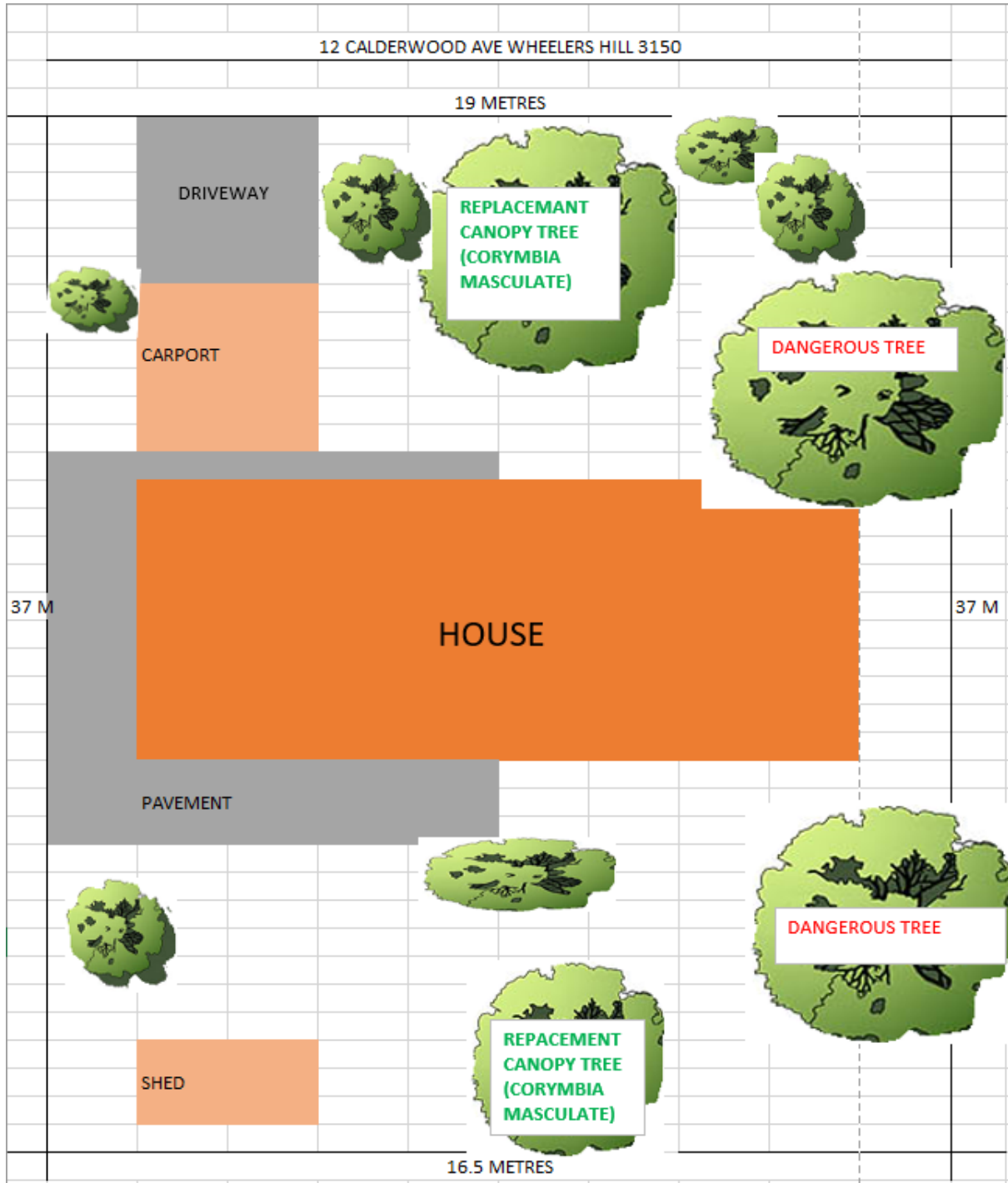


Attachment 1 - 12 Calderwood Avenue, Wheelers Hill





BAXTER ECOLOGY & ASSOCIATES

Arboriculture · Bushfire · Biodiversity · Sustainable Landscapes
Specialists in the Ecology of the Built Environment

Attention

Peter Wallace

pw.20022002@gmail.com

M: 0413 450 257

Tree Health & Risk Assessment 12 Calderwood Ave, Wheelers Hill

| Tree No | Botanical Name | Common Name | Origin | Height x Spread (m) | DBH* (mm) | Age Class | Health | Structure | Useful Life Expectancy (ULE) | Retention Value | TPZ radius (m) |
|--------------|----------------------------|--|--------|---------------------|-----------|-----------|--------|-----------|------------------------------|-----------------|----------------|
| 1 | <i>Corymbia maculata</i> | Spotted Gum | Native | 15-20 x14 | 680 | Mature | Good | Good | 15-20 | High | 8.2m |
| Notes | | Isolated specimen outside ecological provenance prone to abundant seed capsule and wind loading. Contributing to minor tertiary limb failure | | | | | | | | | |
| 2 | <i>Corymbia citriodora</i> | Lemon-scented Gum | Native | 10-15 x16m | 580 | Mature | Good | Fair | 10-15 | Moderate | 7.0m |
| Notes | | Minor limb failures 40-60mm. secondary leader to north over both dwellings. Good healing over pruning marks. | | | | | | | | | |

*DBH=diameter measured at 1200mm above ground level in accordance with the City of Monash VPO

1. Introduction

- 1.1. Landowner is exercising a duty of care to ensure tree health and the safety of the tenants at the subject property and to address concerns expressed by the neighbours of recent branch failures.
- 1.2. The trees are protected within the City of Monash and require arboricultural assessment to determine their viability, maintenance opportunities and or justification for removal against their protection status.
- 1.3. This report summarises observation and a risk assessment carried out on both trees (appendix 1 & 2).

2. Planning Context

- 2.1. The trees are located in the City of Monash and are subject to a Vegetation Protection Overlay (VPO) and Schedule 1 of the VPO (VPO1).
- 2.2. The purpose of the VPO is to preserve existing trees and other vegetation as outlined below:

| | |
|-------------------------------------|--|
| 42.02 31/07/2018 VC148 | VEGETATION PROTECTION OVERLAY Shown on the planning scheme map as VPO with a number. Purpose To implement the Municipal Planning Strategy and the Planning Policy Framework. To protect areas of significant vegetation. To ensure that development minimises loss of vegetation. To preserve existing trees and other vegetation. To recognise vegetation protection areas as locations of special significance, natural beauty, interest and importance. To maintain and enhance habitat and habitat corridors for indigenous fauna. To encourage the regeneration of native vegetation. |
|-------------------------------------|--|

- 2.3. VPO1 protects the significance of vegetation in Monash outlined in the tree conservation policy which recognizes the importance of canopy trees as a significant aspect of the urban character of the area and the vegetation protection measures to be achieved.
- 2.4. A permit is required to remove or destroy any vegetation that:
 - Has a trunk circumference greater than 500mm (160mmDBH) at 1200mm above ground level and;
 - Is higher than 10m

3. Landscape Context

- 3.1. **Tree 1** is located in the front set-back of the allotment providing amenity for both the dwelling and locally within the streetscape. It has been well pruned with good form and structure.
- 3.2. The species is not locally endemic being native to NSW with only one small naturally occurring patch recorded in far east Gippsland. At approximately 15 m in height the tree compliments the species diversity of Monash and contributes to climate mitigation and habitat corridors which traverse the Municipality.
- 3.3. **Tree 2** is located in the rear yard within 2m of the east title boundary. A history of limb failure has triggered this health and risk assessment report

4. Tree Health Summary

- 4.1. **Tree 1** is a magnificent specimen with excellent form. It is estimated as being approximately 40-50 years of age. The trunk has a sway, leaning to the east but correcting at approximately two metre visible in image 2 below. There was no observed ground-heave or other signs of instability of the root plate.

- 4.2. The tree appears to have been well maintained throughout its life exhibiting signs of maintenance pruning which accord with best practice outlines in AS 4373-2007.
- 4.3. The tree has a well formed crown with good apical dominance. The scaffold and tertiary branch structures are evenly arranged with good leaf density and prolific fruit (gum-nut) production.
- 4.4. Minor deadwood was observed throughout the inner and upper crown. Some historical pruning exhibit good cambial healing at pruning locations.
- 4.5. Minor limb failure is evident in the crown
- 4.6. The tree is located approximately 5-6 m from the neighbours dwelling in a mulched front garden with small shrubs and herbaceous perennials.
- 4.7. Access and egress to the dwelling is via the driveway to the front of the house
- 4.8. There is minor overhang of the outer canopy towards the title boundary to the east, carport to the west and the front of the dwelling to the south.



Image 1: Tree 1 with neighbours dwelling to the east. Good leaf density heavily laden with fruit in southern hemisphere.



Image 2: Tree 1 showing sway in lower trunk and exclusion landscaping with perimeter planting adjacent to carport and pathway to the front door.

5. Tree Health Summary

- 5.1. **Tree 2** is a healthy specimen with an asymmetrical crown evidenced by a sub-dominant leader growing towards the dwelling (Image 3).
- 5.2. The tree is free of defects and exhibited good cambial healing at old pruning points
- 5.3. Some branch failure was evident in the crown consistent with reports from the property owner and neighbours
- 5.4. The tree is located less than 2m from the east title boundary overhanging a large *Pittosporum euginoides* and small garden shed located in the neighbouring yard.
- 5.5. Access and egress to the back door is via a path from the west with exclusion landscaping and large shrubs directing pedestrian traffic from the dwelling away from the tree. A clothesline is located under the tree.
- 5.6. Minor deadwood was observed throughout the crown.
- 5.7. The branching network is elongated, laden with leaves and fruit and susceptible to dominant north west winds.



Image 3: Tree 2 with neighbours dwelling to the east. Exclusion landscaping and planting adjacent to back door. Clothes-line in foreground (right). Asymmetry with sub-dominant leader growing to the north with good leaf density heavily laden with fruit in northern hemisphere.

6. Conclusions and Recommendations

- 6.1. **Tree 1** – The tree is a healthy specimen and presents a Low Risk within the context of its location. It is recommended that the tree be maintenance-pruned with light weight reduction and re-inspected at 2-3 year intervals
- 6.2. **Tree 2** – The tree is a healthy specimen and presents a Moderate-Low Risk within the context of its location however the proximity to the east title boundary and history of limb failure supports consideration for removal.
 - 6.2.1. Pruning and on-going assessments of the tree may result in reducing the risk to an acceptable level however the tree is early mature and likely to double in bio-mass continuing to require a higher than reasonable level of maintenance.
- 6.3. If Tree 2 was approved for removal by Council it is recommended a replacement canopy tree be planted in accordance with the objectives of the VPO

James Berrell

MSc. Grad Cert. BSc. Dip (Arb)

M: 0450 400 617



Basic Tree Risk Assessment Form

Client _____ Date _____ Time _____
 Address/Tree location _____ Tree no. _____ Sheet _____ of _____
 Tree species _____ dbh _____ Height _____ Crown spread dia. _____
 Assessor(s) _____ Tools used _____ Time frame _____

Target Assessment

| Target number | Target description | Target protection | Target zone | | | Occupancy rate 1 – rare 2 – occasional 3 – frequent 4 – constant | Practical to move target? | Restriction practical? |
|---------------|--------------------|-------------------|-------------------------|-----------------------|-------------------------|--|---------------------------|------------------------|
| | | | Target within drip line | Target within 1 x Ht. | Target within 1.5 x Ht. | | | |
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |

Site Factors

History of failures _____ **Topography** Flat Slope _____ % **Aspect** _____
Site changes None Grade change Site clearing Changed soil hydrology Root cuts Describe _____
Soil conditions Limited volume Saturated Shallow Compacted Pavement over roots _____ % Describe _____
Prevailing wind direction _____ **Common weather** Strong winds Ice Snow Heavy rain Describe _____

Tree Health and Species Profile

Vigor Low Normal High **Foliage** None (seasonal) None (dead) Normal _____ % Chlorotic _____ % Necrotic _____ %
Pests/Biotic _____ **Abiotic** _____
Species failure profile Branches Trunk Roots Describe _____

Load Factors

Wind exposure Protected Partial Full Wind funneling _____ **Relative crown size** Small Medium Large
Crown density Sparse Normal Dense **Interior branches** Few Normal Dense **Vines/Mistletoe/Moss** _____
Recent or expected change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown LCR _____ %
 Dead twigs/branches _____ % overall Max. dia. _____
 Broken/Hangers Number _____ Max. dia. _____
 Over-extended branches
Pruning history
 Crown cleaned Thinned Raised
 Reduced Topped Lion-tailed
 Flush cuts Other _____
 _____ Condition(s) of concern _____
 Part Size _____ Fall Distance _____
Load on defect N/A Minor Moderate Significant
Likelihood of failure Improbable Possible Probable Imminent
 Cracks _____ Lightning damage
 Codominant _____ Included bark
 Weak attachments _____ Cavity/Nest hole _____ % circ.
 Previous branch failures _____ Similar branches present
 Dead/Missing bark Cankers/Galls/Burls Sapwood damage/decay
 Conks Heartwood decay _____
 Response growth _____

— Trunk —

Dead/Missing bark Abnormal bark texture/color
 Codominant stems Included bark Cracks
 Sapwood damage/decay Cankers/Galls/Burls Sap ooze
 Lightning damage Heartwood decay Conks/Mushrooms
 Cavity/Nest hole _____ % circ. Depth _____ Poor taper
 Lean _____ ° Corrected? _____
 Response growth _____
 Condition(s) of concern _____
 Part Size _____ Fall Distance _____
Load on defect N/A Minor Moderate Significant
Likelihood of failure Improbable Possible Probable Imminent

— Roots and Root Collar —

Collar buried/Not visible Depth _____ Stem girdling
 Dead Decay Conks/Mushrooms
 Ooze Cavity _____ % circ.
 Cracks Cut/Damaged roots Distance from trunk _____
 Root plate lifting Soil weakness
 Response growth _____
 Condition(s) of concern _____
 Part Size _____ Fall Distance _____
Load on defect N/A Minor Moderate Significant
Likelihood of failure Improbable Possible Probable Imminent



Basic Tree Risk Assessment Form

Client Peter Wallace

Date 13 July 2020

Time 2pm

Address/ Tree location 12 Calderwood Ave Wheelers Hill

Tree no. 2

Sheet of

Tree species Corymbia citriodora - Tree 2

dbh 580

Height 10-15 m

Crown spread dia. 16 m

Assessor(s) JB

Tools used VTA methodology, clinometre

Time frame

Target Assessment

| Target number | Target description | Target protection | Target zone | | | Occupancy rate 1 - rare 2 - occasional 3 - frequent 4 - constant | Practical to move target? | Restriction practical? |
|---------------|--|-----------------------|-------------------------------------|-----------------------|-------------------------|--|---------------------------|------------------------|
| | | | Target within drip line | Target within 1 x Ht. | Target within 1.5 x Ht. | | | |
| 1 | Resident dwelling - 4m (from tree) | Exclusion landscaping | <input checked="" type="checkbox"/> | | | 1 | N | Y |
| 2 | Clothesline - 1m | | <input checked="" type="checkbox"/> | | | 2 | Y | Y |
| 3 | Neighbours clothes-line, steps to small shed | | <input checked="" type="checkbox"/> | | | 2 | N | Y |
| 4 | Neighbours dwelling 7m (not considered at risk therefore not assessed) | | | | | | | |

Site Factors

History of failures Minor limb failure 40 -60 mm

Topography Flat Slope

% Aspect

Site changes None Grade change Site clearing Changed soil hydrology Root cuts Describe

Soil conditions Limited volume Saturated Shallow Compacted Pavement over roots % Describe

Prevailing wind direction Nw Common weather Strong winds Ice Snow Heavy rain Describe Across suburban planes

Tree Health and Species Profile

Vigor Low Normal High

Foliage None (seasonal)

None (dead) Normal 80%

Chlorotic 100%

Necrotic %

Species failure profile Branches Trunk Roots Describe Etomate

Abiotic Poosum

Load Factors

Wind exposure Protected Partial Full Wind funneling

Relative crown size Small Medium Large

Crown density Sparse Normal Dense

Interior branches Few Normal Dense

Vines/Mistletoe/Moss

Recent or expected change in load factors

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown LCR 60%

Cracks Lightning damage

Dead twigs/branches 10% overall Max. dia. 50mm

Codominant Secondary leader to north over both dwellings Included bark

Broken/Hangers Number 8 Max. dia. 100 mm

Weak attachments Cavity/Nest hole % circ.

Over-extended branches

Previous branch failures Similar branches present

Pruning history

Crown cleaned Thinned Raised
Reduced Topped Lion tailed

Dead/Missing bark Cankers/Galls/Burls Sapwood damage/decay

Flush cuts Other

Conks Heartwood decay

Response growth Good healing over pruning marks

Potential growth and wind exposure

Condition of concern

Part Size 50-100mm

Fall Distance 8-10 m

Part Size

Fall Distance 8-10 m

Load on defect N/A Minor Moderate Significant

Load on defect N/A Minor Moderate Significant

Likelihood of failure Improbable Possible Probable Imminent

Likelihood of failure Improbable Possible Probable Imminent

— Trunk —

Dead/Missing bark

Abnormal bark texture/color

— Roots and Root Collar —

Collar buried/Not visible

Depth

Stem girdling

Codominant stems Included bark Cracks
Sapwood damage/decay Cankers/Galls/Burls Sap ooze
Lightning damage Heartwood decay Conks/Mushrooms

Cavity/Nest hole _____% circ. Depth _____ Poor taper

Lean _____° Corrected? _____
Response growth _____

Condition (s) of concern _____

Part Size _____ Fall Distance _____

Load on defect N/A Minor Moderate Significant

Likelihood of failure Improbable Possible Probable Imminent

Dead Decay Conks/Mushrooms
Ooze Cavity _____% circ.
Cracks Cut/Damaged roots Distance from trunk _____

Root plate lifting Soil weakness

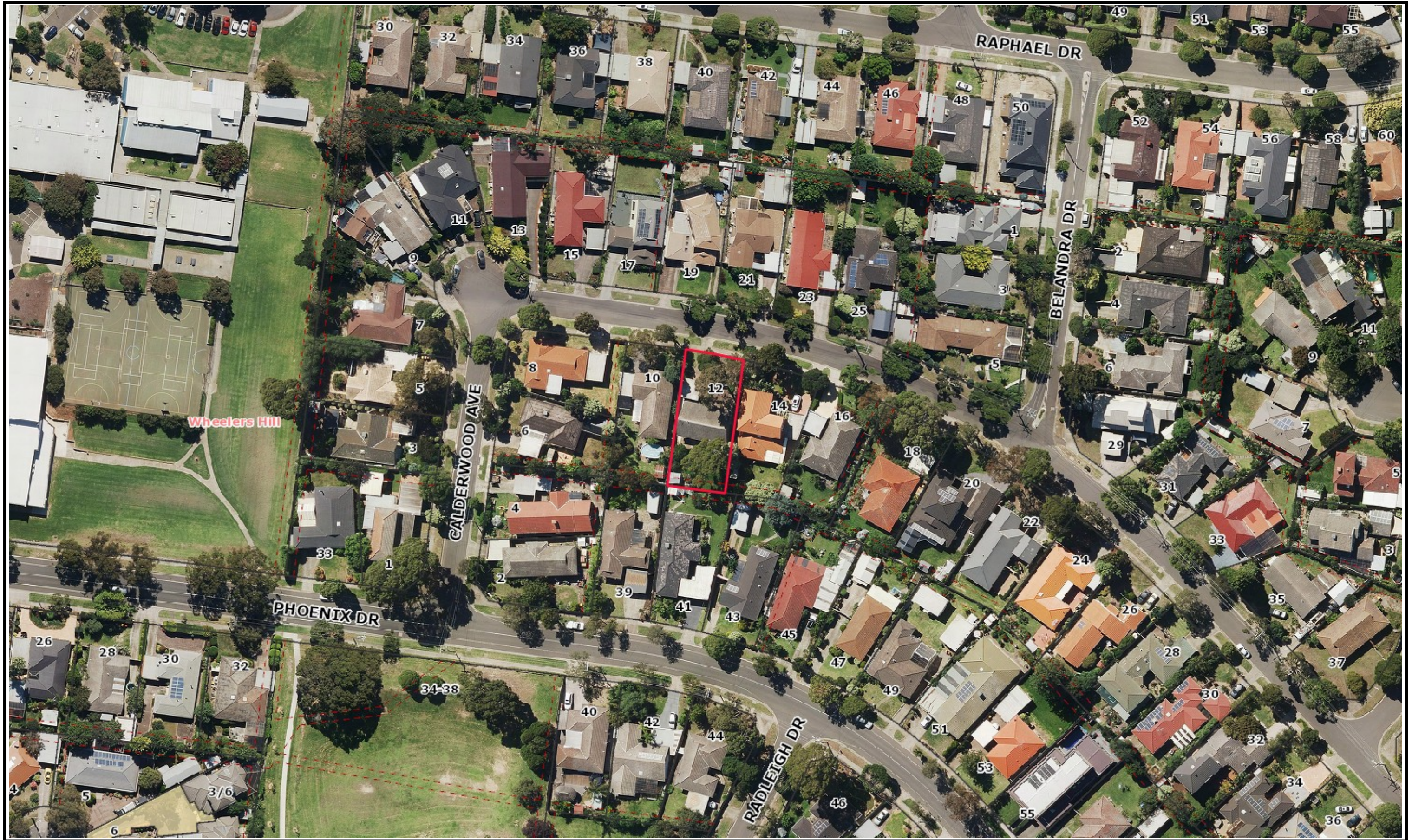
Response growth Good healing over pruning marks

Condition (s) of concern _____

Part Size _____ Fall Distance _____

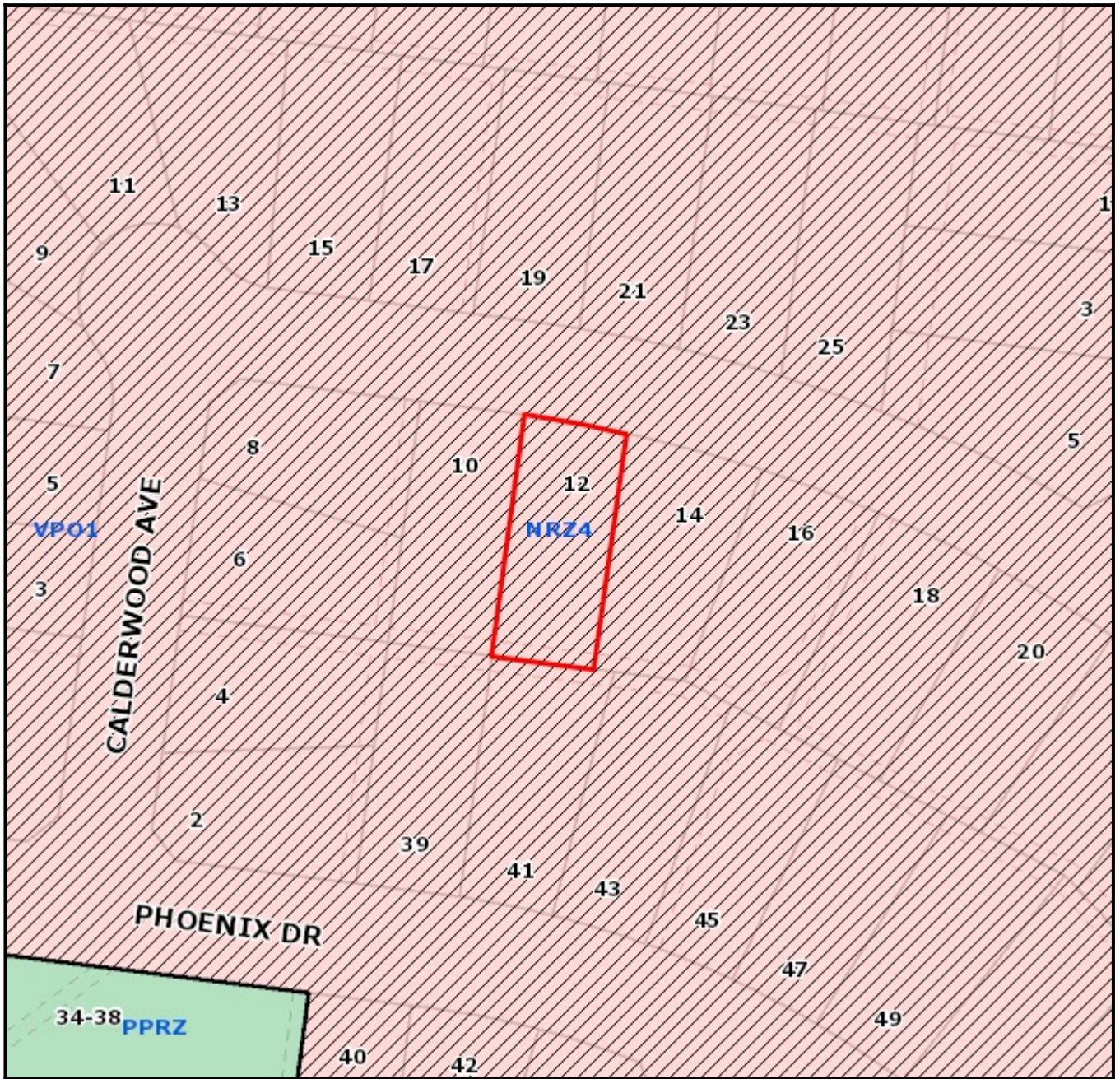
Load on defect N/A Minor Moderate Significant

Likelihood of failure Improbable Possible Probable Imminent





Planning Overlays and Zones

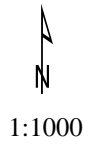


Legend
Planning Zones

| | | | | | | | |
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Planning Overlays

| | | | | |
|--|--|--|--|--|
| | | | | |
| | | | | |



Address: 12 Calderwood Avenue WHEELERS HILL VIC 3150

Area: null sqm

Base data is supplied under Licence from Land Victoria. This map is for general use only and may not be used as proof of ownership, dimensions or any other status. The information must be verified before taking any action which may be affected by a planning scheme requirement. This can be done by visiting the website: <http://services.land.vic.gov.au/landchannel/content/>

The City of Monash endeavours to keep the information current, and welcomes notification of omissions or inaccuracies.