

Leslie and Diana Cassar
3/231 Whale Beach Road
WHALE BEACH NSW 2107

7 October 2020

Dear Mr and Mrs Cassar,

Re: ARBORICULTURAL ISSUES – Tree 4
231 Whale Beach Road, Whale Beach



**TREE MANAGEMENT
CONSULTING ARBORICULTURISTS
HORTICULTURISTS
LANDSCAPE DESIGNERS
ABN: 48 623 390 572**

I refer to a letter from Northern Beaches Council in regard to your development application DA2020/0442, which includes an assessment and comments from Council's Landscape Officer who has raised concern regarding retention of Tree 4 located on the land adjoining your property.

I believe the Landscape Officer may have misunderstood my comment in the report regarding a 4.5m Tree Protection Zone (TPZ) of the tree. I did not conclude "...that a compensatory tree protection zone equal to a 4.5 metre setback along the southern boundary is required..."

What I do say is that "...To reduce the impact on this tree to a minor one would require at least 4.5m setback from the south boundary..."

Some clarification of this statement is in order, so its context is correctly understood.

In this case, a 10% TPZ encroachment, which is considered a 'minor' encroachment under Australian Standard 4970-2009 Protection of trees on development sites (AS4970) would be a 4.5m setback from the tree. My quote above clarifies under AS4970 this would be the offset to represent a minor impact (encroachment) on the notional area occupied by the TPZ. The key word is *notional* here. Tree root distribution is not commonly symmetrical. The variability of soil conditions and the presence of obstacles and barriers to root growth result in variable distribution so the TPZ area is hypothetical at best.

I had noted in my report the tree had fill placed in its TPZ years ago and its woody roots removed at a north offset of approximately 1.5m from the tree and through its notional Structural Root Zone for a distance of approximately 5m. These works affected an estimated 37% of the tree's TPZ and yet it has remained healthy and vigorous some since those works occurred (as observed in August 2020 Nearmap imagery). This is a reason why I suspect it is relying on movement of soil moisture and resources into its root zone from the west, and not so much from the site.

As I had also noted in my report, "*the proposed excavation at 900mm from the site boundary (e.g. about 2.5m from the centre of the tree) will not result in any further root cutting or damage to woody roots.*" Therefore, there will be no additional impacts, as a result of the development, to the roots within the notional SRZ/TPZ than are already present.

Under AS4970, anything *greater* than 10% encroachment into the hypothetical TPZ radius requires an arborist to consider several factors to determine the encroachment impacts on a tree. Typically, root mapping within the SRZ may be undertaken to determine the presence and size of roots potentially affected by excavation of other works.

As noted, tree roots on the north side of the tree have been removed. The tree has not declined as a result of past root trimming or asphyxiation.

Council's Landscape Officer would be aware that in many cases TPZ encroachments often exceed the 10% 'minor' figure. Countless urban developments result in TPZ encroachments greater than 10% and this is where arboricultural assessment and advice is required, noting a minor encroachment less than 10% does not require an arboriculturist's input.

Woody root trimming occurred at approximately 1.5m from the tree. The proposed excavation will be approximately 1m from the site boundary (about 2.5m from the tree) and about 600mm beyond the trench where roots were removed. No additional removal of woody roots is anticipated because of this.

Due to the robustness of the species and its tolerance to disturbance, demonstrated by its apparent lack of decline post fill years ago and root trimming works eight months ago, I expect the tree will be retained without undue impact.

Therefore, my recommendations are that a TPZ is not required in the 4.5m notional setback, and the development footprint does not require modification. Rather, I recommend that the measures outlined in sections 5.3.2 and 5.4 of the report be implemented.

It is appropriate that works in the vicinity of trees to be retained are appropriately supervised and recommendations from the project arborist adapted as necessary and followed. This ensures that specific circumstances may be responded to, and to ensure works are carried out with care adjacent to trees to be retained.

Should you require further assistance with this matter, or require my liaison with Council officers, please do not hesitate to contact me.

Yours faithfully,



Catriona Mackenzie

Consulting arboriculturist, horticulturist and landscape designer.

Tree Risk Assessment Qualified 2014 (TRAQ)

Cert. Hort. [Honours]

Dip Hort. (Arboriculture) [Distinction]

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