ALLIED TREE CONSULTANCY
Level 5 and 8 Arboriculturist

Arboricultural Impact Assessment Report

Stage 2a Works; Built form and Civil work

For the site address

Corrimal Coke Works,
No. 27 Railway Street,
CORRIMAL, NSW

Prepared for

Legacy Property P/L

AUTHOR

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1.0 Introduction

1.1 *Allied Tree Consultancy* (ATC) has been commissioned by *Legacy Property P/L* to prepare an Arboricultural Impact Assessment for the development proposal at Corrimal Coke Works, No. 27 Railway Street, Corrimal. This proposal includes the built form qand civil work related to Stage 2a of the Cokeworks redevelopment. This report includes one hundred and ninety-one (191) trees located on, and adjacent to the lot, and discusses the viability of these trees based on the proposed works. The trees that have consent for removal under the past development consent for Stages 2-4 Bulk Earthworks (DA-2023/823) have not been included in this report.

1.2 This report will address for these trees, the:

- species' identification, location, dimensions, and condition;
- SULE (Safe Useful Life Expectancy) and STARS (Significance of a Tree Assessment Rating System) rating;
- discussion and impact of the proposed works on each tree;
- tree protection zones and protection specifications for trees recommended for retention.

2.0 Standards

2.1 The Australian Standard, AS 4970, 2025, Protection of trees on development sites has formed the benchmark for this report format.

2.2 Allied Tree Consultancy provides an ethical and unbiased approach to all assignments, possessing no association with private utility arboriculture or organisations that may reflect a conflict of interest.

2.3 This report must be made available to all contractors during the tendering process so that any cost associated with the required works for the protection of trees can be accommodated.

2.4 It is the responsibility of the project manager to provide the requirements outlined in this report relative to the Protection Zones, Measures (Section 7.0) and Specifications (Section 8.0) to all contractors associated with the project before the initiation of work.

2.5 All tree-related work outlined in this report is to be conducted in accordance with the:

- Australian Standard – AS4373; Pruning of Amenity Trees.
- Guide to Managing Risks of Tree Trimming and Removal Work[1].

[1] Safe Work Australia; July 2016; Guide to Managing Risks of Tree Trimming and Removal Work, Australia

- All tree works must be carried out at a tertiary level (minimum Certificate-level 3) qualified and experienced (minimum five years) arboriculturist.
- For any works in the vicinity of electrical lines, the arboriculturist must possess the ISSC26 endorsement (Interim guide for operating cranes and plant in proximity to overhead powerlines).

2.6 As a minimum requirement, all trees recommended for retention in this report must have removed all dead, diseased, and crossing limbs and branch stubs to be pruned to the branch collar. This work must comply with the local government tree policy (Wollongong City Council) and Section 2.4.

2.7 Any tree stock subject to conditions for works carried out in this report must be supplied by a registered Nursery that adheres to the AS 2303; 2015[2].

- All tree stock must be of at least 'Advanced' size (minimum 75lt) unless otherwise requested within the Landscape Architectural Drawings (*Clouston Design*).
- All tree stock requested must be planted with adequate protection. This may include tree guards (protect stem and crown) and if planted in a lawn area, a suitable barrier (planter ring) of an area, at least, $1m^2$ to prevent grass from growing within the area adjacent to the stem.

3.0 Disclosure Statement

Trees are living organisms and, for this reason, possess natural variability. This cannot be controlled. However, risks associated with trees can be managed. An arborist cannot guarantee that a tree will be safe under all circumstances, nor predict the time when a tree will fail. To live or work near a tree involves some degree of risk, and this evaluation does not preclude all the possibilities of failure.

4.0 Methodology

4.1 The following tree assessment was undertaken using criteria based on the guidelines laid down by the International Society of Arboriculture.

4.2 The format of the report is summarised below;

4.2.1 **Plan 1;** Tree Location Relative to Site: This is an unscaled plan reproduced from the Survey Plan as referenced in Section 4.4.1, depicting the area of assessment. The plans illustrate areas of work divided between the Built Form and Civil Work.

[2] Australian Standard; 2015, AS2303, Tree stock for landscape use, Australia

4.2.2 **Table 1;** This table compiles the tree species, dimensions**,** brief assessment (history, structure, pest, disease or any other variables subject to the tree), significance, allocation of the zones of protection (i.e., Tree Protection Zone[3] ;TPZ and Structural Root Zone; SRZ) for each tree illustrated in Plan 1, Section 5.0. All measurements are in metres.

4.2.3 Discussion relating to the site assessment and proposed works regarding the trees.

4.2.4 Protection Specification; Section 8.0 details the requirements for that area designated as the Tree Protection Zone (TPZ), for those trees recommended for retention.

4.3 The opinions expressed in this report, and the material, upon which they are based, were obtained from the following process and data supplied:

4.3.1 The areas that are relevant to this Stage of work, being Stage 2a; Built form, have only been included. The trees that have consent for removal under the past development consent for Stages 2-4 Bulk Earthworks (DA-2023/823) have not been included in this report. Consequently, the tree numbering (Table 1, Section 5.0) is not sequential. Trees excluded from this report have been included in the initial Arborist report, being the application related to Stage 1 and 2 enabling and bulk earth works, being the Arboricultural Impact Assessment Report, Reference D4905, Dated September 2023.

4.3.2 The site assessments have been divided between two stages. The trees numbered between 204 to 474 has occurred during August 2022, and Warwick Varley[4] and Geoff Beisler[5] on behalf of *Allied Tree Consultancy* . The second stage of assessment covering the southern portion of the site, being trees No., 475-877 has been assessed by Warwick Varley[4,] and occurred during January to August 2023. The assessment process has utilised the method of the Visual Tree Assessment[6]. This has included a Level 2 risk assessment, being a *Basic Assessment*[7].

[3] Australian Standard, 4970; 2009 – Protection of Trees on Development Sites, Australia
[4] Consulting Arborist, Graduate Certificate and Diploma of Arboriculture (level 8 and 5)
[5] Consulting Arborist, Diploma of Arboriculture (level 5)
[6] Mattheck, C. Breloer, H.,1994, The Body Language of Trees – A handbook for failure analysis The Stationary Office, London
[7] Dunster J.A., 2013, Tree Risk Assessment Manual, International Society of Arboriculture, 2013, USA

4.3.3 Trees included in this report are those that are 5m or greater in height.

4.3.4 Not all site trees have been included. Some areas catering for very dense stands where works are not proposed and trees are not impacted on have had edge trees included only.

4.3.5 All measurements, unless specified otherwise are taken from the tree centre.

4.3.6 All trees included in Table 1, Section 5.0 have been tagged. All tags face the centre of the site, unless obstructions prevent this. Tags are round (30mm dia.) embossed aluminium, nailed to the stem at approximately 2m above ground. All tree numbering is contained on the drawings referenced in Section 4.4.

4.3.7 The drawings issued to ATC has consisted of a single drawing from the architect (Site Plus) and engineer (Maker), neither of which provided sufficient information for a tree impact assessment. For this reason, the landscape drawing set issued (see Section 4.4.2) has formed the primary drawings for determining the tree impact.

4.3.8 Raw data from the preliminary assessment including the specimen's dimensions was compiled by the use of a diameter tape, height clinometer, angle finder, compass, steel probes, Teflon hammer, binoculars and recording instruments.

4.4 Documentation provided

The following documentation has been provided to Allied Tree Consultancy and utilised within the report.

4.4.1 Surveyor

Drawn by *Maker Engineering P/L*
Date: 25 September 2023
Reference: MKR00452-TREES
Drawing No: Sheet 1-4, Revision 7

4.4.2 Landscape

Drawn by *Land+Form P/L*
Date: 15 September 2025
Reference: LD-DA-100, LD-DA-120, LD-DA-010, LD-DA-020, LD-DA-220, Revision 1

4.5 Limitations of the assessment/discussion process

4.5.1 The entire site has extensive and dense weed growth. Several water courses exist with steep banks, denying access due to the gradient and weed growth. Several areas throughout the site have been cleared or tracks cut in by qualified bush regenerators to allow access. Some areas, particularly along watercourses, cannot be accessed, while other areas are subject to limited assessment due to dense vegetation. This has limited the complete assessment of some trees, as well as limiting the ability for a confident assessment due to limited access to the crown mass.

4.5.2 The assessment has been limited to that part of the tree which is visible, existing from the ground level to the crown. Root decay can exist and, in some circumstances, provide no symptoms of its presence. This assessment responds to all the symptoms provided by a tree; however, it cannot provide a conclusive recommendation regarding any tree that may have extensive root decay that leads to windthrow without the appropriate symptoms.

5.0 Plan 1; Area of assessment

Not to scale
Tree numbering is contained in the survey drawing, see Section 4.4.1
Source: Adapted from *Land + Form,* see Section 4.4.2.

5.1 Plans 2 and 3; Area of assessment divided between Built Form and Civil Works.

Plan 2; Stage 2a, Built Form

Plan 3; Stage 2a, Civil Work

Not to scale
Tree numbering is contained in the survey drawing, see Section 4.4.1
Source: Chester Project Management Pty Ltd

6.0 Table 1 – Tree Species Data

Terminology/references provided in Appendix A.

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
204	*Casuarina glauca* Swamp Sheoak	12	0.43	7 x 7	M	C	Sym	A	**1A**	**Medium**	**5.16**	**2.32**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
205	*Casuarina glauca* Swamp Sheoak	11	0.42	8 x 5	M	I	Sym	A	**1A**	**Medium**	**5.04**	**2.30**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
206	*Casuarina glauca* Swamp Sheoak	11	0.22	6 x 4	M	C	Sym	A	**1A**	**Medium**	**2.64**	**1.75**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
207	*Casuarina glauca* Swamp Sheoak	10	0.29	7 x 4	M	I	Sym	A	**1A**	**Medium**	**3.48**	**1.97**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
208	*Casuarina glauca* Swamp Sheoak	10	0.24	3 x 3	M	C	Sym	B	**2A**	**Medium**	**2.88**	**1.82**
Assessment This tree presents as typical for the species, however minor decline is evident.											**Development impact** See Section 7.1	
209	*Casuarina glauca* Swamp Sheoak	11	0.38	7 x 5	M	C	Sym	A-B	**2A**	**Medium**	**4.56**	**2.20**
Assessment This tree presents as typical for the species, however minor decline is evident.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
210	*Casuarina glauca* Swamp Sheoak	8	0.22	4 x 3	M	I	N	B	**2D**	**Low**	**2.64**	**1.75**
Assessment This tree presents significant decline.											**Development impact** See Section 7.1	
211	*Casuarina glauca* Swamp Sheoak	12	0.35	7 x 4	M	C	Sym	A-B	**2A**	**Medium**	**4.20**	**2.13**
Assessment This tree presents as typical for the species, however minor decline is evident.											**Development impact** See Section 7.1	
212	*Casuarina glauca* Swamp Sheoak	12	0.35	6 x 5	M	C	Sym	A	**1A**	**Medium**	**4.20**	**2.13**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
230	*Lophostemon confertus* Brush Box	9	0.31	6 x 6	M	C	E	A	**1A**	**Medium**	**3.72**	**2.02**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
231	*Casuarina glauca* Swamp Sheoak	10	0.50[B]	8 x 5	M	C	S	A	**1B**	**Medium**	**6.00**	**2.47**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
232	*Casuarina glauca* Swamp Sheoak	11	0.27	4 x 4	M	C	Sym	A	**1A**	**Medium**	**3.24**	**1.91**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
233	*Casuarina glauca* Swamp Sheoak	10	0.33	6 x 6	M	I	Sym	A	**2D**	**Medium**	**3.96**	**2.08**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree presents a longitudinal wound on the lower stem.											**Development impact** See Section 7.1	
234	*Casuarina glauca* Swamp Sheoak	11	0.33	5 x 5	M	C	S	A, B	**2A**	**Medium**	**3.96**	**2.08**
Assessment This tree presents as typical for the species, however minor decline is evident.											**Development impact** See Section 7.1	
235	*Casuarina glauca* Swamp Sheoak	7	0.25	6 x 4	M	I	N	A	**4C**	**Low**	**3.00**	**1.85**
Assessment This tree presents a large, open longitudinal wound on the mid stem, decay is evident.											**Development impact** See Section 7.1	
236	*Casuarina glauca* Swamp Sheoak	13	0.43	8 x 7	M	C	Sym	A	**2D**[C,E]	**Medium**[C,E]	**5.16**	**2.32**
Assessment This tree reveals open wounds between 2.5-4m, northern side of the stem, decay is evident. This tree would require level 3 assessment (internal diagnostics) facilitated by aerial access to provide further details on the internal issue and thereby Development impacts.											**Development impact** See Section 7.1	
237	*Casuarina glauca* Swamp Sheoak	8	0.26	4 x 3	M	S	S	A	**1B**	**Medium**	**3.12**	**1.88**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
238	*Casuarina glauca* Swamp Sheoak	9	0.20	4 x 1	M	S	S	A	**2A**	**Medium**	**2.40**	**1.68**
Assessment This tree presents wounding at the base.											**Development impact** See Section 7.1	
239	*Casuarina glauca* Swamp Sheoak	12	0.42	9 x 6	M	C	S	A	**1A**	**Medium**	**5.04**	**2.30**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
240	*Casuarina glauca* Swamp Sheoak	11	0.32	6 x 6	M	C	N	A	**1A**	**Medium**	**3.84**	**2.05**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
250	*Casuarina glauca* Swamp Sheoak	12	0.28	6 x 4	M	C	Sym	A	**1A**	**Medium**	**3.36**	**1.94**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
251	*Casuarina glauca* Swamp Sheoak	11	0.23	6 x 4	M	C	N	A	**1A**	**Medium**	**2.76**	**1.79**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
252	*Casuarina glauca* Swamp Sheoak	10	0.27	6 x 4	M	C	N	A	**1A**	**Medium**	**3.24**	**1.91**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
253	*Casuarina glauca* Swamp Sheoak	12	0.42	9 x 5	M	C	S	A	**1A**	**Medium**	**5.04**	**2.30**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
254	*Casuarina glauca* Swamp Sheoak	11	0.30	6 x 4	M	C	N	A	**1A**	**Medium**	**3.60**	**2.00**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
255	*Casuarina glauca* Swamp Sheoak	12	0.33	6 x 6	M	C	Sym	A	**1A**	**Medium**	**3.96**	**2.08**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
256	*Casuarina glauca* Swamp Sheoak	12	0.25	4 x 4	M	C	NW	A	**2A**	**Medium**	**3.00**	**1.85**
Assessment This tree presents as typical for the species, however minor decline is evident, southern side.											**Development impact** See Section 7.1	
257	*Casuarina glauca* Swamp Sheoak	8	0.20	4 x 2	M	S	N	A,B	**2A**	**Medium**	**2.40**	**1.68**
Assessment This tree presents as typical for the species, however minor decline is evident.											**Development impact** See Section 7.1	
258	*Casuarina glauca* Swamp Sheoak	1	0.43	9 x 7	M	C	Sym	A	**1A**	**Medium**	**5.16**	**2.32**
Assessment This tree presents as typical for the species. Another of the same species (6m), however 90% dead is located within the SRZ, eastern side.											**Development impact** See Section 7.1	
259	*Casuarina glauca* Swamp Sheoak	12	0.30	8 x 5	M	D	Sym	A	**1A**	**Medium**	**3.60**	**2.00**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
260	*Casuarina glauca* Swamp Sheoak	40	0.35 0.22	9 x 7	M	I	Sym	B	**2D**	**Medium**	**4.96**	**2.28**
Assessment This tree presents as typical for the species, however some decline is evident.											**Development impact** See Section 7.1	
261	*Casuarina glauca* Swamp Sheoak	13	0.72	10 x 10	M	D	W	A	**1A**	**Medium**	**8.64**	**2.88**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
262	*Casuarina glauca* Swamp Sheoak	7	0.20	3 x 3	Y	I	SW	A	**1A**	**Medium**	**2.40**	**1.68**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
263	*Casuarina glauca* Swamp Sheoak	7	0.20	3 x 2	Y	I	S	A	**1A**	**Medium**	**2.40**	**1.68**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
264	*Casuarina glauca* Swamp Sheoak	9	0.15	1 x 1	Y	F	Sym	A	**1A**	**Medium**	**1.80**	**1.49**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
265	*Casuarina glauca* Swamp Sheoak	7	0.26 0.23	5 x 5	M	D	Sym	A	**2/3D**[C,E]	**Low**	**4.17**	**2.12**
Assessment This tree presents some wounding on the lower stem, and an acute angle union at 1.2m. The bark is included, and the union looks likely to fail.											**Development impact** See Section 7.1	
266	*Casuarina glauca* Swamp Sheoak	7	0.23 0.22	5 x 6	M	D	Sym	A	**1A**	**Medium**	**3.82**	**2.05**
Assessment This is 2 trees side by side, sharing a common root mass.											**Development impact** See Section 7.1	
396	*Eucalyptus botryoides* Bangalay	12	0.42	8 x 8	M	C	Sym	A	**1B**	**Medium**	**5.04**	**2.30**
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	
397	*Casuarina glauca* Swamp Sheoak	12	0.33	4 x 6	M	C	Sym	A	**1A**	**Medium**	**3.96**	**2.08**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
398	*Eucalyptus tereticornis* Forest Red Gum	13	0.43	9 x 12	M	C	W	A	**3D**[C,E]	**Low**	**5.16**	**2.32**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree has suffered multiple large failures, open wounds remain. Swelling is evident in the lower and mid stem. This tree would require level 3 assessment (internal diagnostics) to provide further details on the internal issue and thereby Development impacts.											**Development impact** See Section 7.1	
399	*Casuarina glauca* Swamp Sheoak	11	0.33	6 x 8	M	C	E	A	**1B**	**Medium**	**3.96**	**2.08**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
400	*Eucalyptus tereticornis* Forest Red Gum	12	0.25	6 x 6	M	C	W	A	**1B**	**Medium**	**3.00**	**1.85**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
401	*Casuarina glauca* Swamp Sheoak	11	0.26	4 x 6	M	I	E	A	**1B**	**Medium**	**3.12**	**1.88**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
402	*Eucalyptus tereticornis* Forest Red Gum	14	0.37	8 x 8	M	C	Sym	A	**1B**	**Medium**	**4.44**	**2.18**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
403	*Casuarina glauca* Swamp Sheoak	10	0.32	5 x 7	M	I	E	A	**1B**	**Medium**	**3.84**	**2.05**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
404	*Eucalyptus tereticornis* Forest Red Gum	14	0.44[B]	9 x 9	M	D	W	A	**2D**[C]	**Medium**	**5.28**	**2.34**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree presents decline, upper crown, and several large branch failures. An open wound and possible small cavity is located at 11m, northern side.											**Development impact** See Section 7.1	
405	*Casuarina glauca* Swamp Sheoak	9	0.27	4 x 4	M	C	Sym	A-B	**2A**	**Medium**	**3.24**	**1.91**
Assessment This tree presents as typical for the species, however minor decline is evident.											**Development impact** See Section 7.1	
406	*Casuarina glauca* Swamp Sheoak	8	0.25	3 x 3	M	I	N	B	**2D**	**Low**	**3.00**	**1.85**
Assessment This tree presents as typical for the species, however decline is evident.											**Development impact** See Section 7.1	
407	*Casuarina glauca* Swamp Sheoak	10	0.35	6 x 6	M	C	Sym	A	**1A**	**Medium**	**4.20**	**2.13**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
408	*Casuarina glauca* Swamp Sheoak	6	0.15 0.12	3 x 2	M	I	S	A	**2D**	**Low**	**2.31**	**1.66**
Assessment This tree appears to have been lopped in the past, open sounds present decay.											**Development impact** See Section 7.1	
409	*Casuarina glauca* Swamp Sheoak	9	0.21	3 x 3	M	C	S	A	**2A**	**Medium**	**2.52**	**1.72**
Assessment This tree presents a vertical wound on the stem, between 2-3m, southern side; this is almost occluded. Longitude wounding is present on the underside of the lowest 1st order branch.											**Development impact** See Section 7.1	
410	*Casuarina glauca* Swamp Sheoak	10	0.26	4 x 4	M	C	N	A	**1B**	**Low**	**3.12**	**1.88**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
411	*Casuarina glauca* Swamp Sheoak	8	0.22[B]	2 x 2	M	I	S	A	**2A**	**Medium**	**2.64**	**1.75**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	
412	*Casuarina glauca* Swamp Sheoak	7	0.25	3 x 3	M	I	S	A	**1B**	**Medium**	**3.00**	**1.85**
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	
413	*Casuarina glauca* Swamp Sheoak	10	0.30	4 x 3	M	C	Sym	A	**1B**	**Medium**	**3.60**	**2.00**
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	
414	*Casuarina glauca* Swamp Sheoak	8	0.18	3 x 2	M	C	S	A	**1B**	**Medium**	**2.16**	**1.61**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
415	*Casuarina glauca* Swamp Sheoak	8	0.29[B]	2 x 2	M	I	S	C	**4A**	**Low**	**3.48**	**1.97**
Assessment This tree presents excessive decline.											**Development impact** See Section 7.1	
416	*Eucalyptus tereticornis* Forest Red Gum	10	0.44	8 x 7	M	C	N	A	**1B**	**Medium**	**5.28**	**2.34**
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	
417	*Eucalyptus tereticornis* Forest Red Gum	10	0.28	5 x 5	M	C	Sym	A	**1B**	**Medium**	**3.36**	**1.94**
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
418	*Eucalyptus tereticornis* Forest Red Gum	12	0.30	6 x 4	M	C	N	A	**1B**	**Medium**	**3.60**	**2.00**
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	
419	*Eucalyptus tereticornis* Forest Red Gum	13	0.18 0.44	10 x 8	M	C	Sym	A	**1B**	**Medium**	**5.70**	**2.42**
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	
420	*Eucalyptus tereticornis* Forest Red Gum	12	0.50[B]	10 x 9	M	C	E	A	**1B**	**Medium**	**6.00**	**2.47**
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	
421	*Casuarina glauca* Swamp Sheoak	10	0.31	5 x 5	M	D	Sym	A	**1A**	**Medium**	**3.72**	**2.02**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
422	*Casuarina glauca* Swamp Sheoak	10	0.25	4 x 4	M	I	Sym	A	**1A**	**Medium**	**3.00**	**1.85**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
423	*Eucalyptus globulus* Tasmanian Blue Gum[A]	10	0.46	6 x 6	M	C	Sym	A	**1B**	**Medium**	**5.52**	**2.39**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
424	*Pittosporum undulatum* Sweet Pittosporum	8	0.24 0.30	6 x 6	M	I	NW	B	**3A**	**Low**	**4.61**	**2.21**
Assessment This tree presents as typical for the species, however decline is evident.											**Development impact** See Section 7.1	
425	*Acacia maidenii* Maidens Wattle[A]	12	0.42	8 x 6	O	C	N	A	**3D**	**Low**	**5.04**	**2.30**
Assessment This tree presents open wounds and swelling, lower stem. A large deadwood stub enters the stem at 4m, eastern side.											**Development impact** See Section 7.1	
426	*Acacia maidenii* Maidens Wattle[A]	9	0.38	6 x 5	O	I	NW	A	**4C**	**Low**	**4.56**	**2.20**
Assessment This tree presents significant decay, lower stem.											**Development impact** See Section 7.1	
427	*Casuarina glauca* Swamp Sheoak	13	0.36	8 x 8	M	C	E	A	**1B**	**Medium**	**4.32**	**2.15**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
428	*Casuarina glauca* Swamp Sheoak	8	0.40[B]	8 x 8	M	I	N	A	**1B**	**Medium**	**4.80**	**2.25**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
429	*Eucalyptus saligna* Sydney Blue Gum	12	0.45	7 x 8	M	D	Sym	A	**1B**	**Medium**	**5.40**	**2.37**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
430	*Casuarina glauca* Swamp Sheoak	12	0.24	3 x 4	M	I	NE	A	**1A**	**Medium**	**2.88**	**1.82**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
431	*Eucalyptus saligna* Sydney Blue Gum[A]	12	0.40	7 x 9	M	C	Sym	A	**1B**	**Medium**	**4.80**	**2.25**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
432	*Acacia maidenii* Maidens Wattle	7	0.24	5 x 4	M	I	W	A	**3D**	**Low**	**2.88**	**1.82**
Assessment This tree presents a recent failure of a codominant union at 2m; a large, jagged wound has been generated.											**Development impact** See Section 7.1	
433	*Casuarina glauca* Swamp Sheoak	10	0.26	3 x 3	M	C	Sym	A	**1B**	**Medium**	**3.12**	**1.88**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
434	*Eucalyptus saligna* Sydney Blue Gum	8	0.19	3 x 6	M	S	E	A	**2A**	**Medium**	**2.28**	**1.65**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
435	*Casuarina glauca* Swamp Sheoak	11	0.25	3 x 3	M	C	Sym	A	**1B**	**Medium**	**3.00**	**1.85**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
436	*Eucalyptus saligna* Sydney Blue Gum	12	0.48	9 x 9	M	D	Sym	A	**2D**[C,E]	**Medium**	**5.76**	**2.43**
Assessment This tree presents open wounding and swelling lower stem. This tree would require level 3 assessment (internal diagnostics) to provide further details on the internal issue and thereby Development impacts.											**Development impact** See Section 7.1	
437	*Casuarina glauca* Swamp Sheoak	10	0.24 0.13	5 x 6	M	I	SW	A	**1A**	**Medium**	**3.28**	**1.92**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
438	*Eucalyptus saligna x botryoides* Wollongong Woollybutt[A]	15	0.54	10 x 10	M	C	NE	A	**1A**	**Medium**	**6.48**	**2.55**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
439	*Casuarina glauca* Swamp Sheoak	13	0.35	5 x 5	M	C	Sym	A	**1B**	**Medium**	**4.20**	**2.13**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
440	*Eucalyptus saligna* Sydney Blue Gum	12	0.76	9 x 10	M	C	Sym	A	**1B**	**Medium**	**9.12**	**2.95**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
441	*Eucalyptus saligna* Sydney Blue Gum	12	0.40	5 x 8	M	C	Sym	A	**1B**	**Medium**	**4.80**	**2.25**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
442	*Casuarina cunninghamiana* River Oak[A]	11	0.39	8 x 8	M	C	W	A	**1A**	**Medium**	**4.68**	**2.23**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
443	*Lophostemon confertus* Brush Box	9	0.32	6 x 6	M	I	Sym	A	**1B**	**Medium**	**3.84**	**2.05**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
444	*Eucalyptus saligna x botryoides* Wollongong Woollybutt	16	0.59	11 x 12	M	C	Sym	A	**1B**	**Medium**	**7.08**	**2.65**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
445	*Eucalyptus saligna x botryoides* Wollongong Woollybutt	16	0.57	11 x 12	M	C	Sym	A, B	**2A**	**Medium**	**6.84**	**2.61**
Assessment This tree presents as typical for the species, however minor decline is evident.											**Development impact** See Section 7.1	
446	*Lophostemon confertus* Brush Box	8	0.29	5 x 6	M	I	W	A	**1B**	**Medium**	**3.48**	**1.97**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
447	*Eucalyptus saligna x botryoides* Wollongong Woollybutt	16	0.49[B]	8 x 16	M	C	Sym	A	**1B**	**Medium**	**5.88**	**2.45**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
448	*Eucalyptus saligna x botryoides* Wollongong Woollybutt	14	0.45	8 x 9	M	C	NE	A	**1B**	**Medium**	**5.40**	**2.37**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
449	*Eucalyptus saligna x botryoides* Wollongong Woollybutt	17	0.50	9 x 8	M	C	E	A	**1B**	**Medium**	**6.00**	**2.47**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
450	*Eucalyptus tereticornis* Forest Red Gum	8	0.20	3 x 3	Y	D	Sym	A	**1A**	**Medium**	**2.40**	**1.68**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
451	*Eucalyptus tereticornis* Forest Red Gum	9	0.21	3 x 3	Y	I	Sym	A-B	**2A**	**Medium**	**2.52**	**1.72**
Assessment This tree presents abnormally small foliage.											**Development impact** See Section 7.1	
452	*Eucalyptus tereticornis* Forest Red Gum	8	0.20	3 x 3	Y	D	NE	A	**2A**	**Medium**	**2.40**	**1.68**
Assessment This tree presents abnormally small foliage.											**Development impact** See Section 7.1	
453	*Casuarina glauca* Swamp Sheoak	9	0.24	4 x 4	M	C	Sym	A	**1A**	**Medium**	**2.88**	**1.82**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
454	*Eucalyptus saligna* Sydney Blue Gum	15	0.53	12 x 12	M	C	Sym	A	**1B**	**Medium**	**6.36**	**2.53**
Assessment This tree presents a small, aged wound at 3m, north eastern side.											**Development impact** See Section 7.1	
455	*Eucalyptus saligna* Sydney Blue Gum	14	0.38	8 x 9	M	C	Sym	A	**1B**	**Medium**	**4.56**	**2.20**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
456	*Eucalyptus saligna* Sydney Blue Gum	16	0.45	9 x 11	M	C	Sym	A	**1B**	**Medium**	**5.40**	**2.37**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
457	*Casuarina glauca* Swamp Sheoak	11	0.25	4 x 4	M	C	Sym	A	**1A**	**Medium**	**3.00**	**1.85**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
458	*Eucalyptus saligna* Sydney Blue Gum[A]	11	0.33	6 x 8	M	C	W	A	**1B**	**Medium**	**3.96**	**2.08**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
459	*Casuarina glauca* Swamp Sheoak	9	0.24	4 x 5	M	I	E	A	**1B**	**Medium**	**2.88**	**1.82**
Assessment This tree presents as typical for the species. Vine is encroaching.											**Development impact** See Section 7.1	
460	*Eucalyptus saligna* Sydney Blue Gum	15	0.41	7 x 7	M	C	W	A	**2D**[C,E]	**Medium**	**4.92**	**2.28**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree presents significant swelling lower stem. This tree would require level 3 assessment (internal diagnostics) to provide further details on the internal issue and thereby Development impacts.											**Development impact** See Section 7.1	
461	*Eucalyptus saligna* Sydney Blue Gum	12	0.30	3 x 5	M	I	W	A	**1B**	**Medium**	**3.60**	**2.00**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
462	*Casuarina glauca* Swamp Sheoak	10	0.30	3 x 3	M	S	Sym	A	**1B**	**Medium**	**3.60**	**2.00**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
463	*Eucalyptus saligna* Sydney Blue Gum	14	0.36	7 x 8	M	C	Sym	A	**1B**	**Medium**	**4.32**	**2.15**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
464	*Casuarina glauca* Swamp Sheoak	12	0.27	3 x 4	M	I	W	A	**1B**	**Medium**	**3.24**	**1.91**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
465	*Eucalyptus saligna* Sydney Blue Gum	13	0.28	5 x 6	M	I	NE	A	**1B**	**Medium**	**3.36**	**1.94**
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
466	*Eucalyptus robusta* Swamp Mahogany	10	0.56	7 x 9	M	C	E	A, B	**2A**	**Medium**	**6.72**	**2.59**
Assessment This tree presents as typical for the species, however minor decline is evident.											**Development impact** See Section 7.1	
467	*Casuarina glauca* Swamp Sheoak	7	0.20	3 x 3	M	D	Sym	A	**1A**	**Medium**	**2.40**	**1.68**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree presents as typical for the species.											**Development impact** See Section 7.1	
468	*Casuarina glauca* Swamp Sheoak	10	0.26	2 x 3	M	C	Sym	A	**1A**	**Medium**	**3.12**	**1.88**
Assessment This tree is one of a large grove of approximately 22.											**Development impact** See Section 7.1	
475	*Glochidion ferdinandi* Cheese Tree	5	0.17[B]	5 x 4	Y	C	W	A	**1A**	**Medium**	**2.04**	**1.57**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
476	*Corymbia maculata* Spotted Gum	7	0.22	4 x 4	Y	C	N	A	**1A**	**Medium**	**2.64**	**1.75**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
477	*Casuarina glauca* Swamp Sheoak	8	0.19	3 x 3	Y	D	Sym	A	**1A**	**Medium**	**2.28**	**1.65**
Assessment This is a closely planted group of three trees of similar size within 2m spacings.											**Development impact** See Section 7.1	
478	*Corymbia maculata* Spotted Gum	11	0.32	6 x 6	M	C	N	A	**1A**	**Medium**	**3.84**	**2.05**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
481	*Casuarina glauca* Swamp Sheoak	7	0.15	2 x 2	Y	I	Sym	A	**1A**	**Low**	**1.80**	**1.49**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
482	*Acacia maidenii* Maidens Wattle	9	0.35	6 x 6	M	C	NW	A	**2A**	**Medium**	**4.20**	**2.13**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
483	*Acacia maidenii* Maidens Wattle	10	0.35	6 x 6	M	I	NW	A	**2A**	**Medium**	**4.20**	**2.13**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
484	*Casuarina glauca* Swamp Sheoak	10	0.25	3 x 3	M	F	Sym	A	**2A**	**Medium**	**3.00**	**1.85**
Assessment This is a group of ten trees extending across the top of bank											**Development impact** See Section 7.1	
485	*Eucalyptus robusta* Swamp Mahogany	11	0.43	12 x 7	M	C	W	A	**1A**	**High**	**5.16**	**2.32**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
486	*Eucalyptus robusta* Swamp Mahogany	11	0.46 0.32	6 x 9	M	C	E	A	**1A**	**High**	**6.72**	**2.59**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
487	*Corymbia maculata* Spotted Gum	15	0.37	8 x 8	M	D	Sym	A	**1A**	**Medium**	**4.44**	**2.18**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
488	*Corymbia maculata* Spotted Gum	9	0.38	5 x 5	M	D	Sym	A	**1A**	**High**	**4.56**	**2.20**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
489	*Corymbia maculata* Spotted Gum	15	0.42	12 x 12	M	D	Sym	A	**1A**	**High**	**5.04**	**2.30**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
490	*Eucalyptus scoparia* Wallangarra White Gum	17	0.68 0.37	15 x 15	M	D	Sym	B	**2D**[E]	**Medium**	**9.29**	**2.97**
Assessment This tree provides the habit typical for the species, the crown mass is partial and provides symptoms supporting a pathogen infection.											**Development impact** See Section 7.1	
491	*Corymbia maculata* Spotted Gum	17	0.49	9 x 9	M	I	Sym	A	**1A**	**High**	**5.88**	**2.45**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
492	*Corymbia maculata* Spotted Gum	14	0.26	5 x 5	M	I	SE	A	**2A**	**Medium**	**3.12**	**1.88**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
493	*Eucalyptus scoparia* Wallangarra White Gum	11	0.41	7 x 8	M	S	E	B	**2D**[E]	**Medium**	**4.92**	**2.28**
Assessment This tree provides the habit typical for the species, the crown mass is partial and provides symptoms supporting a pathogen infection.											**Development impact** See Section 7.1	
494	*Melaleuca quinquenervia* Broad Leaf Paperbark[A]	9	0.34	3 x 3	M	C	Sym	A	**2A**[C]	**Medium**	**4.08**	**2.10**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
503	*Syncarpia glomulifera* Turpentine	12	0.30	6 x 6	M	I	E	A	**1A**	**Medium**	**3.60**	**2.00**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
504	*Syncarpia glomulifera* Turpentine	20	0.66 0.86	14 x 13	M	D	Sym	A	**1A**[C]	**High**	**13.01**	**3.42**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
584	*Syncarpia glomulifera* Turpentine	12	0.23	2 x 2	M	F	Sym	A	**1A**	**High**	**2.76**	**1.79**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
624	*Eucalyptus tereticornis* Forest Red Gum	17	0.32	9 x 9	M	C	N	A	**1A**[C]	**High**	**4.35**	**2.10**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
625	*Casuarina glauca* Swamp Sheoak	16	0.35	4 x 4	M	F	Sym	A	**1A**[C]	**High**	**4.41**	**2.15**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
626	*Eucalyptus tereticornis* Forest Red Gum	14	0.22	5 x 4	M	I	S	A	**1A**	**Medium**	**2.64**	**1.75**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
627	*Eucalyptus tereticornis* Forest Red Gum[A]	14	0.39	5 x 5	M	F	Sym	A	**2D**[E]	**Medium**[E]	**4.68**	**2.23**
Assessment Initially two leaders, a large tearout wound exists northern side.											**Development impact** See Section 7.1	
628	*Eucalyptus tereticornis* Forest Red Gum[A]	15	0.31	5 x 6	M	I	E	A	**1A**	**High**	**3.72**	**2.02**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
629	*Casuarina glauca* Swamp Sheoak	15	0.42	6 x 6	M	I	Sym	A	**2A**[C]	**Medium**[C]	**5.04**	**2.30**
Assessment This tree provides the habit typical for the species. Half vine clad.											**Development impact** See Section 7.1	
630	*Casuarina glauca* Swamp Sheoak	16	0.35 0.25	5 x 5	M	I	Sym	A	**2A**	**Medium**	**5.16**	**2.32**
Assessment This tree provides the habit typical for the species. Half vine clad.											**Development impact** See Section 7.1	
631	*Eucalyptus tereticornis* Forest Red Gum	18	0.45	6 x 9	M	I	Sym	A	**1A**[C]	**High**[C]	**5.40**	**2.37**
Assessment This tree provides the habit typical for the species. Half vine clad.											**Development impact** See Section 7.1	
632	*Casuarina glauca* Swamp Sheoak	16	0.55[B]	8 x 6	M	C	N	A	**2A**[C]	**Medium**	**6.60**	**2.57**
Assessment This tree provides the habit typical for the species, composed of 6 leaders from 1.2m high stem.											**Development impact** See Section 7.1	
633	*Eucalyptus tereticornis* Forest Red Gum[A]	19	0.41	6 x 8	M	C	N	A	**1A**[C]	**High**[C]	**4.92**	**2.28**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
647	*Glochidion ferdinandi* Cheese Tree	7	0.25	6 x 6	M	D	Sym	B	**2A**	**Medium**	**3.00**	**1.85**
Assessment Composed of 5 leaders, ranging 0.1-0.18m in diameter, reduced leaf, partial crown density.											**Development impact** See Section 7.1	
648	*Melaleuca armillaris* Bracelet Honey Myrtle[A]	6	0.15 0.21[B]	4 x 5	M	D	Sym	B	**2A**	**Medium**	**3.10**	**1.87**
Assessment This tree provides the habit typical for the species, broad sprawling, and multiple leaders.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
649	*Pittosporum undulatum* Sweet Pittosporum	6	0.13	3 x 3	Y	C	W	A	**1A**	**Medium**	**1.56**	**1.40**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
650	*Glochidion ferdinandi* Cheese Tree	8	0.30	6 x 3	M	I	Sym	A	**2A**	**Medium**	**3.60**	**2.00**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
651	*Glochidion ferdinandi* Cheese Tree	8	0.13	6 x 6	Y	F	Sym	A	**2A**	**Medium**	**1.56**	**1.40**
Assessment This is a group planting of five trees of this species and size within an area of 2m.											**Development impact** See Section 7.1	
652	*Acacia maidenii* Maidens Wattle	7	0.41	6 x 5	M	I	S	A	**3A**	**Low**	**4.92**	**2.28**
Assessment This tree provides the habit typical for the species, near suppressed.											**Development impact** See Section 7.1	
653	*Pittosporum undulatum* Sweet Pittosporum	6	0.18	3 x 3	M	I	W	A	**2A**	**Medium**	**2.16**	**1.61**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
654	*Pittosporum undulatum* Sweet Pittosporum	9	0.28	5 x 5	M	I	Sym	A	**1A**	**Medium**	**3.36**	**1.94**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
655	*Glochidion ferdinandi* Cheese Tree	9	0.41	6 x 7	M	I	Sym	A	**1A**	**High**	**4.92**	**2.28**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree provides the habit typical for the species, vines in crown.											**Development impact** See Section 7.1	
791	*Corymbia maculata* Spotted Gum	13	0.37	4 x 6	M	C	S	A	**1A**	**Medium**	**4.44**	**2.18**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
792	*Corymbia maculata* Spotted Gum	15	0.59	12 x 12	M	D	Sym	A	**1A**	**High**	**7.08**	**2.65**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
793	*Corymbia maculata* Spotted Gum	8	0.15	2 x 4	Y	S	Sym	A	**2A**	**Low**	**1.80**	**1.49**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
794	*Corymbia maculata* Spotted Gum	9	0.29	4 x 5	M	C	W	A	**1A**	**Medium**	**3.48**	**1.97**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
795	*Corymbia maculata* Spotted Gum	10	0.42	8 x 6	M	D	Sym	A	**1A**	**Medium**	**5.04**	**2.30**
Assessment 795, lower secondary branch failre											**Development impact** See Section 7.1	
796	*Grevillia robusta* Silky Oak	12	0.42	11 x 8	M	C	E	A	**2A**	**Medium**	**5.04**	**2.30**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
797	*Melaleuca quinquenervia* Broad Leaf Paperbark	7	0.21	3 x 2	Y	F	Sym	A	**1A**	**Medium**	**2.52**	**1.72**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
798	*Melaleuca quinquenervia* Broad Leaf Paperbark	15	0.59[B]	10 x 10	M	D	Sym	A	**1A**	**High**	**7.08**	**2.65**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
799	*Pittosporum undulatum* Sweet Pittosporum	5	0.25	4 x 6	M	S	N	A	**2A**	**Medium**	**3.00**	**1.85**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
800	*Melaleuca quinquenervia* Broad Leaf Paperbark	7	0.21	3 x 3	M	I	Sym	A	**1A**	**Medium**	**2.52**	**1.72**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
801	*Melaleuca quinquenervia* Broad Leaf Paperbark	5	0.18	3 x 2	Y	C	S	A	**2A**	**Low**	**2.16**	**1.61**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
802	*Eucalyptus cladocalyx* Sugar Gum	15	0.75	15 x 15	M	D	Sym	B	**4C**	**Low**	**9.00**	**2.93**
Assessment Poor form, extensive decay, numerous failures , six brackets (*Phellinus*) existing risk for failure. This tree will require removal before works proceed and target zones introduced.											**Development impact** See Section 7.1	
803	*Melaleuca armillaris* Bracelet Honey Myrtle	4	0.45	3 x 2	M	C	E	A	**4A**	**Low**	**3.80**	**2.19**

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
Assessment Poor form, , adjacent Bracelet Honey Myrtle (not included in this assessment) has failed onto this tree causing partial failure and fracture.											**Development impact** See Section 7.1	
804	*Eucalyptus nicholii* Black Peppermint	16	0.48	5 x 4	M	F	NE	A	**3A**[C]	**Low**	**5.76**	**2.43**
Assessment Typical form, ailing structure, wounding suggestive of a stem crack.											**Development impact** See Section 7.1	
805	*Eucalyptus nicholii* Black Peppermint	8	0.50	3 x 2	M	C	Sym	B	**4A**	**Low**	**6.00**	**2.47**
Assessment Poor form, the entire crown has been removed, trunk only remains covered in epicormic growth.											**Development impact** See Section 7.1	
806	*Eucalyptus cladocalyx* Sugar Gum[A]	16	0.49	8 x 10	M	C	E	A	**2D**[E]	**Medium**	**5.88**	**2.45**
Assessment Typical form, a single bracket (*Phellinus*) exists and supports active decay within the tree, although the related risk and useful life expectancy are unknown without further assessment.											**Development impact** See Section 7.1	
807	*Eucalyptus cladocalyx* Sugar Gum	13	0.32	5 x 5	M	I	Sym	A	**2D**[D]	**Medium**	**3.84**	**2.05**
Assessment Has been composed of two leaders, although one has failed. Wounds from past failures, partially vine covered has obscured the assessment, wound on stem, symptoms suggesting decay infection.											**Development impact** See Section 7.1	
808	*Melaleuca quinquenervia* Broad Leaf Paperbark	7	0.14	2 x 2	M	F	Sym	A	**2A**	**Medium**	**1.68**	**1.45**
Assessment Typical habit for the species.											**Development impact** See Section 7.1	
809	*Eucalyptus cladocalyx* Sugar Gum	15	0.33	7 x 5	M	I	Sym	B	**4C**	**Low**	**3.96**	**2.08**
Assessment Typical form, symptoms suggesting past lightning strike, one of two leaders is dead, a single bracket (*Phellinus*) exists and											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
supports active decay within the tree, although the related risk and useful life expectancy are unknown without further assessment.												
810	*Eucalyptus cladocalyx* Sugar Gum	18	0.56	9 x 9	M	I	Sym	A	**2A**[E]	**Medium**	**6.72**	**2.59**
Assessment Several large stubs and wounds from past failures, symptoms supporting possible windthrow, wound on stem, symptoms suggesting decay infection.											**Development impact** See Section 7.1	
811	*Melaleuca quinquenervia* Broad Leaf Paperbark	7	0.17	1 x 1	Y	F	W	A	**2A**	**Low**	**2.04**	**1.57**
Assessment This tree provides the habit typical for the species.											**Development impact** See Section 7.1	
812	*Eucalyptus cladocalyx* Sugar Gum	10	0.65[B,C]	5 x 5	M	C	E	B	**4A**	**Low**	**7.80**	**2.76**
Assessment Composed of five leaders, three have been lopped, and contain epicormic growth, and the remaining leaders are dead. This tree provides poor form.											**Development impact** See Section 7.1	
813	*Eucalyptus cladocalyx* Sugar Gum	18	0.61	15 x 15	M	D	Sym	A	**2A**	**Medium**	**7.32**	**2.69**
Assessment Typical form for the species.											**Development impact** See Section 7.1	
814	*Eucalyptus cladocalyx* Sugar Gum	16	0.58	13 x 16	M	C	N	A	**2A**	**Medium**	**6.96**	**2.63**
Assessment Entire tree bows horizontal towards the north.											**Development impact** See Section 7.1	
815	*Eucalyptus cladocalyx* Sugar Gum	8	0.36	4 x 9	M	C	W	A	**2D**[E]	**Low**[E]	**4.32**	**2.15**
Assessment Entire tree bows horizontal towards the west, several wounds throughout crown structure, symptoms of decay.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
816	*Callistemon viminalis* Weeping Red Bottlebrush	7	0.40[B]	5 x 7	M	C	N	A	**2A**	**Medium**	**4.80**	**2.25**
Assessment Composed of two leaders, representative of a large shrub, possible coppiced regrowth.											**Development impact** See Section 7.1	
817	*Eucalyptus cladocalyx* Sugar Gum	13	0.43	7 x 7	M	S	E	A	**3A[E]**	**Low[E]**	**5.16**	**2.32**
Assessment The entire leader has failed, the remaining structure presents poor form.											**Development impact** See Section 7.1	
818	*Melaleuca quinquenervia* Broad Leaf Paperbark	6	0.14 0.14	3 x 2	M	C	Sym	A	**2A**	**Low**	**2.38**	**1.68**
Assessment Typical form for the species.											**Development impact** See Section 7.1	
819	*Eucalyptus cladocalyx* Sugar Gum	10	0.58	4 x 9	M	D	W	A	**4A**	**Low**	**6.96**	**2.63**
Assessment Two thirds of the tree has failed from decay. The remaining structure presents poor form.											**Development impact** See Section 7.1	
820	*Melaleuca quinquenervia* Broad Leaf Paperbark	8	0.22	4 x 2	M	F	Sym	A	**2A**	**Medium**	**2.64**	**1.75**
Assessment Typical form for the species.											**Development impact** See Section 7.1	
821	*Eucalyptus cladocalyx* Sugar Gum	15	0.50	6 x 16	M	D	Sym	A	**2D[E]**	**Medium[E]**	**6.00**	**2.47**
Assessment Large wounds from past failure and decay column, symptoms suggesting decay infection.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
822	*Melaleuca quinquenervia* Broad Leaf Paperbark	7	0.23	4 x 4	M	D	Sym	A	**1A**	**Medium**	**2.76**	**1.79**
Assessment Typical form for the species.											**Development impact** See Section 7.1	
823	*Eucalyptus cladocalyx* Sugar Gum	8	0.33	2 x 6	M	C	S	B	**4A**	**Low**	**3.96**	**2.08**
Assessment Typical form for the species.											**Development impact** See Section 7.1	
824	*Melaleuca quinquenervia* Broad Leaf Paperbark	7	0.23	4 x 3	M	C	E	A	**2A**	**Medium**	**2.76**	**1.79**
Assessment Typical form for the species.											**Development impact** See Section 7.1	
825	*Eucalyptus cladocalyx* Sugar Gum	17	0.84	9 x 19	M	D	Sym	A	**2A**	**Medium**	**10.08**	**3.08**
Assessment Typical form for the species.											**Development impact** See Section 7.1	
826	*Eucalyptus cladocalyx* Sugar Gum	13	0.41	6 x 11	M	C	E	B	**4C**	**Low**	**4.92**	**2.28**
Assessment Part of the tree has failed from decay. The remaining structure presents poor form.											**Development impact** See Section 7.1	
827	*Eucalyptus cladocalyx* Sugar Gum	9	0.37	5 x 12	M	I	E	A	**3A**	**Low**	**4.44**	**2.18**
Assessment Part of the tree has failed from decay. The remaining structure presents poor form.											**Development impact** See Section 7.1	
828	*Eucalyptus cladocalyx* Sugar Gum	16	0.41	5 x 10	M	I	E	B	**2D**^{C}	**Medium**	**4.92**	**2.28**
Assessment Typical form for the species.											**Development impact** See Section 7.1	

Tree No.	Botanical Name Common Name	Height (m)	DSH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality Rating	SULE Rating	STARS Rating	NRZ	SRZ
829	*Eucalyptus saligna*[A] Sydney Blue Gum	17	0.65 0.45[C]	12 x 7	M	D	Sym.	A	**2A**[C]	**Medium**	**9.49**	**3.00**
Assessment Typical form for the species.											**Development impact** See Section 7.1	
830	*Eucalyptus saligna*[A] Sydney Blue Gum	15	0.40 0.40[C]	6 x 6	M	C	SE	A	**2A**[C]	**Medium**[C]	**6.79**	**2.61**
Assessment Typical form for the species.											**Development impact** See Section 7.1	
831	*Eucalyptus saligna*[A] Sydney Blue Gum	12	0.45	4 x 7	M	C	S	A	**2A**[C]	**Medium**[C]	**5.40**	**2.37**
Assessment Typical form for the species.											**Development impact** See Section 7.1	

[A.] Incomplete identification of species due to insufficiently available plant material
[B.] Diameter taken below 1.4m due to low stem bifurcation
[C.] Estimate due to the overgrown area and/or limited access
[D.] Deciduous species, void of foliage at the time of assessment
[E.] Level 3 assessment required to determine the accurate rating

7.0 Site Assessment

The area of assessment is illustrated in Plan 1, Section 5.0, and formed by the blue outline extending around the perimeter of the trees contained in this report. This area is characterized by a predominantly modified landscape, with vegetation dominated by weeds and self-sown species. The predominant planted trees occur along the eastern boundary.

This area is a long bund located behind a chain-link fence that divides the Coke works from the railway corridor. The elevated bund, up to 2m high along the western side and extending north-south along the boundary, drops steeply on the eastern side into a drainage gully within the rail corridor. The majority of introduced plantings are within the Coke works. Due to the fence and the lack of access from the rail corridor, which is constrained by the steep embankment, this area has not been accessed and is unmaintained. The area was recently opened, and a pathway has been cleared for assessment and is accessible only from the southern end. Composed of planted trees, native, however, only some are indigenous to the Illawarra. Extensive weed stock, in particular, African Olive and Lantana exist. The poor access and weed stock has limited the assessment of all trees throughout this area. A fire has occurred in part of this area, resulting in extensive damage to some trees. The predominant species, *E. cladocalyx* displays prolific decline and poor form. Given the lack of access along the rail corridor, all plantings are likely attributable to landscaping by the Coke works. A collection of these trees is located in the rail corridor, although they do not have any available access by Railcorp due to the steep embankment they are growing on. These trees are well removed from the rail infrastructure; therefore, there is no reason for access by *Railcorp*.

7.1 Proposed development; Stage 2a; Built form

The proposed development consists of Stage 2-4 civil works and Stage 2a Built Form proposal, including the construction of four residential flat buildings. This report has been assigned to Stage 2-4 civil and Stage 2a built form works. The landscape drawing set (see Section 4.4.2) has been used for determining the tree impact, see Section 4.3.7. The previous report, including this area, was for the enabling works consisting of the bulk earthworks required for realignment of the water courses, sewer main construction, and roadways. The trees that form conflict with these previously approved works have been included in Table 1 and constitute the same impact as that of the proposed built form, which is included in this report.

The calculations included in the following discussion have not considered;

- subsurface utilities that have not been included in the design,
- Work methods related to subsurface utilities, for example concrete encasing or replacement of existing lines, or
- Work methods related to construction (stockpiling, site sheds, scaffolding) unless otherwise specified.

These may also increase the encroachment and tree impact and therefore the opportunity for tree retention.

Neighbours trees: Trees No. 427, 806, 810, 812, 817, 818, 819, 820, 821, 823, 824, 829, 830, and 831, are located in the adjacent lots, therefore constitute ownership by a second party. Any proposed works within the zones of protection for these trees should not adversely impact these zones, and the trees should be retained and protected from any site works unless consent for removal is granted by the tree owner and Wollongong City Council.

This report discusses the impact of the proposed design on the trees. One hundred and ninety-one (191) trees have been listed within this report based upon the initial scope of works and include the area outlined in Plan 1, Section 5.0.

The following trees contained in Table 1 of this report have been issued consent[8] for removal based on past conflict and the bulk earthworks associated with these Stage 2 works. These are trees No., 201-212, 230-240, 250-266, 396-424, 426, 428-468, 475-478, 481-489, 503, 504, 584, 624-633, 647-655, 797-805, 807-809, 811, 813, 815, 816, and 822, 825-828.

The following trees have consent for retention as part of these past approved works, and are subject to discussion regarding the proposed built form. These are trees No., 425, 427, 490-494, 791-796, 806, 810, 812, 814, 817-821, 823, 824, and 829-831.

Recommendations based on the tree significance and condition, together with the impact on these trees regarding the proposed development (based on the documents contained in Section 4.4) and mitigation where available follow.

7.1.1 Trees and zones of protection (TPZ/SRZ) outside of the proposed design

Trees No. 490-494, 791-796, 806, 817-821, 823, 824, 830, and 831.

None of the proposed works conflict with the location of these trees or respective zones of protection. These trees can be retained without impact by the proposed design.

7.1.2 Trees subject to a minor encroachment

Trees No. 425, 427, 810, 812, and 829.

These trees are not directly located in the footprint of the proposed design, however, are subject to a *minor encroachment*. That is, the proportion (<10%) of encroachment provided by design will not adversely impact on the tree. These trees could be retained relative to the design.

[8] See Drawings, Section 4.4.2

7.2 Protection measures

Tree protection measures will be required during the demolition and construction stage. However, the design of these will be pending the work methodology. The project arborist shall be contracted after the completion/confirmation of design work for the instruction of the protection measures implementation, that is the Arboricultural Method Statement. Examples of the protection measures are contained in Appendix B.

7.2.1 Conditions for compliance

The following conditions are required before any works proceed on site.

Site induction; All workers related to the construction process and before entering the site must be briefed about the requirements/conditions outlined in this report relative to the zone of protection, measures, and specifications before the initiation of work. This is required as part of the site induction process.

Project Arborist; A project arborist who conforms to the requirements of the AS 4970 is required to be nominated immediately after a *Notice of Determination* is issued, and they are to be provided with all related site documents.

7.3 Compliance Documentation

The following stages will require assessment and documentation (report, letter, certification) by the project arborist or person responsible for the specific work type, and the related documentation is to be issued to the principal certifying agent.

7.3.1 Table 2; Assessment/Certification stages

Hold Points	Work type	Document required
Pre-demolition	Installation of the protection measures, Section 7.2	Certificate
During construction	Any further works required within the area of the TPZ, or decline related to the trees that have not been covered by this report.	Report Brief
During construction	Any crown modification including pruning or root disturbance.	Report Brief

Construction refers to the time between the initiation of demolition and until an occupation certificate is issued.

Project Arborist person nominated as responsible for the provision of the tree assessment, arborist report, consultation with stakeholders, and certification for the development project.

This person will be adequately experienced and qualified with a minimum of a level 5 (AQF); Diploma in Horticulture (Arboriculture)[9].

8.0 Protection Specification

The retention and protection of these trees requires the remaining Tree Protection Zone (NRZ) not subject to encroachment to conform to the conditions outlined below. These conditions outline the limitations on work permitted within the Tree Protection Zone (NRZ) and must be adhered to unless otherwise specified.

Any engineering drawings issued as part of the construction certificate must conform with these requirements.

1. Subsurface utilities can extend through the NRZ and Structural Root Zone (SRZ), however, are limited to the method of installation. That is under boring is permitted, however trenching is limited and depends on the proposed route within the NRZ. No trenching is permitted within the area of the NRZ unless stipulated by the project arborist.

2. Soil levels within the NRZ must remain the same. Any excavation within the NRZ must have been previously specified and allowed for by the project arborist:

   a) So it does not alter the drainage to the tree.

   b) Under specified circumstances,

      - Added fill soil does not exceed 100mm in depth over the natural grade. Construction methodologies exist that can allow grade increases in excess of 100mm, via the use of an impervious cover, an approved permeable material or permanent aeration system or other approved methods.

      - Excavation cannot exceed a depth of more than 50mm within the area of the NRZ, not including the SRZ. The grade within the SRZ cannot be reduced without the consent from a project arborist.

3. No form of material or structure, solid or liquid, is to be stored or disposed of within the NRZ.

4. No lighting of fires is permitted within the NRZ.

[9] Based upon the definition of a 'consulting arborist' from the AS 4970; Protection of trees on development sites; 2025, Section 1.4.4, p 6.

5. All drainage runoff, sediment, concrete, mortar slurry, paints, washings, toilet effluent, petroleum products, and any other toxic wastes must be prevented from entering the NRZ.

6. No activity that will cause excessive soil compaction is permitted within the NRZ. That is, machinery, excavators, etc. must refrain from entering the area of the NRZ unless measures have been taken, in consultation with the project arborist.

7. No site sheds, amenities or similar site structures are permitted to be located or extend into the area of the NRZ unless the project arborist provides prior consent.

8. No form of construction work or related activity such as the mixing of concrete, cutting, grinding, generator storage or cleaning of tools is permitted within the NRZ.

9. No part of any tree may be used as an anchorage point, nor should any noticeboard, telephone cable, rope, guy, framework, etc. be attached to any part of a tree.

11. (a) All excavation work within the NRZ will utilise methods to preserve root systems intact and undamaged. Examples of methods permitted are by hand tools, hydraulic, or pneumatic air excavation technology.

(b) Any root unearthed which is less than 50mm in diameter must be cleanly cut and dusted with a fungicide, and not allowed to dry out, with minimum exposure to the air as possible.

(c) Any root unearthed which is greater than 50mm in diameter must be located regarding their directional spread and potential impact. A project arborist will be required to assess the situation and determine future action regarding retaining the tree in a healthy state.

9.0 Summary of tree impact by design

Based on the design supplied (see Section 4.4.2), being the Stage 2a, Built form and civil works, the following summary provides the impacts imposed on the trees included in this report.

9.1 The following trees contained in Table 1 of this report have been issued consent for removal based on past conflict and the bulk earthworks associated with these Stage 2 works. These are trees No., 201-212, 230-240, 250-266, 396-424, 426, 428-468, 475-478, 481-489, 503, 504, 584, 624-633, 647-655, 797-805, 807-809, 811, 813, 815, 816, and 822, 825-828.

9.2 The following trees have consent for retention as part of these past approved works, and the proposed design will not impact these trees and are capable to be retained. These are trees No. 425, 427, 490-494, 791-796, 806, 810, 812, 814, 817-821, 823, 824, and 829-831.

9.3 Protection measures

Protection measures (outlined in Section 7.3 and 7.4) are required to be implemented for the trees nominated for retention (referenced in Section 9.2) and installed before initiation of site works (including demolition/excavation) and retained until the landscaping works are required unless otherwise specified.

All workers related to the construction process and before entering the site must be briefed about the requirements/conditions outlined in this report relative to the zone of protection, measures, and specifications before the initiation of work.

A project arborist is required to be nominated, and the stages and related certification or similar documentation is to be issued to the principal certifying agent.

The opinions expressed in this report by the author have been provided within the capacity of a Consulting Arborist. Any further explanation or details can be provided by contacting the author.

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10.0 Appendix A- Terminology Defined

Height
Is a measure of the vertical distance from the average ground level around the root crown to the top surface of the crown, and on palms - to the apical growth point.

DSH
Diameter at Standard Height – being the stem diameter in meters, measured at 1.4m from ground level, including the thickness of the bark.; Mult. refers to multiple leaders, that is in excess of four leaders.

Crown Spread
A two-dimension linear measurement (in metres) of the crown plan. The first figure is the north-south span, the second being the east-west measurement.

Age
Is the estimate of the specimen's age based upon the expected lifespan of the species. This is divided into three stages.

Young (**Y**)	Trees less than 20% of life expectancy.
Mature (**M**)	Trees aged between 20% to 80% life expectancy.
Over-mature (**O**)	Trees aged over 80% of life expectancy with probable symptoms of senescence.

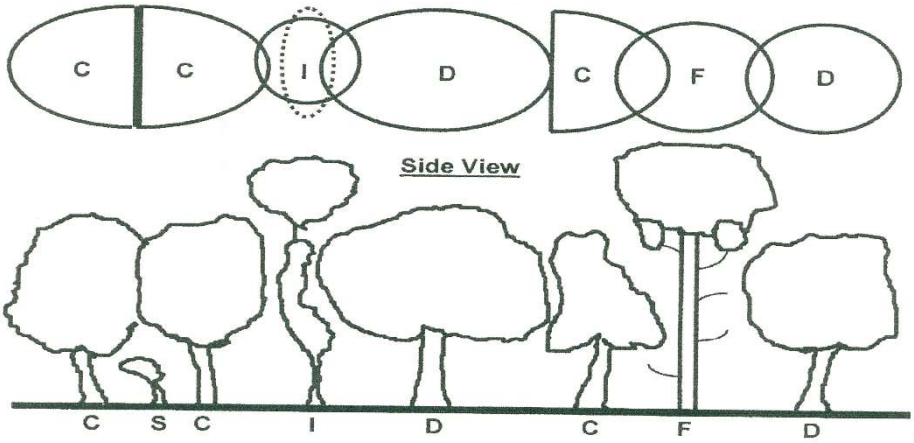
Crown Aspect
In relation to the root crown, this refers to the aspect the majority of the crown resides in. This will be either termed Symmetrical (**Sym**.) where the centre of the crown resides over the root crown or the cardinal direction the centre of the crown is biased towards, being either North (**N**), South (**S**), East (**E**) or West (**W**).

Health Rating
Is a rating of the health (also vitality) of the tree, irrespective and independent of the structural integrity, and defined by the 'ability for a tree to sustain its life processes' (Draper, Richards, 2009). This is based on the assessment of symptoms including, but not limited to; leaf size, colour, crown density, woundwood development, adaptive growth formation, and epicormic growth.
A: Normal vitality, typical for the species
B: Below average vitality, possibly temporary loss of health, partial symptoms.
C: Poor vitality; obvious decline, potentially irreversible

Crown Class
Is the differing crown habits as influenced by the external variables within the surrounding environment. They are:

D	– *Dominant*	Crown is receiving uninterrupted light from above and sides, also known as emergent.
C	– *Codominant*	Crown is receiving light from above and one side of the crown.
I	– *Intermediate*	Crown is receiving light from above but not from the sides of the crown.
S	– *Suppressed*	Crown has been shadowed by the surrounding elements and receives no light from above or sides.
F	– *Forest*	Characterised by an erect, straight stem (usually excurrent) with little stem taper and virtually no branching over the majority of the stem except for the top of the tree, which has a small concentrated branch structure making up the crown.

Top View



D C, I & S, and side view, after (Matheny, N. & Clark, J. R. 1998, Trees Development, Published by International Society of Arboriculture, P.O. Box 3129, Champaign IL 61826-3129 USA, p.20, adapted from the Hazard Tree Assessment Program, Recreation and Park Department, City of San Francisco, California).

Levels of assessment

Level 1: Limited visual: a visual tree assessment to manage large populations of trees within a limited period and in order to identify obvious faults which would be considered imminent.

Level 2: Basic assessment: a standard performed assessment providing for a detailed visual assessment including all parts of the tree and surrounding environment and via the use of simple tools.

Level 3: Advanced assessment: specific type assessments conducted by either arborist who specialise with specific areas of assessment or via the use of specialised equipment. For example, aerial assessment by use of an EWP or rope/harness, or decay detection equipment.

NRZ; Notional Root Zone

It is an area of protection required for maintaining the tree's vitality and long-term viability. Measured in meters as a radius from the centre of where the tree meets the ground. The requirements of this zone are outlined within the Protection Specification, Section 8.0, and are to be adhered to unless otherwise stated.

The size of the Notional Root Zone (NRZ) has been calculated from the *Australian Standard, 4970; 2025 – Protection of Trees on Development Sites*

The **NRZ** does not provide the limit of root extension; however, it offers an area of the root zone that requires predominant protection from development works. The allocated NRZ can be modified by some circumstances (i.e., physical barriers that prevent root extension), however, it will require compensation equivalent to the area loss, elsewhere and adjacent to the NRZ, and will then be referred to as the Tree Protection Zone (**TPZ**).

SRZ; Structural Root Zone

Is the area around the tree containing the woody roots that are necessary for stability. Measured in meters as a radius from where the centre of the tree meets the ground. The requirements of this zone are outlined within the Protection Specification, Section 8.0, and are to be adhered to unless otherwise stated.

Protection Measures

These are required for the protection of trees during demolition/construction activities.
Protective barriers are required to be installed before the initiation of demolition and/or construction and are to be maintained up to the time of landscaping. Samples of the recommended protection measures are illustrated in Appendix B.

All other definitions are referenced from;

Draper D.B., Richards P.A., 2009, Dictionary for Managing Trees in Urban Environments
CSIRO Pub., Australia

Significance Rating, Significance of a Tree Assessment Rating System (S.T.A.R.S), IACA, 2010[10]

Tree Significance – Assessment Criteria

1. High Significance in landscape

- 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 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 vitality;
- 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 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,

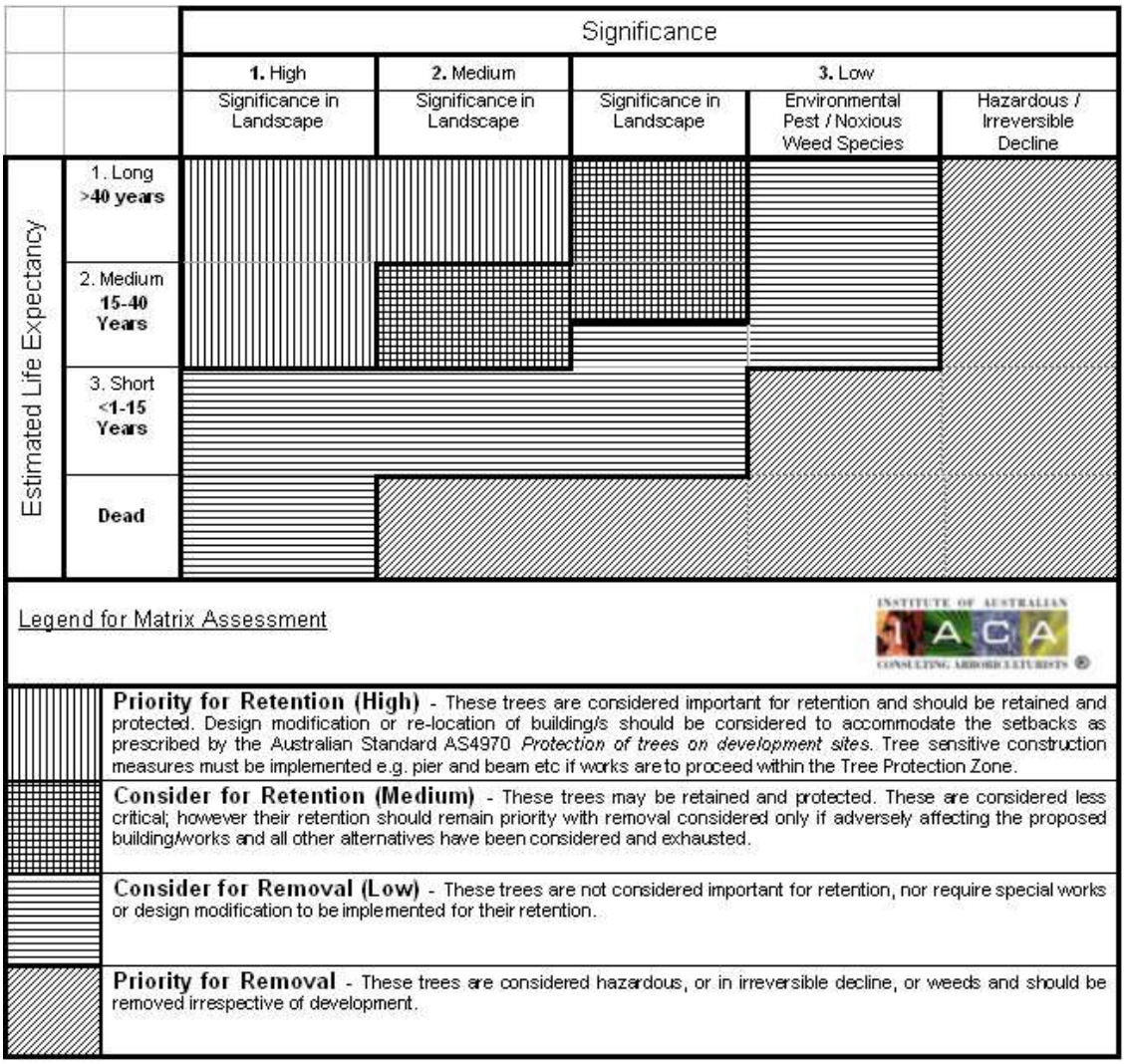
[10] IACA, 2010, IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, www.iaca.org.au

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.

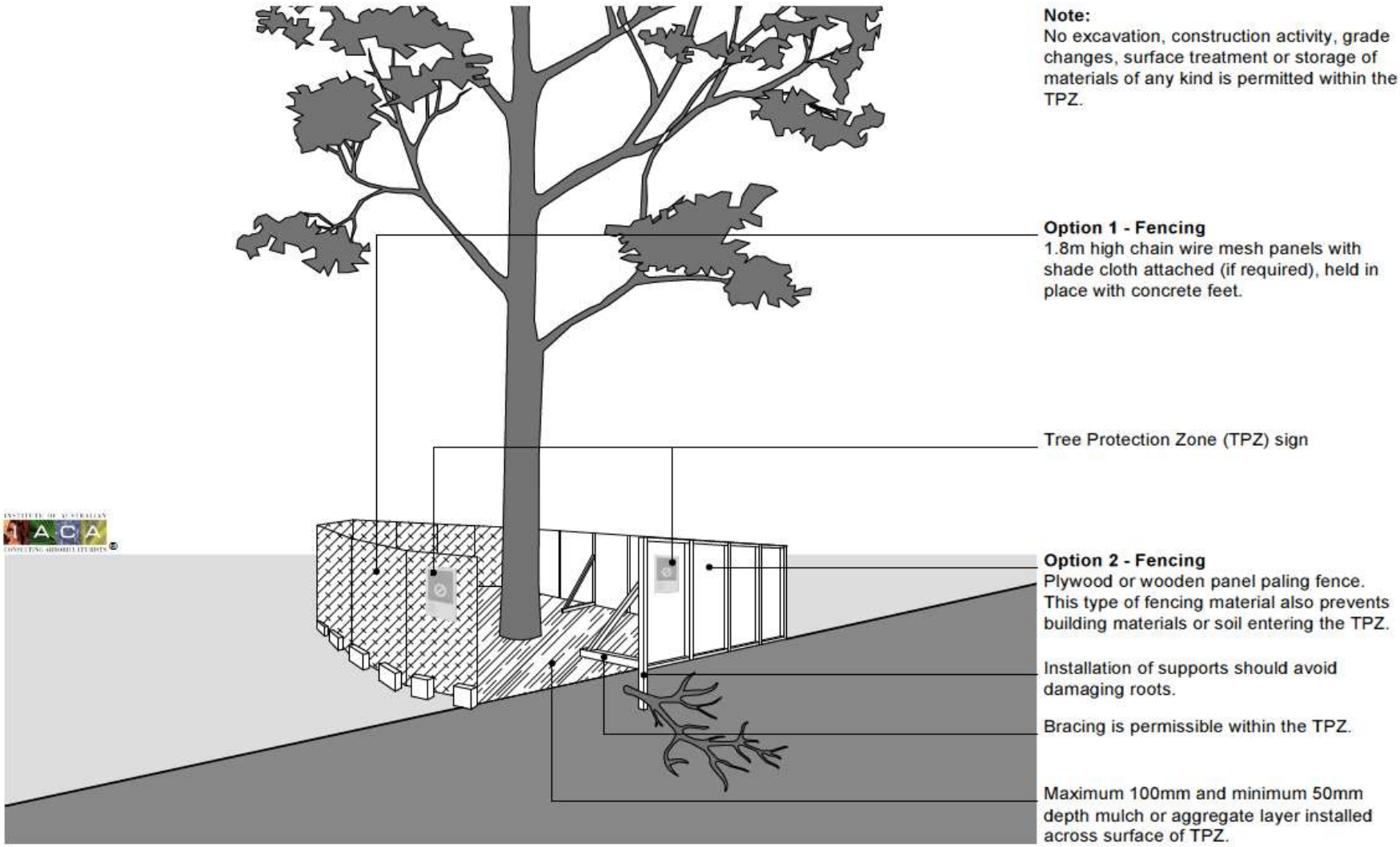
Table 3; Tree Retention Value – Priority Matrix.



Safe Useful Life Expectancy – S.U.L.E (Barell 1995)

	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).	

Appendix B- Protection measures;
Protective fence



Stem and Ground protection