MARGOT BLUES
CONSULTING ARBORIST

ARBORICULTURAL IMPACT ASSESSMENT (AIA) REPORT

Prepared For:	Kate Smailes
Site Address:	1 Judith Street, Seaforth
Inspection Dates:	4/6/2019

Figure 1: Street view of proposed redevelopment (grey fencing). Image C/- Google Maps accessed 7/6/2019.

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IACA
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1 Contents

1 Introduction

1.1 Background

1.1.1 Margot Blues Consulting Arborist has been engaged by Kate Smailes to inspect and report on trees for Development Application purposes.

1.1.2 The aim of this report is to assign retention values (High, Medium and Low) and assess construction impact to trees within close vicinity to the proposal.

1.1.3 A carport, annex and new driveway crossover is to replace the existing building and crossover.

1.1.4 Information supplied and relied upon in the preparation of this report included:

- Architectural Suite of Drawings dated 21/3/2019 Revision A by KJR Drafting have been used and relied upon within this report.
- No other plans have been reviewed for the purpose of this report.

1.1.5 The use of these documents is acknowledged with thanks.

2 Methodology

2.1.1 Site attendance occurred on the 4th June, 2019. Trees were visually inspected, from ground level only in accordance with VTA (Visual Tree Assessment); a methodology derived by Mattheck and Breloer (1994) and included foliage condition (volume and colour); the presence of pests and diseases, canopy dieback, deadwood and epicormic growth. Tree condition included assessment of structural stability, previous pruning and any damage/disturbance which may have occurred. No destructive or aerial investigations occurred to any trees. Tree data is displayed in Appendix 1.

2.1.2 Appendix 2 – Plan Scale; Identifies trees, construction impact and is to be read in conjunction with the report including Appendix 1.

2.1.3 Tree height and canopy width were estimated.

2.1.4 Tree T5, neighbouring tree was viewed from within property No 1 Judith Street and Kirkwood Street. The dividing fence obstructed visual assessment limiting assessment.

2.1.5 Photographs (Appendix 3).

2.1.6 Significance Rating and Retention Value methodology (Appendix 4).

2.1.7 This report is considered limited to what could reasonably be seen from ground level and expresses no commentary on changes which may have, or will, impact the trees or their environment outside the scope of works.

2.2 Assumptions Made

2.2.1 The power pole (Kirkwood Street) shown falling within the footprint of the driveway will be relocated or a reduction in crossover width or a relocation of driveway to the south will occur.

2.2.2 Trenching for inground service will be undertaken away from any retained trees.

3 Results

3.1 Desktop research

3.1.1 In accordance with the NSW Planning portal, the following data was returned:

- Zoning: R2 Low Density Residential
- No heritage conservation status applies to the property.

3.2 The Site

3.2.1 The property is located on the corner of Judith and Kirkwood Streets, Seaforth. The zone of construction is the rear southern boundary accessed from Kirkwood Street. A vehicular cross over, driveway (ribbon style) and garage is present.

3.3 Trees

3.3.1 A total of six (6) trees have been assessed

3.3.2 Four (4) trees were within 1 Judith Street property (T1 - T4) of which T2 was unprotected as it had not reached the legislated height of 5 metres.

3.3.3 T5 - One (1) tree located within neighbouring property No 33 Kirkwood Street.

3.3.4 T6 -One (1) street tree on Kirkwood Street.

3.4 The Development

3.4.1 A larger carport and annex replaces the existing building. The finished floor height is approximately 20cm higher than the existing. Sectional drawings show edge beams located on all edges and excavation shown.

3.5 Construction Impact to each tree

The following table summarises the impact to each tree

Tree Id	Impact	Recommendation
T1:	*Jagera pseudorhus:.* Retention Value "Medium" Construction Impact:. High Tree falls within the footprint of the garage slab. Retention not possible.	Remove
T2:	*Bauhinia sp*: Retention Value "Low". Tree exempt as it is less than 5 metres in height. Construction Impact: High Tree falls within the footprint of the proposed carport and annex. Retention not possible.	Remove
T3	*Tristaniopsis laurina*: Retention Value "High" Construction Impact: High Tree falls within the footprint of the proposed carport and annex. Retention not possible.	Remove
T4	*Syzygium smithii:* Retention Value "Medium" Construction Impact: High Tree falls outside the building footprint. Approximately half of the canopy falls within the building envelope.	Remove
T5*	*Schefflera actinophylla:* Retention Value "Low" tree listed as exempt as per Northern Beaches Council. Construction Impact: High Excavation for edgebeam to occur within the SRZ[1] of the tree. Distance from trunk centre to edgebeam 92cm. This does not include over-excavation for edgebeam formation.	Retain: Discuss with neighbours the possibility of removal and replacement with another tree.
T6^	*Harpulia pendula* Retention Value "Medium" Construction Impact: Medium 11.6% TPZ[2] incursion Driveway and construction activity outside SRZ but within TPZ.	Retain Tree protection fencing.

*Table 1: Construction impact to each tree. * Denotes Tree located within neighbouring property. ^ Denotes Street Tree*

[1] SRZ: Structural Root Zone as determined in accordance with AS4970-2009 *Protection of Trees on Development Sites.*
[2] TPZ: Tree Protection Zone as determined in accordance with AS4970-2009 *Protection of Trees on Development Sites.*

4 Discussion:

4.1.1 Based on the architectural plans, trees T1, T2 and T3 are not retainable as they fall within the footprint of the carport and annex.

4.1.2 T4 Lilli Pilli is recommended for removal as half the canopy falls within the envelop of the carport. The edgebeams are likely to have a high impact on the tree due to root severance. The tree is not likely to survive this impact. Removal will also be required to permit construction activities.

4.1.3 T5 Umbrella tree located within neighbouring property is anticipated to be impacted specifically from the edgebeam and associated excavation. Currently this narrow section of land between existing shed and tree is unbuilt upon with the exception of fencing. Whilst access to this section of land did not occur due to vegetation it is anticipated roots will be present.

The close offset distance of the slab is within the SRZ of the tree (92cm from trunk centre to edgebeam perimeter as measured off plans). Any root severance will compromise the tree's structural integrity. This tree is listed as "exempt" (no permit is required for its removal) however permission for removal is required by the owners. If removal permission is not granted, it is recommended the tree's height be reduced by approximately half to reduce the sail area of the tree. This species should tolerate this level of pruning.

4.1.4 T6 *Harpulia sp* - Street tree. The driveway crossover and layback encroach approximately 11.5% of the TPZ area and outside the SRZ.

4.1.5 The architectural plans show the existing telegraph pole falling within the footprint of the driveway.

5 Conclusion

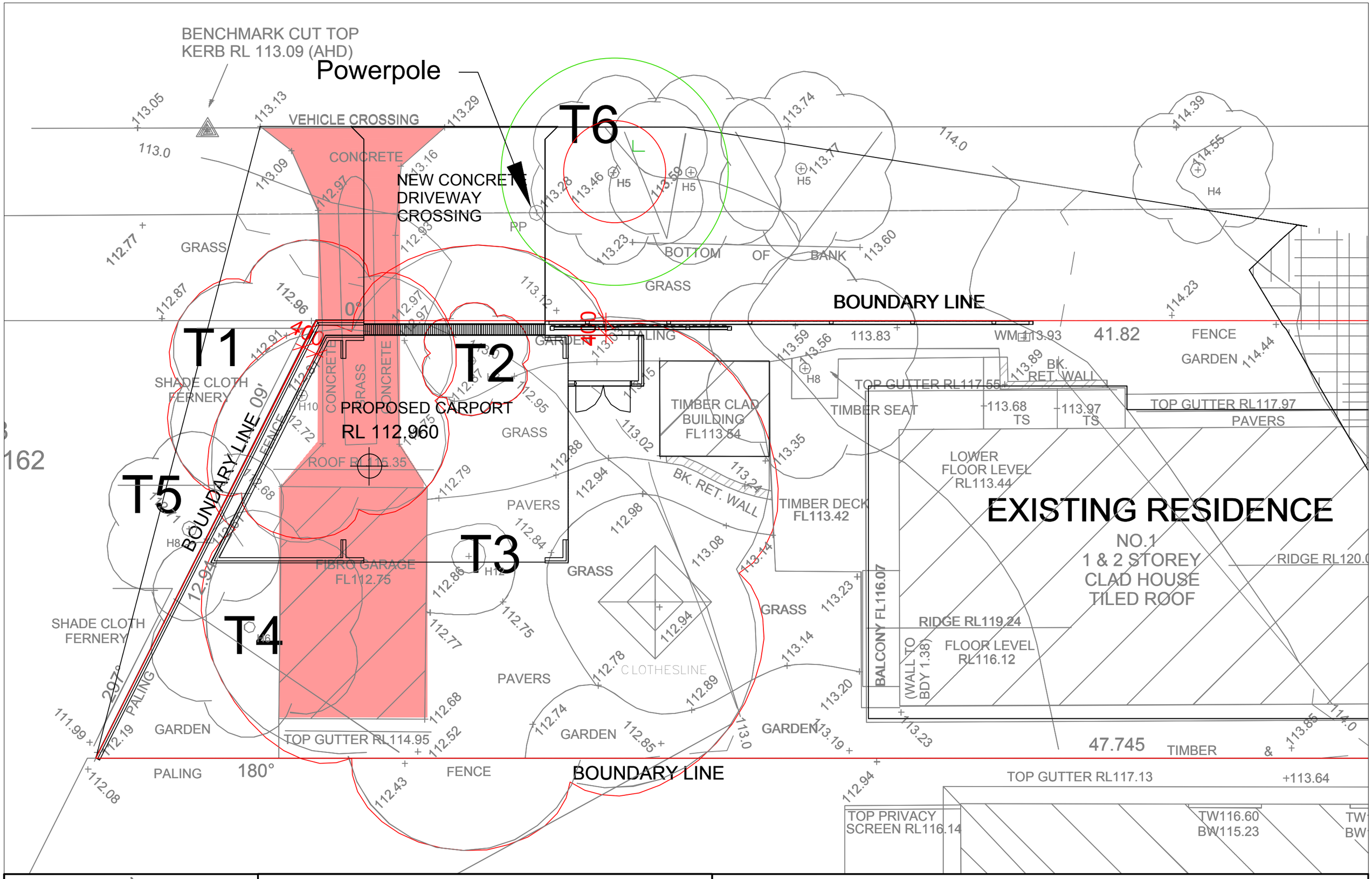
5.1.1 Six (6) trees have been assessed for construction impact. Three require removal (T1, T2 & T3) as they fall within the footprint of the carport and annex. T4 Lilli Pilli construction impact is considered high - requiring removal of approximately half the canopy and root impact by the edgebeams. This tree should not pose a constraint upon the development – retention is not advised.

5.1.2 T5 Umbrella tree is located within the neighbouring property and any excavation will occur within the tree's structural root zone. A recommendation of removal is proposed but in the event permission is not granted, pruning to reduce the tree's height should be undertaken.

5.1.3 Tree protection is recommended for T6 located on the verge.

Appendix 1: Tree Data Summary - 1 Judith Street, Seaforth - Assessed 4/6/2019

Tree ID	Species	Height (m)	Canopy dims n/s in metres	DBH (cm)	DGL (cm)	Foliage condition	Maturity	Trunk type (cm)	Trunk lean	Canopy Balanced	Past Pruning	Stability	Vigour	Canopy deadwood	Retention value	Notes	TPZ (M) Radius	SRZ (M) Radius
T1	*Jagera pseudorhus* Foambark	7	7	35	39	Good	Mature	Single to 1.8	Upright	Majority to west	Through-out	Appears stable	Good	0-5%	Medium	A medium tree that appeared to be in good health and condition. Canopy orientation to west. Otherwise no further comment required.	4.2	2.2
T2	*Bauhinia sp* Butterfly tree.	4	7	18	20	Fair	Semi mature	Single to 60cm	Bias to the north & west	Majority to west	Lower Limbs	Appear stable	Fair	0-5%	Low	A small tree with a trunk and canopy bias lean to the north and west. Health and condition fair despite leaf loss for dormant period.	2.2	1.7
T3	*Tristaniopsis laurina* Watergum	12	12	43	82	Good	Mature	Single to 1.5m then x 4	Upright	Majority to north	Through-out	Appears stable	Good	0-5%	High	A medium to large tree located on the northern side of the existing garage. Evidence of pruning and some decay at the pruned site. Otherwise no additional comments required.	5.2	3.0
T4	*Syzygium smithii* Common Lilli Pilli	6	9	20	33	Good	Mature	Single to 1 m then x 2	Broad	Majority to east and west	Through-out	Appears stable	Good	0-5%	Low	to this tree id not occur due to the storage of materials in front of the trunk. Pruning had occurred to give clearance from the garage. This species has been an	2.4	2.1
T5*	*Schefflera actinophylla* Umbrella Tree	8	4	25	35	Fair	Mature	Multi	Upright	Balanced		Appears stable	Fair	0-5%	Very Low	Tree located on neighbouring property No 33 Kirkwood.	3.0	2.1
T6^	*Harpulia pendula* Tulipwood	5	3	25	28	Good	Semi mature	Multi	Upright	Balanced		Appears stable	Good	0-5%	Low	Street Tree. A small multi stemmed tree. Tree appeared to be in good health and condition	3.0	1.9
	DBH - Diameter at Breast height 1.4m above ground		^ Denotes Street Tree			Exempt												
	DGL - Stem diameter above root flare.		* Denotes Neighbour Tree															



Margot Blues Consulting Arborist	
Title:	Tree Identification
DATE:	6/8/2019
Project:	A2 Judith Street Seaforth
(1).dwg	
Scale:	Relative to supplied documents

Key:

- Tree Protection Zone (TPZ)
- TPZ Encroachment
- Observed Surface / First Order Root Growth
- Protective fencing line
- Sructural Root Zone (SRZ)
- Proposed Root-mapping area
- Access path

Appendix 3 – Photographs

Photo 1: Trees T1 Jagera sp (LHS)

Photo 2: T2 Bauhinia sp

Photo 3: T3 Watergum

Photo 4: T4 Lilli Pilli & T5 beyond fence.

Appendix 4: Significance Ratings

Tree Significance - Assessment Criteria

1. High Significance in landscape

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ - tree is appropriate to the site conditions.

2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ.

3. Low Significance in landscape

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

Environmental Pest / Noxious Weed Species

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

Hazardous/Irreversible Decline

- The tree is structurally unsound and/or unstable and is considered potentially dangerous, - The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

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

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

USE OF THIS DOCUMENT AND REFERENCING

The IACA Significance of a Tree, Assessment Rating System (STARS) is free to use, but only in its entirety and must be cited as follows:

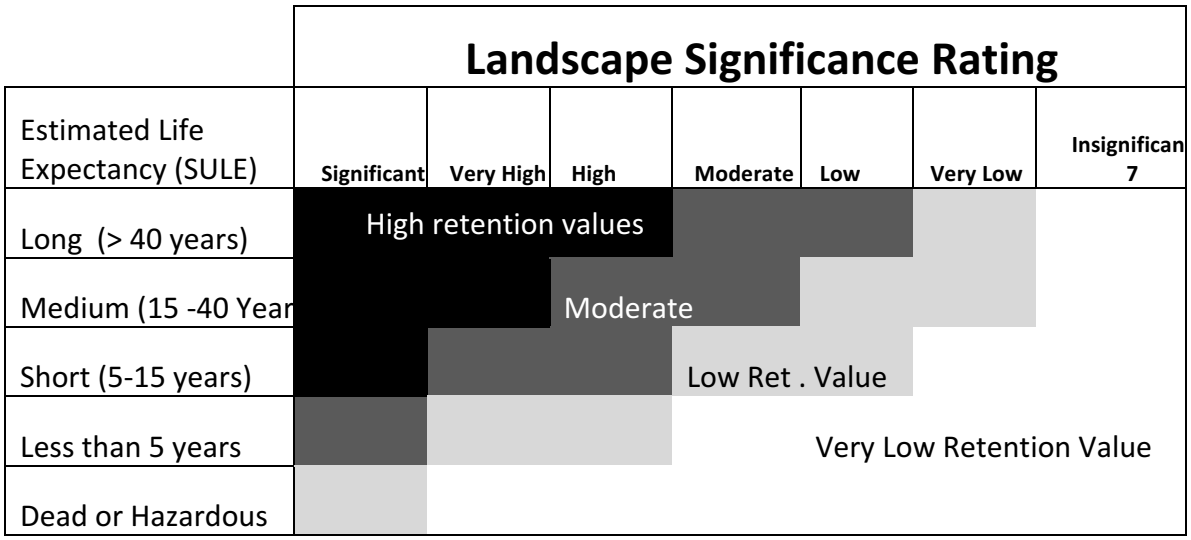
IACA, 2010, IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, **www.iaca.org.au**

REFERENCES

Australia ICOMOS Inc. 1999, The Burra Charter - The Australian ICOMOS Charter for Places of Cultural Significance, International Council of Monuments and Sites,**www.icomos.org/australia**
Draper BD and Richards PA 2009, Dictionary for Managing Trees in Urban Environments, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.
Footprint Green Pty Ltd 2001, Footprint Green Tree Significance & Retention Value Matrix, Avalon, NSW Australia, **www.footprintgreen.com.au**

Tree Priority Retention Matrix

The retention model following visually describes the process used in determining retention values of the trees. Three retention classifications are clearly defined, they being, High; moderate and Low retention values.



Source: (Moreton, A., 2006).