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Arborist Report

718 & 724 High Street,
Glen Waverley 3150



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Client	Jesse Ant Architects
Client Address	Suite 202/35 Whitehorse Road, Deepdene 3103
Site Address	718 & 724 High St, Glen Waverley 3150
Document Type	Arborist Report – Tree assessment & recommendations.
Date	23 rd February 2021

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2. Key findings

- This is a preliminary arborist report and does not include an arboricultural impact assessment.
- This report has been prepared in conjunction with a previous arborist report for 720-722 High St, Glen Waverley (Bluegum, 12/11/2018).
- The subject site consist of two properties 718 & 724 High Street, Glen Waverley these properties are not adjacent to each other but will be combined into a large development with the properties at 720-722 High St, Glen Waverley.
- Trees 1-2 and 15 are all street trees located outside the subject site; these trees are unlikely to be directly affected by the proposed development.
- There are 13 trees located on the subject site, except for trees 16-17 & 21 these trees have low retention value and could be removed.
- Trees 16-17 have moderate retention value and should be retained and incorporated into the proposed development. These trees are likely to be directly affected by the proposed development.
- Tree 21 is likely to be directly affected by the proposed development and may need to be removed and replaced.
- Trees 11-14 & 22 are in adjoining properties, except for tree group 14 these trees are unlikely to be directly affected by the proposed development.
- Tree group 14 is likely to be directly affected by the proposed development.

3. Introduction

I was contacted by Jesse Ant Architects regarding providing an Arborist report for a proposed development at this address. The proposed development will affect 22 trees, most of these trees are on the subject site. As part of my assessment, I have reported on the health and condition of these trees and have provided recommendations based on my assessment.

The site is within the City of Monash, it is located within a Residential Growth Zone (RGZ4). For the context of this report there are no relevant overlays.

This report has been prepared in conjunction with a previous arborist report for 720-722 High St, Glen Waverley (Bluegum, 12/11/2018).

The subject site consist of two properties 718 & 724 High Street, Glen Waverley these properties are not adjacent to each other but will be combined into a large development with the properties at 720-722 High St, Glen Waverley.



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This report is a preliminary arboricultural report and is intended to provide detailed advice on the nature of trees on the site, this includes basic tree information (name, species, health, condition, structure, size, age class, safe useful life expectancy, trunk diameter at breast height and ground level, tree protection zone and structural root zone) as well as significance and suitability for retention (rated as low, moderate, and high). An assessment of suitability for retention considers tree health, structure, size, environmental and habitat value, landscape value (aesthetic and streetscape value) age and longevity, and species factors, it also considers potential constraints on retaining trees and the potential design modifications required to accommodate a tree on the site.

I have conducted a site visit on the 1/02/2021, and assessed the health, condition, and safety of the trees in question. Recommendations are outlined in section 5 of this report. A detailed list of the surveyed trees is provided in Appendix 2 of this report. A site plan is included which identifies and shows the location of the trees concerned, photographs of the trees have also been included.

4. Methodology

The trees were assessed using the standard Visual Tree Assessment technique (VTA). The trees were assessed from the ground for this report. VTA is an internationally recognised practice in the visual assessment of trees as formulated by Mattheck & Breloer (1999).

A Yama 20m diameter tape was used to obtain the Diameter at breast height (DBH) at 1.4 metres above ground level. The height was measured using a Nikon Forestry Pro Laser Range Finder, the spread of the tree's canopy was paced out. Photographs were taken with a Canon 700D DSLR camera. Aerial photographs were taken from www.nearmap.com.au.

The report considers relevant sections of the Australian Standard: AS4970-2009: Protection of trees on development sites and uses this as the basis for determining tree protection and structural root zones.

This report includes all trees located on the subject site/s, trees in adjoining properties that may be impacted by the proposed development (within 5m of the property boundary unless requested otherwise) and council street trees located directly outside the subject property/s. For the purposes of this report the definition of a tree is based on AS4970, which states that a tree is a *'long lived woody perennial plant greater than (or usually greater than) 3 m in height with one or relatively few main stems or trunks (or as defined by the determining authority)'*.

The ULE rating system has been used as a guide to assist in determining the Useful Life Expectancy of the tree surveyed. Refer to Appendix 1 (Barrell 1993).

A scaled site plan has been prepared using ArborCAD software.

Reference was made to the City of Monash's Planning Scheme at Victoria's Planning Scheme's online (www.dse.vic.gov.au/planningschemes) and the Victorian government online Property Reports at: www.land.vic.gov.au.



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Bluegum consultancy was engaged by the client to provide an arborist report for this project prior to the development of the proposed plans.

5. Site Context

The subject site consist of two properties (718 & 724 High Street, Glen Waverley) these properties are not adjacent to each other but will be combined into a large development with the properties at 720-722 High St, Glen Waverley. These are both average sized properties (756 m²) which are in a medium density residential area; the site is level and has a north-south orientation with a northerly aspect. There are 22 trees included in this report.

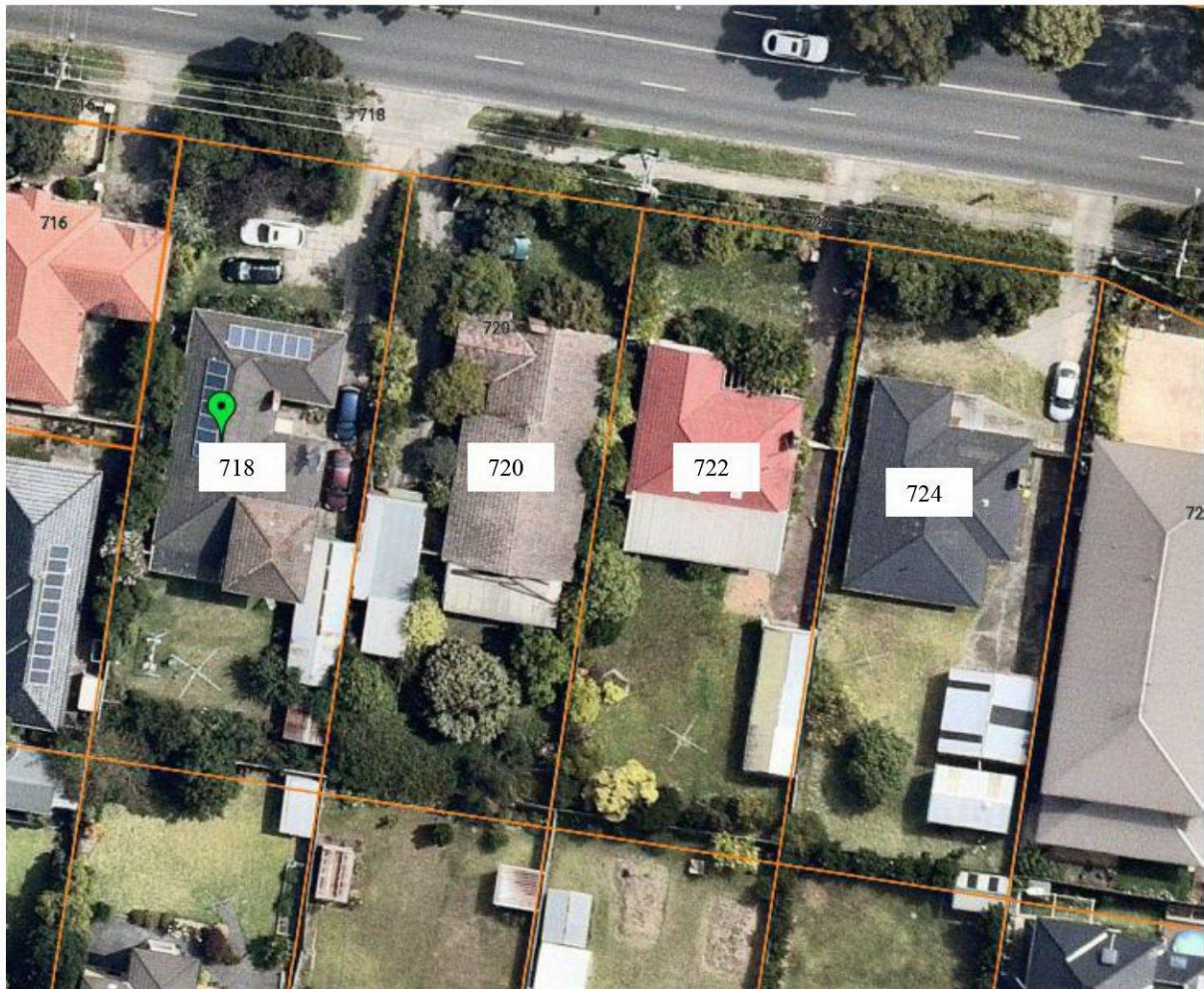


Figure 1: Assessment area (Nearmap, 2020)



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6. Discussion

Trees 1-2 and 15 are all street trees located outside the subject site. These trees are unlikely to be directly affected by the proposed development at this address due to their size and location. Provided that basic tree protection measures are implemented there should be no adverse impact on the health of these trees from the proposed development.



Figure 2: Trees 1-2 are both street trees located outside 718 High Street, Glen Waverley. These trees are unlikely to be directly affected by the proposed development based on their size and location.

Trees 3-7 are located at the front of 718 High Street, Glen Waverley, these trees all have low retention value due to their small size, poor health and/or trunk and branch structure or that they are an environmental weed species. These trees do not warrant being retained and incorporated into the proposed development and could be removed and replaced.



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Figure 3: Trees 4-6 located at the front of 718 High Street, Glen Waverley. These trees all have low retention value due to their small size, poor health, and low landscape value. These trees could be removed and replaced.

Trees 8-10 are located at the back of 718 High Street, Glen Waverley, these trees all have low retention value due to their small size, poor health and/or trunk and branch structure or that they are an environmental weed species. These trees do not warrant being retained and incorporated into the proposed development and could be removed and replaced.



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Figure 4: Tree 9 *Cytisus proliferus* (Tree Lucerne), this species is classified as an environmental weed species and should be removed and replaced.

Trees 16-19 are located at the front of 724 High Street, Glen Waverley, except for trees 16-17 these trees have low retention value due to their small size, poor health and/or trunk and branch structure and low landscape value. These trees do not warrant being retained and incorporated into the proposed development and could be removed and replaced.

Trees 16-17 are both medium sized, mature *Syzygium smithii* (Lily Pilly) that are in good health and have good to average trunk and branch structure. These trees have moderate retention value and consideration could be given to retaining these trees and incorporating them into the proposed development. These trees are likely to be directly affected by the proposed development, consideration will need to be given to minimize any intrusion into their tree protection zone (TPZ) from the proposed development. Provided that there is only a minor intrusion ($\leq 10\%$) from the proposed development and that basic tree protection measures are implemented there should be no adverse impacts on the health of these trees from the proposed development.



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Figure 5: Tree 16 Syzygium smithii (Lily Pilly), the tree has moderate retention value due to its size, maturity, ULE and amenity value. This tree could be retained as part of the proposed development.

Trees 20-21 are located at the back of 724 High Street, Glen Waverley.

Tree 20 is a small sized, mature *Citrus X limon* (Lemon) located at the back of 724 High Street, Glen Waverley, this tree has low retention value due to its small size, poor health, and low landscape value. This tree does not warrant being retained and could be removed and replaced.

Tree 21 is a medium sized, mature *Ficus carica* (Fig). This tree is located at the rear of the property, the tree has moderate retention value. The tree is likely to be directly affected by the proposed development. I am recommending that this tree is removed and replaced to facilitate the proposed development based on its minor contribution to the greater landscape. Considering the potential design modifications required to retain this tree it would be



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appropriate to replace this tree with a suitable replacement species (see recommended replacement species).



Figure 6: Tree 21 Ficus carica (Fig), the tree has moderate retention value due to its size, maturity, ULE and amenity value. This tree is likely to be directly affected by the proposed development and may need to be removed and replaced.

Trees 11-14 and 22 are in adjoining properties; except for tree group 14 these trees are unlikely to be directly affected by the proposed development at this address due to their size and location. Provided that basic tree protection measures are implemented there should be no adverse impact on the health of these trees from the proposed development.

Tree group 14 is likely to be directly affected by the proposed development, consideration will need to be given to minimize any intrusion into their TPZ from the proposed development. Provided that there is only a minor intrusion ($\leq 10\%$) from the proposed development and that basic tree protection measures are implemented there should be no adverse impacts on the health of these trees from the proposed development.



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Table 1: Trees to be removed:

Tree #	Common & Botanical names	Origin	Age	ULE	Retention value	Comments	Remove and replace	Permit required
3	<i>Hymenosporum flavum</i> (Queensland Frangipani)	Introduced	Early mature	Medium (15-40 years)	Low		Remove and replace if required	No
4	<i>Prunus cerasifera CV</i> (Purple leaf Cherry)	Introduced	Mature	Medium (15-40 years)	Low	Thinning canopy, dieback	Remove and replace if required	No
5	<i>Cotoneaster glaucophylla</i> (Cotoneaster)	Introduced	Mature	Medium (15-40 years)	Low		Remove and replace	No
6	<i>Liquidamber formosana</i> (Chinese Sweet Gum)	Introduced	Late mature	Short (5-15 years)	Low	Upper canopy very sparse	Remove and replace if required	No
7	<i>Camellia japonica CV</i> (Camellia)	Introduced	Mature	Medium (15-40 years)	Low		Remove and replace if required	No
8	<i>Camellia japonica CV</i> (Camellia)	Introduced	Mature	Medium (15-40 years)	Low	TGx4	Remove and replace if required	No
9	<i>Cytisus proliferus</i> (Tree Lucerne)	Introduced	Mature	Medium (15-40 years)	Low	TGx2	Remove and replace	No
10	<i>Prunus avium</i> (Cherry)	Introduced	Mature	Medium (15-40 years)	Low		Remove and replace if required	No
18	<i>Agonis flexuosa</i> (Willow leaf Myrtle)	Australian native	Mature	Medium (15-40 years)	Low		Remove and replace if required	No
19	<i>Prunus armeniaca</i> (Apricot)	Introduced	Early mature	Short (5-15 years)	Low		Remove and replace if required	No
20	<i>Citrus X limon</i> (Lemon)	Introduced	Late mature	Short (5-15 years)	Low		Remove and replace if required	No
21	<i>Ficus carica</i> (Fig)	Introduced	Mature	Short (5-15 years)	Moderate		Remove and replace if required	No

Table 2: Trees to be retained:

Tree#	TPZ	Min clearance (one side)	Recommended tree protection measures
1	5.2	3.6	Street tree, unlikely intrusion, implement basic tree protection measures.
2	2.4	1.6	Street tree, unlikely intrusion, implement basic tree protection measures.
11	3.7	2.5	Neighbouring tree, unlikely intrusion, implement basic tree protection measures.
12	2.3	1.6	Neighbouring tree, unlikely intrusion, implement basic tree protection measures.
13	1.8	1.2	Neighbouring tree, unlikely intrusion, implement basic tree protection measures.
14	2.4	1.6	Neighbouring tree, likely intrusion, minimise intrusion and implement basic tree protection measures.
15	2.0	1.4	Street tree, unlikely intrusion, implement basic tree protection measures.
16	6.2	4.3	Consider retaining tree, likely intrusion, minimise intrusion and implement basic tree protection measures.
17	5.6	3.8	Consider retaining tree, likely intrusion, minimise intrusion and implement basic tree protection measures.
22	2.0	1.4	Neighbouring tree, unlikely intrusion, implement basic tree protection measures.



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7. Recommendations

This report has been prepared in conjunction with a previous arborist report for 720-722 High St, Glen Waverley (Bluegum, 12/11/2018).

The subject site consist of two properties 718 & 724 High Street, Glen Waverley these properties are not adjacent to each other but will be combined into a large development with the properties at 720-722 High St, Glen Waverley.

There are 13 trees located on the subject site, except for trees 16-17 and 21 these trees all have low retention value and could be removed and replaced as part of the proposed development.

Trees 16-17 have moderate retention value; consideration should be given to retaining these trees and incorporating them into the proposed development. These trees are likely to be directly affected by the proposed development. Provided that there is only a minor intrusion ($\leq 10\%$) from the proposed development and that basic tree protection measures (see below) are implemented there should be no adverse impacts on the health of these trees from the proposed development.

Tree 21 is in good health and condition and has moderate retention value. This tree is likely to be directly affected by the proposed development. I am recommending that this tree is removed and replaced to facilitate the proposed development based on its minor contribution to the greater landscape. Considering the potential design modifications required to retain this tree it would be appropriate to replace this tree with a suitable replacement species (see recommended replacement species).

Trees 11-14 and 22 are in adjoining properties; except for tree group 14 these trees are unlikely to be directly affected by the proposed development. Provided that basic tree protection measures (see below) are implemented there should be no adverse impact on the health of these trees from the proposed development.

Tree group 14 is likely to be directly affected by the proposed development. Provided that there is only a minor intrusion ($\leq 10\%$) from the proposed development and that basic tree protection measures (see below) are implemented there should be no adverse impacts on the health of these trees from the proposed development.

The remaining trees included in this report are three street trees located outside the subject site (#1-2 & 15). These trees are unlikely to be directly affected by the proposed development. Provided that basic tree protection measures (see below) are implemented there should be no adverse impact on the health of these trees from the proposed development.



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8. Tree Protection Requirements

Specific Tree Protection Requirements

Demolition and site clearing

Site clearing has the potential to cause significant damage to any trees to be retained on site or trees that are in adjoining properties through disturbance to the soil, changes in soil gradients, soil compaction and physical destruction of tree roots from excavation and scraping.

Tree protection measures (see below) need to be implemented prior to any site clearing and demolition works commencing. Where site clearing intrudes into the TPZ of trees to be retained and/or trees in neighbouring properties care must be taken to prevent any unnecessary damage to trees and tree roots.

Basic Tree Protection Requirements

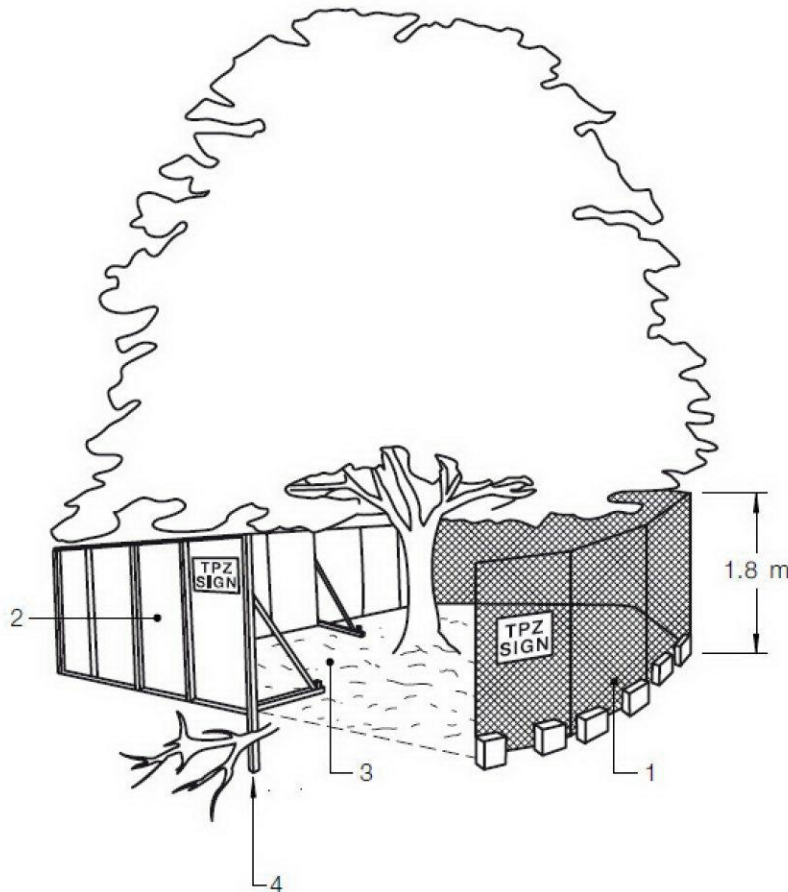
The following basic tree protection measures will need to be implemented prior to any work commencing on site and remain in place for the duration of the work

1. Before commencing work on site, the contractor is required to meet with the consultant arborist to review all work procedures, access routes, storage areas and tree protection measures.
2. Temporary protective fencing to a minimum height of 1.8m must be erected along the perimeter of the TPZ (or modified TPZ) for any trees that are to be retained on the site. Prior to any machinery or materials being brought on site and before any works including demolition commences.
3. Once erected protective fencing must not be removed or altered without approval from the project arborist.
4. Protective fencing needs to be in accordance with AS 4687. Signs identifying the TPZ should be placed around the protective fencing.
5. Construction vehicles and storage areas must remain outside fenced areas always.
6. If tree roots are encountered or damaged during construction, they need to be cut cleanly to sound tissue with sharp secateurs or a pruning saw.
7. Surplus construction materials (e.g., soil, cement, base rock etc.) are not to be stored or allowed to remain inside the trees' TPZ.
8. Additional tree pruning required during construction must be carried out by an appropriately qualified contractor and in accordance with Australian Standards 4373: 2007, Pruning of Amenity Trees and not by construction personnel.
9. All underground services including drainage and irrigation must be routed outside of trees' TPZs, if this is not possible excavation is to be carried out by tunneling or boring beneath the tree protection zone.
10. Trees retained on site are to be regularly watered (minimum weekly) during periods of dry conditions within the tree protection zone.
11. If trees are damaged during construction, it should be evaluated as soon as possible by the project arborist so that appropriate treatments can be applied.



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12. Erosion control such as silt fencing, debris basins and water diversion methods shall be installed to prevent siltation and/or erosion within the tree protection zone.
13. If temporary access roads must pass over the root areas (TPZ) of trees to be retained a roadbed of 150mm of mulch or crushed rock shall be created to prevent soil compaction within the tree's root area. The roadbed material shall be maintained to a depth of 150mm throughout construction.
14. Once construction is completed all foreign (non-organic) debris needs to be removed from within the tree protection zone.



LEGEND:

- 1 Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
- 2 Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
- 3 Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
- 4 Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

Figure 7: Tree protection zone and temporary protective fencing.

The creation of an exclusion zone around trees to be retained on site is the primary means of tree protection during construction. Tree protection zone signage provides clear and readily accessible information to indicate that a TPZ has been established.



9. Suggested Replacement Species

Possible replacement tree species could include (selection and placement of trees will need to take into consideration the eventual size of the trees when mature) – see landscape plan for complete planting schedule:

Large (canopy) trees:

- Red Box (*Eucalyptus polyanthemos ssp. Vestita*) - Indigenous
- Yellow Box (*Eucalyptus melliodora*) - Indigenous
- Blackwood (*Acacia melanoxylon*) - Indigenous
- Smooth-barked Apple Myrtle (*Angophora costata*) - Native
- Red Ironbark (*Eucalyptus sideroxylon*) - Native
- Argyle Apple (*Eucalyptus cinerea*) - Native
- Illawarra Flame Tree (*Brachychiton acerifolius*) - Native
- Red Maple (*Acer rubrum*) - Exotic
- Pin Oak (*Quercus palustris*) - Exotic

Medium sized trees:

- Lightwood (*Acacia implexa*) - Indigenous
- Silver Banksia (*Banksia marginata*) - Indigenous
- Dwarf Apple Myrtle (*Angophora costata 'Little Gumball'*) - Native
- Lemon-Scented Gum (*Corymbia citriodora 'Scentuous'*) - Native
- Dwarf Yellow Bloodwood (*Corymbia eximia nana*) - Native
- Flowering Gum (*Corymbia ficifolia*) - Native
- Victorian Silver Gum (*Eucalyptus crenulata*) - Native
- Yellow Gum (*Eucalyptus leucoxylon 'Euky Dwarf'*) - Native
- Pink-Flowering Gum (*Eucalyptus leucoxylon Rosea*) - Native
- Smooth-barked Coolabah (*Eucalyptus victrix*) - Native
- Water Gum (*Tristaniopsis laurina*) - Native
- Honey Locust (*Gleditsia tricanthos*) - Exotic
- Callery Pear (*Pyrus calleryana*) – Exotic

Small sized trees:

- Gungurru (*Eucalyptus caesia*) - Native
- Fuschia Gum (*Eucalyptus forrestiana*) - Native
- Nullabor Lime (*Eucalyptus macrocarpa 'Nullabor Lime'*) - Native
- Risdon Peppermint (*Eucalyptus risdonii*) - Native
- Coral Gum (*Eucalyptus torquata*) - Native
- Crepe Myrtle (*Lagerstroemia indica*) - Exotic
- Iowa Crab Apple (*Malus ioensis 'Plena'*) – Exotic

Replacement trees should be sourced from a reputable nursery with care taken to ensure that they are in good health, free of structural defects and pests and diseases. They should be advanced grown specimens that are a minimum 1.5 metres in height. When planting advanced



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grown trees, it is important that they are planted correctly, staked to provide additional support and provided with adequate aftercare to ensure that they become established (the plant supplier should be able to help with planting and establishment guidelines).

Please do not hesitate to call 0425 879 811 if you have any questions regarding the contents or recommendations provided in this report.

Sincerely

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Appendix 1 – Tree Assessment Criteria

1. Height describes the height of the tree in metres from ground level.
2. Trunk diameter (DBH) is calculated from the measured trunk circumference at 1.4m above ground level or at an alternative location if required (in accordance with AS 4970-2009).
3. Canopy spread describes the crown spread across the widest point.
4. Estimated age class is the tree's relative age to its species and is expressed as - Young (the first one third of the estimated life expectancy), Semi Mature (the second third of the estimated life expectancy), or Mature (the last third of the estimated life expectancy).
5. Useful life expectancy (ULE) – see appendix 2.
6. Tree protection zone (TPZ) is the principal means of protecting trees on a development site. The TPZ is a combination of the root area and the crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable. The radius of the TPZ is calculated for each tree by multiplying its DBH x 12, the TPZ radius is measured from the centre of the stem at ground level. A TPZ should not be less than 2m nor greater than 15m (except where crown protection is required).
7. Structural root zone (SRZ) is the area required for tree stability. A larger area is required to maintain tree health.
8. Retention value is adapted from BS5837:2005 – Cascade chart for tree quality assessment. The retention value is applied to the tree in the context of the proposed land use.

High retention value

High ranked trees would meet one or more of the following criteria:

- Trees in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).
- Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g., the dominant and/or principal trees within an avenue).
- Trees of visual importance (e.g., avenues or other arboricultural features assessed as groups).
- Trees of significant historical, commemorative, or other value (e.g., veteran trees).



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Moderate retention value

- Moderate ranked trees would meet one or more of the following criteria:
- Trees in such a condition as to make a significant contribution (a minimum of 20 years is suggested).
- Trees that might be included in the high category but may be downgraded because of impaired condition (e.g., presence of remediable defects including unsympathetic past management and minor storm damage).
- Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals, but which are not, individually, essential components of formal or semi-formal arboricultural features, or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality.

Low retention value

- Trees currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150 mm.
- Low category trees will usually not be retained where they would impose a significant constraint on development. However, young trees with a stem diameter of less than 150 mm could be considered for relocation.

Remove/None

- Trees ranked for removal/no retention value would meet one or more of the following criteria:
- Trees in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.
- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other trees (i.e., where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning).
- Trees that have a serious hazard potential (this may consider the context of any proposed development).
- Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.
- Trees that are environmental weeds.



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Appendix 2 – Useful Life Expectancy Categories (ULE)

Long U.L.E- the tree appeared retainable at the time of assessment for over 40 years with an acceptable degree of risk, assuming reasonable maintenance:

- Structurally sound trees located in positions that can accommodate future growth.
- Trees which could be made suitable for long term retention by remedial care.
- Trees of special significance, which would warrant extraordinary efforts to secure their long-term retention.

Medium U.L.E- the tree appeared to be retainable at the time of assessment for 15 to 40 years with an acceptable degree of risk, assuming reasonable maintenance:

- Trees which may only live from 15-40 years.
- Trees that may live for more than 40 years but may be removed for safety or nuisance reasons.
- Trees which may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.
- Trees which could be made suitable for retention in the medium term with remedial care.

Short U.L.E- trees that appeared to be retainable at the time of assessment for 5-15 years with an acceptable degree of risk, assuming reasonable maintenance:

- Trees which may only live from 5 to 15 years.
- Trees that may live for more than 15 years but may be removed for safety or nuisance reasons.
- Trees which may live for more than 15 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.
- Trees which require substantial remediation and are only suitable for retention in the short term.

Removal- Tree which should be removed within the next 5 years.

- Dead, dying suppressed or declining trees
- Dangerous trees through instability or recent loss of adjacent trees.
- Dangerous trees because of structural defects including cavities, decay included bark, wounds, or poor form.
- Damaged trees that are clearly not safe to retain.
- Trees which may live for more than 5 years but would be removed to prevent interference with more suitable individuals or to provide space for new plantings.
- Trees which are damaging or may cause damage to existing structures within the next 5 years.
- Trees that will become dangerous after the removal of other trees for the reasons given in (A) to (F).
- Trees in categories (A) to (G) that have a high wildlife habitat value and with appropriate treatment could be retained subject to regular review.

Small, young or regularly pruned- Trees that can be reliably moved or replaced.

- Small trees less than 5m in height.
- Young trees less than 15 years old but over 5m in height.
- Formal hedges and trees intended for regular pruning to artificially control growth



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Appendix 3 – Tree Species

Tree #	Botanical & common names	Origin	Health	Structure	Height	Canopy spread	Total DBH	Diameter ground	Age	ULE	Amenity value	Retention value	TPZ	SRZ	Comments	Recommendations
1	<i>Melaleuca stypheloides</i> (Prickly leaf Paperbark)	Introduced	Good	Average	9	9	0.43	0.53	Mature	Medium (15-40 years)	Moderate	3rd Party Tree	5.16	2.53		Street tree, unlikely intrusion
2	<i>Eucalyptus scoparia</i> (Wallangarra White Gum)	Introduced	Good	Average	7	4	0.2	0.28	Mature	Medium (15-40 years)	Moderate	3rd Party Tree	2.4	1.94		Street tree, unlikely intrusion
3	<i>Hymenosporum flavum</i> (Queensland Frangipani)	Introduced	Good	Average	7	2	0.11	0.12	Early mature	Medium (15-40 years)	Moderate	Low	2	1.5		Remove and replace if required
4	<i>Prunus cerasifera</i> CV (Purple leaf Cherry)	Introduced	Average to Poor	Average	7	9	0.53	0.68	Mature	Medium (15-40 years)	Moderate	Low	6.36	2.81	Thinning upper canopy, some dieback	Remove and replace if required
5	<i>Cotoneaster glaucophylla</i> (Cotoneaster)	Introduced	Good	Average	5	5	0.37	0.48	Mature	Medium (15-40 years)	Moderate	Low	4.44	2.43		Remove and replace
6	<i>Liquidamber formosana</i> (Chinese Sweet Gum)	Introduced	Poor	Average	9.4	5	0.31	0.37	Late mature	Short (5-15 years)	Moderate	Low	3.72	2.18	Upper canopy very sparse	Remove and replace if required
7	<i>Camellia japonica</i> CV (Camellia)	Introduced	Good	Good	4.5	4	0.14	0.15	Mature	Medium (15-40 years)	Moderate	Low	2	1.5		Remove and replace if required
8	<i>Camellia japonica</i> CV (Camellia)	Introduced	Good	Good	3.5	3	0.13	0.15	Mature	Medium (15-40 years)	Moderate	Low	2	1.5	TGx4, Viburnum tinus	Remove and replace if required
9	<i>Cytisus proliferus</i> (Tree Lucerne)	Introduced	Good	Good	4	4	0.16	0.18	Mature	Medium (15-40 years)	Moderate	Low	2	1.61	TGx2, Callistemon citrinus	Remove and replace
10	<i>Prunus avium</i> (Cherry)	Introduced	Good	Average	3.5	4	0.16	0.18	Mature	Medium (15-40 years)	Moderate	Low	2	1.61		Remove and replace if required
11	<i>Pyrus calleryana</i> (Ornamental Pear)	Introduced	Good	Good	9.4	7	0.31	0.36	Mature	Medium (15-40 years)	Moderate	3rd Party Tree	3.72	2.15	NT 1m	Neighbouring tree, unlikely intrusion
12	<i>Betula pendula</i> (Silver Birch)	Introduced	Good	Good	7	6	0.19	0.23	Mature	Medium (15-40 years)	Moderate	3rd Party Tree	2.28	1.79	NT 1m	Neighbouring tree, unlikely intrusion
13	<i>Cordylina australis</i> (Cabbage Tree)	Introduced	Good	Good	5	2.5	0.2	0.23	Early mature	Medium (15-40 years)	Moderate	3rd Party Tree	1.75	n/a	NT 2m	Neighbouring tree, unlikely intrusion
14	<i>Viburnum tinus</i> (Viburnum)	Introduced	Good	Good	3.8	4	0.2	0.21	Mature	Medium (15-40 years)	Moderate	3rd Party Tree	2.4	1.72	NT, 0.6m, TGx4, Camellia sasanqua, Nerium oleander	Neighbouring tree, unlikely intrusion



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15	<i>Quercus palustris</i> (Pin Oak)	Introduced	Good	Good	2.2	0.5	0.02	0.03	Young	Long (40+ years)	Moderate	3rd Party Tree	2	1.5	ST	Street tree, unlikely intrusion
16	<i>Syzygium smithii</i> (Lily Pilly)	Australian native	Good	Average to Poor	10	12	0.52	0.78	Mature	Medium (15-40 years)	Moderate	Moderate	6.24	2.98	Previously lopped at 3m has partly recovered	Consider retaining tree, likely intrusion
17	<i>Syzygium smithii</i> (Lily Pilly)	Australian native	Good	Average	9	7	0.47	0.57	Mature	Medium (15-40 years)	Moderate	Moderate	5.64	2.61	Previously lopped at 3m had partially recovered	Consider retaining tree, likely intrusion
18	<i>Agonis flexuosa</i> (Willow leaf Myrtle)	Australian native	Good	Poor	6	4	0.19	0.47	Mature	Medium (15-40 years)	Moderate	Low	2.28	2.41		Remove and replace if required
19	<i>Prunus armeniaca</i> (Apricot)	Introduced	Poor	Average	5	4	0.14	0.15	Early mature	Short (5-15 years)	Moderate	Low	2	1.5		Remove and replace
20	<i>Citrus X limon</i> (Lemon)	Introduced	Poor	Poor	3	3	0.14	0.15	Late mature	Short (5-15 years)	Moderate	Low	2	1.5		Remove and replace
21	<i>Ficus carica</i> (Fig)	Introduced	Good	Good	4	5	0.24	0.23	Mature	Medium (15-40 years)	Moderate	Moderate	2.88	1.79		Remove and replace if required
22	<i>Magnolia grandiflora</i> (Southern Magnolia)	Introduced	Good	Good	3.5	2.5	0.12	0.14	Early mature	Long (40+ years)	Moderate	3rd Party Tree	2	1.5	NT 0.5m	Neighbouring tree, unlikely intrusion

*** Please Note: All measurements are in metres.**

*** Note: unless otherwise stated the diameters of neighbouring trees have been estimated.**



Appendix 4 – Tree Images



Tree 1



Tree 2



Tree 3



Trees 4-6



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Tree 7



Tree 8



Tree 9



Tree 10



Tree 11



Tree 12



Tree 14



Tree 15



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Tree 16



Tree 17



Tree 18



Tree 20



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Tree 21



Tree group 22

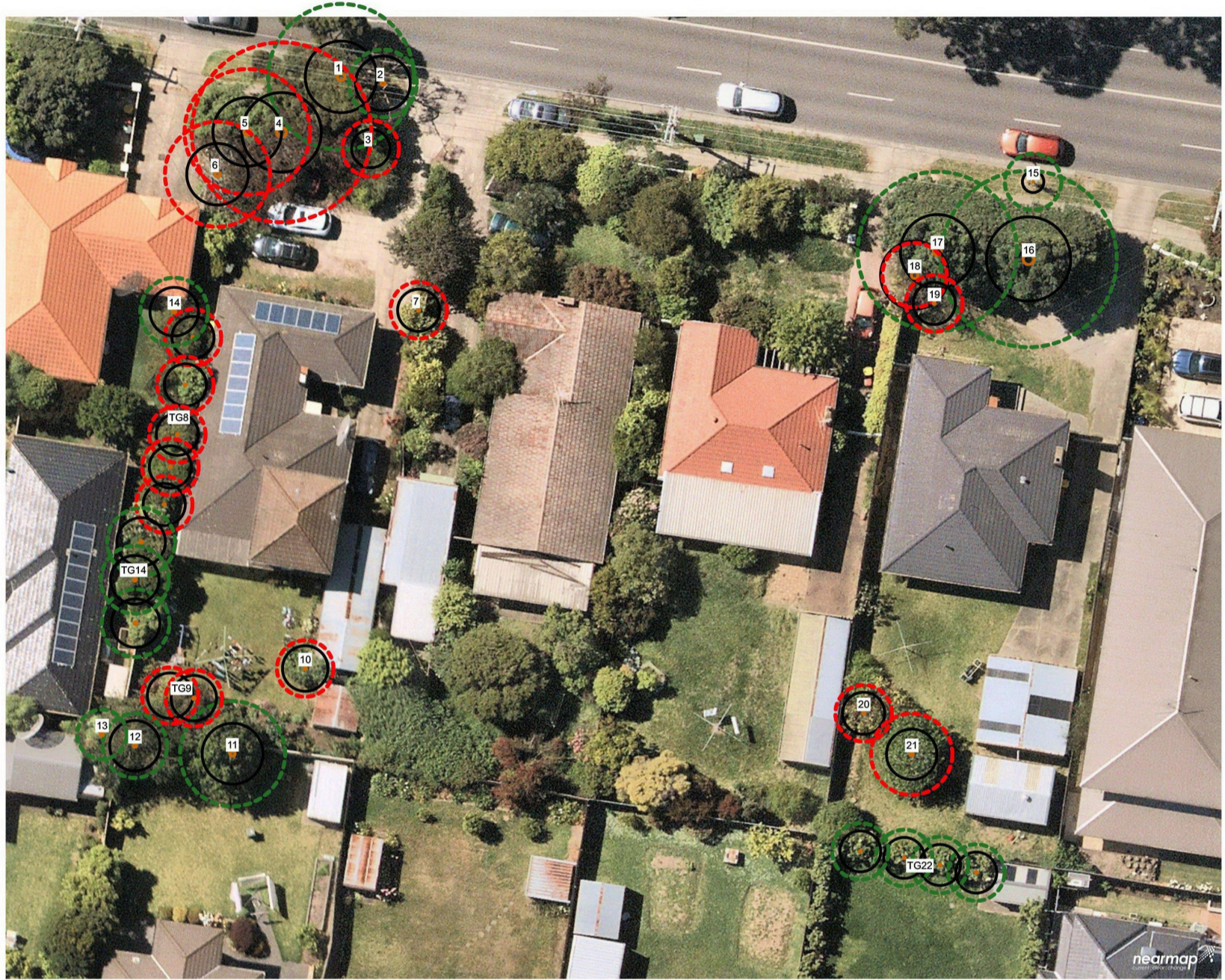
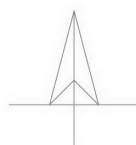


Table 1: Trees to be removed:

Tree #	Common & Botanical names	Origin	Age	ULE	Retention value	Comments	Remove and replace	Permit required
3	<i>Hymenosporum flavum</i> (Queensland Frangipani)	Introduced	Early mature	Medium (15-40 years)	Low		Remove and replace if required	No
4	<i>Prunus cerasifera CV</i> (Purple leaf Cherry)	Introduced	Mature	Medium (15-40 years)	Low	Thinning canopy, dieback	Remove and replace if required	No
5	<i>Cotoneaster glaucophylla</i> (Cotoneaster)	Introduced	Mature	Medium (15-40 years)	Low		Remove and replace	No
6	<i>Liquidambar formosana</i> (Chinese Sweet Gum)	Introduced	Late mature	Short (5-15 years)	Low	Upper canopy very sparse	Remove and replace if required	No
7	<i>Camellia japonica CV</i> (Camellia)	Introduced	Mature	Medium (15-40 years)	Low		Remove and replace if required	No
8	<i>Camellia japonica CV</i> (Camellia)	Introduced	Mature	Medium (15-40 years)	Low	TGx4	Remove and replace if required	No
9	<i>Cytisus proliferus</i> (Tree Lucerne)	Introduced	Mature	Medium (15-40 years)	Low	TGx2	Remove and replace	No
10	<i>Prunus avium</i> (Cherry)	Introduced	Mature	Medium (15-40 years)	Low		Remove and replace if required	No
18	<i>Agonis flexuosa</i> (Willow leaf Myrtle)	Australian native	Mature	Medium (15-40 years)	Low		Remove and replace if required	No
19	<i>Prunus armeniaca</i> (Apricot)	Introduced	Early mature	Short (5-15 years)	Low		Remove and replace if required	No
20	<i>Citrus X limon</i> (Lemon)	Introduced	Late mature	Short (5-15 years)	Low		Remove and replace if required	No
21	<i>Ficus carica</i> (Figs)	Introduced	Mature	Short (5-15 years)	Moderate		Remove and replace if required	No

Legend

- - - TPZ Tree to be removed
- - - TPZ Tree to be retained
- Structural Root Zone
- Prescribed TPZ offset
- Proposed intrusion
- Proposed intrusion with root sensitive footings



	Bluegum Consultancy PO Box 107 Hampton VIC 3188 arboristreports@gmail.com - 0425 879 811	
	Date: 23/02/2021 Drawn by: Paul Jameson SCALE 1:400 @A3	Jesse Ant Architects Site Plan - 718-724 High Street Road, Glen Waverley