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ARBORICULTURAL IMPACT ASSESSMENT

**Sydney Olympic Park
new high school
7-9 Burroway Road, Wentworth Point**

Prepared for: CADENCE AUSTRALIA

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Revision F

Authors:

Anna Hopwood

Grad. Cert (Arboriculture)
Dip. Horticulture (Arboriculture)
Dip. Horticulture (Landscape Design)

Martin Peacock

BSc (hons.) Arboriculture
Dip. Horticulture (Landscape Design)
N Dip. Horticulture

p. 0404 424 264 | f. 02 9012 0924
po box 146 summer hill 2130
info@treeiQ.com.au

abn 62 139 088 832

treeiQ.com.au



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1.0 INTRODUCTION

1.1 Background

- 1.1.1 This Arboricultural Impact Assessment Report was prepared to accompany a Development Application for the development of an of a new high school to be known as the Sydney Olympic Park High School, 7-9 Burroway Road, Wentworth Point.
- 1.1.2 The purpose of this Report is to undertake a Visual Tree Assessment¹ (VTA), determine the impact of the proposed works on the trees, and where appropriate, recommend the use of sensitive construction methods and tree protection methods to minimise adverse impacts. The ecological and heritage significance of the trees has not been assessed and is beyond the scope of this Report.
- 1.1.3 In preparing this report, the authors have considered the objectives of the following:

- *State Environmental Planning Policy Vegetation in Non-Rural Areas (2017)*
- *Parramatta Local Environmental Plan (2011)*
- *Part 5.4 (Preservation of Trees and Vegetation) of Parramatta Council's Development Control Plan (2011)*
- *SOPA Masterplan 2030 Significant Tree Register*
- *SOPA Guidelines for the Protection of Trees on Development Sites (2004)*
- *Australian Standard 4970 Protection of Trees on Development Sites (2009)*
- *Australian Standard 4373 Pruning of Amenity Trees (2007)*
- *Australian Standard 2303 Tree Stock for Landscape Use (2015)*
- *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)*

Refer to Methodology (**Appendix 1**)

- 1.1.4 This impact assessment is based on an assessment of the following supplied documentation/plans only:

- Plan showing Details & Levels
- Site Plan Demo (Dwg No. SOPHS_WB_AR_DA1101 Rev A) – prepared by WoodsBagot, dated 21.08.16
- Site Plan Proposed (Dwg No. SOPHS_WB_AR_DA1102 Rev A) – prepared by WoodsBagot, dated 21.08.16
- Cut & Fill Analysis (Dwg No. SK210513) – prepared by Group GSA, dated 13.05.2021

Refer to Plans (**Appendix 2**)

1.2 The Proposal

- 1.2.1 The proposed development is for the construction of a school whereby the project is known as Sydney Olympic Park new high school. The school is to be developed in two stages. The SSD application will seek consent for both Stage One and Stage Two. While Stage Two is submitted as part of this proposal, construction is subject to approval of additional funding.

¹ Mattheck & Breloer (2003)

- 1.2.2 Stage One will provide for a Stream 5 high school, catering for up to 850 students. Stage Two will bring the school up to a stream 9 school capability catering up to 1,530 students.
- 1.2.3 The design features a six storey building. To the north of the site, a hall building (for sports and performance) is proposed. The play space required to meet the need of students for Stage One can be generally accommodated onsite, within the 9,511sqm available. Additional play space may be required to accommodate the increased student numbers anticipated during Stage 2. The proposed adjoining play space comprises an area of around 8,800sqm, and will be subject to a Joint Use Arrangement and available for public use outside school hours. The future Wentworth Point Peninsula Park will result in an open space area of approximately 4 ha.
- 1.2.4 The remainder of the peninsula (TfNSW land) is under review and will be subject to a separate approval process. Redevelopment of this land will include the new access road proposed off Burroway Road along the eastern boundary of the subject site and is proposed to include car parking, drop-off zones and delivery zones.

2.0 RESULTS

2.1 The Site

- 2.1.1 The proposed development is located within the peninsula of Wentworth Point at 7-11 Burroway Road, Wentworth Park across parts of three lots; Lot 202 DP1216628, Lot 203 DP1216628 and Lot 204 DP1216628. The site forms part of the Wentworth Point Planned Precinct, which was rezoned in 2014 for the purposes of high density residential, public recreation, school and business purposes.
- 2.1.2 The site is approximately 9,511sqm in area, with a frontage of approximately 91m to Burroway Road. It currently contains vacant land, which is cleared of all past development, and almost entirely cleared of native vegetation. The surrounding area is generally characterised by high rise residential and mixed-use developments. The site is directly adjacent to the Wentworth Point Peninsula Park and immediately east of Wentworth Point Public School.

2.2 The Trees

- 2.2.1 Twenty-six (26) trees (and tree groups) were assessed using the Visual Tree Assessment² (VTA) criteria and notes. Trees 1-12 and 17-26 are located outside of the site with Trees 13-16 located within the site boundaries.
- 2.2.2 The trees comprise of a mix of locally indigenous, Australian-native and exotic species. Five (5) species are represented with *Casuarina glauca* (Swamp She Oak) the dominant species on site. It should be noted that the majority of the groups of *Casuarina* trees comprise of root sucker growth produced from the larger trees within the group.
- 2.2.3 A number of juvenile *Avicennia marina* (Grey Mangrove) are located on the Parramatta River shoreline plus small, semi-mature to early-mature weed species including *Cinnamomum camphora* (Camphor Laurel), *Olea europaea* subsp. *Cuspidata* (African Olive), *Celtis sinensis* (Chinese Hackberry) and *Erythrina crista-galli* (Cocks Comb Coral Tree) located within the area of rough grass bordering the shoreline.

² Mattheck & Breloer (2003)

- 2.2.4 A search of the BioNet Atlas of NSW Wildlife Database was undertaken in May 2021. No individual threatened tree species listed within this database for the area were identified during the current field investigations of the site.³ The ecological significance and habitat value of the subject trees has not been assessed and is beyond the scope of this report.
- 2.2.5 As required by Clause 2.3.2 of *Australian Standard 4970 Protection of Trees on Development Sites (2009)*, each tree (and tree group) has been allocated a Retention Value. TreeiQ allocates one of four Retention Value categories based on a combination of Landscape Significance and Useful Life Expectancy (ULE). The assessment of Landscape Significance and ULE involves a degree of subjectivity and there will be a range of tree quality and value within each of the Retention Value categories. The Retention Values do not consider any proposed development works and are not a schedule for tree retention or removal.
- 2.2.6 The trees within the site have been allocated one of the following Retention Values:
- Priority for Retention
 - Consider for Retention
 - Consider for Removal
 - Priority for Removal

Refer to Tree Assessment Schedule (**Appendix 3**)

3.0 ARBORICULTURAL IMPACT ASSESSMENT

3.1 Tree Removal

- 3.1.1 The supplied plans show that Trees/Tree Groups 13, 14, 15 and 16 will need to be removed to accommodate the proposed building footprint.
- 3.1.2 **Tree Group 13**
Tree Group 13 is a stand of four (4) mature *Casuarina glauca* (Swamp She Oak) which are located in the southern area of the site. The trees are of good health, and fair structural condition due to the presence of wounds and previous branch failures. Tree Group 13 is of low Landscape Significance and has been allocated a Retention Value of *Consider for Removal*.
- 3.1.3 New tree plantings using advanced size specimens could replace the loss of amenity within a short timeframe.
- 3.1.4 **Tree Group 14**
Tree Group 14 is a stand of eight (8) semi-mature *Casuarina glauca* (Swamp She Oak) which are located in the southern area of the site. The trees are of good health and structural condition. Tree Group 14 is of low Landscape Significance and has been allocated a Retention Value of *Consider for Removal*.
- 3.1.5 New tree plantings using advanced size specimens could replace the loss of amenity within a short timeframe.
- 3.1.6 **Tree Group 15**
Tree Group 15 is a stand of six (6) young *Casuarina glauca* (Swamp She Oak) which are located in the central area of the site. The trees are of good health and structural condition although they are partially suppressed due to their close proximity. Tree Group 15 is of low Landscape Significance and has been allocated a Retention Value of *Consider for Removal*.

³ NSW Office of Environment and Heritage (2011), BioNet Atlas of NSW Wildlife

3.1.7 New tree plantings using advanced size specimens could replace the loss of amenity within a short timeframe.

3.1.8 Tree Group 16

Tree Group 16 is a stand of four (4) young *Casuarina glauca* (Swamp She Oak) which are located in the central area of the site. The trees are of good health and structural condition although they are partially suppressed due to their close proximity. Tree Group 16 is of low Landscape Significance and has been allocated a Retention Value of *Consider for Removal*.

3.1.9 New tree plantings using advanced size specimens could replace the loss of amenity within a short timeframe.

3.2 Tree Retention

3.2.1 The supplied plans show that Trees/Tree Groups 1-12 and 17-26 are proposed for retention as part of the development works.

3.2.2 Tree 1

Tree 1 is a mature *Corymbia maculata* (Spotted Gum) which is located in the southern area of the site. The tree is of good health and structural condition. Tree 1 is of moderate Landscape Significance and has been allocated a Retention Value of *Consider for Retention*.

3.2.3 The supplied plans show no works are proposed with the Tree Protection Zone (TPZ) of Tree 1.

3.2.4 Trees/Tree Groups 2, 4, 5, 7-12, 20 & 22-26

Trees/Tree Groups 2, 4, 5, 7-12, 20 and 22-26 are groups of young, semi-mature and mature *Casuarina glauca* (Swamp She Oak) which are located across the site. The trees are of low Landscape Significance and have been allocated a Retention Value of *Consider for Removal*.

3.2.5 The supplied plans show no works are proposed with the TPZ areas of Trees/Tree Groups 2, 4, 5, 7-12, 20 and 22-26.

3.2.6 Trees 3 & 17

Trees 3 and 17 are mature *Casuarina glauca* (Swamp She Oak) which are located in the southern and northern area of the site respectively. The trees are of moderate Landscape Significance and have been allocated a Retention Value of *Consider for Retention*.

3.2.7 The supplied plans show no works are proposed with the TPZ areas of Trees 3 and 17.

3.2.8 Tree 6

Tree 6 is a mature *Eucalyptus robusta* (Swamp Mahogany) which is located in the southern area of the site. The tree is of good health and structural condition. Tree 6 is of moderate Landscape Significance and has been allocated a Retention Value of *Consider for Retention*.

3.2.9 The supplied plans show no works are proposed with the TPZ of Tree 6.

3.2.10 Trees 18 & 19

Trees 18 and 19 are mature *Ficus microcarpa* var. 'Hillii' (Hills Weeping Fig) located in the northern area of the site. The trees are of high Landscape Significance and have been allocated a Retention Value of *Priority for Retention*.

3.2.11 The supplied plans show no works are proposed with the TPZ areas of Trees 18 and 19.

3.2.12 Tree 21

Tree 21 is a semi-mature *Robinia pseudoacacia* (Robinia) which is located in the eastern area of the site. The tree is of good health and structural condition. Tree 21 is of low Landscape Significance and has been allocated a Retention Value of *Consider for Removal*.

3.2.13 The supplied plans show no works are proposed with the TPZ of Tree 21.

3.3 New Tree Planting

3.3.1 Replacement trees should be planted to help off-set the loss of amenity and canopy cover from the tree removal.

3.3.2 New trees should be grown in accordance with *Australian Standard 2303 Tree Stock for Landscape Use (2015)*.

4.0 CONCLUSION

4.1.1 Twenty-six (26) trees (and tree groups) were assessed with *Casuarina glauca* (Swamp She Oak) the dominant species on site. Trees 1-12 and 17-26 are located outside of the site with Trees 13-16 located within the site boundaries.

4.1.2 In general, the trees are of low quality and value. In this regard, twenty (20) trees were allocated a Retention Value of *Consider for Removal*. Four (4) trees were allocated a Retention Value of *Consider for Retention* and two (2) trees were allocated a Retention Value of *Priority for Retention*. No trees were allocated a Retention Value of *Priority for Removal*.

4.1.3 The supplied plans show the proposal is for the construction of a new high school to be known as the Sydney Olympic Park High School in Wentworth Point.

4.1.4 The supplied plans show that four (4) trees (Trees 13-16) within the site will need to be removed to accommodate the proposed works. All of these trees are of low Landscape Significance and new tree plantings using advanced size specimens could replace the loss of amenity within a short timeframe.

4.1.5 The supplied plans show that twenty-two (22) trees (Trees 1-12 & 17-26) outside of the site are proposed for retention as part of the development works. No works are proposed within their TPZ areas. No Tree Protection Plan or Tree Protection Specification outlining specific tree protection measures is required if site fencing is established along the site boundaries (eliminating the requirement for the installation of TPZ fencing for trees outside of the site).

4.1.6 Replacement trees should be planted to help off-set the loss of amenity and canopy cover from the tree removal. New trees should be grown in accordance with *Australian Standard 2303 Tree Stock for Landscape Use (2015)*.

5.0 LIMITATIONS & DISCLAIMER

TreeiQ takes care to obtain information from reliable sources. However, TreeiQ can neither guarantee nor be responsible for the accuracy of information provided by others. Plans, diagrams, graphs and photographs in this Arboricultural Report are visual aids only and are not necessarily to scale. This Report provides recommendations relating to tree management only. Advice should be sought from appropriately qualified consultants regarding design/construction/ecological/heritage etc issues.

This Report has been prepared for exclusive use by the client. This Report shall not be used by others or for any other reason outside its intended target or without the prior written consent of TreeiQ. Unauthorised alteration or separate use of any section of the Report invalidates the Report.

Many factors may contribute to tree failure and cannot always be predicted. TreeiQ takes care to accurately assess tree health and structural condition. However, a tree's internal structural condition may not always correlate to visible external indicators. There is no warranty or guarantee, expressed or implied that problems or deficiencies regarding the trees or site may not arise in the future. Information contained in this report covers only the trees assessed and reflects the condition of the trees at the time of inspection. Additional information regarding the methodology used in the preparation of this Report is attached as Appendix 1. A comprehensive tree risk assessment and management plan for the trees is beyond the scope of this Report.

Reference should be made to any relevant legislation including Tree Management Controls. All recommendations contained within this Report are subject to approval from the relevant Consent Authority.

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Barrell (1995), 'Pre-development Tree Assessments', in *Trees & Building Sites, Proceedings of an International Conference Held in the Interest of Developing a Scientific Basis for Managing Trees in Proximity to Buildings*, International Society of Arboriculture, Illinois, USA, pp. 132-142

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Mattheck & Breloer (2003), *The Body Language of Trees: A Handbook for Failure Analysis*, The Stationary Office, London

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Standards Australia (2009), *Protection of Trees on Development Sites AS-4970*

Standards Australia (2007), *Pruning of Amenity Trees AS-4373*

Standards Australia (2015), *Tree Stock for Landscape Use AS-2303*

Appendix 1: Methodology

- 1.1 Site Inspection:** This report was determined as a result of several comprehensive site inspection during April 2021. The comments and recommendations in this report are based on findings from these site inspections.
- 1.2 Visual Tree Assessment (VTA):** The subject tree(s) was assessed using the Visual Tree Assessment criteria and notes as described in *The Body Language of Trees – A Handbook for Failure Analysis*.⁴ The inspection was limited to a visual examination of the subject tree(s) from ground level only. No internal diagnostic testing was undertaken as part of this assessment.
- 1.3 Tree Dimensions:** The dimensions of the subject tree(s) are approximate only.
- 1.4 Tree Locations:** The location of the subject tree(s) was determined from the supplied plans.
- 1.5 Trees & Development:** Tree Protection Zones, Tree Protection Measures and Sensitive Construction Methods for the subject tree were based on methods outlined in *Australian Standard 4970-2009 Protection of Trees on Development Sites*.
- The *Tree Protection Zone* (TPZ) is described in AS-4970 as a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable. The *Structural Root Zone* (SRZ) is described in AS-4970 as the area around the base of a tree required for the tree's stability in the ground. Severance of structural roots within the SRZ is not recommended as it may lead to the destabilisation and/or demise of the tree.
- In some cases it may be possible to encroach into or make variations to the theoretical TPZ. A *Minor Encroachment* is less than 10% of the area of the TPZ and is outside the SRZ. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. A *Major Encroachment* is greater than 10% of the TPZ or inside the SRZ. In this situation the Project Arborist must demonstrate that the tree would remain viable. This may require root investigation by non-destructive methods or the use of sensitive construction methods.
- 1.6 Tree Health:** The health of the subject tree(s) was rated as *Good*, *Fair* or *Poor* based on an assessment of the following factors:
- I. Foliage size and colour
 - II. Pest and disease infestation
 - III. Extension growth
 - IV. Crown density
 - V. Deadwood size and volume
 - VI. Presence of epicormic growth
- 1.7 Tree Structural Condition:** The structural condition of the subject tree(s) was rated as *Good*, *Fair* or *Poor* based on an assessment of the following factors:
- I. Assessment of branching structure
(i.e. co-dominant/bark inclusions, crossing branches, branch taper, terminal loading, previous branch failures)
 - II. Visible evidence of structural defects or instability
(i.e. root plate movement, wounds, decay, cavities, fungal brackets, adaptive growth)
 - III. Evidence of previous pruning or physical damage
(root severance/damage, lopping, flush-cutting, lions tailing, mechanical damage)
- 1.8 Useful Life Expectancy (ULE):** The ULE is an estimate of the longevity of the subject tree(s) in its growing environment. The ULE is modified where necessary to take in consideration tree(s) health, structural condition and site suitability. The tree(s) has been allocated one of the following ULE categories (Modified from Barrell, 2001):
- I. 40 years +
 - II. 15-40 years
 - III. 5-15 years
 - IV. Less than 5 years

⁴ Mattheck & Breloer (2003)

- 1.9 Landscape Significance:** Landscape Significance was determined by assessing the combination of the cultural, environmental and aesthetic values of the subject tree(s). Whilst these values are subjective, a rating of high, moderate or low has been allocated to the tree(s). This provides a relative value of the tree's Landscape Significance which may aid in determining its Retention Value. If the tree(s) can be categorized into more than one value, the higher value has been allocated.

Landscape Significance	Description
Very High	The subject tree is listed as a Heritage Item under the <i>Local Environmental Plan</i> with a local or state level of significance.
	The subject tree is listed on Council's Significant Tree Register or meets the criteria for significance assessment of trees and/or landscapes by a suitably qualified professional. The criteria are based on general principles outlines in the Burra Charter and on criteria from the Register of the National Estate.
High	The subject tree creates a 'sense of place' or is considered 'landmark' tree.
	The subject tree is of cultural or historical importance or is widely known.
	The subject tree is a prominent specimen which forms part of the curtilage of a heritage item with a known or documented association with that item.
	The subject tree has been identified by a suitably qualified professional as a species scheduled as a Threatened or Vulnerable Species for the site defined under the provisions of the NSW <i>Biodiversity Conservation Act (2016)</i> or the Commonwealth <i>Environmental Protection and Biodiversity Conservation Act (1999)</i> .
	The subject tree is known to contain nesting hollows to a species scheduled as a Threatened or Vulnerable Species for the site as defined under the provisions of the NSW <i>Biodiversity Conservation Act (2016)</i> or the Commonwealth <i>Environmental Protection and Biodiversity Conservation Act (1999)</i> .
	The subject tree is an excellent representative of the species in terms of aesthetic value.
	The subject tree is of significant size, scale or makes a significant contribution to the canopy cover of the locality.
Moderate	The subject tree makes a positive contribution to the visual character or amenity of the area.
	The subject tree provides a specific function such as screening or minimising the scale of a building.
	The subject tree is a good representative of the species in terms of aesthetic value.
Low	The subject tree is a known environmental weed species or is exempt under the provisions of the local Council's Tree Management Controls
	The subject tree makes little or no contribution to the amenity of the locality.
	The subject tree is a poor representative of the species in terms of aesthetic value.

- 1.10 Retention Value:** Retention Value was based on the subject tree's Useful Life Expectancy and Landscape Significance. The Retention Value was modified where necessary to take in consideration the subject tree's health, structural condition and site suitability. The subject tree(s) has been allocated one of the following Retention Values:

- I. Priority for Retention
- II. Consider for Retention
- III. Consider for Removal
- IV. Priority for Removal

ULE		Landscape Significance		
	Very High	High	Moderate	Low
40 years +	Priority for Retention	Priority for Retention		Consider for Removal
15-40 years		Priority for Retention	Consider for Retention	
5-15 years		Consider for Retention		
Less than 5 years	Consider for Removal	Priority for Removal		

The above table has been modified from the Footprint Green Tree Significance and Retention Value Matrix.



Recent revision history

#	Status	Description	Date
A	A	SSDA Draft Issue	21/08/16

Notes

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Contractor must verify all dimensions on site before commencing work or preparing shop drawings.

Do not scale drawings.

Project

SYDNEY OLYMPIC PARK HIGH SCHOOL

Client

Roberts Co

Issuer

W-B
WOODS BAGOT

Project number

121566

Checked

Checker

Approved

Approver

Size check

25mm

Sheet size

A1

Scale

1 : 500

Sheet title

SSDA
Site Plan Demo

Sheet number

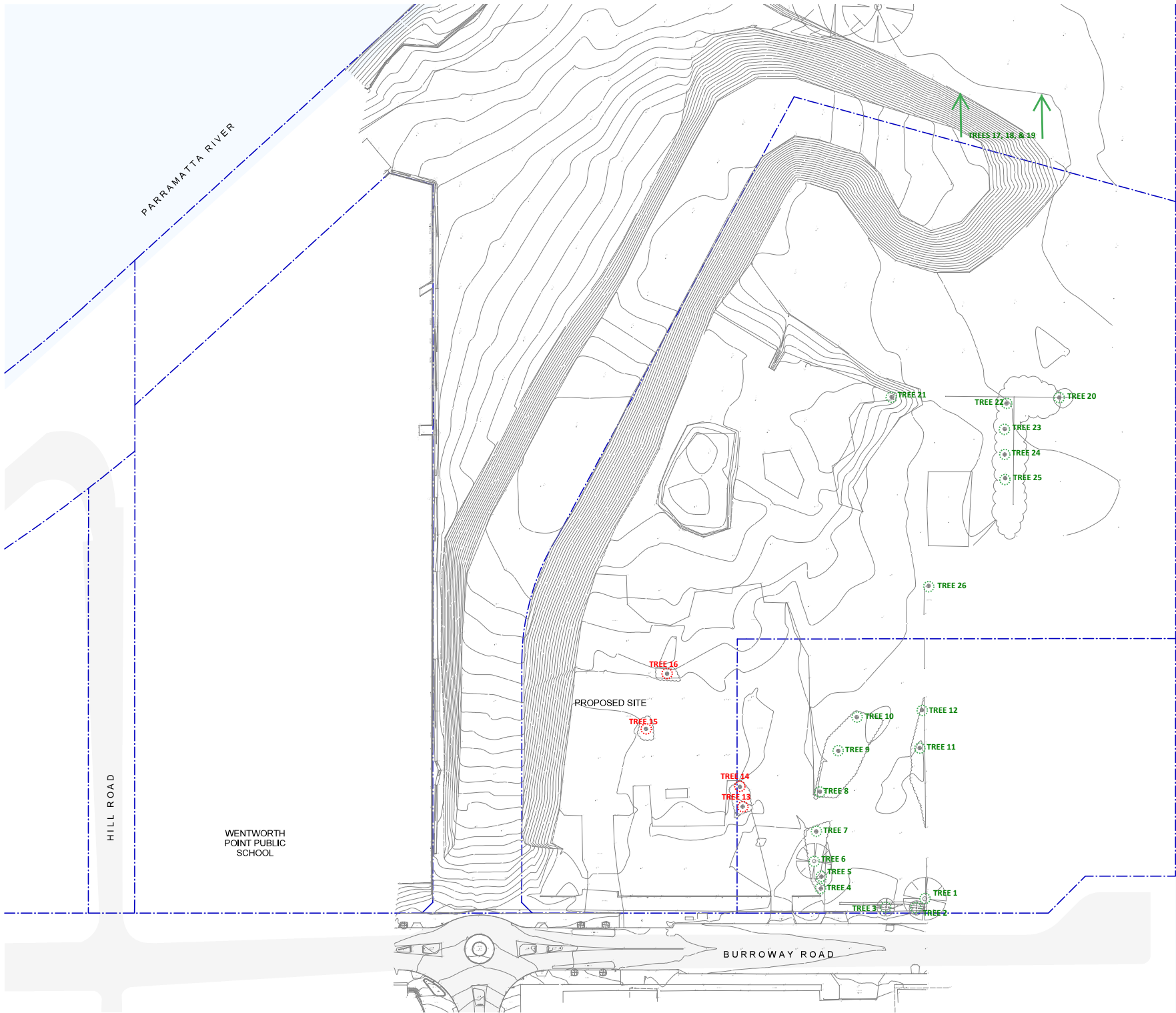
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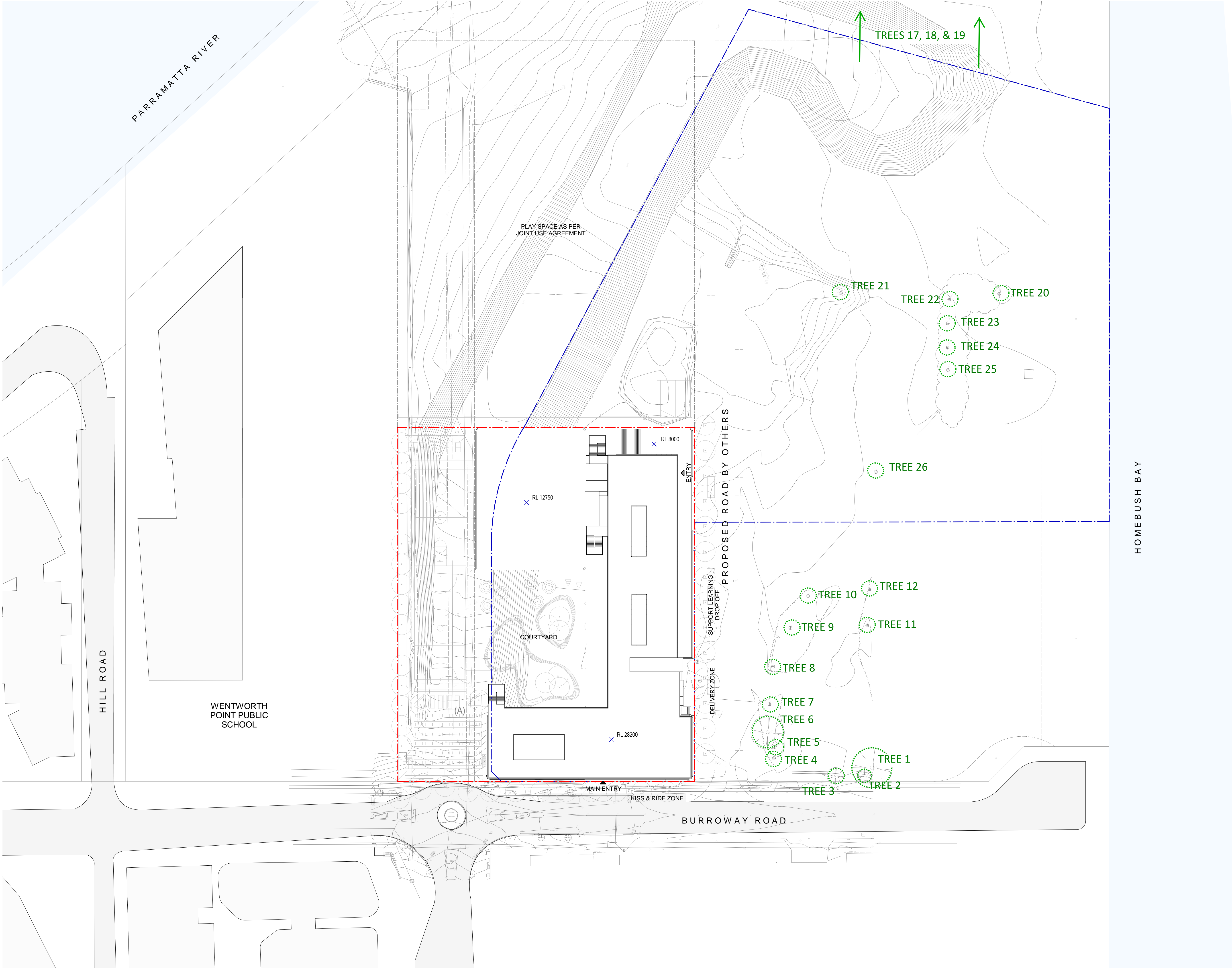
SSDA

Revision

A



HOMEBUSH BAY




Recent revision history			
#	Status	Description	Date
A	A	SSDA Draft Issue	21/08/16

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Project
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Project number		Size check		
121566		25mm		
Checked	Approved	Sheet size	Scale	
MH	CS	A1	1 : 500	

Sheet title
SSDA
Site Plan Proposed

Sheet number SOPHS-WB-AR-DA1102	Revision A
Status SSDA	

Appendix 3: Tree Assessment Schedule

Tree No.	Species	DBH comb. (mm)	Height (m)	Radial Crown Spread (m)	Health Rating	Structural Condition Rating	Comments	Age Class	ULE (years)	L/Sign	Retention Value	Implication	Radial TPZ (m)	Radial SRZ (m)
1	<i>Corymbia maculata</i> (Spotted Gum)	600	13	5	Good	Good	Crown density 75-95%. Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes.	Mature	15-40	Moderate	Consider for Retention	Retain.	7.2	2.8
2	<i>Casuarina glauca</i> (Swamp She Oak)	200	7	2	Good	Good	Partially suppressed.	Semi-mature	15-40	Low	Consider for Removal	Retain.	2.4	1.8
3	<i>Casuarina glauca</i> (Swamp She Oak)	500	12	5	Good	Fair	Wound(s), no visible sign of decay. Previous branch failure(s).	Mature	5-15	Moderate	Consider for Retention	Retain.	6.0	2.6
4	<i>Casuarina glauca</i> (Swamp She Oak)	200	9	3	Good	Good	Stand of 7 trees. Partially suppressed. Wound(s), early signs of decay.	Semi-mature	15-40	Low	Consider for Removal	Retain.	2.4	1.8
5	<i>Casuarina glauca</i> (Swamp She Oak)	125	8	2	Good	Good	Growing through crown of T6. Partially suppressed.	Semi-mature	15-40	Low	Consider for Removal	Retain.	2.0	1.5
6	<i>Eucalyptus robusta</i> (Swamp Mahogany)	503	8	6	Good	Good	Small (<25mmØ), medium (25-75mmØ) & large (>75mmØ) deadwood in low volumes. Wound(s), early signs of decay.	Mature	15-40	Moderate	Consider for Retention	Retain.	6.0	2.6
7	<i>Casuarina glauca</i> (Swamp She Oak)	200	7	3	Good	Fair	Stand of 7. Partially suppressed. Co-dominant inclusions, minor. Wound(s), no visible sign of decay.	Semi-mature	15-40	Low	Consider for Removal	Retain.	2.4	1.8
8	<i>Casuarina glauca</i> (Swamp She Oak)	250	9	3	Good	Good	Stand of 2. Partially suppressed. Wound(s), no visible sign of decay. Previous branch failure(s).	Mature	15-40	Low	Consider for Removal	Retain.	3.0	1.9

Tree No.	Species	DBH comb. (mm)	Height (m)	Radial Crown Spread (m)	Health Rating	Structural Condition Rating	Comments	Age Class	ULE (years)	L/Sign	Retention Value	Implication	Radial TPZ (m)	Radial SRZ (m)
9	<i>Casuarina glauca</i> (Swamp She Oak)	150	7	2	Good	Good	Stand of 12 plus smaller sucker growth. Partially suppressed. Co-dominant inclusions, minor.	Semi-mature	15-40	Low	Consider for Removal	Retain.	2.0	1.6
10	<i>Casuarina glauca</i> (Swamp She Oak)	200	8	3	Good	Good	Stand of 5 plus smaller sucker growth. Partially suppressed.	Semi-mature	15-40	Low	Consider for Removal	Retain.	2.4	1.8
11	<i>Casuarina glauca</i> (Swamp She Oak)	200	9	2	Good	Good	Stand of 2 plus smaller sucker growth. Partially suppressed. Co-dominant inclusions, minor.	Semi-mature	15-40	Low	Consider for Removal	Retain.	2.4	1.8
12	<i>Casuarina glauca</i> (Swamp She Oak)	200	8	2	Good	Good	Stand of 2 plus smaller sucker growth. Partially suppressed.	Semi-mature	15-40	Low	Consider for Removal	Retain.	2.4	1.8
13	<i>Casuarina glauca</i> (Swamp She Oak)	320	10	2	Good	Fair	Stand of 4. Partially suppressed. Wound(s), no visible sign of decay. Previous branch failure(s).	Mature	15-40	Low	Consider for Removal	Remove.	3.8	2.1
14	<i>Casuarina glauca</i> (Swamp She Oak)	200	9	2	Good	Good	Stand of 8.	Semi-mature	15-40	Low	Consider for Removal	Remove.	2.4	1.8
15	<i>Casuarina glauca</i> (Swamp She Oak)	100	5	1	Good	Good	Stand of 6 plus smaller sucker growth. Partially suppressed.	Young	15-40	Low	Consider for Removal	Remove.	2.0	1.5
16	<i>Casuarina glauca</i> (Swamp She Oak)	150	6	2	Good	Good	Stand of 4 plus smaller sucker growth Partially suppressed.	Young	15-40	Low	Consider for Removal	Remove.	2.0	1.6
17	<i>Casuarina glauca</i> (Swamp She Oak)	275	10	3	Good	No access to base. No rating.	Crown density 75-95%.	Mature	15-40	Moderate	Consider for Retention	Retain.	3.3	2.0

Tree No.	Species	DBH comb. (mm)	Height (m)	Radial Crown Spread (m)	Health Rating	Structural Condition Rating	Comments	Age Class	ULE (years)	L/Sign	Retention Value	Implication	Radial TPZ (m)	Radial SRZ (m)
18	<i>Ficus microcarpa</i> var. 'Hillii' (Hills Weeping Fig)	1200	17	13	Good	Good	Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes. Mechanical damage to exposed surface roots. Bark inclusion(s), minor.	Mature	15-40	High	Priority for Retention	Retain.	14.4	3.7
19	<i>Ficus microcarpa</i> var. 'Hillii' (Hills Weeping Fig)	1200	17	13	Good	Good	Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes. Mechanical damage to exposed surface roots. Bark inclusion(s), minor.	Mature	15-40	High	Priority for Retention	Retain.	14.4	3.7
20	<i>Casuarina glauca</i> (Swamp She Oak)	275	10	3	Good	No access to base. No rating.	Stand of 2 plus smaller sucker growth.	Mature	15-40	Low	Consider for Removal	Retain.	3.3	2.0
21	<i>Robinia pseudoacacia</i> (Robinia)	300	5	3	Good	Good	Co-dominant inclusions, minor.	Semi-mature	15-40	Low	Consider for Removal	Retain.	3.6	2.1
22	<i>Casuarina glauca</i> (Swamp She Oak)	125	6	2	Good	Good		Semi-mature	15-40	Low	Consider for Removal	Retain.	2.0	1.5
23	<i>Casuarina glauca</i> (Swamp She Oak)	150	6	2	Good	Fair	Co-dominant inclusions, major.	Semi-mature	5-15	Low	Consider for Removal	Retain.	2.0	1.6
24	<i>Casuarina glauca</i> (Swamp She Oak)	175	6	2	Good	Fair	Stand of 2 plus smaller sucker growth. 1 tree growing through and occluding chain link fence. Partially suppressed.	Semi-mature	5-15	Low	Consider for Removal	Retain.	2.1	1.7
25	<i>Casuarina glauca</i> (Swamp She Oak)	150	6	2	Good	Good	Stand of 2 plus smaller sucker growth.	Semi-mature	15-40	Low	Consider for Removal	Retain.	2.0	1.6
26	<i>Casuarina glauca</i> (Swamp She Oak)	75	6	1	Good	Good	Stand of 3 plus smaller sucker growth. Partially suppressed.	Young	15-40	Low	Consider for Removal	Retain.	2.0	1.5

Appendix 4: Plates



Plate 1: Showing Trees 1 & 2



Plate 2: Showing Trees/Tree Groups 6 & 7



Plate 3: Showing Trees 18 & 19



Plate 4: Showing typical stand of Casuarina trees