



Preliminary Arboricultural Report

For

Homes Tasmania

Site

**47 Summerleas Road,
Kingston, 7050, TAS**

Prepared By

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1. Executive Summary

Commissioned by Brad Fenton of Philp Lighton Architects on behalf of Homes Tasmania, Tree Pioneers was engaged to provide a Preliminary Arboricultural Report for the proposed development of 47 Summerleas Road, Kingston. The report is aimed at informing plans for the development of site.

The site 1.4-hectare block in the municipality of Kingston. There is a proposed development of 26 units on site. The site is a vacant block with a bitumen access road. The main footprint of the site where the dwellings will be located consists of mostly open space with a few young native and mature exotic trees.

The tree plan has 107 trees that are within 15m of the development. Of the 107 trees, 28 Very High and 32 High conservation value. Majority of these are on council land.

There are 26 trees initially proposed for removal.

Table below shows the trees that can be retained and the trees that still need to be removed to make the development viable.

Tree Retention	Tree Removal
4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 20	1, 2, 3, 6, 7, 32, 33, 34, 35, 36, 37, 38 and 66

Table 1.

Therefore 13 trees for removal (7 Very high/High Conservation value trees).

Further details can be found within the document.

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2. Overview

Commissioned by Brad Fenton of Philp Lighton Architects on behalf of Homes Tasmania, Tree Pioneers was engaged to provide a Preliminary Arboricultural Report for the proposed development of 47 Summerleas Road, Kingston. The report is aimed at informing plans for the development of site. An initial plan has been provided by Homes Tasmania. A Natural Value Assessment has been undertaken by enviro-dynamics. Tree Pioneers visited site on Friday 26th of September to assess the 2 trees.

3. Key Objectives

- Provide a tree assessment and record tree data.
- Discuss and provide recommendations for the management of trees on development sites.

4. Method

The site was inspected from the ground on the 17th of January 2026 by Joe Loorham. The trees were assessed using the Visual Tree Assessment (VTA) methods and hazard identification methods described by Harris, Clark & Matheny (2004), Lonsdale (1999), Matheny & Clark (1998), Mattheck & Breloer (1994), and Matheny & Clark (1994). Tree data and detailed site map were supplied by North Barker Ecosystems Services. The data provided the following.

- Species identification and origin
- Approximate age of the tree
- Stem diameter at 1.4 meters above ground level with DBH tape or at ground if not possible
- An estimation of the height and width of the tree canopy with Nikon Forestry Pro 2
- The structure of the tree
- The health of the tree
- Potential habitat

The visual tree inspection was undertaken from the ground and recorded. No aerial assessment has taken place. An aerial inspection of the tree will be recommended if further assessment is required. Anything not visible from the ground cannot be accounted for. No underground investigation took place. The tree assessment relates to the data taken on the day of the assessment and does not include any changes thereafter. Any changes to site will void the risk assessment.

5. Site

The site is in the municipality of Kingborough. The site is at 47 Summerleas road, Kingston. There is a proposed development to the site. There are plans to build 26 units. There are 107 trees within 15m of the proposed development. The site is a vacant block with an existing access road. The trees appear to be accustomed to the access road. Map (Figure 1) shows dwellings which are not present.



Figure. 1 Map of site with tree numbers and TPZ. Map provided by Enviro-Dynamics.

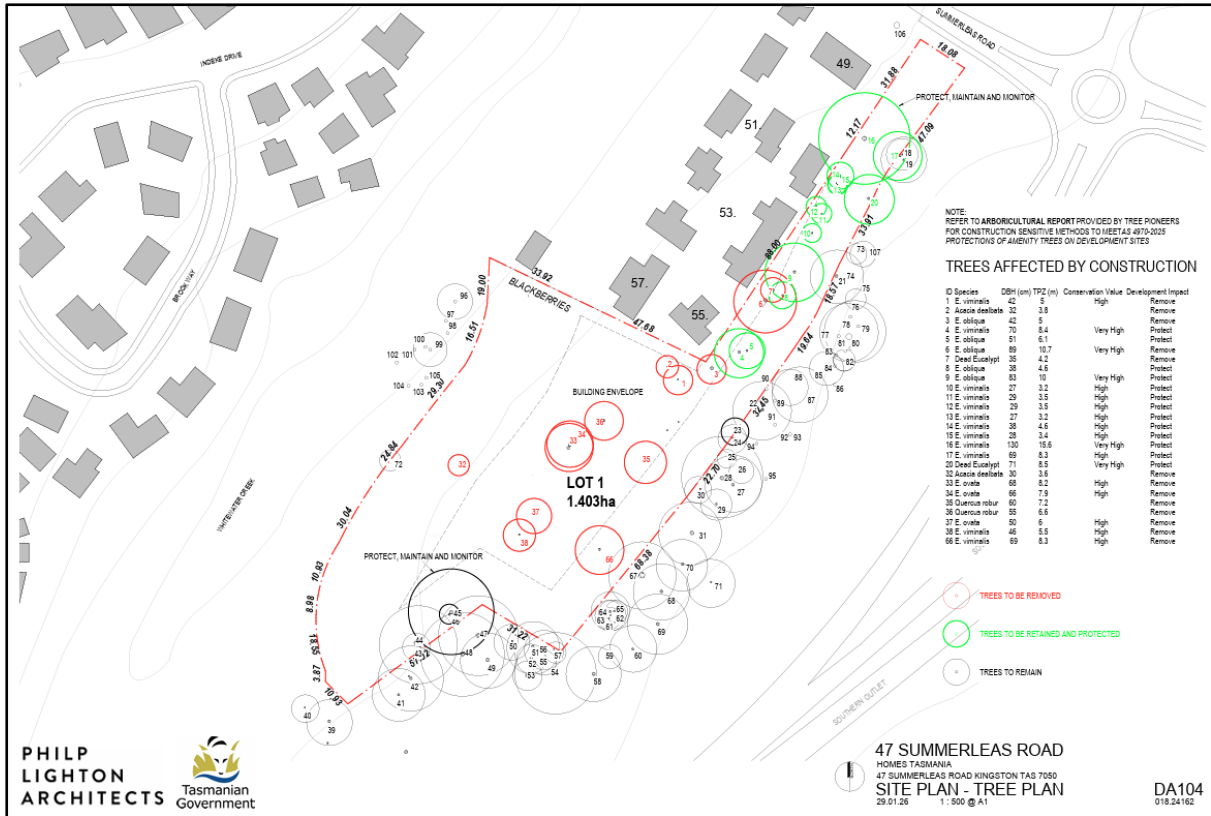


Figure. 2 Plan of site with tree numbers and TPZ. Plans provided by Philp Lighton Architects.

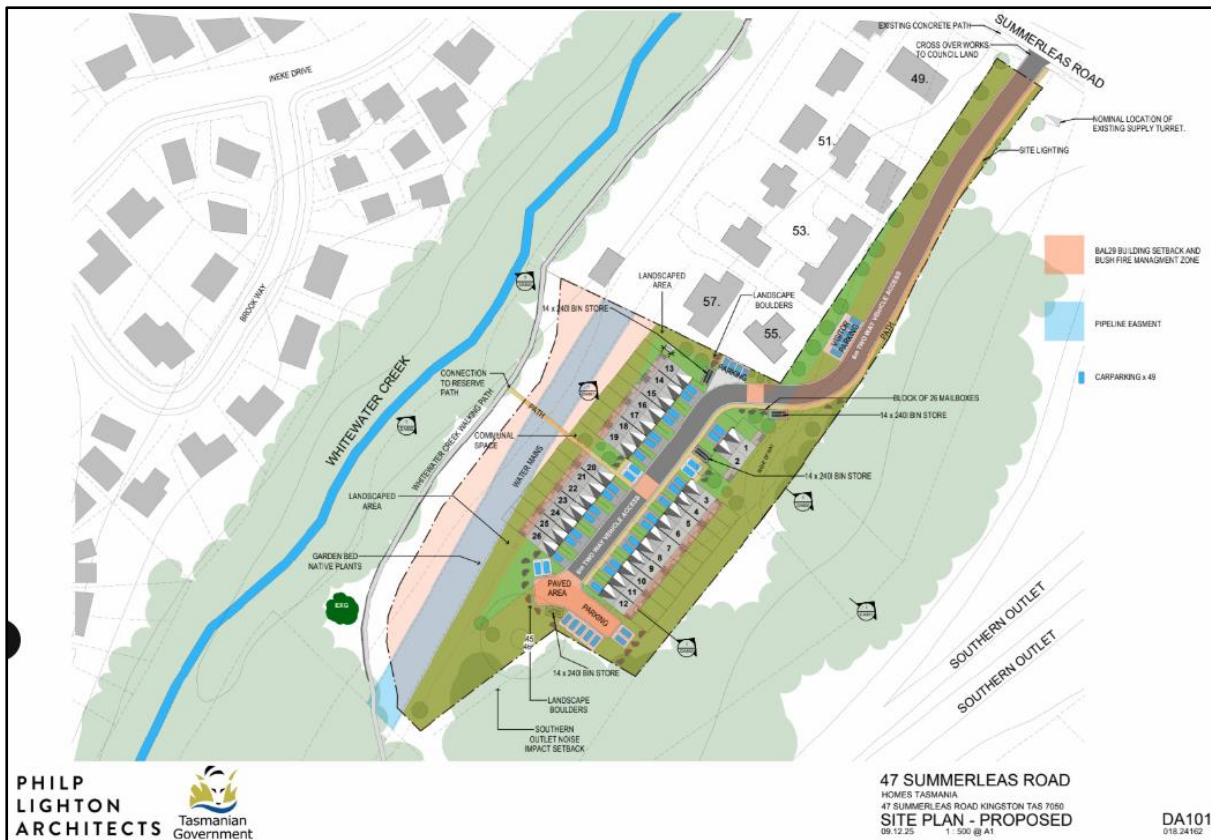


Figure. 3 Plan of site. Plans provided by Philp Lighton Architects.

6. Tree Data

ID	Species	DBH (cm)	TPZ (m)	Conservation Value	Development Impact	Comments
1	<i>E. viminalis</i>	42	5	High	Remove	
2	<i>Acacia dealbata</i>	32	3.8		Remove	
3	<i>E. obliqua</i>	42	5		Remove	
4	<i>E. viminalis</i>	70	8.4	Very High	Retain	Pre-existing encroachment
5	<i>E. obliqua</i>	51	6.1		Retain	Pre-existing encroachment
6	<i>E. obliqua</i>	89	10.7	Very High	Remove	
7	dead eucalypt	35	4.2		Remove	
8	<i>E. obliqua</i>	38	4.6		Retain	Pre-existing encroachment
9	<i>E. obliqua</i>	83	10	Very High	Retain	Pre-existing encroachment
10	<i>E. viminalis</i>	27	3.2	High	Retain	Pre-existing encroachment
11	<i>E. viminalis</i>	29	3.5	High	Retain	Pre-existing encroachment
12	<i>E. viminalis</i>	29	3.5	High	Retain	Pre-existing encroachment
13	<i>E. viminalis</i>	27	3.2	High	Retain	Pre-existing encroachment
14	<i>E. viminalis</i>	38	4.6	High	Retain	Pre-existing encroachment
15	<i>E. viminalis</i>	28	3.4	High	Retain	Pre-existing encroachment
16	<i>E. viminalis</i>	130	15.6	Very High	Retain	Pre-existing encroachment
17	<i>E. viminalis</i>	69	8.3	High	Retain	Pre-existing encroachment
18	<i>E. obliqua</i>	45	5.4		Retain	Pre-existing encroachment
19	<i>E. viminalis</i>	65	7.8	High	Retain, works within TPZ	
20	dead eucalypt	71	8.5	Very High	Retain	dead <i>E. obliqua</i>
21	<i>E. viminalis</i>	76	9.1	Very High	Retain - works within TPZ	
22	<i>E. viminalis</i>	83	10	Very High	Retain, works within TPZ	Poor condition
23	<i>Allocasuarina littoralis</i>	39	4.7		Remove	
24	<i>E. ovata</i>	41	4.9	High	Retain, works within TPZ	
25	<i>E. viminalis</i>	27	3.2	High	Retain (tree and TPZ on neighbouring land)	
26	<i>E. ovata</i>	35	4.2		Retain	

ID	Species	DBH (cm)	TPZ (m)	Conservation Value	Development Impact	Comments
27	<i>E. viminalis</i>	81	9.7	Very High	Retain (tree and TPZ on neighbouring land)	
28	<i>E. viminalis</i>	116	13.9	Very High	Retain - works within TPZ	
29	<i>E. ovata</i>	44	5.3	High	Retain (tree and TPZ on neighbouring land)	
30	<i>E. ovata</i>	38	4.6		Retain - works within TPZ	
31	<i>E. viminalis</i>	89	10.7	Very High	Retain (tree and TPZ on neighbouring land)	
32	<i>Acacia dealbata</i>	30	3.6		Remove	
33	<i>E. ovata</i>	68	8.2	High	Remove	
34	<i>E. ovata</i>	66	7.9	High	Remove	
35	<i>Quercus robur</i>	60	7.2		Remove	
36	<i>Quercus robur</i>	55	6.6		Remove	
37	<i>E. ovata</i>	50	6	High	Remove	
38	<i>E. viminalis</i>	46	5.5	High	Remove	
39	<i>E. ovata</i>	65	7.8	High	Retain (tree and TPZ on neighbouring land)	
40	<i>E. obliqua</i>	39	4.7			
41	<i>E. ovata</i>	75	9	Very High	Retain (tree and TPZ on neighbouring land)	
42	<i>E. ovata</i>	55	11.1	High	Retain	3 trunks
43	<i>E. ovata</i>	39	4.7			
44	<i>E. ovata</i>	82	13.3	Very High	Retain - works possibly within TPZ	2 trunks
45	<i>E. ovata</i>	85	14.6	Very High	Retain	3 trunks
46	<i>Acacia melanoxylon</i>	28	3.4		Retain	
47	<i>E. viminalis</i>	113	13.6	Very High	Retain - works within TPZ	
48	<i>E. ovata</i>	119	14.3	Very High	Retain - works possibly within TPZ	
49	<i>E. ovata</i>	78	9.4	Very High	Retain (tree and TPZ on neighbouring land)	
50	<i>E. ovata</i>	51	6.1	High	Retain (tree and TPZ on neighbouring land)	
51	<i>E. viminalis</i>	75	9	Very High	Retain - works possibly within TPZ	
52	<i>E. ovata</i>	42	5	High	Retain (tree and TPZ on neighbouring land)	

ID	Species	DBH (cm)	TPZ (m)	Conservation Value	Development Impact	Comments
53	<i>E. viminalis</i>	67	8	High	Retain (tree and TPZ on neighbouring land)	
54	<i>E. viminalis</i>	116	13.9	Very High	Retain - works possibly within TPZ	
55	<i>E. viminalis</i>	35	4.2	High	Retain (tree and TPZ on neighbouring land)	
56	<i>E. viminalis</i>	56	6.7	High	Retain - works possibly within TPZ	Poor condition
57	<i>E. amygdalina</i>	30	3.6			
58	<i>E. viminalis</i>	78	9.4	Very High	Retain (tree and TPZ on neighbouring land)	
59	<i>E. obliqua</i>	34	4.1		Retain	
60	<i>E. amygdalina</i>	67	8		Retain	
61	<i>E. ovata</i>	32	3.8		Retain	Poor condition
62	<i>E. obliqua</i>	34	4.1		Retain	
63	<i>E. obliqua</i>	44	5.3		Retain	
64	<i>E. obliqua</i>	55	6.6		Retain	
65	<i>E. obliqua</i>	43	5.2		Retain	
66	<i>E. viminalis</i>	69	8.3	High	Remove	
67	<i>E. ovata</i>	80	11.5	Very High	Retain - works within TPZ	3 trunks
68	<i>E. viminalis</i>	80	9.6	Very High	Retain (tree and TPZ on neighbouring land)	
69	<i>E. viminalis</i>	81	10.3	Very High	Retain (tree and TPZ on neighbouring land)	2 trunks
70	<i>E. ovata</i>	73	8.8	Very High	Retain (tree and TPZ on neighbouring land)	Main trunk missing
71	<i>E. amygdalina</i>	68	8.2			Poor condition
72	<i>E. obliqua</i>	30	3.6			
73	<i>E. viminalis</i>	29	3.48	High	Retain (tree and TPZ on neighbouring land)	
74	<i>E. viminalis</i>	77	9.24	Very High	Retain - works within TPZ	
75	<i>E. viminalis</i>	29	3.48	High	Retain (tree and TPZ on neighbouring land)	
76	<i>E. amygdalina</i>	42	5.04		Retain (tree and TPZ on neighbouring land)	

ID	Species	DBH (cm)	TPZ (m)	Conservation Value	Development Impact	Comments
77	<i>E. amygdalina</i>	49	5.88		Retain (tree and TPZ on neighbouring land)	
78	<i>E. amygdalina</i>	31	3.72		Retain (tree and TPZ on neighbouring land)	
79	<i>E. viminalis</i>	88	10.6	Very High	Retain (tree and TPZ on neighbouring land)	
80	<i>E. viminalis</i>	85	10.2	Very High	Retain (tree and TPZ on neighbouring land)	
81	<i>E. amygdalina</i>	32	3.84		Retain (tree and TPZ on neighbouring land)	
82	<i>E. viminalis</i>	31	3.72	High	Retain (tree and TPZ on neighbouring land)	
83	<i>E. amygdalina</i>	37	4.44		Retain (tree and TPZ on neighbouring land)	
84	<i>E. amygdalina</i>	38	4.56		Retain (tree and TPZ on neighbouring land)	
85	<i>E. viminalis</i>	48	5.76	High	Retain (tree and TPZ on neighbouring land)	
86	<i>E. amygdalina</i>	45	5.4		Retain (tree and TPZ on neighbouring land)	
87	<i>E. ovata</i>	78	9.36	Very High	Retain (tree and TPZ on neighbouring land)	
88	<i>E. viminalis</i>	52	6.24	High	Retain (tree and TPZ on neighbouring land)	
89	<i>E. amygdalina</i>	41	4.92		Retain (tree and TPZ on neighbouring land)	
90	<i>E. obliqua</i>	29	3.48		Retain (tree and TPZ on neighbouring land)	
91	<i>E. viminalis</i>	83	9.96	Very High	Retain - works possibly within TPZ	Poor condition
92	<i>E. amygdalina</i>	29	3.48		Retain (tree and TPZ on neighbouring land)	

ID	Species	DBH (cm)	TPZ (m)	Conservation Value	Development Impact	Comments
93	<i>E. obliqua</i>	30	3.6		Retain (tree and TPZ on neighbouring land)	
94	<i>Acacia melanoxylon</i>	36	4.32		Retain (tree and TPZ on neighbouring land)	
95	<i>Exocarpos cupressiformis</i>	30	3.6		Retain (tree and TPZ on neighbouring land)	
96	<i>E. viminalis</i>	50	6	High	Retain - works possibly within TPZ	
97	<i>Acacia dealbata</i>	30	3.6		Retain (tree and TPZ on neighbouring land)	Dead
98	<i>Acacia dealbata</i>	29	3.48		Retain (tree and TPZ on neighbouring land)	
99	<i>E. ovata</i>	48	5.76	High	Retain - works possibly within TPZ	
100	<i>E. ovata</i>	33	3.96		Retain (tree and TPZ on neighbouring land)	
101	<i>Acacia dealbata</i>	54	6.48		Retain (tree and TPZ on neighbouring land)	
102	<i>E. obliqua</i>	29	3.48		Retain (tree and TPZ on neighbouring land)	
103	<i>E. ovata</i>	28	3.36		Retain (tree and TPZ on neighbouring land)	
104	<i>E. ovata</i>	28	3.36		Retain (tree and TPZ on neighbouring land)	
105	<i>Acacia melanoxylon</i>	32	3.84		Retain (tree and TPZ on neighbouring land)	
106	<i>E. amygdalina</i>	56	7.8		Retain (tree and TPZ on neighbouring land)	
107	<i>E. viminalis</i>	36	4.32	High	Retain (tree and TPZ on neighbouring land)	

Table 2. Updated retention value for trees.

7. Observations

The site is a 1.4-hectare block in the municipality of Kingston. There is a proposed development of 26 units on site. The site is a vacant block with a bitumen access road. The main footprint of the site where the dwellings will be located consists of mostly open space with a few young natives and mature exotics.

In general, the trees are typical for species. The trees on site have been growing along the roadway in private property and open space. The trees are in fair health and structure.

The initial plans for the development show multiple trees within the development zone. The tree plan has 107 trees that are within 15m of the development. Of the 107 trees, 28 are Very High and 32 are High conservation value (HCV). The majority of these are on council land. These trees are to be retained. There are 11 HCV trees located onsite along the driveway.

The 11 HCV trees along the driveway appear to be in reasonable health with sound structure. They appear to be accustomed to the existing development to the North-West and the access road onsite. The existing bitumen road is classified as a pre-existing encroachment. This means that an upgrade to the road will have a minor effect on the trees onsite. If the development of the driveway on the existing footprint is above grade there will be minor encroachment. The minor encroachment will be generated out of the slight increase to the required spec for fire truck use. Therefore, most trees along the driveway and boundary can be retained. Upgrade works would still require constructions sensitive measures and arborist supervision.

There is small sucker growth in the area between the driveway and boundary that require management. They have either self-sewn or regrown from stumps. They are growing in clusters and require removal or selection of the better specimen for retention. Some of these trees are not large enough to be recorded on the Tree Plan.

Tree 16 is a large specimen with fungal fruiting bodies present. This is typical for the species. This tree appears to have the best health and vigour of all the specimens onsite. The tree appears to be adapting to the feature well with sounds reactive growth. Further investigation is required to quantify the extent of decay. This will need to be inspected

and monitored annually. This requires a picus or arbortom test which maps the density of timber at



Figure 4. Tree 16 and bitumen roadway.

the fungal fruiting bodies. Compare data sets annually to determine the rate of decay and inform the management plan.

Trees 1, 2 and 3 are not compatible with the proposed development. Their location is within the end alteration to the driveway and require removal.

There is a visitors car park proposed along the driveway. A potential location could be within Tree 6 and Tree 7s TPZ. Tree 6 is declining and has a short life expectancy. Tree 7 is a dead tree and not compatible in a public space over roadways and buildings. These trees appear to not be suitable for the urban environment. Installation of the car park would still require construction sensitive measures and arborist supervision.

Trees 33, 34, 35, 36, 37, 38 and 66 are not compatible with the proposed development and should be removed.

Tree 45 is large specimen at the edge of the development and may experience some encroachment. The tree is a poorly structured specimen with multiple failures and extensive decay. This tree can be retained with the development. However, it is dependent on whether the trees' risk can be managed. Exclusion zones and heavy pruning are required.

Trees grow in a delicate balance with their surrounding environment, and the effects of disturbance or site changes are often, not immediately obvious. Additional impacts to already stressed trees, such as construction activities, can add further stress and cause advanced decline, which cannot be reversed.

Machinery and tools can wound or cause mechanical damage to the above-ground parts of a tree. Mechanical damage to wood or bark; the tree's outer protective tissue, creates an entry point for pathogens. Although a tree may seal a wound, the initial damage is permanent.

Works such as trenching, excavation, and site cuts can directly damage trees by removing roots that absorb water and nutrients critical for tree health, or by severing structural roots that keep the tree



Figure 5. Tree 6 showing thin canopy and dieback present.



Figure 6. Tree 45. The tree has large hollow sections and failures.

upright. Various activities, including soil compaction in the root zone, sealing the surface, and adding fill over roots, can inhibit root growth and function by limiting oxygen and moisture availability in the soil. Such damage to trees may take several years to become apparent in the crown but can also be sudden and irreversible. It is therefore important that roots are protected throughout all stages of development.



Figure 7. Tree 16. Image showing fungal fruiting bodies that require further investigation.



Figure 8. Tree 16. Image showing fungal fruiting bodies that require further investigation.



Figure 8. Image of pre-existing roadway.



Figure 9. Image of pre-existing roadway.

8. Conclusion/Recommendations

The proposed development at 47 Summerleas Road has 107 trees within 15m of development. Initial design has 26 trees to be removed. Of these 26 trees, 18 are Very High or High Conservation value trees. Inspections of the site by Joe Loorham of Tree Pioneers have determined that there is potential to develop the site with further tree retention. Recommendations are as follows.

Tree Removal

26 trees were initially proposed for removal. Table below shows the trees that can be retained and the trees that still need to be removed to make the development viable.

Tree Retention	Tree Removal
4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 20	1, 2, 3, 6, 7, 32, 33, 34, 35, 36, 37, 38 and 66

Table 2. Trees to be retained and removed.

Therefore 13 trees for removal (7 Very high/High Conservation value trees).

- Management plans are required for Trees 16 and 45.
- Tree 16 requires further investigation.
- Tree 6 and 7 are to be removed to make way for the car park. These trees have poor health and safety issues in an urban environment.
- Trees 1, 2, and 3 are not compatible with the new direction of the driveway and are to be removed to make way for the development.
- Construction sensitive methods to install car park and upgrade driveway.
- Any services required on site can be trenched in through the center of the driveway. Any sections of driveway that overlap significantly with a TPZ are required to be excavated with hydro-vac. This is non-invasive digging to locate roots and thread services underneath. Roots need to be viewed as assets/services such as water/power or telecommunications.

Temporary Tree Protection Measures

Listed below are protection measures to be implemented, prior, during and can be removed after all works are complete.

- Installation of TPZ fences at the edge of the Tree Protection Zone Figure 7. shows a typical TPZ fence
- Tree Protection fences to be erected at the edge of the encroachment.
- A sign installed on the Tree protection zone and along TPZ fences to ensure no access to area. Figure 9. Shows a typical TPZ sign.
- Appoint a site arborist.
- Inspection by site arborist to 'sign off' Tree Protection measures implementation.

Tree Health

Listed below are measures to be implemented to ensure the health of the tree during the development stages.

- No changes to soil grade within the TPZ.
- An assessment undertaken at the end of development to determine the health and condition of the trees.

9. Tree Protection

Notional Root Zone (NRZ)

Zone enclosed by a radius 12 times the Diameter at Standard Height (DSH) that is a primary trigger for arboricultural input on a development site.

Tree Protection Zones (TPZ)

The specific area set aside above ground at a given distance from the trunk set aside for the protection of the tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development.

Structural Root Zones (SRZ)

The area around the base of a tree is of value for the tree's stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in meters. This zone considers the trees structural stability only, not the root zone required for a tree's vigour and long-term viability, which will usually be much larger area.

Encroachment

In some case, encroachment into the TPZ is necessary. There are provisions for encroachment, within the Australian standards framework. Encroachment is categories as minor or major.

Minor Encroachment AS 4970-2025

Minor encroachment is less than or equal to 10% of the TPZ and doesn't enter the SRZ (Structural Root Zone). Generally, it is unlikely that there will be any significant impact to tree health, longevity or structure. Tree protection should be implemented during site works. An equivalent area to the encroachment shall be incorporated into the TPZ, unless the project arborist can otherwise demonstrate the tree will remain viable.

Moderate Encroachment AS 4970-2025

Moderate encroachment is greater than 10% and less than or equal to 20% of the TPZ and doesn't enter the SRZ. The project arborist shall be engaged to review the proposed impact and undertake any necessary investigation to demonstrate how the tree will remain viable. This may be through implementation of suitable design measures and construction control measures to mitigate impact during the process. An equivalent area to the encroachment shall be incorporated into the TPZ, unless the project arborist can otherwise demonstrate the tree will remain viable.

Major Encroachments AS 4970-2025

Major encroachment is greater than 20% of the TPZ and into the SRZ. The project arborist shall be engaged to review the proposed impact and undertake any necessary investigation to demonstrate how the tree will remain viable. This can include research such as root investigation, soil analysis, historical records of the tree or site relevant literature and examples of similar encroachment. These encroachments must be supervised by the project arborist. An equivalent area to the encroachment shall be incorporated into the TPZ, unless the project arborist can otherwise demonstrate the tree will remain viable.

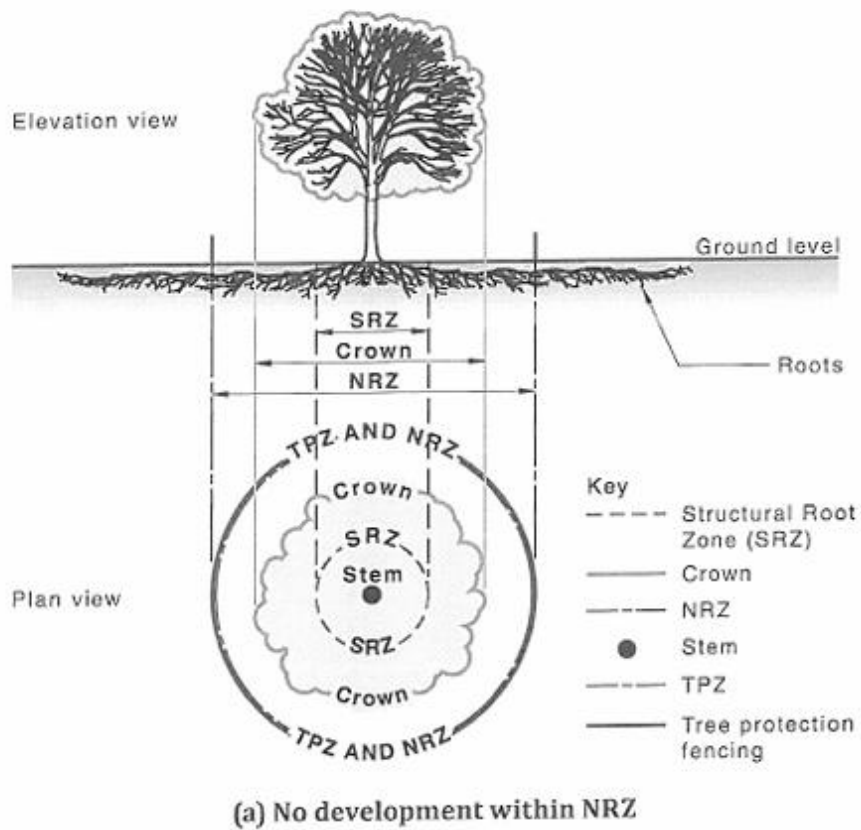
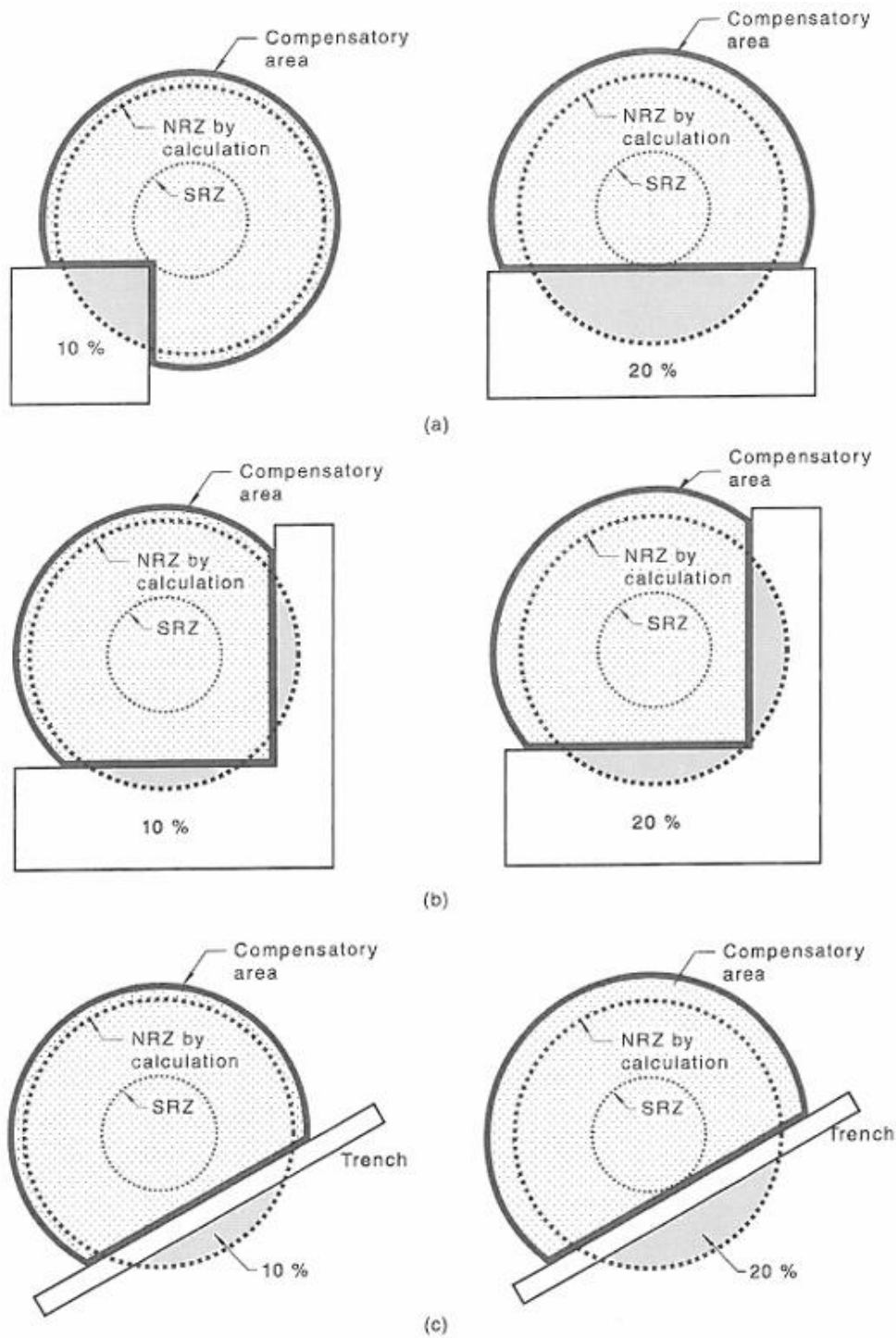


Figure 4. Image of a tree with no encroachment showing all the requirements. Image source from Australian Standard 4970-2025.



NOTE These examples are not to scale and are for illustrative purposes. The proposed encroachment is considered minor if it is less than or equal to 10 % of the area of the NRZ, has not had recent TPZ encroachments and is outside of the SRZ (see [Clause 3.4](#)). The proposed encroachment is considered moderate if it is greater than 10 % and less than or equal to 20 % of the area of the NRZ and is outside of the SRZ (see [Clause 3.4](#)).

Figure 5. Examples of various encroachments. Sources Australia Standard 4970-2025.

Development sites

Development sites incorporating trees need to implement protection measures to ensure the tree remains viable in the future landscape. Damage to trees during development can occur directly to the tree and indirectly to it through its environment.

- Direct damage includes mechanical injury to the trunk, severing roots, or alterations to the soil environment in the immediate vicinity of the roots. This included compaction or loss of organic matter.
- Indirect damage includes soil moisture alterations, changes in water tables and drainage patterns.

On development site, the protection of trees is achieved with a TPZ (Tree Protection Zone). TPZ are calculated according to *AS 4970-2025 Protections of amenity trees on development sites*. TPZ are based on a NRZ which 12 times the trunk diameter at 1.4 m above ground level. Once the NRZ has been calculated, it can then be adjusted for encroachment and site-specific conditions. This new area becomes the TPZ and a TPZ fence is erected to protect the tree and its environment. This Fences must be erected before any work takes place.

Guidelines for TPZ's (Tree Protection Zones):

- No building structures or hard landscape features.
- No building material storage.
- No excavation or soil disturbance work
- No placing or storing of fill.
- No lighting of fire or preparing of chemicals.
- No vehicles or pedestrian access.

TPZ requirements:

- Erect signs along the entire length of the protective fence.
- Construct TPZ to prevent pedestrian and vehicle access.
- Mulch TPZ area to a depth of 150mm with wood chips.
- Irrigate the TPZ periodically, as determined by the arborist.

TPZ Guidelines and requirements need to be adhere to at all stages of the design and development process.

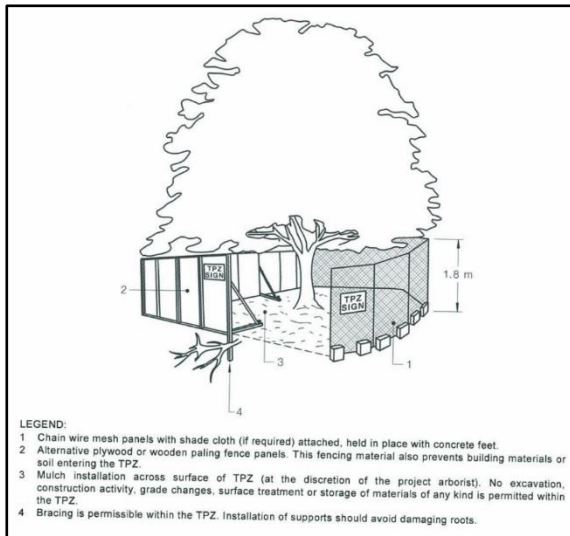


Figure 6. Tree Protection Fence and signs. Imaged sourced from the Australian Standard 4970-2025.

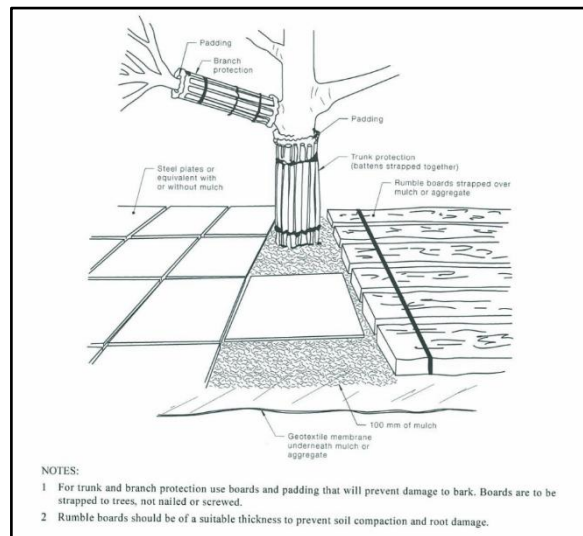


Figure 7. Trunk Protection and ground protection. Imaged sourced from the Australian Standard 4970-2025.

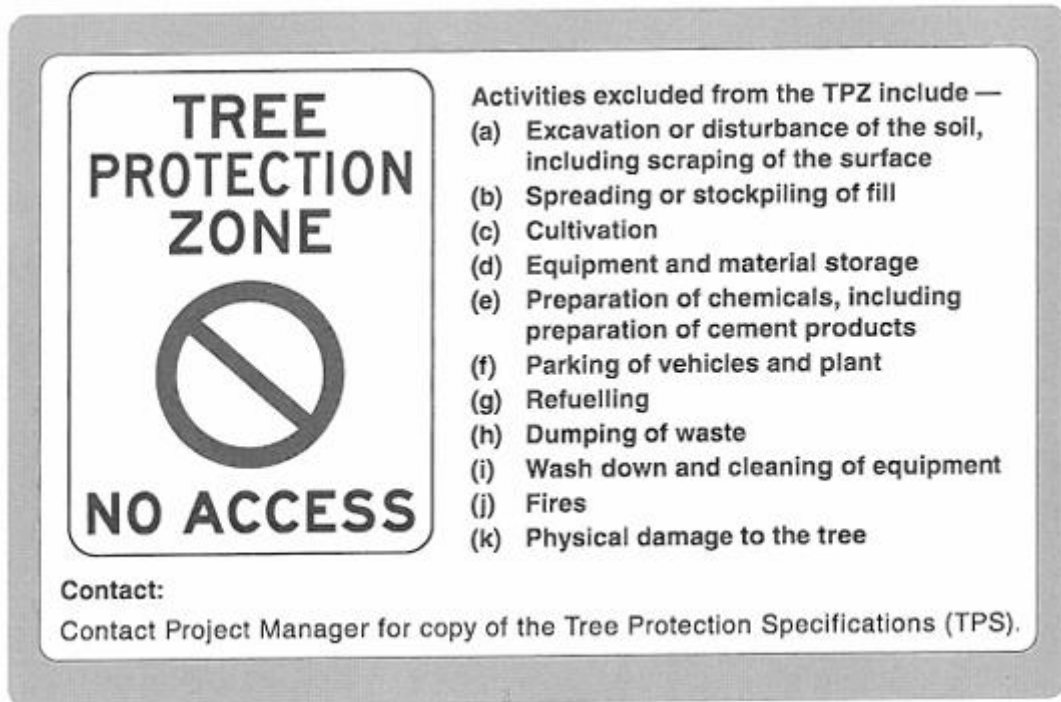


Figure 8. An example of a Tree Protection Zone Sign. Imaged sourced from the Australian Standard 4970-2025.

10. References

Australian Standards – AS 4970-2025 Protection of trees on development site.

Australian Standards – AS 4373-2007 Pruning of Amenity trees.

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11. Tree Descriptors

AGE

The notation of age is based on the following categories.

Category	Description
Young	Less than 20% of the life expectancy of the tree.
Mature	20 – 80% of the life expectancy of the tree.
Over Mature	>80% of the life expectancy for the tree.
Dead	Tree is no longer alive.

HEALTH

Pertains to the health and growth potential of the tree. The notation of 'health' is based on the following categories.

Category	Description
Good	Full canopy, good foliage density, average leaf colour for species. Average growth indicators such as good extension of growth per growing season, typical leaf size. Little to no dieback in the canopy, minimal deadwood. Good wound wood development. Tree exhibits above average health and minimal to no work is required.
Fair	Tree has <25% deadwood and may have minor canopy dieback. Foliage density and colour may be slightly below average for species. Imperfections in canopy present, pathogen signs present. Average growth indicators such as good extension of growth per growing season, typical leaf size and canopy density. Moderate wound wood development. Tree exhibits below average health, and remedial works may be employed to improve tree health.
Poor	Tree has >25% deadwood and has canopy die back. Foliage density and colour is below average for species. Leaf size distorted and discoloured. Epicormic growth is present throughout the canopy. Canopy is incomplete and has pathogen damage present. Poor wound wood development. Tree exhibits low health and remedial work or removal <u>may</u> be required.
Very Poor	Tree has more than 50% deadwood and extensive canopy dieback. Foliage density is sparse and leaf and colour is atypical for species. Epicormic shoots can make up large sections of canopy. Pathogen and stress agent is present are leading to decline. Very poor wound wood development. Tree exhibits low health and remedial work or removal <u>are</u> required.
Dead	Tree is no longer living.

RETENTION VALUE

Retention Value is rated into three levels: LOW, MEDIUM and HIGH.

Category	Description
Low	Trees that offer little in terms of contributing to the future landscape. Should be considered for removal.
Medium	Trees with some beneficial attributes that may benefit the site. Could be considered for retention if possible.
High	Trees with the potential to positively contribute to the site. Should be considered for retention if possible.

STRUCTURE

Pertains to the physical structure of the tree including main scaffold branches and roots. Structure includes those attributes that may influence the probability of major, trunk, root or limb failure.

Category	Description
Good	<p>Tree has well-defined and balance canopy. Branch unions appear strong and without defects evident. Trunk and branches have nice taper. Tree is unlikely to suffer trunk or branch failure under normal conditions. The tree is considered a good example of the species with well-developed form.</p>
Fair	<p>Tree has some minor problems in the structure of the crown. The crown may slightly out on balance and some branch unions may exhibit structural faults. Tree may have a slight lean. Tree may have slight root damage. These defects are not likely to result in catastrophic trunk or branch failure, although some branch failure may occur under normal conditions.</p>
Poor	<p>Tree may have significant problems in structural scaffold limbs and trunk. Canopy may be lopped sided and have gaps. Limbs crossing in canopy. Branch unions may be poor with faults present. Tree may have substantial lean. Tree may have suffered significant root damage. Tree may have basal or trunk damage. Tree may have co-dominate stems. Tree may have bifurcated unions. These defects <u>may</u> predispose the tree to major truck and branch failure.</p>
Hazardous	<p>Tree has very significant problems in structural scaffold limbs and trunk. Canopy is lopped sided and has gaps. Limbs crossing in canopy causing rubbing and damage. Branch unions are poor with faults at the point of attachment. Tree has substantial lean. Tree has suffered significant root damage. Tree has basal or trunk damage. Tree has co-dominate stems. Tree has bifurcated unions. These defects <u>are</u> likely to predispose the tree to trunk and scaffold limb failure</p>

USEFUL LIFE EXPECTANCY (ULE)

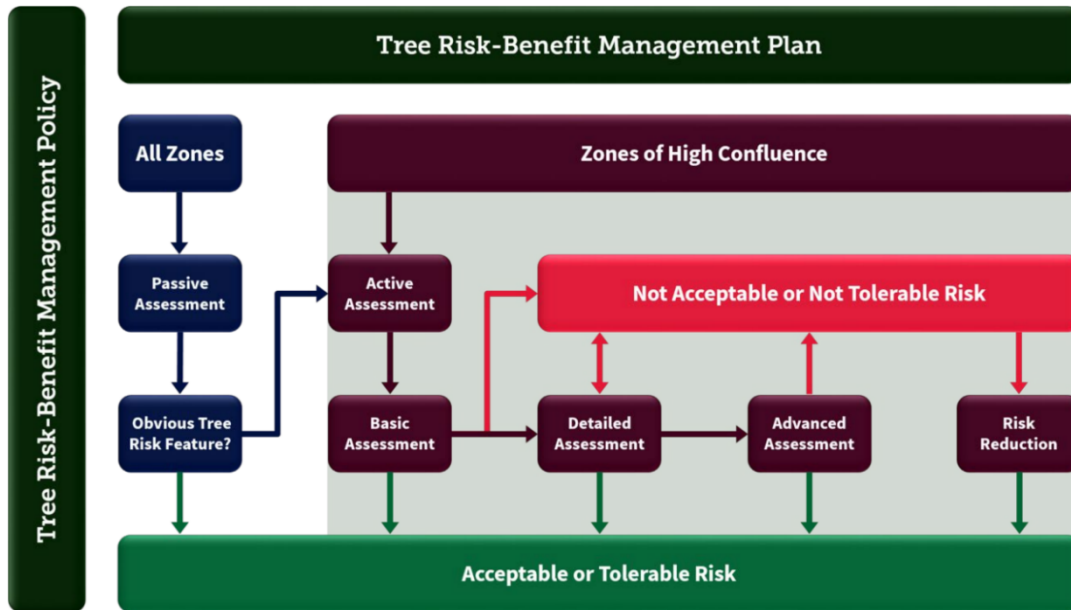
U.L.E. pertains to the span of time that the tree might reasonably be expected to provide useful amenity value with an acceptable level of safety at an acceptable cost. Trees with have varying U.L.E. according to the environment, economical and other factors. **(Note: Useful life expectancy is relevant to the tree if it is maintained and nothing significantly in the environment changes)**

The notation of U.L.E. is based on the following categories.

Category	Description
Short	The tree appears to be retainable with an acceptable level of risk for 5 to 15 years.
Medium	The tree appears to be retainable with an acceptable level of risk for 15 to 40 years.
Long	The tree appears to be retainable with an acceptable level of risk for more than 40 years.
Remove	The tree presents with a high level of risk that would need removal within the next 5 years

RISK

Risk is calculated using the following chart.



Passive Assessment - is simply picking up on Obvious Tree Risk Features you can't help but notice as you got about your daily routine. We carry it out in all zones of use. Passive Assessment is our most valuable risk management asset because it can be done by anyone and it's going on day in day out.

Active Assessment - is where we have trained assessors looking for risks that might not be Acceptable or Tolerable. Or where Passive Assessment has picked up an Obvious Tree Risk Feature that needs a closer look. Active Assessment has three levels to it that increase in depth of investigation from Basic, to Detailed, up to Advanced. We'll carry out Active Assessment in zones of high confluence every 5 years.

Risk Ratings - VALID has applied ISO 31000: Risk Management and the Tolerability of Risk Framework to tree risk-benefit assessment and management, which we've adopted. We're going to manage the risk from our trees and branches falling using four easy-to-understand traffic light signal coloured risk ratings. Red Not Acceptable risks will be reduced to an Acceptable level Amber Not Tolerable risks will be reduced to an Acceptable level, but with a lower priority than red Not Acceptable risks Amber Tolerable risks will not be reduced but may require an increased frequency of assessment than green Acceptable risks Green Acceptable risks will not be reduced.

More documentation is attached.

TREE PROTECTION ZONES

The T.P.Z. applied is AS 4970-2025 'Protection of trees on development site'. AS 4970-2009 uses a multiplication method to determine the T.P.Z. based on T.P.Z. radius being 12 times stem diameter measured 1.4 metres above ground.

$$T.P.Z. \text{ radius} = DBH \times 12$$

STRUCTURAL ROOT ZONE

The S.R.Z. applied is AS 4970-2025 'Protection of trees on development site'. The SRZ is the area required for tree stability. A larger area is required to maintain a viable tree.

$$SRZ \text{ radius} = (D \times 50)^{0.42} \times 0.64$$

12. Assumptions and limitations

1. Any legal description provided to Tree Pioneers Pty Ltd is assumed to be correct. Any titles and ownerships to any property are assumed to be correct. No responsibility is assumed for matters outside the consultant's control.
2. Tree Pioneers Pty Ltd assumes that any property or project is not in violation of any applicable codes, ordinances, statutes or other local, state or federal government regulations.
3. Tree Pioneers Pty Ltd has taken care to obtain all information from reliable sources. All data has been verified insofar as possible; however, Tree Pioneers Pty Ltd can neither guarantee nor be responsible for the accuracy of the information provided by others not directly under Tree Pioneers Pty Ltd control.
4. No Tree Pioneers Pty Ltd employee shall be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.
5. Loss of this report or alteration of any part of this report not undertaken by Tree Pioneers Pty Ltd invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by anyone but the client or their directed representatives, without the prior consent of the Tree Pioneers Pty Ltd.
7. This report and any values expressed herein represent the opinion of the Tree Pioneers Pty Ltd consultant and the Tree Pioneers Pty Ltd fee is in no way conditional upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
8. Sketches, diagrams, graphs and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural drawings, reports or surveys.
9. Unless expressed otherwise: 1) Information contained in this report covers only those items that were covered in the project brief or that were examined during the assessment and reflect the condition of those items at the time of inspection; and 2) The inspection is limited to visual examination of accessible components without dissection, excavation or probing unless otherwise stipulated.
10. There is no warranty or guarantee, expressed or implied by Tree Pioneers Pty Ltd, that the problems or deficiencies of the plants or site in question may not arise in the future.
11. All instructions (verbal or written) that define the scope of the report have been included in the report and all documents and other materials that the Tree Pioneers Pty Ltd consultant has been instructed to consider or to take into account in preparing this report have been included or listed within the report.
12. To the writer's knowledge all facts, matter and all assumptions upon which the report proceeds have been stated within the body of the report and all opinion contained within the report have been fully researched and referenced and any such opinion not duly researched is based upon the writers' experience and observation.