupressus glabra (Arizona Cypress)	М	7.2	2.7	162.8	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.					
5	<i>Erythrina sp.</i> (Coral Tree)	М	6.6	2.6	135.7	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.					
6	Prunus sp. (Ornamental Flowering Peach)	М	2.9	1.8	26.5	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.					
7	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	8.4	2.8	221.6	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.					
7a	Photinia x fraseri 'Robusta' (Chinese Hawthorn)	М	4.8	2.3	72.3	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.					

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
8	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	7.6	2.7	183.4	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.
9	Eucalyptus scoparia (Willow Gum)	Р	3.2	1.9	33.1	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.
10	Eucalyptus scoparia (Willow Gum)	Р	5.0	2.2	78.5	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.
11	Lophostemon confertus (Brushbox)	М	5.3	2.4	88.6	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.
12	Lophostemon confertus (Brushbox)	М	4.2	2.1	54.5	Located within footprint of proposed Through Site Link roadway and associated batter.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

			APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE											
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation						
13	Araucaria heterophylla (Norfolk Island Pine)	М	10.9	3.2	369.9	Existing timber shed offset 4.8 meres south-west to be demolished within TPZ. Proposed new car park offset 7.7 metres south-west at RL191.50 (300-500mm below grade). Excavation for building foundations within TPZ. Encroachment to TPZ = 3% (assuming no over-excavation to facilitate construction). Proposed Through Site Link roadway offset 3.4 metres north at RL 191-19.5 (close to existing grade, partly within footprint of existing roadway. Placement of engineered fill for pavement sub-grade within TPZ. Cumulative encroachment to TPZ = 7% (excluding existing paved areas). Proposed new stormwater pipelines offset 3.2 and 7.1 metres north at IL? (assumed 500-800mm below grade). Open trenching for stormwater works within TPZ.	10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact. Open trenching for the stormwater works has the potential result in	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing shed within TPZ in accordance with Section 10.8. Undertake all excavations for proposed building foundations within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 500mm from the edge of the floor slab. Install road pavement within TPZ slightly above grade in accordance with Section 10.12. Undertake all excavations for the proposed stormwater pipes within the TPZ in accordance with Section 10.11.						
14	Lophostemon confertus (Brushbox)	М	4.8	2.3	72.8	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5.						
15	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	9.6	3.0	289.4	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.						
16	Citharexylum spinosum (Fiddlewood)	М	5.0	2.1	78.5	Proposed elevated pedestrian ramps / pathway (PV06) offset 1.9 metres south and 2.2 metres north at RL192.20 (existing grade) to 192.60 (200mm above grade). Excavation for pier footings within TPZ. No encroachment to TPZ.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for proposed pedestrian ramps within TPZ in accordance with Section 10.9. Install pavement in accordance with Sections 10.12 & 10.13.						

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
17	Lophostemon confertus (Brushbox)	M	14.4	3.6	651.1	Surrounding kerb and gutter to be demolished within TPZ. Proposed new parking bay offset 7.7 metres east at RL 192.900 (close to existing grade, beyond existing kerb line). Excavations for new road pavement sub-grade and kerb foundations within TPZ (within footprint of existing paved area Existing roadway to west to be regraded to 100-200 above existing grade). Placement of engineered fill for pavement sub-grade within TPZ (within footprint of existing road pavement). No increase in present encroachment. Proposed pedestrian ramps / concrete pathway (PV03) offset 3.5 metres north RL192.20 (existing grade) to 192.60 (200mm above grade). Excavation and placement of engineered fill within TPZ. Proposed new car park and associated contiguous pile wall offset 6.6 metres south-east at RL191.50 (2.2 metres below grade). Bulk excavation for building and retaining wall foundations within TPZ. Encroachment to TPZ = 10% (assuming no overexcavation to facilitate construction). Cumulative encroachment to TPZ = 15%	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this tree will tolerate the extent of the encroachment proposed. No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for proposed car park and associated retaining wall within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 500mm from the edge of the capping beam. Undertake all excavations for proposed pedestrian ramps within TPZ in accordance with Section 10.9. Install pavement in accordance with Sections 10.12 & 10.13. Retain existing soft landscape are surrounding tree (located within confines of existing kerb).

				APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE											
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation							
18	Phoenix canariensis (Canary Island Palm)	G	4.0	2.6	50.2	Proposed new car park and associated contiguous pile wall offset 4.4 metres east at RL191.50 (2.2 metres below grade). No encroachment to TPZ (assuming no overexcavation to facilitate construction). Proposed new retaining wall offset 2.3 metres west and 3.5 metres north. Excavations for wall foundations within TPZ. Encroachment to TPZ = 20%	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this tree will tolerate the extent of the encroachment proposed. No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for proposed car park and associated retaining wall within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 300mm from the edge of the capping beam. Undertake all excavations for retaining wall foundations within TPZ in accordance with Section 10.9.							
19	Cupressus leylandii 'Naylors Blue' (Leyland Cypress)	М	6.6	2.6	137.3	Proposed new car park and associated contiguous pile wall offset 4.2 metres east at RL191.50 (2.1 metres below grade). Bulk excavation for building and retaining wall foundations within TPZ. Encroachment to TPZ = 12% (assuming no over-excavation to facilitate construction). Some canopy pruning may be required to clear piling rig, resulting in 10% crown loss.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this tree will tolerate the extent of the encroachment proposed. Extent of canopy loss is considered within acceptable limits under AS 4373:2007. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for proposed car park and associated retaining wall within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 300mm from the edge of the capping beam. Undertake any required canopy pruning (that essential to clear the piling rig) in accordance with Section 10.12.							

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
20	Robinia pseudoacacia 'Frisia' (Golden Robinia)	М	5.0	2.0	78.5	9 9	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed work will necessitate removal.	Remove tree.
21	<b>Phoenix canariensis</b> (Canary Island Palm)	O	4.5	2.6	63.6	IRI 101 50 (2.8 metres below grade). Rulk	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this tree will tolerate the extent of the encroachment proposed.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for proposed car park and associated retaining wall within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 300mm from the edge of the capping beam.
22	<b>Phoenix</b> <b>canariensis</b> (Canary Island Palm)	G	4.5	2.5	63.6		acceptable limits under AS 4970:2009 Excavations for proposed pavement sub-grade	Consider raising level of ramp to minimum FFL of 200mm above existing surface levels to minimise encroachment to TPZ. Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
23	<b>Podocarpus elatus</b> (Brown or Plum Pine)	М	8.3	2.8	215.9	Proposed pedestrian ramp/pathway (PV06) offset 2.4 metres west at RL196 (existing grade) to 195.60 (100mm above grade) and stairs/paved area (PV01) offset 3.2 metres north-west at RL 194.82 (200-700 mm below grade. Excavation for ramp foundations and pavement/stair foundations within TPZ/SRZ. Encroachment to TPZ = 22%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Excavations for proposed pavement sub-grade (footpath & paved area) are likely to result in an adverse impact.	Consider raising level of ramp to minimum FFL of 200mm above existing surface levels to minimise encroachment to TPZ. Eliminate pavement and stairs within TPZ. Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.
24	Liriodendron tulipifera (Tulip Tree)	М	4.2	2.1	54.5	Proposed pedestrian ramp/pathway (PV06) offset 2.9 metres west at RL194.80 (200mm above existing grade) and paved area (PV01) offset 3.3 metres south-west at RL195.00 (close to existing grade. Excavation for ramp foundations and pavement foundations within TPZ/SRZ. Encroachment to TPZ = 5%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.
25	Phoenix canariensis (Canary Island Palm)	G	4.5	2.5	63.6	Existing low retaining wall offset 4.0 metres north to be demolished. Proposed pedestrian ramp/pathway (PV06) offset 3.5 metres north at RL 193.75 (250mm below grade). Excavation for ramp foundations within TPZ. Encroachment to TPZ = 7%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.
26	<b>Mangifera indica</b> (Mango Tree)	М	3.6	2.0	40.7	Existing low retaining wall offset 3.5 metres north to be demolished. Proposed pedestrian ramp/pathway (PV06) offset 3.1 metres north at RL 193.75 (250mm below grade) to 194.35 (250mm above grade). Excavation for ramp foundations within TPZ. Encroachment to TPZ = 4%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
27	Robinia pseudoacacia 'Frisia' (Golden Robinia)	М	4.0	1.7	50.2	Existing road pavement offset 2.6 metres northwest to be demolished. Proposed pedestrian ramp/pathway (PV06) offset 1-3 metres north, west and SW at RL194.35 to 194.60 (250 to 100mm above grade). Excavation for ramp foundations within TPZ. Encroachment to TPZ = 42%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in a significant adverse impact on this tree.	Remove tree.
28	Lophostemon confertus (Brushbox)	М	15.0	3.6	708.3	Existing roadway to east to be regraded to 100-200 above existing grade. Placement of engineered fill for pavement sub-grade within TPZ (within footprint of existing road pavement). No increase in present encroachment. Existing roadway to south to be regraded to 100-300mm above existing grade. Toe of fill batter offset 3.1 metres south. Placement of engineered fill for pavement sub-grade within TPZ.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this tree will tolerate the extent of the encroachment proposed. No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9. Install pavement within TPZ in accordance with Section 10.9. Install pavement within TPZ in accordance with Sections 10.12 & 10.13
29	Corymbia maculata (Spotted Gum)	Р	6.1	2.5	117.4	Existing roadway to south to be regraded to 100-300mm above existing grade. Toe of fill batter offset 3.1 metres south-east. Placement of engineered fill for pavement sub-grade within TPZ. Encroachment to TPZ = 16%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in some adverse impact on this tree.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9. Install pavement within TPZ in accordance with Sections 10.12 & 10.13
31	<b>Camellia sasanqua</b> (Sasanqua)	М	4.0	2.0	50.2	Proposed pedestrian ramp/pathway (PV06) offset 2.1 metres north-east at RL194.53 to 194.80 (250 to 100mm above grade). Excavation for ramp post footings within TPZ. Encroachment to TPZ = 17%.	this tree will tolerate the extent of the encroachment proposed given that the ramp is	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for ramp footings within TPZ in accordance with Section 10.9.

					APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE					
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
32	<b>Cedrus deodara</b> (Himalayan Cedar)	М	7.9	2.8		2.7 metres east at RL194.95 to 195.32 (100 to 200mm above grade). Excavation for ramp post footings within TPZ. Encroachment to TPZ =	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this tree will tolerate the extent of the encroachment proposed given that the ramp is permeable and slightly elevated above grade. No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for ramp footings within TPZ in accordance with Section 10.9.		
33	Lagunaria patersonia (Norfolk Island Hibiscus)	М	4.7	2.2	68.3	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5.		
34	Podocarpus elatus (Brown or Plum Pine)	М	4.5	2.0	63.6	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5.		
35	<b>Cedrus deodara</b> (Himalayan Cedar)	М	8.1	2.8		Proposed pedestrian ramp/pathway (PV06) offset 2.8 metres east at RL195.57 (70mm above grade ) to RL196.00 (existing grade) and 3.2 metres north-east at RL 195.32 (200mm above grade) to RL195.60 (100mm above grade). Excavation for ramp post footings within TPZ. Proposed paved area (PV01) offset 5.6 metres north-east at RL 195.00. Encroachment to TPZ (excluding elevated section of ramp) = 10%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for ramp footings within TPZ in accordance with Section 10.9.		
36	<b>Liquidambar</b> <b>styraciflua</b> (Liquidambar)	М	9.6	3.0	291.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
37	Bauhinia variegata (Orchid Tree)	М	3.0	1.6	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
38	Acer palmatum (Japanese Maple)	М	5.0	2.0	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
39	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	М	10.8	3.2	364.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
40	<b>Eucalyptus pilularis</b> (Blackbutt)	Р	12.9	3.4	523.9	engineered fill for pavement sub-grade within	Excavations for the new retaining wall foundations have the potential to result in severance and damage to woody roots, resulting in a significant impact on this tree. The root system may be limited on this side due to the existing steep bank and road cutting.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for new retaining wall foundations within TPZ in accordance with Section 10.9. Exploratory excavations and root investigation should be carried out prior to excavating the wall footings to verify the size, position and extent of any woody roots likely to be affected by the proposed works. If woody roots are present in the affected area, it may be feasible to construct the retaining wall as a post and caisson type wall (with isolated pier footings, rather than a continuous strip footing) in accordance with Section 10.10.
41	Eucalyptus pilularis (Blackbutt)	Р	3.4	1.9	35.5	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
42	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	М	4.8	2.3	72.8	Part retaining wall offset 3.5 metres north-west to be demolished within TPZ. Proposed new access ramp/roadway offset 5.7 metres north west at RL 194.73 (at grade) to 194.93 (400-500mm above grade). Placement of engineered fill for pavement sub-grade within TPZ (beyond existing steep bank, within footprint of existing roadway). No increase in present encroachment.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing retaining wall within TPZ in accordance with Section 10.8.
43	Eucalyptus paniculata (Grey Ironbark)	Р	8.4	2.8	221.6	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.
44	Casuarina glauca (Swamp Oak)	М	1.8	1.5	10.2	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.
45	Casuarina glauca (Swamp Oak)	М	2.4	1.7	18.1	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.
45a	Corymbia maculata (Spotted Gum)	Р	6.3	2.5	124.9	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.
46	Corymbia maculata (Spotted Gum)	Р	6.1	2.5	117.4	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5.
48	Casuarina glauca (Swamp Oak)	М	2.4	1.7	18.1	no proposed works within TPZ.	No adverse impact.	to be retained - no special tree protection measures required.
48a	Stenocarpus sinuatus (Queensland Firewheel Tree)	М	2.5	1.4	19.6	Located within footprint of proposed fill batter associated with new ramp/roadway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE					
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation			
49	Photinia x fraseri 'Robusta' (Chinese Hawthorn)	M	4.8	2.3	72.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
50	<b>Cedrus deodara</b> (Himalayan Cedar)	М	6.4	2.5	129.4	Portion of existing car park offset 5.9 metres south-east and retaining wall 2.5 metres north to be demolished within TPZ. Proposed new car parking area & associated kerb offset 3.8 metres south at RL195.22 (close to existing grade). Excavations and placement of engineered fill for pavement sub-grade within TPZ. Encroachment to TPZ = 6%. Proposed stormwater pipeline offset 2.7 metres north. Open trenching for stormwater line within TPZ (beyond existing retaining wall). No actual incursion to root zone.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing retaining wall within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9. Undertake all open trenching for stormwater pipeline within TPZ in accordance with Section 10.11.			
51	<b>Angophora costata</b> (Sydney Red Gum)	Р	5.0	2.0	78.5	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.			
52	Angophora costata (Sydney Red Gum)	Р	4.0	2.0	50.2	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.			

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
53	<b>Acacia binervia</b> (Coastal Myall)	М	4.0	2.1	50.2	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.		
54	Acacia binervia (Coastal Myall)	М	4.2	2.1	55.4	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.		
55	<b>Acacia binervia</b> (Coastal Myall)	М	4.0	1.8	50.2	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.		
56	<b>Acacia binervia</b> (Coastal Myall)	М	4.0	2.0	50.2	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.		

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
57	Angophora costata (Sydney Red Gum)	Р	4.0	1.8	50.2	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.		
58	<b>Acacia binervia</b> (Coastal Myall)	М	6.0	2.2	113.0	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.		
59	<b>Angophora costata</b> (Sydney Red Gum)	Р	5.0	2.1	78.5	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.		
60	Jacaranda mimosifolia (Jacaranda)	М	4.0	1.8	50.2	Existing roadway to east to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.		

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
61	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	М	12.4	3.4	484.4	Existing roadway to west to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.9.		
62	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	М	12.8	3.4	517.7	Existing roadway to west to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.		
63	Eucalyptus sideroxylon (Mugga Ironbark)	Р	7.3	2.7	165.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
64	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	М	12.3	3.3	475.5	Existing roadway to west to be demolished within TPZ and replaced with new concrete footpath in similar footprint and grade.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing roadway within TPZ in accordance with Section 10.8. Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.		
65	Jacaranda mimosifolia (Jacaranda)	М	5.2	2.3	83.6	Located close to footprint of proposed future works.	Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.		
66	Ulmus glabra 'Lutescens' (Golden Elm)	М	5.1	2.3	81.1	Located close to footprint of proposed future works.	Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.		
67	Jacaranda mimosifolia (Jacaranda)	М	5.6	2.4	97.8	Located within the footprint of proposed future works.	Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.		

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
68	Tibouchina macrantha (Lasiandra)	М	3.0	1.5	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
69	<b>Ginko biloba</b> (Maidenhair Tree)	М	4.5	1.7	63.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
70	Lagerstroemia indica (Crepe Myrtle)	М	3.5	1.7	38.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
71	Archontophoenix cunninghamii (Bangalow Palm)	G	3.6	2.0	40.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
72	Archontophoenix cunninghamii (Bangalow Palm)	G	3.8	2.1	46.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
73	Archontophoenix cunninghamii (Bangalow Palm)	G	3.3	1.9	33.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
74	Archontophoenix cunninghamii (Bangalow Palm)	G	3.0	1.8	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
75	<b>Butia capitata</b> (Jelly Palm)	G	4.9	2.3	74.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
76	Gleditsia triacanthos (Honey Locust)	М	7.0	2.2	153.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
77	<b>Quercus robur</b> (English Oak)	М	6.0	2.1	113.0	Proposed new car park and associated contiguous pile wall offset 7.0 metres north-east at RL191.50 (2.0 metres below grade). No encroachment to TPZ (assuming no overexcavation to facilitate construction).	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for proposed car park and associated retaining wall within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 500mm from the edge of the capping beam.
79	Magnolia soulangeana (Magnolia)	М	3.6	2.0	40.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
80	Ginko biloba (Maidenhair Tree)	М	5.0	2.3	79.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
83	Juniperus chinensis 'Variegata' (Variegated Chinese Juniper)	М	3.8	2.1	46.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
84	<b>Quercus robur</b> (English Oak)	М	5.0	1.8	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
85	Platanus orientalis (Oriental Plane)	М	4.5	1.9	63.6	Located within footprint of proposed car park	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

						APPENDIX 4 - IMPACT	APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
86	Castanospermum australe (Blackbean)	М	6.6	2.6	136.8	Proposed new car park offset 2.8 metres west at RL191.50 (500mm below grade). Excavation for building foundations within TPZ. Encroachment to TPZ = 25% (assuming no over-excavation to facilitate construction). Substantial canopy pruning will be required to building envelope, resulting in 20-30% crown loss.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in a significant adverse impact.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.		
86a	<i>Ficus rubiginosa f.</i> <i>glabrescens</i> (Port Jackson Fig)	М	14.4	3.6	651.1	Proposed Through Site Link roadway offset 3.8 metres north at RL 190.82 (close to existing grade at Ch0.0) to RL 188.96 (200mm above grade at Ch 15.0), partly within footprint of existing roadway. Placement of engineered fill for pavement sub-grade within TPZ. Encroachment to TPZ = 16% (excluding existing paved areas. Proposed new stormwater pipelines offset 3.8 and 5.8 metres north at IL? (assumed 500-800mm below grade). Open trenching for stormwater works within TPZ.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this tee will tolerate the extent of the encroachment to the TPZ given that the new roadway is predominantly above grade. Open trenching for the stormwater works has the potential result in severance of woody roots, leading to a significant adverse impact on this tree.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Install road pavement within TPZ slightly above grade in accordance with Section 10.12. Undertake all excavations for the proposed stormwater pipes within the TPZ in accordance with Section 10.11.		
86b	Trachycarpus fortunei (Chinese Windmill Palm)	G	2.4	1.7	18.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
86c	Trachycarpus fortunei (Chinese Windmill Palm)	G	3.0	1.8	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
86d	<b>Trachycarpus</b> <b>fortunei</b> (Chinese Windmill Palm)	G	2.4	1.7	18.1	Located within footprint of approved Early Learning Centre building & associated works.	Proposed works will necessitate removal.	Approved for removal under DA/1227/2018		

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation	
87	Elaeocarpus reticulatus (Blueberry Ash)	М	3.5	1.6	38.5	Proposed new car park offset 2.5 metres west at RL191.50 (500mm below grade). Excavation for building foundations within TPZ. Encroachment to TPZ = 9% (assuming no over-excavation to facilitate construction). Substantial canopy pruning will be required to building envelope & temp. scaffolding, resulting in 30% crown loss.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. Extent of canopy loss exceeds acceptable limits under AS 4373:2007. Proposed works are likely to result in an adverse impact, necessitating removal.	Remove tree.	
87a	Elaeocarpus reticulatus (Blueberry Ash)	М	3.5	1.6	38.5	Proposed new car park offset 2.7 metres west at RL191.50 (500mm below grade). Excavation for building foundations within TPZ. Encroachment to TPZ = 9% (assuming no over-excavation to facilitate construction). Substantial canopy pruning will be required to building envelope & temp. scaffolding, resulting in 20% crown loss.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. Extent of canopy loss exceeds acceptable limits under AS 4373:2007. Proposed works are likely to result in an adverse impact, necessitating removal.	Remove tree.	
88	<b>Quercus rubra</b> (Red Oak)	М	9.1	2.9	257.6	Proposed new car park offset 3.2 metres west at RL191.50 (300-400mm below grade). Excavation for building foundations within TPZ. Encroachment to TPZ = 29% (assuming no overexcavation to facilitate construction). Substantial canopy pruning will be required to building envelope & temp. scaffolding, resulting in 30% crown loss.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in a significant adverse impact. Extent of canopy loss exceeds acceptable limits under AS 4373:2007. Proposed works are likely to result in an adverse impact, necessitating removal.	Remove tree.	
89	Lophostemon confertus (Brushbox)	М	4.9	2.3	75.1	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5.	
89a	Elaeocarpus reticulatus (Blueberry Ash)	М	2.4	1.7	17.6	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5.	

			APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE					
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
90	Ficus macrophylla (Moreton Bay Fig)	М	14.4	3.6	651.1	Proposed new car park offset 11.8 metres west at RL191.50 (200-400mm below grade). Excavation for building foundations within TPZ. Encroachment to TPZ = 4% (assuming no overexcavation to facilitate construction).	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5.
91	Jacaranda mimosifolia (Jacaranda)	М	5.0	2.0	78.5	No proposed works within TPZ.	No adverse impact.	NB: Approved for removal under DA/1227/2018
92	<b>Quercus palustris</b> (Pin Oak)	М	4.2	2.1	55.5	Proposed new car park offset 2.1 metres west at RL191.50 (300-400mm below grade). Excavation for building foundations within TPZ. Encroachment to TPZ = 14% (assuming no overexcavation to facilitate construction). Substantial canopy pruning will be required to building envelope & temp. scaffolding, resulting in 30% crown loss.	Extent of canopy loss exceeds acceptable limits	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
93	Eucalyptus sideroxylon (Mugga Ironbark)	Р	10.8	3.2	367.3	Proposed new car park offset 7.7 metres northwest at RL191.50 (300-400mm below grade). Excavation for building foundations within TPZ. Encroachment to TPZ = 3% (assuming no overexcavation to facilitate construction). Proposed pedestrian pathway offset 7 to 9 metres west at RL? (assumed close to existing grade). Excavations for pavement sub-grade within TPZ. Cumulative encroachment to TPZ = 6%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for proposed car park and new pedestrian pathway sub-grade within TPZ in accordance with Section 10.9.
94	Eucalyptus sideroxylon (Mugga Ironbark)	Р	9.0	2.7	254.3	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5.

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
95	Lophostemon confertus (Brushbox)	М	13.5	3.5	571.5	Existing netball court offset 7.4 metres east to be demolished within TPZ. Proposed new car park & associated contiguous pile wall offset 10.8 metres east at RL187.00 (3 metres below grade). Excavation for building foundations within TPZ (within footprint of existing netball courts). Encroachment to TPZ = 5% (assuming no overexcavation to facilitate construction). Proposed new netball courts offset 6.4 metres east at RL 190.170 (200mm above existing grade, within footprint of existing netball court). No increase in encroachment from present situation. Proposed pathway and stairs (& associated retaining wall) offset 6.5 metres north at at RL191.13 (existing grade) to 190.83 (700mm above grade). Excavations for wall foundations within TPZ/SRZ. Potential encroachment to TPZ = 12%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this tree will tolerate the extent of the encroachment proposed, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Trunk Protection Boarding in accordance with Section 10.6. Demolish existing pavements and structures within TPZ in accordance with Section 10.8. Undertake all excavations for proposed car park and new pedestrian ramp and stairs within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 500mm from the edge of the capping beam.		
96	<b>Araucaria cunninghamii</b> (Hoop Pine)	М	7.0	2.6	151.9	Existing netball court offset 2.7 metres east to be demolished within TPZ. Proposed new netball courts offset 2.7 metres east at RL 190.170 (200mm above existing grade, within footprint of existing netball court). No increase in encroachment from present situation.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Trunk Protection Boarding in accordance with Section 10.6. Demolish existing pavements and structures within TPZ in accordance with Section 10.8. Undertake all excavations for proposed car park and netball court slab within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 500mm from the edge of the capping beam.		

			APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE					
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
96a	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	М	4.0	1.8	50.2	Existing netball court offset 2.6 metres east to be demolished within TPZ. Proposed new netball courts offset 2.6 metres east at RL 190.170 (200mm above existing grade, within footprint of existing netball court). No increase in encroachment from present situation.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Trunk Protection Boarding in accordance with Section 10.6. Demolish existing pavements and structures within TPZ in accordance with Section 10.8. Undertake all excavations for proposed car park and netball court slab within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 500mm from the edge of the capping beam.
97	<b>Araucaria</b> <b>columnaris</b> (Cook Pine)	М	7.0	2.6	151.9	Existing concrete path offset 2-2.2 metres west, south and east to be demolished within TPZ. Proposed new concrete pathway (PV03) and associated concrete edge retaining wall (WA03) offset 2.0 metres south at RL191.13 (existing grade) to 190.83 (700mm above grade). Excavations for wall foundations within TPZ/SRZ. Potential encroachment to TPZ = 33%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Excavations for any continuous strip footing associated with the retaining wall to the north side of the opathway has the potential to result in severance and damage to woody roots of this tree, leading to a significant adverse impact. However, any adverse impact can be mitigated by either eliminating the wall and installing the path as a suspended concrete structure or elevated walkway (as per PV06) supported by post/pier footings.	Consider substituting path and wall for fully elevated ramp fabricated using FRP and steel frame on post footings with void beneath (as per pavement type PV06 or similar. Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Trunk Protection Boarding in accordance with Section 10.6. Demolish existing pavements and structures within TPZ in accordance with Section 10.8. Undertake all excavations for proposed car park and netball court slab within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 500mm from the edge of the capping beam.
98	<b>Quercus palustris</b> (Pin Oak)	М	5.8	2.3	105.6	Located within footprint of approved Early Learning Centre building & associated works.	Proposed works will necessitate removal.	Approved for removal under DA/1227/2018

						APPENDIX 4 - IMPACT	APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
100	<b>Prunus sp.</b> (Plum tree)	М	5.0	2.7	78.5	Located within footprint of approved Early Learning Centre building & associated works.	Proposed works will necessitate removal.	Approved for removal under DA/1227/2018		
101	<b>Prunus sp.</b> (Plum tree)	М	4.2	2.1	55.4	Located within footprint of approved Early Learning Centre building & associated works.	Proposed works will necessitate removal.	Approved for removal under DA/1227/2018		
102	Ficus macrophylla (Moreton Bay Fig)	М	4.8	2.3	72.3	Located within footprint of approved Early Learning Centre building & associated works.	Proposed works will necessitate removal.	Approved for removal under DA/1227/2018		
103	Quercus robur (English Oak)	М	9.6	3.0	289.4	Located within footprint of approved Early Learning Centre building & associated works.	Proposed works will necessitate removal.	Approved for removal under DA/1227/2018		
104	Liquidambar styraciflua (Liquidambar)	М	8.3	2.8	217.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
106	Liquidambar styraciflua (Liquidambar)	М	7.0	2.5	153.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
107	Hymenosporum flavum (Native Frangipani)	М	3.2	1.9	31.6	Located within footprint of proposed car park (P4A)	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.		
107a	Hymenosporum flavum (Native Frangipani)	М	2.0	1.3	12.6	Located within footprint of proposed car park (P4A)	Proposed works will necessitate removal.	Remove tree.		
107b	Castanospermum australe (Blackbean)	М	2.3	1.7	16.5	Located within footprint of proposed car park (P4A)	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.		
111	Angophora costata (Sydney Red Gum)	Р	6.0	2.2	113.0	Located within footprint of proposed car park (P4A)	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
112	Acacia binervia (Coastal Myall)	М	5.3	2.3	87.3	Located within footprint of proposed car park (P4A)	Proposed works will necessitate removal.	Remove tree.
113	Acacia binervia (Coastal Myall)	М	4.6	2.2	66.0	Located within footprint of proposed car park (P4A)	Proposed works will necessitate removal.	Remove tree.
114	Liquidambar styraciflua (Liquidambar)	М	8.0	2.7	201.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
115	Liquidambar styraciflua (Liquidambar)	М	5.5	2.4	95.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
116	<b>Liquidambar</b> <b>styraciflua</b> (Liquidambar)	Μ	7.3	2.7	160.1	Proposed driveway crossover offset 6.1 metres south at RL? (assumed close to existing grade). Excavations for pavement sub-grade within TPZ. Encroachment to TPZ = 4%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for proposed driveway crossover sub-grade within TPZ in accordance with Section 10.9.
117	Jacaranda mimosifolia (Jacaranda)	М	5.0	2.1	78.5	Located within footprint of proposed car park driveway ramp (P4A)	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
118	<b>Cryptomeria</b> <b>japonica</b> (Japanese Cedar)	М	6.7	2.6	140.4	Proposed driveway ramp offset 6.4 metres northeast at RL? (assumed close to existing grade). Excavations for pavement sub-grade within TPZ. Encroachment to TPZ = 2%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Tree Protection Fencing in accordance with Section 10.5. Undertake all excavations for proposed driveway crossover sub-grade within TPZ in accordance with Section 10.9.

						APPENDIX 4 - IMPACT	APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation			
119	Cupressus sempervirens 'Stricta' (Italian Cypress)	М	3.2	1.9	33.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
120	Cupressus glabra (Arizona Cypress)	М	7.0	3.2	153.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
121	Liquidambar styraciflua (Liquidambar)	М	5.5	2.4	96.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
122	<b>Araucaria</b> <b>cunninghamii</b> (Hoop Pine)	М	6.3	2.5	124.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
123	Acmena smithii (Lillypilly)	М	4.0	1.8	50.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
124	Fraxinus Raywood (Claret Ash)	М	6.0	2.2	113.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
125	Fraxinus Raywood (Claret Ash)	М	5.0	2.2	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
126	Liquidambar styraciflua (Liquidambar)	М	4.9	2.3	76.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
127	<b>Cedrus deodara</b> (Himalayan Cedar)	М	6.3	2.5	124.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
127a	Elaeocarpus reticulatus (Blueberry Ash)	М	2.1	1.6	13.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			

						APPENDIX 4 - IMPACT	APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation			
128	<b>Cedrus deodara</b> (Himalayan Cedar)	М	6.5	2.6	132.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
129	Araucaria cunninghamii (Hoop Pine)	М	7.5	2.7	178.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
130	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	Р	8.7	2.9	238.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
136	Robinia pseudoacacia 'Frisia' (Golden Robinia)	М	4.0	2.1	50.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
138	Banksia integrifolia (Coast Banksia)	М	5.0	1.9	78.5	Located within the footprint of proposed future works.	Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.			
139	Cinnamomum camphora (Camphor Laurel)	М	12.0	3.3	452.2	Located within the footprint of proposed future works.	Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.			
140	Ulmus parvifolia (Chinese Elm)	М	5.0	2.0	78.5	Existing concrete pathway to north and east to be demolished within TPZ and proposed new pathway constructed in same position at slightly higher level. No increase in encroachment to TPZ.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Trunk Protection Boarding in accordance with Section 10.6. Demolish existing pavements and structures within TPZ (where required) in accordance with Section 10.8. Undertake all excavations for new pavement subgrade within TPZ in accordance with Section 10.9.			

						APPENDIX 4 - IMPACT	X 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
141	<b>Cinnamomum</b> <b>camphora</b> (Camphor Laurel)	М	13.2	3.4	547.1	Existing netball court offset 6.1 metres east to be demolished within TPZ. Proposed new car park & associated contiguous pile wall offset 10.4 metres east at RL187.00 (3 metres below grade). Excavation for building foundations within TPZ (within footprint of existing netball courts). Encroachment to TPZ = 5% (assuming no overexcavation to facilitate construction). Proposed new netball courts offset 6.1 metres east at RL 190.170 (close to existing grade, within footprint of existing netball court). No increase in encroachment from present situation.	No adverse impact, provided that all proposed works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install temporary Trunk Protection Boarding in accordance with Section 10.6. Demolish existing pavements and structures within TPZ in accordance with Section 10.8. Undertake all excavations for proposed car park and netball court slab within TPZ in accordance with Section 10.9. Limit any required over-excavation / temporary batter (to facilitate construction, drainage and waterproofing) to no greater than 500mm from the edge of the capping beam.		
143	Castanospermum australe (Blackbean)	М	4.8	2.3	72.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
144	Cinnamomum camphora (Camphor Laurel)	М	11.7	3.3	426.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
145	Ulmus parvifolia (Chinese Elm)	М	6.0	1.7	113.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
146	Quercus palustris (Pin Oak)	М	6.0	2.1	113.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

					APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE					
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
147	<b>Quercus robur</b> (English Oak)	М	15.0	3.8	706.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
148	Livistona australis (Cabbage Tree Palm)	G	4.2	2.1	55.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
148a	Howea forsteriana (Kentia Palm)	G	2.6	1.8	21.9	Located within footprint of proposed new landscape works (Mary Ward Building)	Proposed works will necessitate removal.	Remove tree.		
148b	Howea forsteriana (Kentia Palm)	G	2.4	1.7	18.2	Located within footprint of proposed new landscape works (Mary Ward Building)	Proposed works will necessitate removal.	Remove tree.		
149	Camellia sasanqua (Sasanqua)	М	4.8	2.3	72.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
150	Ulmus parvifolia (Chinese Elm)	М	5.0	1.9	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
151	Syzygium paniculatum (Magenta Cherry)	М	4.1	2.1	53.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
151a	Trachycarpus fortunei (Chinese Windmill Palm)	М	2.4	1.7	18.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
152	Syzygium paniculatum (Magenta Cherry)	М	4.0	2.0	50.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
153	Syzygium paniculatum (Magenta Cherry)	М	3.0	1.8	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
154	Sapium sebiferum (Chinese Tallow tree)	М	4.2	2.1	56.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
154a	Trachycarpus fortunei (Chinese Windmill Palm)	М	2.4	1.7	18.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
155	Syzygium paniculatum (Magenta Cherry)	М	3.1	1.9	30.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
156	Syzygium paniculatum (Magenta Cherry)	М	2.3	1.7	16.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
157	Sapium sebiferum (Chinese Tallow tree)	М	4.0	2.0	50.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
159	Metasequoia glyptostroboides (Dawn Redwood)	М	5.9	2.5	108.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
160	Juniperus chinensis 'Pfitzeriana' (Juniper)	М	2.9	1.8	26.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
161	<b>Thuja plicata</b> (Western Red Cedar)	М	3.0	2.5	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
162	Juniperus chinensis 'Pfitzeriana' (Juniper)	М	2.9	1.8	26.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
165	Jacaranda mimosifolia (Jacaranda)	М	7.0	2.4		Proposed lawn terrace and associated retaining wall offset 3.0 metres north at RL 193.80 (800mm above grade). Excavations for wall foundations and placement of non-engineered fill within TPZ. Encroachment to TPZ = 8%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for new wall footings within TPZ in accordance with Section 10.6.
167	Cyathea cooperi (Rough Tree Fern)	G	2.0	1.2	12.6	Proposed lawn terrace and associated retaining wall offset 0.5 metres north at RL 193.80 (800mm above grade). Excavations for wall foundations and placement of non-engineered fill within TPZ/SRZ.	Proposed works will necessitate removal.	Remove tree.
169	<b>Acer palmatum</b> (Japanese Maple)	М	5.4	2.4	91.6	Proposed lawn terrace and associated retaining wall offset 2.4 metres north, east and west (semicircular) at RL 193.80 (600mm above grade). Excavations for wall foundations and placement of non-engineered fill within TPZ (partly within footprint of existing building). Encroachment to TPZ = 40%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works may result in some adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Demolish existing building within TPZ in accordance with Section 10.5. Undertake all excavations for new wall footings within TPZ in accordance with Section 10.6. Use pier and beam footings to bridge woody roots where required. Install fill for new landscape terrace in accordance with Section 10.10.
170	Sapium sebiferum (Chinese Tallow tree)	М	4.0	2.1	50.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
172	Populus nigra 'Italica' (Lombardy Poplar)	М	5.4	2.4	91.2	Located within footprint of proposed new terrace lawn area at RL?	Proposed works will necessitate removal.	Remove tree.
173	Populus nigra 'Italica' (Lombardy Poplar)	М	3.0	1.6	28.3	Located within footprint of proposed new terrace lawn area at RL?	Proposed works will necessitate removal.	Remove tree.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
174	Populus nigra 'Italica' (Lombardy Poplar)	М	3.7	2.0	44.0	Located within footprint of proposed new terrace lawn area at RL?	Proposed works will necessitate removal.	Remove tree.
175	Ulmus parvifolia (Chinese Elm)	М	8.0	2.4	201.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
176	Ulmus parvifolia (Chinese Elm)	М	8.0	2.6	201.0		Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.
176a	Archontophoenix cunninghamii (Bangalow Palm)	G	3.6	2.0	40.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
176b	Archontophoenix cunninghamii (Bangalow Palm)	G	4.8	2.3	72.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
177	<b>Betula sp [nigra]</b> (Tropical Birch)	М	5.0	2.2	78.5		Excavations for pier footings will not result in any adverse impact provided that all excavations	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Demolish existing concrete pavements within TPZ in accordance with Section 10.5. Undertake all excavations for new pier footings within TPZ in accordance with Section 10.6.

					APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation	
178	<b>Betula sp [nigra]</b> (Tropical Birch)	М	6.0	2.1	113.0	Proposed elevated pavement and stairs offset 3.1 metres west at RL191.60 (250mm above grade to RL 192.90 (1.5 metres above grade). Excavations for pier footings within TPZ (within footprint of existing roadway). Proposed elevated pavement and stairs offset 3.0 metres east at RL193.00 (350mm above grade to RL 191.60 (150mm above grade). Excavations for pier footings within TPZ (partly within footprint of existing pavements).		Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Demolish existing concrete pavements within TPZ in accordance with Section 10.5. Undertake all excavations for new pier footings within TPZ in accordance with Section 10.6.	
179	<b>Betula sp [nigra]</b> (Tropical Birch)	М	5.5	2.4	93.8	Proposed elevated pavement and stairs offset 3.7 metres west at RL191.50 (700mm above grade to RL 189.70 (700mm below grade). Excavations for pier footings within and stair foundations within TPZ (within footprint of existing roadway). Encroachment to TPZ = 14%. Proposed paved area offset 3.4 metres NE at RL 191.50 (400mm above grade). Minor excavation and filling within TPZ for pavement sub-grade (partly within footprint of existing pavement).		Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Demolish existing concrete pavements within TPZ in accordance with Section 10.5. Undertake all excavations for new pier footings within TPZ in accordance with Section 10.6.	
180	Magnolia grandiflora (Bullbay Magnolia)	М	4.5	2.2		Located within footprint of proposed new terrace garden area at RL? & close to proposed retaining walls (< 1 metre).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.	
181	Ulmus parvifolia (Chinese Elm)	М	8.4	2.8	221.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
183	Gleditsia triacanthos (Honey Locust)	М	4.0	1.6	50.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
185	<b>Liquidambar</b> <b>styraciflua</b> (Liquidambar)	М	8.2	2.8	212.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
186	Brachychiton discolor (Queensland Lacebark)	М	11.4	3.2	404.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
188	Brachychiton discolor (Queensland Lacebark)	М	9.6	3.0	286.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
189	<b>Acer negundo</b> (Box Elder)	М	6.0	2.4	113.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
190	Tristaniopsis laurina (Water Gum)	М	3.4	2.0	37.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
190a	Syzygium paniculatum (Magenta Cherry)	М	5.0	2.1	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
190b	Syzygium paniculatum (Magenta Cherry)	М	5.0	2.2	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
192	<b>Sapium sebiferum</b> (Chinese Tallow tree)	М	2.8	1.8	25.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
193	<b>Sapium sebiferum</b> (Chinese Tallow tree)	М	2.8	1.8	25.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	NT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation			
194	Sapium sebiferum (Chinese Tallow tree)	М	3.1	1.9	29.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
195	Eucalyptus robusta (Swamp Mahogany)	Р	7.0	2.5	153.9	Existing asphalt pavement and associated kerb and gutter offset 1.8 metres all round to be demolished within TPZ. Area to south to be returned to soft landscape and existing ground levels to be maintained. Proposed new fence offset 2.5 metres to the south. Excavations for post footings within TPZ. Proposed new pavement offset 2 metres north (beyond existing kerb, within footprint of existing asphalt) at RL 191.20 (close to existing grade). No increase in encroachment from present situation. Proposed new building offset 3.8 metres south-east at RL ≈ 191.20 (close to existing grade). Excavations for building foundations within TPZ. Encroachment to TPZ = 13%. Some canopy pruning may be required to clear the building envelope (extending to RL 198.10 - 7 metres above grade). Located within footprint of proposed new footpath.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
195a	Row of 8 x  Allocasuarina torulosa (Forest Oak)	М	2.8	1.8	23.8	Located within footprint of proposed pathway and associated stairs and retaining walls.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
195b	Row of 5 x <b>Syzygium australe</b> (Lillypilly)	М	1.8	1.5	10.2	Located within footprint of proposed paved area.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
196	Lagerstroemia indica (Crepe Myrtle)	М	3.6	2.0	40.7	Located within footprint of proposed building.	Proposed works will necessitate removal.	Remove tree.			

						APPENDIX 4 - IMPACT	APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
196a	Acmena smithii (Lillypilly)	М	3.7	2.0	43.1	Located within footprint of proposed building.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.		
	Pittosporum undulatum (Sweet Pittosporum)	M	3.0	1.6	28.3	Located within footprint of proposed building.	Proposed works will necessitate removal.	Remove tree.		
196c	Olea europaea var africana (African Olive)	М	4.0	2.0	50.2	Located within footprint of proposed building.	Proposed works will necessitate removal.	Remove tree.		
197	Tibouchina granulosa (Lasiandra)	M	3.0	1.5	28.3	Located within footprint of proposed pathway.	Proposed works will necessitate removal.	Remove tree.		
198	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	Р	7.8	2.8	189.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
199	<b>Callistemon</b> <b>salignus</b> (Willow Bottlebrush)	М	4.6	2.2	65.3	Existing driveway offset 3.1 metres south to be demolished within TPZ.	No adverse impact, assuming that all demolition works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Demolish existing concrete pavement within TPZ in accordance with Section 10.5.		
200	Erythrina crista- galli (Cockscomb Coral)	М	3.0	1.8	28.3	Located within footprint of proposed new landscape works.	Proposed works will necessitate removal.	Remove tree.		
201	<b>Liquidambar</b> <b>styraciflua</b> (Liquidambar)	М	8.9	2.9	246.8	Located within footprint of proposed entry pavement and building.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
	Liquidambar styraciflua (Liquidambar)	М	10.3	3.1	334.3	Located within footprint of proposed building.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
203	Phoenix canariensis (Canary Island Palm)	G	5.0	2.7	78.5	Located within footprint of proposed pathway and associated stairs and retaining walls.	Proposed works will necessitate removal.	Remove tree.
203a	Cinnamomum camphora (Camphor Laurel)	М	4.3	2.2	58.6	Located within footprint of proposed pathway and associated stairs and retaining walls.	Proposed works will necessitate removal.	Remove tree.
204	Cinnamomum camphora (Camphor Laurel)	М	4.6	2.2	65.3	Located within footprint of proposed pathway and associated stairs and retaining walls.	Proposed works will necessitate removal.	Remove tree.
205	<i>Malus sp</i> (Apple)	М	3.0	1.7	28.3	Located within footprint of proposed pathway and associated stairs and retaining walls.	Proposed works will necessitate removal.	Remove tree.
206	<i>Malus sp</i> (Apple)	М	4.2	2.1	55.4	Proposed paved area and associated retaining wall offset 1.5 metres south-west at RL? Excavations for wall foundations within SRZ.	Proposed works will necessitate removal.	Remove tree.
206a	Melaleuca styphelioides (Prickly Paperbark)	М	6.0	2.5	113.0	Located within footprint of proposed new landscape works.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
207	Acer negundo (Box Elder)	М	3.0	1.8	28.3	Located within footprint of proposed building (Boarding House).	Proposed works will necessitate removal.	Remove tree.
208	Pyrus salicifolia (Silver Pear)	М	3.0	1.5	28.3	Existing building offset 2.5 metres and retaining wall 1.7 metres west to be demolished within TPZ.	No adverse impact, assuming that all demolition works within TPZ are undertaken as recommended.	to be retained - no special tree protection measures required.

						APPENDIX 4 - IMPACT	NDIX 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
209	Corymbia maculata (Spotted Gum)	Р	7.8	2.8	191.0	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Maintain existing ground levels within TPZ.		
210	Agathis robusta (Queensland Kauri)	М	3.6	2.0	40.7	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Maintain existing ground levels within TPZ.		
211	Jacaranda mimosifolia (Jacaranda)	М	4.0	1.9	50.2	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Maintain existing ground levels within TPZ.		
212	Jacaranda mimosifolia (Jacaranda)	М	4.0	2.1	49.6	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Maintain existing ground levels within TPZ.		
213	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	4.2	2.1	55.4	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Maintain existing ground levels within TPZ.		
214	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	4.3	2.1	57.5	No proposed works within TPZ.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Maintain existing ground levels within TPZ.		
216	Callistemon viminalis (Weeping Bottlebrush)	M	3.0	1.8	28.3	Located within the footprint of proposed future works.	Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
217	Callistemon viminalis (Weeping Bottlebrush)	M	4.0	1.8	50.2		Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.
218	Acacia binervia (Coastal Myall)	М	5.8	2.4	104.2		Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.
220	Ulmus parvifolia (Chinese Elm)	М	8.0	2.5	201.0		Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.
221	Ulmus parvifolia (Chinese Elm)	М	6.0	2.2	113.0		Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.
222	Agathis robusta (Queensland Kauri)	М	5.1	2.3	81.1	Located within the footprint of proposed future works.	Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.
225	Corymbia ficifolia (WA Red Flowering Gum)	Р	6.0	2.2	113.0	Located within the footprint of proposed future works.	Proposed future works are likely to necessitate the removal of this tree.	To be retained at this stage. No special tree protection measures required.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
226	Eucalyptus botryoides (Bangalay)	Р	9.6	3.0	289.4	Proposed building/basement level offset 6.4 metres west at RL182.10 (4 metres below grade) to 185.15 (750mm below grade). Excavations for building foundations within TPZ. Encroachment to TPZ (excluding any required overexcavation/temporary batter = 11%. Some canopy pruning may be required to clear piling rig.	Extent of encroachment to TPZ marginally exceeds acceptable limits under AS 4970:2009. However, this tree will tolerate the level of encroachment proposed, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within remainder of TPZ intact (no cut or fill permitted). Limit any required temporary batter (to facilitate construction, drainage and waterproofing of basement retaining wall) to no greater than 300mm beyond the outer face of the wall/pilling cap.
227	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	4.7	2.2	69.4	Located within footprint of proposed footpath.	Proposed works will necessitate removal.	Remove tree.
228	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	2.5	1.7	20.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
229	Eucalyptus punctata (Grey Gum)	Р	9.9	3.1	307.6	Proposed driveway crossover offset 8 metres south at RL? (assumed close to existing grade). Excavations for pavement sub-grade within TPZ. Proposed footpath offset 7.2 metres north at RL? (assumed close to existing grade). Encroachment to TPZ = 11%.	Extent of encroachment to TPZ marginally exceeds acceptable limits under AS 4970:2009. However, this tree will tolerate the level of encroachment proposed, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.6. Place driveway above grade within TPZ where possible in accordance with Sections 10.8 & 10.9 to minimise excavation for the pavement sub-grade.

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
230	Eucalyptus pilularis (Blackbutt)	Р	5.5	2.2	05.0	Excavations for pavement sub-grade within	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works will result in a significant adverse impact, necessitating removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.		
	<b>Eucalyptus</b> <b>punctata</b> (Grey Gum)	Р	6.5	2.3	132.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
232	Eucalyptus punctata (Grey Gum)	Р	7.0	2.6	155.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
233	Eucalyptus punctata (Grey Gum)	Р	7.8	2.8	192.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
234	Eucalyptus tereticornis (Forest Red Gum)	Р	5.8	2.4	106.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
235	Eucalyptus punctata (Grey Gum)	Р	6.6	2.6	135.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
236	Syagrus romanzoffianum (Cocos Palm)	G	2.8	1.8	23.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
237	Syagrus romanzoffianum (Cocos Palm)	G	2.4	1.7	18.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
238	Syagrus romanzoffianum (Cocos Palm)	G	2.7	1.8	23.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
239	Syagrus romanzoffianum (Cocos Palm)	G	2.9	1.8	27.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
240	Eucalyptus punctata (Grey Gum)	Р	7.5	2.6	176.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
241	Eucalyptus saligna (Sydney Blue Gum)	Р	6.0	2.5	113.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
242	Liquidambar styraciflua (Liquidambar)	М	6.6	2.6	136.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
242a	Angophora costata (Sydney Red Gum)	Р	3.0	0.0	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
243	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	4.9	2.3	76.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
244	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	2.9	1.8	26.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
245	Melaleuca quinquenervia (Broad-leaved Paperbark)	М	2.1	1.6	14.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
246	Eucalyptus saligna (Sydney Blue Gum)	Р	10.1	3.1	317.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.

						APPENDIX 4 - IMPACT	( 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
247	Eucalyptus grandis (Flooded Gum)	Р	11.7	3.3	432.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
248	Syncarpia glomulifera (Turpentine)	М	4.8	2.3	72.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
249	Syncarpia glomulifera (Turpentine)	М	5.2	2.3	84.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
249a	Araucaria columnaris (Cook Pine)	М	4.0	2.1	49.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
250	Gleditsia triacanthos (Honey Locust)	М	7.5	2.5	176.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
251	Syncarpia glomulifera (Turpentine)	Р	5.4	2.4	91.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
252	Eucalyptus pilularis (Blackbutt)	Р	5.0	2.1	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
253	Eucalyptus pilularis (Blackbutt)	Р	7.0	2.6	155.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
254	Eucalyptus pilularis (Blackbutt)	Р	8.6	2.9	230.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
255	Eucalyptus pilularis (Blackbutt)	Р	12.7	3.4	505.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
256	Eucalyptus pilularis (Blackbutt)	Р	8.4	2.8	219.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
257	Eucalyptus resinifera (Red Mahogany)	Р	4.0	1.9	50.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
258	Eucalyptus pilularis (Blackbutt)	Р	5.4	2.4	89.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
259	Eucalyptus acmenioides (White Mahogany)	Р	7.1	2.7	157.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
260	Eucalyptus acmenioides (White Mahogany)	Р	5.0	2.1	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
261	Eucalyptus saligna (Sydney Blue Gum)	Р	3.6	2.0	40.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
262	Eucalyptus saligna (Sydney Blue Gum)	Р	4.1	2.1	52.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
263	Eucalyptus saligna (Sydney Blue Gum)	Р	5.4	2.4	89.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
264	Eucalyptus pilularis (Blackbutt)	Р	6.0	2.5	111.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
265	Eucalyptus paniculata (Grey Ironbark)	Р	6.0	2.5	114.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
266	Eucalyptus grandis (Flooded Gum)	Р	6.0	2.2	113.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
301	Melaleuca styphelioides (Prickly Paperbark)	М	2.0	1.4	12.6	Located within footprint of proposed building (Boarding House).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
302	Acacia decurrens (Black Wattle)	М	3.0	1.6	28.3	Located within footprint of proposed building (Boarding House).	Proposed works will necessitate removal.	Remove tree.
303	Acacia decurrens (Black Wattle)	М	2.5	1.5	19.6	Located within footprint of proposed building (Boarding House).	Proposed works will necessitate removal.	Remove tree.
304	Allocasuarina torulosa (Forest Oak)	М	1.7	1.5	9.3	Located within footprint of proposed building (Boarding House).	Proposed works will necessitate removal.	Remove tree.
305	Melaleuca styphelioides (Prickly Paperbark)	М	1.6	1.4	7.7	Located within footprint of proposed building (Boarding House).	Proposed works will necessitate removal.	Remove tree.
306	Eucalyptus sp. (Eucalypt)	Р	4.0	1.7	50.2	Proposed building/basement (Boarding House) offset 3.6 metres west at RL182.10 (3 metres below grade). Excavations for building foundations within TPZ. Minor encroachment to TPZ (<5%). Building envelope extending to RL198.10 (13 metres above grade. Substantial canopy pruning required to clear building envelope and temporary scaffolding.	Proposed works will necessitate removal.	Remove tree.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
307	<b>Corymbia maculata</b> (Spotted Gum)	Р	8.9	2.9	246.8	Proposed building/basement (Boarding House) offset 3.6 metres west at RL182.10 (3 metres below grade). Excavations for building foundations within TPZ. Minor encroachment to TPZ (<5%). N.B. Extent of cut and fill for building foundations TBC.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within remainder of TPZ intact (no cut or fill permitted). Limit any required temporary batter (to facilitate construction, drainage and waterproofing of basement retaining wall) to no greater than 300mm beyond the outer face of the wall/piling cap.
308	<b>Corymbia maculata</b> (Spotted Gum)	Р	7.8	2.8	189.0	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within remainder of TPZ intact (no cut or fill permitted). Limit any required temporary batter (to facilitate construction, drainage and waterproofing of basement retaining wall) to no greater than 300mm beyond the outer face of the wall/piling cap.
	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	Р	4.5	2.2	64.9	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.

				APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE					
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation	
310	Eucalyptus scoparia (Willow Gum)	Р	4.0	1.9	50.2	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.	
311	Eucalyptus tereticornis (Forest Red Gum)	Р	4.5	2.2	62.8	Located within footprint of proposed building (Boarding House).	Proposed works will necessitate removal. There are no feasible options that can be recommended to preserve this tree given the extent of the development and the location of this tree within the site.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.	
312	Eucalyptus crebra (Narrow-leaved Ironbark)	Р	3.0	1.8	28.3	Located within footprint of proposed building (Boarding House).		Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.	
313	Corymbia maculata (Spotted Gum)	Р	3.0	1.7	28.3	Located within footprint of proposed building (Boarding House).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.	
314	<b>Corymbia maculata</b> (Spotted Gum)	Р	5.0	2.3	79.9	metres west at RL182.10 (5.4 metres below grade). Excavations for building foundations	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within remainder of TPZ intact (no cut or fill permitted). Limit any required temporary batter (to facilitate construction, drainage and waterproofing of basement retaining wall) to no greater than 300mm beyond the outer face of the wall/piling cap.	

			APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE					
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
315	Corymbia maculata (Spotted Gum)	Р	6.0	2.5	111.6	Located within footprint of proposed building/basement (Boarding House).	Proposed works will necessitate removal. There are no feasible options that can be recommended to preserve this tree given the extent of the development and the location of this tree within the site.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
316	Eucalyptus sp. (Scribbly Gum)	Р	3.0	1.6	28.3	Located within footprint of proposed building/basement (Boarding House).	Proposed works will necessitate removal.	Remove tree.
317	Eucalyptus pilularis (Blackbutt)	Р	4.5	2.0	63.6	Located within footprint of proposed building/basement (Boarding House).	Proposed works will necessitate removal.	Remove tree.
318	Corymbia maculata (Spotted Gum)	Р	6.0	2.2	113.0	Proposed building/basement (Boarding House) offset 4.3 metres west at RL182.10 (4 metres below grade). Excavations for building foundations within TPZ. Encroachment to TPZ = 8%. N.B. Extent of cut and fill for building foundations TBC. Minor pruning may be required to clear temporary scaffolding.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within remainder of TPZ intact (no cut or fill permitted). Limit any required temporary batter (to facilitate construction, drainage and waterproofing of basement retaining wall) to no greater than 300mm beyond the outer face of the wall/piling cap. Undertake any required canopy pruning (that essential to clear the building envelope and temporary scaffolding) in accordance with Section 10.10.

						APPENDIX 4 - IMPACT	APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation			
319	<i>Eucalyptus pilularis</i> (Blackbutt)	Р	3.5	1.7	38.5	Proposed building/basement (Boarding House) offset 3.3 metres west at RL182.10 (4 metres below grade). Excavations for building foundations within TPZ. Encroachment to TPZ = <5%. N.B. Extent of cut and fill for building foundations TBC. Minor pruning may be required to clear temporary scaffolding.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within remainder of TPZ intact (no cut or fill permitted). Limit any required temporary batter (to facilitate construction, drainage and waterproofing of basement retaining wall) to no greater than 300mm beyond the outer face of the wall/piling cap. Undertake any required canopy pruning (that essential to clear the building envelope and temporary scaffolding) in accordance with Section 10.10.			
320	Corymbia maculata (Spotted Gum)	Р	3.0	1.5	28.3	Proposed building/basement (Boarding House) offset 3.3 metres west at RL182.10 (4 metres below grade). No encroachment to TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within remainder of TPZ intact (no cut or fill permitted). Limit any required temporary batter (to facilitate construction, drainage and waterproofing of basement retaining wall) to no greater than 300mm beyond the outer face of the wall/piling cap.			

						APPENDIX 4 - IMPACT	APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation			
321	Angophora costata (Sydney Red Gum)	Р	3.5	2.0	38.8	Located within footprint of proposed building (terrace) & basement level (Boarding House).	Proposed works will necessitate removal (High Retention Value). There are no feasible options that can be recommended to preserve this tree given the extent of the development and the location of this tree within the site.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
322	Eucalyptus sp. (Scribbly Gum)	Р	3.3	1.9	34.7	Located within footprint of proposed building (terrace) & basement level (Boarding House).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
323	Casuarina cunninghamiana (River Oak)	М	2.2	1.6	14.9	Located within footprint of proposed building (terrace) & basement level (Boarding House).	Proposed works will necessitate removal.	Remove tree.			
324	Eucalyptus saligna (Sydney Blue Gum)	Р	3.9	2.1	47.7	Located within footprint of proposed building (terrace) & basement level (Boarding House).	Proposed works will necessitate removal (High Retention Value). There are no feasible options that can be recommended to preserve this tree given the extent of the development and the location of this tree within the site.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
325	Eucalyptus acmenioides (White Mahogany)	Р	2.3	1.6	16.0	Located within footprint of proposed building (terrace) & basement level (Boarding House).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
326	Eucalyptus acmenioides (White Mahogany)	Р	3.0	1.8	27.9	Located within footprint of proposed building (terrace) & basement level (Boarding House).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
327	Eucalyptus sp. (Eucalypt)	Р	3.0	1.5	28.3	Located within footprint of proposed building (terrace) & basement level (Boarding House).	Proposed works will necessitate removal.	Remove tree.			

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
328	Corymbia eximia (Yellow Bloodwood)	Р	6.5	2.6	131.0	(tarrace) & basement level (Rearding House)	Proposed works will necessitate removal (High Retention Value). There are no feasible options that can be recommended to preserve this tree given the extent of the development and the location of this tree within the site.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.		
329	Syncarpia glomulifera (Turpentine)	М	3.0	1.8	28.3	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within remainder of TPZ intact (no cut or fill permitted). Limit any required temporary batter (to facilitate construction, drainage and waterproofing of basement retaining wall) to no greater than 300mm beyond the outer face of the wall/piling cap.		
330	Eucalyptus sp. (Scribbly Gum)	Р	3.0	1.6	28.3	Located within footprint of proposed footpath.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works will result in an adverse impact.	Remove tree.		
332	Eucalyptus crebra (Narrow-leaved Ironbark)	Р	3.5	1.7	38.5	Located within footprint of proposed footpath.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.		
333	Eucalyptus pilularis (Blackbutt)	Р	2.2	1.6	14.9	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.		
334	Syncarpia glomulifera (Turpentine)	М	2.9	1.8	25.8	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.		

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
336	Corymbia maculata (Spotted Gum)	Р	2.1	1.6	13.9	Located within footprint of proposed pathway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
337	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	Р	2.5	1.4	19.6	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.
338	Eucalyptus pilularis (Blackbutt)	Р	3.1	1.9	29.4	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.
339	Syncarpia glomulifera (Turpentine)	М	2.5	1.5	19.6	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.
340	Eucalyptus punctata (Grey Gum)	Р	3.0	1.5	28.3	No proposed works within TPZ. NB - extent of any proposed batter TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.
341	Corymbia maculata (Spotted Gum)	Р	3.0	1.6	28.3	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.
342	Corymbia maculata (Spotted Gum)	Р	7.5	2.7	174.4	Proposed new driveway offset 2.2 metres southwest at RL? (assumed 1 metre below grade). Excavations/placement of engineered fill for pavement sub-grade within TPZ/SRZ. Encroachment to TPZ = 51%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works will result in a significant adverse impact, necessitating removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
343	Eucalyptus acmenioides (White Mahogany)	Р	3.0	1.6	28.3	Located within footprint of proposed driveway.	Proposed works will necessitate removal.	Remove tree.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
344	Syncarpia glomulifera (Turpentine)	М	3.0	1.6	28.3	Located within footprint of proposed driveway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
345	Eucaltptus sp. (Eucalypt)	Р	7.0	2.6	153.6	Located within footprint of proposed driveway.	Proposed works will necessitate removal (High Retention Value). There are no feasible options that can be recommended to preserve this tree given the extent of the development and the location of this tree within the site.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
346	Corymbia maculata (Spotted Gum)	Р	2.5	1.6	19.6	Located within footprint of proposed driveway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
347	Eucalyptus saligna (Sydney Blue Gum)	Р	3.4	1.9	36.3	Located within footprint of proposed driveway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
348	Eucalyptus pilularis (Blackbutt)	Р	5.0	1.9	78.5	Proposed new driveway offset 2.9 metres south at RL? (assumed slightly above grade). Excavations/placement of engineered fill for pavement sub-grade within TPZ. Encroachment to TPZ = 18%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works may result in some adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3. Undertake all excavations for pavement subgrade within TPZ in accordance with Section 10.6. Install pavement in accordance with Section 10.8 & 10.9.
349	Eucalyptus paniculata (Grey Ironbark)	Р	6.1	2.5	117.4	Proposed new driveway offset 1.1 metres south at RL? (assumed slightly above grade). Excavations/placement of engineered fill for pavement sub-grade within TPZ. Encroachment to TPZ = 41%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works will result in a significant adverse impact, necessitating removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
350	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	Р	4.0	2.0	50.2	Located within footprint of proposed driveway.	Proposed works will necessitate removal.	Remove tree.
351	Eucalyptus pilularis (Blackbutt)	Р	3.0	1.7	28.3	Located within footprint of proposed driveway.	Proposed works will necessitate removal.	Remove tree.
352	Syncarpia glomulifera (Turpentine)	М	3.5	1.8	38.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
353	Acacia implexa (Hickory Wattle)	М	2.8	1.8	23.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
354	Eucalyptus crebra (Narrow-leaved Ironbark)	Р	4.0	1.9	50.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
355	Casuarina cunninghamiana (River Oak)	М	2.5	1.6	19.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
356	Angophora costata (Sydney Red Gum)	Р	4.3	2.2	58.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
357	Eucalyptus saligna (Sydney Blue Gum)	Р	5.0	2.3	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
358	Syncarpia glomulifera (Turpentine)	М	2.1	1.6	14.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.

						APPENDIX 4 - IMPACT	ASSESSMENT SCHEDULE	
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
359	Syncarpia glomulifera (Turpentine)	М	2.6	1.8	21.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
360	Eucalyptus pilularis (Blackbutt)	Р	6.5	2.4	132.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
361	Corymbia maculata (Spotted Gum)	Р	3.1	1.9	30.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
362	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	Р	5.0	2.3	77.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
363	Eucalyptus tereticornis (Forest Red Gum)	Р	4.5	2.1	63.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
364	Corymbia maculata (Spotted Gum)	Р	4.6	2.2	67.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
365	Eucalyptus paniculata (Grey Ironbark)	Р	4.5	2.2	63.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
366	Syncarpia glomulifera (Turpentine)	М	2.5	1.4	19.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
367	Corymbia maculata (Spotted Gum)	Р	5.7	2.4	103.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.

			APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE						
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation	
368	Angophora costata (Sydney Red Gum)	Р	3.0	1.6	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
369	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	Р	3.4	2.0	37.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
370	Casuarina cunninghamiana (River Oak)	М	2.6	1.8	21.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
371	Angophora costata (Sydney Red Gum)	Р	5.0	2.2	78.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
372	Syncarpia glomulifera (Turpentine)	М	3.5	1.8	38.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
373	Eucalyptus tereticornis (Forest Red Gum)	Р	3.0	1.8	27.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
374	Eucalyptus pilularis (Blackbutt)	Р	3.0	1.7	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
375	Casuarina cunninghamiana (River Oak)	М	2.0	1.4	12.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
376	Eucalyptus globoidea (White stringybark)	Р	2.8	1.8	23.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
377	Melaleuca styphelioides (Prickly Paperbark)	М	4.2	2.1	55.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	

						APPENDIX 4 - IMPACT	PENDIX 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
378	Eucalyptus saligna (Sydney Blue Gum)	Р	4.0	2.1	50.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
379	Syncarpia glomulifera (Turpentine)	М	3.0	1.8	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
380	Casuarina cunninghamiana (River Oak)	М	2.0	1.5	12.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
381	Eucalyptus paniculata (Grey Ironbark)	Р	3.9	2.1	46.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
382	Eucalyptus saligna (Sydney Blue Gum)	Р	3.2	1.9	33.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
383	Corymbia maculata (Spotted Gum)	Р	4.4	2.2	60.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
384	Eucalyptus saligna (Sydney Blue Gum)	Р	3.0	1.6	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
385	Syncarpia glomulifera (Turpentine)	М	2.5	1.5	19.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
386	Casuarina cunninghamiana (River Oak)	М	2.0	1.5	12.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
387	Syncarpia glomulifera (Turpentine)	М	2.7	1.8	23.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
388	Eucalyptus globulus subsp. globulus (Tasmanian Blue Gum)	Р	2.0	1.5	12.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
389	Eucalyptus tereticornis (Forest Red Gum)	Р	2.4	1.7	18.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
390	Eucalyptus scoparia (Willow Gum)	Р	2.0	1.4	12.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
391	Eucalyptus punctata (Grey Gum)	Р	2.8	1.8	23.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
392	Eucalyptus saligna (Sydney Blue Gum)	Р	5.5	2.3	95.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
393	Eucalyptus pilularis (Blackbutt)	Р	3.6	2.0	40.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
394	Eucalyptus tereticornis (Forest Red Gum)	Р	2.8	1.8	25.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
395	Syncarpia glomulifera (Turpentine)	М	2.6	1.7	21.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
396	Angophora costata (Sydney Red Gum)	Р	2.1	1.6	14.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
397	Eucalyptus saligna (Sydney Blue Gum)	Р	4.7	2.2	70.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.

						APPENDIX 4 - IMPACT	( 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
398	Corymbia maculata (Spotted Gum)	Р	2.5	1.5	19.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
399	Angophora costata (Sydney Red Gum)	Р	2.3	1.7	16.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
400	Eucalyptus saligna (Sydney Blue Gum)	Р	5.2	2.3	84.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
401	Eucalyptus punctata (Grey Gum)	Р	3.0	1.6	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
402	Eucalyptus saligna (Sydney Blue Gum)	Р	3.0	1.7	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
403	Eucalyptus saligna (Sydney Blue Gum)	Р	7.5	2.6	176.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
404	Corymbia maculata (Spotted Gum)	Р	2.3	1.7	16.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
405	Corymbia maculata (Spotted Gum)	Р	3.1	1.9	30.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
406	Eucalyptus saligna (Sydney Blue Gum)	Р	3.9	2.1	48.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
406a	Eucalyptus microcorys (Tallowwood)	Р	2.0	1.4	12.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
407	Eucalyptus haemastoma (Scribbly Gum)	Р	3.2	1.9	31.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

					APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE				
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation	
408	Eucalyptus tereticornis (Forest Red Gum)	Р	5.7	2.4	101.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
409	Eucalyptus haemastoma (Scribbly Gum)	Р	3.5	1.9	38.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
410	Eucalyptus tereticornis (Forest Red Gum)	Р	4.5	2.2	63.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
411	Eucalyptus tereticornis (Forest Red Gum)	Р	4.1	2.1	51.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
412	Syncarpia glomulifera (Turpentine)	М	3.8	2.1	46.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
413	Eucalyptus grandis (Flooded Gum)	Р	3.8	2.0	44.9	Located within footprint of proposed new ongrade car parking area (P3).	Proposed works will necessitate removal.	Remove tree.	
414	<i>Eucalyptus grandis</i> (Flooded Gum)	Р	5.1	2.3	82.3	Located within footprint of proposed new ongrade car parking area (P3).	Proposed works will necessitate removal (High Retention Value). There are no feasible options that can be recommended in this instance aside from eliminating some of the car parking spaces within the TPZ. A total of three of the immediate spaces would need to be deleted to limit the encroachment to 15% of the TPZ, which still exceeds acceptable limits.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.	
415	Eucalyptus sp. (Eucalypt)	Р	3.9	2.1	47.7	Located within footprint of proposed new ongrade car parking area (P3).	Proposed works will necessitate removal.	Remove tree.	

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation			
416	Eucalyptus saligna (Sydney Blue Gum)	Р	3.4	1.9	36.3	Located within footprint of proposed new ongrade car parking area (P3).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
417	Eucalyptus punctata (Grey Gum)	Р	4.7	2.2	70.5	Located within footprint of proposed new ongrade car parking area (P3).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
418	Eucalyptus punctata (Grey Gum)	Р	6.2	2.5	120.4	Located within footprint of proposed new ongrade car parking area (P3).	Proposed works will necessitate removal (High Retention Value). There are no feasible options that can be recommended in this instance aside from eliminating some of the car parking spaces within the TPZ. A total of five of the immediate tandem spaces would need to be deleted to limit the encroachment to 15% of the TPZ, which still exceeds acceptable limits.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
419	Eucalyptus punctata (Grey Gum)	Р	3.9	2.1	48.7	Located within footprint of proposed new ongrade car parking area (P3).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
420	Eucalyptus punctata (Grey Gum)	Р	3.9	2.1	47.7	Located within footprint of proposed new ongrade car parking area (P3).	Proposed works will necessitate removal.	Remove tree.			
421	Eucalyptus saligna (Sydney Blue Gum)	Р	4.3	2.1	57.5	Located within footprint of proposed new ongrade car parking area (P3).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.			
422	Callistemon viminalis (Weeping Bottlebrush)	М	3.0	1.8	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
423	Casuarina glauca (Swamp Oak)	М	3.5	2.0	38.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
424	Eucalyptus scoparia (Willow Gum)	Р	5.0	2.3	78.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
425	Casuarina glauca (Swamp Oak)	М	3.1	1.9	30.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
426	Corymbia maculata (Spotted Gum)	Р	8.5	2.9	228.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
427	Corymbia maculata (Spotted Gum)	Р	2.3	1.7	16.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
428	Corymbia maculata (Spotted Gum)	Р	2.1	1.6	14.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
429	Corymbia maculata (Spotted Gum)	Р	2.5	1.7	19.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
430	Corymbia eximia (Yellow Bloodwood)	Р	2.5	1.7	20.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
431	Eucalyptus saligna (Sydney Blue Gum)	Р	2.5	1.7	19.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
432	Syncarpia glomulifera (Turpentine)	М	2.1	1.6	14.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
433	Ficus rubiginosa (Port Jackson Fig)	М	4.5	2.2	62.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation			
434	Eucalyptus grandis (Flooded Gum)	Р	5.7	2.4	101.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
435	Eucalyptus grandis (Flooded Gum)	Р	5.0	2.3	78.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
436	Eucalyptus grandis (Flooded Gum)	Р	4.1	2.1	51.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
437	Corymbia maculata (Spotted Gum)	Р	4.7	2.2	69.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
438	Eucalyptus grandis (Flooded Gum)	Р	7.6	2.7	179.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
439	Eucalyptus punctata (Grey Gum)	Р	3.9	2.1	48.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
440	Angophora costata (Sydney Red Gum)	Р	2.6	1.7	20.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
441	Eucalyptus punctata (Grey Gum)	Р	5.6	2.4	97.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
442	Syncarpia glomulifera (Turpentine)	М	2.0	1.6	12.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			
443	Eucalyptus sp. (Eucalypt)	Р	4.8	2.2	71.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.			

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
444	Eucalyptus punctata (Grey Gum)	Р	6.8	2.6	145.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
445	Corymbia maculata (Spotted Gum)	Р	3.1	1.9	30.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
446	Angophora costata (Sydney Red Gum)	Р	5.3	2.3	87.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
447	Eucalyptus punctata (Grey Gum)	Р	5.9	2.5	110.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
448	Syncarpia glomulifera (Turpentine)	М	5.7	2.4	103.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
449	Corymbia citriodora (Lemon-scented Gum)	Р	4.4	2.2	60.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
450	Corymbia citriodora (Lemon-scented Gum)	Р	1.9	1.5	11.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
451	Eucalyptus saligna (Sydney Blue Gum)	Р	13.2	3.4	545.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
452	Eucalyptus saligna (Sydney Blue Gum)	Р	8.7	2.9	238.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
453	Eucalyptus saligna (Sydney Blue Gum)	Р	6.0	2.5	113.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
454	Eucalyptus saligna (Sydney Blue Gum)	Р	7.2	2.7	162.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
455	Eucalyptus saligna (Sydney Blue Gum)	Р	4.4	2.2	59.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
456	Eucalyptus saligna (Sydney Blue Gum)	Р	2.1	1.6	13.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
457	Eucalyptus saligna (Sydney Blue Gum)	Р	3.2	1.9	33.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
458	Eucalyptus saligna (Sydney Blue Gum)	Р	1.9	1.5	11.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
459	Pittosporum undulatum (Sweet Pittosporum)	М	2.7	1.8	22.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
461	Eucalyptus saligna (Sydney Blue Gum)	Р	1.6	1.4	7.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
462	Eucalyptus pilularis (Blackbutt)	Р	1.7	1.4	8.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
463	Elaeocarpus reticulatus (Blueberry Ash)	М	1.2	1.3	4.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
464	Pittosporum undulatum (Sweet Pittosporum)	М	2.7	1.8	22.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
465	Eucalyptus pilularis (Blackbutt)	Р	1.8	1.5	10.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
466	Eucalyptus pilularis (Blackbutt)	Р	2.3	1.7	17.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
467	Eucalyptus pilularis (Blackbutt)	Р	1.6	1.4	8.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
468	Eucalyptus saligna (Sydney Blue Gum)	Р	3.2	1.9	31.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
469	Pittosporum undulatum (Sweet Pittosporum)	М	1.4	1.4	6.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
470	Eucalyptus paniculata (Grey Ironbark)	Р	2.4	1.7	18.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
471	Angophora floribunda (Rough- barked Apple)	Р	2.0	1.3	12.6	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
472	<b>Angophora</b> <b>floribunda</b> (Rough- barked Apple)	Р	2.5	1.4	19.6	Proposed on-grade car parking area and associated retaining wall offset 0.5 metres east at RL 181.30 (700mm below grade). Excavations for carpark and wall foundations within TPZ/SRZ. Encroachment to TPZ = 38%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in a significant adverse impact.	Remove tree.
473	Eucalyptus saligna (Sydney Blue Gum)	Р	4.2	2.1	55.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
474	Angophora floribunda (Rough- barked Apple)	Р	3.5	2.0	38.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
475	Eucalyptus saligna (Sydney Blue Gum)	Р	3.4	2.0	37.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
476	Eucalyptus saligna (Sydney Blue Gum)	Р	1.9	1.5	11.5	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
477	Eucalyptus saligna (Sydney Blue Gum)	Р	6.5	2.6	131.8	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
478	Eucalyptus saligna (Sydney Blue Gum)	Р	6.8	2.6	146.9	Proposed on-grade car parking area and associated kerb offset 4.7 metres east at RL 181.00 (200mm below grade). Excavations for carpark and kerb foundations within TPZ. Encroachment to TPZ = 10%.	10% of the TPZ, which is considered within	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.
479	Angophora floribunda (Rough- barked Apple)	Р	2.3	1.6	16.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
480	Eucalyptus saligna (Sydney Blue Gum)	Р	6.0	2.5	113.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
481	Angophora floribunda (Rough- barked Apple)	Р	3.6	2.0	39.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
482	Pittosporum undulatum (Sweet Pittosporum)	М	1.8	1.5	10.2	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
483	Eucalyptus saligna (Sydney Blue Gum)	Р	4.6	2.2	66.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
484	Angophora floribunda (Rough- barked Apple)	Р	3.4	2.0	37.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
485	Eucalyptus paniculata (Grey Ironbark)	Р	7.5	2.7	174.4	Proposed on-grade car parking area and associated kerb offset 4.8 metres east at RL 180.90 (close to existing grade). Excavations for carpark and kerb foundations within TPZ. Encroachment to TPZ = 12%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this tee will tolerate the extent of the encroachment to the TPZ. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.		
486	Eucalyptus paniculata (Grey Ironbark)	Р	6.0	2.5	113.0	Proposed on-grade car parking area and associated kerb offset 4.6 metres east at RL 180.90 (close to existing grade). Excavations for carpark and kerb foundations within TPZ. Encroachment to TPZ = 6%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.		
487	Eucalyptus saligna (Sydney Blue Gum)	Р	5.1	2.3	81.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation		
488	Eucalyptus saligna (Sydney Blue Gum)	Р	2.0	1.6	12.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
489	<b>Eucalyptus saligna</b> (Sydney Blue Gum)	Р	8.6	2.9	230.1	Proposed on-grade car parking area and associated kerb offset 5.8 metres east at RL 180.70 (close to existing grade). Excavations for carpark and kerb foundations within TPZ. Encroachment to TPZ = 11%.	Extent of encroachment to TPZ marginally exceeds acceptable limits under AS 4970:2009. However, this tee will tolerate the extent of the encroachment to the TPZ. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.		
490	Eucalyptus saligna (Sydney Blue Gum)	Р	6.0	2.2	113.0	Proposed on-grade car parking area and associated kerb offset 4.5 metres east at RL 180.50 (close to existing grade). Excavations for carpark and kerb foundations within TPZ. Encroachment to TPZ = 8%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.		
491	Eucalyptus saligna (Sydney Blue Gum)	Р	4.0	1.7	50.2	Proposed on-grade car parking area and associated kerb offset 3.2 metres east at RL 180.50 (close to existing grade). Excavations for carpark and kerb foundations within TPZ. Encroachment to TPZ = 4%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is considered within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.9.		
492	Eucalyptus saligna (Sydney Blue Gum)	Р	3.0	1.8	28.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
493	Eucalyptus saligna (Sydney Blue Gum)	Р	9.6	3.0	289.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		
493.1	Syncarpia glomulifera (Turpentine)	М	3.9	2.1	47.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.		

						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE			
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation	
494	Syncarpia glomulifera (Turpentine)	М	4.6	2.2	66.0	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
495	Syncarpia glomulifera (Turpentine)	М	3.7	2.0	43.1	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
496	Syncarpia glomulifera (Turpentine)	М	4.7	2.2	68.3	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
497	Eucalyptus acmenioides (White Mahogany)	Р	4.8	2.2	71.7	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
501	Syagrus romanzoffianum (Cocos Palm)	G	3.0	1.8	27.9	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.	
502	Syzygium australe (Lillypilly)	М	2.8	1.8	24.4	Located within footprint of proposed Through Site Link roadway and associated batter.	Proposed works will necessitate removal.	Remove tree.	
503	Viburnum odoratissimum (Sweet Viburnum)	М	2.8	1.5	24.6	Located within footprint of proposed Through Site Link roadway and associated batter.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.	
504	Camellia sasanqua (Sasanqua)	М	2.5	1.3	19.6	Located within footprint of proposed Through Site Link roadway and associated batter.	Proposed works will necessitate removal.	Remove tree.	
505	Photinia x fraseri 'Robusta' (Chinese Hawthorn)	М	2.9	1.8	26.0	Located within footprint of proposed Through Site Link roadway and associated batter.	Proposed works will necessitate removal.	Remove tree.	
506	Camellia japonica (Camellia)	М	2.0	1.3	12.6	Located within footprint of proposed Through Site Link roadway and associated batter.	Proposed works will necessitate removal.	Remove tree.	

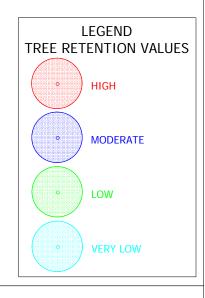
						APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE		
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
507	Callistemon viminalis (Weeping Bottlebrush)	М	1.9	1.5	11.6	Located within footprint of proposed Through Site Link roadway and associated batter.	Proposed works will necessitate removal.	Remove tree.
508	Pittosporum tenuifolium (Kohuhu)	М	3.0	1.7	28.3	Located within footprint of proposed Through Site Link roadway and associated batter.	Proposed works will necessitate removal.	Remove tree.
509	Pittosporum undulatum (Sweet Pittosporum)	М	3.0	1.7	28.3	Located within footprint of proposed Through Site Link roadway and associated batter.	Proposed works will necessitate removal.	Remove tree.
510	Pittosporum undulatum (Sweet Pittosporum)	М	4.2	2.1	55.4	No proposed works within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
600	Eucalyptus punctata (Grey Gum)	Р	4.2	2.1	55.5	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	To be retained - no special tree protection measures required. N.B. subject to landscape works.
601	Casuarina glauca (Swamp Oak)	М	2.6	1.7	21.2	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	To be retained - no special tree protection measures required. N.B. subject to landscape works.
602	Eucalyptus grandis (Flooded Gum)	Р	5.0	2.3	79.9	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.
603	Corymbia eximia (Yellow Bloodwood)	Р	5.4	2.4	89.9	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.
604	Corymbia maculata (Spotted Gum)	Р	1.8	1.5	10.1	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.

		APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE							
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation	
605	Acacia decurrens (Black Wattle)	М	4.5	1.7	63.6	No proposed works within TPZ. N.B. Extent of cut and fill for building foundations TBC.	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fencing in accordance with Section 10.3.	
606	Acacia decurrens (Black Wattle)	М	4.0	1.8	50.2	Located within footprint of proposed building (Boarding House).	Proposed works will necessitate removal.	Remove tree.	





APPROX S



APPENDIX 5
TREE LOCATION PLAN SHOWING
TREE RETENTION VALUES
LORETO COLLEGE
91-93 PENNANT HILLS ROAD, NORMANHURST



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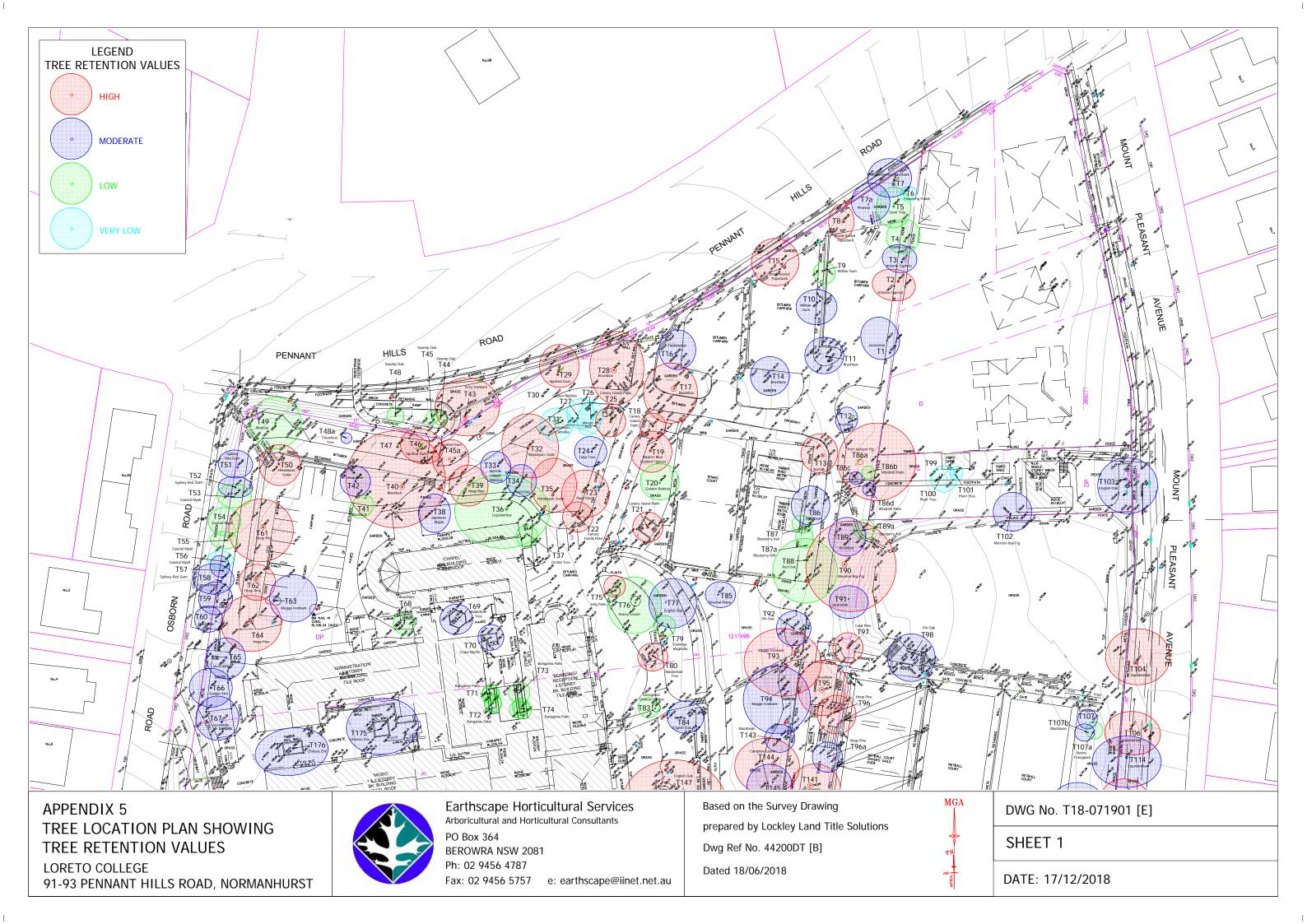
Based on the Survey Drawing prepared by Lockley Land Title Solutions Dwg Ref No. 44200DT [B]

Dated 18/06/2018

DWG No. T18-071901 [E]

KEY PLAN

DATE: 17/12/2018





TREE LOCATION PLAN SHOWING TREE RETENTION VALUES LORETO COLLEGE 91-93 PENNANT HILLS ROAD, NORMANHURST



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prepared by Lockley Land Title Solutions Dwg Ref No. 44200DT [B] Dated 18/06/2018

SHEET 2

DATE: 17/12/2018

