

Landscape Referral Response

Application Number:	DA2019/1190
Date:	02/07/2020
Responsible Officer:	Daniel Milliken
Land to be developed (Address):	Lot 1 DP 651395 , 9999 Pittwater Road BROOKVALE NSW 2100 Lot 1 DP 784268 , 9999 Pittwater Road BROOKVALE NSW 2100 Lot B DP 966128 , 9999 Pittwater Road BROOKVALE NSW 2100 Lot 6 DP 785409 , 9999 Pittwater Road BROOKVALE NSW 2100

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

Additional Information Comment 02/07/2020

Further clarification of proposed works around Trees T47, T48 and T49 has been provided on Storm Water and Site Works Concept Plan Dwg No. C05-2 F dated 11.06.20 prepared by TTW. The amended plans were discussed with the Town Planning consultant for the project.

The plans confirm that the proposed new stormwater pipe is located at a depth of greater than 2 metres below the subject trees. This depth, in conjunction with the proposed tunnel boring for pipe installation, is considered adequate to address previous concerns raised regarding incursions into the Tree Protection Zone and Structural Root Zones of the trees due to the stormwater pipe relocation. In addition to this major impact being resolved, the plan has also deleted the requirement for subsurface drainage (ag-pipe) installation to the grass areas surrounding the trees.

The resultant outcome of the design review is that based on the amended design and subject to the proposed construction techniques and specific tree protection measures, trees T47, T48 and T49 are considered able to be managed with an acceptable level of impact.

However, concerns regarding removal of trees to accommodate the proposed Centre of Excellence and replacement strategies still remain as per previous comments.

Updated conditions reflecting protection of trees have been provided if the proposal is to be approved.

Additional information comment 22/05/2020

Additional information from the applicant in response to issues raised by Council are noted.

No amendment to the previously reviewed landscape plans are proposed. Previous comment regarding that aspect are still relevant.

The additional information did however include additional information regarding stormwater design which impacts on existing and proposed landscape features.

1. Impacts of Stormwater Works on Heritage Listed Trees

Concern is raised with regard to the impacts on trees proposed for retention adjacent to the stormwater works shown on the Storm Water and Site Works Concept Plan Dwg No. C05-2 A prepared by TTW.

Review of the proposed works in accordance with AS4970-2009 *Protection of trees on development sites* indicates significant impacts on Trees T47, T48 and T49 which would render them unsuitable for retention. Fig. 1 below indicates the Tree Protection Zone (Red dash circle) and Structural Root Zone (Black dash circle) overlaid on to the stormwater drawing.

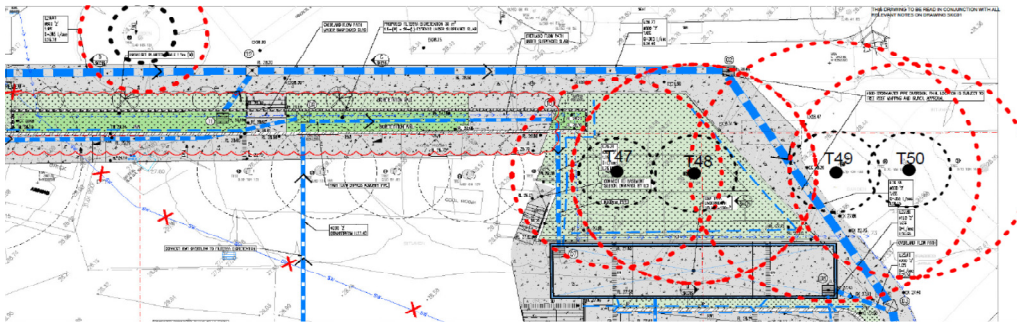


Fig. 1 TPZ & SRZ overlay

Based on the TPZ of each tree as identified in the applicant's Arborist report, the following impacts have been calculated.

T47: TPZ radius 7.9m; TPZ area 196m²; Works incursion 74m² = **38% of TPZ**

T48: TPZ radius 9.2m; TPZ area 266m²; Works incursion 125m² = **47% of TPZ**

T49: TPZ radius 10.9m; TPZ area 373m²; Works incursion 74m² = **37% of TPZ**

These impacts are considered too great to enable retention of trees T47, 48 and 49.

2. Proposed Tree Planting

Concern is raised regarding the proposed tree planting along the northern side of the building in consideration of the details indicated on the stormwater plan.

The plan indicates that the bio-swale requires 2 retaining walls to be constructed in the garden area. This is not reflected on the Landscape Plan, which indicates a wider garden bed with trees centrally located. Concern is raised therefore as to the viability of the trees proposed for the area, their ability to grow in terms of soil volume availability and elevated moisture levels and impacts on the retaining walls over time caused by tree growth. These may be able to be addressed, however the detail provided on the stormwater plan highlights the extended impact of the development on heritage trees and raised questions as to the ability to provide a suitable replacement planting scheme to offset the loss of significant community assets if the proposed is to be approved.

3. Swept Path Analysis

A drawing has been provided indicating the swept path for waste service truck to access the site (Fig 2 below). Several trees (including one heritage listed tree) are close to the routes indicated and it is

unclear if additional hard paving areas are required to accommodate the trucks. It is likely that additional pruning would be required and there is potential for ongoing trunk damage given the close proximity of the tracked path to the tree trunks. The existing entry arrangement is indicated on Photo 1 below. This may be able to be addressed through further information, however the plan again highlights the ongoing impact of the development on the existing trees.

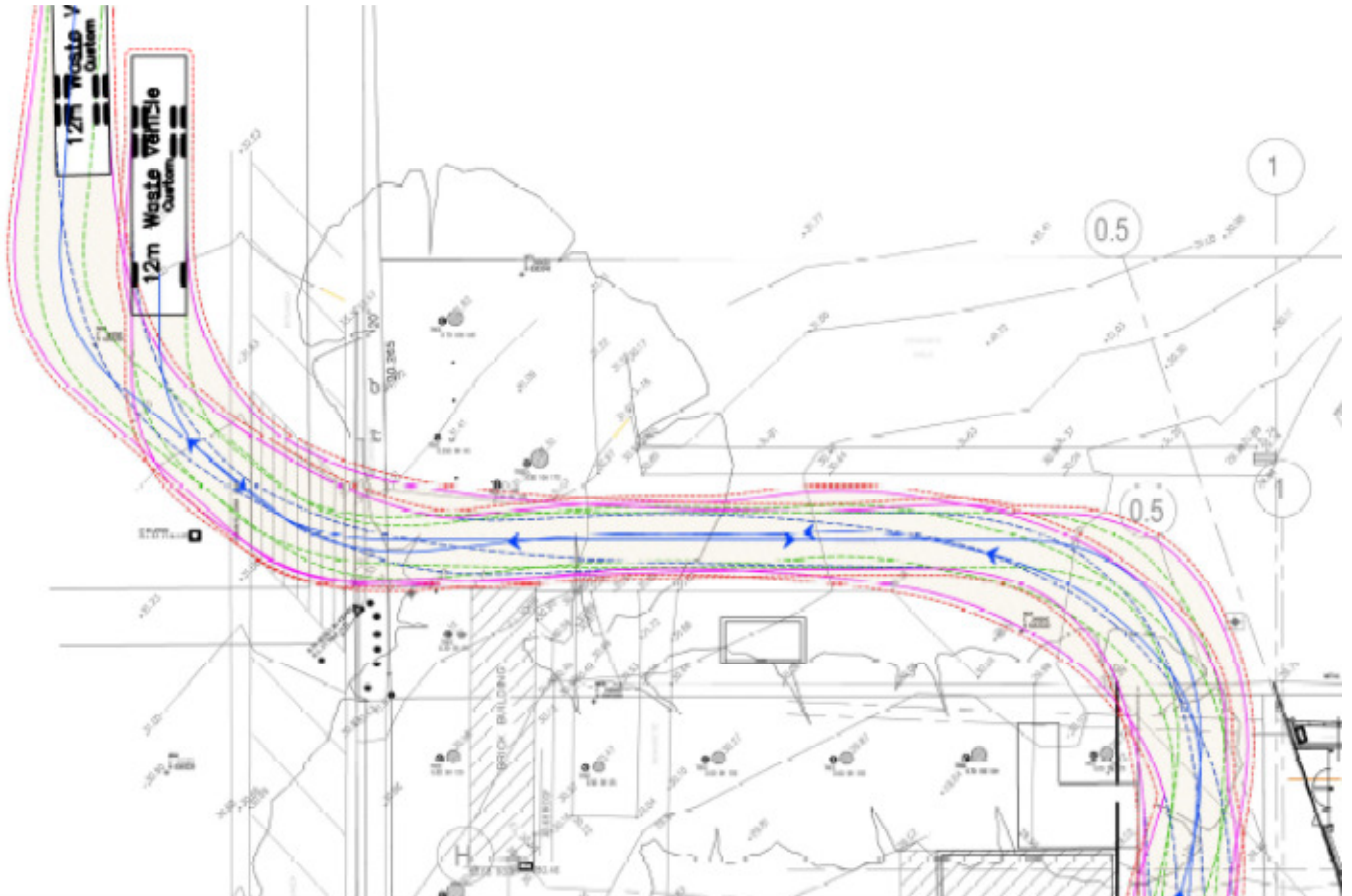




Fig. 2 Swept path
drawing

Photo 1. Existing entry to the park on the swept path plan

Additional information comment 24/04/2020

Updated plans and report submitted by the applicant are noted.

The plans indicate that the trees referred to in the original referral comments are still to be removed.

An updated Landscape Plan has been provided (though the original landscape plan is still included in the amended drawing set as well).

The Landscape Plan indicates replanting of small trees between the building and the footpath to the north to compensate for the removal of the local heritage listed *Lophostemon conferta* (Brush Box Trees) which will be required to be removed to accommodate the new building.

It is clear that the trees indicated for removal will need to be removed to accommodate the building as designed, along with significant impacts to other trees as detailed in the previous referral comments below. Retention of the trees is not an option in the design as presented.

The amended Heritage Impact Assessment notes that the trees have cultural significance, having been established around the park for at least eighty years.

Removal of the trees is still not supported from a cultural landscape perspective and, as previously

commented, are significant enough to be a material constraint on development. Other options appear to be available either in alternate locations or even via removal of the existing mound to enable construction of facilities below the existing ground levels rather than over the mound as is proposed.

However, if the proposal is to be supported, replacement of the trees with the same species capable of maintaining the integrity of the heritage item, being a ring of trees around the park, should form part of the development and therefore be factored into the development budget. This is achievable via planting of *L. conferta* between the building and path to the north with the relocation or undergrounding of the power line that currently passes over this area.

However, if the proposal is to be approved as presented, conditions have been provided to ensure tree protection and proposed landscaping is undertaken.

Original comment

The plans indicate removal of a row of eleven significant *Lophostemon conferta* (Brush Box Trees) along the northern end of Brookvale Oval. The trees form part of a listed Item of Environmental Heritage in Warringah LEP 2011.

The only reason for removal of the trees is to construct the proposed building. Alternate designs should be sought that enables retention of the trees.

In view of the status afforded them by WLEP2011, the trees should be a significant design constraint on any development proposed..

Further impacts on three additional listed *L.conferta* trees, Trees 47, 48 and 49 (as identified in the Arborist's Report) caused by the need to excavate for a new stormwater drainage diversion. construction of retaining walls and bioretention swale are of concern. Drawings SKC05 - Storm Water and Site Works Concept Plan and SKC15 - Bulk Earthwork Plan prepared by TTW also indicate significant works around the Tree Protection Zone of these trees on the eastern side of the building and Tree 35 on the western side of the building. The combined impacts on these trees is considered likely to adversely affect their retention.

Concern is also raised regarding tree 24 and 25 on the Alfred Road side of the existing toilet block which appear to be removed on the Drawing A_0400 Site Plan prepared by Hassell and Drawing CS100 - Combined Services Site Plan prepared by LCI Consultants to accommodate proposed Authority water meter, Authority gas meter and fire hydrant booster assembly for the Centre of Excellence. Trees 74 and 75 *Cinnamomum camphora* (Camphor Laurel Trees) on the Pine Avenue side of the ground appear significantly affected by the new sewer line required for the Centre of Excellence as indicated on Drawing CS100 - Combined Services Site Plan prepared by LCI Consultants

The removal of and high potential for damage to the listed trees as significant Cultural Landscape items is not supported.

Further, the proposal to remove the trees does not appear permissible under Part 3 Clause 10 of the State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 which states (emphasis added):

Part 3 Clause 10

10 Council may issue permit for clearing of vegetation

(3) *A permit under this Part cannot allow the clearing of vegetation—*

(a) *that is or forms part of a heritage item or that is within a heritage conservation area, or*

(b) *that is or forms part of an Aboriginal object or that is within an Aboriginal place of heritage*

significance,

unless the council is satisfied that the proposed activity—

(c) is of a minor nature or is for the maintenance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or heritage conservation area, and

(d) would not adversely affect the heritage significance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or heritage conservation area.

The proposed replanting of some trees within the site and adjoining parkland is not considered suitable to compensate for the loss of the trees proposed and the locations indicated bear no resemblance to the existing formal avenue planting that would be removed. The proposed locations, particularly those in the narrow area between the ramp structure on the eastern side, are not likely to enable growth to maturity.

At this stage, the proposal is not supported with regard to Landscape issues.

Relevant Planning controls (emphasis added in italics):

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017

Part 1 Clause 3

3 Aims of Policy

The aims of this Policy are—

(a) to protect the biodiversity values of trees and other vegetation in non-rural areas of the State, and

(b) to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation.

Part 3 Clause 10

10 Council may issue permit for clearing of vegetation

(3) A permit under this Part cannot allow the clearing of vegetation—

(a) that is or forms part of a heritage item or that is within a heritage conservation area, or

(b) that is or forms part of an Aboriginal object or that is within an Aboriginal place of heritage significance,

unless the council is satisfied that the proposed activity—

(c) is of a minor nature or is for the maintenance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or heritage conservation area, and

(d) would not adversely affect the heritage significance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or heritage conservation area.

(4) A permit may be granted under this Part subject to any conditions specified in the permit

WLEP 2011

Zone RE1 Public Recreation

1 Objectives of zone

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.
- *To protect, manage and restore public land that is of ecological, scientific, cultural or aesthetic value.*
- *To prevent development that could destroy, damage or otherwise have an adverse effect on those*

values.

5.10 Heritage conservation

(1) Objectives

The objectives of this clause are as follows:

(a) to conserve the environmental heritage of Warringah,

(b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,

(c) to conserve archaeological sites,

(d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

WDCP

E1 Preservation of Trees or Bushland Vegetation

Objectives

•To protect and enhance the urban forest of the Northern Beaches.

•To effectively manage the risks that come with an established urban forest through professional management of trees.

•To minimise soil erosion and to improve air quality, water quality, carbon sequestration, storm water retention, energy conservation and noise reduction.

•To protect, enhance bushland that provides habitat for locally native plant and animal species, threatened species populations and endangered ecological communities.

•To promote the retention and planting of trees which will help enable plant and animal communities to survive in the long-term.

•To protect and enhance the scenic value and character that trees and/or bushland vegetation provide.

The proposal is therefore unsupported.

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

Heritage Listed Trees

a) The heritage listed trees not indicated for removal on the approved plans are to be protected from damage during construction. Heritage trees include Trees numbered 1 to 26, 31 to 35, 47 to 61 and 71 to 75 as identified in the Arboricultural Impact Assessment date 23-10-19 prepared by Tree Management Strategies.

b) Details of the method of protection of the trees must be submitted by the Project Arborist to Council and the Certifying Authority prior to the issue of the Construction Certificate.

c) Annotated photographs of the trees, with particular emphasis on the lower part of the trees, must be submitted to by the Project Arborist to Council and the Certifying Authority prior to the commencement of any building work.

Reason: To ensure appropriate tree protection measures are adopted to preserve significant community assets.

Tree Protection Plan

In order to protect and enhance onsite vegetation and trees the following applies to the development site:

a) A Tree Protection Plan shall be submitted to the Certifying Authority for approval prior to the issue of a Construction Certificate, demonstrating tree protection measures to protect the following trees:

i) Trees numbered 1 to 35 and 47 to 75 as identified in the Arboricultural Impact Assessment date 23-10-19 prepared by Tree Management Strategies

b) The Tree Protection Plan shall be prepared by a Consulting Arborist with minimum qualifications AQF Level 5 in arboriculture incorporating the following:

- i. layout of the development, including existing and proposed underground services,
- ii. location of all trees identified for retention, including extent of canopy,
- iii. access routes throughout the site for construction activity,
- iv. location of tree protection fencing / barriers,
- v. root protection in the form of mulching or boards proposed within the tree protection zone,
- vi. irrigation provision during works
- vii. nutrient supplements (such as stem injection, liquid fertilisers) prior to and during works,
- viii. trunk and branch protection within the tree protection zone,
- ix. location of stockpile areas and materials storage,
- x. Inspection hold points
- xi. other general tree protection measures.

c) All tree protection methods are to be in accordance with AS4970-2009 Protection of Trees on Development Sites

Reason: To ensure compliance with the requirement to retain and protect significant planting on the site.

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

Tree Trunk, Branch and Root Protection

A) Existing trees and vegetation shall be retained as follows:

- i) all trees and vegetation within and adjacent to the site, nominated on the plans and as recommended in the Arboricultural Impact Assessment prepared by Tree Management Strategies dated 23-10-19 & the approved Tree Protection Plan shall be protected during all construction stages.
- ii) all other trees and vegetation located on adjoining properties,
- iii) all road reserve trees and vegetation.

B) Tree protection shall be undertaken as follows:

i) all tree protection shall be in accordance with AS4970- 2009 Protection of Trees on Development

Sites, with particular reference to Section 4, and according to the Arboricultural Impact Assessment prepared by Tree Management Strategies dated 23-10-19 and the approved Tree Protection Plan

- ii) any tree roots exposed during excavation with a diameter greater than 25mm within the TPZ must be assessed by the Project Arborist. Details including photographic evidence of works undertaken shall be submitted by an the Project Arborist to the Certifying Authority,
- iii) to minimise the impact on trees and vegetation to be retained and protected, no excavated material, building material storage, site facilities, nor landscape materials are to be placed within the canopy dripline of trees and other vegetation required to be retained,
- iv) no tree roots greater than 25mm diameter are to be cut from protected trees unless authorized by the Project Arborist on site,
- v) all structures are to bridge tree roots greater than 25mm diameter unless directed by the Project Arborist on site,
- vi) should either or both iv) and v) occur during site establishment and construction works, the Project Arborist shall provide recommendations for tree protection measures provided. Details including photographic evidence of works undertaken shall be submitted by the Arborist to the Certifying Authority.

Reason: To ensure compliance with the requirement to retain and protect significant planting on development sites.

Project Arborist

- i) A Project Arborist with minimum qualification AQF Level 5 is to be appointed prior to commencement of works.
- ii) The Project Arborist is to oversee all tree protection measures, removals and works adjacent to protected trees as outlined in the Arboricultural Impact Assessment prepared by Tree Management Strategies dated 23-10-19, approved Tree Protection Plan and AS4970-2009 Protection of trees on development sites.
- iii) The Project Arborist is to ensure compliance as relevant with any other environmental requirements conditioned under this consent.

Reason: to ensure protection of vegetation proposed for retention on the site.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Trees Condition

During the construction period the applicant is responsible for ensuring all protected trees are maintained in a healthy and vigorous condition. This is to be done by ensuring that all identified tree protection measures are adhered to. In this regard all protected plants on this site shall not exhibit:

- (a) A general decline in health and vigour.
- (b) Damaged, crushed or dying roots due to poor pruning techniques.
- (c) More than 10% loss or dieback of roots, branches and foliage.
- (d) Mechanical damage or bruising of bark and timber of roots, trunk and branches.
- (e) Yellowing of foliage or a thinning of the canopy untypical of its species.
- (f) An increase in the amount of deadwood not associated with normal growth.
- (g) An increase in kino or gum exudation.
- (h) Inappropriate increases in epicormic growth that may indicate that the plants are in a stressed condition.
- (i) Branch drop, torn branches and stripped bark not associated with natural climatic conditions.

Any mitigating measures and recommendations required by the Arborist are to be implemented.

The owner of the adjoining allotment of land is not liable for the cost of work carried out for the purpose of this clause.

Reason: Protection of Trees.

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

Landscape completion certification

a) Prior to the issue of an Occupation Certificate, a landscape report prepared by a landscape architect or landscape designer shall be submitted to the Certifying Authority, certifying that the landscape works have been completed in accordance with the approved landscape plan and inclusive of any conditions of consent.

b) Prior to the issue of an Occupation Certificate, a landscape report prepared by a landscape architect or landscape designer shall be submitted to the Certifying Authority, certifying that the landscape works have been established and maintained in accordance with the approved landscape plan.

Reason: To ensure that the landscape treatments are installed to provide landscape amenity.

Condition of retained vegetation

Prior to the issue of an Occupation Certificate, a report prepared by the Project Arborist shall be submitted to the Certifying Authority, assessing the health and impact of trees and vegetation required to be retained as a result of the proposed development, including the following information:

- a) Compliance to Arborist recommendations for tree protection and excavation works.
- b) Extent of damage sustained by vegetation as a result of the construction works.
- c) Any subsequent remedial works required to ensure the long term retention of the vegetation.

Reason: To ensure compliance with the requirement to retain and protect significant planting on development sites.