



# Tree Condition Assessment Report

Site: **Street, FERNTREE GULLY.**

Prepared for:

Prepared by

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**16<sup>th</sup> February 2023 - V1**

Services Pty Ltd

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## 1. INTRODUCTION

- 1.1 [REDACTED] has been engaged by [REDACTED], to undertake a Tree Condition Assessment of a single tree within the front yard of the subject site at [REDACTED], **Ferntree Gully. (Refer Site Map – Appendix 2).**

## 2. PURPOSE

**The purpose of this report is to:**

- 2.1. Undertake a ground-based 360-degree visual inspection of the subject tree.
- 2.2. Record individual tree characteristics which include tree species, origin, age, dimensions, health, form, structural condition, and useful life expectancy.
- 2.3. Attribute a Retention Value to each tree assessed.
- 2.4. Provide a plan showing tree numbering.
- 2.5. Provide comment and recommendations for the ongoing management of the subject trees.

**Note:** This report has been drafted based on the guidelines set out in *AS 4373 -2007 Pruning of Amenity Trees*.

## 3. ASSESSMENT METHODOLOGY

- 3.1. A site inspection was carried out by [REDACTED], **Arb Inspect**, on the **14<sup>th</sup> of February 2023** to visually inspect the subject tree. The tree was inspected from the ground and observations were made of the growing environment.
- 3.2. The Tree Assessment method used for this site was the Visual Tree Assessment (VTA) method [REDACTED]. This method involves a 360-degree visual inspection of the trees from ground level, with the use of basic tools such as binoculars, to aid in identification of any obvious external signs of decay, physical damage, or growth-related structural defects. Any assessments of decay are qualitative only.
- 3.3. A total of **one (1)** tree has been assessed.
- 3.4. Digital photographs of the site and the tree assessed were taken.

## 4. OBSERVATIONS

- 4.1. The following planning information has been obtained through the Victorian State Government website VicPlan.
- 4.2. The Responsible Authority for this site is the Knox City Council. The site is located within the Neighborhood Residential Zone – Schedule 1 (NRZ1) and vegetation removal is controlled by the Significant Landscape Overlay - Schedule 2 (SLO2) which states:
- 4.3. “A permit is required to remove, destroy or lop a tree if it has a height of 5 metres or more or a trunk girth greater than 0.5 metre when measured at a height of 0.5 metres above adjacent ground level (on sloping ground to be taken on the uphill side of the tree base) or immediately above the ground for multi-stemmed trees. “

This does not apply to a tree that is:

- Listed in Table 1 of this schedule.
- Dead. This exemption does not apply to standing dead tree with a trunk girth of 0.4 metre or more at a height of 1.3 metres above ground level.
- A tree with its trunk within two metres of the main roof structure of an existing building used for accommodation (excluding a fence).
- A tree overhanging the roof of a building used for Accommodation, excluding outbuildings and works normal to a dwelling. This exemption only allows the removal, destruction or lopping of that part of the tree which is overhanging the building consistent with the Australian Standard® AS 4373 – 2007, ‘Pruning of amenity trees’.
- The minimum amount necessary to maintain a Minor utility installation in accordance with a current signed Memorandum of Understanding between Knox City Council and the relevant service provider.
- For maintenance pruning only and no more than 1/3 of the foliage of any branch is removed from any individual plant. This exemption does not apply to:
  - Pruning or lopping of the trunk of a tree or shrub.
  - Vegetation within a road or railway reserve.

4.4. The site is residential block with an existing single story weatherboard dwelling. The subject tree is located within the front yard of the site along the northern boundary with the outside of the base of its trunk within 2.5m of the nearest corner wall of the dwelling and within 1.4m of the boundary paling fence (**Figure 1**).

The tree was identified as an *Acer palmatum*, commonly known as Japanese Maple which is an introduced exotic species.



**Figure 1:** Showing the location of the subject tree – 2.5m from dwelling and 1.4m from fence.



**Figure 2:** Showing the very sparse canopy coverage.

4.5. The subject tree was observed to appear in poor health with a very sparse canopy cover, high volume epicormic shoots throughout the canopy and moderate volume deadwood (Figure 2). The structure of the tree has assessed as poor because of the observed history of large poorly pruned/lopped branches which has caused the branch stubs to dieback and create probable entry points for decay within the trunk. Numerous large pockets of decay areas were observed along sections of 3 of the 4 main central leaders along with large dead/dying branches within the upper canopy. (**Figures 3, 4, 5 & 6**). Lower trunk cambial dieback and decay (**Figure 7**).





**Figure 3:** Showing decay in leader.



**Figure 4:** Showing additional decay and cambial dieback in the other two leaders.



**Figure 5:** Showing decay pocket opposite side of leader as shown in Figure 3.



**Figure 6:** Showing dead lopped branch.





**Figure 7:** Showing the lower trunk cambial dieback and decay.

**4.6. TREE DETAILS:**

<b>Tree #</b>	<b>1</b>	
<b>Botanical Name:</b>	<b><i>Acer palmatum</i></b>	
<b>Common Name:</b>	<b>Japanese Maple</b>	
<b>Origin:</b>	<b>Exotic</b>	
<b>Age:</b>	<b>Senescent</b>	
<b>Height x Spread (m):</b>	<b>7 x 7</b>	
<b>DBH (cm):</b>	<b>55 (33, 21, 25 &amp; 29)</b>	
<b>Health:</b>	<b>Poor</b>	
<b>Structure:</b>	<b>Poor</b>	
<b>Form:</b>	<b>Fair</b>	
<b>ULE:</b>	<b>Short</b>	

## **5. CONCLUSION**

- 5.1. The subject tree is located within the front yard, it is visible from the street therefore it provides a low to moderate landscape contribution.
- 5.2. The subject tree appears in poor condition overall, in decline and highly unlikely that it will recover fully. Presents with significant decay. The subject tree is in a spiral of decline whereby the gradual deterioration of the tree is usually associated with repeated bouts of predation and stress where the tree exhibits increasingly low vigour after each episode until reduced resistance and exhaustion of reserved energy results in its demise and eventual death.

## **6. RECOMMENDATIONS**

- 6.1. I support the residents request and concerns for the removal of the subject tree on the basis that it is in decline, highly unlikely that it will ever recover fully and has that it has become hazardous as it starts to fall apart.
- 6.2. The loss of canopy should be replaced with the planting of a replacement tree species which is capable of reaching a mature height of 10+m although be positioned within the site in a location sufficiently set from the dwelling and any associated neighbouring dwellings to ensure there are no future conflicts from the new tree's roots and/or canopy.
- 6.3. The applicants should apply to Knox City Council for a permit to remove the subject tree through the VicSmart application process.

## **7. DISCLAIMER**

The tree(s) referred in this report are living entities and are therefore subject to natural processes. They will also be subject to changes in their environment caused by human's activities and to exceptional weather conditions. The inspection undertaken by our qualified staff relies on visual attributes of tree health and structure which can be assessed from a ground-based inspection.

Hidden defects which are not readily visible may not be detected. We therefore cannot wholly guarantee the condition and safety of the trees inspected beyond what can be reasonably assessed from the procedure used. We would recommend the trees are regularly inspected and our staff will advise on the suitable frequency of these inspections.

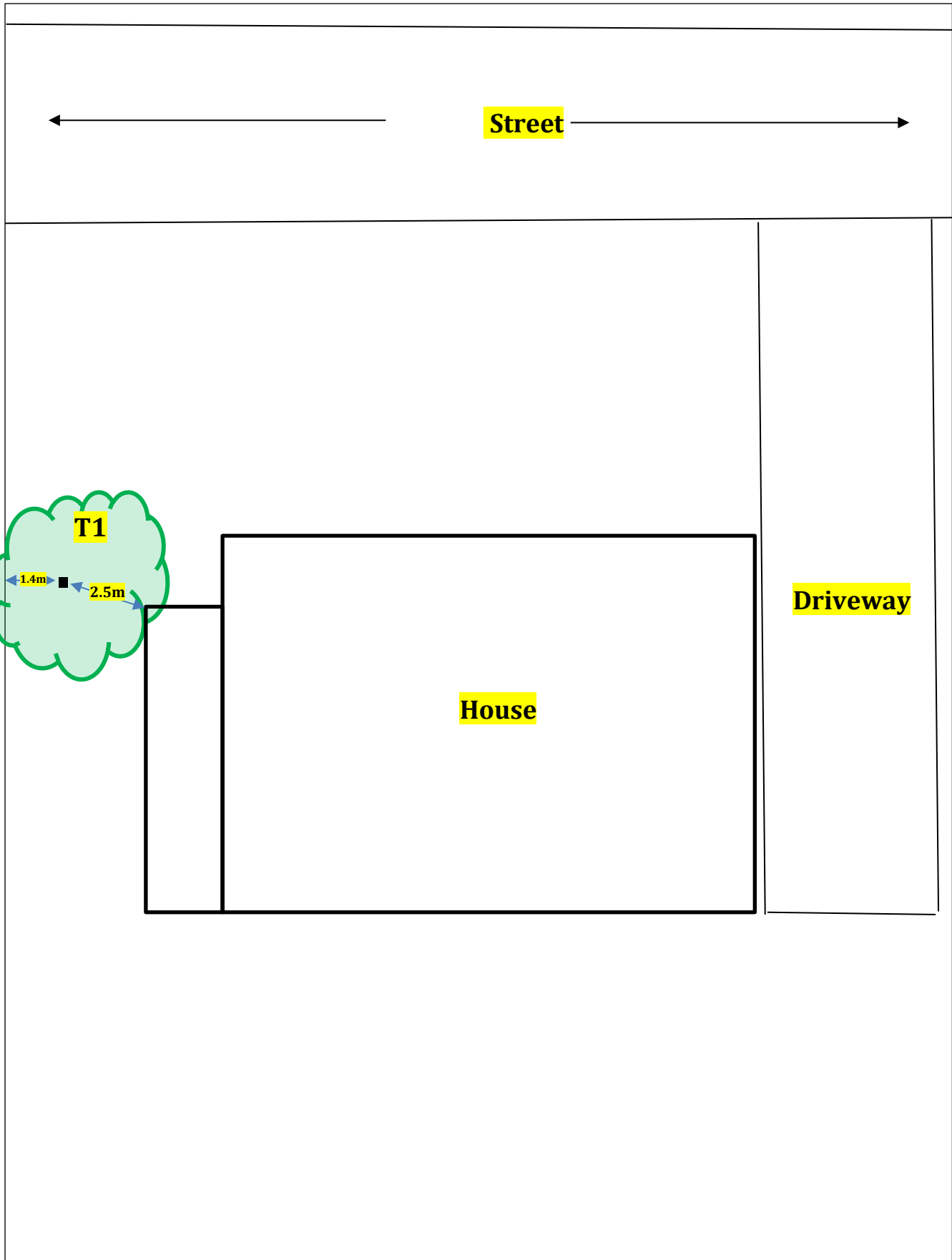
No discussion will be entered into regarding any one point within this report as it will be considered out of context. Only the report, as a whole, will be discussed. No discussion will be entered into regarding the actions of a third party in regard to the trees.



## 8. REFERENCES

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- VicPlan Website.
- Knox Council – SLO2.

**APPENDIX 1: SITE MAP**



## **APPENDIX 2: ASSESSMENT TERMS & DEFINITIONS**

### **2.1 Tree Assessment Terms:**

#### **2.1.1 Tree Origin**

Aust. Native:	Planted Australian Native species.
Vic. Native:	Planted Victorian Native species.
Indig:	Remnant/Self-sown Local Indigenous species.
Exotic:	Planted introduced species.

#### **2.1.2 Tree Age**

Young:	Juvenile tree recently planted.
Semi-mature:	Tree still growing
Maturing:	Specimen is reaching expected size in current situation
Senescent:	Tree is over mature and appears in decline
Dead:	Tree is dead

#### **2.1.3 Tree Form**

Symmetric:	Canopy full and symmetrical
Asymmetric:	Minor asymmetry or suppression. Considered typical for species in situation.
Modified:	Canopy suppressed, major asymmetry. Stump re-growth. Hedged, pollarded, pruned for powerline clearance, etc.

#### **2.1.4 Tree Health**

Good:	Crown full, good density, foliage entire, with good colour, minimal or no pathogen damage. Good growth indicators, e.g. extension growth. No or minimal canopy dieback. Good wound-wood and callus formation.
Fair:	Tree is exhibiting one or more of the following symptoms: Tree has <30% deadwood. Low volume dieback evident. Foliage generally with good colour, some discolouration may be present, minor pathogen damage present. Typical growth indicators, e.g. extension growth, leaf size, canopy density for species in location may be slightly abnormal.
Poor:	Tree has >30% deadwood. Medium volume dieback evident. Discoloured or distorted leaves and/or excessive epicormic re-growth. Pathogen is present and/or stress symptoms that could lead to or are contributing to the decline of tree.
Very Poor:	High volume dieback. Tree very unlikely to recover.
Dead:	Tree is dead.

#### **2.1.5 Tree Structure**

Good:	Good Branch attachment and/or no minor structural defects. Trunk and scaffold branches sound or only minor damage. Good trunk and scaffold branch taper. No branch or over extension. No damage to structural roots and/or good buttressing present. No obvious root pests or diseases.
Fair:	Some minor structural defects and/or minimal damage to trunk. Bark missing. Cavities could be present. Minimal or no damage to structural roots. Typical structure for species.
Poor:	Major structural defects and/or trunk damaged and/or missing bark. Large cavities and/or girdling or damaged roots that are problematic.
Hazardous:	Tree poses immediate hazard potential that should be rectified as soon as possible.



## 2.2 Useful Life Expectancy

Useful Life Expectancy (ULE) is an estimate of the longevity of the subject tree(s) in its growing environment. The ULE is modified where necessary to take into consideration the tree(s) health, structural condition and site suitability. The tree(s) has been allocated one of the following ULE categories (Modified from Barrell, 2001).

<p><b>LONG ULE:</b> Trees that appear to be retainable with an acceptable level of risk for more than 40 years.</p>	<ul style="list-style-type: none"> <li>• Structurally sound trees located in a position that can accommodate future growth.</li> <li>• Storm damaged or defective trees that could be made suitable for retention in the long term by remedial tree works.</li> <li>• Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long-term retention.</li> </ul>
<p><b>MEDIUM ULE:</b> Trees that appear to be retainable with an acceptable level of risk for more than 15 to 40 years.</p>	<ul style="list-style-type: none"> <li>• Trees that may only live between 15 to 40 years.</li> <li>• Trees that may live for more than 40 years but would be removed to allow the development of more suitable individual specimens.</li> <li>• Trees that may live for more than 40 years but would be removed during the course of normal management for safety and nuisance reasons.</li> <li>• Storm damaged or defective trees that could be made suitable for retention in the medium term by remedial tree works.</li> </ul>
<p><b>SHORT ULE:</b> Trees that appear to be retainable with an acceptable level of risk for more than 5 to 15 years.</p>	<ul style="list-style-type: none"> <li>• Trees that may only live between 5 to 15 years.</li> <li>• Trees that may live for more than 15 years but would be removed to allow the development of more suitable individual specimens.</li> <li>• Trees that may live for more than 15 years but would be removed during the course of normal management for safety and nuisance reasons.</li> <li>• Storm damaged or defective trees that require substantial remedial work to make safe and are only suitable for retention in the short term.</li> </ul>
<p><b>EXCEEDED ULE:</b> Trees with a high level of risk that would need removal within the next 5 years.</p>	<ul style="list-style-type: none"> <li>• Dead trees.</li> <li>• Dying or suppressed and declining trees through disease or inhospitable conditions.</li> <li>• Dangerous trees through instability or recent loss of adjacent trees.</li> <li>• Dangerous trees through structural defects including cavities, decay, included bark, wounds or poor form.</li> <li>• Damaged trees that are considered unsafe to retain.</li> <li>• Trees that will become dangerous after removal of other trees for the above reasons.</li> <li>• Invasive or environmental weed species.</li> </ul>

## **2.3 Tree Assessment Definitions:**

### **Aerial inspection:**

Where the subject tree is climbed by a professional tree worker or arborist specifically to inspect and assess the upper stem and crown of the tree for signs or symptoms of defects, disease, etc.

### **Amenity:**

Amenity relates to the trees biological, functional and aesthetic characteristics within an urban environment. (Hitchmough, 1994)

### **Co-dominant:**

Refers to stems or branches equal in size and relative importance.

### **Compression wood:**

Type of reaction wood produced by conifers on the underside of branches and leaning trunks.

### **Condition:**

Refers to the tree's form and growth habit, as modified by its environment (aspect, suppression by other trees, soils) and the state of the scaffold (i.e. trunk and major branches), including structural defects such as cavities, crooked trunks or weak trunk/branch junctions. These are not directly connected with health and it is possible for a tree to be healthy but in poor condition.

### **Dead wood:**

Refers to any whole limb that no longer contains living tissues (e.g. live leaves and/or bark).

### **Decay:**

Process of degradation of woody tissues by fungi or bacteria through decomposition of cellulose and lignin. There are numerous types of decay that affect different types of tissues, spread at different rates and have different effect on both the tree's health and structural integrity.

**Decline:** The response of the tree to a reduction of energy levels resulting from stress. Recovery from a decline is difficult and slow, and decline is usually irreversible.

### **Diameter at Breast Height (DBH):**

Refers to the tree trunk diameter at breast height (1.4 meters above ground level)

### **Dieback:**

Death of growth tips/shoots and partial limbs, generally from tip to base. Die back is often an indicator of stress and tree health.

### **Epicormic Shoots:**

Which arise from adventitious or latent buds. These shoots often have a weak point of attachment. They are often a response to stress in the tree. Epicormic growth/shoots are generally a survival mechanism, often indicating the presence of a current or past stress event such as fire, pruning, drought, etc.

### **Hazard:**

Refers to anything with the potential to harm health, life or property.

### **Health:**

Refers to the tree's vigour as exhibited by the crown density, leaf colour, presence of epicormic shoots, ability to withstand disease invasion, and the degree of dieback.

**Included bark:**

Refers the pattern of development at branch or stem junctions where bark is turned inward rather than pushed out. This fault is located at the point where the stems/branches meet. This is normally a genetic fault and potentially a weak point of attachment as the bark obstructs healthy tissue from joining together to strengthen the joint.

**Retention Value:**

Relates to the combination of the tree condition factors (Form, Health, Structure)

**Scaffold branch/root:**

A primary structural branch of the crown or primary structural root of the tree.

**Structural Root Zone (SRZ):**

This zone is often the location of the tree's structural support roots. The SRZ is the area required for tree stability. Excavation within this area may seriously destabilize the tree. The SRZ only needs to be calculated when encroachment into the TPZ is proposed. Fully elevated construction within this area is possible with specific root zone assessment. The minimum SRZ given will never be less than 1.5 metres for a tree with a stem diameter less than 150mm.

**Suppressed:**

In crown class, trees which have been overtopped and whose crown development is restricted from above.

**Tension wood:**

Type of reaction wood produced by broad-leaved tree species which forms on the upper side of branches, stems and leaning trunks.

**Topping or heading:**

Refers to a non-acceptable pruning practice that results in the removal of terminal growth leaving a cut stub end. Topping causes serious damage to the tree.

**Tree Protection Zone (TPZ):**

Generally, the minimum distance from the center of the tree trunk where protective fencing or barriers are to be installed to create an exclusion zone. **The TPZ** surrounding a tree aids the tree's ability to cope with disturbances associated with construction works. Tree protection involves minimising root damage that is caused by activities such as construction. Tree protection also reduces the chance of a tree's decline in health or death and the possibly damage to structural stability of the tree from root damage. To limit damage to the tree, protection within a specified distance of the tree's trunk must be maintained throughout the proposed development works. No excavation, stockpiling of building materials or the use of machinery is permitted within the Tree Protection Zone (TPZ).

**Visual Tree Assessment (VTA):**

A procedure of defect analysis developed by Mattheck and Breloer (1994) that uses the growth response and form of trees to detect defects.



### APPENDIX 3: CONSTRAINTS

- *Tree Assessment* is based on external visual examination from ground level only. No internal decay diagnostic equipment was used, no excavation of the root plate undertaken and no samples removed for further analysis unless otherwise stated.
- *Risk Assessment* is provided only as an estimation of the potential of the tree(s) listed in this report as to their probability to cause damage to people and / or property and cannot be considered to constitute a prediction of future events.
- Recommendations contained in this report are based on the measurements and observations prevalent at the time of inspection. Future changes or site development may render this report and recommendation invalid.
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