MARGOT BLUES
CONSULTING ARBORIST

ARBORICULTURAL IMPACT ASSESSMENT (AIA) REPORT

Prepared For:	Ms Symone Riddle
Site Address:	76 Queens Pde East Newport
Inspection Date:	22 November 2024
Report Date:	26 November 2024

Photo 1: The property

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1 Table of Contents

1 Introduction

1.1 Background

1.1.1 On behalf of the owners Mr and Mrs Riddle, project manager Ms Suzanne Hart (Project 39) has commissioned this report for development application purposes.

1.1.2 The report's aim was to:

- Conduct a visual assessment of the trees protected in accordance with the Northern Beaches Council (Pittwater 21 DCP: B.4.22 Preservation of Trees and Bushland Vegetation).
- Determine the construction impact to trees in close proximity to the development as per the Australian Standard AS4970:2009 Protection of trees on development sites.
- Categorise trees into retention priorities (High/Medium/Low Retention value).

1.1.3 Information supplied and relied upon for the preparation of this report included:

- Architectural drawings by Project 39 Revision 01 dated 15/11/2024.
- Survey: CMS Surveyors Pty Ltd dated 24/4/2024.

1.1.4 These documents have been relied upon in determining the report's outcome.

2 Methodology

2.1.1 Trees located close to the proposed carport development included trees within the site, neighbouring property No 74 Queens Pde East and street trees.

2.1.2 The trees were assessed using the Visual Tree Assessment (VTA) methodology derived by Mattheck and Breloer (1994) encompassing the biological and mechanical characteristics as presented.

- Biological assessment included leaves (volume and colour); the presence of pests and diseases, canopy dieback, deadwood and epicormic growth.
- Tree mechanics included assessment of structural stability, previous pruning and any damage/disturbance which may have occurred.

2.1.3 Tree height and canopy width were estimated.

2.1.4 Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) have been calculated as per AS4970-2009 *Protection of trees on development sites*. Measurements were achieved with the aid of a builder's tape measure and supplied drawings scaled.

2.1.5 Appendix 1: Tree Data.

2.1.6 Appendix 2: Tree identification and construction impact.

2.1.7 Appendix 3: Photographs.

2.1.8 Appendix 4: Significance Rating. Tree retention values have been assessed based on the IACA *Significance of a Tree, Assessment Rating System (STARS)* methodology.

2.1.9 For the purpose of this report, trees outside the property boundary all have been assigned a retention value of "High" as they are the property of others.

2.1.10 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.

3 Results

3.1 Desktop Research

3.1.1 The NSW Planning portal property report included:

- Zoning: – R2 Low Residential

3.1.2 In accordance with published directives by Council– A Protected Tree is:

- Having a height of greater than five (5) metres;

3.2 The Proposal

Proposed is the construction of a carport forward of the dwelling. The carport is to be supported by isolated piers and stormwater is to connect to the existing strip drain located to the north of the carpark (photo 2). The carport above ground will not impact any trunk or canopy.

No change to the existing driveway hardstand is proposed.

3.3 Construction impact to each tree

3.3.1 The development impact upon each tree based on the proposal:

Tree ID	Species	Comment	Recommendation
T1	*Syncarp glomulifera* Turpentine	**Location: Front Garden** **Construction impact** – Low (less than 10% for footing positioning. The above ground structure has no impact on the tree.	**Retention Value:** High **Retain and protect.**
T2*	*Eucalypt sp*	**Location: Front Garden of neighbouring property 74 Queens Pde East** **Construction impact** – Low (less than 10% for footing positioning. The aboveground structure has no impact on the tree.	**Retention Value:** High **Retain**
T3*	*Angophora costata* Sydney Red Gum	**Location: Front Garden of neighbouring property 74 Queens Pde East** **Construction impact** – Nil	**Retention Value:** High **Retain**
T4*	*Angophora costata* Sydney Red Gum	**Location: Council Verge** **Construction impact** – Nil **Protection from deliveries required.**	**Retention Value:** High **Retain and protect**
T5*	*Melaleuca quinquenervia* Broad leaf paperbark	**Location: Council Verge** **Construction impact:** Nil **Protection from deliveries required.**	**Retention Value:** **High** **Retain and protect**
T6	*Dypsis lutescens* Golden Cane Palm	**Location: Front Garden** **Construction impact** – Nil: Palms are unaffected by the development	**Retention Value:** Low **Retain**

Table 1: Construction impact to each tree based on the proposed.

4 Conclusion

4.1 Trees for retention

- All trees are retainable.
- No tree requires removal based on the design.

5 Recommendations

5.1.1 Pilot holes to be dug to determine the location of required footings. The holes are to be hand dug to the approximate width and depth in accordance with engineering specifications. Any encountered tree roots 3cm or greater in diameter are to be retained and protected and the footings to be relocated to prevent impact the trees.

5.1.2 Stormwater should be directed to the northern side of the carport roof and connect in with existing stormwater drains in order to negate potential damage to tree roots.

5.1.3 Pruning is not required based on the design.

5.1.4 Adoption of the Tree Protection Plan.

6 Tree Protection Plan/Specification

6.1 Tree Protection Requirements

6.1.1 The following trees shall be protected accordingly:-

Tree Id	Species	Fencing	Trunk Armouring
T1	Turpentine	No	Yes
T2	Eucalypt (neighbouring tree)	No	No
T3	Sydney Red Gum (neighbouring tree)	No	No
T4	Sydney Red Gum (Street tree next to driveway)	No	Yes
T5	Broad leaf paperbark (Street Tree) Fencing is not to block footpath or roadway.	Yes at 2m trunk offset.	No
T6	Palms (Front Garden)	No	No

Table 2: Required tree protection.

6.2 Hold Points

Hold Point	Project Arborist Action	Project Arborist Supervision
Tree Protection	Inspection of all Tree Protection measures as per table 1 above prior to the commencement of construction.	Inspection, documentation and deliverables to the private certifier (if required)
All Earthworks (Footings and drainage)	Inspection of pilot holes and stormwater trenching prior to concrete footings/drainage being installed. Monitor tree protection measures remain in place and suitable for purpose.	Inspection, documentation and deliverables to the private certifier (if required)
Practical Completion	Final inspection of trees to determine their condition and provide certification of tree protection has conformed with the tree protection Plan	Inspection, documentation and deliverables to the private certifier (if required)

Table 3: Hold points for project arborist review.

6.3 General Information

6.3.1 **Tree protection fencing** shall consist of 1.8m high chain mesh fencing and to be placed close to the drip zone. The purpose of the fencing is to prevent construction activities and/or damage to the tree. Stockpiling of construction materials or parking within the drip zone of the tree is not permitted.

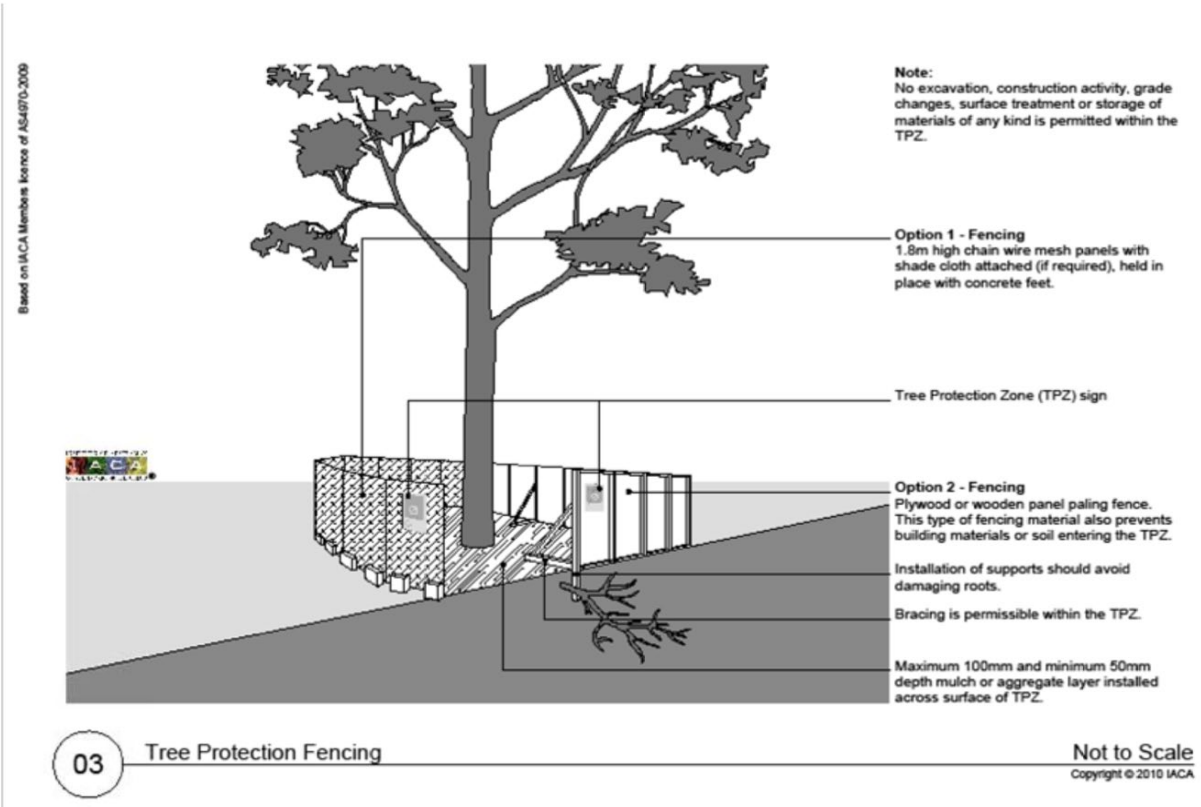


Figure 1: Examples of protective fencing in accordance with the Australian Standard AS4970-2009.

6.3.2 Trunk Protection (Armouring)

Trunk armouring is the temporary affixing of battens around a tree's trunk (including root flare) and or branches for the protection against construction impact. Trunk armouring requires three main components:

- Porous, readily draining materials such as hessian or Geo-Textile fabric shall be used for padding limbs to be armoured. Duct tape or gaffer's tape can be used to temporarily affix padding during installation.
- Timber battens with a minimum size of 40x80mm are to be arranged around the trunk & branches to be protected. Battens shall be spaced no further than 100mm apart.
- Battens and padding can be secured using either galvanised builders strapping (preferred) or nylon tie-down straps (both ratchetting, and cam-buckle styles are acceptable).
- Nylon straps may be beneficial in temporarily supporting timber battens during installation.
- The use of 25mm (or thicker) plywood board may be used in conjunction with cushioning and battens around the root flare of trees to be protected.
- Under no circumstance may the tree be physically harmed during the installation of trunk armouring. This means the tree shall not be drilled, nailed, or otherwise used to support powerlines, stays, guys etc.

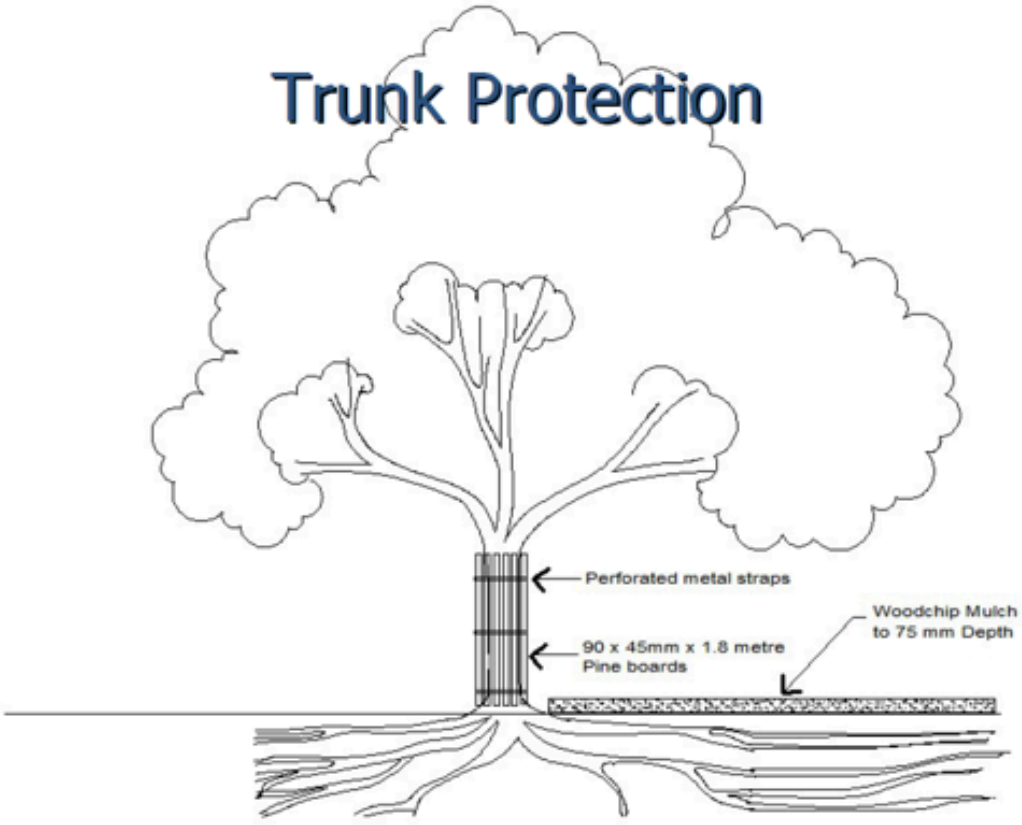


Figure 2: Example of trunk protection.

Tree Data Summary - 76 Queens Pde East Newport - Assessed 22/11/2024

Tree ID	Species *Botanical name* Common name	Height (m)	Canopy dims n/s in metres	DBH (cm)	DGL (cm)	Foliage condition	Maturity	Trunk type	Stability	Vigour	Significance value	Notes *As recorded during inspection.*	TPZ (M) Radius	SRZ (M) Radius
T1	*Syncarpia glomulifera* Turpentine	9	16 (N:7 S:9)	60	65	Good	Mature	twin upright	Appears Stable	Good	High	Tree appeared to be a remnant species based on its size. No problems seen. Trunk very minimally straddled the common side boundary. Majority of trunk within No 76 Queens Pde East property. Canopy height well clear of roof and proposed carport.	7.2	2.8
T2*	*Eucalyptus sp* Eucalyptus	7	4 All to North	28	30	Good	Mature	Single bias lean to west	Appears Stable	Good	High	Neighbouring tree (74 Queens Pde East). Tree appeared in good health and condition. Tree assessed from outside property boundary.	3.4	2.0
T3*	*Angophora costata* Sydney Red Gum	8	7	33	37	Good	Mature	Single upright	Appears Stable	Good	High	Neighbouring tree (74 Queens Pde East). Tree appeared in good health and condition. Tree assessed from outside property boundary.	4.0	2.2
T4*	*Angophora costata* Sydney Red Gum	12	14 (N:8 S:6)	70	70	Good	Mature	Single and slight bias north	Appears Stable	Good	High	Street Tree: Tree appeared in good health and condition. Historically had been valley cut for electrical wires. Otherwise no further comment required.	8.4	2.8
T5*	*Melaleuca quinquenervia* Broad Leaf Paperbark	10	8	40	50	Good	Mature	Single upright	Appears Stable	Good	High	Street Tree: Tree appeared in good health and condition. Whipper snipper damage around base of trunk. Otherwise no further comment required	4.8	2.5
T6	*Dypsis lutescens* Golden Cane Palm	2	3			Good	Mature	Multi	Appears Stable	Good	Low	Located across the front eastern half of the front boundary.		
	Protected tree *5 metres or greater in height and not listed on the exempt species list.*			TPZ - Tree Protection Zone SRZ- Structural Root Zone										

Down pipes and footing are the only incursion into the TPZ and SRZ

T3

T2

T1

T4

T5

T6
Palms

QUEENS PARADE EAST

EXISTING PAVED HARDSTAND AREA REMAINS UNTOUCHED

03 A040

3855 SETBACK

5800

3055

18.57 HL WINDOW

20.06 HL WINDOW

18.57 HL DOOR

18.57 HL 17.43 SL WINDOW

21.50 HL 20.06 SL WINDOW

17.13 HL WINDOW

590

50.29
15° 14' 15"

1190

1190

EXISTING CARPORT

EXISTING CROSSOVER TO REMAIN UNTOUCHED

04 ?

EXISTING GRATED DRAIN

3270

5800

EXISTING PAVED DRIVEWAY

PROPOSED CARPORT

CARPORT
RL16.980

ENSUITE

BED 2

STUDY

LIVING ROOM

VERANDAH

ENTRY

RL17.840

01 A040

EXISTING PAVED PATHWAY

1600

ROOF OF PROPOSED CARPORT OVER SHOWN DASHED

NEW DOWNPIPES TO DISCHARGE TO OSD TANKS VIA EXISTING CHARGED SYSTEMS

02 A050

EXISTING LAWN

EXISTING FOOTPATH

BED 3

TV ROOM

BATH

KITCHEN

DINING ROOM

VERANDAH

PANTRY

LAUNDRY

1215

50.295
195° 14' 15"

WINDOW 18.24 SL 19.57 HL

WINDOW 18.28 SL 19.67 HL

10m 5m 2m 1m

1:100

00 1m 2m 5m 10m

01 - PROPOSED GROUND FLOOR PLAN

1:100

LEGEND

COLOURED HATCH DENOTES NEW WORKS

TPZ Incursion

SRZ

N

01	ISSUED FOR DEVELOPMENT APPLICATION	SH	25.08.24
ISSUE	AMENDMENT DESCRIPTION	BY	DATE

AMENDMENTS

NOTE:

DO NOT SCALE DRAWING
VERIFY ALL DIMENSIONS ON THE SITE BEFORE COMMENCING WORK OR PRODUCING SHOP DRAWINGS.
ALL SHOP DRAWINGS MUST BE SUBMITTED AND APPROVED BEFORE MANUFACTURE.
ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA AND ALL CURRENT AND RELEVANT AUSTRALIAN STANDARDS.

PROJECT 39
Mob: 0439 490 024
hello@project39.com.au

CLIENT
MR & MRS RIDDLE
76 QUEENS PARADE EAST,
NEWPORT NSW 2106

DRAWING TITLE
PROPOSED
GROUND FLOOR PLAN

PROJECT
PROPOSED CARPORT

SCALE
1:100 @ A3

DRAWN
SH

PLOT DATE
15/11/2024
5:22 AM

PROJECT PHASE
DEVELOPMENT APPLICATION

PROJECT No
NEW-03

DRAWING No
DA03001

REVISION

D:\NORM\Project 39\13 Newport 3\02 DA\NEW3-A030-PROPOSED GROUND FLOOR PLAN.dwg

Appendix 3 – Photographs

Photo 2: T1 Turpentine and existing stormwater drains.

Photo 3: T4 Angophora (foreground) and very close to driveway: T5 Melaleuca (rear Left).

Appendix 4 - Significance Rating

IACA Significance of a Tree, Assessment Rating System (STARS)©(IACA 2010)©

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

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

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

Tree Significance - Assessment Criteria

1. High Significance in landscape

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

a. The tree is in fair-good condition and good or low vigour;
b. The tree has form typical or atypical of the species;
c. The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
d. The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
e. The tree provides a fair contribution to the visual character and amenity of the local area,
f. 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

a. The tree is in fair-poor condition and good or low vigour;
b. The tree has form atypical of the species;
c. The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
d. The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
e. 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,
f. 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,
g. The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
h. The tree has a wound or defect that has potential to become structurally unsound.

Environmental Pest / Noxious Weed Species

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

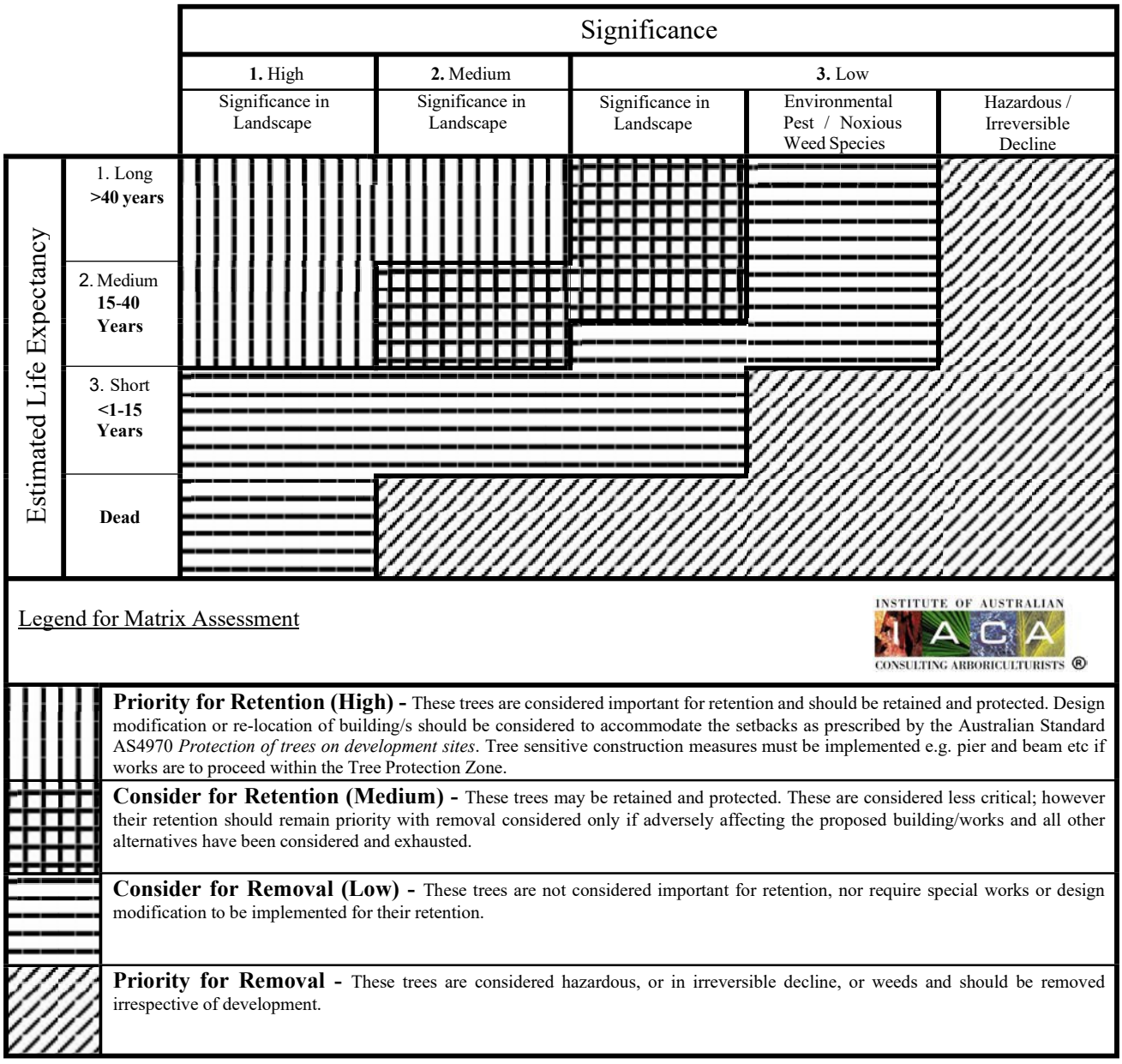
Hazardous/Irreversible Decline

k. The tree is structurally unsound and/or unstable and is considered potentially dangerous,
l. 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. Can be applied to a monocultural stand in its entirety e.g.hedge

Table 1.0 Tree Retention Value - Priority Matrix.



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 mustbe cited as follows:

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

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

The following example shows the IACA **Significance** of a **Tree,Assessment Rating System** (STARS) used in an Arboricultural report.

Tree Significance

Determined by using the Tree Significance - Assessment Criteria of the *IACA Significance of a Tree, Assessment Rating System* (STARS)© (IACA, 2010), Appendix B.

Trees 14, 16, 17/3, 19 and 20/4 are of high significance with the remaining majority of medium significance and a few of low significance. Tree 14 is significant as a prominent specimen and a food source for indigenous avian fauna. Tree 16 as a non-locally indigenous planting is of good from and prominent *in situ*; Tree 17/3 as a stand of 6 street trees along the Davey Street frontage screening views to and from the site and contiguous with trees in Victoria Park extending the aesthetic influence of the urban canopy to the site. Similarly for Trees 20/4 as street trees in Long Road and Tree 19 as an extant exotic planting as a senescent component of the original landscaping. The trees of low significance are recent plantings as fruit trees – Avocados, and 1 Cootamundra Wattle as a non-locally indigenous tree in irreversible decline and potentially structurally unsound.

Significance Scale

1 – High
2 – Medium
3 – Low

Significance Scale	1	2	3
Tree No. / Stand No.	14, 16, 17/3, 19, 20/4	1/1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12/2, 15, 18, 21/5	3, 13, 22

Tree Retention Value

Determined by using the Retention Value - Priority Matrix of the *IACA Significance of a Tree, Assessment Rating System* (STARS)© (IACA, 2010), Appendix B.

Retention Value

High – Priority for Retention **Medium** – Consider for Retention**Low** – Consider for Removal **Remove** - Priority for Removal

Retention Value	High Priority for Retention	Medium Consider for Retention	Low Consider for Removal	Remove Priority for Removal
Tree No. / Stand No.	1/1, 5, 17/3*, 19	2, 4, 6, 7, 8, 9, 10, 11, 14, 15, 16, 18, 20/4*, 21/5	3, 12/2, 13,	22

* Trees located within the neighbouring property and should be retained and protected.