

Landscape Referral Response

Application Number:	DA2021/0624
Date:	02/06/2021
Responsible Officer:	Maxwell Duncan
Land to be developed (Address):	Lot 11 DP 10321 , 22 Marmora Street FRESHWATER NSW 2096

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

This application is for the alterations and additions to an existing residential dwelling. The proposed works include the demolition of the existing carport and studio, as well as the partial demolition of the existing dwelling. Construction works on the ground floor include an extension to the rear of the existing dwelling to include a new open plan kitchen, dining and living area, a new swimming pool and single carport, as well as a new studio located at the rear of the property. In addition to this, a new first floor is also proposed which comprises of a new master bedroom, ordinary bedroom as well as study.

Councils Landscape Referral section has considered the application against the Warringah Local Environment Plan, and the following Warringah DCP 2011 controls:

- D1 Landscaped Open Space and Bushland Setting
- E1 Preservation of Trees or Bushland Vegetation

Original Comments - 25/05/2021

The Statement of Environmental Effects provided with the application notes the proposal seeks to retain as many existing trees and vegetation as possible, however notes some existing trees are required to be removed. This statement is supported in the Architectural Plans provided as a number of existing trees have been shown for removal. For this reason, an Arboricultural Impact Assessment has been provided.

The Arboricultural Impact Assessment has identified a total of twenty trees, two of which are located in the road reserve, four within neighbouring properties, and the remaining fourteen located within the site boundaries. Of these twenty trees identified, nine trees are proposed for retention. It is noted that all trees within the road reserve and within adjoining properties have been proposed for retention. These trees are protected under the Warringah DCP, and are therefore required to be retained and protected accordingly. It is also worth noting that two of the three trees proposed to be retained within the site boundaries are exempt species, resulting in only one protected tree within the site.

Concern is raised regarding the proposed works and the potential impacts on Tree No. 2. Tree No. 2 is

located in the adjoining property to the east, and the proposed stormwater design has an expected major encroachment of 13.92% into the Tree Protection Zone (TPZ) of this tree, with the front boundary fence footing also encroaching into the Structural Root Zone (SRZ) of this tree. The Arboricultural Impact Assessment notes that although this encroachment of 13.92% is deemed major, it is considered acceptable as Tree No. 2 is an exempt species. Although this tree is an exempt species, it is located within the neighbouring property, and is therefore protected under the Warringah DCP. For this reason, as well as that proposed works are located within the SRZ, a tree root investigation in accordance with AS4970-2009, specifically *Clause 3.3.3 Major Encroachment*, is required to ensure that the proposed stormwater design and front fence footing avoids significant roots, and that this tree can be retained with no compromises to both the short and long-term health, vitality as well as structural integrity.

Further concern is raised regarding the proposed works, specifically the rear studio, and its potential impact on Tree No. 14. Tree No. 14 is located in the neighbouring property to the west, and the proposed studio is located within both the TPZ and SRZ of this tree. The Arboricultural Impact Assessment notes that a tree sensitive construction type, the use of pier and beams, was decided on during the initial design stage. In addition to this, footings were to be hand dug. It is currently unclear in the Architectural and Engineering Plans provided whether or not pier and beams are to be utilised in this area. Section 02 on Architectural Plan DA.11 indicates some excavation is also expected at the rear of the property as a result of the proposed studio. This is within both the TPZ and SRZ, and has the potential to impact this tree's ongoing health, as well as the structural integrity and stability of this tree. The expected impacts of the studio are currently unclear, and as a result further information is needed. It is also recommended that a tree root investigation in accordance with AS4970-2009, specifically *Clause 3.3.3 Major Encroachment*, takes place in this area as impacts to this tree would not be supported. Further to this, additional information is required to demonstrate pier and beams will be utilised in this area as this construction methodology would be supported. It could also be worth indicating where pier footings should be located following this tree root investigation exercise as an Arborist should be engaged during this design process to ensure footings avoid significant roots.

The retention of Trees No. 2 and 14, as well as others noted as retained, is vital to satisfy control E1 as key objectives of this control include "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", as well as "to protect and enhance the scenic value and character that trees and/or bushland vegetation provide".

Of the eleven trees proposed for removal, seven trees have been identified as exempt species, and therefore may be removed without Council's approval. The remaining trees proposed for removal include Trees No. 12, 13, 17 and 19. Trees No. 12 and 13 are located towards the rear of the site and within the proposed footprint of the studio and its associated access stairs. Both Trees No. 12 and 13 have been identified as having fair health and condition, medium useful life expectancy, as well as low landscape significance and retention value. Trees No. 17 and 19 are located to the rear of the existing dwelling, however are located within the footprint of the proposed dwelling extension. Both Trees No. 17 and 19 have been identified as having fair health, fair to poor condition, medium useful life expectancy, as well as low landscape significance and retention value. As concern is raised regarding the number of protected trees and vegetation remaining on the site post development, compensatory planting is required. At minimum, two canopy trees shall be required to be planted at the rear of the dwelling. In addition to this, screen planting along the front and side boundaries shall also be required to enhance privacy between the site and its existing neighbours which is particularly important due to the existing mixed use building located adjacent to the site. This compensatory tree planting and additional screen planting is necessary to satisfy with control D1 as key objectives of this control include "to provide for landscaped open space with dimensions that are sufficient to enable the establishment of low lying shrubs, medium high shrubs and canopy trees of a size and density to mitigate the height, bulk and scale of the building", as well as "to enhance privacy between buildings". It is therefore recommended that a Landscape Plan be provided with the application in accordance with Council's

Development Application Lodgement Requirements, ensuring that compensatory tree planting is proposed, and that additional screen planting is implemented.

In its current form, the landscape component of the proposal cannot be supported due to the potential impacts on existing trees located in adjoining properties, as well as concerns revolving around privacy and the need for compensatory tree planting. It is therefore recommended that a tree root investigation in accordance with AS4970-2009, specifically *Clause 3.3.3. Major Encroachment*, take place ensuring both Trees No. 2 and 14 can be retained with no impacts to their health and structural integrity. It is also recommended that a Landscape Plan be provided in accordance with Councils Development Application Lodgement Requirements, ensuring adequate canopy tree replacements are proposed, as well as additional screen planting ensuring privacy between dwellings is retained.

Following the receipt of the required documents, further assessment can be made.

Updated Comments - 02/06/2021

Following original concerns raised, a Letter has been provided by the Project Architect addressing concerns regarding proposed works and their impacts on trees to be retained. In addition, a Landscape Plan has also been provided with the application which proposes the in-ground planting of trees, shrubs, accents, grasses as well as groundcovers.

The Landscape and Tree Letter provided makes note that the required tree root investigation for both Tree No. 2 and 14 is difficult due to current site constraints, such as the existing driveway, preventing tree root investigations from taking place. It has been suggested that a tree root investigation be conditioned prior to construction certificate, and that a Project Arborist should be appointed to supervise all works within the TPZ and SRZ of trees to be retained, which is particularly important for both Trees No. 2 and 14 due to the expected encroachment into these zones. Due to the complexity of these areas with existing site conditions, these suggestions are supported subject to pier and beam footing designs being in coordination with an AQF Level 5 Arborist. This Project Arborist shall also assist in tree root mapping for Tree No. 2, and should significant roots be impacted by the proposed stormwater design, the proposed alignment shall require a redesign. The protection and retention of these two trees is vital to satisfy control E1, as key objectives of this control include "to effectively manage the risks that come with an established urban forest through professional management of trees", as well as "to protect and enhance the scenic value and character that trees and/or bushland vegetation provide".

Concern is raised regarding the use of *Rhaphiolepis indica* 'Oriental Pearl', as this has been identified as an environmental weed and is therefore an undesirable species. It is therefore recommended that this be substituted for a locally native alternative. Further concern is raised as the proposed use of this species is within the road reserve, outside the Development Application boundary. For this reason, it is recommended that planting within the road reserve be removed and the existing turf and trees be retained with minimal disturbance. Should *Rhaphiolepis indica* 'Oriental Pearl' be used elsewhere within the site, it shall still require substitution for a locally native alternative.

The landscape component is therefore supported subject to the following conditions.

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 and Tree Root Map

Prior to the issue of a Construction Certificate, a tree root mapping investigation for Trees No. 2 and 14 shall be undertaken, and a Tree Root Map shall be documented that will be the basis for determining construction methodology near existing trees identified as Trees No. 2 and 14.

An Arborist with minimum AQF Level 5 in arboriculture shall supervise the works to verify tree root locations. A non-destructive root investigation shall be conducted complying with clause 3.3.4 of AS 4970-2009 Protection of Trees on Development Sites.

The root investigation shall map existing roots of significance that must not be impacted by construction works. The tree root investigation shall be conducted to confirm the following data to be used for the location/alignment of any new proposed works:

- i) confirmation of the location of any tree roots at or >25mm (Ø) diameter to areas that require excavation for proposed works. Alternative alignment of proposed works shall be provided as necessary to avoid major roots, and
- ii) mapping of the suitable location/alignment of proposed works.

The Tree Root Map shall be issued to a qualified Structural Engineer as a basis for structural design, and for determining the final location/alignment and construction methodology of proposed works within the tree protection zone (TPZ).

Prior to the issue of a Construction Certificate, the Arborist shall provide certification to the Certifying Authority that the tree root investigation and clear distance recommendations have been adequately addressed in the Construction Certificate plans.

Reason: To ensure protection of vegetation proposed for retention or adjacent to the site.

Pier Footing Design Near Trees to be Retained

Pier footing structural layout plans for the external works including the proposed studio at the rear of the property and new fence at the front of the site, shall be developed in co-ordination with an Arborist with AQF minimum Level 5 qualifications in arboriculture, and a qualified Structural Engineer. The Arborist shall review, comment, recommend design revision as required and approve the pier footing layout, to ensure the locations of piers will be manageable in terms of tree protection measures.

The Arborist shall submit certification to the Certifying Authority, that the locations of the pier footings are accepted. The agreed pier footing structural layout plans shall be submitted to the Certifying Authority for approval prior to the issue of a Construction Certificate.

Reason: Tree protection.

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT**Project Arborist**

A Project Arborist with minimum AQF Level 5 in arboriculture shall be engaged to provide tree protection measures in accordance with Australian Standard 4970-2009 Protection of Trees on Development Sites. The Project Arborist is to specify and oversee all tree protection measures such as tree protection fencing, trunk and branch protection, and ground protection.

The Project Arborist is to supervise all demolition, excavation and construction works near all trees to be retained, including construction methods near the existing trees to protect tree roots, trunks, branches and canopy. Where required, manual excavation is to occur ensuring no tree root at or >25mm (Ø) is damaged by works, unless approved by the Project Arborist.

Existing ground levels shall be maintained within the tree protection zone of trees to be retained, unless authorised by the Project Arborist.

The Project Arborist shall be in attendance and supervise all works as nominated in the Arboricultural Impact Assessment, including:

- i) pier and beam footing design and location,
- ii) all demolition, excavation and construction works within the TPZ's and SRZ's of trees to be retained.

All tree protection measures specified must:

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

The Project Arborist shall provide certification to the Certifying Authority that all recommendations listed for the protection of the existing tree(s) have been carried out satisfactorily to ensure no impact to the health of the tree(s). Photographic documentation of the condition of all trees to be retained shall be recorded, including at commencement, during the works and at completion.

Note:

- i) 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.
- ii) Any potential impact to trees as assessed by the Project Arborist will require redesign of any approved component to ensure existing trees upon the subject site and adjoining properties are preserved and shall be the subject of a modification application where applicable.

Reason: Tree protection.

Tree Removal Within the Property

This consent approves the removal of the following trees within the property (as recommended in the Arboricultural Impact Assessment):

- i) *Dracena marginata*, located towards the rear of the site within the footprint of proposed works, Tree No. 12,
- ii) *Dracena marginata*, located towards the rear of the site within the footprint of proposed works, Tree No. 13,
- iii) *Camelia sasanqua*, located towards the central portion of the site within the footprint of proposed works, Tree No. 17,
- iv) *Camelia sasanqua*, located towards the central portion of the site within the footprint of proposed works, Tree No. 19.

Note:

- i) Exempt Species as listed in the Arboricultural Impact Assessment or the Development Control Plan do not require Council consent for removal,
- ii) Any request to remove a tree approved for retention under the development application is subject to a Section 4.55 modification application, or an assessment by an Arborist with minimum AQF Level 5 in arboriculture that determines that the tree presents an imminent risk to life or property.

Reason: To enable authorised building works.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Protection of Existing Street Trees

All existing street trees in the vicinity of the works shall be retained during all construction stages, and

the street trees fronting the development site shall be protected by tree protection fencing in accordance with Australian Standard 4687-2007 Temporary Fencing and Hoardings, and in accordance with Section 4 of Australian Standard 4970-2009 Protection of Trees on Development Sites.

As a minimum the tree protection fencing for street tree(s) fronting the development site shall consist of standard 2.4m panel length to four sides, unless otherwise directed by an Arborist with minimum AQF Level 5 in arboriculture.

All fencing shall be located to allow for unrestricted and safe pedestrian access upon the road verge.

Should any problems arise with regard to the existing or proposed trees on public land during construction, Council's Tree Services section is to be contacted immediately to resolve the matter to Council's satisfaction and at the cost of the applicant.

Reason: Tree protection.

Tree and Vegetation Protection

a) Existing trees and vegetation shall be retained and protected, including:

- i) all trees and vegetation within the site not approved for removal, excluding exempt trees and vegetation under the relevant planning instruments of legislation,
- ii) all trees and vegetation located on adjoining properties,
- iii) all road reserve trees and vegetation.

b) Tree protection shall be undertaken as follows:

- i) tree protection shall be in accordance with Australian Standard 4970-2009 Protection of Trees on Development Sites, including the provision of temporary fencing to protect existing trees within 5 metres of development,
- ii) existing ground levels shall be maintained within the tree protection zone of trees to be retained, unless authorised by an Arborist with minimum AQF Level 5 in arboriculture,
- iii) removal of existing tree roots at or >25mm (Ø) diameter is not permitted without consultation with an Arborist with minimum AQF Level 5 in arboriculture,
- iv) 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,
- v) structures are to bridge tree roots at or >25mm (Ø) diameter unless directed by an Arborist with minimum AQF Level 5 in arboriculture on site,
- vi) excavation for stormwater lines and all other utility services is not permitted within the tree protection zone, without consultation with an Arborist with minimum AQF Level 5 in arboriculture including advice on root protection measures,
- vii) should either or all of v), vi) and vii) occur during site establishment and construction works, an Arborist with minimum AQF Level 5 in arboriculture shall provide recommendations for tree protection measures. Details including photographic evidence of works undertaken shall be submitted by the Arborist to the Certifying Authority,
- viii) any temporary access to, or location of scaffolding within the tree protection zone of a protected tree or any other tree to be retained during the construction works is to be undertaken using the protection measures specified in sections 4.5.3 and 4.5.6 of Australian Standard 4970-2009 Protection of Trees on Development Sites,
- ix) the activities listed in section 4.2 of Australian Standard 4970-2009 Protection of Trees on Development Sites shall not occur within the tree protection zone of any tree on the lot or any tree on an adjoining site,
- x) tree pruning from within the site to enable approved works shall not exceed 10% of any tree canopy, and shall be in accordance with Australian Standard 4373-2007 Pruning of Amenity Trees,
- xi) the tree protection measures specified in this clause must: i) be in place before work commences on the site, and ii) be maintained in good condition during the construction period, and iii) remain in place

for the duration of the construction works.

c) Tree protection shall specifically be undertaken in accordance with the recommendations in the Arboricultural Impact Assessment, as listed in the following sections:

- i) Section 2 - Developmental Impacts and Observations,
- ii) Section 4 - Conclusions & Recommendations.

The Certifying Authority must ensure that:

- d) The arboricultural works listed in c) are undertaken and certified by an Arborist as compliant to the recommendations of the Arboricultural Impact Assessment.
- e) The activities listed in section 4.2 of Australian Standard 4970-2009 Protection of Trees on Development Sites, do not occur within the tree protection zone of any tree, and 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.

Note: All street trees within the road verge and trees within private property are protected under Northern Beaches Council development control plans, except where Council's written consent for removal has been obtained. The felling, lopping, topping, ringbarking, or removal of any tree(s) is prohibited.

Reason: Tree and vegetation protection.

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

Landscape Completion

Landscaping is to be implemented in accordance with the approved Landscape Plan, inclusive of the following conditions:

- i) proposed planting within the road reserve shall be removed as this is outside the site boundaries and is not supported,
- ii) should *Rhaphiolepis indica* 'Oriental Pearl' be proposed within the site, it is required to be substituted for a locally native alternative species, minimum 200mm pot size. Suggested alternatives include: *Banksia spinulosa*, *Grevillea sericea* or *Westringia fruticosa*.

Prior to the issue of an Occupation Certificate, details (from a landscape architect or landscape designer) shall be submitted to the Certifying Authority, certifying that the landscape works have been completed in accordance with any conditions of consent.

Reason: Environmental amenity.

Condition of Retained Vegetation - Project Arborist

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 on all existing trees required to be retained, including the following information:

- a) compliance to any Arborist recommendations for tree protection generally and during 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: Tree protection.

ON-GOING CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES

Landscape Maintenance

If any landscape materials/components or planting under this consent fails, they are to be replaced with similar materials/components. Trees, shrubs and groundcovers required to be planted under this consent are to be mulched, watered and fertilised as required at the time of planting.

If any tree, shrub or groundcover required to be planted under this consent fails, they are to be replaced with similar species to maintain the landscape theme and be generally in accordance with the approved Landscape Plan and any conditions of consent.

All weeds are to be removed and controlled in accordance with the NSW Biosecurity Act 2015.

Reason: To maintain local environmental amenity.