

6 April 2018

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Canopy Tree Experts is a member of the International Society of Arboriculture.

Alan Mann is a member of Arboriculture Australia

Ref: 4551

This is an update of Ref: 3888 Rev A with added information from additional tree assessments

Preliminary Arboricultural Report Goulburn Aquatic Centre and Surrounds

Prepared for:

Shanica Saenrak Hall

Architect DWP Design Worldwide Partnership Level 7 232 Victoria Parade, East Melbourne VIC 3002

Assessment:

• **Date:** 4 April 2018 & 7 December 2018

• Assessment by: Alan Mann & Hayley Crossing

Tree location:

The trees' locations are indicated by number on the Arborists Scope Clarke Keller Markup dated 08.03.2018 on Existing Site Plan (Figure 1). Numbers were added by Alan Mann, Canopy Tree Experts

And:

East Corner Trees Mark Up (Figure 2) and West Corner Trees Mark Up (Figure 3) supplied by Shanica Saenrak Hall

Prepared by:

Alan J Mann

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Quantified Tree Risk Assessment (QTRA) Registered Assessor No. 2845 www.c

Quantified Tree Risk Assessment (QTRA) Registered Assessor No. 2845 www.gtra.co.uk
Tree Risk Assessment Qualification (TRAQ) Qualified Assessor No. 230557 (International Society of Arboriculture) www.isa-arbor.com

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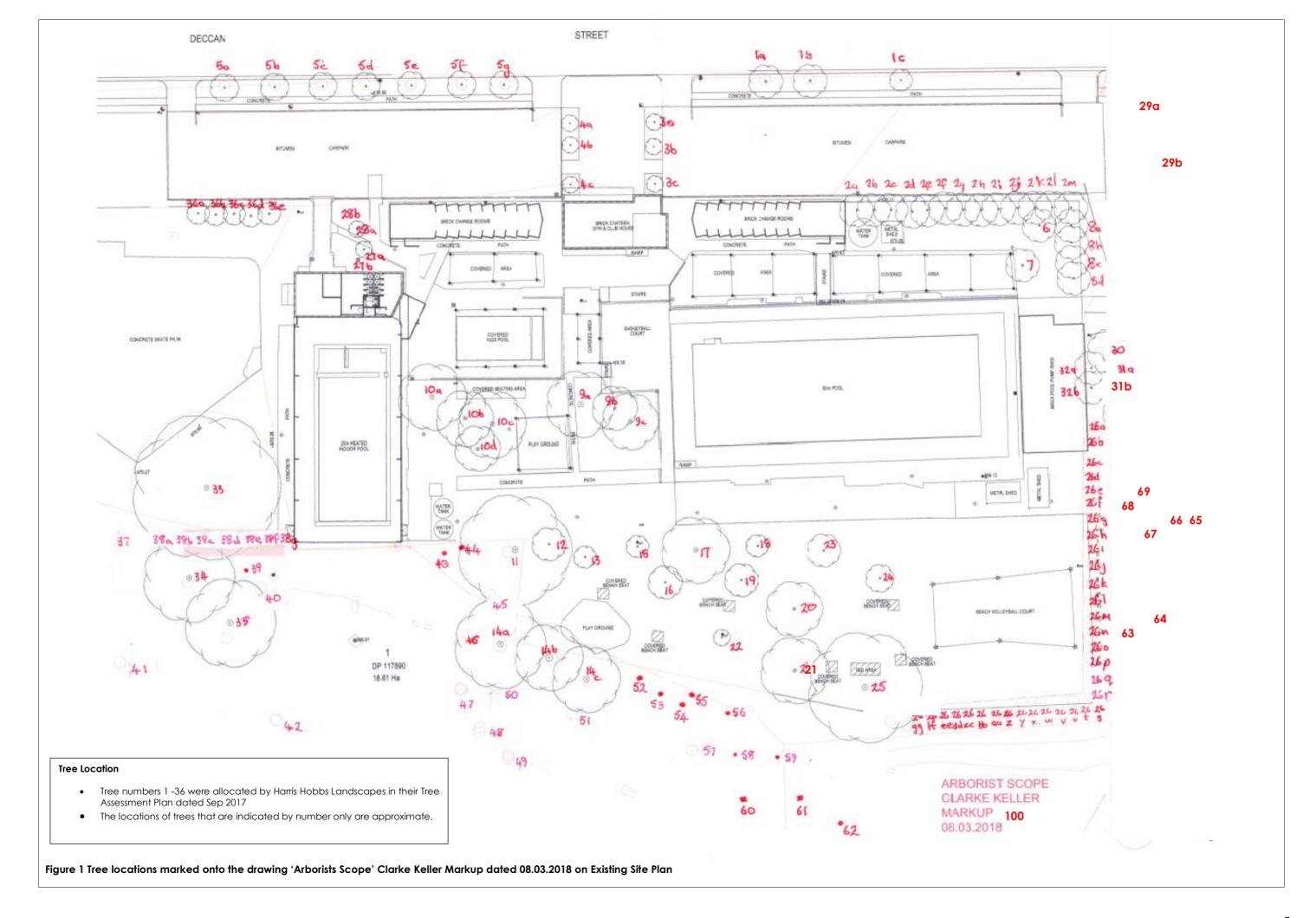
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Tree Numbers

Where trees were allocated a number by Harris Hobbs Landscapes (HHL), that number has been used. Because HHL applied numbers to groups of trees an additional identification has been added by Canopy Tree Experts in the form of a lower-case letter in order to identify individual trees.

Limits

- The inspection of the trees was limited to a visual inspection from ground level. The consultant may recommend further inspections.
 - These notes apply only to the trees listed, and reflect the condition of those trees at the time of inspection.



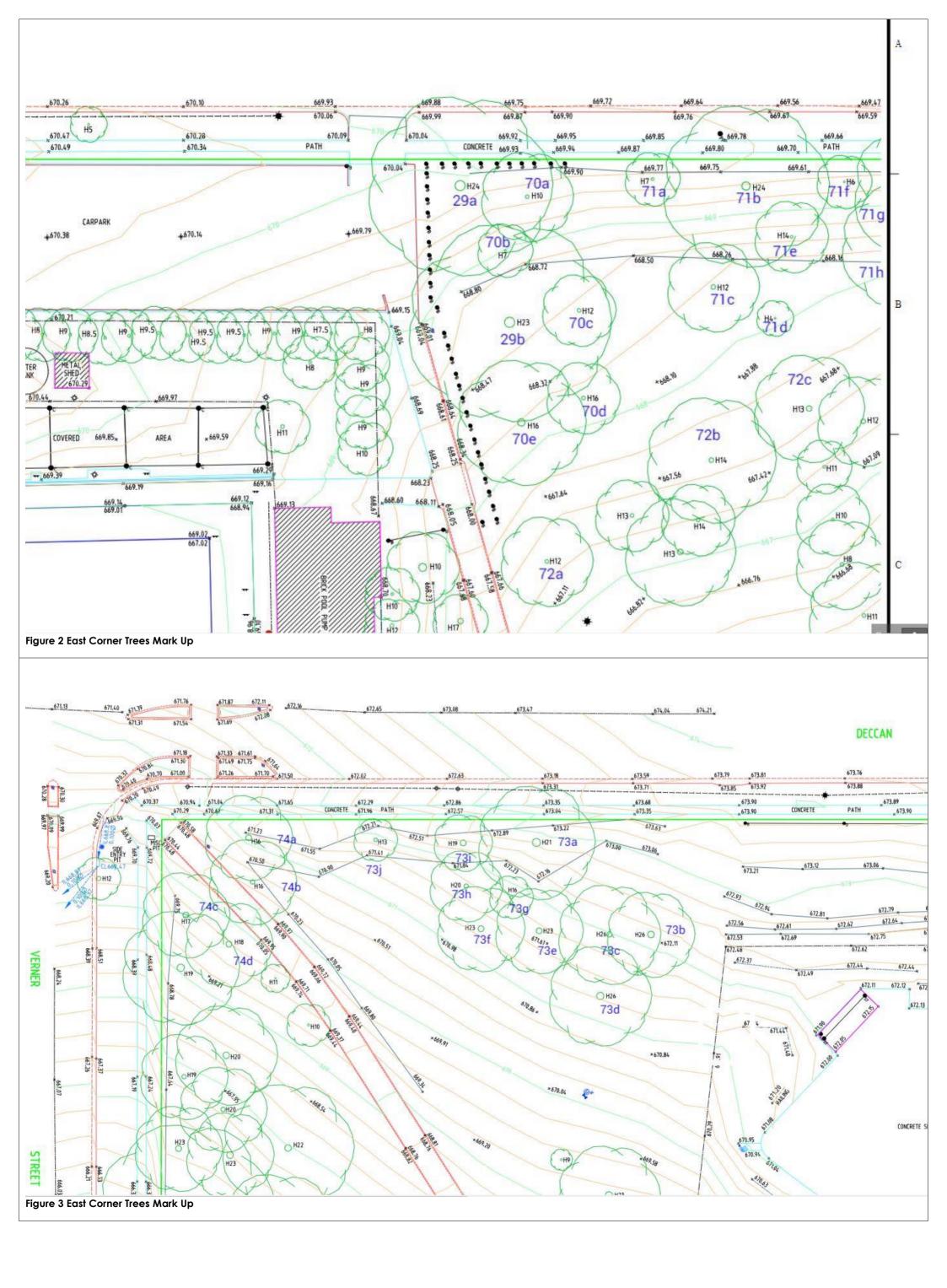


Table 1Tree Schedule - Trees Assessed 4 April 2018

Tree	Species	Height	Canop	y Spread			Health	Structure	Tree	Tree Quality	Comments	Circum	erence	4970			Radius	Radius
Number			North	East	South	West			Protection Status	Classification		1 2	3		4	5	TPZ ⁴⁹⁷⁰	SRZ ⁴⁹⁷⁰
1 a	Liquidambar styraciflua - Sweet gum	7	3	6	4	3	Good	Poor	Street Tree	Medium	Lopped for powerlines - consequently poor form	1.17					4.5	2.4
1 b	Liquidambar styraciflua - Sweet gum	7	3	6	5	3	Good	Poor	Street Tree	Medium	As for 1a	1.13					4.3	2.3
1 c	Liquidambar styraciflua - Sweet gum	5	2	2	3	2	Good	Poor	Street Tree	Medium	As for 1a	0.67					2.6	1.9
2 a	Cupressus torulosa - Bhutan Cypress	8	3	3	3	3	Good	Good		Medium	Possibly planted as a hedge but has been allowed to grow large and been under-pruned	1.33					5.1	2.5
2 b	Cupressus torulosa - Bhutan Cypress	8	2	3	2	3	Good	Good		Medium	As above	1.10					4.2	2.3
2 c	Cupressus torulosa - Bhutan Cypress	7	2	3	2	3	Good	Good		Medium	As above	0.99					3.8	2.2
2 d	Cupressus torulosa - Bhutan Cypress	6	2	3	2	3	Good	Good		Medium	As above	0.92					3.5	2.1
2 е	Cupressus torulosa - Bhutan Cypress	7	2	3	2	3	Good	Good		Medium	As above	1.02					3.9	2.2
2 f	Cupressus torulosa - Bhutan Cypress	7	2	3	2	3	Good	Good		Medium	As above	1.00					3.8	2.2
2 g	Cupressus torulosa - Bhutan Cypress	7	2	3	2	3	Good	Good		Medium	As above	1.03					3.9	2.2
2 h	Cupressus torulosa - Bhutan Cypress	7	2	3	2	3	Good	Good		Medium	As above	1.00					3.8	2.2
2 i	Cupressus torulosa - Bhutan Cypress	7	2	3	2	3	Good	Good		Medium	As above	0.95					3.6	2.2
2 j	Cupressus torulosa - Bhutan Cypress	6	1	3	1	3	Good	Good		Medium	As above	0.81					3.1	2.0
2 k	Cupressus torulosa - Bhutan Cypress	6	2	2	2	2	Good	Good		Medium	As above	0.71					2.7	1.9
2	Cupressus torulosa - Bhutan Cypress	5	2	1	1	1	Good	Good		Medium	As above	0.58					2.2	1.8
2 m	Cupressus torulosa - Bhutan Cypress	4	2	2	2	2	Good	Good		Medium	As above	0.64					2.4	1.8
3 a	Pyrus calleryana - Flowering Pear	5	2	2	2	2	Good	Good	Park Tree	Medium	Upright but wider cultivar -possibly 'Bradford'	0.52					2.0	1.7
3 b	Pyrus calleryana - Flowering Pear	4	2	2	2	2	Good	Good	Park Tree	Medium	As for 3a	0.42					1.6	1.5
3 c	Pyrus calleryana - Flowering Pear	5	3	3	3	3	Good	Good	Park Tree	Medium	As for 3a	0.59					2.3	1.8
4 a	Pyrus calleryana - Flowering Pear	4	2	2	2	2	Good	Good	Park Tree	Medium	As for 3a	0.37					1.4	1.5
4 b	Pyrus calleryana - Flowering Pear	5	2	2	2	2	Good	Good	Park Tree	Medium	As for 3a	0.52					2.0	1.7
4 c	Pyrus calleryana - Flowering Pear	6	3	3	3	3	Good	Good	Park Tree	Medium	As for 3a	0.66					2.5	1.9
5 a	Liquidambar styraciflua - Sweet gum	5	3	3	3	3	Good	Poor	Street Tree	Medium	Lopped for powerlines - consequently poor form	1.00					3.8	2.2
5 b	Liquidambar styraciflua - Sweet gum	4	4	4	2	2	Good	Poor	Street Tree	Medium	Lopped for powerlines - consequently poor form	0.77					2.9	2.0
5 c	Liquidambar styraciflua - Sweet gum	5	3	4	4	1	Good	Poor	Street Tree	Medium	As for 5a	0.84					3.2	2.1
5 d	Liquidambar styraciflua - Sweet gum	5	3	5	4	2	Good	Poor	Street Tree	Poor	As for 5a, some dieback	0.92					3.5	2.1
5 е	Liquidambar styraciflua - Sweet gum	5	3	5	5	3	Good	Poor	Street Tree	Medium	As for 5a	1.04					4.0	2.2
5 f	Liquidambar styraciflua - Sweet gum	5	4	5	4	2	Poor	Poor	Street Tree	Poor	As for 5a, Dieback from lopped points	0.85					3.2	2.1
5 g	Liquidambar styraciflua - Sweet gum	5	6	6	4	3	Good	Poor	Street Tree	Medium	As for 5a	1.34					5.1	2.5
6	Casuarina cunninghamiana - River Oak	7	4	4	4	3	Good	Good	Park Tree	Low		0.83					3.2	2.0
7	Casuarina cunninghamiana - River Oak	10	5	5	5	5	Good	Good	Park Tree	Medium		1.28					4.9	2.5
8 a	Cupressus torulosa - Bhutan Cypress	6	2	2	2	2	Good	Good	Park Tree	Medium	Possibly planted as a hedge but has been allowed to grow large, Under-pruned to 2m	0.60					2.3	1.8

Tree Number	Species	Height	Canop	y Spread			Health	Structure	Tree Protection	Tree Quality Classification	Comments	Circu	mfere	nce 49	70		Radius TPZ ⁴⁹⁷⁰	Radius SRZ ⁴⁹⁷⁰
Nombon			North	East	South	West			Status	Classification		1	2	3	4	5	_ ''' _	JAZ
8 b	Cupressus torulosa - Bhutan Cypress	7	2	2	2	2	Good	Good	Park Tree	Medium	As for 8a	0.68					2.6	1.9
8 c	Cupressus torulosa - Bhutan Cypress	8	3	2	3	2	Good	Good	Park Tree	Medium	As for 8a	0.92					3.5	2.1
8 d	Cupressus torulosa - Bhutan Cypress	8	4	3	4	2	Good	Good	Park Tree	Medium	As for 8a	1.17					4.5	2.4
9 a	Casuarina cunninghamiana - River Oak	18	6	7	6	7	Very Good	Good	Park Tree	High	Really good shade	2.45					9.4	3.2
9 b	Casuarina cunninghamiana - River Oak	15	5	4	2	5	Very Good	Good	Park Tree	High	Really good shade	1.30					5.0	2.5
9 C	Casuarina cunninghamiana - River Oak	17	6	6	5	5	Very Good	Good	Park Tree	High	Really good shade	1.77					6.8	2.8
10 a	Casuarina cunninghamiana - River Oak	18	8	8	8	8	Very Good	Good	Park Tree	High	Really good shade	2.25					8.6	3.1
10 b	Casuarina cunninghamiana - River Oak	18	3	5	5	5	Very Good	Good	Park Tree	High	Canopy shape effected by others	1.42					5.4	2.6
10 c	Casuarina cunninghamiana - River Oak	18	7	7	4	8	Very Good	Good		High	Really good shade	2.10					8.0	3.0
10 d	Casuarina cunninghamiana - River Oak	18	7	7	8	4	Very Good	Good		High	Really good shade	1.67					6.4	2.7
11	Eucalyptus viminalis - Ribbon Gum	22	8	8	8	8	Good	Good	Park Tree	High	Full examination not possible because ivy growing up trunk to 6m, deadwood present	3.40					13.0	3.7
12	Zelkova serrata	7	5	5	5	5	Good	Good		High		0.60	0.63				3.3	2.1
13	Quercus palustris - Pin Oak	9	4	4	4	4	Good	Good		High		0.60					2.3	1.8
14 a	Eucalyptus delrympleana	24	6	6	9	10	Good	Good	Park Tree	High	Deadwood in canopy, trunk wound at base	2.50					9.6	3.2
14 b	Eucalyptus delrympleana	22	6	6	6	8	Good	Fair	Park Tree	Medium	Deadwood in canopy, tight fork and signs of inclusion	2.50					9.6	3.2
14 C	Eucalyptus delrympleana	18	5	5	5	8	Poor	Fair	Park Tree	Poor	In decline, deadwood present	2.38					9.1	3.2
15	Liquidambar styraciflua - Sweet gum	7	3	3	3	3	Fair	Good		Medium	Memorial tree	0.56					2.1	1.7
16	Pyrus calleryana - Flowering Pear	8	3	5	4	3	Good	Fair		Medium	Tight forks	0.79					3.0	2.0
17	Ulmus procera - English elm	18	7	8	7	7	Fair	Good		High	Elm leaf beetle, lots burls, cause unknown	2.46					9.4	3.2
18	Quercus palustris - Pin Oak	Dead									Tree is dead						0.0	0.0
19	Pyrus ussuriensis - Manchurian Pear	7	5	4	4	4	Good	Fair		Medium		0.98					3.7	2.2
20	Ulmus procera - English elm	10	6	6	6	6	Fair	Good		High	Moderate leaf damage by Elm leaf beetle (Treatable)	1.30					5.0	2.5
21	Ulmus procera - English elm	10	5	5	5	5	Fair	Good		High	Moderate leaf damage by Elm leaf beetle (Treatable)	1.62					6.2	2.7
22	Fraxinus 'Raywood' - Claret Ash	5	2	2	2	2	Fair	Good		Low	Lots of scale with sooty mould - a memorial tree (Treatable)	0.36					1.4	1.4

Tree Number	Species	Height	Canop	y Spread			Health	Structure	Tree Protection	Tree Quality Classification	Comments	Circu	ımfere	nce 493	70		Radius TPZ ⁴⁹⁷⁰	Radius SRZ ⁴⁹⁷⁰
			North	East	South	West			Status			1	2	3	4	5		
23	Quercus bicolor - Swamp White Oak	7	4	4	4	4	Good	Good		High	Old borer damage to trunk - not likely to affect future health or stability	0.78					3.0	2.0
24	Liquidambar styraciflua - Sweet gum	7	4	4	4	4	Good	Good		Low		0.64					2.4	1.8
25	Eucalyptus maidenii - Maiden's Blue Gum	24	10	10	9	8	Good	Good		Medium	Fungal fruiting body in trunk, could be higher quality if remove south eastern branch, deadwood present	2.83					10.8	3.4
26 a	Cupressus torulosa - Bhutan Cypress	7	3	1	3	3	Good	Fair	Park Tree	Medium	Possibly planted as a hedge but has been allowed to grow large, Branch torn out	1.05	0.5				4.4	2.4
26 b	Cupressus torulosa - Bhutan Cypress	9	3	1	3	2	Good	Good	Park Tree	Medium	Possibly planted as a hedge but has been allowed to grow large	0.94					3.6	2.2
26 c	Cupressus torulosa - Bhutan Cypress	9	3	1	4	1	Good	Good	Park Tree	Medium	As in 26b	1.43					5.5	2.6
26 d	Cupressus torulosa - Bhutan Cypress	9	3	1	4	1	Good	Good	Park Tree	Medium	As in 26b	1.39					5.3	2.5
26 e	Cupressus torulosa - Bhutan Cypress	9	4	1	4	1	Good	Good	Park Tree	Medium	As in 26b	1.45					5.5	2.6
26 f	Cupressus torulosa - Bhutan Cypress	9	5	1	4	1	Good	Good	Park Tree	Medium	As in 26b	1.43					5.5	2.6
26 g	Cupressus torulosa - Bhutan Cypress	7	1	1	1	1	Very Poor	Poor	Park Tree	Poor	As in 26b, Ring barked by wire	1.12					4.3	2.3
26 h	Cupressus torulosa - Bhutan Cypress	7	0	1	0	0	Very Poor	Poor	Park Tree	Poor	As in 26b, In advanced decline	1.05					4.0	2.3
26 i	Cupressus torulosa - Bhutan Cypress	9	3	1	4	1	Good	Good	Park Tree	Medium	As in 26b	1.52					5.8	2.6
26 j	Cupressus torulosa - Bhutan Cypress	9	3	1	4	1	Good	Good	Park Tree	Medium	As in 26b, Trunk damage	1.08					4.1	2.3
26 k	Cupressus torulosa - Bhutan Cypress	6	3	1	3	1	Good	Good	Park Tree	Medium	As in 26b	1.00					3.8	2.2
26	Cupressus torulosa - Bhutan Cypress	5	3	2	3	1	Poor	Poor	Park Tree	Poor	As in 26b, Branch failure appears to be due to cypress canker	1.08					4.1	2.3
26 m	Cupressus torulosa - Bhutan Cypress	7	4	1	4	2	Good	Good	Park Tree	Medium	As in 26b	1.74					6.6	2.8
26 n	Cupressus torulosa - Bhutan Cypress	7	4	1	4	1	Good	Good	Park Tree	Medium	As in 26b	0.50	0.5	0.6	0.9		4.8	2.4
26 0	Cupressus torulosa - Bhutan Cypress	7	4	2	4	1	Good	Good	Park Tree	Medium	As in 26b, Recovery from wire around trunk	1.00	0.44				4.2	2.3
26 p	Cupressus torulosa - Bhutan Cypress	7	4	1	0	0	Poor	Poor	Park Tree	Poor	As in 26b, Upright leader dead due to wire around it	0.44	0.53				2.6	1.9
26 q	Cupressus torulosa - Bhutan Cypress	7	3	0	2	1	Fair	Very Poor	Park Tree	Poor	As in 26b, Missing leader, sparse canopy	0.98					3.7	2.2
26 r	Cupressus torulosa - Bhutan Cypress	7	4	1	3	1	Good	Fair	Park Tree	Medium	As in 26b	0.85					3.2	2.1
26 s	Cupressus torulosa - Bhutan Cypress	8	4	4	1	0	Good	Fair	Park Tree	Medium	As in 26b, Multi leader, trimmed for powerlines on one side	0.59	0.52	0.7	0.7	0.65	5.3	2.5
26 t	Cupressus torulosa - Bhutan Cypress		1	4	1	4	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	1.20					4.6	2.4
26 U	Cupressus torulosa - Bhutan Cypress		1	3	1	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	1.18					4.5	2.4

Tree Number	Species	Height	Canop	y Spread			Health	Structure	Tree Protection	Tree Quality Classification	Comments	Circu	umfere	ence ⁴⁹	770		Radius TPZ ⁴⁹⁷⁰	Radius SRZ ⁴⁹⁷⁰
			North	East	South	West			Status			1	2	3	4	5	1	
26 v	Cupressus torulosa - Bhutan Cypress		1	3	1	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	1.15					4.4	2.3
26 w	Cupressus torulosa - Bhutan Cypress		1	3	1	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	1.59					6.1	2.7
26 x	Cupressus torulosa - Bhutan Cypress		1	3	1	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side and wire around trunk	1.44					5.5	2.6
26 y	Cupressus torulosa - Bhutan Cypress		1	3	1	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	1.42					5.4	2.6
26 z	Cupressus torulosa - Bhutan Cypress		1	3	1	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	1.57					6.0	2.7
26 aa	Cupressus torulosa - Bhutan Cypress		1	3	1	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	1.11					4.2	2.3
26 bb	Cupressus torulosa - Bhutan Cypress		1	3	2	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	0.70	1.32				5.7	2.6
26 cc	Cupressus torulosa - Bhutan Cypress		0	3	0	3	Good	Fair	Park Tree	Poor	As in 26b, Trimmed for powerlines on one side, Main leader has rotted out at 2m	0.89	0.38				3.7	2.2
26 dd	Cupressus torulosa - Bhutan Cypress		1	3	1	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side, Tied up with wire	0.53	0.95				4.2	2.3
26 ee	Cupressus torulosa - Bhutan Cypress		2	3	1	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	1.30					5.0	2.5
26 ff	Cupressus torulosa - Bhutan Cypress		1	3	2	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	1.21					4.6	2.4
26 gg	Cupressus torulosa - Bhutan Cypress		1	3	3	3	Good	Fair	Park Tree	Medium	As in 26b, Trimmed for powerlines on one side	0.93	0.53				4.1	2.3
27 a	Banksia serrata - Saw banksia	5	2	2	1	2	Good	Good		Medium		0.44	0.32				2.1	1.7
27 b	Banksia serrata - Saw banksia	5	3	2	2	2	Good	Good		Medium		0.85					3.2	2.1
28 a	Banksia integrifolia - Coast Banksia	5	3	3	3	3	Good	Good		Medium			0.55				3.0	2.0
28 b	Banksia integrifolia - Coast Banksia	4	2	2	2	2	Good	Good		Low			0.4				2.2	1.7
29 a	Eucalyptus maidenii - Maiden's Blue Gum	22	7	7	11	11	Good	Fair	Park Tree	Medium	Lopped for powerlines on one side, some large deadwood	3.02					11.5	3.5
29 b	Eucalyptus maidenii - Maiden's Blue Gum	22	11	11	11	11	Good	Fair	Park Tree	Medium	Tight fork may be problematic in time	2.90					11.1	3.5
30	Melaleuca armillaris - Bracelet Honeymyrtle	7	4	5	3	5	Good	Poor	Park Tree	Low	Trunk leaning, two leaders removed	1.25					4.8	2.4
31 a	Casuarina cunninghamiana - River Oak	20	4	4	4	4	Good	Good	Park Tree	Medium	Poor fork at 5 m, slim flux, deadwood present	1.59					6.1	2.7

Tree Number	Species	Height	Canop	y Spread			Health	Structure	Tree Protection	Tree Quality Classification	Comments	Circu	mfere	nce 497	70		Radius TPZ ⁴⁹⁷⁰	Radius SRZ ⁴⁹⁷⁰
			North	East	South	West			Status			1	2	3	4	5	=	
31 b	Casuarina cunninghamiana - River Oak	18	4	7	4	4	Poor	Good	Park Tree	Poor	Multiple poor forks with reaction wood and deadwood present	1.77					6.8	2.8
32 a	Cupressus torulosa - Bhutan Cypress	7	1	1	1	1	Good	Good	Park Tree	Poor	Shaded by other trees, dieback in canopy	0.82					3.1	2.0
32 b	Cupressus torulosa - Bhutan Cypress	8	4	4	4	4	Good	Good	Park Tree	Medium		1.24					4.7	2.4
33	Eucalyptus melliodora -Yellow Box	16	16	12	12	12	Good	Good	Regulated Remnant	High	Deadwood present, small fruiting body present not a problem, some previous branch failures	2.86					10.9	3.4
34	Eucalyptus delrympleana	14	8	8	6	7	Good	Good	Park Tree	High	Deadwood present	1.98					7.6	2.9
35	Eucalyptus viminalis - Ribbon Gum	14	7	8	9	7	Fair	Fair	Park Tree	Medium	Deadwood present and large fruiting body in trunk and in fork. (monitor for progress of decay)	2.85					10.9	3.4
36 a	Cupressus torulosa - Bhutan Cypress	6	2	3	3	3	Good	Good	Park Tree	Medium	Untrimmed hedge underpruned to 1.6	1.86					7.1	2.9
36 b	Cupressus torulosa - Bhutan Cypress	6	1	3	1	3				Medium	As for 36a	0.85					3.2	2.1
36 c	Cupressus torulosa - Bhutan Cypress	6	2	2	2	2	Good	Good	Park Tree	Medium	As for 36a	0.76					2.9	2.0
36 d	Cupressus torulosa - Bhutan Cypress	6	2	2	3	2	Good	Good	Park Tree	Medium	As for 36a	0.67					2.6	1.9
36 e	Cupressus torulosa - Bhutan Cypress	7	3	3	2	3	Good	Good	Park Tree	Medium	As for 36a	0.94					3.6	2.2
37	Melaleuca styphelioides - Prickly Leafed Paperbark	5	2	2	2	2	Good	Good	Park Tree	Medium		0.83					3.2	2.0
38 a	Cupressus torulosa - Bhutan Cypress	6	2	2	2	2	Good	Good	Park Tree	Medium	Untrimmed hedge	0.58					2.2	1.8
38 b	Cupressus torulosa - Bhutan Cypress	7	2	2	2	2	Good	Good	Park Tree	Medium	Untrimmed hedge	0.64					2.4	1.8
38 c	Cupressus torulosa - Bhutan Cypress	7	1	2	2	2	Good	Good	Park Tree	Medium	Untrimmed hedge	0.65					2.5	1.8
38 d	Cupressus torulosa - Bhutan Cypress	7	2	2	2	2	Good	Good	Park Tree	Medium	Untrimmed hedge	0.63					2.4	1.8
38 e	Cupressus torulosa - Bhutan Cypress	7	2	2	2	2	Good	Good	Park Tree	Medium	Untrimmed hedge	0.74					2.8	1.9
38 f	Cupressus torulosa - Bhutan Cypress	7	2	2	2	2	Good	Good	Park Tree	Medium	Untrimmed hedge with ivy up the trunk	0.95					3.6	2.2
38 g	Cupressus torulosa - Bhutan Cypress	7	3	3	2	3	Good	Good	Park Tree	Medium	As for 38f	1.05					4.0	2.3
39	Melaleuca styphelioides - Prickly Leafed Paperbark	6	3	3	3	1	Good	Fair	Park Tree	Medium	Multi leader	0.35	0.55	0.5	0.4		3.4	2.1
40	Melaleuca styphelioides - Prickly Leafed Paperbark	8	4	4	4	4	Fair	Good	Park Tree	Medium	Multi leader, ivy present	0.58	0.73	0.8	0.7	0.95	6.5	2.8
41	Eucalyptus viminalis - Ribbon Gum	12	6	8	1	5	Good	Poor	Park Tree	Poor	Has lost a leader, deadwood present	1.96					7.5	2.9
42	Eucalyptus sideroxylon - Red Ironbark	12	4	5	4	5	Good	Good	Park Tree	High	Deadwood present	1.28					4.9	2.5
43	Melaleuca styphelioides - Prickly Leafed Paperbark	7	4	4	4	4	Good	Fair	Park Tree	Medium	Multi leader	1.10	1.1	1.1	1.1	1.1	9.4	3.2
44	Eucalyptus sideroxylon - Red Ironbark	7	0	5	5	3	Good	Poor	Park Tree	Poor	Stump regrowth	0.77	0.44	1.1			5.3	2.5
45	Eucalyptus sp Gum Tree	12	0	0	7	1	Good	Very Poor	Park Tree	Poor	Ivy on trunk, ironbark species, very poor form	1.07					4.1	2.3

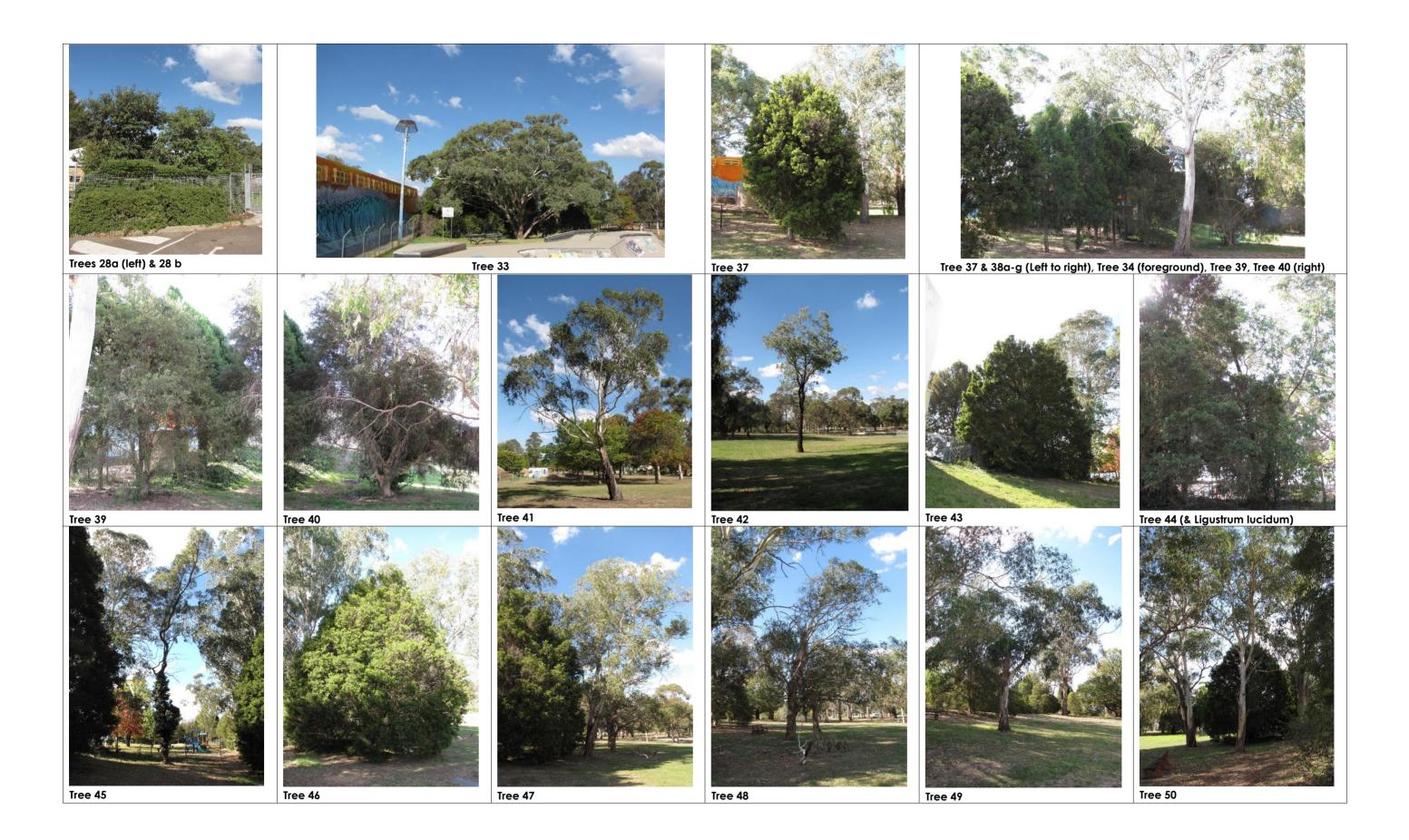
Tree Number	Species	Height	Canop	y Spread			Health	Structure	Tree Protection	Tree Quality Classification	Comments	Circu	mfere	nce ⁴⁹⁷	0		Radius TPZ ⁴⁹⁷⁰	Radius SRZ ⁴⁹⁷⁰
			North	East	South	West			Status			1	2	3	4	5		
46	Melaleuca styphelioides - Prickly Leafed Paperbark	8	5	5	5	5	Good	Good	Park Tree	High		1.10	1.1	1.1	1.1	1.1	9.4	3.2
47	Eucalyptus viminalis - Ribbon Gum	14	2	5	11	8	Fair	Poor	Park Tree	Poor	Decay in trunk, root damage, poor form, fungal fruiting body, large amount deadwood present	2.38					9.1	3.2
48	Eucalyptus viminalis - Ribbon Gum	11	8	9	8	3	Very Poor	Poor	Park Tree	Poor	Large amount of deadwood, fungal fruiting body present	1.84					7.0	2.9
49	Eucalyptus delrympleana	9	3	6	1	1	Good	Very Poor	Park Tree	Poor	Main leader failed, poor form	1.52					5.8	2.6
50	Eucalyptus viminalis - Ribbon Gum	14	5	7	5	5	Fair	Good	Park Tree	Poor	Fungal fruiting body, large amount of deadwood	1.62					6.2	2.7
51	Melaleuca styphelioides - Prickly Leafed Paperbark	9	4	5	4	4	Good	Fair	Park Tree	Medium	Multi leader	1.35	0.9	0.6	0.5		6.9	2.8
52	Melaleuca styphelioides - Prickly Leafed Paperbark	7	3	3	3	3	Good	Good	Park Tree	Medium	Multi leader	0.78	0.78	8.0			5.2	2.5
53	Melaleuca styphelioides - Prickly Leafed Paperbark	3	2	2	2	2	Good	Good	Park Tree	Low	Multi leader	0.40	0.4	0.4			2.6	1.9
54	Melaleuca styphelioides - Prickly Leafed Paperbark	5	3	3	3	3	Good	Good	Park Tree	Low	Multi leader	0.54	0.54				2.9	2.0
55	Melaleuca styphelioides - Prickly Leafed Paperbark	6	4	4	4	4	Good	Good	Park Tree	Low		0.58	1.2				5.1	2.5
56	Arbutus unedo - Strawberry Tree									Low	Shrub						0.0	0.0
57	Eucalyptus bicostata - Blue Gum	18	8	7	8	7	Good	Good	Park Tree	Medium	Cockatoo damage in union at 6 m and some root damage, birds nesting Removal of west branch recommended but cut out a bit to save the nesting site	2.60					9.9	3.3
58	Melaleuca styphelioides - Prickly Leafed Paperbark	4	2	2	2	2	Good	Good	Park Tree	Medium		0.48	0.48				2.6	1.9
59	Photinia Glabra 'Robusta' - Photinia									Poor	Shrub							
60	Ulmus procera - English elm										No assessed Moderate leaf damage by Elm leaf beetle (Treatable)							
61	Ulmus procera - English elm										Not assessed Moderate leaf damage by Elm leaf beetle (Treatable)							
62	Eucalyptus botryoides - Bangalay										Not assessed							
63	Eucalyptus sideroxylon - Red Ironbark										Not assessed Stump regrowth							
64	Eucalyptus sideroxylon - Red Ironbark										Not assessed							
65	Casuarina cunninghamiana - River Oak										Not assessed							
- 69																		

Table 2Tree Schedule - Trees Assessed 6 December 2018

Tree Number	Species	Height	Canop	y Spread			Health	Structure	Tree Protection	Tree Quality Classification	Comments	Circum	ference	4970		Radius TPZ ⁴⁹⁷⁰	Radius SRZ ⁴⁹⁷⁰
			North	East	South	West			Status			1	2	3	4		
60	Ulmus sp Elm	17	6	8	9	10	Fair	Good	Park Tree	High	Some ELB damage, some slime flux, Canopy thin, trimmed from power lines	3.23				12.3	3.6
61	Ulmus sp Elm	18	13	8	7	11	Fair	Good	Park Tree	High	Some ELB damage, some slime flux, Canopy thin, trimmed from power lines	3.64				13.9	3.8
62	Eucalyptus botryoides - Bangalay	10	8	8	4	0	Very Poor	Fair	Park Tree	Poor	Tree is in decline, deadwood- possibly hazardous, borer damage to trunk, root damage	1.96				7.5	2.9
63	Eucalyptus sideroxylon - Red Ironbark	6	3	0	0	0	Fair	Very Poor	Park Tree	Poor	Regrowth from stump, will have poor stability	0.30				1.1	1.3
64	Eucalyptus sideroxylon - Red Ironbark	11	6	3	3	3	Good	Fair	Park Tree	Low	Leans to N over power line	0.99				3.8	2.2
65	Casuarina sp - She-oak	19	4	4	6	6	Good	Good	Park Tree	Medium	Massive surface root knot near footpath, a number of previous branch failures	1.86				7.1	2.9
66	Casuarina sp - She-oak	10	3	3	3	2	Fair	Fair	Park Tree	Low	Canopy thin and affected by shading	1.15				4.4	2.3
67	Casuarina sp - She-oak	11	5	3	1	1	Fair	Fair	Park Tree	Low	Canopy thin and affected by shading	0.94				3.6	2.2
68	Casuarina sp - She-oak	12	3	1	1	1	Fair	Fair	Park Tree	Low	Canopy thin and severely affected by shading	0.78				3.0	2.0
69	Tree is dead															0.0	0.0
70a	Eucalyptus sideroxylon - Red Ironbark	9	4	4	3	4	Good	Fair	Park Tree	Low	Canopy slightly affected by shading, poor forks likely to form	0.88				3.4	2.1
70b	Eucalyptus sideroxylon - Red Ironbark	9	4	4	0	4	Fair	Fair	Park Tree	Low	Canopy thin and affected by shading, poor forks likely to form	0.57				2.2	1.7
70c	Eucalyptus sideroxylon - Red Ironbark	10	6	4	0	3	Good	Fair	Park Tree	Low	Canopy thin and affected by shading, poor forks likely to form	0.94				3.6	2.2
70d	Casuarina sp - She-oak	17	5	4	2	4	Fair	Fair	Park Tree	Low	Canopy thin and affected by shading	1.06				4.1	2.3
70e	Eucalyptus botryoides - Bangalay	16	5	4	6	5	Poor	Poor	Park Tree	Poor	Tree is in decline, deadwood- possibly hazardous, borer damage to trunk, structural damage	1.87				7.1	2.9
71a	Ulmus sp Elm	7	3	3	3	3	Good	Fair	Park Tree	Low	Twin leader, variegated foliage, minor ELB damage	0.47	0.5			2.6	1.9
71b	Eucalyptus sp Gum Tree	24	9	7	7	3	Poor	Poor	Park Tree	Poor	Some decline, major deadwood, has been lopped decades ago, trimmed from power lines, cockatoo chewing damage may cause major branch failures	2.42				9.2	3.2
71c	Eucalyptus sideroxylon - Red Ironbark	12	5	5	4	4	Good	Good	Park Tree	Medium		1.06				4.1	2.3

Tree Number	Species	Height	Canop	y Spread			Health	Structure	Tree Protection	Tree Quality Classification	Comments	Circun	nference	4970		Radius TPZ ⁴⁹⁷⁰	Radius SRZ ⁴⁹⁷⁰
NUTTIDEL			North	East	South	West	-		Status	Classification		1	2	3	4		SKL"''
71d	Eucalyptus sideroxylon - Red Ironbark	5	2	2	1	2	Fair	Poor	Park Tree	Poor	Tree is struggling	0.40				1.5	1.5
71e	Eucalyptus leucoxylon - SA Blue Gum	8	7	2	0	0	Fair	Poor	Park Tree	Poor	Tree is struggling, damage to upper trunk	0.70				2.7	1.9
71f	Ulmus sp Elm	7	3	2	2	3	Fair	Fair	Park Tree	Low	Tree is struggling from dry, top defoliate by possum grazing, variegated foliagea	0.52				2.0	1.7
71g	Eucalyptus maidenii - Maiden's Blue Gum	20	7	8	8	4	Fair	Fair	Park Tree	Medium	Shape affected by trimming for power line clearing	1.91				7.3	2.9
71h	Eucalyptus leucoxylon - SA Blue Gum	14	7	8	7	5	Fair	Good	Park Tree	Medium		1.17				4.5	2.4
72a	Eucalyptus sideroxylon - Red Ironbark	9	4	6	4	4	Good	Fair	Park Tree	Medium	Main leader died back but good recoery	0.96				3.7	2.2
72b	Eucalyptus leucoxylon - SA Blue Gum	13	7	8	2	5	Fair	Good	Park Tree	Medium	Canopy thin	1.13				4.3	2.3
72c	Eucalyptus leucoxylon - SA Blue Gum	13	5	2	7	1	Poor		Park Tree	Poor	3 leaders, 1 broken off, decay infork	0.49	0.5	0.62		3.6	2.1
73a	Pinus radiata - Monterey Pine	22	12	8	10	4	Fair	Good	Park Tree	Medium	Large deadwood, in early stages of decline, has been trimmed from power lines, some root damage	3.30				12.6	3.6
73b	Eucalyptus sp Gum Tree	24	5	5	6	6	Fair	Fair	Park Tree	Poor	Was lopped decades ago, Has died back significantly but some recovery, major deadwood, further recovery only if water / rain	2.09				8.0	3.0
73c	Eucalyptus sp Gum Tree	16	5	4	5	7	Fair	Very Poor	Park Tree	Poor	Decay fungus fruiting body in trunk, dead cambium one side of trunk	1.80				6.9	2.8
73d	Eucalyptus sp Gum Tree	24	7	9	9	6	Fair	Fair	Park Tree	Medium	Was lopped decades ago, Has died back but some recovery, major deadwood, further recovery only if water/rain	2.15				8.2	3.0
73e	Eucalyptus sp Gum Tree	24	4	9	8	7	Fair	Fair	Park Tree	Medium	Was lopped decades ago, Has died back but some recovery, major deadwood, further recovery only if water/rain	1.90				7.3	2.9
73f	Eucalyptus sp Gum Tree	22	6	8	4	5	Fair	Very Poor	Park Tree	Poor	Was lopped decades ago, Has died back but some recovery, previous branch failures, significant decay in trunk	2.19				8.4	3.1
73g	Eucalyptus sp Gum Tree	16	2	2	2	2	Fair	Fair	Park Tree	Low	Supressed by adjacent trees	0.70				2.7	1.9
73h	Eucalyptus bicostata - Blue Gum	20	5	5	7	7	Good	Good	Park Tree	Medium		1.29				4.9	2.5
73i	Eucalyptus sp Gum Tree	20	5	4	5	3	Fair	Fair	Park Tree	Poor	Was lopped decades ago, Has died back but some recovery, major deadwood, further recovery only if water/rain, poor form due to power line clearing	2.12				8.1	3.0
73j	Eucalyptus sp Gum Tree	14	5	5	4	3	Fair	Fair	Park Tree	Medium	Kino flowing from several places, misshaped due to power line clearing	1.08				4.1	2.3

Tree Number	Species	Height	Canop	y Spread			Health	Structure	Tree Protection	Tree Quality Classification	Comments	Circun	nference	e ⁴⁹⁷⁰			Radius TPZ ⁴⁹⁷⁰	Radius SRZ ⁴⁹⁷⁰
			North	East	South	West			Status			1	2	3	4	5		
74a	Eucalyptus bicostata - Blue Gum	16	4	6	8	3	Good	Fair	Park Tree	Medium	Misshaped due to power line clearing	1.89					7.2	2.9
74b	Eucalyptus bicostata - Blue Gum	16	4	5	4	4	Fair	Fair	Park Tree	Medium	Some die back and recovery, some deadwood	1.41					5.4	2.6
74C	Eucalyptus bicostata - Blue Gum	17	5	4	6	8	Good	Good	Park Tree	High	Some canopy skew due to adjacent tree, minor deadwood, some mower damage to roots	1.68					6.4	2.7
74d	Eucalyptus bicostata - Blue Gum	17	7	7	5	5	Fair	Very Poor	Park Tree	Poor	Large area of dead cambium resulting in root death and conopy die back	1.85					7.1	2.9
100	Eucalyptus leucoxylon - SA Blue Gum	7	5	5	4	4	Fair	Good	Park Tree	Low	Canopy thin but some signs of recovery	1.04					4.0	2.2

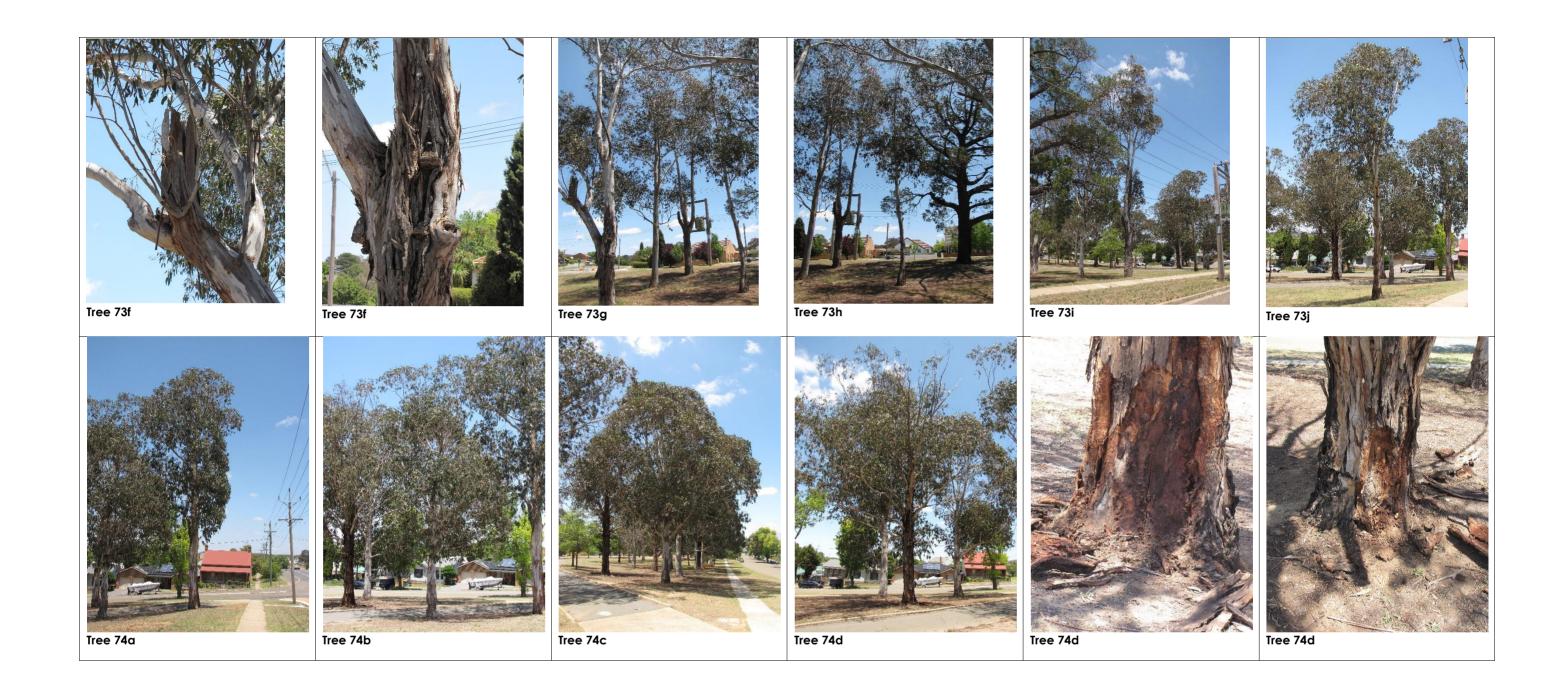




Tree 4 Photos of trees assessed 6 December 2018







Appendix 1 Explanations of Terms Used in the Tree Assessments

This Assessment conforms to the requirements of The AS4970-2009 'Protection of trees on development sites' and QPRC Tree Preservation

Tree Number

These are unique sequential identification numbers allocated to the trees located on the block, overhanging the block or on the verge. The numbers are allocated in Figure 1.

1. Species

The binomial species name and a common name are given

2. Height

The tree height was estimated except where the height was determined to be near 12m in which case it was measured using a clinometer from a measured offset. Heights of between 11 and 12 metres are recorded as 11 metres.

3. Canopy Spread

Canopy radii were taken at 900 intervals starting at north

The four radial canopy diameters are shown (in meters) in the 'Directional Canopy Radii' table. These were estimated by stepping out.

Health

Is an indication of the tree's health and vigour. It has been judged against the following range:

Very Good (VG), Good (G), Fair (F), Poor (P), or Very Poor (VP)

General comments on the tree's health and vigour, and specific comments on evidence of **insect** infestation or **disease** presence in the tree may be included.

5. Structure

The structural integrity of the tree. It has been judged against the following range:

Very Good (VG), Good (G), Fair (F), Poor (P), or Very Poor (VP)

General comments on the tree's structure and specific comments on evidence of **Root Zone Disturbance** and **Structural Damage** to the tree will be included in the **Comments Column**

6. Tree Protection Status

Pest Plant - is a weed: no protection, may be removed

Protected Tree -a tree that exceeds 3m in height requires a permit from Queanbeyan Palerang Regional Council

Street Tree - A tree situated on the street verge.

7. Tree Quality Classification

The following definitions were applied.

Low - A tree that does not have significant amenity value but may grow or recover to have significant value in the future.

Poor — A poor quality tree is of poor form, structure or health or is likely to represent a significant safety hazard

Medium - A medium quality tree is one of reasonable form, structure and health and is not likely to represent a significant safety hazard.

High – A high quality tree is one that is of good form and condition and without structural defect. It should not represent a significant hazard.

Exceptional- A tree may be considered exceptional on the basis that it is an important part of the landscape due to factors such as prominence of location, contribution to the surrounding landscape and its general appearance. An exceptional tree should be free of any defects that cannot be addressed by remedial treatment. A tree may also be assessed as being exceptional for its botanic, scientific and cultural and natural heritage values.

8. Comments

Any comments that are relevant are recorded in this column especially those related to health and structure

9. Circ⁴⁹⁷⁰

Trunk Circumference (for calculation of the Tree Protection Zone as per AS4970-2009 = TPZ^{4970}) (Australian Standards 2009) is the trunk circumference at 1.4m above ground level (AGL), is expressed in millimetres and lists the individual trunk circumferences if there are more than 1 trunk at that height. These are used to calculate the DBH and subsequently the Radius TPZ^{4970} . Where there is more than one trunk at 1.4 m AGL then the DBH is calculated by the formula presented in AS4970-2009. (Branches, c.f. trunks, are not included)

10. Radius TPZ⁴⁹⁷⁰

The radius of the Root Protection Zone component of the Tree Protection Zone as calculated from the trunk diameter at 1.4m AGL as recommended by the AS4970-2009. Note the final TPZ⁴⁹⁷⁰ may need to be extended to include crown protection.

14. Radius SRZ⁴⁹⁷⁰

This is an approximation of radius of the Structural Root Zone as recommended by the AS4970-2009. Accurate calculation of the SRZ may be required if a major encroachment into the TPZ^{4970} is envisaged.