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Our Ref: 4645

11 October 2019

Attn: Luke Smith
Greengate
Level 1, 156 Gloucester Street,
Sydney NSW 2000

Dear Luke

Following our site meeting on 8 October please find below an addendum to our report that provides a quantification of pruning required for tree 7 *Ficus hillii* (Hills Weeping Fig) now proposed for retention. The inspection in summary supports our original assertion that the tree can be pruned without adversely affecting the tree's current form and long term health and structural integrity.

It is estimated the combined percentage of tree crown required to be pruned is in the order of 10% which is considered not an amount that would create adverse impacts on the tree's health. The third order branches required for pruning would not alter the existing shape of the tree, and further as the tree has an asymmetrical bias to the north due to phototrophic growth, some minor pruning as described will only serve to balance the crown symmetry.

The tree is currently growing in inhospitable soil conditions due to the very compacted existing carpark that currently allows cars to park in the tree's structural root zone and tree protection zone.

It is recommended and proposed that the landscape treatment of area to remain in tree protection zone of tree will be an improvement in conditions as the current grade will be maintained and areas mulched or traversed by raised decking will improve water infiltration and gaseous exchange for root system over time.

The removal of *Lophostemon confertus* a supressed specimen located within crown of Ficus will also eliminate competition for moisture and nutrients, and again improve conditions for the subject tree.

It is acknowledged the tree's crown will continue to expand over time and maintenance pruning will need to be scheduled likely every two years to maintain building clearance.

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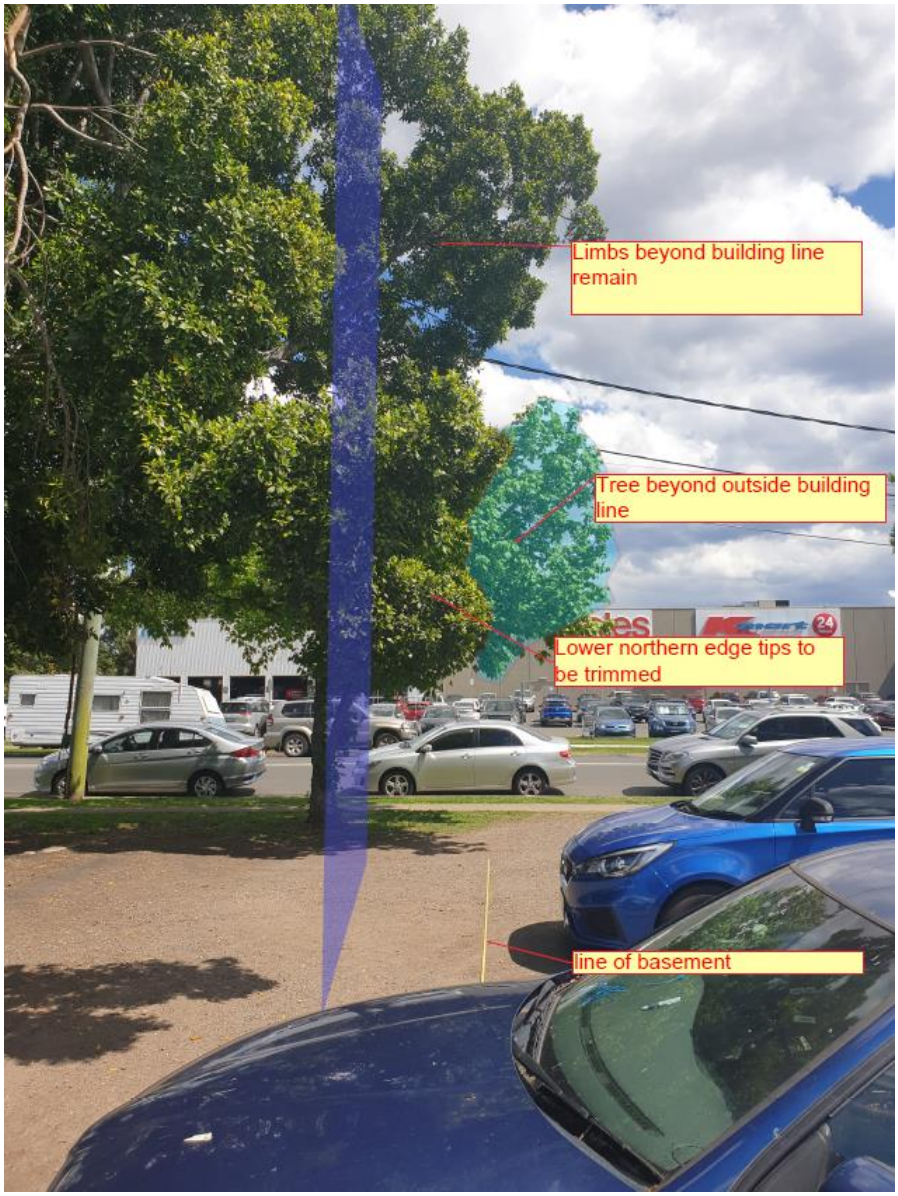
Western crown of tree requires one (1) 35mm diameter third order branch lateral of 2.5m in length pruned to union with second order branch and one (1) 30mm diameter third order branch lateral of 2m in length pruned to union with second order branch of 20mm diameter. It is noted there is an existing space with no branches present in central section of western crown. See photograph directly below showing blue area of proposed wall offset from basement edge



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Northern side of crown requires one (1) 35mm diameter third order branch lateral pruned to union with 20mm diameter second order branch (2.5m length); one (1) 60mm diameter third order branch lateral pruned to union with 25mm diameter second order branch (2m length); northeast corner of crown one (1) 100mm lowest lateral of 2.5m length; one (1) 25mm diameter third order branch 1.6m length; one (1) 30mm diameter and one (1) 45mm third order branch both 1.5m length. It is noted centre of crown does not require any pruning. See photograph above showing proposed northern recessed wall area.

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Eastern crown of tree requires minor heading back of three (3) third order branches of 15-20mm in diameter branches by 1m in length. The southeast corner of crown not affected by building line. See photograph above showing basement edge and offset building line in blue.

Craig Martin

Senior Associate

Post Grad Cert Wildlife Habitat Management (AQF8) 2006,

REFERENCES
1. Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.
2. IACA 2005, Sustainable Retention Index Value, *Institute of Australian Consulting Arboriculturists*, Australia, www.iaca.org.au .
3. Standards Australia 2007, *Australian Standard 4373 Pruning of amenity trees*, Standards Australia, Sydney, Australia.
4. Standards Australia 2009, *Australian Standard 4970 Protection of trees on development sites*, Standards Australia, Sydney, Australia.
5. Safe Work Australia 2016, Guide to Managing Risks of Tree Trimming & Removal Works.
6. Buchanan R. A. (1989), *Bush Regeneration – Recovering Australian Landscapes*, TAFE Student Learning Publications Sydney Australia.

DISCLAIMER
The author and Redgum Horticultural take no responsibility for actions taken and their consequences, contrary to those expert and professional instructions given as recommendations pertaining to safety by way of exercising our responsibility to our client and the public as our duty of care commitment, to mitigate or prevent hazards from arising, from a failure moment in full or part, from a structurally deficient or unsound tree or a tree likely to be rendered thus by its retention and subsequent modification/s to its growing environment either above or below ground contrary to our advice.

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PRUNING STANDARDS

Any pruning recommended in this report is to be to the Australian Standard® AS4373 *Pruning of amenity trees* and conducted in accordance with the NSW Work Cover Authority Code of Practice, Tree Work, 2007.

All pruning or removal works are to be in accordance with the appropriate Tree Management Policy where applicable, or Tree Management Order (TMO), or Tree Preservation Order (TPO).

Tree maintenance work is specialised and in order to be undertaken safely to ensure the works carried out are not detrimental to the survival of a tree being retained, and to assist in the safe removal of any tree, should be undertaken by a qualified arboriculturist with appropriate competencies recognised within the Australian Qualification Framework, with a minimum of 5 years of continual experience within the industry of operational amenity arboriculture, and covered by appropriate and current types of insurance to undertake such works.

Branch

Branch An elongated woody structure arising initially from the trunk to support leaves, flowers, fruit and the development of other branches. A branch may itself fork and continue to divide many times as successive *orders of branches* with the length and taper decreasing incrementally to the *outer extremity* of the *crown*. These may develop initially as a gradually tapering continuation of the *trunk* with minimal division as in a *young* tree or a tree of *excurrent habit*, or in a *sapling*, or may arise where the trunk terminates at or some distance from the *root crown*, dividing into *first order branches* to form and support the *foliage crown*. In an *acaulescent* tree, branches arise at or near the *root crown*. Similarly, branches may arise from a *sprout mass* from damaged *roots*, *branches* or *trunk*.

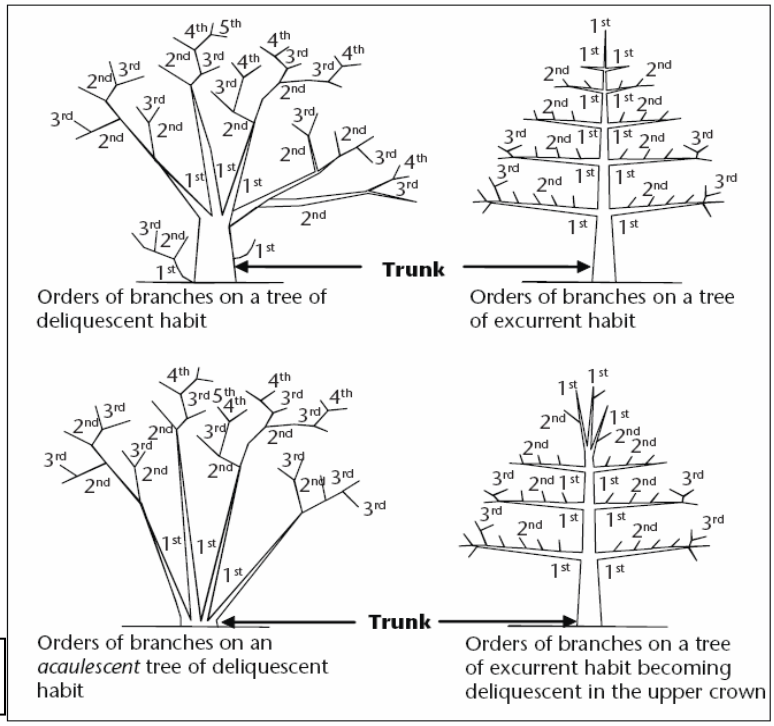

Figure 21 Orders of branches

Orders of branches the marked divisions between successively smaller branches (James 2003, p. 168) commencing at the initial division where the trunk terminates on a *deliquescent* tree or from *lateral* branches on an *excurrent* tree. Successive branching is generally characterised by a gradual reduction in branch diameters at each division, and each gradation from the trunk can be categorised numerically, e.g. first order, second order, third order etc. (See Figure 21.)

Crown

Canopy 1. Of multiple trees, the convergence, or merging in full or part, of the crowns of two or more trees due to their proximity, or where competition for light and space available in a forest environment is limited as each tree develops forming a continuous layer of foliage. 2. Used as a plural for crown. 3. Sometimes synonymously used for crown (USA).

Crown Of an individual tree all the parts arising above the trunk where it terminates by its division forming branches, e.g. the branches, leaves, flowers and fruit; or the total amount of foliage supported by the branches. The crown of any tree can be divided vertically into three sections and can be categorised as *lower crown*, *mid crown* and *upper crown* (Figure 8). For a *leaning* tree these can be divided evenly

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into crown sections of one-third from the *base* to *apex*. The volume of a crown can be categorised as the *inner crown*, *outer crown* and *outer extremity of crown*.

Lower crown the *proximal* or lowest section of a crown when divided vertically into one-third (⅓) increments. See also *Crown*, *Mid crown* and *Upper crown*.

Mid crown the middle section of a crown when divided vertically into one-third (⅓) increments. See also *Crown*, *Lower crown* and *Upper crown*.

Upper crown the *distal* or highest section of a crown when divided vertically into one-third (⅓) increments. See also *Crown*, *Mid crown* and *Lower crown*.

Crown Projection (CP) Area within the *dripline* or beneath the lateral extent of the *crown* (Geiger 2004, p. 2). See also *Crown spread* and *Dripline*.

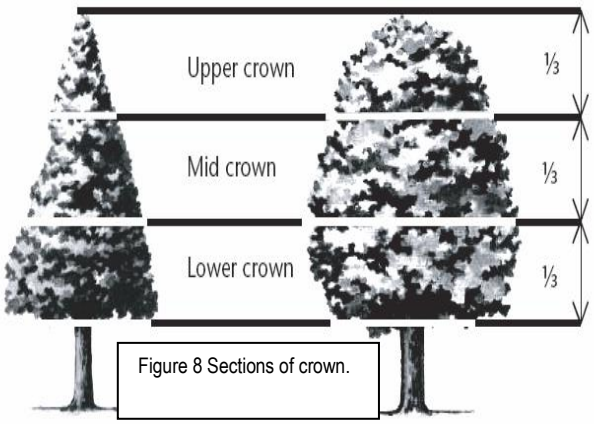

Figure 8 Sections of crown.

Dripline A line formed around the edge of a tree by the lateral extent of the *crown*. Such a line may be evident on the ground with some trees when exposed soil is displaced by rain shed from the crown. See also *Crown Projection*.

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