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

Alan Mann is a member of Arboriculture Australia



23rd February 2021

Ref: 6431

## Preliminary Arboricultural Report<sup>1</sup>

### Australian War Memorial, (Block 3 Section 39) Campbell, ACT,

#### Prepared for:

Rohan Burnside

Knight Frank Australia

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#### Tree Assessment Date:

27<sup>th</sup>, 29<sup>th</sup> Jan and 3<sup>rd</sup>, 19<sup>th</sup> of Feb 2021

#### Prepared by:

##### Hayley Crossing

Consulting AQF Level 5 Arborist

Landscape Architect

Quantified Tree Risk Assessment (QTRA)

Society of Arboriculture) [www.isa-arbor.com](http://www.isa-arbor.com)

#### Brief:

Canopy Group were engaged by Knight Frank to carry out a tree assessment and prepare a Preliminary Arboricultural Assessment of the trees on this site. The Assessment was to conform to the requirements of, AS4970-2009 'Protection of trees on development sites'.

Part of this site was assessed by Canopy Tree Experts in 2019. We have included In **Appendix 1** the Tree Schedule and tree location plans for previous assessments. Tree numbers have followed on from the previous years. This tree assessment starts at Tree 123.

Most of the trees assessed for this assessment have already been marked to be removed, these trees are identified on the tree location plan with red outline the trees that are to remain and require protection during the redevelopment are highlighted in green. (refer to tree location plan). None of the trees were identified as "Registered" The trees remaining within the hoardings were all "High to Exceptional" Quality trees. Most of which are unlikely to be affected by the Development. Trees 194 to 197 to the South East of the AWM are adjacent to the proposed hoardings, these trees will require a Tree Management plan. Refer to explanation of terminology in **Appendix 2**.

A Tree Management Plan will be supplied by Canopy Group

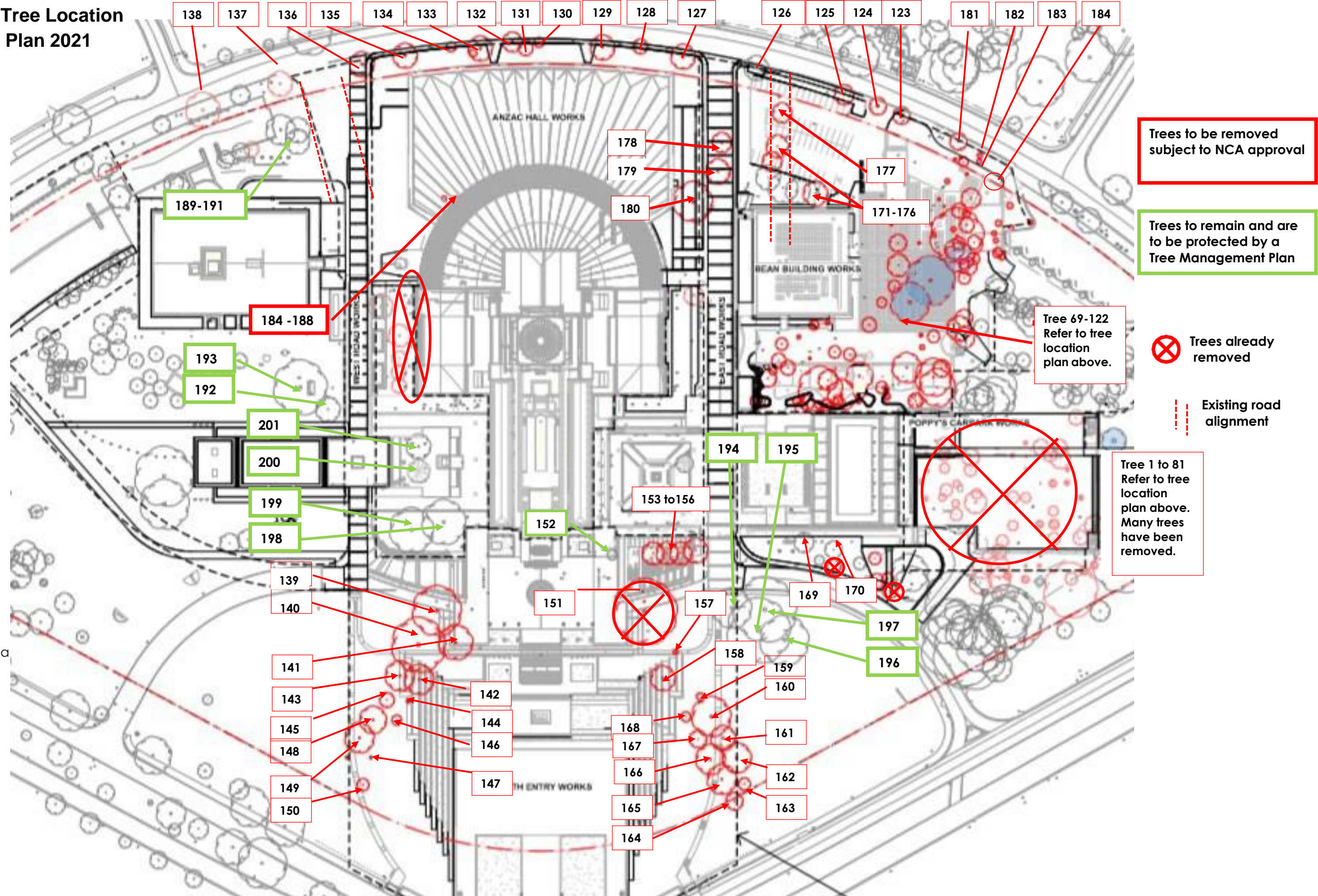
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<sup>1</sup> Preliminary Arboricultural Reports are designated in AS4979-2009 'Protection of trees on development sites' and include indicative Tree Protection Zones (TPZ) to guide development layout.



Tree Location  
Plan 2021





Tree No.	Species	Height	Canopy Spread				Health	Structure	Age	Tree Protection Status	Tree Quality Classification	Arboricultural Impact	Comments	Circumference <sup>4970</sup>			DBH	Radius TPZ <sup>4970</sup>	D10 TPZ	Radius SRZ <sup>4970</sup>
			North	East	South	West								1	2	3				
Trees Assessed 27 <sup>th</sup> 29 <sup>th</sup> of January and 3 <sup>rd</sup> of February 2021																				
123	Eucalyptus melliodora -Yellow Box	11	2	2	2	2	Good	Good	EM	Street Tree	Medium	Likely to be removed	Juvenile tree could develop into a nice tree	1.00			0.318471	3.8	2.6	2.2
124	Eucalyptus melliodora -Yellow Box	8	2	2	2	2	Good	Good	EM	Street Tree	Medium	Likely to be removed	Juvenile tree could develop into a nice tree	0.90			0.286624	3.4	2.3	2.1
125	Eucalyptus bicostata - Blue Gum	12	3	3	3	3	Good	Good	EM	Street Tree	Medium	Likely to be removed	Deadwood present, included junction	1.50			0.477707	5.7	3.8	2.6
126	Eucalyptus bicostata - Blue Gum	19	5	7	7	6	Good	Good	M	Street Tree	High	Likely to be removed	Deadwood present	2.70			0.859873	10.3	6.9	3.4
127	Eucalyptus bicostata - Blue Gum	18	6	7	6	6	Good	Good	M	Street Tree	High	Likely to be removed	Deadwood present	2.60			0.828025	9.9	6.7	3.3
128	Eucalyptus polyanthemos - Red Box	10	2	2	2	3	Good	Fair	EM	Street Tree	Medium	Likely to be removed	Regulated bc of trunks	0.80	0.8	0.7	0.423699	5.1	3.4	2.5
129	Eucalyptus melliodora -Yellow Box	12	5	4	5	5	Good	Good	M	Street Tree	High	Likely to be removed		1.45			0.461783	5.5	3.7	2.6
130	Eucalyptus bicostata - Blue Gum	12	1	5	5	2	Good	Good	M	Street Tree	Medium	Likely to be removed	Deadwood present	1.45			0.461783	5.5	3.7	2.6
131	Eucalyptus bicostata - Blue Gum	13	2	5	2	5	Good	Good	M	Street Tree	High	Likely to be removed		1.4			0.44586	5.4	3.6	2.5
132	Eucalyptus bicostata - Blue Gum	16	3	5	2	5	Good	Good	M	Street Tree	High	Likely to be removed	Deadwood present termite nest at base	1.8			0.573248	6.9	4.6	2.8
133	Eucalyptus bicostata - Blue Gum	18	5	7	6	6	Good	Good	M	Street Tree	High	Likely to be removed	Cockatoo damage minor deadwood present, large habitat hallow at 3m	3.15			1.003185	12.0	8.1	3.6
134	Eucalyptus bicostata - Blue Gum	8	3	3	0	3	Good	Fair	EM	Street Tree	Poor	Likely to be removed	Suppressed by tree 133, regulated bc of trunks	1.00	0.8		0.407842	4.9	3.3	2.5
135	Eucalyptus bicostata - Blue Gum	15	5	7	7	5	Good	Poor	V	Street Tree	Poor	Likely to be removed	Included junction poor unions, damage and scar at base	3.20			1.019108	12.2	8.2	3.6
136	Eucalyptus bicostata - Blue Gum	15	8	9	8	8	Very Good	Good	V	Street Tree	High	Likely to be removed		3.00			0.955414	11.5	7.7	3.5
137	Eucalyptus melliodora -Yellow Box	10	1	2	2	2	Good	Good	J	Street Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.90			0.286624	3.4	2.3	2.1
138	Eucalyptus melliodora -Yellow Box	10	2	2	2	2	Good	Good	J	Street Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.90			0.286624	3.4	2.3	2.1
139	Eucalyptus maidenii - Maiden's Blue Gum	24	11	11	7	7	Very Good	Good	V	Park Tree	High	Likely to be removed	Some cockatoo damage, retain as a group, well maintained tree is irrigated lawn	4.10			1.305732	15.7	10.5	4.0
140	Eucalyptus maidenii - Maiden's Blue Gum	24	12	12	7	7	Very Good	Very Good	V	Park Tree	High	Likely to be removed	As above + deadwood present + possibly a recent scar tree	4.10			1.305732	15.7	10.5	4.0
141	Eucalyptus maidenii - Maiden's Blue Gum	22	2	4	6	4	Good	Fair	V	Park Tree	High	Likely to be removed	Damage scar at base and tight unions , retain as a group	1.60	3.35		1.182318	14.2	9.5	3.8
142	Eucalyptus mannifera - Red Spotted Gum	10	1	0	3	4	Good	Good	M	Park Tree	Medium	Likely to be removed	Scar at base, supressed and skewed canopy by group of maidenii	1.60			0.509554	6.1	4.1	2.7
143	Eucalyptus elata - River Peppermint Gum	16	5	5	5	5	Very Good	Very Good	EM	Park Tree	High	Likely to be removed	Doing well for the species bc in irrigation				0	0.0	0.0	0.0

Tree No.	Species	Height	Canopy Spread				Health	Structure	Age	Tree Protection Status	Tree Quality Classification	Arboricultural Impact	Comments	Circumference <sup>4970</sup>			DBH	Radius TPZ <sup>4970</sup>	D10 TPZ	Radius SRZ <sup>4970</sup>
144	Eucalyptus pauciflora - Snow Gum	4	0	0	1	1	Poor	Poor	EM	Park Tree	Poor	Likely to be removed	Juvenile tree poor condition	0.35			0.111465	1.3	0.9	1.4
145	Eucalyptus pauciflora - Snow Gum	5	2	2	2	1	Fair	Good	J	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.40			0.127389	1.5	1.0	1.5
146	Eucalyptus pauciflora - Snow Gum	5	1	1	1	1	Fair	Good	J	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.40			0.127389	1.5	1.0	1.5
147	Eucalyptus pauciflora - Snow Gum	2	0	0	0	0	Fair	Fair	J	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.35			0.111465	1.3	0.9	1.4
148	Eucalyptus elata - River Peppermint Gum	16	3	3	3	3	Very Good	Very Good	EM	Park Tree	High	Likely to be removed	Doing well for the species bc in irrigation	1.85			0.589172	7.1	4.7	2.9
149	Eucalyptus mannifera - Red Spotted Gum	15	6	6	3	5	Very Good	Good	M	Park Tree	High	Likely to be removed		1.90			0.605096	7.3	4.9	2.9
150	Eucalyptus pauciflora - Snow Gum	6	2	2	2	2	Good	Good	J	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	1.00			0.318471	3.8	2.6	2.2
151	Tree is missing											Likely to be removed	Tree was removed a year ago				0	0.0	0.0	0.0
152	Eucalyptus bicostata - Blue Gum	8	1:05	1;5	1:05	1:05	Good	Good	EM	Park Tree	Medium	Tree to be maintained and protected	Memorial tree not affected by development is a juvenile tree	1.20			0.382166	4.6	3.1	2.4
153	Eucalyptus pauciflora - Snow Gum	8	2	3	3	2	Good	Good	EM	Park Tree	Medium	Likely to be removed		1.20			0.382166	4.6	3.1	2.4
154	Eucalyptus pauciflora - Snow Gum	10	2	3	3	2	Good	Good	EM	Park Tree	Medium	Likely to be removed		1.20			0.382166	4.6	3.1	2.4
155	Eucalyptus pauciflora - Snow Gum	10	2	3	3	2	Good	Good	EM	Park Tree	Medium	Likely to be removed	Minor cockatoo damage	1.00			0.318471	3.8	2.6	2.2
156	Eucalyptus pauciflora - Snow Gum	8	2	3	3	2	Good	Good	EM	Park Tree	Medium	Likely to be removed	Included junction	1.00			0.318471	3.8	2.6	2.2
157	Eucalyptus sp. - Gum Tree	7	1	1	1	1	Good	Good	J	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.55			0.175159	2.1	1.4	1.7
158	Eucalyptus elata - River Peppermint Gum	14	6	6	6	6	Good	Good	EM	Park Tree	High	Likely to be removed	Doing well for the species bc in irrigation	1.90			0.605096	7.3	4.9	2.9
159	Tree is missing									Park Tree		Likely to be removed	Juvenile tree recently removed				0	0.0	0.0	0.0
160	Eucalyptus elata - River Peppermint Gum	15	6	6	6	6	Good	Fair	EM	Park Tree	Medium	Likely to be removed	Included junction	2.40			0.764331	9.2	6.2	3.2
161	Eucalyptus mannifera - Red Spotted Gum	12	3	3	3	3	Good	Good	EM	Park Tree	Medium	Likely to be removed	Cockatoo chewing	1.35			0.429936	5.2	3.5	2.5
162	Eucalyptus pauciflora - Snow Gum	10	5	5	2	3	Fair	Good	EM	Park Tree	Medium	Likely to be removed	Deadwood present	2.70			0.859873	10.3	6.9	3.4
163	Eucalyptus pauciflora - Snow Gum	5	1	2	1	2	Good	Good	J	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.75			0.238854	2.9	1.9	2.0
164	Eucalyptus pauciflora - Snow Gum	5	2	2	2	2	Good	Good		Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.75			0.238854	2.9	1.9	2.0
165	Eucalyptus mannifera - Red Spotted Gum	12	4	4	3	4	Good	Good	EM	Park Tree	Medium	Likely to be removed	Cockatoo chewing and deadwood present and hallow forming in union	1.75			0.557325	6.7	4.5	2.8

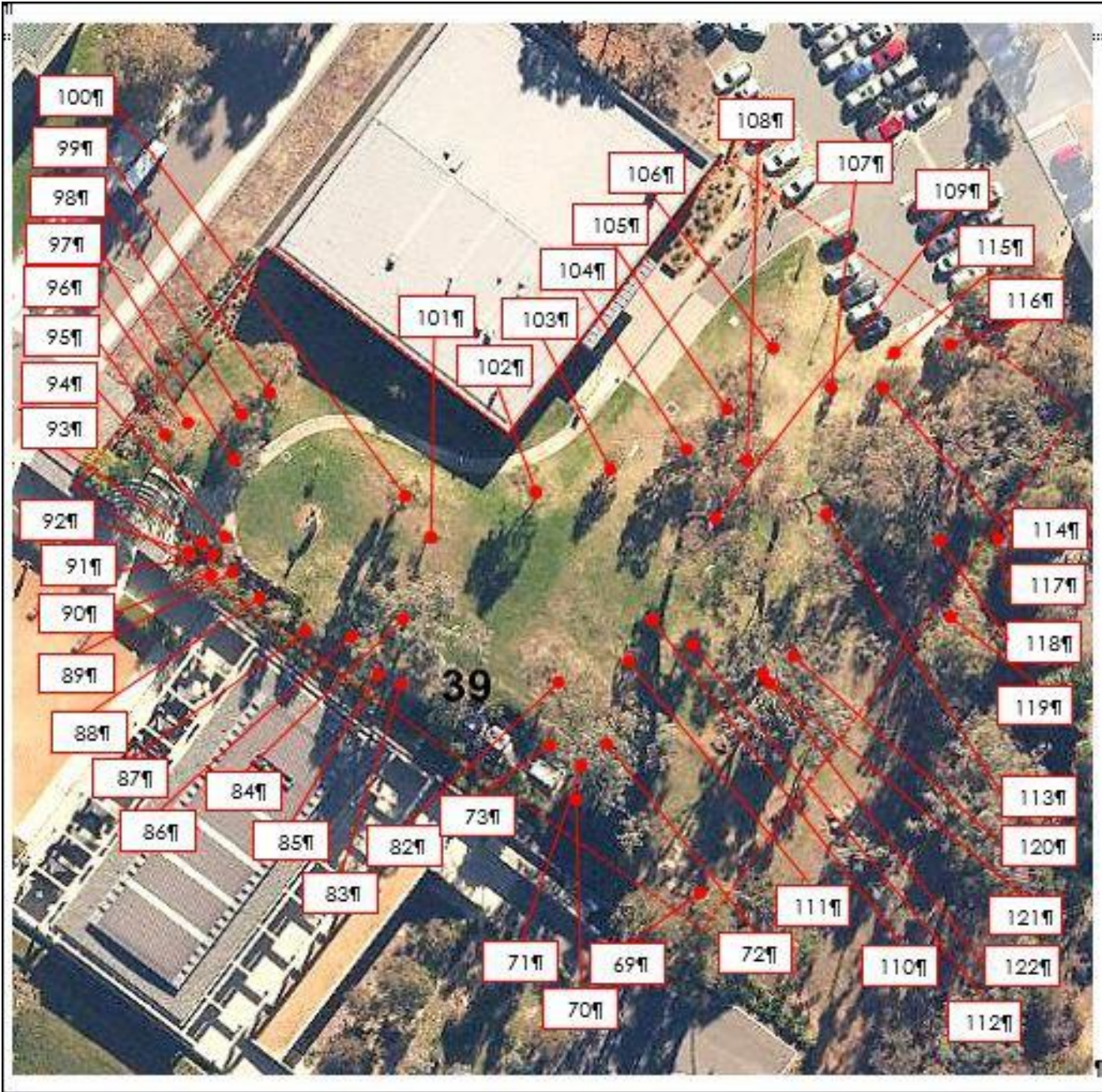
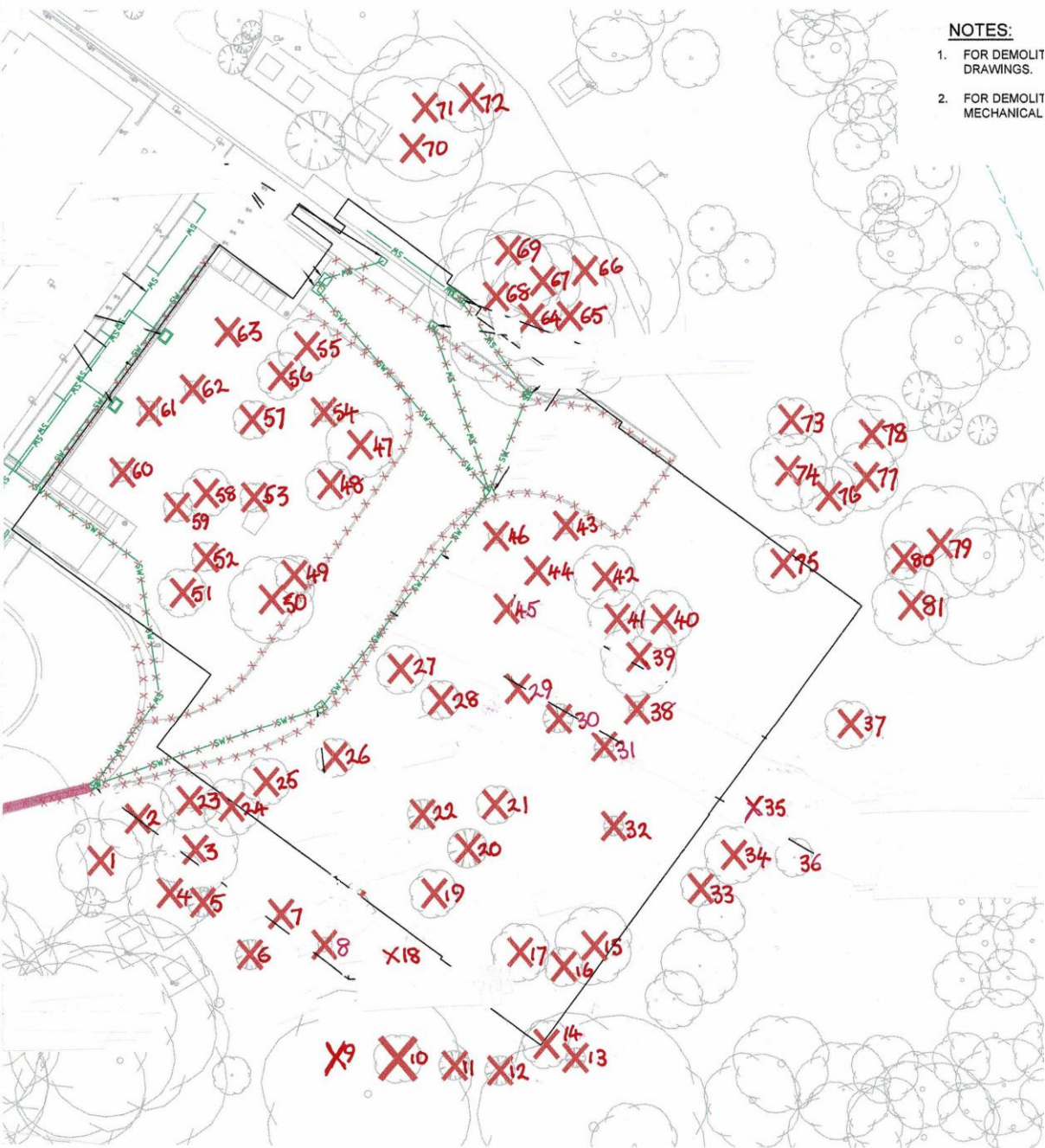
Tree No.	Species	Height	Canopy Spread				Health	Structure	Age	Tree Protection Status	Tree Quality Classification	Arboricultural Impact	Comments	Circumference <sup>4970</sup>			DBH	Radius TPZ <sup>4970</sup>	D10 TPZ	Radius SRZ <sup>4970</sup>
166	Eucalyptus mannifera - Red Spotted Gum	14	4	4	2	2	Good	Good	EM	Park Tree	Medium	Likely to be removed	Cockatoo chewing and deadwood present and hallow in union, scar at base	1.70			0.541401	6.5	4.4	2.8
167	Eucalyptus pauciflora - Snow Gum	5	2	2	0	1	Good	Good	J	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.50			0.159236	1.9	1.3	#SPILL!
168	Eucalyptus pauciflora - Snow Gum	4	2	0	0	1	Fair	Fair	J	Park Tree	Low	Likely to be removed	Juvenile tree canopy skewed	0.50			0.159236	1.9	1.3	1.7
169	Eucalyptus elata - River Peppermint Gum	6							J	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree and access not available at the time of the inspection	0.50			0.159236	1.9	1.3	1.7
170	Eucalyptus pauciflora - Snow Gum	5							J	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree and access not available at the time of the inspection	0.50			0.159236	1.9	1.3	1.7
171	Eucalyptus polyanthemos - Red Box	5	2	4	1	2	Good	Fair	EM	Park Tree	Low	Likely to be removed	Leaning and service trench dug on tension root side remove	0.60	0.3		0.213637	2.6	1.7	1.9
172	Eucalyptus polyanthemos - Red Box	10					Good	Fair	EM	Park Tree	Low	Likely to be removed	Semi mature tree could develop into a nice tree	0.70			0.22293	2.7	1.8	
173	Eucalyptus polyanthemos - Red Box	10					Good	Poor	EM	Park Tree	Low	Likely to be removed	multiple leaders' poor structure	0.50	0.4	0.5	0.258727	3.1	2.1	
174	Eucalyptus polyanthemos - Red Box	10					Good	Fair	EM	Park Tree	Low	Likely to be removed	Juvenile tree could develop into a nice tree	0.50	0.5	0.5	0.275804			
175	Eucalyptus polyanthemos - Red Box	5	4	1	3	1	Good	Poor	EM	Park Tree	Medium	Likely to be removed	Juvenile tree could develop into a nice tree	0.50	0.5		0.225193	2.7	1.8	1.9
176	Eucalyptus polyanthemos - Red Box	5	4	4	4	2	Good	Poor	EM	Park Tree	Medium	Likely to be removed	Juvenile tree could develop into a nice tree	1.00			0.318471	3.8	2.6	2.2
177	Eucalyptus bicostata - Blue Gum	8	2	2	2	2	Good	Good	EM	Park Tree	Medium	Likely to be removed	Juvenile tree could develop into a nice tree	1.00			0.318471	3.8	2.6	2.2
178	Eucalyptus bicostata - Blue Gum	14					Good	Poor	M	Park Tree	Medium	Likely to be removed	Tight unions	1.70			0.541401	6.5	4.4	2.8
179	Eucalyptus bicostata - Blue Gum	14					Good		M	Park Tree	Medium	Likely to be removed	Deadwood present	1.60			0.509554	6.1	4.1	2.7
180	Eucalyptus bicostata - Blue Gum	22	8	8	8	8	Very Good	Good	V	Park Tree	High	Likely to be removed		3.00			0.955414	11.5	7.7	3.5
181	Eucalyptus melliodora -Yellow Box	10	3	3	3	3	Good	Fair	EM	Street Tree	Medium	Likely to be removed	Tight unions, regulated because of multiple leaders. Semi mature tree	1.10	1.1		0.495425	5.9	4.0	2.7
181	Eucalyptus bicostata - Blue Gum	5	0	1	0	1	Very Poor	Poor	J	Street Tree	Poor	Likely to be removed	in decline. Should be removed	0.50			0.159236	1.9	1.3	1.7
182	Eucalyptus blakelyi - Red Gum	5	1	1		1	Very Poor	Very Poor	J	Park Tree	Poor	Likely to be removed	included junction and splitting. Should be removed	0.50			0.159236	1.9	1.3	1.7
183	Eucalyptus bicostata - Blue Gum	14	3	3	3	3	Good	Fair	EM	Street Tree	Medium	Likely to be removed	tight union	1.50			0.477707	5.7	3.8	2.6

Tree No.	Species	Height	Canopy Spread				Health	Structure	Stage	Tree Protection Status	Tree Quality Classification	Arboricultural Impact Assessment	Comments	Circumference <sup>4970</sup>	DBH	Radius TPZ <sup>4970</sup>	D10 TPZ	Radius SRZ <sup>4970</sup>
			North	East	South	West												
Trees Assessed 2021 11 February 2021																		
184	Cupressus sempervirens 'Stricta'. - Italian Cypress	7	1	1	1	1	Good	Good	EM	Park Tree	High	Likely to be removed		0.50	0.159236	1.9	1.3	1.7
185	Cupressus sempervirens 'Stricta'. - Italian Cypress	7	1	1	1	1	Good	Good	EM	Park Tree	High	Likely to be removed		0.50	0.159236	1.9	1.3	1.7
186	Cupressus sempervirens 'Stricta'. - Italian Cypress	7	1	1	1	1	Good	Good	EM	Park Tree	High	Likely to be removed		0.50	0.159236	1.9	1.3	1.7
187	Cupressus sempervirens 'Stricta'. - Italian Cypress	7	1	1	1	1	Good	Good	EM	Park Tree	High	Likely to be removed		0.50	0.159236	1.9	1.3	1.7
188	Cupressus sempervirens 'Stricta'. - Italian Cypress	7	1	1	1	1	Good	Good	EM	Park Tree	High	Likely to be removed		0.50	0.159236	1.9	1.3	1.7
189	Eucalyptus bicostata - Blue Gum	15	5	5	5	5	Good	Good	EM	Park Tree	Medium	Unlikely to be affected by development	Currently located behind construction fencing	1.80	0.573248	6.9	4.6	2.8
190	Eucalyptus bicostata - Blue Gum	15	5	5	5	5	Good	Good	EM	Park Tree	Medium	Unlikely to be affected by development	Currently located behind construction fencing	1.50	0.477707	5.7	3.8	2.6
191	Eucalyptus bicostata - Blue Gum	15	5	5	5	5	Good	Good	EM	Park Tree	Medium	Unlikely to be affected by development	Currently located behind construction fencing	1.50	0.477707	5.7	3.8	
192	Quercus sp.	16	7	7	7	7	Good	Good	V	Park Tree	Exceptional	Unlikely to be affected by development		1.80	0.573248	6.9	4.6	
193	Populous deltoides - Cottonwood	16	6	6	6	6	Good	Good	V	Park Tree	High	Unlikely to be affected by development		3.00	0.955414	11.5	7.7	
194	Quercus robur - English Oak	16	11	10	10	9	Very Good	Good	V	Park Tree	Exceptional	Adjacent to hoardings possibly -canopy conflict, surface protection required. Prohibited Activities with TPZ	Tree Management Plan Required	2.90	0.923567	11.1	7.4	3.5
195	Quercus robur - English Oak	16	10	10	11	11	Very Good	Good	V	Park Tree	Exceptional	Adjacent to hoardings possibly -canopy conflict, surface protection required. Prohibited Activities with TPZ	Tree Management Plan required	3.20	1.019108	12.2	8.2	3.6
196	Quercus robur - English Oak	16	9	9	9	10	Very Good	Good	V	Park Tree	Exceptional	Adjacent to hoardings possibly -canopy conflict, surface protection required. Prohibited Activities with TPZ	Tree Management Plan required	2.90	0.923567	11.1	7.4	3.5
197	Quercus robur - English Oak	16	12	14	10	10	Very Good	Good	V	Park Tree	Exceptional	Adjacent to hoardings possibly -canopy conflict, surface protection required. Prohibited Activities with TPZ	Tree Management Plan required	3.20	1.019108	12.2	8.2	3.6
198	Quercus robur - English Oak	16	13	12	12	13	Very Good	Good	V	Park Tree	Exceptional	Unlikely to be affected by development		3.60	1.146497	13.8	9.2	3.8
199	Quercus robur - English Oak	16	13	13	12	13	Very Good	Good	V	Park Tree	Exceptional	Unlikely to be affected by development		3.60	1.146497	13.8	9.2	3.8
200	Platanus x acerifolia - London Plane Tree	17	7	7	7	7	Very Good	Good	V	Park Tree	Exceptional	Unlikely to be affected by development		2.10	0.66879	8.0	5.4	3.0

Tree No.	Species	Height	Canopy Spread				Health	Structure	Stage	Tree Protection Status	Tree Quality Classification	Arboricultural Impact Assessment	Comments	Circumference <sup>4970</sup>	DBH	Radius TPZ <sup>4970</sup>	D10 TPZ	Radius SRZ <sup>4970</sup>
201	Platanus x acerifolia - London Plane Tree	17	7	7	7	7	Very Good	Good	V	Park Tree	Exceptional	Unlikely to be affected by development		3.00	0.955414	11.5	7.7	3.5



Appendix 1- 2019 Tree Location Plan from previous Tree assessments





Tree Schedule – 2019 Tree Assessment by Canopy Group

Tree no.	Species	Height	Directional Canopy Radii (m)				Tree Condition		Tree Protection Status <sup>1</sup>	Tree Quality Classification	Comments	Circumference AS4970 (m)				Radius TPZ 970	D10T PZ (m)	Radius SRZ4 970 (m)
			North	East	South	West	Health	Structure				1	2	3	4			
1	Eucalyptus melliodora -Yellow Box	9	3	4	4	3	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.70				2.7	1.8	1.9
2	Stump only															0.0	0.0	0.0
3	Eucalyptus pauciflora - Snow Gum	6	5	5	1	3	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree and borers	0.63				2.4	1.6	1.8
4	Eucalyptus pauciflora - Snow Gum	5	2	5	0	0	Good	Poor	Not Regulated	Low	Poor form leaning	0.54				2.1	1.4	1.7
5	Eucalyptus melliodora -Yellow Box	4	0	2	2	0	Good	Poor	Not Regulated	Low	Poor form leaning	0.28				2.0	0.7	1.3
6	Eucalyptus melliodora -Yellow Box	4	1	1	1	1	Fair	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.34				2.0	0.9	1.4
7	Eucalyptus pauciflora - Snow Gum	5	2	1	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.32				2.0	0.8	1.4
8	Tree is missing															0.0	0.0	0.0
9	Eucalyptus viminalis - Ribbon Gum	27	4	5	3	6	Good	Good	Regulated Tree	High	Tall tree clean trunked canopy tree, minor deadwood, scar at base possibly root damage	2.05				7.8	5.3	3.0
10	Eucalyptus elata - River Peppermint Gum	5	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.35				2.0	0.9	1.4
11	Eucalyptus melliodora -Yellow Box	3	1	1	1	1	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.30				2.0	0.8	1.3
12	Eucalyptus melliodora -Yellow Box	3	1	1	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.35				2.0	0.9	1.4
13	Eucalyptus mannifera - Red Spotted Gum	8	2	3	3	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.45				2.0	1.2	1.6
14	Eucalyptus melliodora -Yellow Box	4	1	2	1	1	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.26				2.0	0.7	1.3
15	Eucalyptus bicostata - Blue Gum	12	4	4	4	4	Good	Good	Regulated Schedule 2	High		0.90				3.4	2.3	2.1
16	Eucalyptus melliodora -Yellow Box	4	1	2	1	1	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.33				2.0	0.9	1.4
17	Eucalyptus nicholii - Narrow Leaf Peppermint	8	3	2	3	3	Good	Poor	Not Regulated	Poor	Poor forks	0.67				2.6	1.7	1.9
18	Eucalyptus polyanthemos - Red Box	8	3	3	2	3	Good	Poor	Not Regulated	Poor	Previously branch failure	0.76				2.9	2.0	2.0
19	Eucalyptus polyanthemos - Red Box	7	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.64				2.4	1.7	1.8
20	Eucalyptus melliodora -Yellow Box	4	2	2	2	1	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.36				2.0	0.9	1.4
21	Eucalyptus melliodora -Yellow Box	6	2	2	2	1	Poor	Good	Not Regulated	Poor	Poor health	0.44				2.0	1.1	1.6
22	Eucalyptus melliodora -Yellow Box	3	0	3	0	0	Good	Poor	Not Regulated	Poor	Poor form	0.26				2.0	0.7	1.3
23	Eucalyptus melliodora -Yellow Box	4	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.42				2.0	1.1	1.5
24	Eucalyptus melliodora -Yellow Box	7	3	3	3	3	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.47				2.0	1.2	1.6
25	Eucalyptus melliodora -Yellow Box	4	2	3	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.44				2.0	1.1	1.6
26	Eucalyptus melliodora -Yellow Box	4	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.41				2.0	1.1	1.5
27	Eucalyptus melliodora -Yellow Box	7	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.58				2.2	1.5	1.8
28	Eucalyptus polyanthemos - Red Box	8	2	3	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.60				2.3	1.6	1.8
29	Tree is missing															0.0	0.0	0.0
30	Eucalyptus melliodora -Yellow Box	3	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.24				2.0	0.6	1.2

<sup>1</sup> Note the allocated Tree Protection Status displayed in this column may not strictly apply for this site as they are based on the Tree Protection Act 2005 which applies to lease urban land in the ACT

Tree no.	Species	Height	Directional Canopy Radii (m)				Tree Condition		Tree Protection Status <sup>1</sup>	Tree Quality Classification	Comments	Circumference AS4970 (m)				Radius TPZ 970	D10T PZ (m)	Radius SRZ 970 (m)
			North	East	South	West	Health	Structure				1	2	3	4			
31	Eucalyptus melliodora -Yellow Box	3	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.22				2.0	0.6	1.2
32	Eucalyptus melliodora -Yellow Box	3	1	1	1	1	Poor	Good	Not Regulated	Poor	Poor health scale present	0.20				2.0	0.5	1.1
33	Eucalyptus melliodora -Yellow Box	4	3	2	3	3	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.38				2.0	1.0	1.5
34	Eucalyptus mannifera - Red Spotted Gum	5	2	4	4	3	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree minor trunk damage vandalism	0.65				2.5	1.7	1.8
35	Eucalyptus melliodora -Yellow Box	2	2	2	2	1	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.30				2.0	0.8	1.3
36	Eucalyptus mannifera - Red Spotted Gum	5	2	2	2	2	Good	Good	Not Regulated	Poor	Almost ring barked by vandals	0.43				2.0	1.1	1.6
37	Eucalyptus melliodora -Yellow Box	23	7	8	9	11	Poor	Good	Regulated Remnant	Poor	In decline, major deadwood present	2.69				10.3	7.0	3.3
38	Eucalyptus pauciflora - Snow Gum	3	0	0	4	0	Good	Very Poor	Not Regulated	Poor	Leaning tree is held up by stakes	0.20				2.0	0.5	1.1
39	Eucalyptus melliodora -Yellow Box	20	4	7	9	4	Good	Good	Regulated Tree	High	Minor deadwood	1.19				4.5	3.1	2.4
40	Eucalyptus melliodora -Yellow Box	18	4	8	4	3	Good	Fair	Regulated Tree	Medium	Twin leader, remove one leader and it becomes a good quality tree	0.74	0.52			3.5	2.4	2.1
41	Eucalyptus melliodora -Yellow Box	23	7	6	8	5	Good	Good	Regulated Tree	High		1.34				5.1	3.5	2.5
42	Eucalyptus melliodora -Yellow Box	9	3	3	4	4	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.92				3.5	2.4	2.1
43	Tree is missing															0.0	0.0	0.0
44	Eucalyptus melliodora -Yellow Box	4	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.27				2.0	0.7	1.3
45	Eucalyptus melliodora -Yellow Box	3	1	1	1	1	Poor	Good	Not Regulated	Poor	Poor health	0.31				2.0	0.8	1.4
46	Eucalyptus melliodora -Yellow Box	5	3	4	3	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.52				2.0	1.4	1.7
47	Eucalyptus bicostata - Blue Gum	11	4	4	4	4	Fair	Good	Not Regulated	Poor	Thinning canopy	0.88				3.4	2.3	2.1
48	Eucalyptus melliodora -Yellow Box	7	2	2	3	3	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.53				2.0	1.4	1.7
49	Eucalyptus mannifera - Red Spotted Gum	5	1	1	2	2	Fair	Good	Not Regulated	Poor	Scale present	0.35				2.0	0.9	1.4
50	Eucalyptus bicostata - Blue Gum	23	2	12	3	0	Fair	Good	Regulated Schedule 2	Medium	Thinning canopy, scar on trunk and	2.53				9.7	6.6	3.3
51	Eucalyptus bicostata - Blue Gum	7	2	3	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.70				2.7	1.8	1.9
52	Eucalyptus bicostata - Blue Gum	5	1	1	1	1	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.29				2.0	0.8	1.3
53	Eucalyptus melliodora -Yellow Box	4	2	2	1	1	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.31				2.0	0.8	1.4
54	Eucalyptus mannifera - Red Spotted Gum	3	1	1	1	1	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.23				2.0	0.6	1.2
55	Eucalyptus melliodora -Yellow Box	5	0	5	4	0	Good	Poor	Not Regulated	Poor	Poor form	0.55				2.1	1.4	1.7
56	Eucalyptus mannifera - Red Spotted Gum	5	5	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.37				2.0	1.0	1.5
57	Eucalyptus mannifera - Red Spotted Gum	4	1	2	1	1	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.31				2.0	0.8	1.4
58	Eucalyptus melliodora -Yellow Box	5	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.43				2.0	1.1	1.6
59	Eucalyptus melliodora -Yellow Box	3	0	1	3	2	Good	Fair	Not Regulated	Low	Juvenile tree could develop into a good tree	0.34				2.0	0.9	1.4
60	Eucalyptus bicostata - Blue Gum	8	3	3	3	3	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.89				3.4	2.3	2.1
61	Eucalyptus bicostata - Blue Gum	9	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.60				2.3	1.6	1.8
62	Eucalyptus bicostata - Blue Gum	14	4	4	4	4	Good	Good	Regulated Schedule 2	High		1.70				6.5	4.4	2.8
63	Eucalyptus bicostata - Blue Gum	11	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree could develop into a good tree	0.57				2.2	1.5	1.7
64	Eucalyptus bicostata - Blue Gum	28	3	9	8	2	Good	Good	Regulated Schedule 2	High	Copse of trees retain as group, past branch failure at10m	2.05				7.8	5.3	3.0
65	Eucalyptus bicostata - Blue Gum	28	3	9	4	3	Good	Good	Regulated Schedule 2	High	Copse of trees retain as group	1.49				5.7	3.9	2.6



Tree no.	Species	Height	Directional Canopy Radii (m)				Tree Condition		Tree Protection Status <sup>1</sup>	Tree Quality Classification	Comments	Circumference AS4970 (m)				Radius TPZ 970 (m)	D10T PZ (m)	Radius SRZ 970 (m)
			North	East	South	West	Health	Structure				1	2	3	4			
66	Eucalyptus bicostata - Blue Gum	28	2	12	9	2	Good	Fair	Regulated Schedule 2	Medium	Copse of trees retain as group skewed Canopy and cockatoo damage and large first order branch has been removed, deadwood present	1.96				7.5	5.1	2.9
67	Eucalyptus bicostata - Blue Gum	28	4	4	4	7	Good	Fair	Regulated Schedule 2	Medium	Retain as a group, no lower branches	1.66				6.3	4.3	2.7
68	Eucalyptus bicostata - Blue Gum	28	4	4	8	7	Good	Good	Regulated Schedule 2	Medium	Retain as a group, deadwood present and some cockatoo damage	1.92				7.3	5.0	2.9
69	Tree is missing															0.0	0.0	0.0
70	Eucalyptus melliodora -Yellow Box	14	4	9	4	7	Good	Poor	Regulated Tree	Medium	Minor deadwood and poor form	0.89				3.4	2.3	2.1
71	Eucalyptus melliodora -Yellow Box	18	8	4	4	9	Good	Fair	Regulated Tree	Medium	Minor deadwood and poor form	1.54				5.9	4.0	2.6
72	Eucalyptus melliodora -Yellow Box	22	5	3	2	5	Fair	Fair	Regulated Tree	Poor	Deadwood present, one dead leader	1.22				4.7	3.2	2.4
73	Eucalyptus polyanthemos - Red Box	8	5	3	3	4	Good	Good	Not Regulated	Medium	Minor deadwood	0.80				3.1	2.1	2.0
82	Eucalyptus melliodora -Yellow Box	21	8	5	8	4	Good	Good	Regulated Tree	Medium	Deadwood present	1.53				5.8	4.0	2.6
83	Eucalyptus pauciflora - Snow Gum	6	2	2	2	2	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.52				2.0	1.4	1.7
84	Eucalyptus polyanthemos - Red Box	18	5	8	10	6	Good	Good	Regulated Tree	High	Minor deadwood	1.60				6.1	4.2	2.7
85	Eucalyptus pauciflora - Snow Gum	7	3	3	5	5	Very Good	Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.78				3.0	2.0	2.0
86	Eucalyptus bicostata - Blue Gum	6	3	3	3	3	Good	Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.55				2.1	1.4	1.7
87	Eucalyptus sp. - Gum Tree	8	2	2	2	2	Good	Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.49				1.9	1.3	1.6
88	Eucalyptus sp. - Gum Tree	4	1	1	1	1	Good	Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.26				1.0	0.7	1.3
89	Eucalyptus pauciflora - Snow Gum	5	3	3	3	3	Good	Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.69				2.6	1.8	1.9
90	Eucalyptus pauciflora - Snow Gum	5	0	0	5	0	Good	Fair	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.45				1.7	1.2	1.6
91	Banksia sp	4	1	1	1	1	Fair	Good	Not Regulated	Low	Dieback in canopy	0.40				1.5	1.0	1.5
92	Banksia sp	5	1	1	1	1	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.53				2.0	1.4	1.7
93	Banksia sp	4	2	1	0	1	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.51				1.9	1.3	1.7
94	Eucalyptus pauciflora - Snow Gum	4	2	1	1	1	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.33				1.3	0.9	1.4
95	Eucalyptus pauciflora - Snow Gum	7	3	3	5	5	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.93				3.6	2.4	2.1
96	Eucalyptus blakelyi - Red Gum	4	1	1	1	1	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.28				1.1	0.7	1.3
97	Eucalyptus melliodora -Yellow Box	6	2	3	5	3	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.61				2.3	1.6	1.8
98	Eucalyptus melliodora -Yellow Box	8	2	3	5	4	Fair	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.64				2.4	1.7	1.8
99	Eucalyptus pauciflora - Snow Gum	8	4	4	4	4	Very Good	Very Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.87				3.3	2.3	2.1
100	Eucalyptus sp. - Gum Tree	10	3	5	3	3	Very Good	Very Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.76				2.9	2.0	2.0
101	Eucalyptus pauciflora - Snow Gum	5	3	3	3	3	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.54	0.26			2.3	1.6	1.8

Tree no.	Species	Height	Directional Canopy Radii (m)				Tree Condition		Tree Protection Status¹	Tree Quality Classification	Comments	Circumference AS4970 (m)				Radius TPZ4 970	D10T PZ (m)	Radius SRZ4 970 (m)
			North	East	South	West	Health	Structure				1	2	3	4			
102	Eucalyptus pauciflora - Snow Gum	7	4	4	4	4	Very Good	Very Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.81				3.1	2.1	2.0
103	Eucalyptus pauciflora - Snow Gum	7	3	3	3	3	Very Good	Very Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.44				1.7	1.1	1.6
104	Eucalyptus polyanthemos - Red Box	8	3	3	3	3	Good	Fair	Not Regulated	Low	Juvenile tree should develop into a good quality tree, some branch failure in the past	0.79				3.0	2.1	2.0
105	Eucalyptus polyanthemos - Red Box	8	6	6	6	5	Good	Fair	Regulated Tree	Medium	Multi leaders	0.58	0.63	0.63		4.1	2.8	2.3
106	Eucalyptus polyanthemos - Red Box	6	2	3	0	4	Good	Fair	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.58	0.34			2.6	1.7	1.9
107	Eucalyptus polyanthemos - Red Box	4	1	1	1	1	Fair	Good	Not Regulated	Low	Has declined and recovered	0.29				1.1	0.8	1.3
108	Eucalyptus melliodora -Yellow Box	5	1	1	1	1	Fair	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.35				1.3	0.9	1.4
109	Eucalyptus melliodora -Yellow Box	24	10	11	11	0	Good	Fair	Regulated Remnant	Medium	Some large deadwood over picnic area frequented by schoolchildren that should be removed and past branch failures, save two remnants as pair 109 & 113	2.60				9.9	6.8	3.3
110	Eucalyptus melliodora -Yellow Box	4	0	3	0	0	Good	Fair	Not Regulated	Low	Leaning but not structural	0.29				1.1	0.8	1.3
111	Eucalyptus melliodora -Yellow Box	6	1	1	1	1	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.31				1.2	0.8	1.4
112	Eucalyptus cinerea - Argyle Apple	13	3	3	3	3	Good	Good	Regulated Tree	High		0.84				3.2	2.2	2.1
113	Eucalyptus melliodora -Yellow Box	22	0	14	2	0	Good	Good	Regulated Remnant	High	Some minor deadwood over picnic area , some previous branch failure, save two remnants as a pair	2.52				9.6	6.5	3.3
114	Eucalyptus bicostata - Blue Gum	8	4	4	4	4	Good	Good	Not Regulated	Medium	Juvenile tree should develop into a good quality tree	0.82				3.1	2.1	2.0
115	Eucalyptus melliodora -Yellow Box	4	1	1	1	1	Good	Good	Not Regulated	Low	Juvenile tree should develop into a good quality tree	0.43				1.6	1.1	1.6
116	Eucalyptus camaldulensis - River Red Gum	8	2	2	2	3	Good	Fair	Not Regulated	Medium	Juvenile tree should develop into a good quality tree,prune out one leader	0.70				2.7	1.8	1.9
117	Eucalyptus melliodora -Yellow Box	20	11	12	10	10	Good	Good	Regulated Remnant	High	Deadwood present not in a high pedestrian zone	2.36				9.0	6.1	3.2
118	Acacia decurrens - Black Wattle	8	4	3	4	5	Poor	Poor	Regulated Tree	Poor	In decline borer and dieback	0.59	0.59	0.62		4.0	2.7	2.2
119	Acacia floribunda - White Sallow Wattle	4	4	4	4	5	Fair	Good	Regulated Tree	Poor	Short lived species	0.60	0.5	0.60		3.8	2.6	2.2
120	Eucalyptus melliodora -Yellow Box	19	6	9	3	2	Good	Fair	Regulated Tree	Medium	Major deadwood over picnic area needs to be removed retain as a group	0.96				3.7	2.5	2.2
121	Eucalyptus melliodora -Yellow Box	20	8	10	10	10	Good	Good	Regulated Tree	High	Retain as a group	1.90				7.3	4.9	2.9
122	Eucalyptus melliodora -Yellow Box	18	0	0	8		Good	Fair	Regulated Tree	Medium	Retain as a group, deadwood present and past branch failures	1.11				4.2	2.9	2.3



# Appendix 1

## Explanations of Terms Used in the Tree Assessments

This Assessment form has been developed to conform to the requirements of 'and; The AS4970-2009 'Protection of trees on development sites'

### 1. Tree Number

This is a unique sequential identification number allocated to each tree located on the block, overhanging the block or on the verge. The numbers are allocated in Figure 1. Note that these numbers do not match those allocated by Capital Ecology in the 'Australian War Memorial underground carpark – Ecological Impact Assessment' job 2890 dated 12 August 2019

### 2. Species

The binomial species name is given

### 3. 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 11metres.

### 4. Directional Canopy Radii'

Canopy radii were measured at 90<sup>0</sup> intervals starting at north by stepping. Where it is indicated that a more accurate radius may be important, it was measured by tape measure.

The four radial canopy diameters are shown (in meters) in the 'table. Where measurement of these would require entry onto neighbouring blocks or access was difficult, the measurements have been estimated. If required, the broadest canopy diameter is also measured to determine if a tree is regulated.

### 5. 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 are included in the **Comments Column** if significant.

### 6. Structure

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

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

**General comments in relation to** the tree's structure and specific comments on evidence of **Root Zone Disturbance** and **Structural Damage** to the tree are included in the **Comments Column** if significant.

### 7. Age Assessment

**J**=Juvenile

**EM**=Early Mature

**M**=Mature

**V**= Veteran Tree

### 8. Tree Protection Status

The legal status of each of the trees is given as one of the following:

~~**Not Regulated** -no protection required, can be retained or removed.~~

**Park Tree** -protected by legislation other than the Tree Protection Act 2005. To be protected by the LMPP (Landscape Management and Protection Plan), or otherwise negotiated with Urban treescapes section of TCCS.

**Pest Plant** - is a weed: no protection required, may be removed without permit (or retained: -depending on level of classification).

~~**Regulated Tree** -a tree that, due to its size, is classified as a 'Regulated Tree' under 'The Tree Protection Act 2005' and therefore a permit would be required to:~~

- ~~• Remove the tree;~~
- ~~• Prune the tree, except where the pruning is done by a qualified arborist and is done to the 'Australian Standard for Pruning of Amenity Trees' AS 4373;~~
- ~~• Carry out ground works within 2m of the 'drip line' of the tree.~~

~~A Tree Management Plan that is formulated according to the 'Notifiable Instrument NI2007-422: Tree Protection (Guidelines for Tree Management Plans) Determination 2007' is designed to act as an application for the Tree Damaging Activities associated with this development.~~

**Registered Tree** -a tree that has been nominated to the 'Significant Tree' Register. It may have more rigorous protection measures than a regulated tree (refer to its listing on the Tree Register).

**Remnant** – a regulated tree that is also a remnant eucalypt. For a Remnant, the Approval Criteria 1 (1) (d) (Inappropriate location) & (e) (substantially affecting solar access) in Disallowable Instrument *Tree Protection (Approval Criteria) Determination (No.2) DI2006-60* do not apply. Remnant eucalypt is not defined in the DI2006-60. In this assessment, it is taken as a eucalypt that was likely to be present at the time of initial subdivision of the land on which it stands.

~~**Schedule 2** – a regulated tree that is of a species listed in Schedule 2 of Disallowable Instrument *Tree Protection (Approval Criteria) Determination (No.2) DI2006-60*. Schedule 2 lists problematic tree species for which the conservator may give approval for removal, if on a block of less than 1200m<sup>2</sup>~~

**Street Tree** -protected by legislation other than the Tree Protection Act 2005. To be protected by the Landscape Management and Protection Plan (LMPP).

### 9. Tree Quality Classification

These classifications are based on the guidelines in the 'Draft Guidelines for the Preparation of Tree Management Reports for Development on unleased Territory Land 2004 Draft'.

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

**Low** - A tree that does not have significant amenity value. (the classification Low Quality has been added (by Canopy Tree Experts) to this classification to indicate a tree that has no formal reason for removal other than is lack of significance in the landscape. Some of these trees may have potential to become significant, in which case this is indicated in the comments column.

**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, cultural** and **natural heritage** values. Trees with significant **botanic/scientific, cultural** and **natural heritage** values may not be ruled out of the exceptional classification due to health, structure or safety concerns.

### 10. Comments

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

### 11. Circumference<sup>4970</sup>

Trunk Circumference for the calculation of the Tree Protection Zone as per Australian Standard AS4970-2009 (TPZ<sup>4970</sup>) is the trunk circumference at 1.4m above ground level. It is expressed in metres 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<sup>4970</sup>**. 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).

### 12. 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 TPZ<sup>4970</sup> may need to be extended to include crown protection.

### 13. D10 TPZ

This is a construct of Canopy Tree Experts. It is the distance from the centre of the trunk to a straight-line excavation past the trunk that would excise 10% of the area of the TPZ<sup>4970</sup>. This measurement has no regulatory standing. It is only an indication how much root loss may occur with the such an excavation but should be interpreted in conjunction with on-site observations as to where active absorptive roots are likely to be, species knowledge and water availability. It is presented here as one example of how a 10% loss of TPZ<sup>4970</sup> area could occur.

### 14. Radius SRZ<sup>4970</sup>

The figure given here is an approximation of the Structural Root Zone diameter as proposed in AS4970-2009. It is approximate as it is calculated from the circumference at 1.4m AGL + 20%, instead of the measurement at the root buttress. It is an indication only of the size of root ball required for tree stability

Accurate calculation of the SRZ may be required if a major encroachment into the TPZ<sup>4970</sup> is envisaged

### 15. 2021 Tree condition

**UC** = unchanged tree condition since the previous tree inspection.

**R** = Tree has already been removed

Arboricultural Impact Assessment

## Appendix 2– Method and Limits

### Method

The inspection of the trees was limited to a visual examination from ground level without the use of boring or testing devices.

The VTA method<sup>2</sup> was used. Defects were identified and evaluated along with the tree's response to those defects, the tree's health and tree's vigour to produce an understanding of the tree's soundness.

Where indications suggest that 'sounding' would be worthwhile the trunk was 'sounded' with a mallet.

### Limits

#### ***Covers only those trees listed***

The information in this report covers only those trees listed and reflects the condition of those trees at the time of the inspection.

#### ***Natural variability of trees and their environment***

Canopy Tree Experts' arborists conscientiously apply their knowledge in assessing trees and recommending treatments with the aim of achieving the best outcomes for their clients' trees. However, given the natural variability of trees, the arborist may not be able to detect every possible way a tree, or part of a tree, may fail above or below ground. The arborist may not be able to predict when a tree may fail, but the arborist will be able to identify most problems, and the risk of failure will be reduced by having your trees inspected and carrying out of the arborist's recommendations.

#### ***Verbal Advice***

Caution should be taken in interpreting advice given verbally as understanding and recollection may be unreliable.

#### ***Further studies that may be required***

No **heritage, ecological or habitat assessments** were carried out for this site by Canopy Tree Expert's arborists or their agents.

No assessment of the **benefits** of these trees was made.

#### ***Tree Risk Assessment***

Although the arborist is qualified and authorised to assess risk by both the QTRA and TRAQ methods of assessment, neither method was carried out for this report. However, the training for these authorisations will have influenced the way in which the assessor views the risk associated with trees. A QTRA assessment can be carried out if requested. ([www.qtra.co.uk](http://www.qtra.co.uk), [www.isa-arbor.com](http://www.isa-arbor.com) )

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<sup>2</sup> VTA Method (Visual Tree Assessment) as presented in *The body language of trees* 1994 Mattheck, Claus & Breloer, Helge, The Stationery office, Norwich, UK pp.118-120.