
rainTree consulting

Arboricultural Management
PO Box 326 AVALON NSW 2107
Mobile 0419 250 248

Mr. John Tedesco
C/- Gartner Trovato Architects
L1, Suite 13, 10 Park Street
MONA VALE, NSW
T: 9979 4411

22 January 2024

DA2018/1067

89 WOORARRA ROAD – ELANORA HEIGHTS, NSW 2101

ARBORICULTURAL REPORT

File No: 0224

INTRODUCTION & METHODOLOGY

This report has been commissioned by Mr. John Tedesco C/- Gartner Trovato Architects. The scope of works and purpose of the report is to address design alterations in relation to new development works at 89 Woorarra Road NARRABEEN NSW. Discussions provided within this report are based on tree numbering & information provided within Raintree Consulting's Development Impact report dated 20.6.2018 with reference to the following documentation.

Gartner Trovato Architects- Project 1802 Section 4.55 documentation, *specific to:*

- Site Plan Dwg No: A.01 rev B dated Nov2023
- Lower Ground Floor Plan Dwg No: Dwg No: A.03 rev B dated Nov2023
- Ground Floor Plan Dwg No: A.04 rev B dated Nov2023
- NTH & STH Elevations Dwg No: A.05 rev B dated Nov2023
- EST & WST Elevations Dwg No: A.06 rev B dated Nov2023
- Sections A, B & C Dwg No: A.07 rev B dated Nov2023
- Front Fence Elevation Dwg No: A.08 rev B dated Nov2023

Stutchbury Jaques Pty Limited

- Survey Plan ref No: 10053/18 dated 31.1.2018

Raintree Consulting's

- Arboricultural Assessment & Development Impact Report ref No: 8118 dated 20.6.2018

Australian Standards

- Australian Standard AS4970 Protection of Trees on Development Sites – 2009

DISCLAIMER & LIMITATION ON THE USE OF THIS REPORT

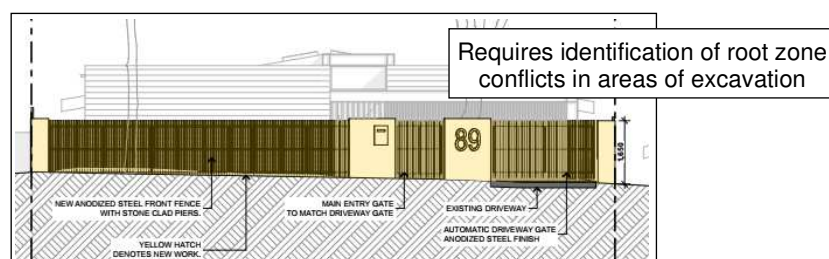
This report is to be utilized in its entirety only. Any written or verbal submission, report or presentation that includes statements taken from the findings, discussions, conclusions or recommendations made in this report, may only be used where the whole of the original report (or copy) is referenced in, and directly to that submission, report or presentation. Unless stated otherwise: Information contained in this report covers only the tree/s that were examined and reflects the condition of the trees at the time of inspection: and the inspection was limited to visual examination of the subject tree without dissection, excavation, probing or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject tree/s may not arise in the future. Arborist cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specific period of time. Trees are a living entity and change continuously, they can be managed but not controlled and to be associated near one involves some degree of risk.

SUMMARY OF ASSESSMENT

Front Fence Proposal

1. Trees numbered T2, 3, 4, 5 & 6 noted within Survey Plan documentation have not been site inspected or assessed as part of this proposal. Tree data is based on Survey Plan documentation for Structural Root Zone (SRZ) radiuses described as:
 - T2: trunk 300mm(Ø) having an SRZ of 2.1m
 - T3: trunk 500mm(Ø) having an SRZ of 2.6m
 - T4: trunk 300mm(Ø) having an SRZ of 2.1m
 - T5: trunk 400mm(Ø) having an SRZ of 2.4m
 - T6: trunk 300mm(Ø) having an SRZ of 2.1m
2. Based on the front fence being located within the SRZ of the trees including T9 tree root investigations are required where any excavation for pillar / post supports are required as to identify the location, distribution and impacts to critical underlying tree roots. Any area of cut should also be clearly detailed, with the front fence panel sections supported above ground level to minimize impacts within the SRZ & TPZ.

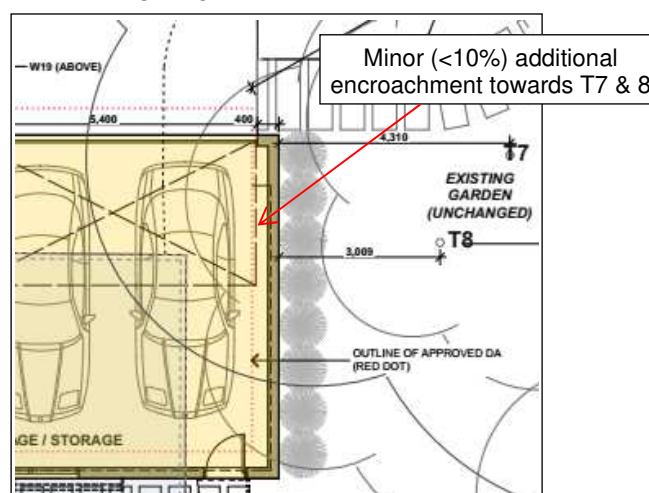
Figure 1: Showing Front fence proposal



Proposed dwelling alterations

3. Trees 7 & 8: Ground Floor Plan A.04 shows a minor increase in the garage footprint with proposed outside the SRZ. Additional impacts within the TPZ are likely to be *Minor*, (<10%) disturbance indicating the trees are capable of being managed in accordance with previous DA approved recommendations, and/or as indicated within Appendix- A: *General tree protection requirements*; specific to:
 - Project arborist supervision & certification during manual excavation within tree protection zones. Exposed roots are to be certified as managed in accordance with AS4970 – 2009 Section 4.5.4 *Root protection during works within the TPZ*, such that tree roots are not damaged or ripped beyond the point of excavation by site machinery.

Figure 2: Showing minor addition to garage



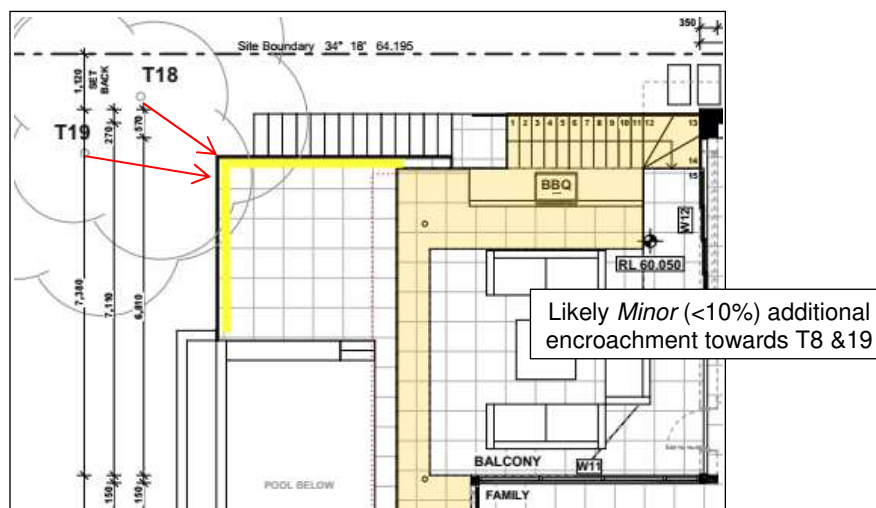
Proposed pool deck / patio alterations

3. Trees 18 & 19: Ground Floor Plan A.04 indicates the proposed setback to T18 is located outside of the SRZ, at or near 2m from the tree and T19 where desk top information indicates a likely *Minor* (<10%) disruption within tree protection zones.

Given works are likely located outside the SRZ with likely *Minor* (<10%) TPZ disturbance the trees are capable of being managed in accordance with previous DA approved recommendations, and/or as indicated within Appendix- A: *General tree protection requirements*; specific to:

- Installation & certification of appropriate tree protection fencing.
- Project arborist supervision & certification during manual (hand) excavation within tree protection zones. Exposed roots are to be certified as managed in accordance with AS4970 – 2009 Section 4.5.4 *Root protection during works within the TPZ*, such that tree roots are not damaged or ripped beyond the point of excavation by site machinery.

Figure 3: Showing access with least conflict to trees



Should you require further liaisons in this matter please contact me direct on 0419 250 248

Yours sincerely

Mark A Kokot

AQF Level 5 consulting arborist

Diploma of Hort/Arboriculture (AQF5), Associate Diploma Parks Management (AQF4)
Certified Arborist / Tree Surgeon (AQF3), ISA Tree Risk Assessment Qualified 2024
Member: ISA, Arboriculture Australia & IACA, Working With Children No: WWC0144637E



APPENDIX- A: General tree protection requirements

- a) Prior to site works Tree Protection Fencing (TPF) and/or zones as identified within this report or Appendix- B are recommended to be located under the guidance of an appointed site arborist. Unless specified otherwise the location of tree protection fencing is to be positioned to allow for adequate work access and/or be located at the extremity of the TPZ radius as indicated within the SRZ & TPZ distance column Appendix- D. Where design & construction access may be restrictive by tree protection fencing timber beam trunk protection is recommended to be installed with ground protection mats provided to protect underlying tree roots within tree protection zones or designated tree protection areas (TPA) where work constraints exist.
- b) Unless approved otherwise activities to be excluded within TPZ radius or specified tree protection areas (TPA) include:
 - Machine access & excavation.
 - Minor works including trenching & installation of utility services.
 - Storage & work preparation including wash down areas.
 - Soil level change and physical damage to trees.
- c) In accordance with AS4970 - 2009 (1.4.4) during works a Project or Site Arborist is to be engaged to monitor, supervise excavation within TPZ setbacks, advise and provide certification of protection works conducted. The project arborist is recommended to hold a minimum Australian Qualification Framework (AQF) Level 5 certification and be competent in methodology of protecting trees on development sites.
- d) The project arborist is to provide final certification outlining tree protection measures with photographic evidence of ongoing works retained for certification purposes (AS4970 S/5.5.2 *Final certification*).
- e) The project arborist is to be familiar with protection measures specific to Australian Standard AS4970 'Protection of Trees on Development Sites' – 2009 requirements with any modification in Tree Protection Fencing (TPF) or Zones (Z) to be compliant with AS4970 Section 4.5 *Other Tree Protection Measures*.
- f) Approved excavation within TPZ setbacks; there shall be no over excavation beyond the line of cut as shown within construction drawings without arborist advice. Should over excavation be required the extent of excavation should be detailed within approved drawings or a construction management plan for arborist review and certification.
- g) Unless specified otherwise during approved excavation within TPZ setbacks excavation is to be conducted manually (by hand) under the supervision of an appointed site arborist. Where approved by the arborist the pruning of roots at or <30mm(Ø) is to be conducted in accordance with AS4970 – 2009 Section 4.5.4 *Root protection during works within the TPZ*, such that tree roots are not damaged or ripped beyond the point of excavation by site machinery.

Where larger roots have been encountered, they are to be referred to an independent Level 5 arborist for further advice. For deep excavations exposed roots at the excavated cut face are to be protected with jute mesh, geotextile fabric or similar being secured in place to avoid drying of roots and the exposed soil profile.

- h) *Additional inground services* which may include landscape works, fencing, sewer, stormwater, water and electrical services, final design and impact to trees shall be reviewed and endorsed by the project arborist prior to their installment. Where landscaping (excavation) is required within the SRZ further advice from an appointed project arborist is recommended.
- i) *Tree sensitive construction measures* such as pier and beam bridging over critical roots, suspended slabs, cantilevered building sections, screw piles and contiguous piling can minimise the impact of encroachment (AS4970).
Where Bushfire BAL conflicts exist with tree management advice the appointed project arborist shall be consulted to advise on an appropriate design outcome.
- j) *Canopy pruning / tree removal*: where required tree removal and canopy reductions are to be approved by the Local Government Authority. Works are to be conducted by a suitably qualified AQF Level 3 certified arborist in accordance with AS4373 Pruning Standards, and specifically be conducted in accordance with Safe Work Australia – Guide to managing risks of tree trimming and removal works 2016 (www.swa.gov.au).
- k) *Hold points*: specific to no works are to commence without arborist advice, inspections & certifications:
- 1) Prior to construction arboricultural certification is to be provided ensuring that all trees have been adequately protected in accordance with this report, or as indicated within Australian Standard AS 4970 Protection of Trees on Development Sites– 2009.
 - 2) No works (including landscaping) shall occur within the SRZ of any tree without prior arborist advice and certification. Where excavation may be required prior exploratory tree root investigation are to identify the location, distribution and impact to underlying tree roots.
 - 3) No excavation shall occur within the TPZ without prior project arborist notification and/or site supervision.
 - 4) No access or work activity is permitted within fenced or designated tree protection areas (TPA's) without arborist advice.
- l) To ensure tree(s) are appropriately protected the development site superintendent is recommended to be familiar with all tree protection and ongoing certification requirements.
The superintendent is responsible for informing all subcontractors of the responsibilities and requirements of tree protection prior to their engagement.
- m) Should there be any uncertainty with tree protection requirements the site superintendent shall contact the appointed project arborist for advice prior to works occurring within tree protection zones (TPZ) or specified tree protection areas (TPA).

Yours sincerely



Mark A Kokot

AQF Level 5 consulting arborist

Diploma of Hort/Arboriculture (AQF5), Associate Diploma Parks Management (AQF4)

Certified Arborist / Tree Surgeon (AQF3), ISA Tree Risk Assessment Qualified 2024

Member: ISA, Arboriculture Australia & IACA, Working With Children No: WWC0144637E

