

Our reference: CD2001

Wednesday, 12 August 2020

Dominic Hogan
Glenstone Constructions
Unit 3 152 Old Bathurst Road
Emu Plains NSW 2750

Re: response to recent design changes at 8 Linksvie Avenue Leonay

Dear Dominic,

Here are my comments relating to the current design changes. These should be read in conjunction with the last report.

Tree 1

The only issue that the council have raised is stormwater tank. If this is moved out of this area this should resolve the issue. Design of the retaining wall should minimise and ideally avoid any continuous footing. In addition, fill soil used needs to be coarser than the underlying soil and organic material must not be buried.

Tree 2

It appears that the only issue here is the retaining wall. Retaining walls often require footings and footings mean cutting into the soil which means root cutting. Design of the retaining wall should be tree sensitive as discussed for Tree 1

Tree 7

The amount of encroachment on what the Standard refers to as the “*Idealised*” Tree Protection Zone of Tree 7 is considerable. However, this species is highly tolerant of root damage. The mean annual rainfall for the natural distribution of Tree 7 is 400 to 600 ml per year. Even if the work resulted in the loss of 50% of the absorbing roots, it would still be in a better net environment than it would be in its natural distribution.
(<https://www.cabi.org/isc/datasheet/17083>)

The level of impact is less than that discussed by the authors referenced in my report. The Council has dismissed the peer reviewed papers and has provided no other rationale or reference to peer-reviewed papers or to the standard to support that opinion.

Tree N1 and N3

It is acknowledged that the new design for the bin store the bulky goods storage and other hard surface will result in some relatively minor excavation in order to achieve the required levels. This will result in some minor root loss as well as some reduced infiltration.

On the other hand, these structures are quite small, and the loss of infiltration will in part be compensated for by reduced evapotranspiration and lateral movement of soil moisture. Irrigation could also be installed to address this issue; however, it is noted that this species prefers well drained soils.

Lastly, as has previously been pointed out in earlier reports this Genus prefers well drained soils, transplants well and is highly tolerant of root damage.

<http://hort.ufl.edu/trees/THUOCCA.pdf>,
<https://www.fs.fed.us/database/feis/plants/tree/thuocc/all.html>,
<https://www.mortonarb.org/trees-plants/tree-plant-descriptions/eastern-arborvitae>,

The amount of root loss proposed is significantly less than suggested by Hamilton as not causing long term impact for most trees.

Should you require any further information, do not hesitate to call our office for assistance.



Mark Hartley

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