



Arboricultural (Tree) Report Guidelines

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Summary

Currently the management of the Urban Forest is a contentious issue and can lead to litigation in some cases identifying a need for a formalised process to undertake tree related matters. Hornsby Shire Council is placing a standard on the type of tree reports required or requested in relation to both development applications and residential tree applications. This standard is will provide a bench mark and ensure that only reports that have accurate and concise arboricultural information within them and that all recommendations are exhaustive towards managing the existing and future urban canopy within the Shire.

The purpose of this Document is to provide a set of guidelines for preparing Arboricultural Reports, Tree Protection Reports on Development Sites, Transplant Method Statements and Root Mapping Reports.

1. Introduction

These guidelines have been prepared to assist applicants and Arborists to understand our requirements for the preparation of Arboricultural Assessment Reports, Arboricultural Impact Assessments, Transplant Method Reports and Root Mapping Reports.

Most trees within the Shire are protected by the Tree and Vegetation Chapter of the Hornsby Local Environmental Plan. This document along with the Hornsby Development Control Plan should be referred to when preparing plans and documentation.

2. Objective

To ensure the preservation of existing and future Urban Forest and the existing green character (environment) of the Shire where ever possible and appropriate to do so.

3. Arboricultural Assessment Report

3.1 When is Tree Report Required?

The requirement for a detailed tree or multiple tree report can be provided to or requested by Council **for two situations** as follows:

- a) Residential applications for minor tree related works as supporting evidence in relation *Hornsby Shire DCP Tree Preservation Measures Part 1B*.
- b) In planning and development situations in the form of an Arboricultural Impact Assessment (AIA) (see section 4.0), Root Mapping Report (see section 5.0).

3.2 Arboricultural Health, Remediation and Removal Reports

3.2.1 Who should prepare an Arboricultural Report?

Arboricultural Reports are to be prepared by a Consulting Arborist with a Qualification Framework (AQF) Level 5 in Arboriculture. When preparing an Arborist Report the Arborist is not an advocate for any party, but has an overriding duty to assist Council in making an impartial decision. The Arborist Report is to contain a statement by the Arborist as follows:

- The report prepared by the Arborist reflects the expert opinion of the Arborist; and
- The Arborist is acting independently of and not as the advocate for the owner of the subject tree(s)
- The Arborist is not to receive a commission to prune or remove the tree(s) which is the subject of the Arborist Report.
- Reports are to be submitted in an accepted academic format. All resource material, including calculation formulae is to be clearly referenced using an accepted academic format (e.g. Harvard).

3.2.2 What should be included in an Arboricultural Health, Remediation and Removal Report

The following information is the minimum required to be contained within such a report:

- a) All reports are to include the name of the Arborist who undertook the site inspection and carried out the assessment, their qualifications and contact details
- b) A cover page with report title, the client who commissioned the report and the address of the site to which the report relates
- c) A summary of the report
- d) An introduction which dates the site inspection undertaken and includes the brief for undertaking the report
- e) Description - background relevant to the report
- f) A site map/plan of the site showing the location of all trees referred to in the report and giving them an individual identifying reference number. This reference number is to be used to identify the tree within the text of the report.
- g) The methods or techniques section used in data collection used to formulate the report
- h) Each tree is to be identified by both common name and botanical name
- i) Tree Physical Dimensions: - height, canopy spread and diameter at breast height (Dbh taken at 1.3m above ground) are to be provided
- j) Analysis section of the data collected, where collected data is discussed. This may include detailed information regarding structural defects, wounds, impacts on root zones, pests and diseases etc.
- k) Conclusion section drawn from the analysis of the data collected
- l) Recommendation section outlining management strategies for remediating tree health, pruning and/or removal works (compliant with AS 4373-2007). This section will address **ALL** options available in the circumstances, including reasons as to why they are, or are not, being recommended.

- m) Any required tree protection based on the current the Australian standard AS 4970-2009
- n) Where removal of a tree is recommended, supporting documentary evidence is to be provided to illustrate/support findings. Please note that recommendations for removal are to be based on arboricultural findings only. Removals where the reason given is to permit a proposed development will not be accepted.
- o) Where reports contain reference to diagnostic testing of trees, results which support the report must be included as an Appendix; results are to be provided in a clear legible format and unaltered.
- p) Provision in writing from the client commissioning the report clearly outlining the elements of the brief which should be located within the appendix of the report.
- q) Where reference is made to other Arboricultural reports full copies of those reports are to be included as an Appendix.

4. Arboricultural Impact Assessments on Development Sites

4.1 Development and preparation of an Arboricultural Impact Assessment (AIA)

An AIA should be prepared before design options are drawn up. Information provided in the report will enable conclusions to be formed on whether or not it is appropriate to remove a tree. This in turn will determine any site constraints that need to be taken into account during the design phase of a proposed.

4.2 What is an Arboricultural Impact Assessment?

An AIA details the ways in which it is proposed to prevent damage to trees located on a construction site and where relevant on immediately adjoining properties. This document looks at matters relating to the construction of proposed structures, site management, the design and placement of tree care and protection measures before, during and after construction of identified trees.

4.3 When is an AIA required?

Council may identify the necessity for an AIA following the preliminary assessment of your application. If you have used the Pre-lodgement DA process the need for these documents will in most cases have been identified at that time.

Tree Protection Reports compliant with AS 4970-2009 may be requested where the tree/s identified in the pre-DA process is considered to be visually dominant or of importance to the landscape character for the proposed development site. This will be reflected in the Hornsby Development Control Plan and the Hornsby Local Environmental Plan.

4.4 Who should prepare a Tree Protection Report?

A Tree Protection Reports should be prepared by a Consulting Arborist with an Australian Qualification Framework (AQF) Level 5 in Arboriculture.

The following information is the minimum required to be contained within such a report:

- Cover page with report title, the client who commissioned the report and the address of the site to which the report relates
- A summary of the report
- Introduction which dates the site inspection undertaken and includes the brief for undertaking the report
- Description - background relevant to the report
- A site map/plan of the site showing the location of all trees referred to in the report and giving them an individual identifying reference number. This reference number is to be used to identify the tree within the text of the report.
- The Methods or Techniques section used in data collection used to formulate the report.
- Each tree is to be identified by both common name and botanical name, Tree Physical Dimensions; height, canopy spread and diameter at breast height (Dbh taken at 1.3m above ground); is to be provided.
- Analysis section of the data collected, where collected data is discussed. This may include detailed information regarding Structural defects, wounds, impacts on root zones, pests and diseases etc.
- Discussion on analysis of the Potential Effects of a proposed development on existing and proposed trees based on the recorded tree data covering impacts to tree health, modifications to habit (i.e. canopy modifications) and or Root zones.
- Recommendations for methods to mitigate the potential damage to trees on the site and, where appropriate, on immediately adjoining properties:

This would include, but is not limited to, the following issues:

- Specifications for placement and design of Tree Protection Zones compliant with AS 4970-2009.
- Remediating tree works pre and post development compliant with AS 4373-2007.
- Details of site management during construction including vehicle movement, site shed placement, location of work areas etc.
- Proposed construction methods to minimise damage to identified trees eg. use of pier and beam construction as opposed to strip footings.
- Schedules for before, during and post construction tree care.
- Where reports contain reference to diagnostic testing of trees, results which support the report must be included as an Appendix; results are to be provided in a clear legible format and unaltered.
- Where reports pertaining to diagnostic testing of trees such as: Root Mapping Reports (see section 6.0). Where these results support the report must be included as an Appendix; results are to be provided in a clear legible format and unaltered.

5. Root Mapping Report

5.1.1 What is a Root Mapping Report?

A Root Mapping Report provides information on the roots that are located along a particular line of excavation. This information is used to determine whether the sitting of a proposed building or structure is appropriate. It is used to help calculate the level of root severance that would result from the proposed works and therefore the impact the proposed works may have on the structural stability of the tree and its likely capacity to survive such works.

Generally, information such as root numbers, depth and diameter is obtained by using sensitive methods of excavation such as hand excavating or pneumatic tools to dig a trench down to a specified depth along the line of the proposed excavations.

5.1.2 Who should prepare a Root Mapping Report?

This document is to be prepared by an Arborist with a minimum qualification of Australian Qualification Framework Level 5. All reports are to include the name of the Arborist who actually undertook the site inspection and carried out the assessment, their qualifications and contact details.

5.1.3 When is a Root Mapping Report required?

Following preliminary assessment of your application, Council may identify the necessity for the submission of a Root Mapping Report. If you have used the Pre-lodgement DA process, the need for these documents will in most cases have been identified at that time.

5.1.4 What should be included in a Root Mapping Report?

The location of excavation lines should be determined by the Arborist undertaking the works in consultation with Council. A general guide however, is that they should be located along the lines where excavation would be necessary to construct the proposed development.

The trench is to be excavated to a depth as indicated by Council or to the maximum depth at which tree roots are likely to grow given the soil type and site conditions. All excavation is to be carried out by hand and in a manner that will minimise root damage. Mattocks and crow bars are not to be used for excavation. Small hand tools or an air knife, vacu-dig, or water jetting should be used to excavate the required area.

As a minimum requirement, Root Mapping Reports should include the following information:

- Cover page with report title, the client who commissioned the report and the address of the site to which the report relates.
- A summary of the report.
- Introduction which dates the site inspection undertaken and includes the brief for undertaking the report.

- Description - background relevant to the report.
- The Methods or Techniques section used in data collection used to formulate the report.
- A site map/plan of the site showing the location of all trees referred to in the report and giving them an individual identifying reference number. This reference number is to be used to identify the tree within the text of the report.
- Tree Data Section: Each tree is to be identified by both common name and botanical name, Tree Physical Dimensions: - height, canopy spread and diameter at breast height (Dbh taken at 1.3m above ground) is to be provided.
- A plan showing the location of all excavation lines in relation to the existing site conditions.
- Photographs of the completed excavation lines. The photographs are to include points of reference so that their location and orientation can be determined.
- A schedule of findings for each individual excavation line which impacts on a given tree.
This schedule is to include:
 - The total linear distance of the excavation line;
 - The linear distance along the excavation that the root was located;
 - The depth at which the root was encountered and the diameter of the root.
- Any visual variations in roots observed are to be noted e.g. highly visible lenticels.
- A section, with X (depth) and Y (Length) axis indicated, of the completed trench and all findings. All material found within.
- Analysis section of the data collected, where collected data is discussed. This may include detailed information regarding structural defects, wounds, impacts on root zones, pests and diseases etc.
- Discussion on analysis of the potential effects of a proposed development on existing and proposed trees based on the recorded tree data covering impacts to tree health, modifications to habit (i.e. canopy modifications) and or root zones.
- Recommendations for methods to mitigate the potential damage to trees on the site and, where appropriate, on immediately adjoining properties.