Preliminary Arboricultural Assessment report (PAA)

PREPARED FOR:
JCDecaux

PROPERTY:
Western Distributor, Pyrmont

PREPARED BY:
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#2525

#231113

Date / REF: 1st March 2022 / PAA-22-632

1 Summary

a) Mr Tim Brosnan of JCDecaux has commissioned this preliminary arboricultural assessment (PAA) report for the proposed installation of advertising 'monopole' on Sydney Trains property

b) A site visit was made by author on Monday, 7th of February 2022

c) Subject site resides in the LGA of The City of Sydney Council which is the consenting authority

d) Ten (10) trees have been assessed within this report based upon the assessment provided by Matthew Reed Trees and the definition of a tree within the local government tree policy, these are prescribed trees

e) Prescribed trees have been numbered on the Tree Location Plan and in the Tree Data & Assessment table labelled as 'park trees' or 'street trees', all other trees are 'site trees'

f) All site trees are 'exempt species'[1] (labelled '**a**' on Tree Location Plan) meaning that these trees are exempt from protections under City of Sydney council guidelines and may be pruned or removed at any time by the tree-owner without approval

g) Whilst detailed plans are not available, siting of the proposed advertising signage (monopole)[2] appears to be wholly within Sydney Trains property boundaries and existing trees within site are not expected to be an impediment to proposal

h) Nevertheless, neighbouring street-trees and park-trees must not be adversely affected by construction workers, machinery, vehicles, scaffolding, cranes, trenching, etc.

i) Upon finalisation of plans (especially for footings and trenching for power, etc.) a further arborist report (Arboricultural Impact Assessment, AIA) will be required to assess/mitigate potential impacts of construction, assess whether pruning will be required to park-trees, and specify protection methodologies required for street and park-trees

1.1 Street and Park Trees (10)

a) All City of Sydney street and park trees in the road reserve and Paradise Park may not be removed or pruned and require protection

b) A Tree Protection Plan (scaled plan diagramme) as per AS4970–2009, and this report shall be included in the induction for all contractors

c) A supervising/project arborist (minimum AQF Level 5) shall be enlisted and engaged throughout the construction process

[1] https://www.cityofsydney.nsw.gov.au/guides/exemptions-for-pruning-and-removing-trees (accessed Mar-22)
[2] Tzannes dated 20 January 2021

2 Contents

3 Introduction

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b) Subject site resides in the LGA of The City of Sydney Council which is the consenting authority

c) Ten (10) trees have been assessed within this report based upon the assessment provided by Matthew Reed Trees and the definition of a tree within the local government tree policy, these are prescribed trees

d) This report will address the:

a)	species identification, dimensions and condition	see 'Tree Data & Assessment'
b)	significance/retention value (ULE and STARS ratings[3])	see 'Tree Data & Assessment'
c)	all trees within the vicinity of proposal	see 'Discussion/Recommendations'

[3] See Appendices

4 Disclaimer

a) The author is acting independently of and not as the advocate for the tree-owner

b) This report reflects the expert opinion of the author and has been prepared in accordance with Division 2 of Part 31 of the Uniform Civil Procedure Rules and the Expert Witness Code of Conduct in Schedule 7 of the Uniform Civil Procedure Rules (UCPR)

c) The author receives no commission to prune or remove trees, which is/are the subject of this report. The author has no affiliations with utility arborists involved in pruning and/or removal of trees. As such, the author can provide impartial and fair advice concerning tree condition, tree care, risk mitigation and reduction pruning, etc. free of conflict of interest

d) All care has been taken to assess potential risk but trees are always inherently dangerous. The tree(s) referred to in this report are living entities and are therefore subject to natural processes. They will also be subject to changes to their environment caused by human activities and exceptional weather conditions

e) The inspection undertaken by our qualified staff relies on visual attributes of tree vitality and structure which can be assessed from a ground based inspection (VTA). Hidden defects which are not readily visible may not be detected. We therefore cannot wholly guarantee the condition of the trees inspected beyond what can be reasonably assessed from a ground based assessment.

f) No aerial or subterranean inspections were carried out and unseen structural weakness may exist within roots, trunk or branches

g) Any protection or preservation methods recommended are not a guarantee of tree survival or safety but are designed to improve vitality and reduce risk. Timely inspections and reports are necessary to monitor a trees' condition. No responsibility is accepted for damage or injury caused by trees and no responsibility is accepted if the recommendations in this report are not followed

h) This report is to be utilised in its entirety only. Any written or verbal submission, report or presentation that includes statements taken from the findings, discussions, conclusions or recommendations made in this report, may only be used where the whole of the original report (or a copy) is referenced in, and directly attached to that submission, report or presentation

i) All content of this report remains the property of the author unless otherwise stated (IP)[4]

[4] ipaustralia.gov.au

5 Methodology

a) The following tree assessment was undertaken using International Society of Arboriculture (ISA) guidelines

   a. Species were identified using known attributes (e.g. capsules, bud shape & size)
   b. Height was measured using a Haglöf EC II-D clinometer
   c. DBH at 1.4m was measured using a Yamayo 'Million' diameter tape
   d. Crown spread measurement was paced out
   e. Vitality was estimated from foliage cover, visible wound occlusion, presence/absence of fungal activity, sap bleed, etc.
   f. All plan data was verified on site using a compass and measuring tape

b) A visual inspection of the condition and structure of tree(s) was done from the ground based on accepted industry practice; Visual Tree Assessment (VTA)[5]

   a. No aerial inspection, or exploratory excavation was undertaken unless noted

c) All tree works should comply with Australian Standards;

   a. AS4970-2009 Protection of trees on development sites
   b. AS4373-2007 Pruning amenity trees

d) This report has been prepared considering the following;

   a. Commonwealth Environment Protection Biodiversity Conservation Act 1999 (EPBC Act)
   b. NSW Biodiversity Conservation Act 2016 (BC Act)
   c. Sydney Local Environmental Plan 2012 (Sydney LEP 2012)
   d. Sydney Development Control Plan 2012 (Sydney DCP 2012)
   e. Tree guidelines for pruning, reporting and using an arborist (City of Sydney, January 2020)
   f. City of Sydney Urban Forest Strategy 2013
   g. City of Sydney Exemptions for pruning and removing trees[6]
   h. City of Sydney Street Tree Master Plan 2011 - Adopted 5 December 2011 (Updated 2015)

[5] Claus Mattheck and Helge Breloer, *The Body Language of Trees a Handbook for Failure Analysis.* (London: The Stationary Office, 1994) p.118

[6] https://www.cityofsydney.nsw.gov.au/guides/exemptions-for-pruning-and-removing-trees (accessed Mar-22)

5.1 Documentation Provided & Limitations

All dimensions and grades referenced in this report are interpreted from the following documents which the client has tendered as the latest documents available, including the establishment of tree locations in relation to proposal

Survey		
Drawn by:	C.M.S. Surveyors	Ph. 9971 4802
Date:	30/11/2021	
DWG	20807 detail	
Title:	showing details of proposed sign location	
Design		
Drawn by:	Tzannes	Ph. -
Date:	20 January 2021	
Job No.:	-	
Title:	Concept Design Workshop	
Sheet	'1_ Digital Screen size, placement and site boundary'	

a) Sydney Trains' property tree access was limited by boundary fences, etc. and a full 360-degree tree assessment (both VTA & TRAQ) was not possible, access to neighbouring property and further tree assessment would be required to ascertain more reliable findings for neighbouring trees

b) There are a number of trees which are not protected by local council guidelines; these are not discussed within this report (Noted as '**a**', '**b**', '**c**', etc. on Tree Plan)

6 Tree Location Plan

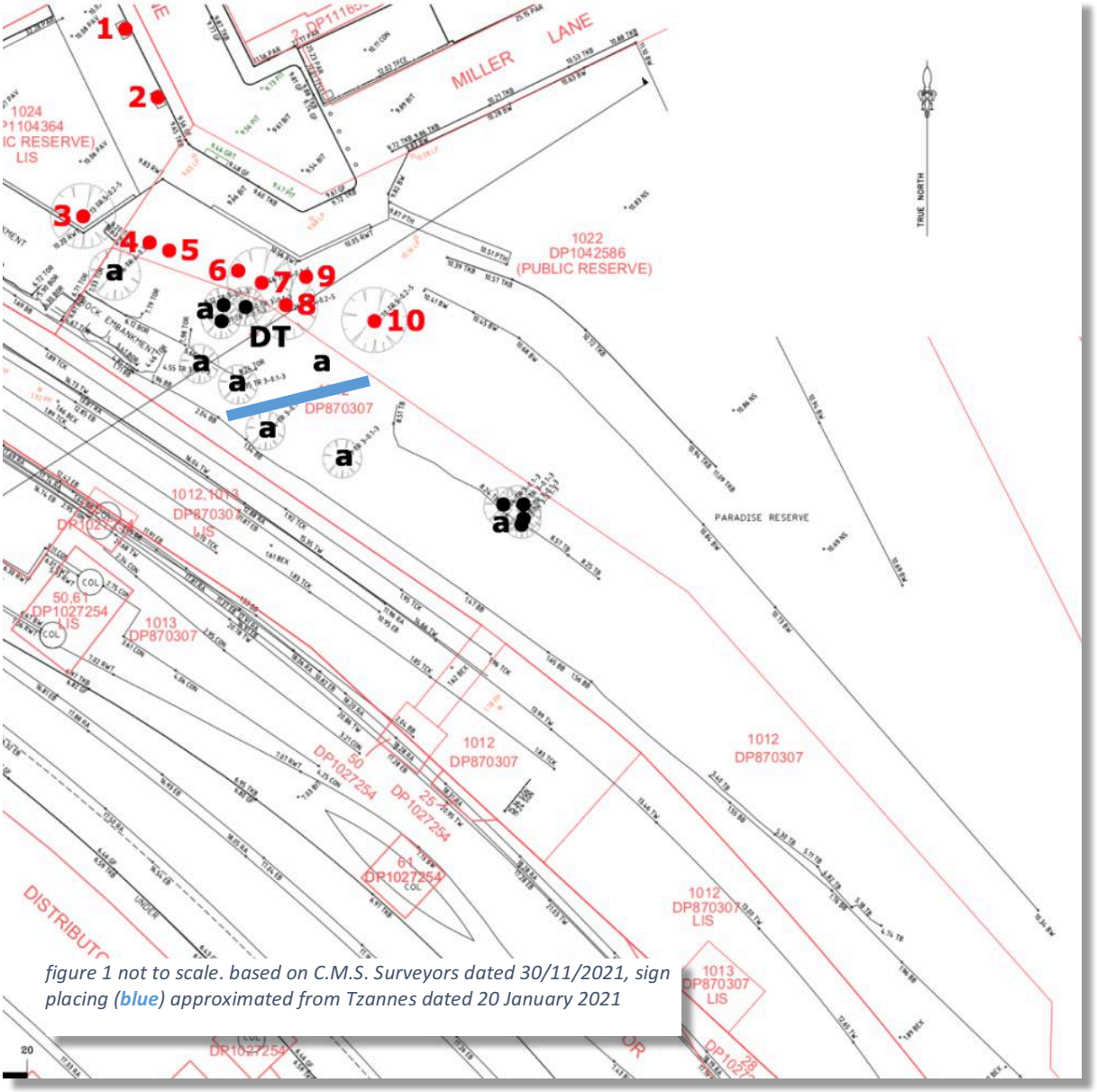

*figure 1 not to scale. based on C.M.S. Surveyors dated 30/11/2021, sign placing (**blue**) approximated from Tzannes dated 20 January 2021*

KEY

•10 denotes a prescribed tree included & discussed herein

Trees not protected in City of Sydney LGA

a	Common Hackberry	*Celtis occidentalis*	Exempt Species, height of 10m or less

7 Tree Data & Assessment[7]

Tree #	Species & Origin	Height	DBH	Vitality	Age	Crown		TPZ	SRZ	ULE	STARS	Notes
						Spread	Class					
1	*Triadica sebiferum* Chinese Tallow Exotic	12	0.29	N	M	NS 5 EW 5	C	-	-	A2	HIGH	street tree
Tree Assessment		This street tree forms part of an avenue planting on Miller Lane, resides in a 'Type 2 – planting in asphalt/concrete paving'[8] in a planting hole size as noted on survey and displays typical habit for the species notwithstanding restricted root-zone, however tree itself is not noted on survey										
2	*Triadica sebiferum* Chinese Tallow Exotic	13	0.30	N	M	NS 5 EW 5	C	-	-	A2	HIGH	street tree
Tree Assessment		This street tree forms part of an avenue planting on Miller Lane, resides in a 'Type 2 – planting in asphalt/concrete paving' in a planting hole size as noted on survey and displays typical habit for the species notwithstanding restricted root-zone, however tree itself is not noted on survey										
3	*Alectryon tomentosus* Woolly Rambutan Native	5	0.11 0.14	N	M	NS 4 EW 4	S	-	-	A2	HIGH	street tree
Tree Assessment		This street tree forms part of an avenue planting in an open-area adjacent to and parallel to 'Fish Market' light-rail station, resides in a 'Type 1a – planting in granite paving with setts'										
4	*Elaeocarpus reticulatus* Blueberry Ash Native	5	0.11	N	M	NS 5 EW 3	S	-	-	A2	low	park tree
Tree Assessment		This suppressed tree resides within Paradise Park and displays with a southerly bias due to codominant growth habit										

[7] See Glossary for definitions. All measurements in metres (m)
[8] © City of Sydney Street Tree Master Plan 2011 - Adopted 5 December 2011 (Updated 2015)

Tree #	Species & Origin	Height	DBH	Vitality	Age	Crown		TPZ	SRZ	ULE	STARS	Notes
						Spread	Class					
		Tree 4 was not on survey and has been inserted by the author who is not a surveyor and actual position is expected to vary										
5	*Elaeocarpus reticulatus* Blueberry Ash Native	4	0.10	N	M	NS 4 EW 3	S	-	-	A2	low	park tree
Tree Assessment		This suppressed tree resides within Paradise Park and displays with a southerly bias due to codominant growth habit Tree 5 was not on survey and has been inserted by the author who is not a surveyor and actual position is expected to vary										
6	*Eucalyptus punctata* Grey Gum Native	17	0.49	N	M	NS 8 EW 8	D	-	-	A1	HIGH	park tree
Tree Assessment		This tree resides within Paradise Park and displays typical form for the species										
7	*Corymbia maculata* Spotted Gum Native	9	0.12	N	Y	NS 1 EW 1	S	-	-	A2	HIGH	park tree
Tree Assessment		This suppressed tree resides within Paradise Park otherwise displays typical form for the species Tree 7 was not on survey and has been inserted by the author who is not a surveyor and actual position is expected to vary										
8	*Eucalyptus grandis* Flooded Gum Native	8	0.21	N	Y	NS 8 EW 3	S	-	-	A2	HIGH	park tree

Tree #	Species & Origin	Height	DBH	Vitality	Age	Crown		TPZ	SRZ	ULE	STARS	Notes
						Spread	Class					
Tree Assessment		This suppressed tree resides within Paradise Park and displays with a northerly bias due to codominant growth habit Tree 8 was not on survey and has been inserted by the author who is not a surveyor and actual position is expected to vary										
9	*Eucalyptus punctata* Grey Gum Native	14	0.33	N	M	NS 5 EW 5	C	-	-	A1	HIGH	park tree
Tree Assessment		This tree resides within Paradise Park and displays typical form for the species										
10	*Casuarina glauca* Swamp Sheoak Native	22	0.32 0.48	N	M	NS 10 EW 10	D	-	-	A2	HIGH	park tree
Tree Assessment		This tree resides within Paradise Park with two-stems otherwise displays typical form for the species Tree 10 was not on survey and has been inserted by the author who is not a surveyor and actual position is expected to vary										

A. Incomplete identification due to insufficient available plant material
B. Diameter taken below 1.4m due to early stem bifurcation
C. Estimation due to limited access, etc.
D. Deciduous species, void of leaf at the time of assessment
E. Further assessment required to determine accurate rating

8 Tree Significance: Discussion & Recommendations

a) Ten (10) trees have been assessed within this report based upon the assessment provided by Matthew Reed Trees and the definition of a tree within the local government tree policy, these are prescribed trees

b) Prescribed trees have been numbered on the Tree Location Plan and in the Tree Data & Assessment table labelled as 'park trees' or 'street trees', all other trees are 'site trees'

c) All site trees are 'exempt species'[9] (labelled '**a**' on Tree Location Plan) meaning that these trees are exempt from protections under City of Sydney council guidelines and may be pruned or removed at any time by the tree-owner without approval

d) Whilst detailed plans are not available, siting of the proposed advertising signage (monopole)[10] appears to be wholly within Sydney Trains property boundaries and existing trees within site do not provide an impediment to proposal

e) Nevertheless, neighbouring street-trees and park-trees must not be adversely affected by construction workers, machinery, vehicles, scaffolding, cranes, trenching, etc.

f) Upon finalisation of plans (footings and trenching for power, etc.) a further arborist report (Arboricultural Impact Assessment, AIA) will be required to assess/mitigate potential impacts of construction, assess whether pruning will be required to park-trees, and specify protection methodologies required for street and park-trees

8.1 Street Trees (3)

a) All local council trees in the road reserve may not be removed or pruned and require protection

8.2 Park Trees (7)

a) All council trees in Paradise Park may not be removed or pruned and require protection
b) The Tree Protection Zones and/or crowns of some of these trees encroach into site and design-techniques may be required to protect these neighbouring trees

8.3 Tree Protection Plan

On completion of the final design, a scaled Tree Protection Plan, TPP (diagramme) should be prepared as per AS497-2009 to outline the detailed tree protection measures, tree sensitive demolition and construction requirements in diagrammatic form to inform site workers

For further clarification or explanation of this report, please feel free to contact the author

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Arboriculture Australia 2021 MEMBER #2525

MEMBER International Society of Arboriculture ISA ™ #231113

[9] https://www.cityofsydney.nsw.gov.au/guides/exemptions-for-pruning-and-removing-trees (accessed Mar-22)
[10] Tzannes dated 20 January 2021

9 Glossary/References

AA..... Arboriculture Australia arboriculture.org.au
The peak national organisation promoting and representing tree workers, arborists, professional tree management and urban forestry

Age..... Y = Young M = Mature O = Over Mature

AQF..... Australian Qualification Framework

AS4373-2007..... *pruning amenity trees* (Australian Standard, saiglobal.com)
AS4970-2009..... *Protection of Trees on Development Sites* (saiglobal.com)
AS2303-2018..... *Tree Stock for Landscape Use* (saiglobal.com)

Crown Class..... D = Dominant C = Co-dominant S = Suppressed
F = Forest Class I = Intermediate

DBH ..... Diameter at Breast Height (approx. 1.4 metres above ground level)
IACA..... Institute of Australian Consulting Arborists iaca.org.au
Aims to foster practice and research in support of the Consulting Arboriculturist
ISA ..... International Society of Arboriculture isa-arbor.com
Through research, technology, and education promotes the professional practice of arboriculture and fosters a greater worldwide awareness of the benefits of trees

Origin..... Refers to the natural occurrence of the tree species as referenced in *Forest Trees of Australia* (Boland et al. 2006):

- Endemic: natural occurrence to the area the species is located (and possibly other areas)
- Exotic: naturally occurs in another country but not in Australia
- Native: does not naturally occur within the area the species is located but is found elsewhere in Australia
- Remnant: natural occurrence within area, and part of the natural planting

Project Arborist..... AQF 5 level arborist is to be retained throughout the construction process to ensure a consistent approach in the protection and preservation of trees (also Supervising Arborist, AS4970-2009, 1.4.4)
STARS ..... IACA Significance of a Tree Assessment Rating System (STARS)©
ULE ..... Useful Life Expectancy (after Jeremy Barrel, 2009)
Vitality ..... Ability of a tree to sustain life processes, independent of the condition of the tree but may impact upon it
Vitality can be categorised as high, normal and low tree vitality (and dormant for deciduous trees)
H = High N = Normal L = Low
VTA..... Visual Tree Assessment

After Jeremy Barrell, 2009
barrelltreecare.co.uk

APPENDIX 1: Useful Life Expectancy Categories (ULE)

	1. Long	2. Medium	3. Short	4. Removal	5. Moved or Replaced
	Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.	*Trees that appeared to be retainable at the time of assessment for 15 – 40 years with an acceptable level of risk.*	*Trees that appeared to be retainable at the time of assessment for 5 – 15 years with an acceptable level of risk.*	*Trees that should be removed within the next 5 years.*	*Trees which can be reliably moved or replaced.*
A	Structurally sound trees located in positions that can accommodate future growth.	Trees that may only live between 15 and 40 years.	Trees that may only live between 5 and 15 more years.	Dead, dying, suppressed or declining trees through disease or inhospitable conditions.	Small trees less than 5m in height.
B	Trees that could be made suitable for retention in the long term by remedial tree care.	Trees that may live for more than 40 years but would be removed for safety or nuisance reasons.	Trees that may live for more than 15 years but would be removed for safety or nuisance reasons.	Dangerous trees through instability on recent loss of adjacent trees.	Young trees less than 15 years old but over 5m in heights
C	Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention.	Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting.	Trees that may live for more than 15 years but should be removed to prevent interference with more suitable individuals or to provide space for new planting.	Damaged trees through structural defects including cavities, decay, included bark, wounds or poor form.	Trees that have been pruned to artificially control growth.
D		Trees that could be made suitable for retention in the medium term by remedial tree care.	Trees that require substantial remedial tree care and are only suitable for retention in the short term.	Damaged trees that are clearly not safe to retain.	
E				Trees that may live for more than 5 years but should be removed to prevent interference with more suitable individuals or to provide space for new plantings.	
F				Trees that are damaging or may cause damage to existing structures within 5 years.	
G				Trees that will become dangerous after removal of other trees for reasons given in (A) to (F).	

IACA 2010
iaca.org.au

APPENDIX 2: Significance of a Tree Assessment Rating System (STARS)©

STEP 1: determine the 'Tree Significance in the Landscape'

a minimum of three (3) criteria are required to be classified in that 'significance-group'

1. High Significance

- The tree is in good condition and good vitality
- The tree has a form typical for the species
- The tree is a remnant or is a planted locally indigenous (endemic) 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 Council's 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

- The tree is in fair-good condition and good or low vitality
- The tree has form typical or atypical of the species
- The tree is a planted locally indigenous (endemic) 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

- The tree is in fair-poor condition and good or low vitality
- 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

a minimum of three (3) criteria are required to be classified in that 'significance-group'

4. Low Significance (cont.)

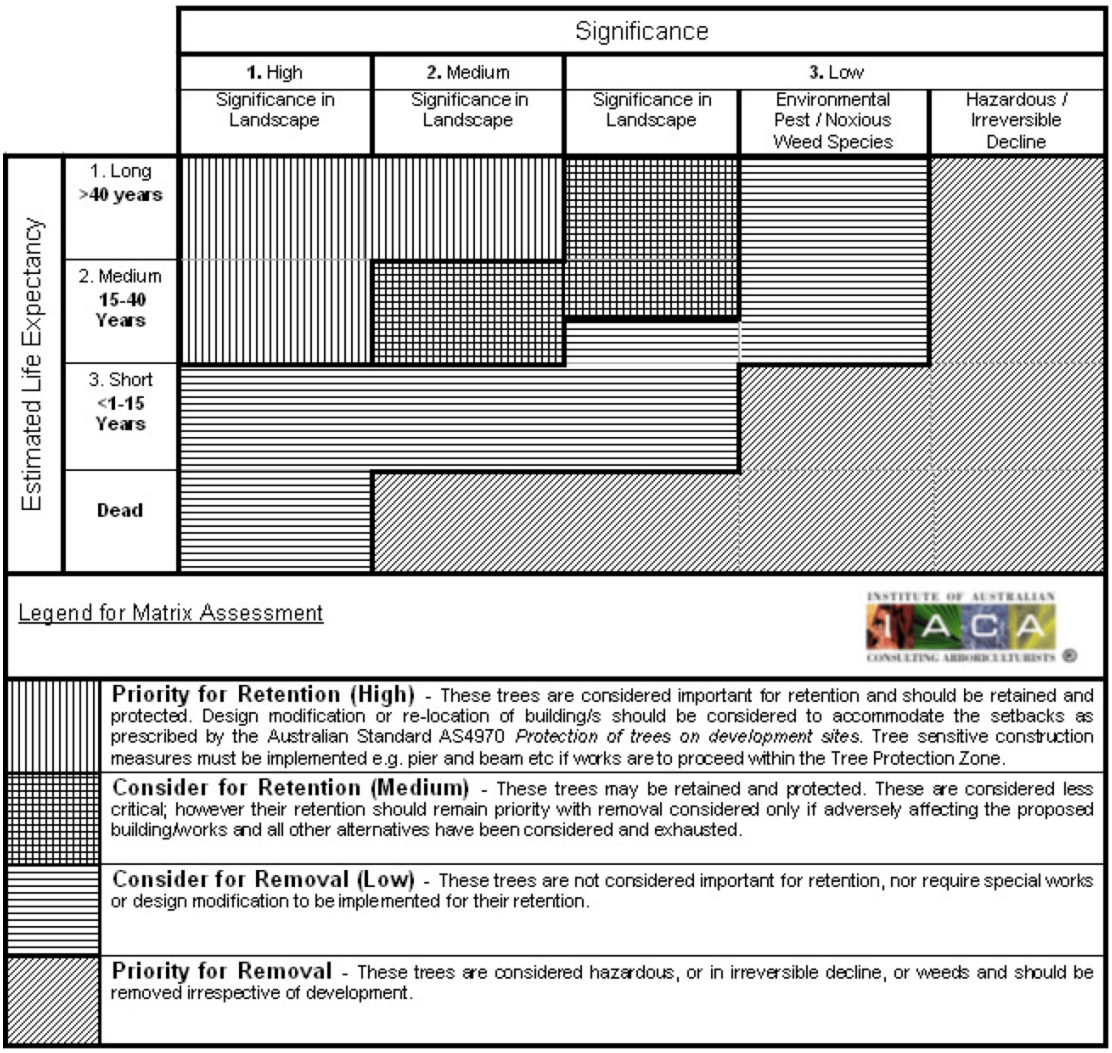
Environmental Pest / Weed Species

The tree is an environmental pest species due to its invasiveness or poisonous/allergenic properties

Hazardous / Irreversible Decline

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

STEP 2: Determine 'STARS Tree Retention Value' (ELE x Significance)



NOTES:

a) The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety

b) After categorisation into a 'significance grouping' (Step 1), this is combined with the ELE (estimated life expectancy) using matrix to determine a STARS Tree Retention Value priority (Step 2)

c) Applicable to private trees only, neighbouring trees and street trees should all be rated as 'HIGH' as retention/removal is not an option