

FOR COMMENT

Tree Protection Management Plan 'Ascension of Polka Dots on the Trees' Art Installation – St. Kilda Road, Melbourne.

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Tree Logic Ref. 013763

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1.0 Introduction

Trees are an integral component of the City of Melbourne and they can be threatened by activities associated with development, and improving or maintaining infrastructure. This has been recognised as an issue by the management of the City of Melbourne and the response has been to create extensive regulations and provisions regarding the preservation of trees within streets and development sites.

Trees grow in a delicate balance with their environment and any changes to that balance must be minimised if the tree is to remain in a healthy state and fulfil its potential. It is rarely possible to repair stressed and injured trees, so damage needs to be avoided during all stages of development and construction.

The aim of this document is to provide guidelines for street or public tree protection during the art installation of 'Ascension of Polka Dots on the Trees' within St. Kilda Road in Melbourne and to assist with decisions made by key stakeholders involved in the planning, design and installation process. All works near public trees must abide by the protection and retention requirements outlined in this document.

The theme of the document is planning. Avoiding tree impacts is the best approach as it is almost impossible to rectify damage to trees that has occurred during installation and demolition activities. Tree protection cannot be achieved without a proactive approach. Similarly, a basic understanding of how trees grow and develop is needed. The planning and design stages of any project will determine the success of tree preservation.

The hierarchy of principles for tree protection are:

- *Avoid damage to trees*
 - *Minimise damage to trees*
- or
- *Replace trees and improve the landscape (as a last resort).*

The Tree Protection Management Plan has been prepared as part of an application to install an art installation on public trees located on St. Kilda Road, adjacent to the National Gallery of Victoria. The exhibition will run from November 25, 2024, till April 21, 2025. The subject trees are heritage listed and therefore, require approval from the City of Melbourne and other relevant stakeholders.

1.1 Background for tree protection management plan

The primary purpose of the tree management protection plan is to meet the requirements of the City of Melbourne for the protection of public trees.

Supplied Installation Methodology Plan and relevant Australian Standards relating to tree protection have been viewed prior to the instigation of this tree management plan:

- *Installation Methodology, prepared by Visual Exposure, dated 25/09/2024.*
- *AS 4970 – 2020 (revised) Protection of trees on development sites.*
- *AS 4373 – 2007 Pruning of amenity trees.*

Relevant City of Melbourne Policy documents:

- *Tree protection in the City of Melbourne (No date).*
- *City of Melbourne - Urban Forest Tree Protection Fact sheet (No date).*

1.2 Summary of key requirements to protect trees

- Sixty-five (65) individual trees, mostly London Plane (*Platanus Xacerifolia*) located in St. Kilda Road are included within the tree protection management plan. The assessed trees are located across four lanes between Southbank Boulevard and the City Road overpass.
- The trees were either growing within public footpaths surrounded by pebblecrete, in the centre grassed median strips or within granitic sand tree plots.
- The trees exhibited Fair or typical health. They were establishing new seasonal foliage and are approaching their full canopy density. No signs powdery mildew or other fungal pathogens or health issues that can be of detriment to their health were observed.
- Overall, the trees exhibited Fair structure with no structural defects presenting an imminent or high risk. Several trees possessed cavities or wounding from past branch failure, but overall, these defects are currently manageable.
- Notes on existing tree damage was also noted. The trunks and main branches were well clear of the roadway and existing damage was generally limited to staples, wire clips and electrical cords embedded into the trunks of some trees, whilst graffiti carved into the bark was also observed.
- The art installation proposes to wrap the tree trunks and the base of primary branches to a height of 3.6 – 4 m. The fabric will primarily be attached using staples of differing sizes depending on the size of the tree. The outer ends of the fabric will be held in place via staples and cable ties or wrapping a second piece of fabric around the ends.
- Tree protection will be required during the installation and dismantling processes to preserve tree condition. Once, installed, only maintenance of the fabric is expected.

2.0 The existing trees

2.1 St. Kilda Road, Southbank.

Sixty - five (65) individual trees were assessed as part of the tree protection management plan. Sixty (60) trees were London Plane trees while five (5) were Oriental or Cyprus Plane Trees (*Platanus orientalis*). The tree population was comprised of mostly mature individuals (46 trees or 71.3 %) with fourteen (14 or 21.4 %) trees being semi-mature and five (5 or 7.3 %) of trees being in the early mature phase of their lifecycle.

See Appendix 1 for tree details and Appendix 2 for their location. Each tree within Appendix 1 has been attributed with the City of Melbourne Asset ID.

Across the four rows, the trees were growing within differing conditions including the public footpath adjacent to the entrance of the National Gallery surrounded by pebblecrete or within the central grassed median strips on St. Kilda Road or within granitic sand plots on the eastern side of St. Kilda Road.



Figure 1 (upper left): View facing north showing showing trees growing within the centre median strip closest to the National Gallery of Victoria.

Figure 2 (upper right): View facing north-west from Linlithgow Avenue showing the Plane trees growing within the centre median strip on the east side of St Kilda Road.

Figure 3 (above left): View facing north showing several trees located in front of the National Gallery.

Figure 4 (above right): View facing north showing the good crown health of trees located within the eastern median strip.

**See Appendix 1 for Arboricultural descriptors used in the assessment.*

Tree health was assessed based on foliage colour, size and density as well as shoot initiation and elongation. Overall, the health of the tree population was Fair or typical for the species growing under the current environmental conditions. The trees were establishing new seasonal foliage and are approaching their full canopy density. No signs of powdery mildew, fungal pathogens or other health issues that can be of detriment to their health were observed. Asset ID 1441481 exhibited reduced health with reduced foliage density.

Tree structure was assessed for structural defects and deficiencies, likelihood of failures and risk to potential targets. In summary, the tree population exhibited Fair structure (55 trees or 84.6 % of the population). Trees exhibiting Fair structure were free of defects or exhibited minor defects that are within tolerable or manageable levels. Nine (9) trees exhibited fair to poor structure and one (1) tree, being Asset ID 1029356 exhibited poor structure.

Overall, there were no structural issues that present an imminent or high risk to the public. Asset ID 1029373 and 1027680 had developed cavities in which wildlife could possibly inhabit. Epicormic shoots were noted on some primary branches that are likely to require pruning prior to wrapping of the fabric.

Apart from the assessment of health and structure, any existing damage to a tree was recorded (See Appendix 1). The trunks and main branches were clear of passing vehicles and no major damage from vehicle impacts were recorded. Existing impacts to the trees were limited to staples, wire clips and electrical cords embedded into the trunks or main branches of some trees, whilst graffiti carved superficially into the bark was also observed. Existing damage was being tolerated by the trees with no obvious impact to their ongoing viability. However, cords or wires girdling a branch or trunk over an extended period can be detrimental as it can interrupt the functioning of a tree's transport system.

2.2 Perceived tree preservation issues

Installation methodology.

The art installation involves the wrapping of trunks and main branches with a breathable, lycra material (See Figures 5 & 6). Wrapping of the material will begin at the main (primary) branch union (junction area) with a 300 mm wide fabric followed by the trunk and main branches using a 300 mm or 500 mm wide fabric (depending on tree size). The material will extend up the tree by 3.6 – 4m depending on its size.



Figure 5 (above left): Shows an artist's impression of the proposed art installation on St. Kilda Road.

Figure 6 (above right): Shows the art installation on trees located within the New York Botanical Gardens.

The fabric will be held in place using two types of fastening systems, staples and cable ties. The installer proposes to use 5 mm staples for small trees and 10 mm staples for medium and large trees. The number of staples used will differ depending on the tree's size. The junction area or primary union will require between 10 – 30 staples to hold the fabric in place, while 2 staples will hold the start and 2 – 3 staples will

hold the end of the fabric around the trunk and main branches. Some of the staples will be visible, but most will be hidden by the fabric. It is also proposed to use 2 – 3 cable ties to fasten the ends of the fabric around the main branches. An alternative to cable ties is the use of a second piece of fabric to tie off the ends.

Tree Impact

The main concerns regarding the impact to trees include the type of fabric and the fastening methods. Impacts to tree may also occur during the installation process.

The proposed wrapping material is a breathable Lycra fabric. The use of a breathable fabric is important to maintain gaseous exchange (oxygen and carbon dioxide) that occurs by the stem (trunk) cells via lenticels (pore spaces) to the outside atmosphere. This gaseous exchange is important for continued cell function and viability. By using Lycra continued gaseous exchange can occur with no impact upon cell function and the ongoing viability of the trees.

The use of staples to hold the fabric in place is proposed. This fastening method has been successful in past installations in other countries. Staples allow the fabric to sit flat against the tree and minimize folding or scrunching. 5mm staples are proposed for small trees (trees < 300 mm stem diameter) of which there are nine (9) in total. 10 mm staples will be utilized for medium and large trees (300 – 1000 mm stem diameter) of which there are fifty-six (56) trees in total.

The number of staples used to secure the fabric will vary depending on the size of the tree and complexity of the primary union (junction area). Existing staples embedded into the bark has had a negligible impact upon the trees and it could be expected that their use for this installation will also have a low impact. Based on the size of the staples, it is expected that the staples will mostly be embedded into the outer bark (non-functioning cells), particularly of medium and large sized trees. Small trees have less developed or thinner bark, and the use of smaller staples should only be used where there is no other non-invasive option to secure the fabric.

Removing the staples should be carried out in a manner that avoids tearing the bark. When removing the fabric, the use of a flat tool (no knives or stapler remover) that can lift the staple out at the same time the fabric is being unwrapped is recommended. The tool can also be used to lift the cable tie so it can be cut without damage to the bark.

The canopy density of the trees has created an environment that is favorable to lichen growth on some trees located towards Southbank Boulevard. Lichen is a living organism that have the same requirements as plants, namely oxygen, moisture and sunlight to carry out their essential processes. It is expected that the wrapping of these trees will cover the lichen that may cause some impact to them. As lichen do not parasitize on trees, the impact will be limited to lichen only. Lichen has the capability to reproduce, and any impact is likely to be short-term. However, lichen adds to biodiversity within the environment and covering lichen at the base of the trees with fabric should be avoid where possible.

Asset ID 1029373 and 1029390 exhibited cavities that may harbor native wildlife. If native animals are present, wrapping over the cavities may accidentally trap them inside which is to be avoided. Trapped animals may also damage the fabric as they exit the cavity. Therefore, prior to wrapping, each tree is to be inspected for any cavities or hollows. If a cavity or hollow is present, inspection of the hollow must be undertaken by the installer to ensure there are no animals present. A flashlight be necessary to fully inspect the cavity. Should an animal be present, a wildlife officer is to be engaged to relocate the animal before the tree is wrapped. The cavity may also need to be covered to prevent re-entry.

Adventitious (epicormic) shoots (10 mm diameter) were noted at the base of main branches on several trees. These shoots may be damaged during the wrapping process. Prior to wrapping these shoots are to be removed with a pair of sharp, sterilized secateurs or handsaw by the project arborist or under the guidance of the project arborist. Shoots are to be removed at the base where they attach to the main stem. Between each tree the secateurs are to be sterilized with a solution of water and bleach or tea tree oil (one part disinfectant to 10 parts water and apply for 30 seconds) carried in a spray bottle. This is to avoid the spread of any fungal or bacterial diseases that may be present. Appropriate personal protection must be utilized when using bleach or any other disinfectant.

The pruning of main branches is not required as part of the project. Asset ID 1640139 (Tree 30) exhibited a damaged branch that is recommended for removal (See Figure 11). Removal of the branch for Tree 30 is to be undertaken by the project arborist in accordance with *AS4373 - 2007 Pruning of amenity trees*.

2.3 Photographs



Figure 7 (upper left): Shows a cavity within the primary union (junction area) of Tree 31 (Asset ID 1029373). The cavity is to be inspected for wildlife prior to wrapping the tree.

Figure 8 (upper right): Shows an example of an adventitious (epicormic) shoot on a main branch. Prior to wrapping the shoots are to be pruned with a sharp, sterilized pair of secateurs or handsaw by the project arborist.

Figure 9 (above left): Shows an example of limb girdling from a wire that is embedded into the branch. Such damage reduces the functionality of the tree's transport system so all cable ties must be removed when dismantling the installations.

Figure 10 (above right): Shows an example exposed buttress roots. Placement of the ladders and scaffolding must avoid damaging these roots. A non-slip mat must be placed over the root/s to provide protection from the equipment.



Figure 11: Shows the damaged north-east heading branch of Asset ID 1640139 (Tree 30). The branch is to be pruned at its point of attachment by the project arborist and in accordance with AS4373-2007 Pruning of amenity trees.

3.0 Tree management plan

The Tree Protection Management Plan is an important document to successfully retain trees. The plan should be kept on site at all times and referred to when matters involving trees arise. Any breach of the plan must be documented in a checklist compiled by the project arborist and notification within 24 hours of the incident must be given to the City of Melbourne.

If a breach of the approved Tree protection management plan occurs that results in damage to a public tree, part, or whole of the bank guarantee will be held until other payments are received for rectification or replacement works.

3.1 Scaffolding & Platform ladders

Based on information provided by the installer, a platform ladder or scaffold will be used by the installers when wrapping each tree. Traffic management on St. Kilda may or may not be utilized during installation and discussion concerning this issue is currently underway. It is approximated that wrapping a single tree will take between 1 – 3 hours to complete.

The City of Melbourne stipulate that gantry, and hoarding structures must be no closer 0.5 m from the roots, trunk or branches of any public tree. No specification is provided by the City of Melbourne for scaffolding or ladders. However, for safety reasons, the installer stipulates that equipment will be placed within 0.5 m from the tree trunks. Care shall be taken during the wrapping process to ensure that no damage is caused to tree trunks, roots, canopy or branches.

Due to the short duration of works occurring around each tree, it is impractical to install fencing, ground protection or trunk protection to protect the trees. Therefore, other measures must be in place to ensure the trees are appropriately protected. Appropriate tree protection can be achieved in the following ways.

- Where possible, ladders and scaffolding is to be placed on hard surfaces, particularly for Trees 1 – 22 and 47 – 65.

- Each part of the ladder and scaffold facing the tree must be covered in a protective layer. The installer is proposing to use a Polyethylene (PE) foam wrapped around the ladders and scaffold edges. This material would be suitable providing the foam thickness is no less than 2.5 cm. To meet this thickness, a single sheet or several thinner sheets laid on top of each other may be used. A suitable tape, such as gaffer tape is to be wrapped around the foam to firmly hold it in place. Prior to the installation, the project arborist is to inspect the equipment and sign-off to ensure the amount of padding is adequate.
- To address the uneven nature of the median strip, the installer proposes to utilize customized ladders and scaffolding with adjustable legs. The leg placement must avoid contact with any exposed buttress or surface roots (See Figure 10). If there is no other option than to place the foot of a ladder or scaffold on a buttress or exposed surface root, then a non-slip matting 1 cm thick is to be placed over the root/s for protection. Where the leg/s is placed on a grassed area, a plinth board, approximately 300 x 300 x 10 mm in size is to be placed on the grass for stability and protection.
- All scaffolding and ladders are to be placed next to the tree using a minimum of two people. This is to ensure that no tree part is damaged.

The above recommendations also apply during the process of dismantling the installations.

3.2 Inspection of Works

To ensure that the trees are adequately protected during installation and dismantling of the installations, it is recommended that prior to works commencing that the project arborist inspects and approves the padding installed on the scaffolding and ladders.

An inspection of the trees is recommended 12 weeks after installation to assess canopy health and check for injury or damage. Any damage or injury is to be recorded by the arborist and each inspection is to be documented in a checklist and signed and dated by the project arborist and site foreman or project manager.

The project arborist must also be consulted should the installation or dismantling process impact upon retain trees. A site visit may be required as part of determining the impacts and providing appropriate recommendations.

3.3 General tree protection requirements

The following are guidelines that must be implemented to minimize the impact of the proposed construction works on the retained trees.

- Contractors and site workers should receive written and verbal instruction as to the importance of tree protection and preservation within the site. Members of the project team need to interact with each other to minimize the impacts to the trees, either through design decisions or construction practices. The site induction, for all contractors and workers, should include a segment on tree preservation. The site induction is a perfect opportunity to educate workers and contractors about the restrictions regarding the tree protection zones and any penalties that may apply for ignoring those restrictions. Plans that indicate the main areas and specific locations of trees to be protected should be distributed to relevant supervisors and operators.
- The City of Melbourne have a high regard for their trees and all activity must avoid damage to public trees. Where damage to tree's occur during the development process the property owner, developers or representative are liable, which includes damage caused by contractors engaged to carry out works.

- No fuel, oil dumps or chemicals shall be allowed in or stored on the TPZ, and the servicing and re-fuelling of equipment and vehicles should be carried out away from the root zones.
- Nothing whatsoever should be attached to any tree including temporary services wires, nails, screws or any other fixing device, unless approved by the City of Melbourne.

Activities restricted within the TPZ include,

- machine excavation including trenching.
- excavation for silt fencing.
- Cultivation of the soil.
- Storage of materials, tools, equipment, etc.
- preparation of chemicals, including preparation of cement products.
- parking of vehicles and plant or equipment.
- refueling.
- dumping of waste.
- wash down and cleaning of equipment.
- placement of fill.
- lighting of fires.
- soil level changes.
- temporary or permanent installation of utilities and signs, and
- physical damage to the tree.

3.4 Determining when an arborist will be required on site during the project

1. Prior to commencing the installation to inspect the scaffold and ladder protection. This also provides an ideal time to discuss the tree management protection plan with the installers.
2. Pruning the branch of Asset ID 1640139 (Tree 30).
3. 12 weeks after installation to assess canopy health and check for any damage or issues.
4. Following dismantling of the installation for assess tree condition and check for any damage.
5. If any issues arise during the process of installation or dismantlement.

3.5 Potential treatments after dismantling phase

Tree protection measures can be removed at practical completion. The trees condition is to be assessed by an arborist at this point. Remedial works on the trees could be recommended at this point to address any damage that may have occurred.

A final inspection is to be undertaken by the project arborist once the installation is dismantled. A report is to accompany the final inspection, which is to include the inspection checklist and any noted damage or injury to trees, including recommended rectification works. The City of Melbourne reserves the right to determine and undertake appropriate rectification works for all damages occurred.

All rectification works are to be undertaken by contractors approved by the City of Melbourne.

4.0 Conclusion

The implementation of the tree protection measures listed in the tree protection management plan provide the most appropriate response in maintaining the health and safety of the retained trees during the 'Ascension of Polka Dots on the Trees' exhibition outside the National gallery of Victoria in St. Kilda Road, Melbourne.

In summary:

- Sixty-five (65) individual heritage listed Plane trees are included in the tree protection management plan.
- Overall, the trees exhibited fair or typical health with no significant health or structural concerns.
- The potential impact to the trees arises from the type of fabric used to wrap the trees and the type of fastening device. These issues have been addressed by using a breathable fabric that allows for continued gaseous exchange between the trees and outside atmosphere. Differing staple sizes will be used for small and medium/large trees. The differing staple sizes will minimize the depth of the staple into the tree and minimising the number of staples used to fix the fabric to the tree. The use of staples on small trees (<300 mm stem diameter) should only be used where there is no other non-invasive option to secure the fabric.
- The sides of the scaffolding and platform ladders are to have protective foam wrapped around the edges to protect tree parts during the process of installation and dismantling. The padding is to be inspected and signed-off by the project arborist prior to installation.
- Exposed buttress and surface roots are to be protected with a non-slip matting if contact between the tree part and equipment is unavoidable.
- Prior to the commencement of wrapping all trees are to be inspected for the presence of wildlife. A wildlife officer is to be called should an animal be present to relocate it safely.
- The pruning of adventitious (epicormic) growth must be undertaken by or under the guidance of the project arborist.

Under no circumstance shall this report be reproduced unless in full.



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References:

Australian Standard (4970-2009) Protection of Trees on development sites. Standards Australia, Homebush, NSW.

Australian Standard (4373-2007) - Pruning of Amenity trees, Standards Australia, Homebush, NSW.

Clark, J.R. & Matheny, N.P (1998), *Trees and Development: A technical guide to preservation of trees during land development*. ISA, Champaign, Illinois.

Tree Logic Pty. Ltd.

Appendix 1: Tree Assessment Table: '*Ascension of Polka Dots on the Trees*' Art Installation – St. Kilda Road, Melbourne (Treelogic, 2024).

Key: **DBH** = Diameter at breast height, 1.4m up trunk, unless otherwise indicated. **TPZ** = Tree protection zone in radial metres. Definition of the descriptor categories used in the assessment can be seen Appendix 3.

Trunk height is approximate only. Tree size is defined by the fabric installer as a means of differing between each tree size.

See following 9 pages.

CoM ID	Treelogic Tree ID	Common Name (Botanical Name)	Age class	Origin	DBH (cm)	Health	Structure	Comments	TPZ (m radius)	Existing damage/condition	Trunk height (m)	Tree size (mm)
1029370	1	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	57	Fair	Fair	Buttress roots expised	6.8	No obvious damage	3.5	300-500mm
1029369	2	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	47	Fair	Fair	Uneven surface around base	5.6	No damage, electrical wire protruding from trunk on northside	3	300-500mm
1441481	3	Oriental Plane (Platanus orientalis)	Semi-mature	Exotic deciduous	13	Fair to Poor	Fair		2	No obvious damage	2.5	<300mm
1441480	4	Oriental Plane (Platanus orientalis)	Semi-mature	Exotic deciduous	16	Fair	Fair		2	No obvious damage	2.5	<300mm
1029366	5	London Plane (Platanus Xacerifolia)	Early-mature	Exotic deciduous	50	Fair	Fair to Poor		6	No obvious damage	2	300-500mm
1029365	6	London Plane (Platanus Xacerifolia)	Semi-mature	Exotic deciduous	30	Fair	Fair		3.6	No obvious damage	2	<300mm
1029364	7	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	53	Fair	Fair		6.4	No obvious damage. Existing wound on southside	3	500-750mm
1029363	8	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	61	Fair	Fair	Uneven surface at base	7.3	No obvious damage	2.8	500-750mm
1494376	9	Oriental Plane (Platanus orientalis)	Semi-mature	Exotic deciduous	16	Fair	Fair		2	No obvious damage. Existing graffiti on eastside	2	<300mm

CoM ID	Treelogic Tree ID	Common Name (Botanical Name)	Age class	Origin	DBH (cm)	Health	Structure	Comments	TPZ (m radius)	Existing damage/condition	Trunk height (m)	Tree size (mm)
1441740	10	Oriental Plane (Platanus orientalis)	Semi-mature	Exotic deciduous	19	Fair	Fair		2.3	No obvious damage	4	<300mm
1070819	11	Oriental Plane (Platanus orientalis)	Semi-mature	Exotic deciduous	18	Fair	Fair to Poor		2.2	No obvious damage	4	<300mm
1029359	12	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	61	Fair	Fair to Poor		7.3	No damage. Graffiti northside & wire clip eastside	2	500-750mm
1441479	13	London Plane (Platanus Xacerifolia)	Semi-mature	Exotic deciduous	12	Fair	Fair		2	No damage	3	<300mm
1029357	14	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	60	Fair	Fair		7.2	No damage. Graffiti & wire clip north-west side	1.8	500-750mm
1029356	15	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	65	Fair	Poor		7.8	No damage, trunk cavity present, existing staples [1cm] & wire westside embedded in trunk	1.4	500-750mm
1029355	16	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	68	Fair	Fair to Poor		8.2	No damage, small cavity north east side, existing 1cm staples embedded in north west primary branch & trunk	1.4	500-750mm

CoM ID	Treelogic Tree ID	Common Name (Botanical Name)	Age class	Origin	DBH (cm)	Health	Structure	Comments	TPZ (m radius)	Existing damage/condition	Trunk height (m)	Tree size (mm)
1029354	17	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	64 @ 1.2m	Fair	Fair		7.7	No damage, wire & small number of 1cm staples embedded in trunk northside	1.3	500-750mm
1029353	18	London Plane (Platanus Xacerifolia)	Semi-mature	Exotic deciduous	38	Fair	Fair		4.6	2 x small trunk wounds eastside & wire embedded in trunk north	1.8	300-500mm
1029352	19	London Plane (Platanus Xacerifolia)	Semi-mature	Exotic deciduous	40	Fair	Fair		4.8	No damage	2.5	300-500mm
1029351	20	London Plane (Platanus Xacerifolia)	Early-mature	Exotic deciduous	52	Fair	Fair		6.2	No damage, wire embedded in trunk westside	3	500-750mm
1029350	21	London Plane (Platanus Xacerifolia)	Semi-mature	Exotic deciduous	39	Fair	Fair	Uneven surface at base	4.7	No damage	4	300-500mm
1029349	22	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	77 @ 1m	Fair	Fair	Uneven surface at base	9.2	No damage	1.4	750-1000mm
1441739	23	London Plane (Platanus Xacerifolia)	Semi-mature	Exotic deciduous	33	Fair	Fair	Mounding of soil at base	4	No damage	3	300-500mm
1029380	24	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	57	Fair	Fair	Mounding of soil at base	6.8	No damage	2.8	500-750mm

CoM ID	Treelogic Tree ID	Common Name (Botanical Name)	Age class	Origin	DBH (cm)	Health	Structure	Comments	TPZ (m radius)	Existing damage/condition	Trunk height (m)	Tree size (mm)
1029379	25	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	80	Fair	Fair	Exposed buttress roots	9.6	No damage, wire clip embedded in trunk eastside,	3	750-1000mm
1029378	26	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	70	Fair	Fair	Epicormic shoots developing from trunk & primary branch. Prune epicormic shots prior to wrapping.	8.4	No damage	3	500-750mm
1029377	27	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	68	Fair	Fair	Epicormic shoots west primary branch	8.2	No damage	2.8	500-750mm
1029376	28	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	64	Fair	Fair		7.7	No damage. Existing wound south-east side, wire embedded in trunk & wire wrapped around southern primary branch	3.3	500-750mm
1029375	29	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	68	Fair	Fair	Sloping ground to west	8.2	No damage, wire embedded in trunk north-east side	2.8	500-750mm
1640139	30	London Plane (Platanus Xacerifolia)	Semi-mature	Exotic deciduous	10 @ 1m	Fair	Fair	Sloping ground to west. Damage to lower north-east branch. Remove branch prior to wrapping	2	No damage, basal wound.	1.1	<300mm

CoM ID	Treelogic Tree ID	Common Name (Botanical Name)	Age class	Origin	DBH (cm)	Health	Structure	Comments	TPZ (m radius)	Existing damage/condition	Trunk height (m)	Tree size (mm)
1029373	31	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	65	Fair	Fair to Poor	Check cavity for wildlife prior to wrapping. Sloping ground to west	7.8	No damage. Cavity in primary union	3	500-750mm
1029372	32	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	60	Fair	Fair to Poor		7.2	No damage	2	500-750mm
1029371	33	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	69	Fair	Fair to Poor	Exposed buttress roots	8.3	No damage, wound westside from past branch failure	2.7	500-750mm
1029392	34	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	77	Fair	Fair	Exposed buttress roots, uneven ground surrounding tree	9.2	No damage	2.8	750-1000mm
1029391	35	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	70	Fair	Fair	Mounding at base, lichen present on bark southside, exposed surface roots	8.4	No damage	2.7	500-750mm
1029390	36	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	74	Fair	Fair	Check cavity for wildlife prior to wrapping.	8.9	No damage. Cavity at base of west primary branch.	2.8	500-750mm
1029389	37	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	77	Fair	Fair	Lichen on southside, exposed buttress roots	9.2	No damage	3.2	750-1000mm

CoM ID	Treelogic Tree ID	Common Name (Botanical Name)	Age class	Origin	DBH (cm)	Health	Structure	Comments	TPZ (m radius)	Existing damage/condition	Trunk height (m)	Tree size (mm)
1029388	38	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	79	Fair	Fair		9.5	No damage. 2 x wire clips embedded in westside, electrical cords wrapped around primary branch to north-west & west	2.9	750-1000mm
1029387	39	London Plane (Platanus Xacerifolia)	Semi-mature	Exotic deciduous	40	Fair	Fair		4.8	No damage	5	300-500mm
1029386	40	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	80	Fair	Fair	Exposed buttress roots. Low eastern branch with epicormic shoots. Prune shoots prior to wrapping	9.6	No damage	2.8	750-1000mm
1029385	41	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	63	Fair	Fair		7.6	No damage	2.5	500-750mm
1029384	42	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	73	Fair	Fair		8.8	No damage, electrical wire embedded at base of north-west stub	2.5	500-750mm
1029383	43	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	78	Fair	Fair	Exposed buttress roots	9.4	No damage	2.7	750-1000mm
1029382	44	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	73	Fair	Fair		8.8	No damage, wire embedded in trunk westside	2	500-750mm

CoM ID	Treelogic Tree ID	Common Name (Botanical Name)	Age class	Origin	DBH (cm)	Health	Structure	Comments	TPZ (m radius)	Existing damage/condition	Trunk height (m)	Tree size (mm)
1029381	45	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	78	Fair	Fair	Exposed buttress roots	9.4	No damage. Electric cord embedded in trunk at 2.4m westside	2	750-1000mm
1474225	46	London Plane (Platanus Xacerifolia)	Early-mature	Exotic deciduous	45	Fair	Fair		5.4	No damage	3.5	300-500mm
1029409	47	London Plane (Platanus Xacerifolia)	Early-mature	Exotic deciduous	50	Fair	Fair		6	No damage	2.7	300-500mm
1029408	48	London Plane (Platanus Xacerifolia)	Early-mature	Exotic deciduous	44	Fair	Fair	Tree planted in 2m wide granitic sand pit	5.3	No damage. Graffiti on eastside	2.7	300-500mm
1029407	49	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	74	Fair	Fair		8.9	No damage, 4 x metal wire clips on westside & 3 x 1cm staples on eastside	1.6	500-750mm
1029406	50	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	80	Fair	Fair	Exposed butteess roots [protect with non-slip matting]	9.6	No damage	2.7	750-1000mm
1029405	51	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	81	Fair	Fair		9.7	No damage	2.6	750-1000mm
1029404	52	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	75	Fair	Fair		9	No damage. Graffiti north-east side	3.2	500-750mm

CoM ID	Treelogic Tree ID	Common Name (Botanical Name)	Age class	Origin	DBH (cm)	Health	Structure	Comments	TPZ (m radius)	Existing damage/condition	Trunk height (m)	Tree size (mm)
1029403	53	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	84	Fair	Fair	Exposed buttress roots	10.1	No damage, 1 x metal clip embedded in trunk eastside	2.7	750-1000mm
1029402	54	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	78	Fair	Fair	Exposed buttress roots	9.4	No damage, 3 x metal wire clips embedded in trunk westside	3.2	750-1000mm
1029401	55	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	84	Fair	Fair	Exposed buttress roots	10.1	No damage, small number [<10] of 1cm staples embedded in trunk eastside,	3	750-1000mm
1029400	56	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	90	Fair	Fair	Exposed buttress roots	10.8	No damage	3	750-1000mm
1029399	57	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	89	Fair	Fair	Exposed buttress roots	10.7	No damage	2.9	750-1000mm
1029398	58	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	86	Fair	Fair	Exposed buttress roots	10.3	No damage	2.9	750-1000mm
1069711	59	London Plane (Platanus Xacerifolia)	Semi-mature	Exotic deciduous	19	Fair	Fair		2.3	No damage	3.2	<300mm
1029396	60	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	77	Fair	Fair	Exposed buttress roots	9.2	No damage, 1 x metal wire clip eastside	3	750-1000mm

CoM ID	Treelogic Tree ID	Common Name (Botanical Name)	Age class	Origin	DBH (cm)	Health	Structure	Comments	TPZ (m radius)	Existing damage/condition	Trunk height (m)	Tree size (mm)
1029394	61	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	66	Fair	Fair	Lichen southside, exposed buttress roots	7.9	No damage	2.8	500-750mm
1029393	62	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	66	Fair	Fair	Exposed buttress roots	7.9	No damage	2.8	500-750mm
1027680	63	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	74	Fair	Fair to Poor	Exposed buttress roots. Check for wildlife on southern decay pocket.	8.9	No damage. Decay pocket on southside	2.7	500-750mm
1027681	64	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	69	Fair	Fair to Poor	Exposed buttress roots	8.3	No damage	2.8	500-750mm
1027682	65	London Plane (Platanus Xacerifolia)	Maturing	Exotic deciduous	77	Fair	Fair	Exposed buttress roots, lichen southside	9.2	No damage	2.7	750-1000mm

LEGEND

Tree sizes

- <300mm
- 300-500mm
- 500-750mm
- 750-1000mm

APPENDIX 2
TREE LOCATIONS
AND PROTECTION
ZONES

PROJECT
Ascension of Polka Dots on the
Trees Art Installation, St. Kilda
Road, Melbourne.

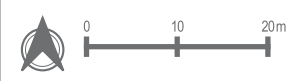
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CLIENT National Gallery of Victoria	DATE 2024-10-02

DATA SOURCES
Near maps.com, 2024.

NOTES - Treelogic Tree numbers

TREE LOCATION DISCLAIMER
Tree locations are approximate

COORDINATE REFERENCE SYSTEM
EPSG:7855 | GDA 94 MGA Zone 55



TREELOGIC PTY LTD 4 / 21 Eugene Tce
ABN: 95 080 021 610 Ringwood, VIC
TEL: 1300 656 926 Australia 3134



LEGEND

Tree sizes

- <300mm
- 300-500mm
- 500-750mm
- 750-1000mm

APPENDIX 2 TREE LOCATIONS AND PROTECTION ZONES

PROJECT
Ascension of Polka Dots on the
Trees Art Installation, St. Kilda
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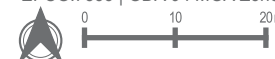
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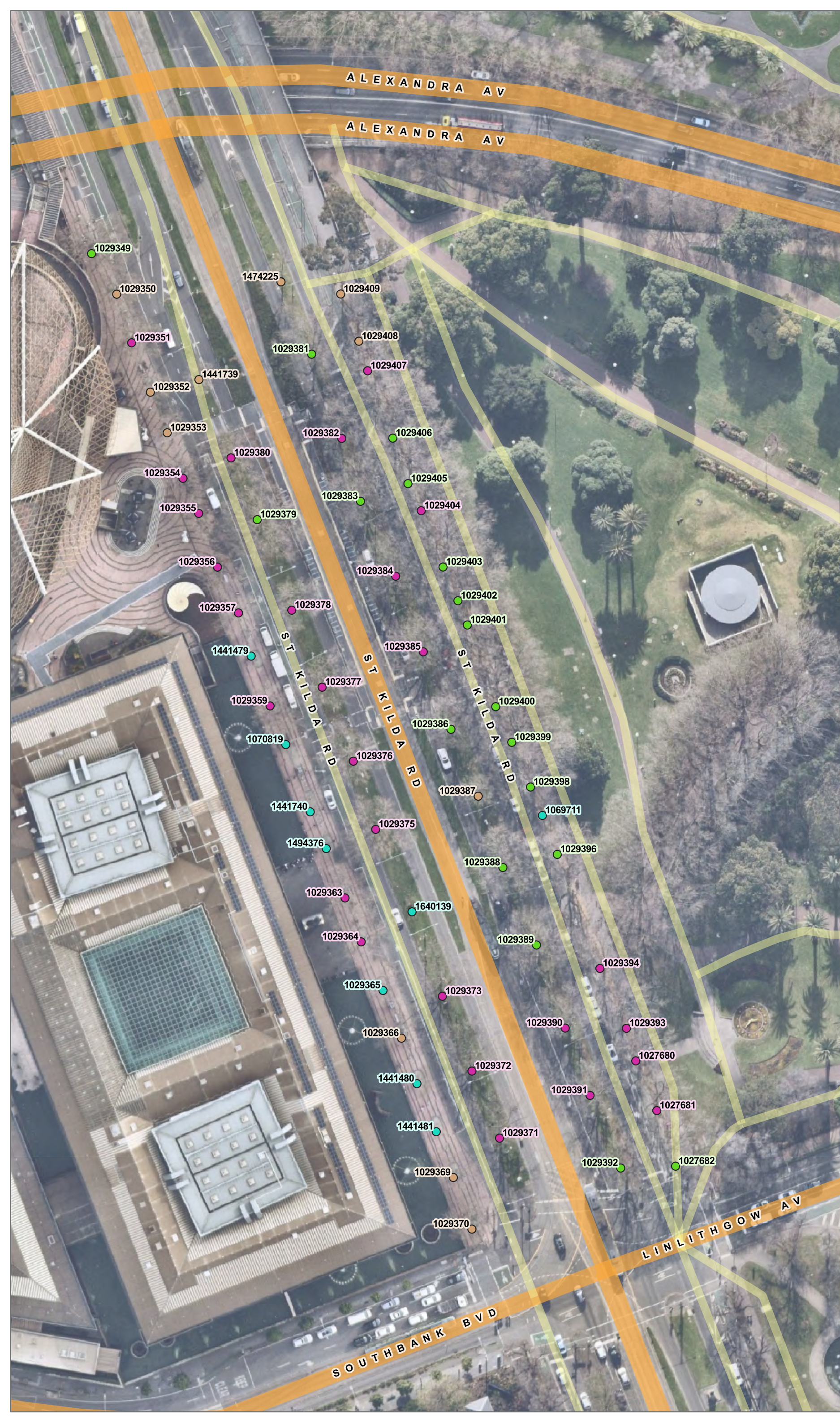
NOTES - City of Melbourne Asset ID
numbers

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locations are approximate

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Appendix 3: Arboricultural Descriptors (February 2019)

Note that not all of the described tree descriptors may be used in a tree assessment and report. The assessment is undertaken with regard to contemporary arboricultural practices and consists of a visual inspection of external and above-ground tree parts.

1. Tree Condition

The assessment of tree condition evaluates factors of health and structure. The descriptors of health and structure attributed to a tree evaluate the individual specimen to what could be considered typical for that species growing in its location under current climatic conditions. For example, some species can display inherently poor branching architecture, such as multiple acute branch attachments with included bark. Whilst these structural defects may technically be considered arboriculturally poor, they are typical for the species and may not constitute an increased risk of failure. These trees may be assigned a structural rating of fair-poor (rather than poor) at the discretion of the assessor.

Diagram 1, provides an indicative distribution curve for tree condition to illustrate that within a normal tree population the majority of specimens are centrally located within the condition range (normal distribution curve). Furthermore, that those individual trees with an assessed condition approaching the outer ends of the spectrum occur less often.

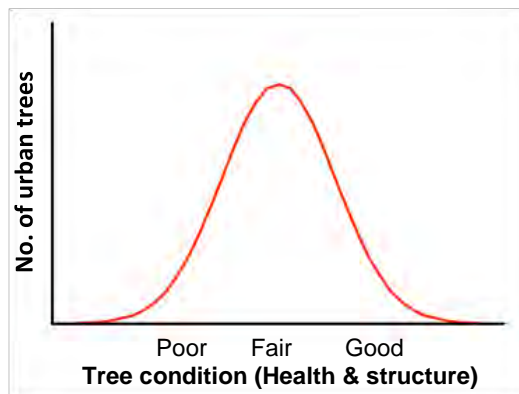


Diagram 1: Indicative normal distribution curve for tree condition

2. Tree Name

Provides botanical name, (genus, species, variety and cultivar) according to accepted international code of taxonomic classification, and common name.

3. Tree Type

Describes the general geographic origin of the species and its type e.g. deciduous or evergreen.

Category	Description
Indigenous	Occurs naturally in the area or region of the subject site. Remnant.
Victorian native	Occurs naturally within some part of the State of Victoria (not exclusively) but is not indigenous (component of EVC benchmark). Could be planted indigenous trees.
Australian native	Occurs naturally within Australia but is not a Victorian native or indigenous
Exotic deciduous	Occurs outside of Australia and typically sheds its leaves during winter
Exotic evergreen	Occurs outside of Australia and typically holds its leaves all year round
Exotic conifer	Occurs outside of Australia and is classified as a gymnosperm
Native conifer	Occurs naturally within Australia and is classified as a gymnosperm
Native Palm	Occurs naturally within Australia. Woody monocotyledon
Exotic Palm	Occurs outside of Australia. Woody monocotyledon

4. Height and Width

Indicates height and width of the individual tree; dimensions are expressed in metres. Crown heights are measured with a height meter where possible. Due to the topography of some sites and/or the density of vegetation it may not be possible to do this for every tree. Tree heights may be estimated in line with previous height meter readings in conjunction with assessor's experience. Crown widths are generally paced (estimated) at the widest axis or can be measured on two axes and averaged. In some instances the crown width can be measured on the four cardinal direction points (North, South, East and West).

Crown height, crown spread are generally recorded to the nearest half metre (crown spread would be rounded up) for dimensions up to 10 m and the nearest whole metre for dimensions over 10 m. Estimated dimensions (e.g. for off-site or otherwise inaccessible trees where accurate data cannot be recovered) shall be clearly identified in the assessment data.

5. Trunk diameters

The position where trunk diameters are captured may vary dependent on the requirements of the specific assessment and an individual trees specific characteristics. DBH is the typical trunk diameter captured as it relates to the allocation of tree protection distances. The basal trunk diameter assists in the allocation of a structural root zone. Some municipalities require trunk diameters be captured at different heights, with 1.0 m above grade being a common requirement. The specific planning schemes will be checked to ascertain requirements.

Stem diameters shall be recorded in centimetres, rounded to the nearest 1 cm (0.01 m).

Diameter at Breast Height (DBH)

Indicates the trunk diameter (expressed in centimetres) of an individual tree measured at 1.4m above the existing ground level or where otherwise indicated, multiple leaders are measured individually. Plants with multiple leader habit may be measured at the base. The range of methods to suit particular trunk shapes, configurations and site conditions can be seen in Appendix A of Australian Standard AS 4970-2009 *Protection of trees on development sites*. Measurements undertaken using foresters tape or builders tape.

Basal trunk diameter

The basal dimension is the trunk diameter measured at the base of the trunk or main stem(s) immediately above the root buttress. Used to ascertain the Structural Root Zone (SRZ) as outlined in AS4970.

6. Health

Assesses various attributes to describe the overall health and vitality of the tree.

Category	Vitality, Extension growth	Decline symptoms, Deadwood, Dieback	Foliage density, colour, size, intactness	Pests and or disease
Good	Above typical. Excellent. Full canopy density	Negligible	Better than typical	Negligible
Fair	Typical vitality. >80% canopy density	Minor or expected. Little or no dead wood	Typical. Minor deficiencies or defects could be present.	Minor, within damage thresholds
Fair to Poor	Below typical - low vitality	More than typical. Small sub-branch dieback	Exhibiting deficiencies. Could be thinning, or smaller	Exceeds damage thresholds
Poor	Minimal - declining	Excessive, large and/or prominent amount & size of dead wood. Significant dieback	Exhibiting severe deficiencies. Thinning foliage, generally smaller or deformed	Extreme and contributing to decline
Dead	N/A	N/A	N/A	N/A

7. Structure

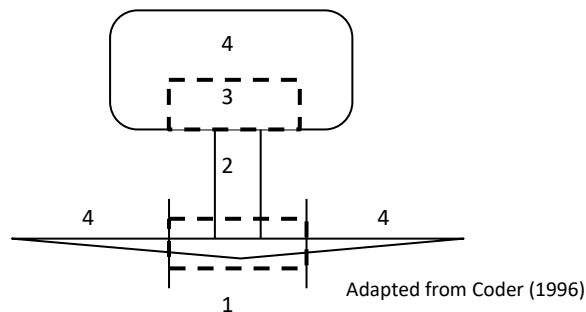
Assesses principal components of tree structure (Diagram 2).

Descriptor	Zone 1 - Root plate & lower stem	Zone 2 - Trunk	Zone 3 - Primary branch support	Zone 4 - Outer crown and roots
Good	No obvious damage, disease or decay; obvious basal flare / stable in ground	No obvious damage, disease or decay; well tapered	Well formed, attached, spaced and tapered. No history of failure.	No obvious damage, disease, decay or structural defect. No history of failure.
Fair	Minor damage or decay. Basal flare present.	Minor damage or decay	Generally, well attached, spaced and tapered branches. Minor structural deficiencies may be present or developing. No history of	Minor damage, disease or decay; minor branch end-weight or over-extension. No history of branch failure.

			branch failure.	
Fair to Poor	Moderate damage or decay; minimal basal flare.	Moderate damage or decay; approaching recognised thresholds	Weak, decayed or with acute branch attachments; previous branch failure evidence.	Moderate damage, disease or decay; moderate branch end-weight or over-extension. Minor branch failure evident.
Poor	Major damage, disease or decay; fungal fruiting bodies present. Excessive lean placing pressure on root plate	Major damage, disease or decay; exceeds recognised thresholds; fungal fruiting bodies present. Acute lean. Stump re-sprout	Decayed, cavities or has acute branch attachments with included bark; excessive compression flaring; failure likely. Evidence of major branch failure.	Major damage, disease or decay; fungal fruiting bodies present; major branch end-weight or over-extension. Branch failure evident.
Very Poor	Excessive damage, disease or decay; unstable / loose in ground; altered exposure; failure probable	Excessive damage, disease or decay; cavities. Excessive lean. Stump re-sprout	Decayed, cavities or branch attachments with active split; failure imminent. History of major branch failure.	Excessive damage, disease or decay; excessive branch end-weight or over-extension. History of branch failure.

Diagram 2: Tree structure zones

1. Root plate & lower stem
2. Trunk
3. Primary branch support
4. Outer crown & roots



Structure ratings will also take into account general branching architecture, stem taper, live crown ratio, crown symmetry (bias or lean) and crown position such as tree being suppressed amongst more dominant trees.

The lowest or worst descriptor assigned to the tree in any column could generally be the overall rating assigned to the tree. The assessment for structure is limited to observations of external and above ground tree parts. It does not include any exploratory assessment of underground or internal tree parts unless this is requested as part of the investigation. Trees are assessed and then given a rating for a point in time. Generally, trees with a poor or very poor structure are beyond the benefit of practical arboricultural treatments.

The management of trees in the urban environment requires appropriate arboricultural input and consideration of risk. Risk potential will consider the combination of likelihood of failure and impact, including the perceived importance of the target(s).

8. Age class

Relates to the physiological stage of the tree's life cycle.

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

9. Useful life expectancy

Assessment of useful life expectancy provides an indication of health and tree appropriateness and involves an estimate of how long a tree is likely to remain in the landscape based on species, stage of life (cycle), health, amenity, environmental services contribution, conflicts with adjacent infrastructure and risk to the community. It would enable tree managers to develop long-term plans for the eventual removal and replacement of existing trees in the public realm. It is not a measure of the biological life of the tree within the natural range of the species. It is more a measure of the health status and the trees positive contribution to the urban landscape.

Within an urban landscape context, particularly in relation to street trees, it could be considered a point where the costs to maintain the asset (tree) outweigh the benefits the tree is returning.

The assessment is based on the site conditions not being significantly altered and that any prescribed maintenance works are carried out (site conditions are presumed to remain relatively constant and the tree would be maintained under scheduled maintenance programs).

Useful Life Expectancy	Typical characteristics
<1 year (No remaining ULE)	Tree may be dead or mostly dead. Tree may exhibit major structural faults. Tree may be an imminent failure hazard. Excessive infrastructure damage with high risk potential that cannot be remedied.
1-5 years (Transitory, Brief)	Tree is exhibiting severe chronic decline. Crown is likely to be less than 50% typical density. Crown may be mostly epicormic growth. Dieback of large limbs is common (large deadwood may have been pruned out). Major structural defects that cannot be remedied. Tree may be over-mature and senescing. Infrastructure conflicts with heightened risk potential. Tree has outgrown site constraints.
6-10 years (Short)	Tree is exhibiting chronic decline. Crown density will be less than typical and epicormic growth is likely to present. The crown may still be mostly entire, but some dieback is likely to be evident. Dieback may include large limbs. Structural defects present that influence the tree's risk rating, amenity or vitality. Over-mature and senescing or early decline symptoms in short-lived species. Early infrastructure conflicts with potential to increase regardless of management inputs.
11-20 years (Moderate)	Tree not showing symptoms of chronic decline, but growth characteristics are likely to be reduced (bud development, extension growth etc.). Developing structural defects that reduce viability with limited scope for management. Tree may be over-mature and beginning to senesce. Potential for infrastructure conflicts regardless of management inputs.
21-40 years (Moderately long)	Trees displaying normal growth characteristics, but vitality is likely to be reduced (bud development, extension growth etc.). Structural issues relatively minor and manageable with arboricultural input. Tree may be growing in restricted environment (e.g. streetscapes) or may be in late maturity. Semi-mature and mature trees exhibiting normal growth characteristics. Juvenile trees in streetscapes.
>40 years (Long)	Generally juvenile and semi-mature trees exhibiting normal growth characteristics within adequate spaces to sustain growth, such as in parks or open space. Could also pertain to maturing, long-lived trees. No observable major structural defects. Tree well suited to the site with negligible potential for infrastructure conflicts.

Note that ULE may change for a tree dependent on the prevailing climatic conditions, sudden changes to a tree's growing environment creating an acute stress or impact by pathogens.

The ULE may not be applicable for trees that are manipulated, such as topiary, or grown for specific horticultural purposes, such as fruit trees.

There may be instances where remedial tree maintenance could extend a tree's ULE.

10. Arboricultural Rating

Relates to the combination of assigned tree condition factors, including health and structure (arboricultural merit) and ULE, and conveys an amenity value (An amenity tree can occupy a site that complements its surroundings in a useful manner which culminates in the aid, protection, comfort and emotional response of humans. Adapted from Coder, 2004). Amenity relates to the trees biological, functional and aesthetic characteristics (Hitchmough, 1994) within an urban landscape context. The presence of any serious disease or tree-related hazards that would impact risk potential are considered.

The arboricultural rating can be used by applying only the main category high, moderate, low or very low without using the sub categories. The sub-categories can assist in differentiating a trees value and/or characteristic in more detail within the specific tree assessment context, such as a development site.

Arboricultural rating			
<i>Category</i>	<i>Description</i>		
High	<p>Exemplary specimen due to multiple factors which could include; good condition and vitality, large size/canopy and prominence in the landscape. Likely to be a very long-term component in the landscape with a long ULE.</p> <p>Other factors that could contribute to a high rating:</p> <ul style="list-style-type: none"> • Particularly good example of the species; rare or uncommon. • Tree has visual importance as a landscape feature; provides substantial contribution to landscape character. • Tree may have significant ecological or conservation value. • *Tree has historical, commemorative or other distinct social/cultural significance. <p>Trees in this category must be considered for retention and/or incorporated within design proposals.</p>		
<i>Category</i>	<i>Description</i>	<i>Sub category</i>	<i>Description</i>
Moderate	<p>Tree of moderate quality, in fair or typical condition. Tree may have a condition, and or structural problem that will respond to arboricultural treatment.</p> <p>These trees have the potential to be moderate- to long-term components of the landscape (moderate to long ULE) if managed appropriately.</p> <p>The sub-categories relate predominately to age, size and amenity.</p> <p>Trees in this category should be considered for retention and/or incorporated within design proposals.</p>	A	Moderate to large, maturing tree. Suited to the site & contributes to the landscape character. Tree may have conservation or other cultural/social value.
		B	Moderate sized, established tree, > 50% of attainable age/size. Suited to the site & contributes to the landscape character (other attributes covered under 'Moderate' description)
		C	<ul style="list-style-type: none"> • Young to semi-mature, generally a smaller tree, established, >15 cm DBH, >5 years in the location. Not a dominant canopy. No significant qualities currently but has the potential to become a higher value tree & long-term component of the landscape. Replacement of tree is likely to take up to 6 - 10 years to attain similar attributes. • Semi- to mature tree with accumulating deficiencies and reducing ULE, trending towards Low arboricultural value.
<i>Category</i>	<i>Description</i>		
Low	<p>Unremarkable tree of low quality or little amenity value. Tree in either poor health and/or with poor structure. Short to transitory useful life expectancy (<10 years).</p> <ul style="list-style-type: none"> • Tree is not prominent in the landscape due to its size or age, such as young trees with a stem diameter below 15 cm. Tree < 5 years in location. These trees are easily replaceable or capable of being transplanted. • Tree (species) is functionally inappropriate to the specific location. Is causing excessive damage/nuisance to adjacent infrastructure or would be expected to be problematic if retained (i.e. palm tree under power lines). • Unremarkable tree of no material landscape, conservation or other cultural value. Not visible from surrounding landscapes. • Tree infected with pathogens that could lead to its decline. • Tree has potential to be an environmental woody weed (may be dependent on location of tree in an urban landscape). • Tree impacting or suppressing trees of better quality. <p>Retention of such trees may be considered if not requiring a disproportionate expenditure of resources for a tree in its condition and location.</p>		
<i>Category</i>	<i>Description</i>		

Very low	<p>Trees of low quality with a brief to no remaining ULE (<5 years).</p> <ul style="list-style-type: none"> • Tree has either a severe structural defect or health problem or combination that cannot be sustained with practical arboricultural techniques and the loss of the tree or tree part would be expected in the short term. • Tree whose retention would not be viable after the removal of adjacent trees, such as trees that have developed in close spaced groups and would not be expected to adapt to severe and sudden alterations to environmental & site conditions, e.g. removal of adjacent shelter trees. • Small or young tree, <5m in height, <10cm DBH. Easily replaced in short-term or capable of being transplanted. • Acknowledged environmental woody weed species. Tree has a detrimental effect on the environment, for example, the tree has weed potential and is likely to spread into waterways or natural areas if nearby. • Tree infected with pathogens that will lead to decline and has potential to spread to adjacent trees. • Tree is dead (dead tree may offer habitat values) or is showing signs of significant, immediate, and irreversible overall decline. <p>Tree cannot realistically be retained and should be considered for removal.</p>
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Other considerations - Even though a tree may be declining or dead, a tree could be retained for other purposes such as habitat or soil stabilisation. These trees would still need to be managed appropriately to reduce risk.

*A tree may have (attract) a high value by the community for historical, commemorative or other distinct social/cultural significance factors, albeit the tree may not be in good condition. In the context of an assessment, for multiple reasons, but more so for development, if it is a noted 'significant' tree it should receive higher consideration during the planning process.

Trees have many values, not all of which are considered when an arboricultural assessment is undertaken. However, individual trees or tree group features may be considered important community resources because of unique or noteworthy characteristics or values other than their age, dimensions, health or structural condition. Recognition of one or more of the following criteria is designed to highlight other considerations that may influence the future management of such trees.

Significance	Description
Horticultural Value/ Rarity	Outstanding horticultural or genetic value; could be an important source of propagating stock, including specimens that are particularly resistant to disease or exposure. Any tree of a species or variety that is rare.
Historic, Aboriginal Cultural or Heritage Value	<p>Tree could have value as a remnant of a particular important historical period or a remnant of a site or activity no longer in action. Tree has a recognised association with historic aboriginal activities, including scar trees.</p> <p>Tree commemorates a particular occasion, including plantings by notable people, or having associations with an important event in local history.</p>
Ecological Value	<p>Tree could have value as habitat for indigenous wildlife, including providing breeding, foraging or roosting habitat, or is a component of a wildlife reserve.</p> <p>Remnant Indigenous vegetation that contribute to biological diversity</p>

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RE: Arboricultural Consultancy

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