



TREE SURVEY


ARBORICULTURAL IMPACT ASSESSMENT & TREE PROTECTION PLAN

Minarah College, Catherine Field
268-278 Catherine Fields Road, Catherine Field
Version 1

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Prepared by:	 Phil Witten Principal Arborist & GIS Analyst Diploma of Arboriculture AQF 5 Graduate Certificate of Arboriculture AQF 8 Registered Consulting Arborist No. 2458 Advanced QTRA TRAQ Qualification
Contact details:	Tree Survey Pty Limited 📞 0425 536 670 ✉ phil@treesurvey.com.au 💻 www.treesurvey.com.au 📍 PO Box 125, Hornsby NSW 1630, Australia

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Abbreviations

Abbreviation	Description
AQF	Australian Qualifications Framework
AS	Australian Standards
DBH	Diameter at Breast Height
Id	Identification
m	Metre
mm	Millimetre
NDE	Non-Destructive Excavation
NO	Number
NSW	New South Wales
sp.	Species
SRZ	Structural Root Zone
TPZ	Tree Protection Zone
VTA	Visual Tree Assessment

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1 Background

1.1 Introduction

This arboricultural impact assessment (AIA) and tree protection plan (TPP) has been prepared by Tree Survey Pty Ltd on behalf of the Green Valley Islamic College Ltd (the Applicant). It accompanies an Environmental Impact Statement (EIS) in support of State Significant Development Application (SSD-30759158) for Minarah College at 268 and 278 Catherine Fields Road, Catherine Field (the site).

Minarah College will be a co-educational K-12 school accommodating 1,580 students, 840 in primary school, and 660 in high school. There will also be an Early Learning Centre (ELC) for 60 students and a School for Specific Purpose (SSP) for 20 students. The new school will be constructed in stages, growing in line with growth in the local population.

The proposal seeks consent for:

- Demolition of the existing dwellings and ancillary structures on-site;
- The construction of the following:
 - One-storey early learning centre with attached two-storey administration building to service the high school and early learning centre;
 - Two-storey primary school building comprising of primary school classrooms, SPP classrooms, primary school hall which attached outside school hours care (OSHC);
 - Two-storey high school building comprising high school classrooms;
 - Two-storey high school hall;
 - Shared one-storey canteen adjoining the high school building; and
 - Shared library located on the second storey above administration building below.
- Site access from Catherine Fields Road at two points with a bus zone, 30 kiss and drop car parking spaces, and car parking;
- Consolidation of the allotments;
- Associated site landscaping and public domain improvements;
- An on-site car park for 123 parking spaces; and
- Construction of ancillary infrastructure and utilities as required.

The purpose of this arboricultural impact assessment (AIA) and tree protection plan (TPP) is to:

- Identify the trees within and adjacent to the proposed disturbance footprint.
- Assess the current health and condition of the subject trees.
- Assess the potential impacts of the development on the subject trees.
- Evaluate the significance of the subject trees and assess their suitability for retention.

1.2 Response to SEARs

The arboricultural impact assessment is required by the Secretary's Environmental Assessment Requirements (SEARs) for **SSD-30759158**. This table identifies the SEARs and relevant reference within this report.

Table 1: SEARs and Relevant Reference

SEARs Item	Report Reference
Arboricultural Impact Assessment	Pages 1-26
-	-
-	-

1.3 Documents and plans referenced

The conclusions and recommendations of this report are based on the Australian Standard, AS 4970-2009, Protection of Trees on Development Sites, the findings from the site inspections, and analysis of the documents/plans listed in **Table 2**.

Table 2: Documents and plans

Document	Author	Version	Date
Survey Plan	CMS Surveyors	1	25/03/21
Architectural Plans	Tonkin Zulaikha Greer Architects	A	31/03/22
Landscape Plans	Taylor Brammer	P1	25/02/22

The site plan and landscape plan have been used as map layers in the **Arboricultural Impact Assessment** and **Tree Protection Plan**.

1.4 The subject trees

A total of **335** trees were assessed and included in this report. The subject trees were assessed in accordance with a visual tree assessment (VTA) as formulated by Mattheck & Breloer (1994), and practices consistent with modern arboriculture. The following limitations apply to this methodology:

- Trees were inspected from ground level, without the use of any invasive or diagnostic tools and testing. Trees within adjacent properties or restricted areas were not subject to a complete visual inspection (i.e., defects and abnormalities may be present but not recorded).
- Diameter at breast height (DBH) has been accurately measured using a diameter tape (where access to the trees was available). Tree height and canopy spread were estimated unless otherwise stated.
- Tree protection zones have been calculated in accordance with Australian Standard, AS 4970-2009, Protection of Trees on Development Sites using the DBH measurements.

A tree retention assessment has been undertaken in accordance with the Institute of Australian Consulting Arboriculturalists (IACA) Significance of a Tree, Assessment Rating System (see **Appendices**). Further information, observations, and measurements specific to each of the subject trees can be found in **Chapter 3**.

2 Arboricultural Impact Assessment (AIA)

2.1 Impact assessment

There are two types of zones (as defined by AS 4970-2009) that need to be considered when undertaking an arboricultural impact assessment:

- **Tree protection zone (TPZ):** The TPZ is the optimal combination of crown and root area (as defined by AS 4970-2009) that requires protection during the construction process so that the tree can remain viable. The TPZ is calculated by measuring the diameter at breast height (DBH) and multiplying it by twelve (12). The resulting value is applied as a radial measurement from the centre of the trunk to delineate the TPZ.
- **Structural root zone (SRZ):** The SRZ is the area of the root system used for stability, mechanical support, and anchorage of the tree.

Encroachment within the TPZ is acceptable, providing that the arborist can demonstrate that the tree will remain viable. There are three (3) levels of encroachment (as defined by AS 4970-2009):

- **Nil encroachment (0%):** No encroachment within the TPZ.
- **Minor encroachment (<10%):** The encroachment is less than 10% of the TPZ.
- **Major encroachment (>10%):** The encroachment is greater than 10% of the TPZ.

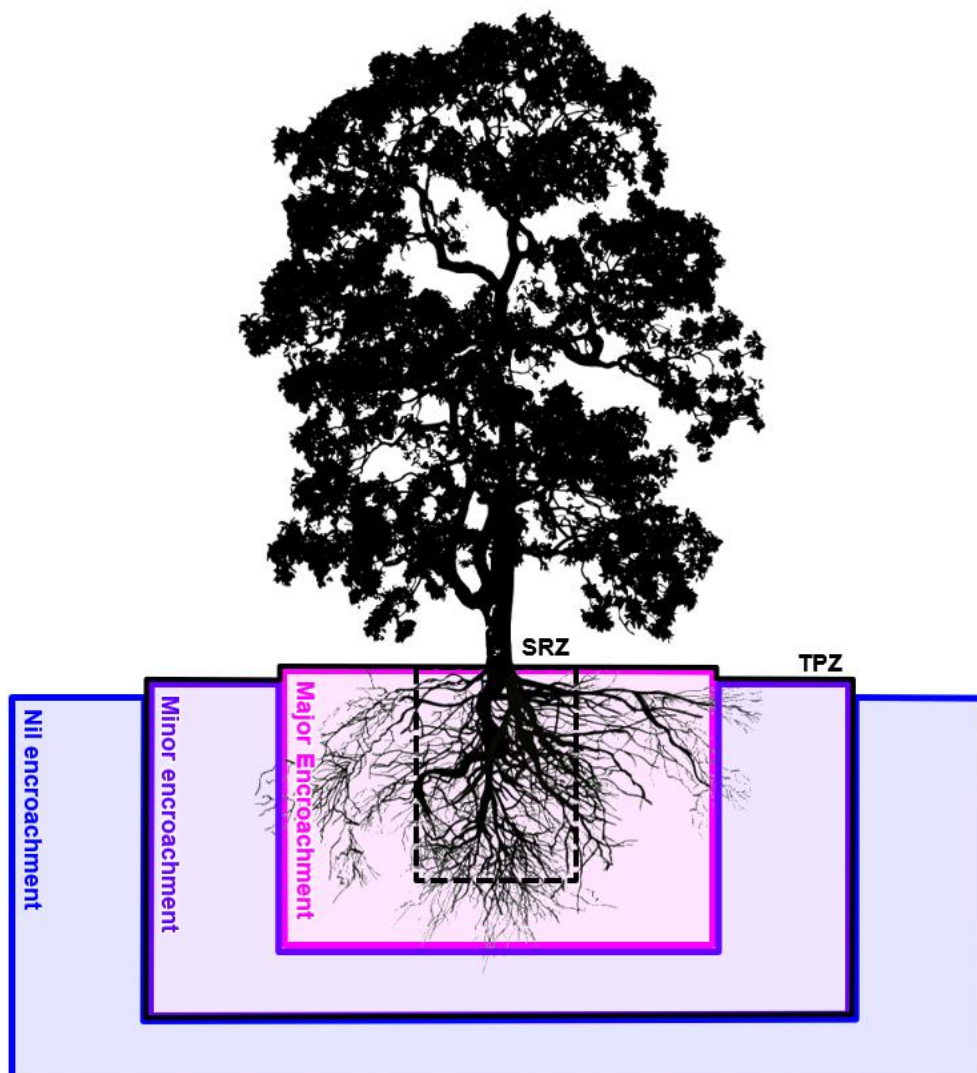


Figure 1: Three (3) levels of encroachment

2.2 Mitigating the impacts

Encroachment within the TPZ should be compensated with a range of mitigation measures to ensure that impacts to the subject tree(s) are reduced or restricted wherever possible. Mitigation should be increased relative to the level of encroachment within the TPZ to ensure the subject tree(s) remain viable. The table below outlines requirements under AS 4970-2009, and mitigation measures required within each category of encroachment. These mitigation measures will only apply if trees are proposed to be retained.

Table 3: Mitigation measures

Encroachment	Mitigation Measures
Nil encroachment (0%)	<ul style="list-style-type: none"> N/A
Minor encroachment (<10%)	<ul style="list-style-type: none"> The area lost to this encroachment should be compensated for elsewhere, contiguous with the TPZ. Detailed root investigations should not be required. Tree protection must be installed.
Major encroachment (>10%)	<ul style="list-style-type: none"> The project arborist must demonstrate the tree(s) would remain viable. Root investigation by non-destructive methods may be required for any trees proposed for retention. Consideration of relevant factors, including root location and distribution, tree species, condition, site constraints, and design factors. The area lost to this encroachment should be compensated for elsewhere, contiguous with the TPZ. The project arborist will be required to supervise any work within the TPZ. Tree protection must be installed.

3 Results

Table 4 shows the results of the arboricultural assessment. Key points are:

3.1 Encroachment within the TPZ

A summary of trees impacted directly by the proposed construction footprint is outlined below:

- **Nil encroachment (0%):** A total of **92** trees are located outside the construction footprint.
- **Minor encroachment (<10%):** A total of **9** trees will be subject to a minor encroachment.
- **Major encroachment (>10%):** A total of **234** trees will be subject to a major encroachment.

3.2 Tree removal and retention

A summary of the total proposed tree removals is outlined below :

- **Retain:** A total of **105** trees are proposed for retention.
- **Remove:** A total of **230** trees are proposed for removal.

Table 4: Results of the arboricultural assessment

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ	Other notes	Proposal
1	Casuarina cunninghamiana	7	2	Good	Fair	Semi-mature	Low	Medium	Medium	150	-	-	150	150	2.0	1.5	Nil	0%	-	Retain
2	Casuarina cunninghamiana	9	6	Fair	Fair	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Minor	9%	Tree is growing on a lean	Retain
3	Casuarina cunninghamiana	10	6	Fair	Good	Mature	Medium	Medium	Medium	350	-	-	350	400	4.2	2.3	Major	100%	-	Remove
4	Casuarina cunninghamiana	10	4	Good	Good	Mature	Medium	Medium	Medium	400	-	-	400	450	4.8	2.4	Major	100%	-	Remove
5	Casuarina cunninghamiana	10	3	Good	Good	Mature	Medium	Medium	Medium	400	-	-	400	450	4.8	2.4	Major	100%	-	Remove
6	Casuarina cunninghamiana	9	6	Good	Fair	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
7	Casuarina cunninghamiana	9	7	Good	Fair	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	Tree is growing on a lean	Remove
8	Casuarina cunninghamiana	12	4	Good	Good	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
9	Casuarina cunninghamiana	9	5	Good	Good	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
10	Casuarina cunninghamiana	10	6	Good	Fair	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	Tree is growing on a lean	Remove
11	Casuarina cunninghamiana	9	7	Good	Good	Mature	Medium	Medium	Medium	400	-	-	400	450	4.8	2.4	Major	100%	-	Remove
12	Casuarina cunninghamiana	9	5	Fair	Good	Mature	Medium	Medium	Medium	450	-	-	450	500	5.4	2.5	Major	100%	-	Remove
13	Casuarina cunninghamiana	10	6	Good	Fair	Mature	Medium	Medium	Medium	350	-	-	350	400	4.2	2.3	Major	100%	Tree is growing on a lean	Remove
14	Casuarina cunninghamiana	10	4	Good	Fair	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	33%	-	Remove
15	Casuarina cunninghamiana	7	4	Good	Fair	Semi-mature	Low	Medium	Medium	150	-	-	150	150	2.0	1.5	Nil	0%	-	Retain
16	Casuarina cunninghamiana	9	5	Fair	Fair	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Nil	0%	Tree is growing on a lean	Retain
17	Casuarina cunninghamiana	9	4	Good	Good	Mature	Medium	Medium	Medium	350	-	-	350	400	4.2	2.3	Major	16%	-	Retain
18	Casuarina cunninghamiana	8	6	Good	Poor	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	28%	-	Remove
19	Casuarina cunninghamiana	10	12	Good	Good	Mature	Medium	Medium	Medium	500	-	-	500	550	6.0	2.6	Major	100%	-	Remove
20	Casuarina cunninghamiana	10	5	Good	Good	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
21	Casuarina cunninghamiana	9	5	Good	Fair	Mature	Medium	Medium	Medium	200	150	100	300	350	3.6	2.1	Major	100%	Severe included bark junction	Remove
22	Casuarina cunninghamiana	8	5	Good	Good	Mature	Medium	Medium	Medium	150	-	-	150	150	2.0	1.5	Major	100%	-	Remove
23	Casuarina cunninghamiana	8	3	Good	Good	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
24	Casuarina cunninghamiana	7	3	Good	Good	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
25	Casuarina cunninghamiana	7	3	Good	Good	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
26	Casuarina cunninghamiana	10	5	Fair	Good	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
27	Casuarina cunninghamiana	10	4	Good	Good	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
28	Casuarina cunninghamiana	10	3	Good	Good	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
29	Casuarina cunninghamiana	12	4	Good	Good	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
30	Casuarina cunninghamiana	9	5	Good	Good	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
31	Casuarina cunninghamiana	9	5	Good	Good	Mature	Medium	Medium	Medium	350	-	-	350	400	4.2	2.3	Major	100%	Tree is growing on a lean	Remove

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ	Other notes	Proposal
32	Casuarina cunninghamiana	10	6	Good	Good	Mature	Medium	Medium	Medium	350	-	-	350	400	4.2	2.3	Major	100%	Tree is growing on a lean	Remove
33	Casuarina cunninghamiana	8	6	Good	Good	Mature	High	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	Included bark junction	Remove
34	Casuarina cunninghamiana	8	6	Good	Fair	Mature	High	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	Trunk wounds	Remove
35	Casuarina cunninghamiana	8	6	Good	Fair	Mature	High	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	Trunk wounds	Remove
36	Casuarina cunninghamiana	8	8	Good	Fair	Mature	High	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	Severe included bark junction	Remove
37	Casuarina cunninghamiana	8	6	Good	Good	Mature	High	Medium	Medium	350	-	-	350	400	4.2	2.3	Major	100%	-	Remove
38	Casuarina cunninghamiana	8	6	Good	Good	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
39	Casuarina cunninghamiana	7	4	Poor	Poor	Dead	Low	Dead	Low	200	-	-	200	250	2.4	1.9	Major	100%	Dead tree	Remove
40	Casuarina cunninghamiana	9	6	Poor	Poor	Dead	Low	Dead	Low	300	-	-	300	350	3.6	2.1	Major	100%	Dead tree	Remove
41	Cupaniopsis anacardioides	4	2	Good	Good	Semi-mature	Low	Long	Medium	100	-	-	100	100	2.0	1.5	Major	100%	-	Remove
42	Cupaniopsis anacardioides	4	3	Good	Good	Semi-mature	Low	Long	Medium	100	-	-	100	100	2.0	1.5	Major	100%	-	Remove
43	Lagerstroemia indica	4	3	Good	Good	Mature	Low	Long	Medium	100	100	100	200	250	2.4	1.9	Minor	1%	-	Retain
44	Melia azedarach	5	6	Good	Good	Mature	Medium	Long	Medium	250	-	-	250	300	3.0	2.0	Minor	1%	-	Retain
45	Jacaranda mimosifolia	7	6	Good	Good	Mature	Medium	Long	Medium	250	-	-	250	300	3.0	2.0	Minor	3%	-	Retain
46	Lagerstroemia indica	4	5	Good	Good	Mature	Low	Long	Medium	100	100	100	200	250	2.4	1.9	Minor	5%	-	Retain
47	Melia azedarach	4	4	Good	Good	Mature	Low	Long	Medium	150	100	100	200	250	2.4	1.9	Major	100%	-	Remove
48	Casuarina cunninghamiana	8	7	Good	Good	Mature	Medium	Medium	Medium	300	200	-	400	450	4.8	2.4	Major	100%	-	Remove
49	Melia azedarach	3	4	Good	Poor	Mature	Low	Medium	Low	100	100	100	200	250	2.4	1.9	Major	100%	Regrowth from stump.	Remove
50	Dead tree	9	7	Poor	Poor	Dead	Low	Dead	Low	400	-	-	400	450	4.8	2.4	Major	100%	Dead tree	Remove
51	Dead tree	12	5	Poor	Poor	Dead	Low	Dead	Low	450	-	-	450	500	5.4	2.5	Major	100%	Dead tree	Remove
52	Dead tree	18	8	Poor	Poor	Dead	Low	Dead	Low	1000	-	-	1000	1100	12.0	3.4	Major	100%	Dead tree	Remove
53	Eucalyptus tereticornis	20	18	Good	Fair	Mature	High	Long	High	900	-	-	900	1200	10.8	3.6	Major	100%	Large hollow, probable habitat. Remnant.	Remove
54	Casuarina cunninghamiana	9	5	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
55	Casuarina cunninghamiana	10	5	Good	Good	Mature	Low	Medium	Medium	400	-	-	400	450	4.8	2.4	Major	100%	-	Remove
56	Casuarina cunninghamiana	7	6	Good	Poor	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	Tree is growing on a lean	Remove
57	Casuarina cunninghamiana	9	5	Good	Fair	Mature	Low	Medium	Medium	200	200	-	300	350	3.6	2.1	Major	100%	-	Remove
58	Casuarina cunninghamiana	10	5	Good	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
59	Schinus molle	4	6	Fair	Good	Mature	Low	Medium	Low	200	200	150	300	350	3.6	2.1	Major	100%	Internodal pruning	Remove
60	Dead tree	6	5	Poor	Poor	Dead	Low	Dead	Low	350	-	-	350	400	4.2	2.3	Major	100%	Dead tree	Remove
61	Eucalyptus tereticornis	20	12	Good	Good	Mature	High	Long	High	1100	-	-	1100	1200	12.6	3.6	Major	100%	Remnant. Contains large hollow	Remove
62	Casuarina cunninghamiana	9	7	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
63	Casuarina cunninghamiana	6	8	Good	Fair	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	Previous failure	Remove

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ	Other notes	Proposal
64	Casuarina cunninghamiana	12	6	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
65	Nyssa sylvatica	5	3	Good	Poor	Semi-mature	Low	Short	Low	150	-	-	150	150	2.0	1.5	Nil	0%	Termite damage.	Retain
66	Eucalyptus tereticornis	20	14	Fair	Fair	Mature	High	Medium	High	650	-	-	650	700	7.8	2.9	Minor	4%	Previous limb failures, trunk wound. Remnant.	Retain
67	Dead tree	6	5	Poor	Poor	Dead	Low	Dead	Low	350	-	-	350	400	4.2	2.3	Nil	0%	Previous failure	Retain
68	Phoenix sp.	5	5	Good	Good	Mature	Low	Long	Medium	600	-	-	600	650	7.2	2.8	Nil	0%	-	Retain
69	Pinus radiata	12	10	Good	Good	Mature	Medium	Long	Medium	650	-	-	650	700	7.8	2.9	Minor	5%	-	Retain
70	Dead tree	12	4	Poor	Poor	Dead	Low	Dead	Low	800	-	-	800	850	9.6	3.1	Major	100%	Previous failure	Remove
71	Dead tree	10	5	Poor	Poor	Dead	Low	Dead	Low	600	-	-	600	650	7.2	2.8	Major	100%	Previous failure	Remove
72	Eucalyptus moluccana	20	7	Good	Fair	Mature	High	Long	High	450	-	-	450	500	5.4	2.5	Nil	0%	Remnant	Retain
73	Eucalyptus tereticornis	20	14	Good	Good	Mature	High	Long	High	450	450	400	600	650	7.2	2.8	Nil	0%	Remnant	Retain
74	Dead tree	7	6	Poor	Poor	Dead	Low	Dead	Low	300	-	-	300	350	3.6	2.1	Nil	0%	Dead tree	Retain
75	Cupressus sp.	8	6	Good	Good	Mature	Medium	Long	Medium	400	-	-	400	450	4.8	2.4	Major	100%	-	Remove
76	Jacaranda mimosifolia	7	3	Good	Fair	Semi-mature	Low	Long	Medium	150	150	-	200	250	2.4	1.9	Major	100%	-	Remove
77	Syagrus romanzoffiana	6	6	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
78	Eucalyptus scoparia	9	8	Fair	Good	Mature	Low	Medium	Medium	350	-	-	350	400	4.2	2.3	Major	100%	Canopy dieback	Remove
79	Eucalyptus tereticornis	20	14	Good	Good	Mature	High	Long	High	950	-	-	950	1000	11.4	3.3	Major	100%	Remnant.	Remove
80	Brachychiton populneus	5	2	Good	Good	Semi-mature	Low	Long	Medium	150	-	-	150	150	2.0	1.5	Major	100%	-	Remove
81	Dead tree	6	5	Poor	Poor	Dead	Low	Dead	Low	200	-	-	200	250	2.4	1.9	Major	100%	Dead tree	Remove
82	Eucalyptus tereticornis	7	7	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Major	100%	-	Remove
83	Schinus molle	4	5	Fair	Good	Mature	Low	Medium	Low	200	200	-	300	350	3.6	2.1	Major	100%	-	Remove
84	Syagrus romanzoffiana	6	6	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
85	Syagrus romanzoffiana	4	4	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
86	Syagrus romanzoffiana	7	6	Good	Good	Mature	Low	Medium	Low	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
87	Jacaranda mimosifolia	8	5	Good	Good	Mature	Low	Long	Medium	150	150	-	200	250	2.4	1.9	Major	100%	-	Remove
88	Syagrus romanzoffiana	7	6	Good	Good	Mature	Low	Medium	Low	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
89	Casuarina cunninghamiana	9	6	Good	Good	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
90	Brachychiton acerifolius	7	5	Good	Good	Mature	Medium	Long	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
91	Jacaranda mimosifolia	7	3	Good	Good	Mature	Low	Long	Medium	200	150	-	300	350	3.6	2.1	Major	100%	-	Remove
92	Casuarina cunninghamiana	7	5	Good	Good	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
93	Eucalyptus obliqua	18	18	Good	Good	Mature	High	Long	High	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
94	Syagrus romanzoffiana	5	6	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
95	Syagrus romanzoffiana	4	5	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ		Other notes	Proposal
96	<i>Syagrus romanzoffiana</i>	5	5	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
97	<i>Syagrus romanzoffiana</i>	6	5	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
98	<i>Leptospermum sp.</i>	6	5	Good	Good	Mature	Low	Long	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
99	<i>Eucalyptus tereticornis</i>	18	9	Good	Good	Mature	Medium	Long	High	550	-	-	550	600	6.6	2.7	Major	36%	-		Remove
100	<i>Eucalyptus tereticornis</i>	18	7	Fair	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
101	<i>Eucalyptus tereticornis</i>	18	12	Fair	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
102	<i>Eucalyptus tereticornis</i>	16	9	Poor	Fair	Mature	Medium	Medium	Medium	350	-	-	350	400	4.2	2.3	Nil	0%	Canopy dieback		Retain
103	<i>Eucalyptus tereticornis</i>	18	7	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Nil	0%	-		Retain
104	<i>Eucalyptus tereticornis</i>	7	5	Good	Good	Semi-mature	Medium	Long	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	-		Retain
105	<i>Dead tree</i>	7	1	Poor	Poor	Dead	Low	Dead	Low	200	-	-	200	250	2.4	1.9	Nil	0%	Dead tree		Retain
106	<i>Eucalyptus moluccana</i>	8	6	Good	Good	Semi-mature	Medium	Long	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	-		Retain
107	<i>Eucalyptus tereticornis</i>	18	7	Good	Good	Mature	Medium	Long	High	400	-	-	400	450	4.8	2.4	Nil	0%	-		Retain
108	<i>Eucalyptus moluccana</i>	9	4	Fair	Good	Semi-mature	Medium	Long	Medium	150	-	-	150	150	2.0	1.5	Nil	0%	-		Retain
109	<i>Casuarina cunninghamiana</i>	10	4	Fair	Good	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	-		Retain
110	<i>Casuarina cunninghamiana</i>	9	4	Fair	Good	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	-		Retain
111	<i>Casuarina cunninghamiana</i>	9	3	Fair	Good	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	-		Retain
112	<i>Dead tree</i>	8	3	Poor	Poor	Dead	Low	Dead	Low	200	-	-	200	250	2.4	1.9	Nil	0%	Dead tree		Retain
113	<i>Casuarina cunninghamiana</i>	7	4	Fair	Good	Mature	Medium	Medium	Medium	200	150	-	300	350	3.6	2.1	Nil	0%	-		Retain
114	<i>Casuarina cunninghamiana</i>	10	5	Fair	Good	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	-		Retain
115	<i>Eucalyptus tereticornis</i>	14	8	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Nil	0%	-		Retain
116	<i>Casuarina cunninghamiana</i>	9	5	Good	Fair	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Nil	0%	Previous failure		Retain
117	<i>Pinus radiata</i>	10	6	Good	Fair	Mature	Medium	Long	High	650	-	-	650	700	7.8	2.9	Nil	0%	Neighbouring tree.		Retain
118	<i>Casuarina cunninghamiana</i>	9	4	Good	Good	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
119	<i>Casuarina cunninghamiana</i>	10	5	Good	Good	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-		Remove
120	<i>Casuarina cunninghamiana</i>	10	6	Good	Good	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
121	<i>Eucalyptus tereticornis</i>	16	7	Good	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Nil	0%	Neighbouring tree		Retain
122	<i>Eucalyptus moluccana</i>	10	4	Good	Good	Semi-mature	Medium	Long	High	150	100	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree		Retain
123	<i>Dead tree</i>	7	2	Poor	Poor	Dead	Low	Dead	Low	150	-	-	150	150	2.0	1.5	Nil	0%	Dead tree		Retain
124	<i>Eucalyptus moluccana</i>	7	3	Poor	Good	Semi-mature	Medium	Medium	Medium	150	-	-	150	150	2.0	1.5	Nil	0%	Neighbouring tree. Canopy dieback		Retain
125	<i>Eucalyptus moluccana</i>	10	3	Fair	Good	Semi-mature	Medium	Long	High	150	-	-	150	150	2.0	1.5	Nil	0%	Neighbouring tree		Retain
126	<i>Eucalyptus moluccana</i>	12	5	Fair	Good	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree		Retain
127	<i>Eucalyptus moluccana</i>	12	5	Good	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Nil	0%	Neighbouring tree		Retain

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ	Other notes	Proposal
128	<i>Eucalyptus tereticornis</i>	18	7	Fair	Good	Mature	Medium	Long	High	450	-	-	450	500	5.4	2.5	Nil	0%	Neighbouring tree	Retain
129	<i>Eucalyptus tereticornis</i>	16	7	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree	Retain
130	<i>Eucalyptus moluccana</i>	12	4	Good	Good	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree	Retain
131	<i>Casuarina cunninghamiana</i>	12	2	Good	Good	Mature	Medium	Medium	Medium	150	-	-	150	150	2.0	1.5	Nil	0%	Neighbouring tree	Retain
132	<i>Casuarina cunninghamiana</i>	7	3	Fair	Good	Mature	Medium	Medium	Medium	150	-	-	150	150	2.0	1.5	Nil	0%	Neighbouring tree	Retain
133	<i>Olea africana</i>	6	7	Good	Good	Mature	Low	Long	Low	150	100	100	200	250	2.4	1.9	Nil	0%	Neighbouring tree	Retain
134	<i>Casuarina cunninghamiana</i>	10	3	Good	Good	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree	Retain
135	<i>Casuarina cunninghamiana</i>	10	3	Good	Fair	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree. Trunk wounds	Retain
136	<i>Casuarina cunninghamiana</i>	10	3	Good	Fair	Mature	Medium	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree. Trunk wounds	Retain
137	<i>Casuarina cunninghamiana</i>	10	3	Good	Fair	Mature	Medium	Medium	Medium	150	-	-	150	150	2.0	1.5	Nil	0%	Neighbouring tree. Trunk wounds	Retain
138	<i>Eucalyptus moluccana</i>	12	8	Fair	Poor	Over-mature	Medium	Medium	High	1100	-	-	1100	1200	12.6	3.6	Nil	0%	Neighbouring tree. Trunk failed at 12m. Habitat is likely.	Retain
139	<i>Eucalyptus tereticornis</i>	16	3	Fair	Good	Mature	Medium	Medium	High	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree. Canopy dieback	Retain
140	<i>Casuarina cunninghamiana</i>	10	2	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
141	<i>Casuarina cunninghamiana</i>	10	3	Poor	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	Canopy dieback	Remove
142	<i>Casuarina cunninghamiana</i>	10	3	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
143	<i>Casuarina cunninghamiana</i>	10	2	Fair	Good	Mature	Low	Medium	Medium	150	-	-	150	150	2.0	1.5	Major	100%	-	Remove
144	<i>Casuarina cunninghamiana</i>	7	5	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
145	<i>Casuarina cunninghamiana</i>	7	2	Poor	Fair	Mature	Low	Short	Medium	150	-	-	150	150	2.0	1.5	Major	100%	Canopy dieback	Remove
146	<i>Casuarina cunninghamiana</i>	7	2	Poor	Fair	Mature	Low	Short	Medium	150	-	-	150	150	2.0	1.5	Major	100%	Canopy dieback	Remove
147	<i>Dead tree</i>	10	6	Poor	Poor	Dead	Low	Dead	Low	200	-	-	200	250	2.4	1.9	Nil	0%	Dead tree	Retain
148	<i>Dead tree</i>	12	5	Poor	Poor	Dead	Low	Dead	Low	250	-	-	250	300	3.0	2.0	Nil	0%	Dead tree	Retain
149	<i>Eucalyptus moluccana</i>	12	7	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	-	Retain
150	<i>Eucalyptus moluccana</i>	18	9	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Nil	0%	-	Retain
151	<i>Eucalyptus moluccana</i>	8	4	Good	Fair	Semi-mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Included bark junction	Retain
152	<i>Casuarina cunninghamiana</i>	12	4	Fair	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
153	<i>Casuarina cunninghamiana</i>	12	2	Good	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
154	<i>Casuarina cunninghamiana</i>	12	3	Good	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
155	<i>Casuarina cunninghamiana</i>	12	3	Good	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
156	<i>Casuarina cunninghamiana</i>	14	5	Good	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
157	<i>Casuarina cunninghamiana</i>	14	4	Good	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
158	<i>Casuarina cunninghamiana</i>	14	5	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
159	<i>Casuarina cunninghamiana</i>	10	4	Poor	Good	Mature	Low	Short	Low	250	-	-	250	300	3.0	2.0	Major	100%	Canopy dieback	Remove

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ	Other notes	Proposal
160	Casuarina cunninghamiana	12	4	Good	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
161	Casuarina cunninghamiana	10	4	Good	Fair	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	Included bark junction	Remove
162	Casuarina cunninghamiana	12	2	Good	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
163	Casuarina cunninghamiana	12	5	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
164	Casuarina cunninghamiana	12	5	Fair	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
165	Dead tree	10	9	Poor	Poor	Dead	Low	Dead	Low	350	-	-	350	400	4.2	2.3	Major	100%	Dead tree	Remove
166	Eucalyptus moluccana	14	9	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	-	Retain
167	Casuarina cunninghamiana	12	4	Good	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	-	Retain
168	Casuarina cunninghamiana	10	4	Good	Good	Mature	Low	Medium	Medium	150	-	-	150	150	2.0	1.5	Nil	0%	-	Retain
169	Casuarina cunninghamiana	8	4	Fair	Good	Mature	Low	Medium	Medium	150	-	-	150	150	2.0	1.5	Nil	0%	-	Retain
170	Casuarina cunninghamiana	8	6	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	-	Retain
171	Eucalyptus moluccana	16	12	Good	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Nil	0%	-	Retain
172	Eucalyptus moluccana	8	5	Good	Good	Mature	Medium	Long	High	150	-	-	150	150	2.0	1.5	Nil	0%	-	Retain
173	Dead tree	12	5	Poor	Poor	Dead	Low	Dead	Low	200	-	-	200	250	2.4	1.9	Nil	0%	Dead tree	Retain
174	Eucalyptus moluccana	16	7	Good	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Nil	0%	-	Retain
175	Eucalyptus moluccana	16	12	Fair	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Nil	0%	-	Retain
176	Eucalyptus moluccana	16	4	Fair	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	-	Retain
177	Eucalyptus moluccana	16	7	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree	Retain
178	Eucalyptus moluccana	16	7	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree	Retain
179	Eucalyptus moluccana	10	4	Fair	Good	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree	Retain
180	Eucalyptus moluccana	16	3	Good	Good	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree. Trunk wounds	Retain
181	Eucalyptus moluccana	16	4	Good	Good	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree. Trunk wounds	Retain
182	Eucalyptus moluccana	16	4	Poor	Good	Mature	Medium	Short	Low	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree. Severe canopy dieback	Retain
183	Eucalyptus moluccana	16	6	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree	Retain
184	Eucalyptus moluccana	6	5	Fair	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree. Trunk wounds	Retain
185	Eucalyptus moluccana	16	6	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree. Trunk wounds	Retain
186	Eucalyptus moluccana	10	3	Fair	Good	Semi-mature	Medium	Medium	High	150	-	-	150	150	2.0	1.5	Nil	0%	Neighbouring tree	Retain
187	Eucalyptus moluccana	16	6	Fair	Good	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree	Retain
188	Eucalyptus moluccana	14	6	Fair	Good	Mature	Medium	Long	High	200	150	-	300	350	3.6	2.1	Nil	0%	Neighbouring tree	Retain
189	Eucalyptus tereticornis	16	10	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Nil	0%	Neighbouring tree	Retain
190	Eucalyptus moluccana	16	5	Good	Fair	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree. Included bark junction	Retain
191	Eucalyptus moluccana	16	8	Good	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Nil	0%	Neighbouring tree	Retain

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ	Other notes	Proposal
192	<i>Eucalyptus moluccana</i>	16	7	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree	Retain
193	<i>Eucalyptus moluccana</i>	14	5	Good	Good	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree	Retain
194	<i>Eucalyptus moluccana</i>	14	6	Good	Good	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Nil	0%	Neighbouring tree	Retain
195	<i>Eucalyptus tereticornis</i>	14	8	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Nil	0%	Neighbouring tree	Retain
196	<i>Eucalyptus moluccana</i>	16	7	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Nil	0%	Neighbouring tree	Retain
197	<i>Eucalyptus moluccana</i>	16	9	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Nil	0%	Neighbouring tree	Retain
198	<i>Casuarina cunninghamiana</i>	10	5	Good	Good	Mature	Low	Medium	Medium	350	-	-	350	400	4.2	2.3	Major	100%	-	Remove
199	<i>Casuarina cunninghamiana</i>	12	4	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
200	Dead tree	8	3	Poor	Poor	Dead	Low	Dead	Low	250	-	-	250	300	3.0	2.0	Major	100%	Dead tree	Remove
201	Dead tree	9	3	Poor	Poor	Dead	Low	Dead	Low	250	-	-	250	300	3.0	2.0	Major	100%	Dead tree	Remove
202	<i>Casuarina cunninghamiana</i>	7	4	Good	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
203	<i>Casuarina cunninghamiana</i>	9	5	Good	Poor	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	Severe included bark junction	Remove
204	<i>Casuarina cunninghamiana</i>	14	6	Fair	Good	Mature	Low	Medium	Medium	350	-	-	350	400	4.2	2.3	Major	100%	-	Remove
205	<i>Casuarina cunninghamiana</i>	9	4	Good	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
206	<i>Casuarina cunninghamiana</i>	12	7	Good	Good	Mature	Low	Medium	Medium	250	200	-	300	350	3.6	2.1	Major	100%	-	Remove
207	<i>Casuarina cunninghamiana</i>	10	5	Good	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
208	<i>Casuarina cunninghamiana</i>	9	4	Good	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
209	<i>Casuarina cunninghamiana</i>	9	4	Good	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
210	<i>Eucalyptus moluccana</i>	16	8	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Nil	0%	-	Retain
211	<i>Eucalyptus moluccana</i>	16	7	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Nil	0%	-	Retain
212	<i>Casuarina cunninghamiana</i>	10	5	Poor	Poor	Mature	Low	Medium	Low	350	200	-	400	450	4.8	2.4	Major	100%	75% of the tree is dead	Remove
213	<i>Eucalyptus moluccana</i>	14	7	Good	Good	Mature	Medium	Long	High	400	-	-	400	450	4.8	2.4	Major	100%	-	Remove
214	<i>Eucalyptus moluccana</i>	10	9	Good	Good	Mature	Medium	Long	High	400	-	-	400	450	4.8	2.4	Major	100%	-	Remove
215	<i>Casuarina cunninghamiana</i>	14	7	Good	Fair	Mature	Low	Medium	Medium	350	300	250	500	550	6.0	2.6	Major	100%	-	Remove
216	<i>Casuarina cunninghamiana</i>	8	4	Good	Fair	Mature	Low	Medium	Medium	200	200	-	300	350	3.6	2.1	Major	100%	-	Remove
217	Dead tree	10	2	Poor	Poor	Dead	Low	Dead	Low	250	-	-	250	300	3.0	2.0	Major	100%	Dead tree	Remove
218	<i>Casuarina cunninghamiana</i>	9	2	Fair	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
219	<i>Casuarina cunninghamiana</i>	9	2	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
220	<i>Casuarina cunninghamiana</i>	9	3	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
221	<i>Casuarina cunninghamiana</i>	9	3	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
222	<i>Casuarina cunninghamiana</i>	10	3	Fair	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
223	<i>Casuarina cunninghamiana</i>	10	2	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ	Other notes	Proposal
224	Casuarina cunninghamiana	10	3	Poor	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	Canopy dieback	Remove
225	Casuarina cunninghamiana	7	6	Fair	Fair	Mature	Low	Medium	Medium	200	200	-	300	350	3.6	2.1	Major	100%	Severe inclusion at main union.	Remove
226	Casuarina cunninghamiana	9	7	Poor	Fair	Mature	Low	Short	Medium	350	250	-	400	450	4.8	2.4	Major	100%	50% of the tree is dead	Remove
227	Dead tree	10	1	Poor	Poor	Dead	Low	Dead	Low	250	-	-	250	300	3.0	2.0	Nil	0%	Dead tree	Retain
228	Dead tree	10	3	Poor	Poor	Dead	Low	Dead	Low	200	-	-	200	250	2.4	1.9	Nil	0%	Dead tree	Retain
229	Casuarina cunninghamiana	10	5	Good	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Nil	0%	-	Retain
230	Casuarina cunninghamiana	8	5	Good	Poor	Mature	Low	Medium	Low	250	-	-	250	300	3.0	2.0	Nil	0%	Decay in stubs. New growth is attached to decaying stubs.	Retain
231	Casuarina cunninghamiana	9	2	Good	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Nil	0%	-	Retain
232	Dead tree	6	2	Poor	Poor	Dead	Low	Dead	Low	200	-	-	200	250	2.4	1.9	Major	12%	Dead tree	Retain
233	Casuarina cunninghamiana	9	8	Good	Good	Mature	Low	Medium	Medium	500	-	-	500	550	6.0	2.6	Major	100%	-	Remove
234	Casuarina cunninghamiana	12	4	Good	Good	Mature	Low	Medium	Medium	500	-	-	500	550	6.0	2.6	Major	100%	-	Remove
235	Casuarina cunninghamiana	9	3	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
236	Casuarina cunninghamiana	10	5	Good	Good	Mature	Low	Medium	Medium	300	200	-	400	450	4.8	2.4	Major	16%	-	Retain
237	Casuarina cunninghamiana	10	6	Good	Good	Mature	Low	Medium	Medium	300	300	-	400	450	4.8	2.4	Major	100%	-	Remove
238	Casuarina cunninghamiana	8	3	Fair	Fair	Mature	Low	Medium	Low	250	-	-	250	300	3.0	2.0	Major	28%	Growing under mature eucalypt.	Remove
239	Eucalyptus moluccana	12	6	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Minor	8%	-	Retain
240	Eucalyptus moluccana	12	8	Good	Good	Mature	Medium	Long	High	450	-	-	450	500	5.4	2.5	Major	19%	-	Retain
241	Eucalyptus tereticornis	12	16	Good	Good	Mature	Medium	Long	High	900	-	-	900	950	10.8	3.2	Major	100%	-	Remove
242	Eucalyptus moluccana	12	7	Good	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
243	Eucalyptus moluccana	12	12	Good	Good	Mature	Medium	Long	High	400	-	-	400	450	4.8	2.4	Major	100%	-	Remove
244	Casuarina cunninghamiana	7	5	Good	Good	Mature	Low	Medium	Low	250	-	-	250	300	3.0	2.0	Major	100%	Growing under mature eucalypt.	Remove
245	Olea africana	5	7	Good	Good	Mature	Low	Long	Low	150	150	150	300	350	3.6	2.1	Major	100%	-	Remove
246	Eucalyptus moluccana	14	8	Good	Good	Mature	Medium	Long	High	500	-	-	500	550	6.0	2.6	Major	100%	-	Remove
247	Eucalyptus tereticornis	12	10	Fair	Good	Mature	Medium	Long	High	600	-	-	600	650	7.2	2.8	Major	100%	-	Remove
248	Casuarina cunninghamiana	8	4	Fair	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
249	Casuarina cunninghamiana	9	4	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
250	Casuarina cunninghamiana	9	4	Fair	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
251	Casuarina cunninghamiana	9	3	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	Suppressed canopy	Remove
252	Casuarina cunninghamiana	9	5	Fair	Fair	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
253	Casuarina cunninghamiana	8	3	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
254	Casuarina cunninghamiana	8	3	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
255	Casuarina cunninghamiana	8	1	Fair	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ	Other notes	Proposal
256	Casuarina cunninghamiana	7	3	Fair	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
257	Casuarina cunninghamiana	9	3	Fair	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
258	Casuarina cunninghamiana	6	3	Fair	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	Growing beneath mature eucalypt.	Remove
259	Pinus radiata	14	14	Good	Good	Mature	Medium	Long	High	750	-	-	750	800	9.0	3.0	Nil	0%	Neighbouring tree.	Retain
260	Eucalyptus tereticornis	16	16	Good	Good	Mature	Medium	Long	High	950	-	-	950	1000	11.4	3.3	Major	100%	-	Remove
261	Eucalyptus tereticornis	16	16	Fair	Fair	Mature	Medium	Medium	Medium	700	-	-	700	750	8.4	2.9	Major	100%	Fruiting body in cambium lesion, second order branch dying back.	Remove
262	Casuarina cunninghamiana	9	6	Fair	Good	Mature	Low	Medium	Medium	450	-	-	450	500	5.4	2.5	Major	100%	-	Remove
263	Dead tree	9	1	Poor	Poor	Dead	Low	Dead	Low	350	-	-	350	400	4.2	2.3	Major	100%	Dead tree	Remove
264	Syagrus romanzoffiana	6	5	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
265	Casuarina cunninghamiana	7	3	Good	Good	Semi-mature	Low	Medium	Medium	150	100	-	200	250	2.4	1.9	Major	100%	-	Remove
266	Casuarina cunninghamiana	9	5	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
267	Casuarina cunninghamiana	9	6	Good	Good	Mature	Low	Medium	Medium	250	100	100	300	350	3.6	2.1	Major	100%	-	Remove
268	Casuarina cunninghamiana	9	7	Good	Good	Mature	Low	Medium	Medium	250	200	-	300	350	3.6	2.1	Major	100%	-	Remove
269	Dead tree	3	1	Poor	Poor	Dead	Low	Dead	Low	400	-	-	400	450	4.8	2.4	Major	35%	-	Remove
270	Dead tree	6	1	Poor	Poor	Dead	Low	Dead	Low	350	-	-	350	400	4.2	2.3	Major	38%	Dead tree leaning on adjacent tree.	Remove
271	Casuarina cunninghamiana	8	8	Good	Fair	Mature	Low	Medium	Low	350	-	-	350	400	4.2	2.3	Major	41%	Central leader failed at 5m	Remove
272	Eucalyptus tereticornis	8	6	Poor	Good	Semi-mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	Severe canopy dieback	Remove
273	Eucalyptus tereticornis	10	7	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Major	100%	-	Remove
274	Dead tree	7	4	Poor	Poor	Dead	Low	Dead	Low	250	-	-	250	300	3.0	2.0	Major	100%	Dead tree	Remove
275	Pinus radiata	6	4	Good	Poor	Mature	Low	Short	Low	200	-	-	200	250	2.4	1.9	Major	100%	Stunted, dying back.	Remove
276	Casuarina cunninghamiana	9	9	Good	Fair	Mature	High	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	Central leader failed at 6m.	Remove
277	Casuarina cunninghamiana	12	10	Good	Good	Mature	High	Medium	High	400	-	-	400	450	4.8	2.4	Major	100%	-	Remove
278	Casuarina cunninghamiana	9	6	Good	Good	Mature	High	Medium	High	250	250	-	300	350	3.6	2.1	Major	100%	-	Remove
279	Casuarina cunninghamiana	10	6	Good	Fair	Mature	High	Medium	High	350	-	-	350	400	4.2	2.3	Major	100%	Tree is growing on a lean	Remove
280	Eucalyptus crebra	14	5	Good	Good	Mature	Medium	Long	High	250	-	-	250	300	3.0	2.0	Major	100%	-	Remove
281	Eucalyptus crebra	14	8	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Major	100%	-	Remove
282	Eucalyptus crebra	12	5	Good	Good	Mature	Medium	Long	High	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove
283	Eucalyptus crebra	14	7	Good	Good	Mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Major	100%	-	Remove
284	Eucalyptus crebra	14	6	Good	Good	Mature	Medium	Long	High	350	-	-	350	400	4.2	2.3	Major	100%	-	Remove
285	Casuarina cunninghamiana	9	7	Good	Good	Mature	Medium	Medium	Medium	200	150	150	300	350	3.6	2.1	Major	100%	-	Remove
286	Gleditsia triacanthos	9	7	Good	Good	Mature	Medium	Long	Medium	250	200	100	300	350	3.6	2.1	Major	100%	Trunk wounds	Remove
287	Syagrus romanzoffiana	8	6	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-	Remove

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ		Other notes	Proposal
288	<i>Syagrus romanzoffiana</i>	8	7	Good	Good	Mature	Low	Medium	Low	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
289	<i>Syagrus romanzoffiana</i>	6	5	Good	Good	Mature	Low	Medium	Low	250	-	-	250	300	3.0	2.0	Major	100%	-		Remove
290	<i>Allocasuarina torulosa</i>	7	4	Good	Good	Mature	Low	Medium	Medium	100	-	-	100	100	2.0	1.5	Major	100%	-		Remove
291	<i>Syagrus romanzoffiana</i>	7	6	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
292	<i>Casuarina cunninghamiana</i>	6	5	Good	Poor	Mature	Medium	Medium	Low	350	-	-	350	400	4.2	2.3	Major	100%	Trunk failed at 4m.		Remove
293	<i>Casuarina cunninghamiana</i>	12	8	Good	Good	Mature	Medium	Medium	Medium	400	-	-	400	450	4.8	2.4	Major	100%	-		Remove
294	<i>Casuarina cunninghamiana</i>	5	2	Good	Poor	Mature	Low	Medium	Low	150	-	-	150	150	2.0	1.5	Major	100%	Suppressed canopy		Remove
295	<i>Casuarina cunninghamiana</i>	10	7	Good	Good	Mature	High	Medium	High	350	-	-	350	400	4.2	2.3	Major	100%	-		Remove
296	<i>Casuarina cunninghamiana</i>	8	8	Good	Good	Mature	High	Medium	High	350	300	-	500	550	6.0	2.6	Major	100%	-		Remove
297	<i>Casuarina cunninghamiana</i>	10	6	Good	Good	Mature	High	Medium	High	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
298	<i>Casuarina cunninghamiana</i>	12	5	Good	Good	Mature	High	Medium	High	250	-	-	250	300	3.0	2.0	Major	100%	-		Remove
299	<i>Casuarina cunninghamiana</i>	16	10	Good	Fair	Mature	Medium	Medium	Medium	350	300	-	500	550	6.0	2.6	Major	100%	-		Remove
300	<i>Casuarina cunninghamiana</i>	14	3	Good	Good	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
301	<i>Casuarina cunninghamiana</i>	10	4	Good	Fair	Mature	Medium	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	Trunk wounds		Remove
302	<i>Casuarina cunninghamiana</i>	10	4	Good	Good	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
303	<i>Dead tree</i>	12	5	Poor	Poor	Dead	Low	Dead	Low	450	-	-	450	500	5.4	2.5	Major	100%	Dead tree		Remove
304	<i>Casuarina cunninghamiana</i>	8	5	Good	Good	Mature	Medium	Medium	Medium	200	100	-	200	250	2.4	1.9	Major	100%	-		Remove
305	<i>Casuarina cunninghamiana</i>	14	7	Poor	Poor	Mature	Low	Short	Low	300	100	100	300	350	3.6	2.1	Major	100%	Main leader completely dead. Canopy consists of basal sprouts.		Remove
306	<i>Casuarina cunninghamiana</i>	9	3	Good	Good	Mature	Low	Medium	Medium	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
307	<i>Eucalyptus tereticornis</i>	12	7	Good	Good	Semi-mature	Medium	Long	High	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
308	<i>Casuarina cunninghamiana</i>	14	8	Good	Fair	Mature	Medium	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
309	<i>Eucalyptus scoparia</i>	12	10	Good	Good	Mature	Medium	Long	High	450	-	-	450	500	5.4	2.5	Major	100%	Trunk wounds		Remove
310	<i>Melia azedarach</i>	8	12	Good	Good	Mature	Medium	Long	Medium	250	200	-	300	350	3.6	2.1	Major	100%	-		Remove
311	<i>Melia azedarach</i>	6	7	Fair	Fair	Mature	Low	Medium	Medium	150	150	150	300	350	3.6	2.1	Major	100%	25% of the tree is dead		Remove
312	<i>Gleditsia triacanthos</i>	8	12	Good	Poor	Mature	Low	Long	Medium	400	-	-	400	450	4.8	2.4	Minor	1%	Severe trunk decay		Retain
313	<i>Callistemon viminalis</i>	5	6	Good	Good	Mature	Low	Long	High	150	150	150	300	350	3.6	2.1	Nil	0%	-		Retain
314	<i>Eucalyptus tereticornis</i>	12	10	Good	Good	Mature	Medium	Long	High	400	-	-	400	450	4.8	2.4	Nil	0%	-		Retain
315	<i>Eucalyptus tereticornis</i>	12	12	Good	Good	Mature	Medium	Long	High	400	-	-	400	450	4.8	2.4	Nil	0%	-		Retain
316	<i>Grevillea robusta</i>	10	5	Poor	Poor	Mature	Low	Short	Low	350	-	-	350	400	4.2	2.3	Major	100%	75% of the tree is dead		Remove
317	<i>Schinus molle</i>	8	14	Good	Good	Mature	Low	Medium	Medium	550	-	-	550	600	6.6	2.7	Major	100%	Trunk decay		Remove
318	<i>Syagrus romanzoffiana</i>	6	3	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
319	<i>Phoenix canariensis</i>	6	7	Good	Good	Mature	Low	Long	Medium	650	-	-	650	700	7.8	2.9	Major	100%	-		Remove

Id.	Botanical name	Height (metres)	Spread (metres diameter)	Health	Structure	Age class	Tree significance	Useful life expectancy	Priority for retention	DBH 1 (millimetres diameter)	DBH 2 (millimetres diameter)	DBH 3 (millimetres diameter)	DBH Combined (millimetres diameter)	DRB (millimetres diameter)	TPZ (metres radius)	SRZ (metres radius)	Encroachment	% Encroachment within TPZ		Other notes	Proposal
320	<i>Syagrus romanzoffiana</i>	8	5	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
321	<i>Syagrus romanzoffiana</i>	7	6	Good	Good	Mature	Low	Medium	Low	250	-	-	250	300	3.0	2.0	Major	100%	-		Remove
322	<i>Washingtonia robusta</i>	4	2	Good	Good	Mature	Low	Long	Medium	500	-	-	500	550	6.0	2.6	Major	100%	-		Remove
323	<i>Phoenix canariensis</i>	4	5	Fair	Good	Mature	Low	Long	Medium	350	-	-	350	400	4.2	2.3	Major	100%	Over-pruned.		Remove
324	<i>Syagrus romanzoffiana</i>	6	5	Good	Good	Mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
325	<i>Syagrus romanzoffiana</i>	6	6	Good	Good	Mature	Low	Medium	Low	250	-	-	250	300	3.0	2.0	Major	100%	-		Remove
326	<i>Syagrus romanzoffiana</i>	6	1	Good	Good	Semi-mature	Low	Medium	Low	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
327	<i>Beaucarnea recurvata</i>	3	2	Good	Good	Mature	Low	Long	Low	200	-	-	200	250	2.4	1.9	Major	100%	-		Remove
328	<i>Beaucarnea recurvata</i>	3	3	Good	Good	Mature	Low	Long	Low	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
329	<i>Syagrus romanzoffiana</i>	7	5	Good	Good	Mature	Low	Medium	Low	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
330	<i>Washingtonia robusta</i>	6	2	Good	Good	Mature	Low	Long	Medium	500	-	-	500	550	6.0	2.6	Major	100%	-		Remove
331	<i>Harpephyllum caffrum</i>	7	6	Good	Good	Mature	Low	Long	Medium	250	200	-	300	350	3.6	2.1	Major	100%	-		Remove
332	<i>Casuarina cunninghamiana</i>	9	8	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
333	<i>Casuarina cunninghamiana</i>	8	4	Fair	Good	Mature	Low	Medium	Medium	250	-	-	250	300	3.0	2.0	Major	100%	-		Remove
334	<i>Casuarina cunninghamiana</i>	8	6	Good	Good	Mature	Low	Medium	Medium	300	-	-	300	350	3.6	2.1	Major	100%	-		Remove
335	<i>Casuarina cunninghamiana</i>	8	7	Poor	Fair	Mature	Low	Short	Low	300	-	-	300	350	3.6	2.1	Major	100%	Tree is in decline		Remove

4 Discussion

4.1 Nil encroachment

A total of **92** trees will be subject to no encroachment within the TPZ:

- **Retain:** A total of **92** trees are located outside of the proposed construction footprint. No impacts on these trees are foreseeable under the current proposal.
- **Remove:** No trees within the category of “nil encroachment” are proposed for removal.

4.2 Minor encroachment

A total of **9** trees will be subject to a minor encroachment of less than 10% within the TPZ:

- **Retain:** A total of **9** trees will be subject to a minor encroachment of less than 10% within the TPZ. The encroachment will not impact the SRZ and is highly unlikely to impact the overall health or condition of these trees. Under the current proposal, these trees can be successfully retained.
- **Remove:** No trees within the category of “minor encroachment” are proposed for removal.

4.3 Major encroachment

A total of **234** trees will be subject to a major encroachment of greater than 10% within the TPZ:

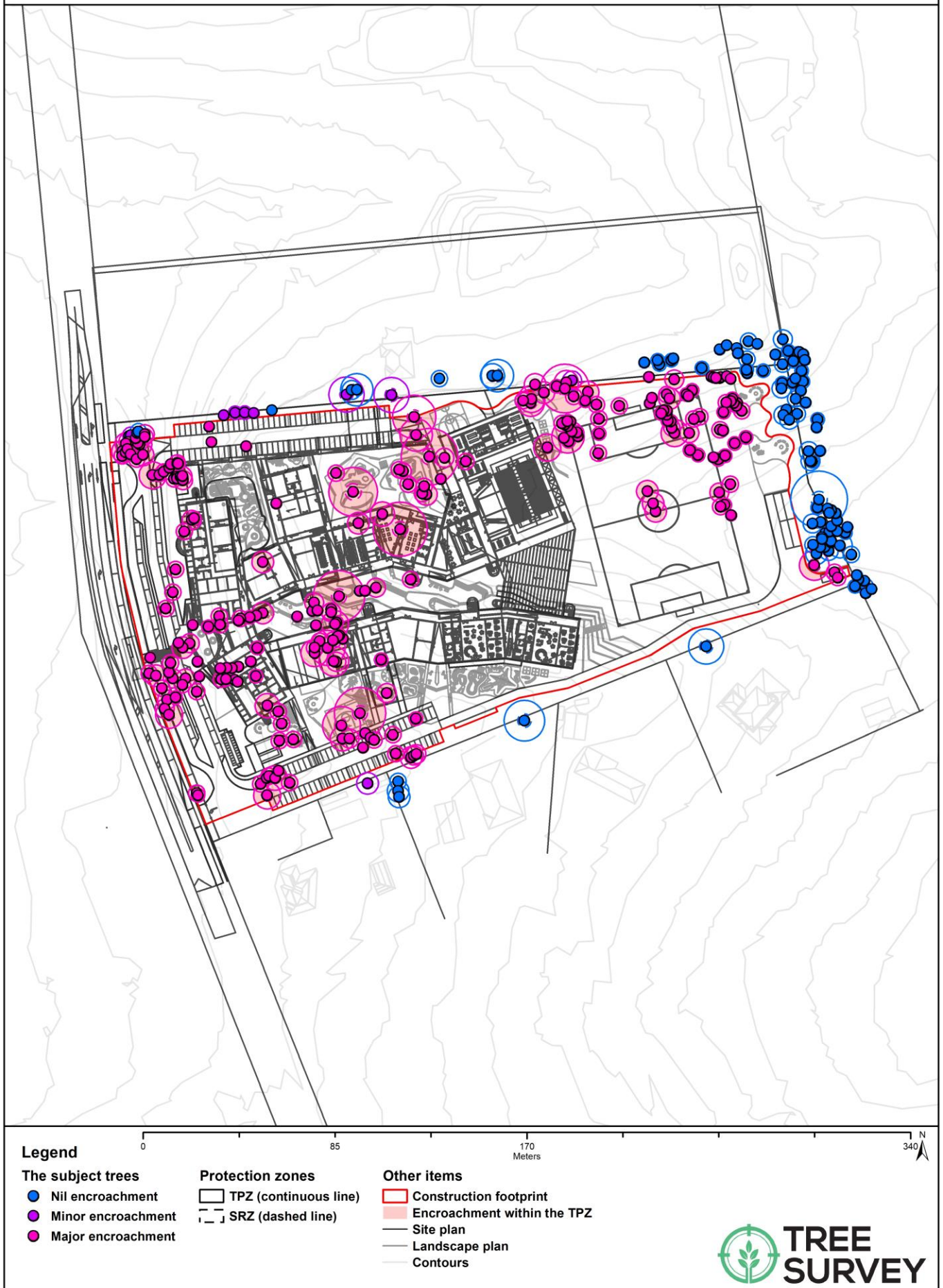
- **Retain:** A total of **4** trees will be subject to a major encroachment of less than 20% within the TPZ. Encroachment of up to 20% on one side of the tree (linear excavation) can be achieved without significantly impacting the health or stability of the tree (Roberts, Jackson and Smith 2006, p.295¹; Costello, Watson and Smiley 2017, p.21²). Several site-specific mitigations for these encroachments have been outlined in the Tree Protection Plan. Under the current proposal, these trees can be successfully retained.
- **Remove:** A total of **230** trees will be subject to a major encroachment of greater than 20% within the TPZ. Encroachment of greater than 20% can begin to impact the structural root zone (SRZ) and is more likely to compromise tree stability” (Costello, Watson, and Smiley (2017, p.21). Impacts within the SRZ are not recommended as it may lead to the destabilisation and/or decline of the tree. These trees are located within, or directly adjacent to the proposed construction footprint and cannot be retained under the current proposal.

¹ Roberts, J., Jackson, N. and Smith, D. (2006). Tree roots in the built environment.

² Costello, L., Watson, G. and Smiley, E., 2017. Root Management. International Society of Arboriculture.

Arboricultural Impact Assessment

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Arboricultural Impact Assessment

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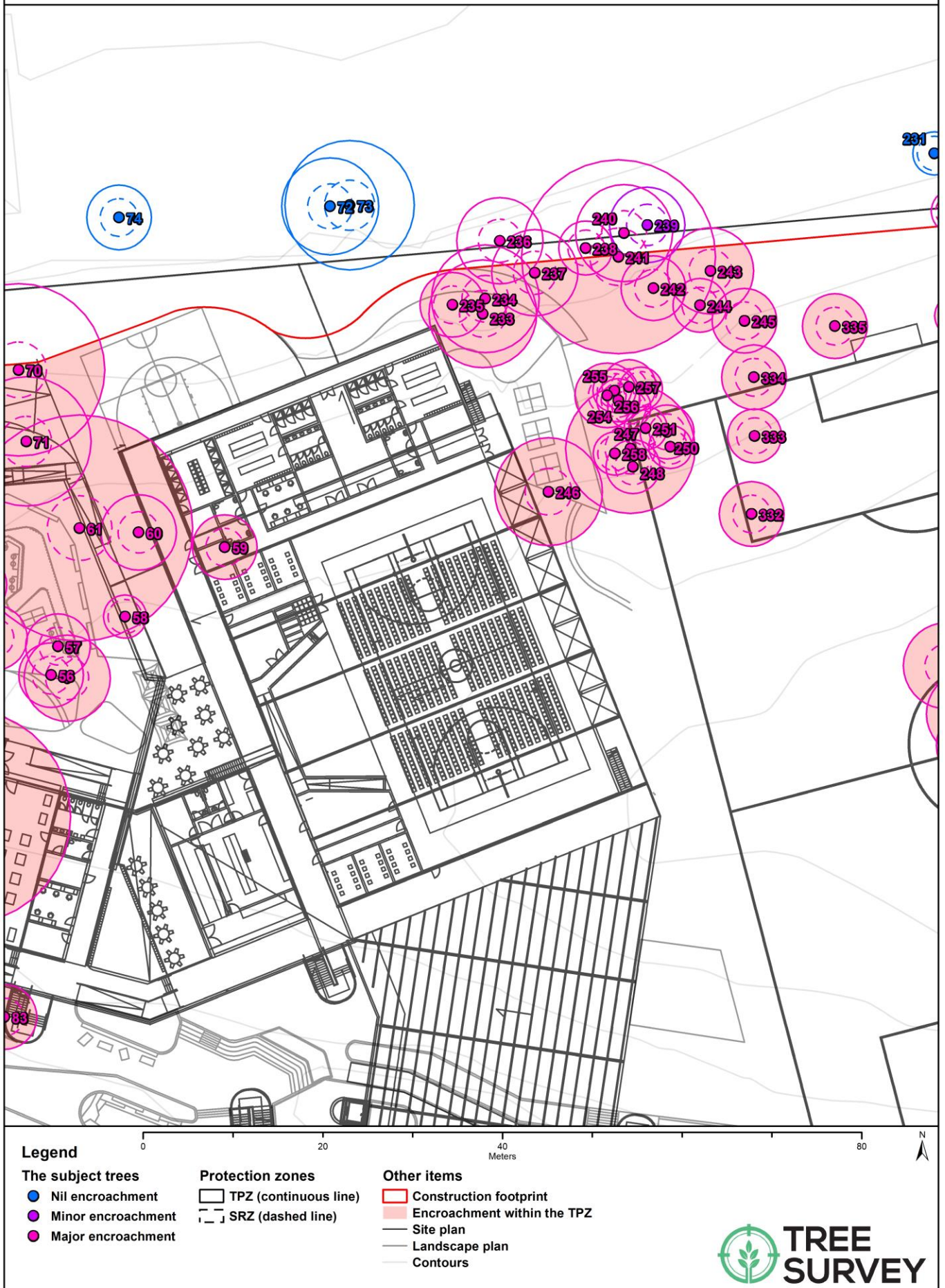
Arboricultural Impact Assessment

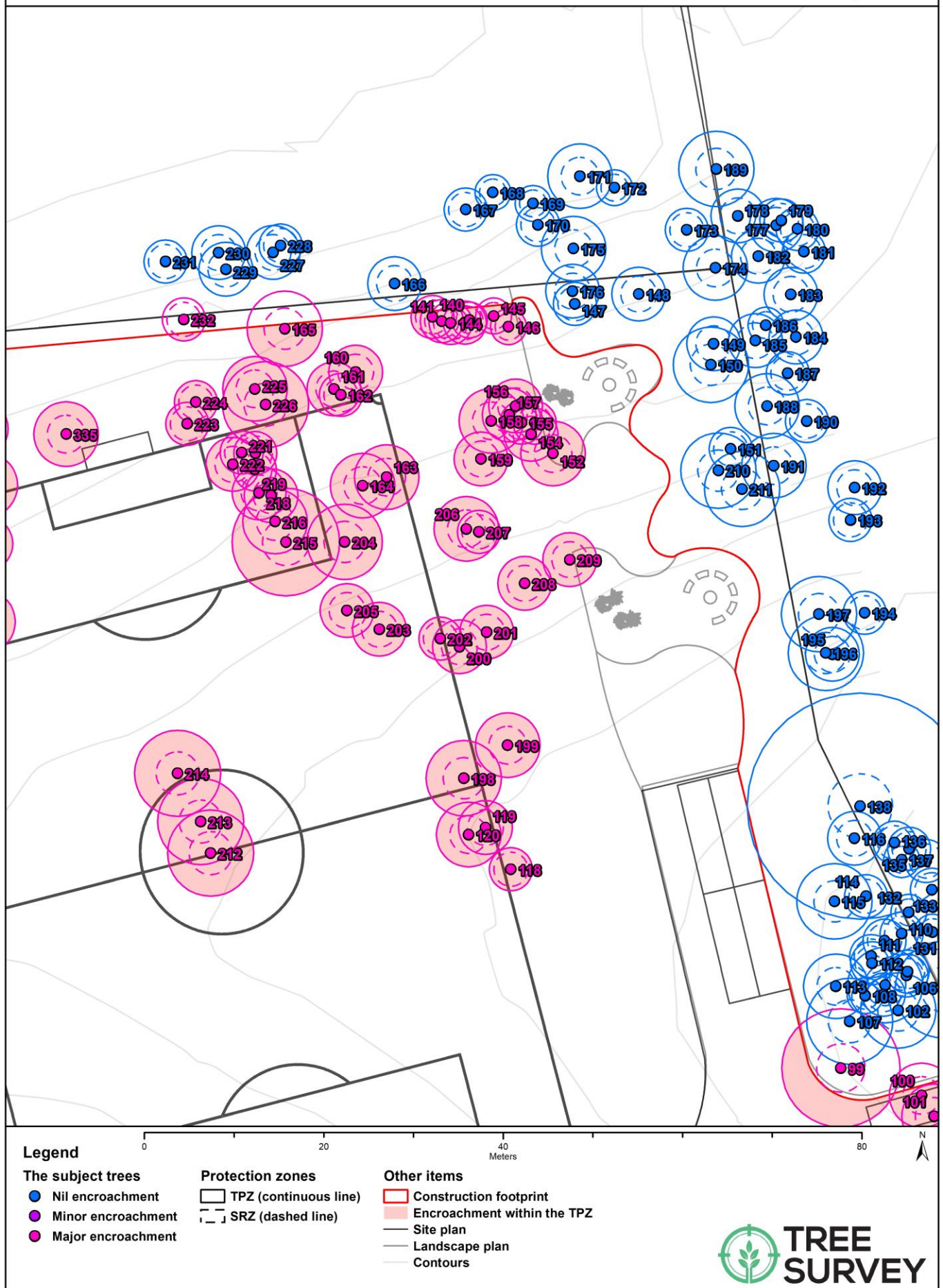
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Arboricultural Impact Assessment

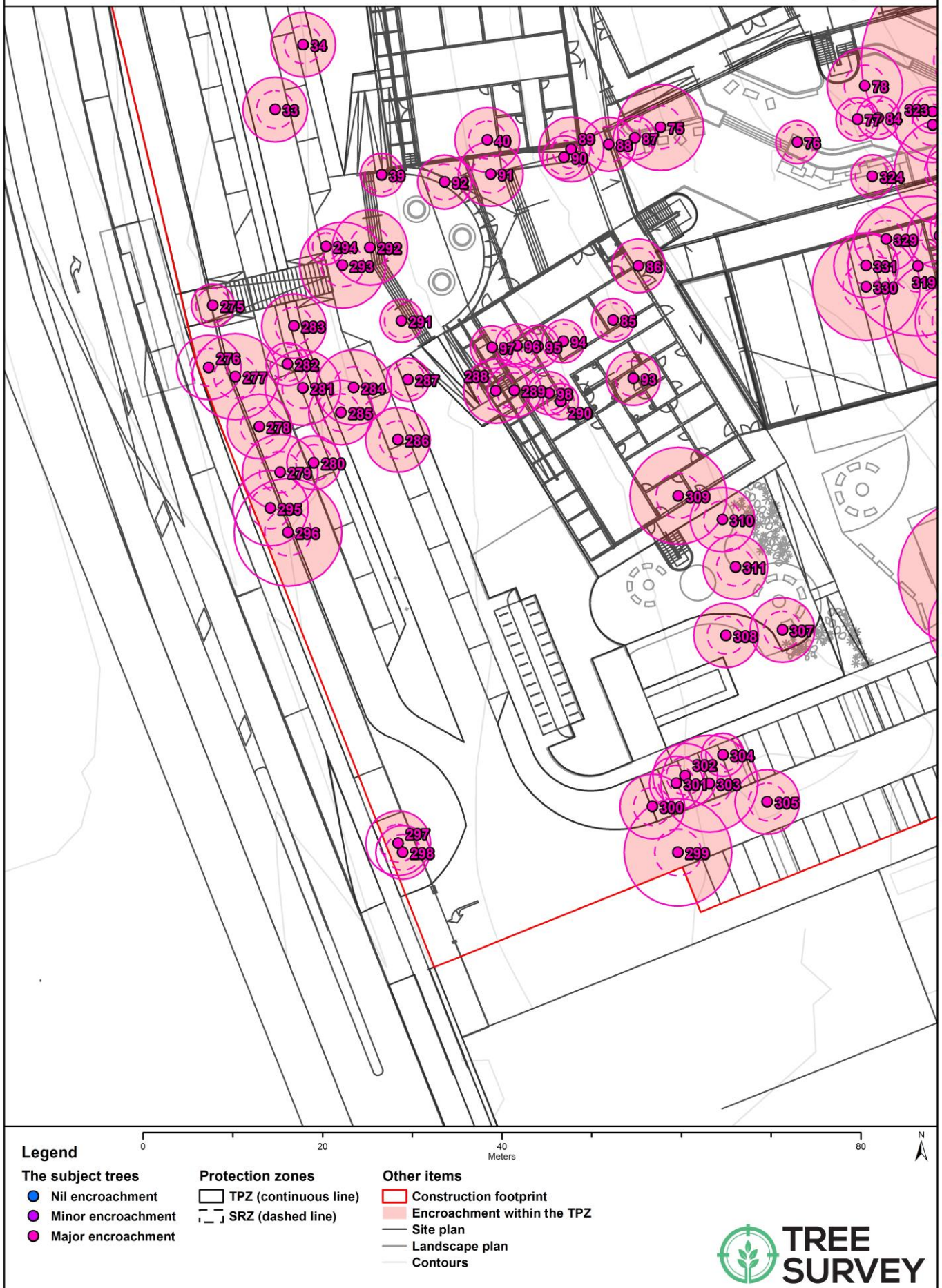
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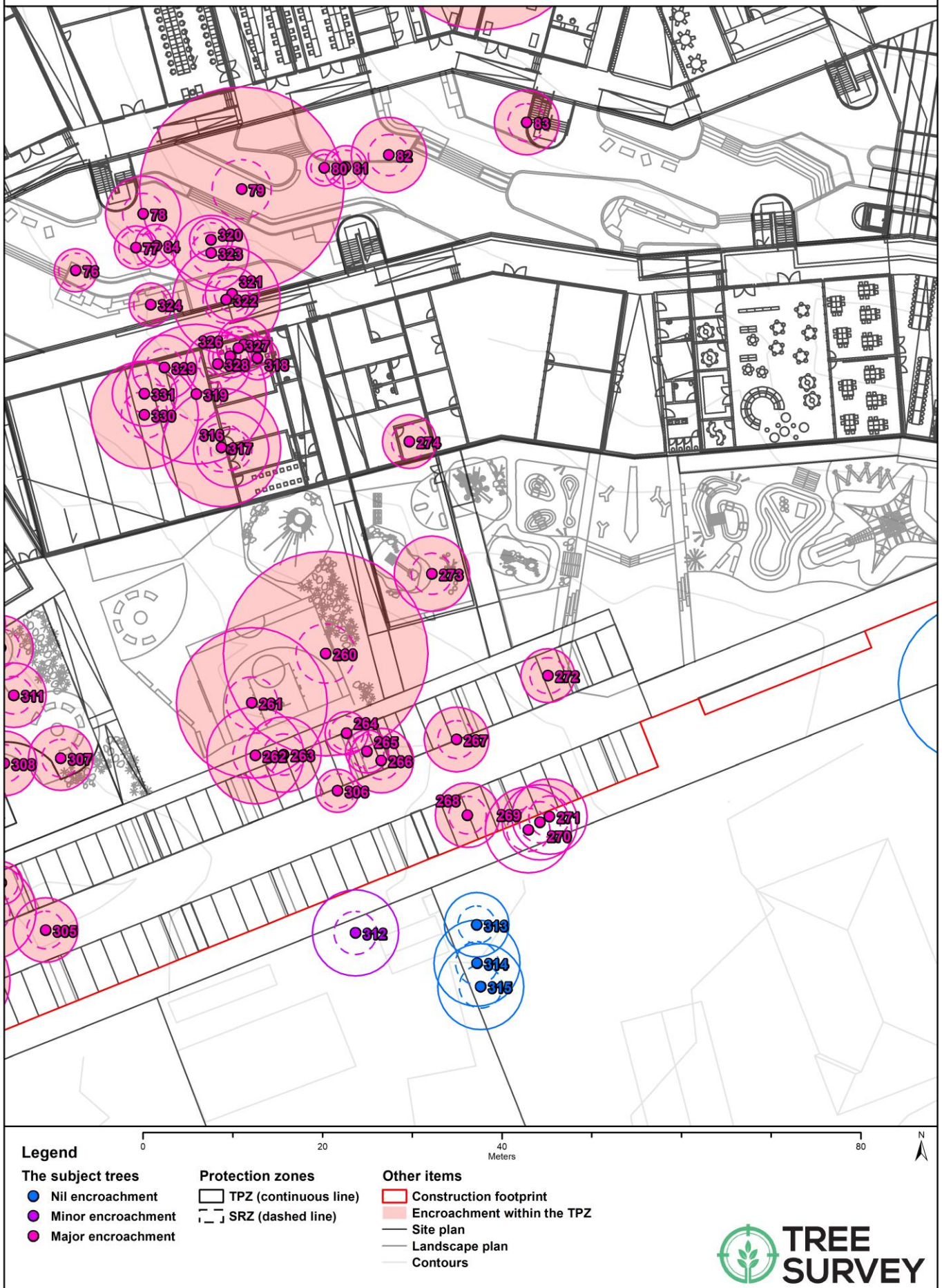
Arboricultural Impact Assessment

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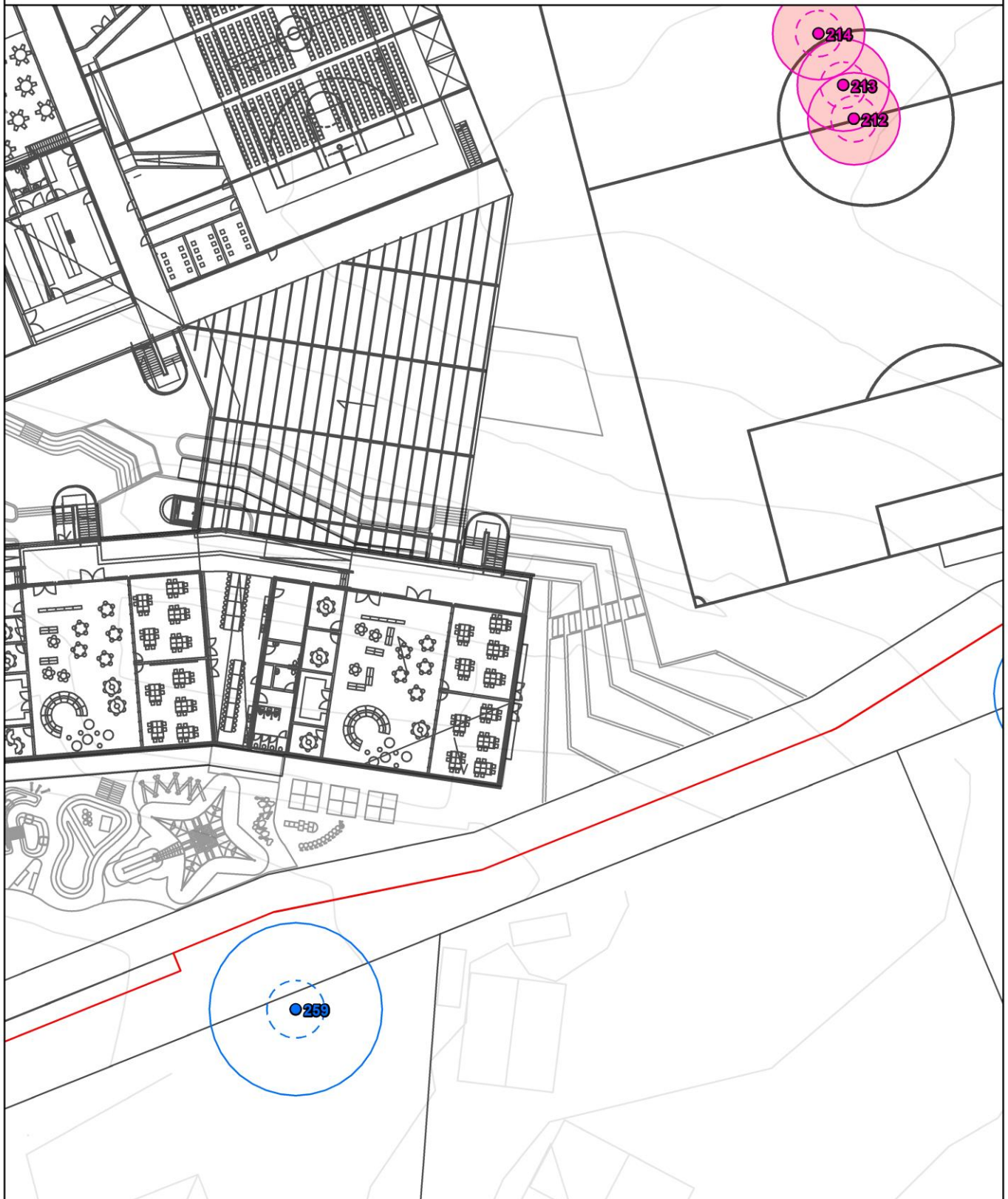
Arboricultural Impact Assessment

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Arboricultural Impact Assessment

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Legend

The subject trees

- Nil encroachment
- Minor encroachment
- Major encroachment

Protection zones

- TPZ (continuous line)
- SRZ (dashed line)

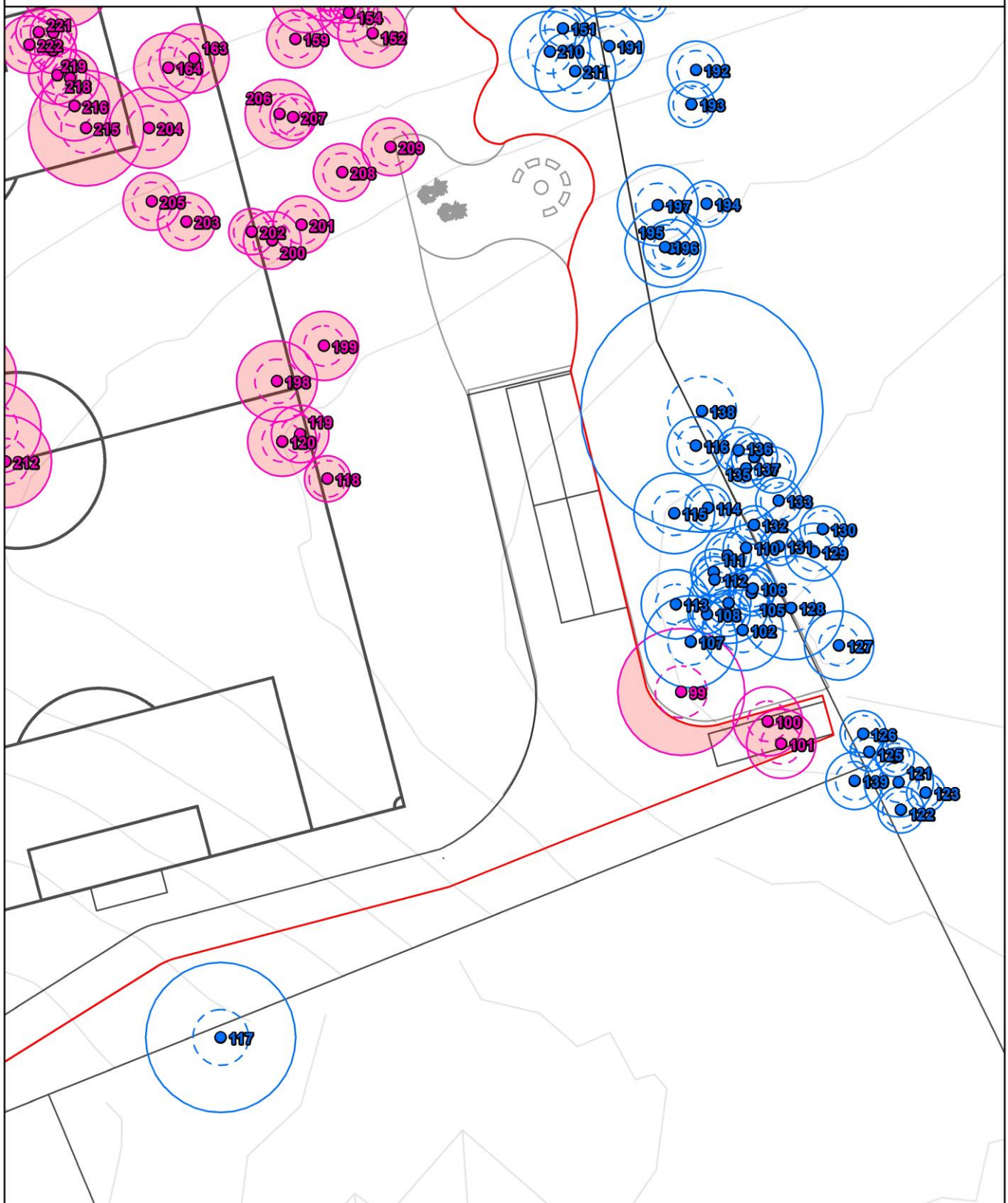
Other items

- Construction footprint
- Encroachment within the TPZ
- Site plan
- Landscape plan
- Contours



Arboricultural Impact Assessment

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Legend

The subject trees

- Nil encroachment
- Minor encroachment
- Major encroachment

Protection zones

- TPZ (continuous line)
- SRZ (dashed line)

Other items

- Construction footprint
- Encroachment within the TPZ
- Site plan
- Landscape plan
- Contours

5 Tree Protection Plan (TPP)

5.1 Tree removal and retention

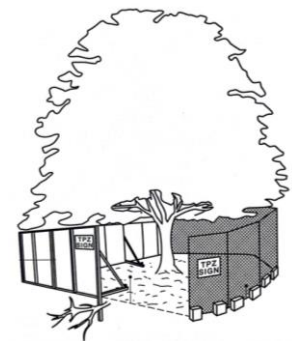
A summary of the total proposed tree removals is outlined below:

- **Retain:** A total of **105** trees are proposed for retention.
- **Remove:** A total of **230** trees are proposed for removal.

5.2 Tree protection fencing

Tree protection fencing must be established at the locations shown in the tree protection plan. Existing fencing, site hoarding, or structures (such as a wall or building) may be used as tree protection fencing, providing the TPZ remains isolated from the construction footprint. Tree protection fencing must be installed prior to site establishment and remain intact until the completion of works. Once erected, protective fencing must not be removed or altered without the approval of the project arborist. Specifications for the tree protection fencing are as follows:

- Temporary mesh panel fencing (minimum height of 1.8m).
- Installed prior to site establishment and remain intact until the completion of works.
- Protective fencing must not be removed or altered without the approval of the project arborist.
- Prominently signposted with 300mm x 450mm boards stating, "NO ACCESS - TREE PROTECTION ZONE."
- Certified and inspected by the project arborist.



Where approved works are required within the TPZ, fencing may be setback to provide construction access. Trunk, branch, and ground protection shall be installed and must comply with Australian Standard, AS 4970-2009, Protection of Trees on Development Sites. Any additional construction activities within the TPZ of the subject trees must be assessed and approved by the project arborist.

5.3 Restricted activities within the TPZ

The TPZ is an area that is isolated from the work zone to ensure no disturbance or encroachment occurs in this zone. Activities generally excluded from the TPZ (unless otherwise approved under the development consent) include, but are not limited to:

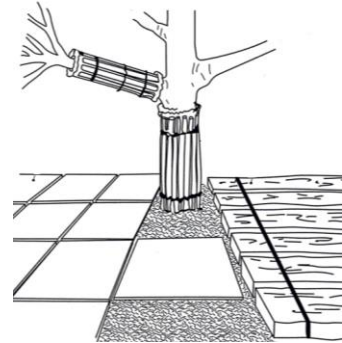
- Machine excavation and trenching.
- Ripping or cultivation of the soil.
- Storage of building materials, waste, and waste receptacles.
- Disposal of waste materials and chemicals including paint, solvents, cement slurry, fuel, oil, and other toxic liquids.
- Movement and storage of plant, equipment, and vehicles.
- Soil level changes, including the placement of fill material.
- Mechanical removal of vegetation.
- Affixing of signage or hoardings to trees.
- Other physical damage to the trunk or root system.
- Any other activity that is likely to cause damage to the tree.

5.4 Trunk protection

Where the provision of tree protection fencing is impractical or must be temporarily removed, trunk protection shall be installed to avoid accidental mechanical damage.

Specifications for trunk protection are as follows:

- A thick layer of carpet underfelt, geotextile fabric, or similar wrapped around the trunk to a minimum height of 2m.
- 1.8m lengths of softwood timbers aligned vertically and spaced evenly around the trunk (with a small gap of approximately 50mm between the timbers).
- The timbers must be secured using galvanised hoop strap (aluminium strapping).



The timbers shall be wrapped around the trunk but not fixed to the tree, as this will cause injury/damage to the tree.

5.5 Ground protection

If temporary access for vehicle, plant, or machinery is required within the TPZ ground protection shall be installed. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Where possible, areas of the existing pavement shall be used as ground protection.

Specifications for light traffic access (<3.5 tonne) are as follows:

- Permeable membrane such as geotextile fabric.
- A layer of mulch or crushed rock (at a minimum depth of 100mm)

Specifications for heavy traffic access (>3.5 tonne) are as follows:

- Permeable membrane such as geotextile fabric.
- A layer of lightly compacted road base (at a minimum depth of 200mm)
- Geotextile fabric shall extend a minimum of 300mm beyond the edge of the road base.

Pedestrian, vehicular, and machinery access within the TPZ shall be restricted solely to areas where ground protection has been installed.

5.6 Mulch

The area within the TPZ should be mulched with good quality composted wood chip/leaf mulch that complies with Australian Standards, AS 4454-2012, Composts, soil conditioners, and mulches, and should be maintained at a depth of 150mm-200mm. Mulching around the base of the tree will provide nutrients and organic matter to the soil as it breaks down, improving and maintaining the overall health of the trees.

5.7 Demolition

The demolition of all existing structures inside or directly adjacent to the TPZ of trees to be retained must be undertaken in consultation with the project arborist. Any machinery is to work from inside the footprint of the existing structures or outside the TPZ, to minimise soil disturbance and compaction. If it is not feasible to locate demolition machinery outside the TPZ of trees to be retained, ground protection will be required. The demolition should be undertaken inwards into the footprint of the existing structures, sometimes referred to as the 'top-down, pull back' method.

5.8 Excavations

The project arborist must supervise and certify that all excavations and root pruning are in accordance with AS4373-2007 and AS4970-2009. All excavations (including root investigations) within the TPZ must be carried out using tree-sensitive methods under the supervision of the project arborist (see **Tree Protection Plan**). These methods may include:

- **Manual excavation:** Use of hand tools such as spades, trowels, and brushes.
- **Air spade:** Use of a pressurised air device that blows the soil away and leaves roots intact.
- **Hydro-vacuum excavation:** Use of pressurised water to remove soil from around roots.

The recommended techniques for common types of excavations have been outlined below:

- **Continuous strip footings:** Manual excavation, air spade, or hydro-vacuum is utilised excavation lines within the TPZ prior to the commencement of mechanical excavation. Excavation should be a depth of 1 metre (or to unfavourable root growth conditions such as bedrock or heavy clay, if agreed by the project arborist). Any conflicting roots shall be pruned using clean, sharp secateurs or a pruning saw to ensure a clean cut, free from tears. All root pruning must be documented and carried out by the project arborist. After all root pruning is completed, machine excavation is permitted within the footprint of the structure.
- **Post or pier footings:** Manual excavation, air spade, or hydro-vacuum is utilised at the location of pier footings within the TPZ. Any conflicting roots shall be pruned using clean, sharp secateurs or a pruning saw to ensure a clean cut, free from tears. All root pruning must be documented and carried out by the project arborist. After all root pruning is completed, machine excavation is permitted within the footprint of the structure.

No over-excavation, battering, or benching shall be undertaken beyond the footprint of any structure unless approved by the project arborist.

5.9 Underground services

Where possible, underground services should be routed outside of the TPZ. If underground services need to be installed within the TPZ, they must be installed using tree-sensitive excavation methods under the supervision of the project arborist. Alternatively, boring methods such as horizontal directional drilling (HDD) may be used for underground service installation, providing the installation is at a minimum depth of 800mm below grade. Excavations for entry/exit pits must be located outside the TPZ.

5.10 Root pruning

Any conflicting roots (<50mm in diameter) identified during the supervised excavations shall be pruned using clean, sharp secateurs or a pruning saw to ensure a clean cut, free from tears. All root pruning must be documented and carried out by the project arborist.

5.11 Site Inspections

In accordance with the *Australian Standard, AS 4970-2009, Protection of Trees on Development Sites*, inspections must be conducted by the project arborist at the following key project stages:

- Prior to any work commencing on-site (including demolition, earthworks, or site clearing) and following the installation of tree protection.
- During any excavations, building works, and any other activities carried out within the TPZ of any tree to be retained & protected.
- A minimum of once per 8 weeks (every 2 months) during the construction phase for trees with a major encroachment within the TPZ.
- After all major construction has ceased, following the removal of tree protection.

It shall be the responsibility of the project manager to notify the project arborist prior to any works within the TPZ of any protected tree at a minimum of 48 hours' notice. To ensure the tree protection plan is implemented, hold points have been specified in the schedule of work (**Table 5**).

Table 5: Schedule of work

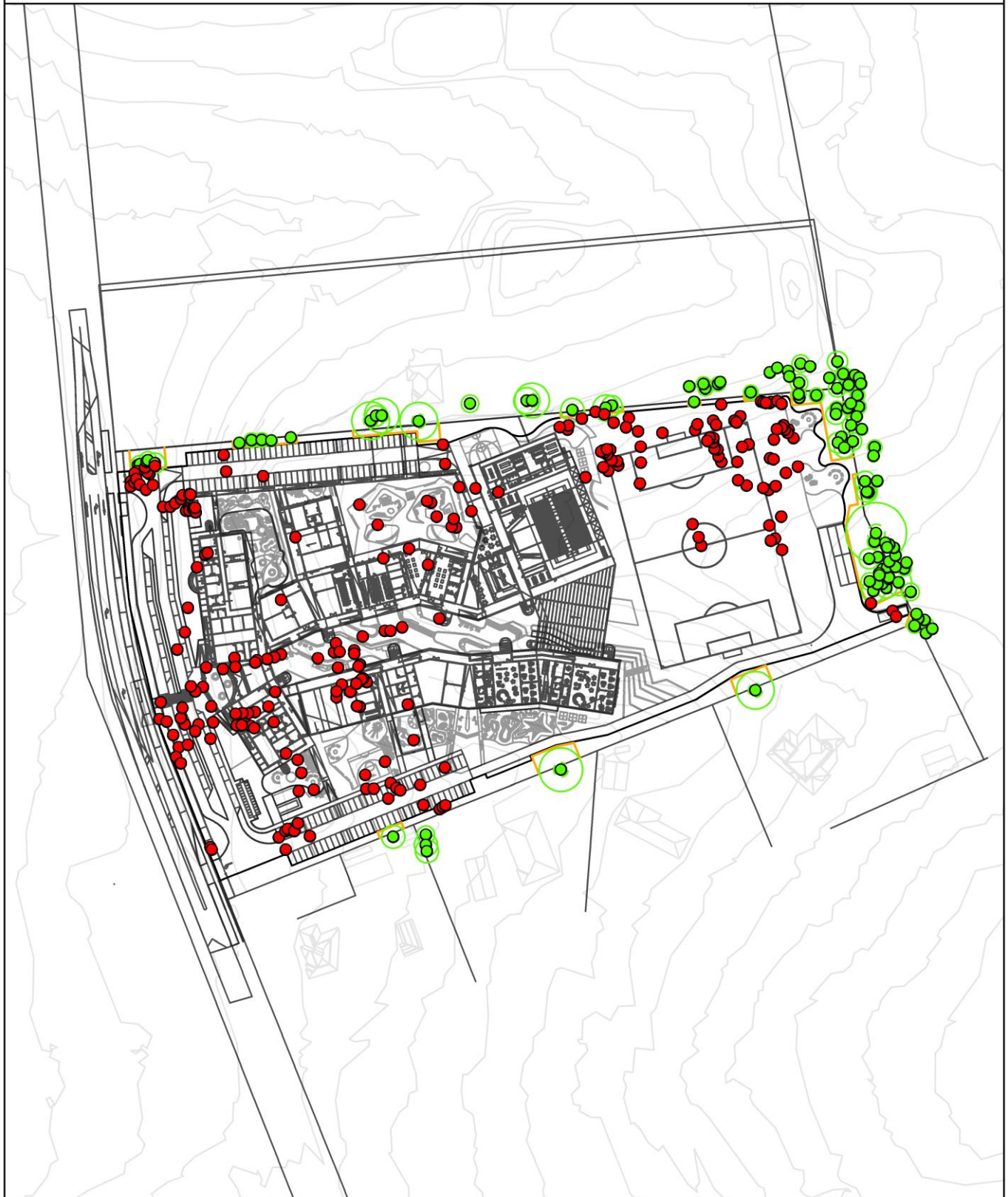
Construction stage	Hold point	Description
Pre-construction	1	Prior to demolition and/or site establishment, indicate clearly (with spray paint on trunks) trees marked for removal only.
	2	Tree protection (for trees that will be retained) shall be installed prior to demolition and site establishment. This may include the mulching of areas within the TPZ. The project arborist shall inspect and certify tree protection.
During Construction	3	Scheduled inspection of trees by the project arborist should be undertaken every 8 weeks (2 months) during the construction period.
	4	Project arborist to supervise and document all works carried out within the TPZ of trees to be retained.
	5	Inspection of trees by project arborist after all major construction has ceased, following the removal of tree protection measures.
Post Construction	6	Final inspection of trees by project arborist.

5.12 Tree removal

All tree removal work is to be carried out by an arborist with a minimum AQF Level 3 qualification in Arboriculture, in accordance with Australian Standard AS 4373-2007, Pruning of Amenity Trees, the Work Health and Safety Act 2011, and Work Health and Safety Regulations 2017.

Tree Protection Plan

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Legend

The subject trees

- Retain
- Remove

Protection zones

- TPZ (continuous line)
- SRZ (dashed line)

Tree protection measures

- Tree protection fence



Tree Protection Plan

Page 2 of 9



Legend

The subject trees

- Retain
- Remove

Protection zones

- TPZ (continuous line)
- SRZ (dashed line)

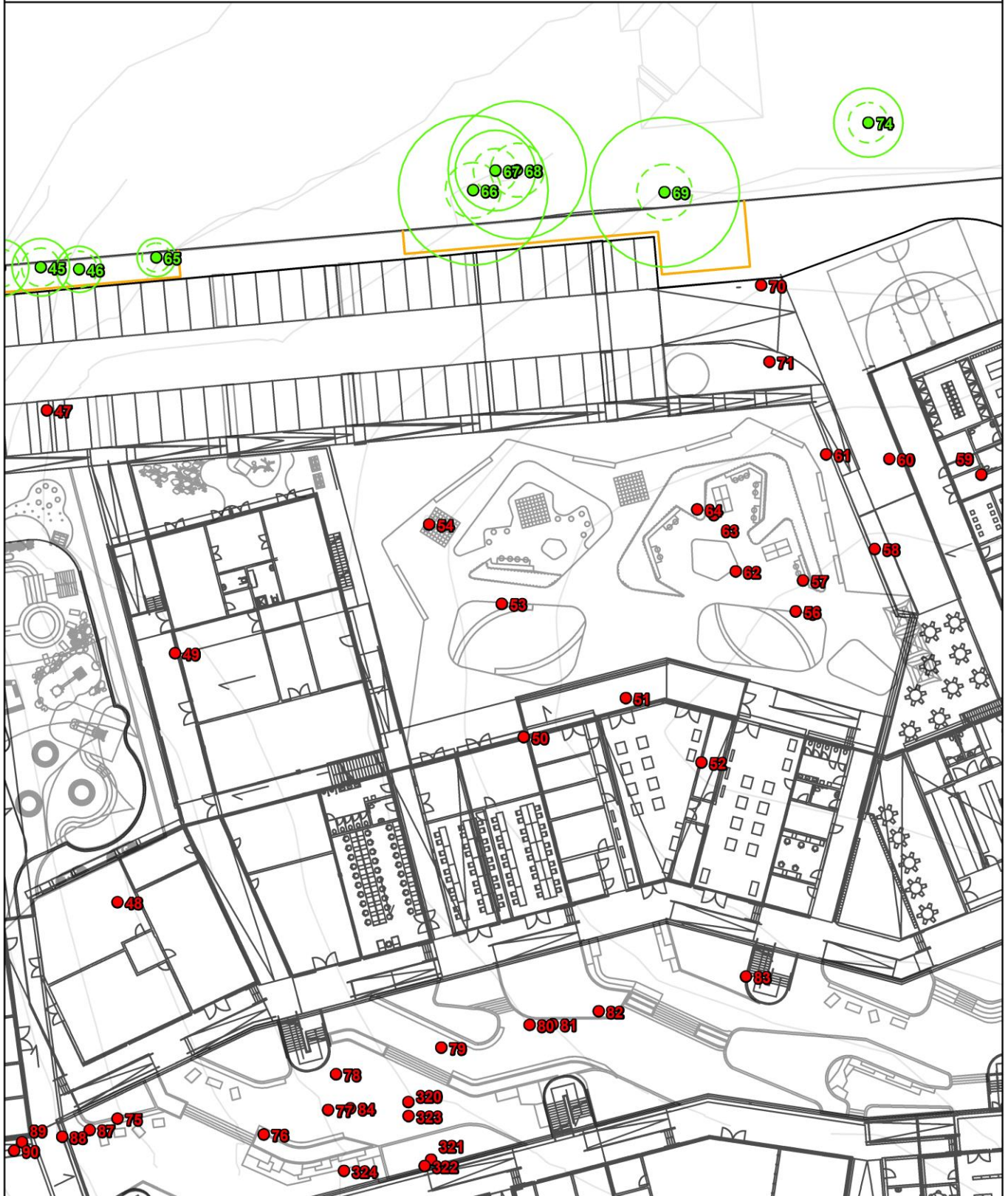
Tree protection measures

- Tree protection fence



Tree Protection Plan

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Legend

The subject trees

- Retain
- Remove

Protection zones

- TPZ (continuous line)
- SRZ (dashed line)

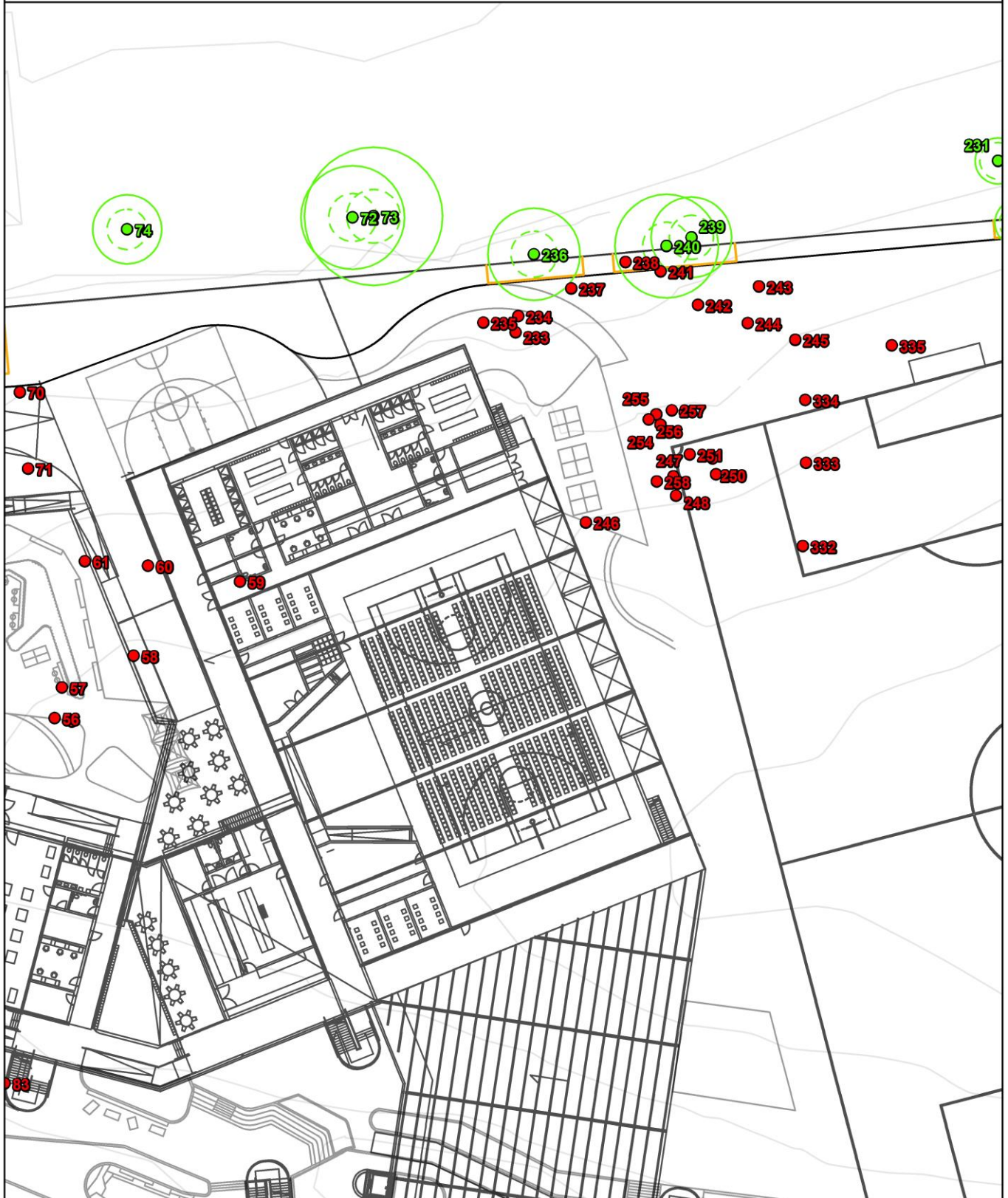
Tree protection measures

- Tree protection fence



Tree Protection Plan

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Legend

The subject trees

- Retain
- Remove

Protection zones

- TPZ (continuous line)
- SRZ (dashed line)

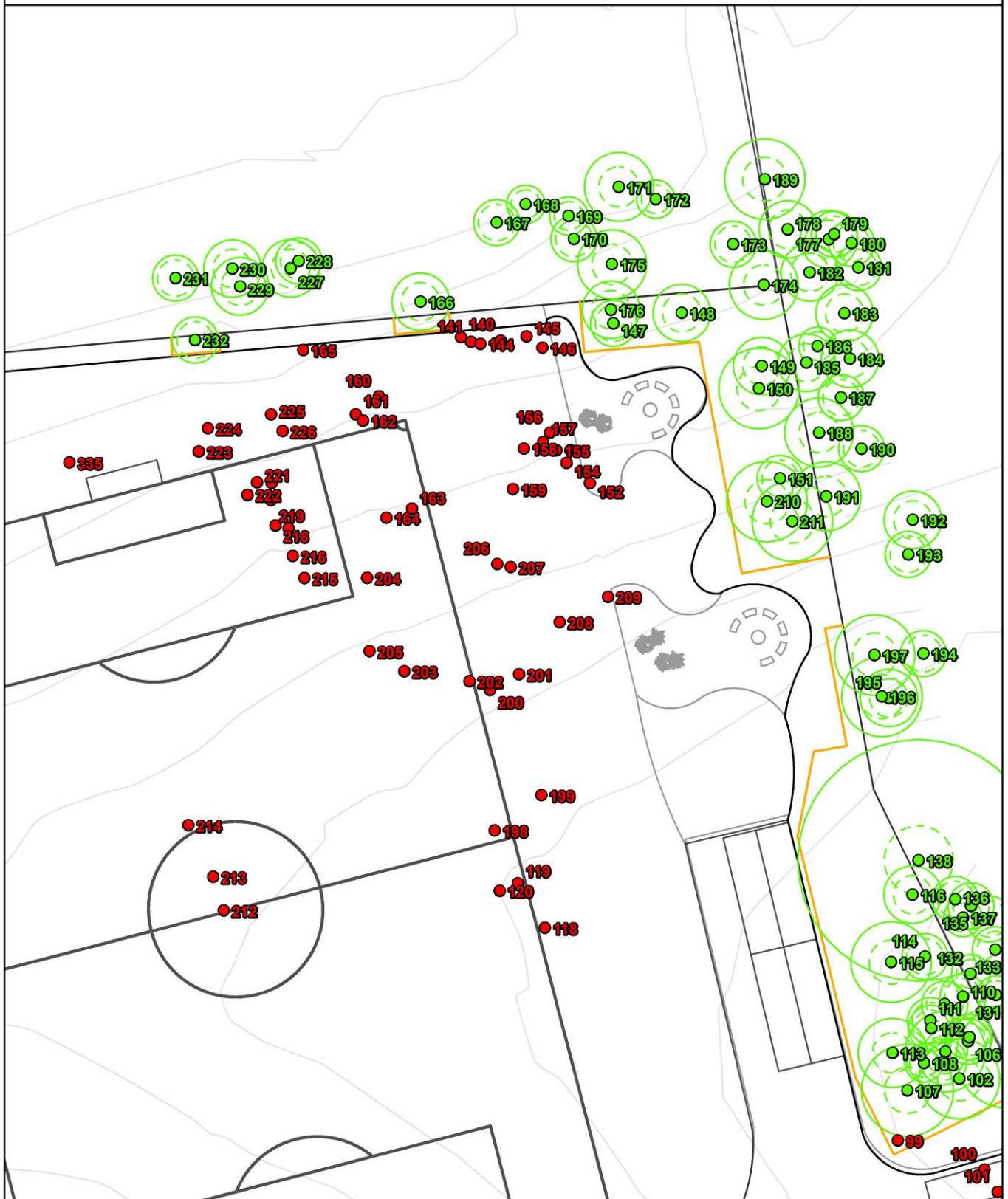
Tree protection measures

- Tree protection fence



Tree Protection Plan

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Legend

The subject trees

- Retain
- Remove

Protection zones

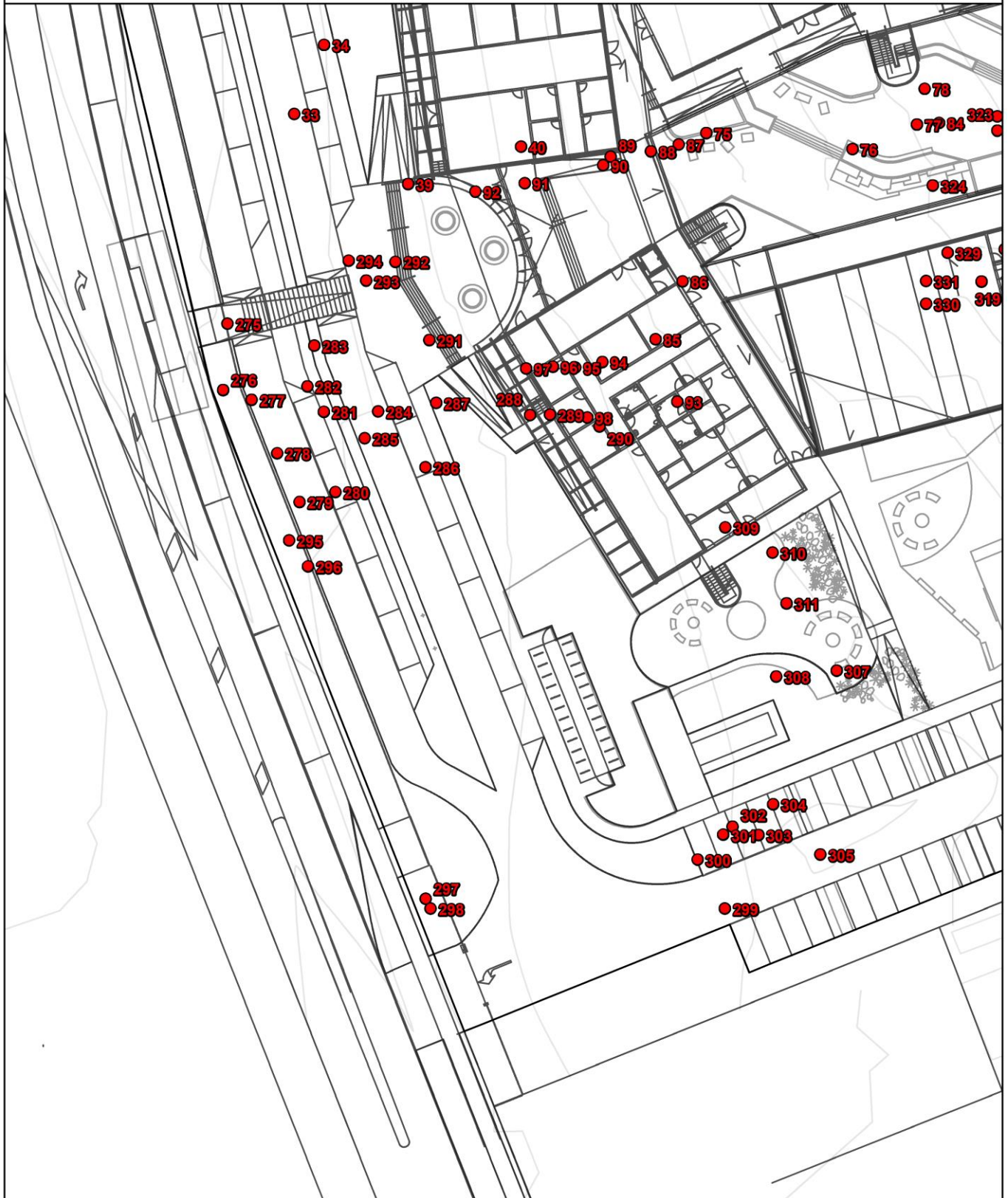
- TPZ (continuous line)
- SRZ (dashed line)

Tree protection measures

- Tree protection fence

Tree Protection Plan

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Legend

The subject trees

- Retain
- Remove

Protection zones

- TPZ (continuous line)
- SRZ (dashed line)

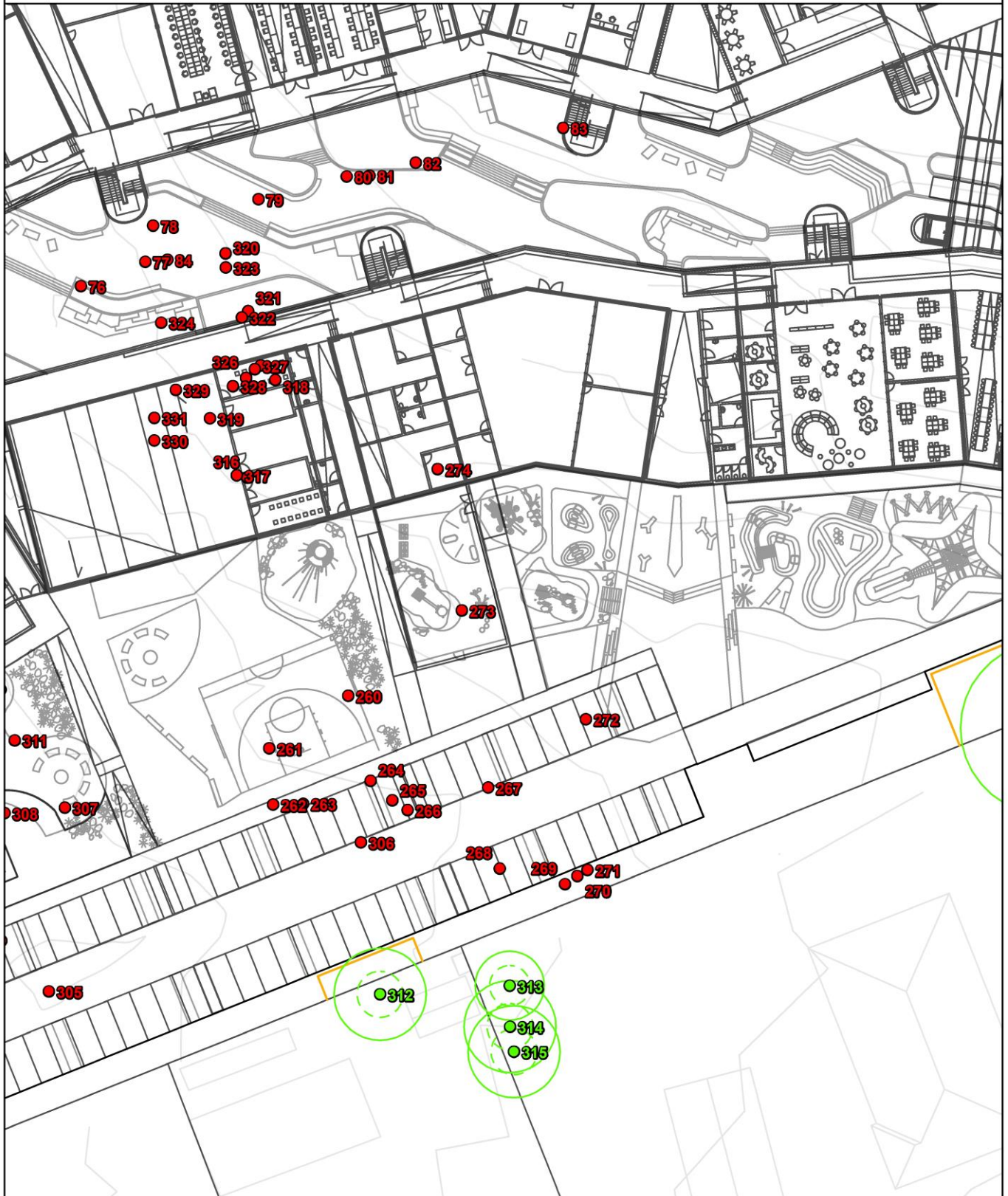
Tree protection measures

- Tree protection fence



Tree Protection Plan

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Legend

The subject trees

- Retain
- Remove

Protection zones

- TPZ (continuous line)
- SRZ (dashed line)

Tree protection measures

- Tree protection fence



Tree Protection Plan

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Legend

The subject trees

- Retain
- Remove

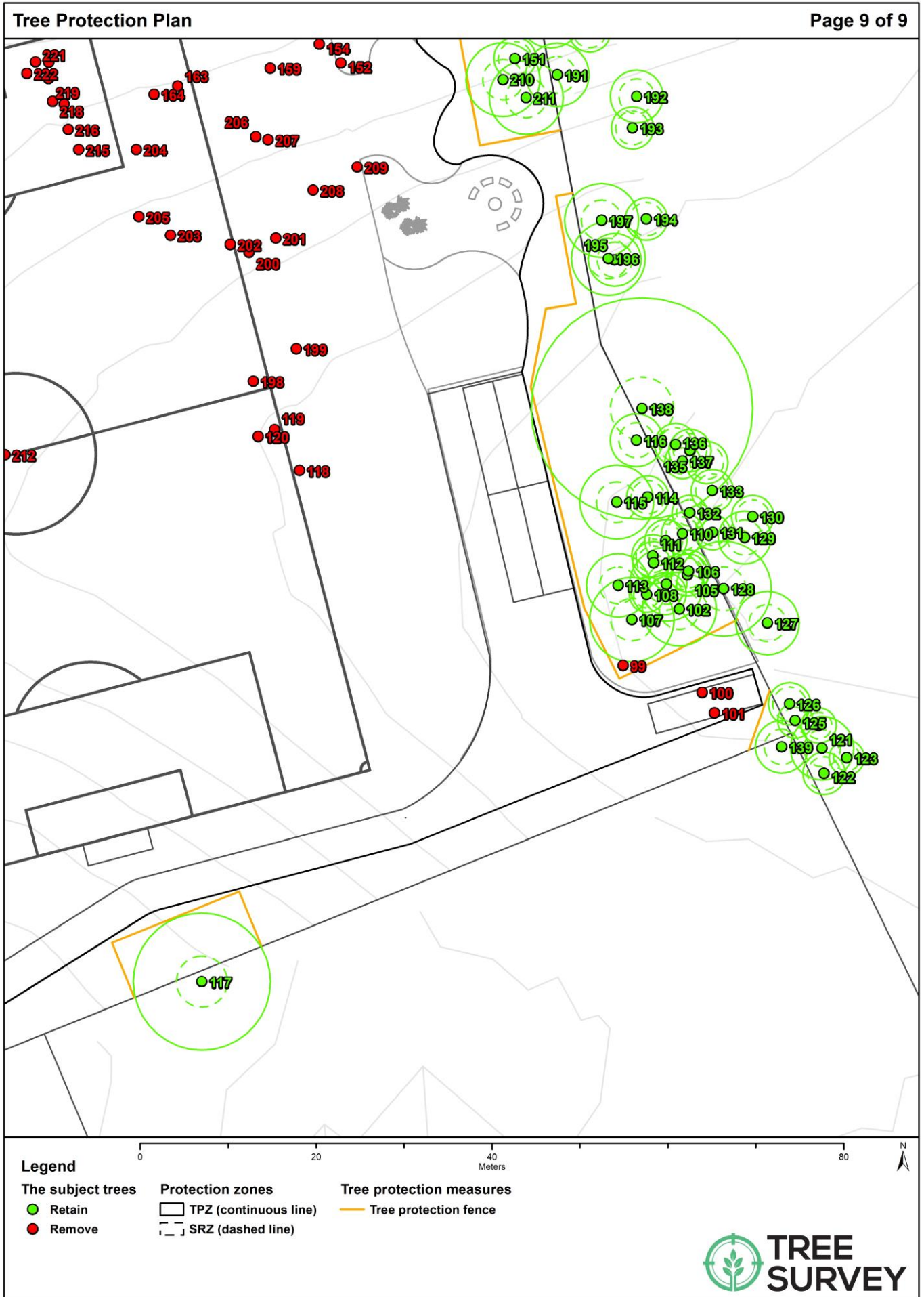
Protection zones

- TPZ (continuous line)
- SRZ (dashed line)

Tree protection measures

- Tree protection fence





6 References

Australian Standard, AS 4970-2009, Protection of Trees on Development Sites

Australian Standard, AS 4373-2007, Pruning of Amenity Trees.

Costello, L., Watson, G. and Smiley, E., 2017. Root Management. International Society of Arboriculture.

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

Mattheck, C. (2007). Updated field guide for visual tree assessment. Karlsruhe: Forschungszentrum Karlsruhe.

Mattheck, C., Bethge, K. and Weber, K. (2015). The body language of trees. Karlsruhe: Karlsruher Inst. für Technologie.

Mattheck, C., Lonsdale, D. and Breloer, H. (1994). The body language of trees. London: H.M.S.O.

Roberts, J., Jackson, N. and Smith, D. (2006). Tree roots in the built environment.

Appendix I - STARS© assessment matrix

The retention value of a tree or group of trees is determined using a combination of environmental, cultural, physical, and social values.

- **Low:** These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.
- **Medium:** These trees are moderately important for retention. Their removal should only be considered if adversely affecting the proposed building/works, and all other alternatives have been considered and exhausted.
- **High:** These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by Australian Standard, AS4970-2009 Protection of trees on development sites.

This tree retention assessment has been undertaken in accordance with the Institute of Australian Consulting Arboriculturalists (IACA) Significance of a Tree, Assessment Rating System (STARS). The system uses a scale of High, Medium, and Low significance in the landscape. Once the landscape significance of a tree has been defined, the retention value can be determined. Each tree must meet a minimum of three (3) assessment criteria to be classified within a category.

Tree Significance - Assessment Criteria		
Low Significance	Medium Significance	High Significance
<p>The tree is in fair-poor condition and good or low vigour.</p> <p>The tree has form atypical of the species</p> <p>The tree is not visible or is partly visible from the surrounding properties or obstructed by other vegetation or buildings</p> <p>The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area</p> <p>The tree is a young specimen which may or may not have reached dimensions to be protected by local Tree Preservation Orders or similar protection mechanisms and can easily be replaced with a suitable specimen</p> <p>The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa in situ – tree is inappropriate to the site conditions</p> <p>The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms</p> <p>The tree has a wound or defect that has the potential to become structurally unsound.</p>	<p>The tree is in fair to good condition</p> <p>The tree has form typical or atypical of the species</p> <p>The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area</p> <p>The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street</p> <p>The tree provides a fair contribution to the visual character and amenity of the local area</p> <p>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</p>	<p>The tree is in good condition and good vigour</p> <p>The tree has a form typical for the species</p> <p>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.</p> <p>The tree is listed as a heritage item, threatened species or part of an endangered ecological community or listed on council's significant tree register</p> <p>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.</p> <p>The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group, or has commemorative values.</p> <p>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.</p>
Environmental Pest / Noxious Weed		
<p>The tree is an environmental pest species due to its invasiveness or poisonous/allergenic properties.</p> <p>The tree is a declared noxious weed by legislation</p>		
Hazardous / Irreversible Decline		
<p>The tree is structurally unsound and/or unstable and is considered potentially dangerous.</p> <p>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.</p>		

Useful Life Expectancy - Assessment Criteria

Remove	Short	Medium	Long
<p>Trees with a high level of risk that would need removing within the next 5 years.</p> <p>Dead trees.</p> <p>Trees that should be removed within the next 5 years.</p> <p>Dying or suppressed or declining trees through disease or inhospitable conditions.</p> <p>Dangerous trees through instability or recent loss of adjacent trees.</p> <p>Dangerous trees through structural defects, including cavities, decay, included bark, wounds, or poor form.</p> <p>Damaged trees that considered unsafe to retain.</p> <p>Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.</p> <p>Trees that will become dangerous after removal of other trees for the reasons.</p>	<p>Trees that appear to be retainable with an acceptable level of risk for 5-15 years.</p> <p>Trees that may only live between 5 and 15 more years.</p> <p>Trees that may live for more than 15 years but would be removed to allow the safe development of more suitable individuals.</p> <p>Trees that may live for more than 15 years but would be removed during the course of normal management for safety or nuisance reasons.</p> <p>Storm damaged or defective trees that require substantial remedial work to make safe and are only suitable for retention in the short term.</p>	<p>Trees that appear to be retainable with an acceptable level of risk for 15-40 years.</p> <p>Trees that may only live between 15 and 40 more years.</p> <p>Trees that may live for more than 40 years but would be removed to allow the safe development of more suitable individuals.</p> <p>Trees that may live for more than 40 years but would be removed during the course of normal management for safety or nuisance reasons.</p> <p>Storm damaged or defective trees that require substantial remedial work to make safe and are only suitable for retention in the short term.</p>	<p>Trees that appear to be retainable with an acceptable level of risk for more than 40 years.</p> <p>Structurally sound trees located in positions that can accommodate future growth.</p> <p>Storm damaged or defective trees that could be made suitable for retention in the long term by remedial tree surgery.</p> <p>Trees of special significance for historical, commemorative, or rarity reasons that would warrant extraordinary efforts to secure their long-term retention.</p>

Tree Significance						
Useful Life Expectancy		High Significance	Medium Significance	Low Significance	Environmental Pest / Noxious Weed	Hazardous / Irreversible Decline
	Long >40 years					
	Medium 15-40 years					
	Short <1-15 years					
Dead						

Legend for Matrix Assessment	
	Priority for retention (High): These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 Protection of trees on development sites. Tree sensitive construction measures must be implemented if works are to proceed within the Tree Protection Zone.
	Consider for retention (Medium): These trees may be retained and protected. These are considered less critical; however, their retention should remain priority with the removal considered only if adversely affecting the proposed building/works, and all other alternatives have been considered and exhausted.
	Consider for removal (Low): These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.
	Priority for removal (Low): These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.

Reference

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

