



6 October 2022

Eriyan



Attention: Mike Ryan

Dear Sir,

**RE: REVIEW OF DPIE EHG COMMENTS – NORTHSIDE WEST CLINIC
WENTWORTHVILLE**

We have reviewed the DPIE EHG comments regarding the root mapping issue for Trees 41, 48 and 49, provided by you in your email 29/09/2022 and would like to take issue with and correct a key comment made by EHG in their response provided.

EHG are incorrect when they say that there are a range of *actions* required when considering a major encroachment as defined by AS4970-2009. AS4970-2009 identifies within clause 3.3.4, a series of considerations that are required to be made by the **Project Arborist** in determining the viability of a tree when considering a major encroachment. These considerations include :

- (a) Location and distribution of roots, may be determined by root mapping,
- (b) Potential loss of root mass resulting from encroachment,
- (c) Tree Species and tolerance to root disturbance,
- (d) Age, vigour and size of the tree,
- (e) Lean and stability of the tree,
- (f) Soil characteristics, volume, topography and drainage,
- (g) Presence of existing or past structures (affecting root development)
- (h) Design factors

All of these considerations are required to be made in determining the viability of the tree to be retained with a major encroachment. These considerations do not form a hierarchy and consideration (a) is not the *“first of which”* nor is it the *“first step in determining if the subject trees will remain viable post development”*, in fact in my experience it is one of the least helpful in this situation to determine the viability of the tree.

In the case of Trees 41, 48 and 49, all of considerations b, c, d, e, f, g and h have been made and taken into consideration in making our determination that these trees will remain viable to be retained. These considerations are made on the assumption that there are roots present at the intersection of the Tree Protection Zone (TPZ) and the required excavation.

With regards to root mapping in this situation, in my experience, root mapping will not provide significant additional data to verify the viability of these trees. Typically, the area undergoing root mapping would be the interface between the TPZ and the proposed excavation. Root mapping by means of manual excavation (using shovels etc) or using a vacuum truck will cut or damage all roots smaller than approximately 30mm. The information obtained by root mapping is likely to be of limited value. If the root mapping identifies that there are no structural roots (greater than 30mm-50mm dia) present at this interface, then this clearly vindicates the assessment that the trees will remain viable. If structural roots are encountered, then in the absence of root mapping the entire TPZ (would likely kill these trees) there is no way of accurately determining what percentage of the total root mass is

encroached or specifically what the impact will be on the tree. If structural roots are encountered within the root mapping, then the process by which we would determine if the tree will remain viable would be further consideration of the considerations b) to h) as listed above, which is exactly where we are right now.

Let me know if you have any questions or anything is unclear.

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