ADVERTISED PLAN

Selected Mature Tree Health and Condition Assessment

Prepared for: Melbourne Montessori School - Brighton East Campus

Site Address: 741 Hawthorn Rd Brighton East

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National Diploma in Arboriculture

First Diploma in Forestry

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Date Prepared: April 2024

1. INTRODUCTION

This Tree Health and Condition Assessment has been prepared for Melbourne Montessori School - Brighton East Campus to assess selected mature trees within the school grounds.

The health and condition of selected mature trees have been assessed and categorised into low, medium and high priority works. This document will provide the findings of the assessment, and recommendations of works categorised into priority.

For accurate analysis of the selected trees, a site inspection was conducted in April 2024, where the location of the trees, conditions of their surroundings and current health/condition was inspected.

This Health and Condition Assessment of selected mature trees contains:

- A site map that identifies the selected mature trees
- Information about selected trees - including species, health, structure and safe life expectancy
- Recommendations of works to complete categorised into priority (low, medium and high)

2. ASSESSMENT OBJECTIVES

The objective of the report is to provide a clear understanding of the condition and health of a selected number of mature trees around the grounds of Melbourne Montessori School - Brighton East Campus. The works suggested are to increase the safety and health of the selected mature trees, and to decrease risk of failure.

3. LIMITS OF THIS ASSESSMENT

This document is only applicable to the selected mature trees numbered on the site map. The inspections of these trees were made at ground level and tree defects not apparent from the ground based visual inspection are excluded from the scope of this report. The conditions of these trees are only at the time of assessment.

A ‘Visual Tree Assessment’ (VTA) was conducted for each tree included in this report. A VTA consists of a detailed visual inspection of a tree and its surrounding site, including a complete walk around the tree, looking at the buttress roots, trunk, branches and leaves. The tree is observed from a distance and close up to consider crown shape, landscape context and surroundings.

No invasive tests were conducted, or samples taken and any assessments of decay are qualitative only.

4. SITE MAP - LOCATIONS OF TREES ASSESSED

- HIGH PRIORITY WORKS
- MEDIUM PRIORITY WORKS
- LOW PRIORITY WORKS
- NO WORKS
- MONITOR

Tree Number:	Species Name: Botanical	Species Name: Common	Height (m)	Width (m)	DBH (cm)	TPZ (m)	DAB (cm)	SRZ (m)	Age:	SULE:	Structure:	Health:	Condition:	Tree Observations: April 2024	Suggested Works:	Works Priority:
1	*Cupressus sempervirens*	Pencil Pine	12	2	N.R.	N.R.	N.R.	N.R.	Mature	5 - 20 years	Fair	Fair	Poor	Creeper growing through the tree	No works	No works
2	*Cupressus sempervirens*	Pencil Pine	12	2	N.R.	N.R.	N.R.	N.R.	Mature	5 - 20 years	Fair	Fair	Poor	Creeper growing through the tree	No works	No works
3	*Cupressus sempervirens*	Pencil Pine	12	2	N.R.	N.R.	N.R.	N.R.	Mature	5 - 20 years	Fair	Fair	Poor	Creeper growing through the tree	No works	No works
4	*Acer negundo*	Boxelder Maple	13	12	N.R.	N.R.	N.R.	N.R.	Mature	Under 5 years	Poor	Fair	Poor	Deadwood present in canopy Root system is unbalanced - structural roots growing from east to west and are growing above spoil surface. However when inspecting the root flair, there is very limited root system growing from north to south Evidence of decay in old pruning cuts Tree has been lopped in the past Hanging branches in canopy	Remove to base Grind stump	High
5	*Ulmus glabra*	Golden Elm	13	11	N.R.	N.R.	N.R.	N.R.	Mature	5 - 20 years	Fair	Poor	Fair	Large infestation of Elm Leaf Beetle in canopy History of poor pruning - tree has been lopped in the past Ground around base is compacted and soil level has increased around base resulting in reduction of water to root system Powerlines running through canopy	Elm Leaf Beetle treatment - trunk injections Remove deadwood greater than 30mm in diameter	Medium
6	*Syzygium smithii*	Lilly Pilly	14	11	N.R.	N.R.	N.R.	N.R.	Over - mature	Under 5 years	Poor	Poor	Poor	Tree appears to have been cut down to base previously, and has regrown as a multi stemmed tree resulting in poor structure and increased risk of failure Tree is close to HV powerlines in the street Tree is pushing over fence	Remove to base Grind stump	High
7	*Melaleuca armillaris*	Bracelet Honey Myrtle	8	5	26	3.1	36	2.2	Mature	5 - 20 years	Fair	Fair	Fair	Deadwood preset in canopy History of poor pruning Low branches - potential hazard to students Canopy is touching adjacent building Root system is lifting the artificial grass - if client feels the root system is causing a trip hazard, the tree will not survive the removal of the structural root and the tree will need to be removed	Uplift canopy to minimum 2.2m Prune back away from building Continue to monitor root system's interference with artificial grass	High
8	*Betula pendula*	Silver Birch	7	6	22	2.6	27	1.9	Mature	5 - 20 years	Poor	Fair	Poor	Top of canopy is in decline Tree is on a lean History of branch failures Branches close to adjacent building and has been in strong winds	Prune back away from building Remove deadwood greater than 30mm in diameter	High
9	*Hakea*	Hakea	6	5	33	4.0	41	2.3	Mature	5 - 20 years	Poor	Fair	Fair	Multi stemmed - DBH recorded is combined DBH of multi stems Included bark present at main union Included bark present at several smaller unions in canopy Dense canopy Rubbing branches in canopy	Remove deadwood greater than 30mm in diameter Uplift canopy to minimum 2.2m Prune back away from building	Medium
10	*Pyrus ussuriensis*	Manchurian Pear	6	2	N.R.	N.R.	N.R.	N.R.	Young	Under 5 years	Poor	Good	Fair	Poor union - included bark present	Prune away from building	Low
11	*Pyrus ussuriensis*	Manchurian Pear	5	2	N.R.	N.R.	N.R.	N.R.	Young	Under 5 years	Poor	Good	Fair	Appears to have poor branch attachments	Prune away from building	Low
12	*Pyrus ussuriensis*	Manchurian Pear	5	2	N.R.	N.R.	N.R.	N.R.	Young	Under 5 years	Poor	Good	Fair	Appears to have poor branch attachments	Prune away from building	Low
13	*Jacaranda mimosifolia*	Jacaranda	10	7	23	2.8	31.8	2.0	Semi - mature	5 - 20 years	Fair	Fair	Fair	Damage on south side of trunk Low branches - potential hazard to students	Uplift canopy to minimum 2.2m	High
14	*Acacia*	Wattle	7	7	26	3.1	N.R.	N.R.	Mature	5 - 20 years	Poor	Good	Fair	Included bark present at main union Tree on a lean Dense canopy Deadwood present in canopy	Prune branches back from overhanging playground Reduce end weight of branches growing to the north west Remove deadwood greater than 30mm in diameter	Medium
15	*Grevillea robusta*	Silky Oak	7	5	11	2.0	N.R.	N.R.	Young	Over 50 years	Good	Good	Good	Good health and condition	No works	No works
16	*Pyrus ussuriensis*	Manchurian Pear	6	5	N.R.	N.R.	N.R.	N.R.	Mature	5 - 20 years	Fair	Good	Good	Good health and condition Small unions with included bark	No works	No works
17	*Pyrus ussuriensis*	Manchurian Pear	6	6	22	2.6	22	1.8	Mature	5 - 20 years	Poor	Good	Fair	Rubbing branches in canopy Included bark present at several unions Branches close to adjacent building Low branches - potential hazard to students	Uplift canopy to minimum 2.2m	High
18	*Ficus*	Fig	5	37	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	Hedge of Ficus trees	No works	No works
19	*Ulmus parvifolia*	Chinese Elm	13	16	49	5.9	60.5	2.7	Mature	5 - 20 years	Fair	Good	Poor	History of poor pruning evident Branches touching adjacent building Appears that neighbours have lopped the tree back to fence line recently Exposed roots to the north	Remove to base Grind stump	High
20	*Populus nigra*	Poplar	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	Tree is located in the neighbours property and is in the north east corner of the school Previously pruned hard, resulting in epidermic shoots From a ground based visual inspection with assistance of a drone, tree appears to be in good health and the structure appears be to good	Continue to monitor annually	Monitor

6. TREE PHOTOS

T1: *Cupressus sempervirens*

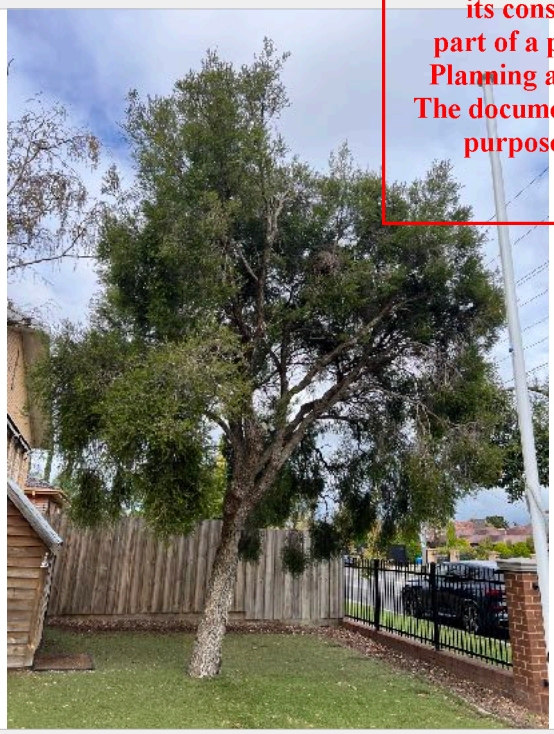
T2: *Cupressus sempervirens*

T3: *Cupressus sempervirens*

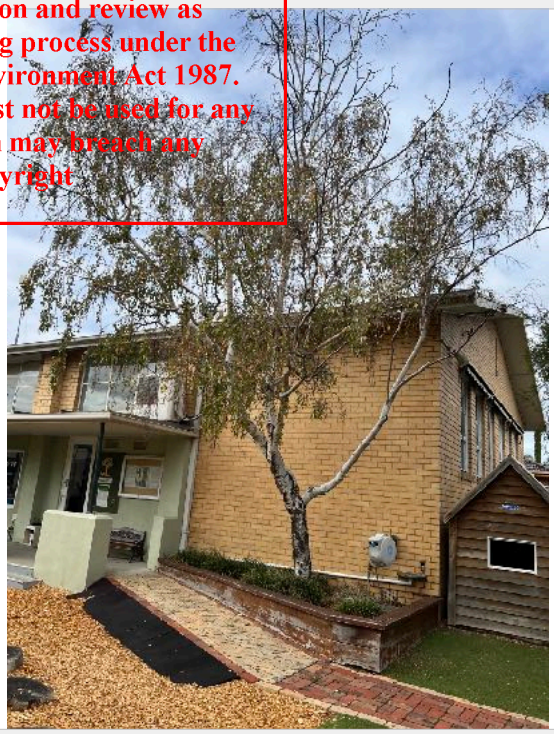
T4: *Acer negundo*

T5: *Ulmus glabra*

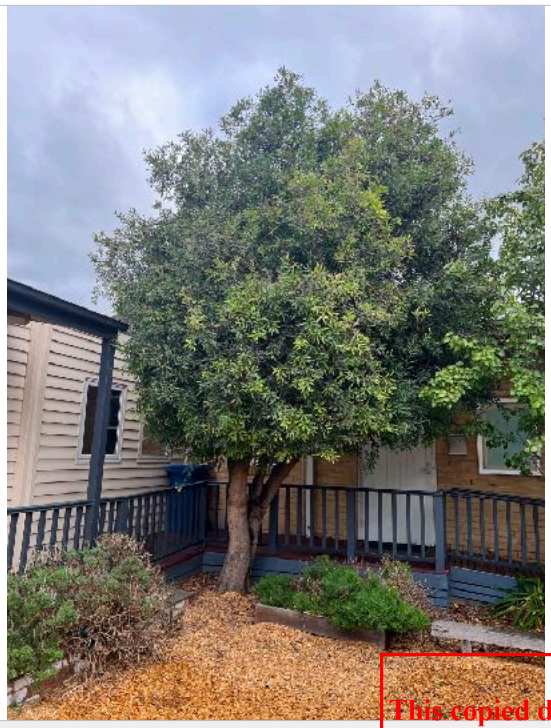
T6: *Syzygium smithii*



T7: *Melaleuca armillaris*



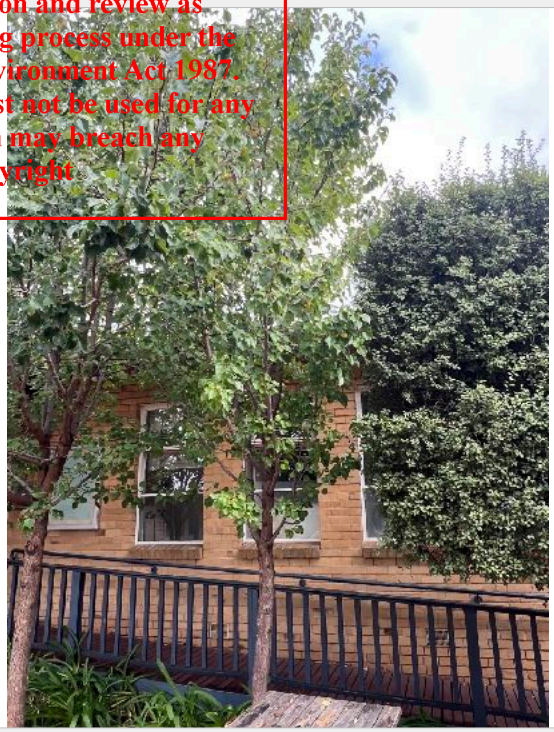
T8: *Betula pendula*



T9: *Hakea*

T10: *Pyrus ussuriensis*

T11: *Pyrus ussuriensis*



T12: *Pyrus ussuriensis*

T13: *Jacaranda mimosifolia*

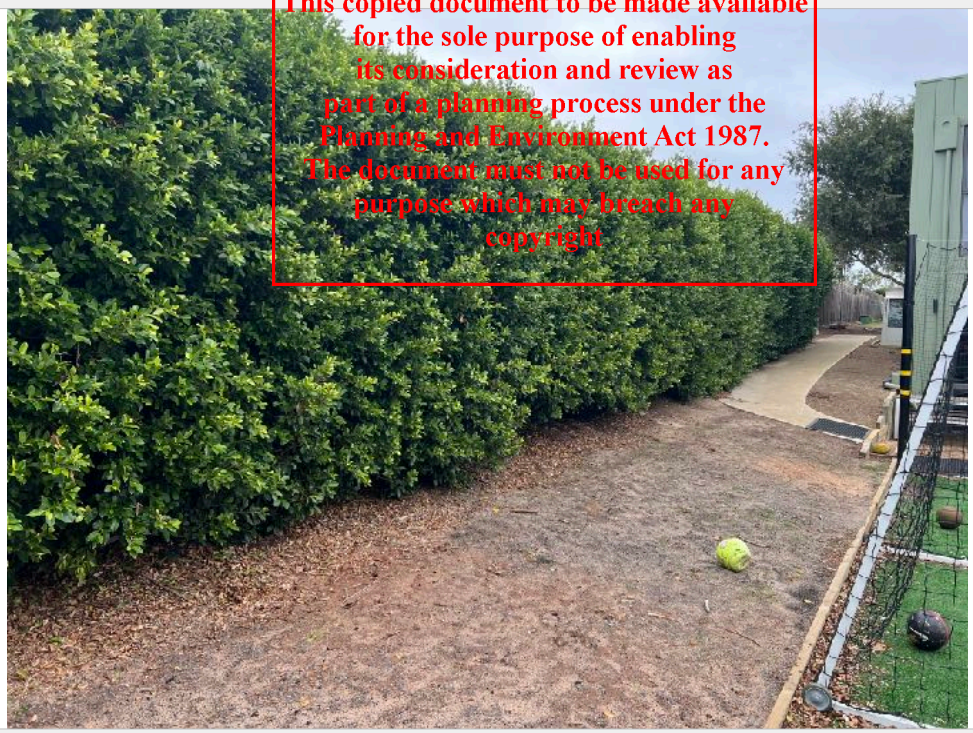
T14: *Acacia*

T15: *Grevillea robusta*

T16: *Pyrus ussuriensis*

T17: *Pyrus ussuriensis*

T19: *Ulmus parvifolia*



T18: *Ficus* hedge

7. EXPLANATION OF TERMS

PRIORITY RATING:

Category:	Description:
Low	Low work priorities are those that are not concerned with conditions that affect the immediate health and safety of trees (or people and property) and/or trees that are not considered valuable enough to warrant immediate attention. These works are mostly removal of small branches lodged in the tree crown or removal of branch stubs. It is recommended that these works be carried out optionally and when convenient over the next 24 months. Tree work priorities may be increased to Medium on subsequent inspections if required.
Medium	Medium work priorities are specified if the work will improve the tree's health, safety and/or aesthetics or the safety of the area (people or property) if carried out in the short term. These works are often specified for trees with larger broken lodged branches and occupying a high profile position or frequently used area within the landscape. Tree removals in this category are those that do not pose high-risk danger to persons or property. It is recommended that these works be carried out within the next 6 to 12 months.
High	High work priorities are specified where a tree condition poses a potential safety hazard to people or property or the tree and works are considered significant enough to warrant immediate attention. Trees requiring high priority work will include those with large broken lodged branches, flawed or damaged structures (crown, trunk or roots) that are likely to lead to failure causing property damage, injury or death. Works in this classification should be carried out within 3 months or sooner if budgets and convenience allow.

	Health Ratings
Category:	**Description:**
Good	The tree is demonstrating good or exceptional growth. The tree should exhibit a full canopy of foliage, and be free of and/or only minor pest or disease problems
Fair	The tree is in reasonable condition and is growing well. The tree should exhibit an adequate canopy of foliage. There may be some deadwood present in the crown. Some grazing by possums or insects may be present.
Poor	The tree is not growing to its full capacity. Extension growth of the lateral branches is minimal. The canopy may be thinning or sparse. Large amounts of deadwood may be evident throughout the crown. Significant pest and disease problems may be evident or symptoms of stress indicating tree decline

	Structure Ratings
Category:	**Description:**
Good	The tree has a well-defined and balanced crown. Branch unions appear to be strong with no defects evident in the truck or branches. Major limbs are well defined and the tree is considered a good example of the species.
Fair	The tree has some minor problems in the structure of the crown. The crown may be slightly out of balance and some unions may be exhibiting minor structural faults. If the tree is single trunked, it may be on a slight lean or exhibit minor defects.
Poor	The tree may have a poorly structured crown. The crown may be unbalanced or exhibit large gaps. Major limbs may not be well defined and branches may be running or crossing over. Branch unions may be poor or faulty at the point of attachment and the tree may have suffered major root damage.

	Condition Ratings
Category:	**Description:**
Good	Both health and structure of the trees are good. The tree is an excellent example of the species and requires little or no work to improve health or structure.
Fair	The tree is an average example of the species and may reuse work to improve health and structure.
Poor	Health and/or structure is less than average for the species. The tree is considered below average condition and may require significant works or removal.

	Safe Useful Life Expectancy
Category:	**Description:**
0	Tree is dead or nearly dead and/or considered unsafe for the location.
Under 5 years	The tree under normal circumstances and without extra stress should be safe and have value for up to five years but will need to be replaced. During this period, normal inspections and maintenance will be required. Replacement trees should be planted if possible.
5 - 20 years	The tree under normal circumstances and without extra stress should be safe and have value for up to twenty years. During this period, normal inspections and maintenance will be required.
21 - 50 years	The tree is likely to provide useful amenity for between 21 - 50 years under normal circumstances and without extra stress. During this period, normal inspections and maintenance will be required.
Over 50 years	The tree is likely to provide useful amenity for greater than 50 years under normal circumstances and without extra stress. During this period, normal inspections and maintenance will be required.

	Life Stages
Category:	**Description:**
Young	Sapling tree and/or recently planted. Approx. 5 years or less in location
Semi-mature	Tree increasing in size and yet to achieve expected size in situation. Primary developmental state
Early-mature	Tree established, generally growing vigorously, 50% of attainable age/size
Mature	Specimen approaching expected size in situation, reduced incremental growth
Overmature	Mature full size with a retrenching crown. Tree is senescent and in decline. Significant decay generally present.

8. TERMS AND CONDITIONS

1. Author has taken responsible care to obtain necessary information for reliable sources to verify data. However the author neither guarantees nor is responsible for the accuracy of information provided by others
2. Alterations to this report/assessment invalidates the entire report
3. The author retains the copyright of this report/assessment - possession of original or a copy of this document does not give you or anyone else any right of reproduction, publication or use without the written permission of the author
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5. Sketches, diagrams and photographs are intended as visual aids and are not to scale unless stated to be so and must not be constructed as engineering or architectural reports or as surveys
6. The information in this report/assessment covers only the items that were examined and reflects the condition of those items at the time of inspection only
7. This document overrides all prior discussions and representations between the author and the client

9. BIBLIOGRAPHY

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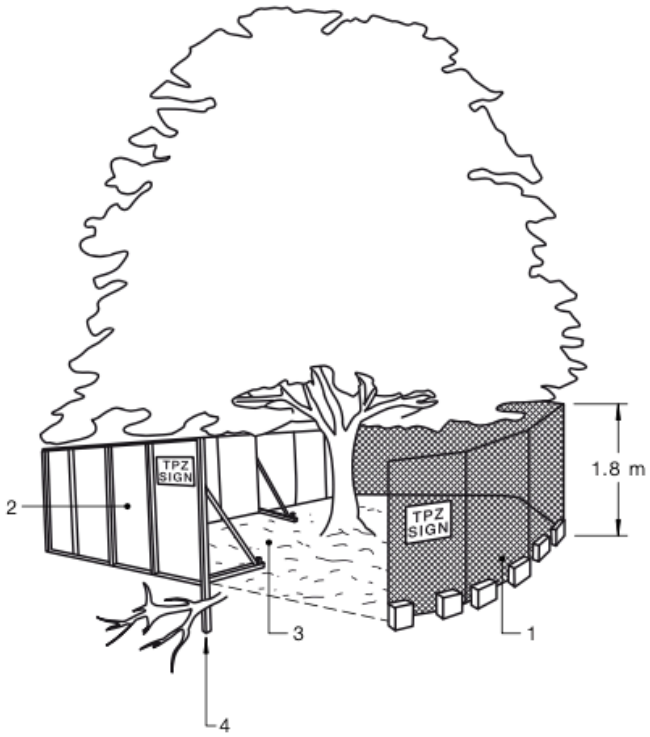
APPENDIX 1: DETAILED TREE PROTECTION MEASURES

1.1 TREE PROTECTION FENCING

Protective fencing is used to delineate the TPZ and acts as a physical barrier to protect the tree. The fencing is to be installed prior to any works commencing, including before any machinery/materials are brought onto site. Once the fencing is installed, it is not to be removed or entered without approval by the Project Arborist. The TPZ should be secured to prevent access. Existing perimeter fencing and other structures may be suitable as part of the protective fencing. If protective fencing is impractical (across a driveway etc), other tree protection measures are to be utilised as per Project Arborist's recommendations.



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 1: Tree Protection Fencing

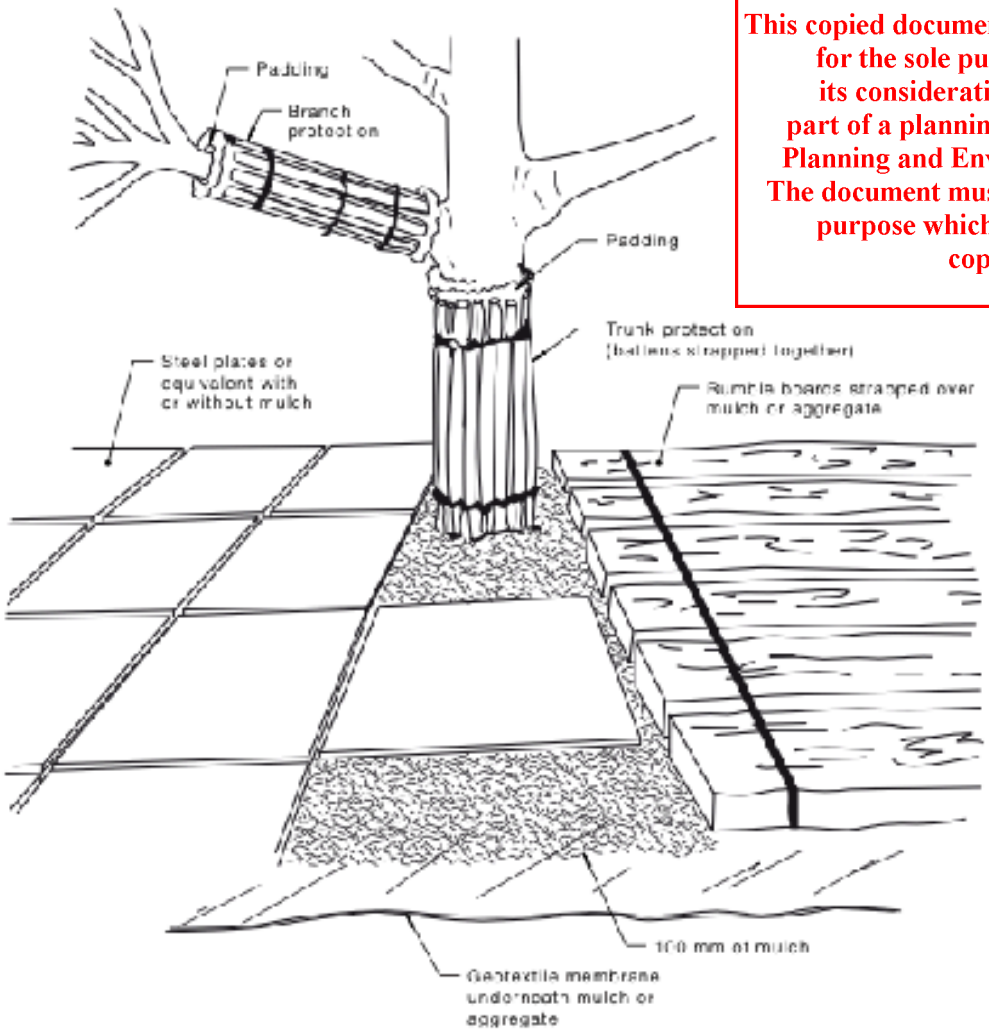
1.2 SIGNAGE

Clear signage is to be used to communicate that the area is a Tree Protection Zone and are to be visible from the construction site - see Figure .

Figure 2: Example of signage to be clearly visible on the TPZ protective fencing

1.3 GROUND PROTECTION

If temporary access to the TPZ is required, or TPZ fencing is unable to be utilised, ground protection methods will be required to prevent root damage and minimise soil compaction within the TPZ. Measures may include a permeable such as geotextile fabric beneath a layer of mulch or crushed rock below rumble boards - see Figure 3.



NOTES:

1 For trunk and branch protection use boards and padding that will prevent damage to bark. Boards are to be strapped to trees, not nailed or screwed.

2 Rumble boards should be of a suitable thickness to prevent soil compaction and root damage.

Figure 3: Example of ground protection methods and trunk and branch protection

1.4 TRUNK AND BRANCH PROTECTION

Where necessary, trunk and branch protections are to be installed by the Project Arborist as per AS4970: 2009 Protection of Trees on Development Sites to protect the tree from mechanical damage (see Figure 3). The tree's trunk and/or branches are to be wrapped in padding and then secured with batons. Any protective measures are to be attached by methods outlined in AS4970 - nails, screws, temporary powerlines, stays and guys are not to be used.

1.5 RESTRICTIONS IN THE TREE PROTECTION ZONE

The following activities are to be excluded from being carried out within the TPZ:
1. Machine excavation (including trenching of underground services)
2. Site sheds are NOT to be placed within the TPZ.
3. Excavation for still fencing
4. Soil cultivation
5. Storage of all building materials
6. Preparation of chemicals - including preparation of cement products
7. Parking of vehicles and plant
8. Refuelling of machinery
9. Dumping of waste and/or building debris
10. Wash down and cleaning of plant and equipment
11. Placement of fill
12. Soil level changes

1.6 UNDERGROUND SERVICES

Underground services within Tree Protection Zones need to be assessed by the Project Arborist prior to commencement of works - ideally in the design stage.

All underground services should be located outside the Tree Protections Zones of protected trees.

Any underground services planned to go through an established TPZ area, should be installed by direct boring with the top of the bore minimum depth of 600mm below the existing grade. Bore pits should be located outside of the TPZ or manually excavated under direct supervision of the Project Arborist.

1.7 SCAFFOLDING

Scaffolding required should be installed outside a Tree Protection Zone, however if it is essential to have scaffolding within a TPZ, branch removal should be minimised and undertaken by a qualified arborist. Ground below where the scaffolding is located should be protected by boarding and where access required, a board walk should be installed to minimise soil compaction (see Figure 4). Boarding is to be placed over a layer of mulch and sheeting and needs to be kept in place until the scaffolding is to be removed.

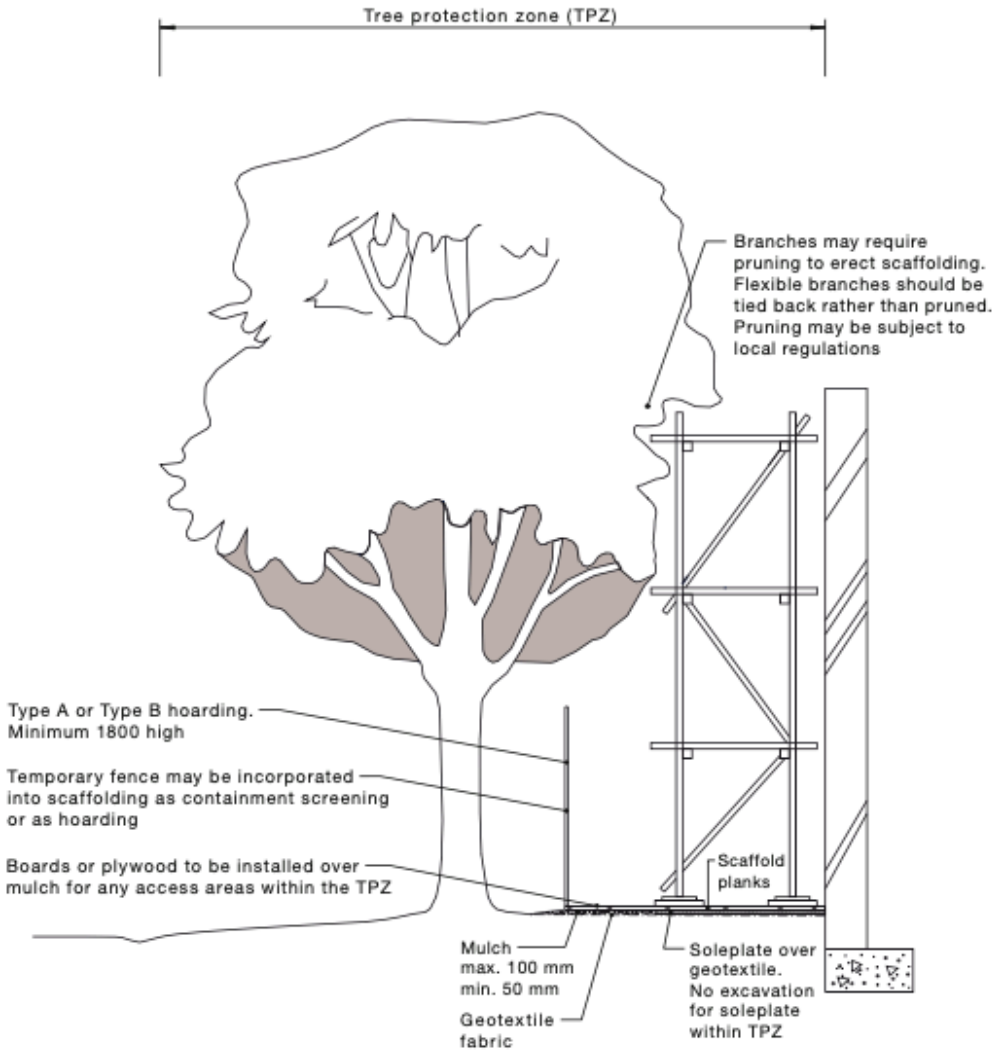


Figure 4: Scaffolding in a Tree Protection Zone