Prepared by Integral Tree Care for Ballina Shire Council

Arborist report on *Ficus macrophylla* for Ballina Shire Council
7th of December 2015

Introduction:
Integral Tree Care was requested by Ballina Shire Council (BSC) to provide an Arborist report on a *Ficus macrophylla* located in front of 7 and 9 Castle Drive, Lennox Head on council land. A site visit and tree inspection was carried out on the 03/12/2015 by Consulting Arborist Mark Gistitin over a period of about 45 minutes. Tree roots in a stormwater pipe at 7 Castle Drive had prompted this tree inspection. The weather was overcast and windy.

Methodology:
Visual Tree Assessment (VTA) was made from ground level which was used to determine vigour, condition and structural integrity. VTA observes such things as Pathogens/Rots, Mechanical damage, Deadwood, Structural issues, Twig Dieback, Leaf size and colour. The inspection was limited to non-invasive methods and all observations were made from the ground. Distances are all approximations.

Observations:
Location – Located in front yard / nature strip approximately 11m from the building footprint of 7 Castle Dr and 12 metres from the building footprint of 9 Castle Dr.
Roots – Sound. There was minor mower damage to surface roots (no decay visible). Major surface roots visible up to 7m from trunk (See Photo 3). Roots interfering with storm water pipe.
Trunk/s – Sound. Central main trunk has been lopped previously, decay present. Large wound on other main trunk, sound reaction wood adjacent (See Photo 1).
Crown/Branches – Sound. Wounds from previous pruning, sound development of wound wood (See Photo 2). Minor deadwood 50>mm present.
Leaves – Sound. Leaf density through crown normal. Size and colour normal.

	Dimensions
Height	20 m
Canopy spread	30 m
DBH	5000 mm
Age range	Mature

Table 1.

Conclusions:
The reaction wood present at wounding and throughout this tree is indicative of a tree displaying good vigour and sound structure typical for its species', size and age range.
The value of this tree to community and environment should be considered when making management decisions as its size, species, age and habitat value are all significant.
Ficus species are known for their vigorous root growth so measures to prevent further interferences with infrastructure should be made. Due to the proximity of the tree to the adjacent properties, root pruning for installation of a root barrier would be within the Tree protection zone (TPZ). *Ficus* species are known to tolerate considerable encroachments into the TPZ, although the incursion into the TPZ in this instance will be major and will require considerable compensatory measures to be diligently executed to maintain a healthy tree.

	Distances
Structural root zone (SRZ)	6.51 m radius
Tree protection zone (TPZ)	15 m radius

Table 2.

Recommendations:

Option a: Install Root barrier *
- To be installed to a depth of 1.8 m and with 50 mm exposure above ground level.
- All cut roots (and, indeed the cut face of all excavations) are to be treated with a Trichoderma solution (antagonistic fungi) immediately after cutting.
- Root barrier backfilled with a Structured soil
- Services should be diverted around Root barrier where possible as incursions into the root barrier may be an entry point for roots.
- Supplementary watering

  * Further consultation will be required prior to implementation of Root barrier installation to assess location of underground services, placement of Root barrier and quantify supplementary watering and compensatory measures for the TPZ encroachment.

Option b: Remove tree and replace with native species with less invasive roots.

References:

Mattheck. C. & Breloar. H. (1994). *The Body Language of Trees: A Handbook for Failure Analysis.* The Stationary Office, London.

Lonsdale. D. (1999). *Principles of Tree Hazard Assessment and Management*. The Stationary Office, London.

Standards Australia (2009). *Australian standard – Protection of Trees on Development sites AS 4970-2009*. Standards Australia, Sydney.

Disclaimer:

It must be acknowledged that trees are biodynamic organisms that constantly change throughout their existence, increasing in size, complexity and ecological importance as they age. They can be adversely affected by pests, extreme weather conditions or the activity of humans: Regular inspections should be undertaken in order to monitor trees health, and to make suitable management proposals in order to ensure maintenance of a continued healthy urban forest.

While I take all care in preparing this report, I can take no responsibility for the continuing vitality of the trees that are assessed, or for any damage that they might cause in the future. I cannot be held responsible if damage occurs, or if tree health deteriorates as a result of a failure to implement the recommended protective measures, or from poor management practices that might occur in the future.

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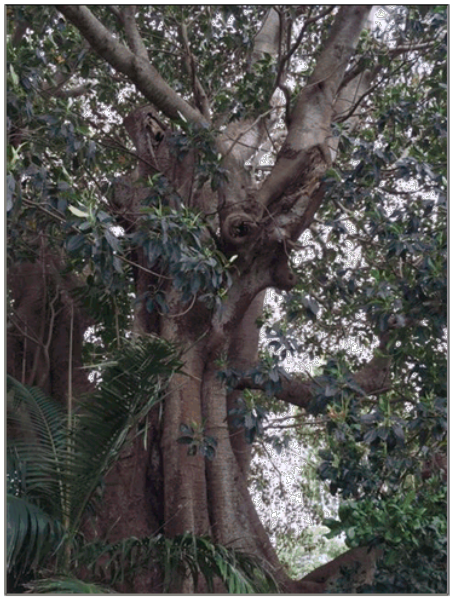

Photo 1

Photo 2

Photo 3

Project Arborist:
Mark Gistitin Dip. Arb