

Landscape Referral Response

Application Number:	DA2019/1478
Date:	19/05/2020
Responsible Officer:	Tony Collier
Land to be developed (Address):	Lot 1 DP 1005148 , 1 Narrabeen Park Parade NORTH NARRABEEN NSW 2101

Reasons for referral

This application seeks consent for the following:

- Construction / development works within 5 metres of a tree or
- New residential works with three or more dwellings. (RFB's, townhouses, seniors living, guesthouses, etc). or
- Mixed use developments containing three or more residential dwellings.
- New Dwellings or

Officer comments

The development application seeks the approval for the construction of alterations and additions to an existing restaurant and amendment of the hours of operation.

In terms of this Landscape Referral, the landscape works include a new pergola, new concrete path, new sleeper edge, post and rail fence, and new soft landscaping.

As requested by Council a post construction (for parts of the proposed works) arborist report has been undertaken to determine the impact upon the existing Norfolk Island Pines in the vicinity of works. A Arboricultural Impact Assessment by RainTree Consulting dated 5 May 2020 reports the following: The three Norfolk Island Pine trees have been subject to minor landscape works within the tree protection zone, and impacts have been discussed with recommendations for minimising impacts to trees for additional works provided, with the methodology involved as follows: Soil probing with a steel probing tool to 250mm in depth in areas where new posts, footpath and timber edge retaining wall beams are located to detect resistance by tree root activity.

In determining impacts within the SRZ by previous additions and alterations the assessment conducted determined a negligible impact by design, however, no detailed tree root investigation by manual (exploratory hand root mapping) or pneumatic air spade inspection was conducted.

The assessment concluded the likelihood of negligible impact due to the following discussions:

- Probing along retaining wall sleepers adjacent T3 & T2, and adjacent the new concrete footpath between T1 & T2 detected no root resistance at 250mm in depth. Soil type was considered very sandy and not compacted corresponding with Grozier Geotechnical Investigation report of deep sandy soils to the SSE of the site. Being sandy soils it is likely deep descending roots occur beyond the SRZ radius.
- The new concrete access footpath to the cafe was constructed to finish above ground level, matching the existing raised level of the public verge pathway. It is likely minimal excavation was required to accommodate the construction of the path with no root resistance when soil probed at the path edge detected.
- The four sleeper post vertical design supporting the steel table tops are cosmetic only with the

exception of one (1) post located directly adjacent T3 at 0.7m (700mm) from the face of tree. It is unclear if tree roots were damaged during central post and footing placement. The remainder of the sleepers do not extend below ground level and are directly attached to existing copper log posts. Some minor alteration (straightening) and concrete footing work may have occurred, with the works occurring in the existing post footprint indicating a likely negligible impact by the design upgrade.

iv. Timber sleeper path adjacent T2 is constructed to meet existing ground levels with minimal excavation to meet grade. The grated SW drain adjacent T3 is located outside of the SRZ radius with likely negligible root impact due to minor (<10%) excavation occupancy within the TPZ.

It is accepted by Council that the works conducted without approval have a negligible impact, with the exception of point iii. above that is inconclusive in determining the impact upon T3, and any decline in T3 shall be attributed to the works conducted without approval, and any tree rehabilitation costs within the next 12 months shall be borne by the cafe operator.

Additional works to complete the landscape upgrade design proposal consist of an additional usage area and pergola adjacent T3 with line of stone wall cages under outdoor bar table tops. Works are located within SRZ setbacks and Conditions of Consent, as recommended in the Arboricultural Impact Assessment by RainTree Consulting dated 5 May 2020 shall be imposed.

The proposal is therefore supported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

Recommended Landscape Conditions:

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

Tree Root Investigation

A non-destructive root investigation shall be conducted complying with clause 3.3.4 (TPZ encroachment considerations) of AS 4970-2009 Protection of Trees on Development Sites within the tree protection zone of existing tree T3 (Norfolk Island Pine) as recommended in the Arboricultural Impact Assessment by RainTree Consulting dated 5 May 2020, to determine the location of pier footings for the proposed pergola.

The root investigation shall locate existing tree roots to be protected during excavation works for the proposed pier footings, and assist with structural engineering and construction design.

Reason: to investigate the location of existing tree roots as a basis for pier footing location, and protect the existing tree identified for retention.

Root Mapping Plan and Pier Footing Plan

The findings of the tree root investigation shall be documented in a Root Mapping Plan that documents 'no-go' areas that can't be excavated without supervision and guidance of a AQF Level 5 Arborist, and shall be the basis for determining the location of all pier footings for the proposed pergola.

The Root Mapping Plan shall be issued to the Certifying Authority and to the Structural Engineer as the basis for preparation of Construction Certificate structural design. The Root Mapping Plan shall provide pier footing layout recommendations.

The Arborist shall provide certification to the Certifying Authority that the Root Mapping Plan and clear distances recommended will ensure the long term survival of the existing tree T3 Norfolk Island Pine.

The Certifying Authority shall approve Construction Certificate design that satisfies the recommendations of the Root Mapping Plan.

A Pier Footing Plan shall be developed in co-ordination with a AQF minimum Level 5 Arborist and a qualified Structural Engineer, and shall be issued to the Certifying Authority identifying suitable locations for all pier footing locations for the proposed pergola.

The Pier Footing Plan shall be issued to the Certifying Authority identifying a suitable locations for each pier footing. The Certifying Authority shall approve Construction Certificate design that satisfies the recommendations of the Pier Footing Plan.

Reason: to ensure protection of the existing trees identified for management and retention.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Tree Protection Measures

A Project Arborist with AQF minimum Level 5 qualification in arboriculture/horticulture is to be appointed to supervise and certify tree protection measures for existing trees to be retained and protected, requiring site attendance during excavation and construction works, in accordance with AS4970- 2009 Protection of Trees on Development Sites, with particular reference to Section 4, and the recommendations of the Arboricultural Impact Assessment prepared by RainTree Consulting dated 5 May 2020, including the following:

- viii) Prior to works commencement, the trunk of trees are to be protected with timber beam trunk protection as detailed within Item 3 of Appendix-C. Timber beams should be no less than 2m in height and installed without causing injury to the tree,
- i) There is to be no excavation within SRZ radius' without prior root mapping or investigation works to determine impact on critical underlying tree roots, refer SRZ & TPZ distance column Appendix-C. The SRZ should be considered a development exclusion zone with no works occurring within the SRZ without prior arborist advice and certification,
- ii) All root investigation works are to be conducted by a minimum suitably qualified AQF Level 4 certified arborist with root mapping plan and/or certification report provided prior to obtaining a Construction Certificate (CC),
- iii) In specific detailed root mapping or exploratory root investigations should occur for pergola pier footing locations adjacent T3,
- iv) Stone cage wall proposal: construction methodology for the stone cage wall proposal should be more clearly detailed within construction drawings. In specific there should be no excavation or compaction to accommodate the wall proposal within the SRZ. Where the wall is proposed on natural ground level within the SRZ root mapping should occur to provide more information on the location, distribution and effect of works on critical underlying tree roots. Tree sensitive design such as placing the wall directly on top of or spanning the wall above ground level over the SRZ may be achievable pending the results of exploratory root investigations,
- v) All tree roots at or >25mm(Ø) are to be retained. Should such roots require pruning all works are to be conducted by the site arborist, clean cutting and/or protecting encountered roots in accordance with AS4970-2009 – section 4.5.4 Root protection during works within the TPZ. Should there be any uncertainty with root management requirements a minimum AQF Level 5 project arborist is to be consulted,
- vi) There is to be no compaction or additional excavation i.e. SW / hydraulics or electrical service trenching within the TPZ radius without prior arborist advice,
- vii) Arborist certification: final certification is to consist of photographic evidence of excavation activities, root management (pruned & covered / protected roots from contamination), time of works and summary of activities conducted to manage tree roots within the tree protection zone.

The Project Arborist shall submit certification that the works and activities described in the above sections have been correctly installed and adhered to during the construction period.

The tree protection measures specified in this clause must:

- viii) be in place before work commences on the site, and
- ix) be maintained in good condition during the construction period, and
- x) remain in place for the duration of the construction works.

The Certifying Authority or the Project Arborist AQF Level 5 must ensure that:

- xi) the activities listed in section 4.2 of AS4970- 2009 Protection of Trees on Development Sites, do not occur within the tree protection zone of any tree, and
- xii) any temporary access to, or location of scaffolding within the tree protection zone of a protected tree, or any other tree to be retained on the site during the construction, is undertaken using the protection measures specified in sections 4.5.3 and 4.5.6 of that standard.

A separate permit or development consent may be required if the branches or roots of a protected tree on the site or on an adjoining site are required to be pruned or removed.

Reason: to retain and protect significant planting on development and adjoining sites.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Condition of retained vegetation

Prior to the issue of an Occupation Certificate, a report prepared by an Arborist with AQF minimum Level 5 qualifications in arboriculture/horticulture shall be submitted to the Certifying Authority, assessing the health and impact on all existing trees required to be retained, and in particular T3, including the following information:

- i) compliance to any Arborist recommendations for tree protection and excavation works,
- ii) extent of damage sustained by vegetation as a result of the construction works,
- iii) any subsequent remedial works required to ensure the long term retention of the vegetation.

Reason: to retain and protect significant planting on development and adjoining sites.