

TREEMAP

ARBORICULTURE



Arboricultural Assessment & Report

375 Plenty Road, Mill Park &
26w Hinkler Drive, Mill Park

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Prepared for:
City of Whittlesea



1 Name and address of consultant

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2 Instructions

- 2.1 The instructions provided to Treemap Arboriculture on 23/10/23 by the City of Whittlesea were to provide an Arboricultural assessment and report for 2 separate trees located on each of the subject sites, the subject sites being 375 Plenty Road, Mill Park (Yan Yean Pipe Track Linear Reserve) & 26w Hinkler Drive, Mill Park (Hinkler Park).

3 Introduction

- 3.1 The managers of the subject site are undertaking investigations to install a shared path. As part of the design and application process, the owners are undertaking investigations with regard to the vegetation located on or near each site. This report examines the arboricultural matters associated with this vegetation.
- 3.2 Under the guidelines of AS4970-2009 (Australian Standard – Protection of trees on development sites), the following report would be defined as an ‘Arboricultural impact assessment’. The standard indicates that “*The report will identify possible impacts on trees to be retained. The report will explain design and construction methods proposed to minimize impacts on retained trees where there is encroachment into the calculated TPZ.*”

4 Key Objectives

- 4.1 To undertake a general assessment of 2 specific trees.
- 4.2 To provide an assessment of the subject trees with respect to their overall condition, structure, safety and suitability for protection.
- 4.3 To provide recommendations on the suitability of the trees for protection, and provide approved methods of tree protection.

5 Method

- 5.1 A site and tree inspection were conducted on Monday 13th November, 2023.
- 5.2 The tree assessment consisted of a visual inspection, which was undertaken with regard to modern arboricultural principles and practices. The assessment did not involve a detailed examination of below ground or internal tree parts. The assessment was undertaken from the ground of the subject site to determine tree condition and species type. Measurements were taken to establish trunk and crown dimensions. No tree samples or site soil samples were taken unless specified.
- 5.3 The trees have been allocated a retention value rating which combines tree condition factors with functional and aesthetic characteristics in the context of an urban landscape. The

retention or preservation of trees may not depend solely on arboricultural considerations; therefore, the ratings may act as a guide to assist in decisions relating to tree management and retention.

- 5.4 A plan was prepared for each site using aerial imagery and GPS location equipment (Appendix 2). The assessed trees have been indicated on these plans and Tree Protection Zones are provided.

6 Observations

- 6.1 The 2 trees under review were located in parks or reserves.
- 6.2 The detail of each individual tree assessment is provided below in table format.

	1 (Yan Yean Pipe track)	2 (Hinklers Reserve)
Species	<i>Eucalyptus camaldulensis</i>	<i>Eucalyptus camaldulensis</i>
Common Name	River Red Gum	River Red Gum
DBH (cm)	150	192
Tree Protection Zone (m) C of W	11.5	11.5
Tree Protection Zone (m) AS4970	15.00	15.00
Structural Root Zone (m) AS4970	4.08	4.53
Height x Width (m)	23x23	17x23
Age	Maturing	Maturing
Health	Fair to Poor	Fair to Poor
Structure	Poor	Poor
Form	Asymmetric	Asymmetric
Comment	Basal wound from stem failure	Limbfall evidence
Tree type	Indigenous	Indigenous
Retention value	Moderate	Moderate

*Descriptors at Appendix 1





6.3 Site 1 - 375 Plenty Road, Mill Park (Yan Yean Pipe Track Linear Reserve) is influenced by a Heritage Overlay (HO43).

6.3.1 The Heritage Overlay states that a permit is required to:

- *Remove, destroy or lop a tree if the schedule to this overlay specifies the heritage place as one where tree controls apply. This does not apply:*
 - *To any action which is necessary to keep the whole or any part of a tree clear of an electric line provided the action is carried out in accordance with a code of practice prepared under Section 86 of the Electricity Safety Act 1998.*
 - *If the tree presents an immediate risk of personal injury or damage to property.*

6.4 Site 2 - 26w Hinkler Drive, Mill Park (Hinkler Park) is not influenced by any specific vegetation controls under the City of Whittlesea Planning Scheme. This is based on a planning property report for the site being obtained from www.planning.vic.gov.au/ on 13/11/23.

6.5 Trees that are native to Victoria are likely to be influenced by Clause 52.17 (Native vegetation) of the planning scheme because the reserve containing the tree is greater than 0.4ha. This clause has specific obligations and requirements relating to indigenous trees, but there are also exemptions that apply under this clause. In particular, planted native vegetation is exempt from any requirements under this clause.

7 Discussion

The Australian Standard (AS4970-2009) – ‘Protection of trees on development sites’ puts forward a process for undertaking tree inspections and reports on land where development is being considered. It recommends a preliminary assessment be undertaken to help guide planners and property owners with regard to the preservation of existing trees; that is trees that

might contribute to the completed proposal. The standard points out that the preliminary report *'information is to be used by planners, architects and designers, in conjunction with any planning controls and other legislation, to develop the design layout in such a way that trees selected for retention are provided with enough space'*.

These assessments typically reveal a range of trees with varying attributes for health, structure and overall value. Some trees may be considered insignificant for their size, age, species type or condition, but they might still be considered for retention because they are situated conveniently on the site. Conversely, some trees may be exceptional for various reasons but there may be no scope for their retention because of their location or other site constraints. An objective of the tree assessment is to determine the trees that may be preferable, in terms of preservation, and to identify poor or insignificant trees that might be easily replaced or replaced with better species.

The arborist must also exercise judgement and expertise with respect to the types of trees that are deemed suitable for retention, and they should also consider what stage the tree is at in its overall lifecycle.

Each site contained 1 tree. Tree 1 is located within the Yan Yean Pipe Track Linear Reserve and the Tree Protection Zone for this tree extends from edge to edge of the Yan Yean Pipe Track. Any proposed path should be installed near the outer perimeter of the Tree Protection Zone as illustrated at Appendix 2.

Tree 2 is located in Hinkler Reserve. Tree 2 is located some distance from the Yan Yean Pipe Track Linear Reserve and no part of the Tree Protection Zone extends into the reserve.

The Tree Protection Zone and Structural Root Zone of each tree is illustrated on the plan at Appendix 2. The City of Whittlesea Tree Protection Zone is also indicated at Appendix 2. The outermost red circle is determined by AS4970. The inner red circle is the City of Whittlesea Tree Protection Zone.

7.1 Tree protection zones on construction sites

The level of encroachment and the impact to specific trees can be estimated by comparing standard or modified tree protection clearances with those clearances provided to trees in the design. The overall impact on any given tree will be based on the severity of encroachment into the respective tree protection zones. The degree of root activity in the tree protection zone can vary significantly (because of existing structures or soil conditions), which can result in more or less severe impacts to trees. It is often difficult to accurately determine the level of root activity in these zones and root investigations are generally impractical. The alternative to undertaking root investigations is to assign appropriate tree protection zones.

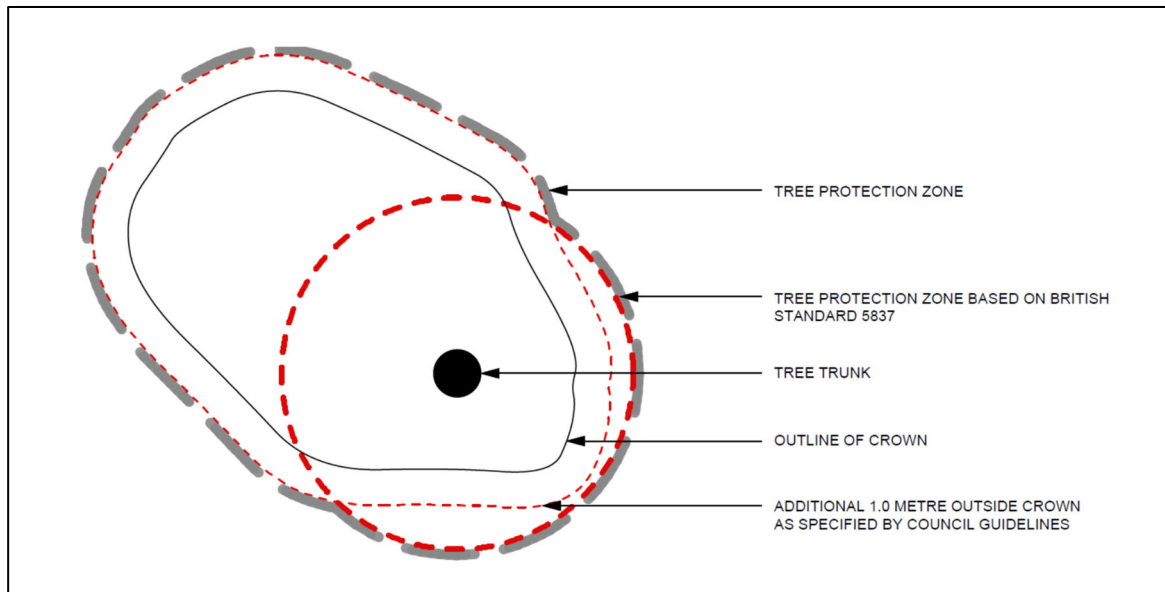
This report adopts the principles and guidelines of AS4970-2009, Australian Standard – 'Protection of trees on development sites' as the preferred tree protection method, but it also recognises and considers the local Tree Protection Zone method adopted by the City of Whittlesea.

The Tree Protection Zones (for all trees) have been calculated in accordance with the City of Whittlesea Tree Protection Zone method, which is essentially calculated on the basis of half the height of the tree, or the canopy width, but whichever is greater. The radial TPZ distance is provided at Appendix 1 (TPZ CoW) and it is also illustrated for the trees at Appendix 2.

The City of Whittlesea Tree Protection Zone method does not provide any guidance on allowable encroachment, and it does not provide the level of detail necessary for the management of trees on development sites. AS4970-2009, Australian Standard – 'Protection of trees on development

sites' should be consulted on this detail beyond the establishment of the Tree Protection Zone clearance distance.

In addition to the method of half the height of the tree, or the canopy width, whichever is greater, the City of Whittlesea Tree Protection Zone method requires an additional 1m clearance beyond the edge of the canopy dripline. Trees that are ultimately proposed for retention would need to be examined and assigned this additional clearance requirement. This would require the crown projection of any retained tree to be surveyed, so the 1m crown offset can be calculated.



City of Whittlesea Tree Protection Zone method

8 Recommendations

- 8.1 Tree 1 is located within the Yan Yean Pipe Track Linear Reserve and the Tree Protection Zone for this tree extends from edge to edge of the Yan Yean Pipe Track. Any proposed path should be installed near the outer perimeter of the Tree Protection Zone as illustrated at Appendix 2.
- 8.2 Tree 2 is located in Hinkler Reserve. Tree 2 is located some distance from the Yan Yean Pipe Track Linear Reserve and no part of the Tree Protection Zone extends into the reserve.
- 8.3 The Tree Protection Zone and Structural Root Zone of each tree is illustrated on the plan at Appendix 2. The City of Whittlesea Tree Protection Zone is also indicated at Appendix 2. The outermost red circle is determined by AS4970. The inner red circle is the City of Whittlesea Tree Protection Zone.



Dean Simonsen (BAppSc *Melb.*)
Consultant Arborist

9 References

Australian Standard - AS 4970, 2009. *Protection of trees on development sites*. Standards Australia.

City of Whittlesea, 2014. Tree Protection Zone (TPZ), SDL.2.01, Revision A, dated 3 November, 2014.

10 Definitions

The TPZ and SRZ are defined in AS4970-2009, Australian Standard – Protection of trees on development sites as:

Tree protection zone (TPZ) Refer to City of Whittlesea method at Section 7

A specified area above and below ground and at a given distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development.

Structural root zone (SRZ)

The area around the base of a tree required for the tree's stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres. This zone considers a tree's structural stability only, not the root zone required for a tree's vigour and long-term viability, which will usually be a much larger area.

11 Qualifications and expertise of consultant

- Bachelor of Applied Science, Horticulture (Plant Production) – University of Melbourne, Burnley College.
- Diploma of Applied Science, Horticulture (Arboriculture) – University of Melbourne, Burnley College.
- More than 25 years' experience in the arboriculture/horticulture industry (private and local government experience).
- Principal consultant and Manager of Treemap Arboriculture since 2011.
- Consultant Arborist and Director at Tree Logic Pty Ltd from June 1999 to September 2011.
- Manager of Arboriculture – Royal Botanic Gardens, Melbourne (27 Months 1997-1999).
- Secretary for the Victorian Tree Industry Organisation (VTIO) 2007-2012.
- Financial member of the International Society of Arboriculture (ISA).
- Presented paper at the International Society of Arboriculture Conference, 2011 at Parramatta, NSW.

Expertise to prepare report

- The qualifications and experience of the author have primarily involved the management of tree issues in the urban landscape. Specifically, this has involved hazard, general or detailed assessment of tree condition on private and public land with recommendations made on preservation strategies or remedial works.
- Tree assessments to establish tree health, tree structure and arboricultural values are core components of Treemap Arboriculture's business activities.
- I have experience at Victorian Civil Administrative Tribunal and the magistrate's court as an expert witness on arboricultural matters.
- I have inspected and assessed well over one hundred thousand trees and managed assessment programs for at least ten times as many.

Appendix 1

Descriptors

Field name	Description
No.	Tree identification number. Unique numbers are assigned to each assessed individual tree or tree group.
Species	Identifies the tree using the international taxonomic classification system of binomial (or trinomial) nomenclature (genus, species, variety and cultivar).
Common Name	Provides the common name as occurs in current Australian horticultural literature. More than one common name can exist for a single tree species, or several species can share the same common name.
DBH (Diameter at breast height)	Indicates the trunk diameter (expressed in centimetres) of an individual tree usually measured at 1.4m above the existing ground level. Multiple stemmed trees are calculated using a formula to combine the stems into a single stem for tree protection zone calculations.
TPZ (Tree protection zone)	Tree protection zone expressed as a radial distance in metres, measured from trunk centre. Based on AS 4970 or locally adopted method
SRZ (Structural Root Zone)	Radial distance in metres measured from trunk centre to maintain tree stability - AS4970
HxW (Height x Width)	Indicates height and width of single tree and measurement generally expressed in whole metres

Age	Description
<i>Young</i>	Sapling tree and/or recently planted
<i>Semi-mature</i>	Tree rapidly increasing in size and yet to achieve expected size in situation
<i>Maturing</i>	Specimen approaching expected size in situation, with reduced incremental growth
<i>Over-mature</i>	Tree is senescent and in decline

Health	Term assigned that provides a broad description of the health and vigour of the tree.					
Ratings	<i>Good</i>	<i>Fair</i>	<i>Fair to Poor</i>	<i>Poor</i>	<i>Very poor</i>	<i>Dead</i>

Structure	Term assigned that provides a broad description of the structure and stability of the tree.					
Ratings	<i>Good</i>	<i>Fair</i>	<i>Fair to Poor</i>	<i>Poor</i>	<i>Very poor</i>	<i>Failed</i>

Form	Description
<i>Symmetric</i>	Evenly balanced crown
<i>Asymmetric</i>	Crown biased in one direction; can be minor or major
<i>Stump re-sprout</i>	Adventitious shoots originating from stump or trunk
<i>Manipulated</i>	Hedge, pollard, topiary, windrow; managed for specific landscape use or aesthetic outcome

Comment	Additional comments that provide specific detail on the condition of the tree or management requirements

Tree type	Description
<i>Indigenous</i>	Occurs naturally in the area or region of the subject site
<i>Victorian native</i>	Occurs naturally within some part of Victoria (not exclusively) but is not indigenous
<i>Australian native</i>	Occurs naturally within Australia but is not a Victorian native or indigenous
<i>Exotic deciduous</i>	Occurs outside of Australia and typically sheds its leaves during winter
<i>Exotic evergreen</i>	Occurs outside of Australia and typically holds its leaves all year round
<i>Exotic conifer</i>	Occurs outside of Australia and is classified as a gymnosperm
<i>Native conifer</i>	Occurs naturally within Australia and is classified as a gymnosperm
<i>Palm</i>	Woody monocotyledon
<i>Other</i>	Other descriptions as indicated

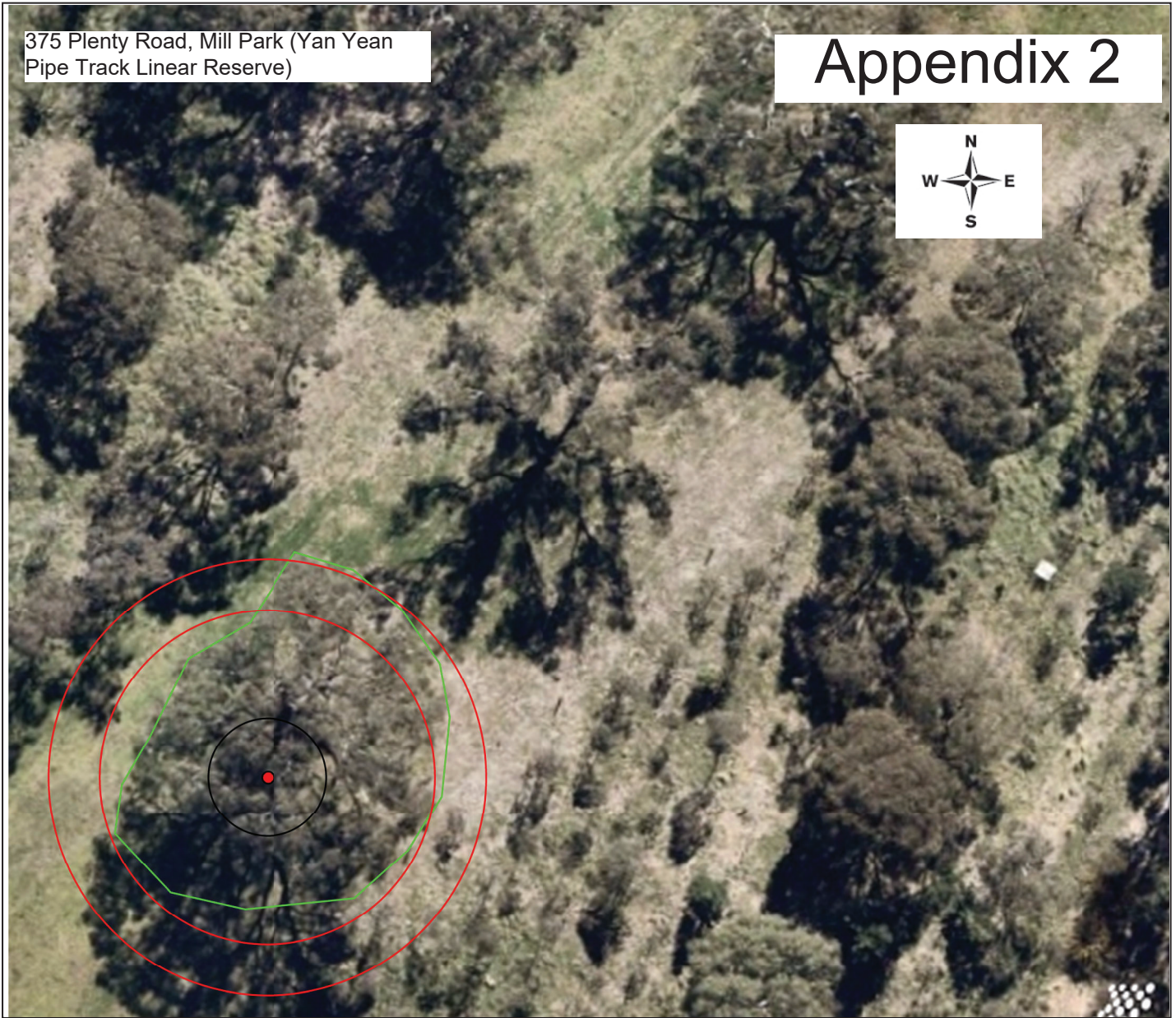
Retention value	Qualitative rating provided on tree based on assessment factors. Provided as a guide for management decisions.			
Ratings	<i>High</i>	<i>Moderate</i>	<i>Low</i>	<i>None</i>

Recommend	Recommended action based on condition of the tree with reference to proposed site changes							
Responses	<i>Retain</i>	<i>Could be retained</i>	<i>Consider removal</i>	<i>Remove</i>	<i>Street tree</i>	<i>Neighbour's Tree</i>	<i>Already removed</i>	<i>Transplant</i>

Descriptors reviewed annually and subject to change

375 Plenty Road, Mill Park (Yan Yean
Pipe Track Linear Reserve)

Appendix 2



26w Hinkler Drive, Mill Park (Hinkler Park).



Assumptions and limiting conditions of arboricultural consultancy report

1. Any legal description provided to Treemap Arboriculture is assumed to be correct. Any titles and ownerships to any property are assumed to be correct. No responsibility is assumed for matters outside the consultant's control.
2. Treemap Arboriculture assumes that any property or project is not in violation of any applicable codes, ordinances, statutes or other local, state or federal government regulations.
3. Treemap Arboriculture has taken care to obtain all information from reliable sources. All data has been verified insofar as possible; however Treemap Arboriculture can neither guarantee nor be responsible for the accuracy of the information provided by others not directly under Treemap Arboriculture control.
4. No Treemap Arboriculture employee shall be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.
5. Loss of this report or alteration of any part of this report not undertaken by Treemap Arboriculture invalidates the entire report.
6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by anyone but the client or their directed representatives, without the prior consent of the Treemap Arboriculture.
7. This report and any values expressed herein represent the opinion of the Treemap Arboriculture consultant and the Treemap Arboriculture fee is in no way conditional upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
8. Sketches, diagrams, graphs and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural drawings, reports or surveys.
9. Unless expressed otherwise: 1) Information contained in this report covers only those items that were covered in the project brief or that were examined during the assessment and reflect the condition of those items at the time of inspection; and 2) The inspection is limited to visual examination of accessible components without dissection, excavation or probing unless otherwise stipulated.
10. There is no warranty or guarantee, expressed or implied by Treemap Arboriculture, that the problems or deficiencies of the plants or site in question may not arise in the future.
11. All instructions (verbal or written) that define the scope of the report have been included in the report and all documents and other materials that the Treemap Arboriculture consultant has been instructed to consider or to take into account in preparing this report have been included or listed within the report.
12. To the writer's knowledge all facts, matter and all assumptions upon which the report proceeds have been stated within the body of the report and all opinion contained within the report have been fully researched and referenced and any such opinion not duly researched is based upon the writers experience and observations.