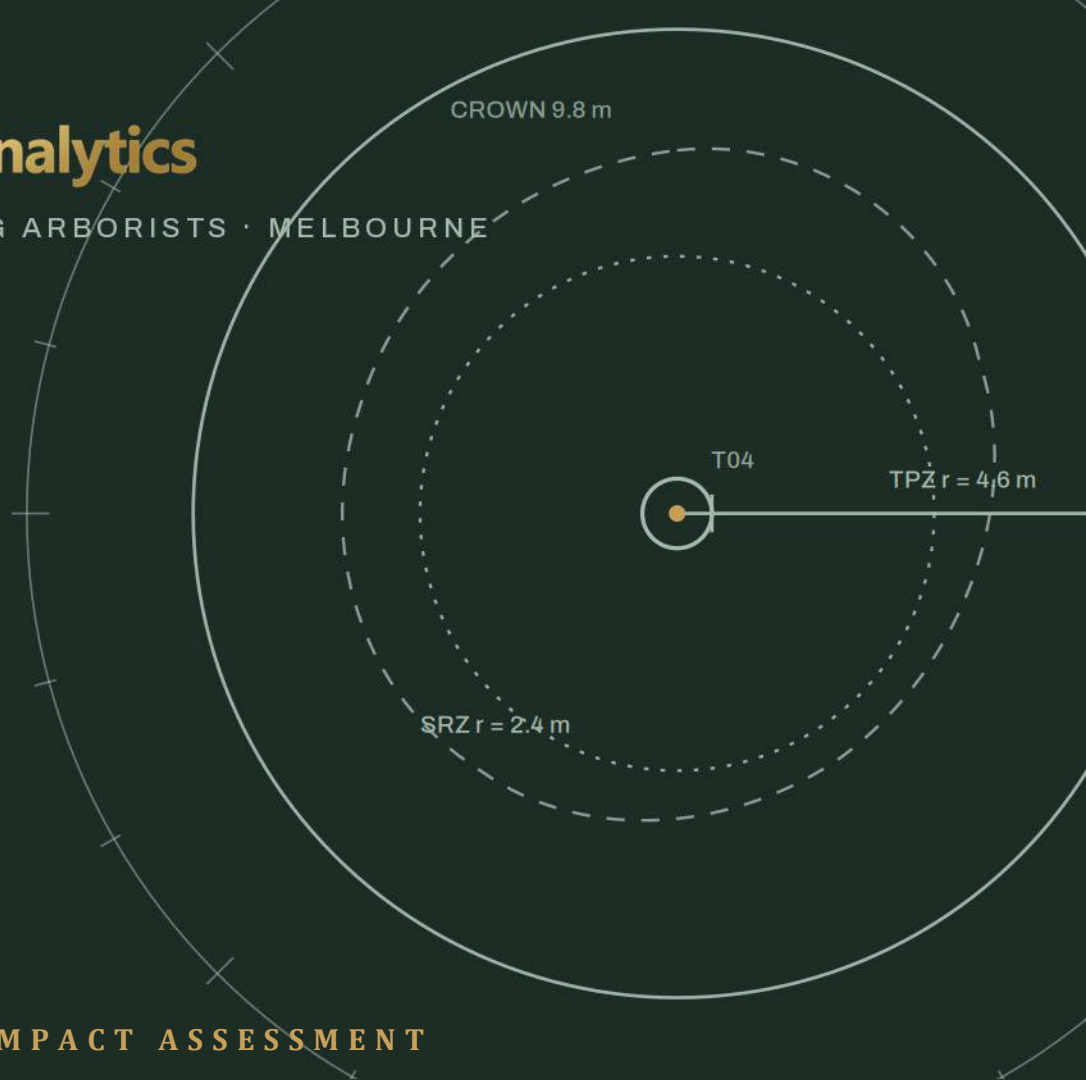




Arbor Analytics

CONSULTING ARBORISTS · MELBOURNE



ARBORICULTURAL IMPACT ASSESSMENT

Anonymised Sample Development Site

Example of a completed report. Not for site-specific reliance.



Client and site details withheld

DATE

02 September 2026

Document Control

PROJECT	Arboricultural Impact Assessment — [REDACTED] [REDACTED] [REDACTED]
CLIENT	[REDACTED]
PREPARED BY	Jackson Meli, Principal Consultant — AQF Level 5 Arboriculture · MISA
CONTACT	Jackson@arboranalytics.com.au — 0414 194 034
SITE INSPECTION	30 August 2026 — Visual Tree Assessment, Ground Level (VTA)
REPORT STATUS	Issued — Revision 0 (02/09/26)

REVISION HISTORY

REV	DATE	DESCRIPTION	AUTHOR
R0	02 September 2026	Original Issue – Arboricultural Impact Assessment	JM

BASIS OF ASSESSMENT

This report has been prepared with reference to AS 4970–2025 *Protection of trees on development sites*, AS 4373–2007 *Pruning of amenity trees*, and the relevant provisions of the [REDACTED] Planning Scheme, including Clause 52.37 (Canopy Trees) and Clause 52.17 (Native Vegetation) applicable to the site. Tree Protection Zones (TPZ), Notional Root Zones (NRZ) and Structural Root Zones (SRZ) have been calculated in accordance with AS 4970–2025.

LIMITATIONS

Assessments were undertaken visually from ground level without root investigation, aerial inspection or internal diagnostic testing unless otherwise stated. Trees are living organisms and their condition can change; the findings of this report reflect the condition of the trees at the date of inspection only. This document has been prepared for the exclusive use of the named client for the stated purpose and may not be relied upon by any other party without the written consent of Arbor Analytics.

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Contents

Document Control	2
1.0 Executive Summary	4
2.0 Introduction	4
3.0 Planning and Policy Context	6
4.0 Methodology/Procedure	7
Diagram 1 — Site Overview	8
5.0 Impact Assessment — NRZ Encroachment	10
Diagram 2 - Development Plan Drawings OTL CONSULTING GROUP PTY LTD	12
6.0 Observations	13
7.0 Discussion	13
8.0 Recommendations	16
9.0 Conclusion	17
Appendix 1: Tree Details	18
Appendix 2: NRZ and SRZ Details	18
Appendix 3: Tree Photos	19
Appendix 4: Data Definitions	24
Appendix 5: Tree Zones and Encroachment	24
Appendix 6: Arboricultural Value	29
Limitations and Disclaimers	30
References	31
Documents Reviewed	31

READING THIS REPORT

Tree identification numbers (e.g. **T4**) correspond to the Site Overview Plan at Diagram 1 - Site Overview. Within Table 2 botanical names are given in italics with common names following. All TPZ, NRZ and SRZ radii are expressed in metres from the centre of the stem at ground level.

1.0 Executive Summary

Arbor Analytics has been engaged by [REDACTED] to undertake an Arboricultural Impact Assessment in relation to the proposed nursery development, warehouse and caretaker's dwelling at [REDACTED], [REDACTED]. The assessing arborist conducted a Level 2 ground-based visual inspection on 30 August 2026, assessing twenty (20) trees or tree groups within and surrounding the subject site in accordance with AS 4970-2025 Protection of Trees on Development Sites.

Five (5) encroachments into calculated Notional Root Zones (NRZ) were identified, with no works proposed within the Structural Root Zone (SRZ) of any retained tree.

Encroachment to Trees 9 and 10 is Minor and considered acceptable.

Encroachment to Trees 2 (14.3%) and 12 (16%) is Moderate and to Tree 4 (29.8%) is Major; design considerations to address these are set out in Section 8.3.

Tree Group 1 (*Yucca elephantipes*) directly intersects the proposed development footprint and crossover and is recommended for removal.

Trees 5, 6 and 15 (Dead Trees) are additionally recommended for removal.

No removals required a planning permit.

Subject to the recommendations of this report being implemented in full, the proposed development is considered acceptable from an arboricultural perspective.

This assessment has been prepared in accordance with AS 4970-2025 Protection of Trees on Development Sites and AS 4373-2007 Pruning of Amenity Trees.

2.0 Introduction

Arbor Analytics has been engaged by [REDACTED] to undertake an Arboricultural Impact Assessment in relation to trees located within and surrounding the proposed development footprint at [REDACTED], [REDACTED]. The client wishes to provide [REDACTED] City Council with an arboricultural report along with current development plans for proposed nursery development warehouse and caretaker's dwelling. Proposed development plan is supplied in Diagram 2 - Development Plan Drawings.

For the report Arbor Analytics has:

- Inspected and examined the site.
- Identified and assessed all trees >3m height within and surrounding the design footprint, providing details of their ownership, location, species, dimensions, useful life expectancy, and overall health and structural condition.
- Provided Notional Root Zone (NRZ) and Structural Root Zone (SRZ) measurements in accordance with Australian Standard **AS 4970-2025** Protection of Trees on Development Sites.
- Assigned an arboricultural value to each tree, reflecting merit for retention within the landscape in the context of the proposed development.
- Provided recommendations and advice for the proposed development in relation to the potential impact to retained trees.
- Provided recommendations and advice for managing tree health within Australian standards: **AS 4373-2007** Pruning of amenity trees.
- Provided recommendations and advice for tree protection on proposed development site Australian Standards: **AS4970-2025**.

Figure 1 Subject Frontage: [REDACTED] [REDACTED] [REDACTED]



3.0 Planning and Policy Context

The subject site is located within the [REDACTED] Planning Scheme. The vegetation protection related planning or policy controls for the site and how they affect the assessed trees are summarised in Table 1.

Table 1: Planning and Policy Control

Planning/Po+A1:D8licy Contr	Applied to site	Overview of Control	Trees Affected Within Site
General Residential Zone	Yes (GRZ3)	Tree or vegetation are not regulated or assessed under this overlay.	No Trees
Farming Zone	Yes (FZ)	Tree or vegetation are not regulated or assessed under this overlay.	No Trees
Design and Development Overlay	Yes (DDO2)	Tree or vegetation are not regulated or assessed under this overlay.	No Trees
Land Subject to Inundation Overlay	Yes (LSIO)	Tree or vegetation are not regulated or assessed under this overlay.	No Trees
Heritage Overlay	Yes ([REDACTED])	The schedule to the Heritage Overlay specifies [REDACTED] (Elm Trees along [REDACTED] Road, Outside Avenue of Honour) as a heritage place where tree controls apply. Where the control applies, a permit is required to remove, destroy or lop a tree. [REDACTED] is mapped over the [REDACTED] Road / Main Street corridor and does not extend over the subject site at [REDACTED]. On this basis it is assumed tree controls under [REDACTED] do not apply to the subject site. Exemptions apply.	No Trees
Clause 52.17 Native Vegetation	Yes (52.17)	A planning permit is required to remove, destroy or lop native vegetation, being indigenous vegetation, with local variations set out in the schedule to Clause 52.17. Removal is exempt where the land, together with all contiguous land in one ownership, is less than 0.4 hectares, and where the vegetation was planted. Exemptions apply.	Trees 2, 7, 9, 10, 11, 12, 19 and 20
Clause 52.37 Canopy Trees (Amendment VC289)	Yes (52.37)	A permit is required to remove, destroy, lop or kill any "Canopy tree" within the various residential zones across Victoria. Where removal is proposed an Arboricultural Assessment (AQF Level 5 or higher) must accompany the application. A permit is also required for pruning that removes more than one-third of the canopy. Exemptions apply.	Trees 2, 4, 7, 9, 10, 11, 12, 13, 17, 19 and 20

4.0 Methodology/Procedure

On 30th August 2026, Jackson Meli undertook a site inspection at [REDACTED], [REDACTED], [REDACTED], including a detailed arboricultural assessment of all trees greater than 3 metres in height located immediately within and surrounding the proposed development site.

The following information was collected:

- | | |
|--|--|
| • Tree species | • Existing tree location |
| • Height (m) | • Crown Spread (m) |
| • Diameter at Standard Height (DSH) | • Diameter at Base (DAB) |
| • Overall Health of trees | • Structure of trees |
| • NRZ and SRZ measurements | • Arboricultural Value |
| • Useful Life Expectancy (ULE) | • Photographs of Trees and Site |

A level 2 ground based visual inspection was undertaken of the site according to the principles of Australian standards: Australian standards AS 4373—2007 Pruning of amenity trees and AS 4970 – 2025 Protection of trees on development sites.

A diameter tape was used to measure DSH and DAB. To prevent trespass, DSH and DAB has been estimated on adjacent sites.

Height, Crown spread, Health and Structure are qualitative values derived from visual indicators and the arborists experience and qualifications.

Tree locations were mapped using GIS software with reference to scaled aerial imagery and are accurate to within approximately ±1 m.

Full data collection definitions are available in Appendix 4: Data Definitions

Diagram 1 — Site Overview

This is an edited and enhanced image. Tree position is mapped using GIS data software. Measurements shown are indicative and intended for illustrative purposes. For NRZ and SRZ measurements refer to Appendix 2: NRZ and SRZ details.

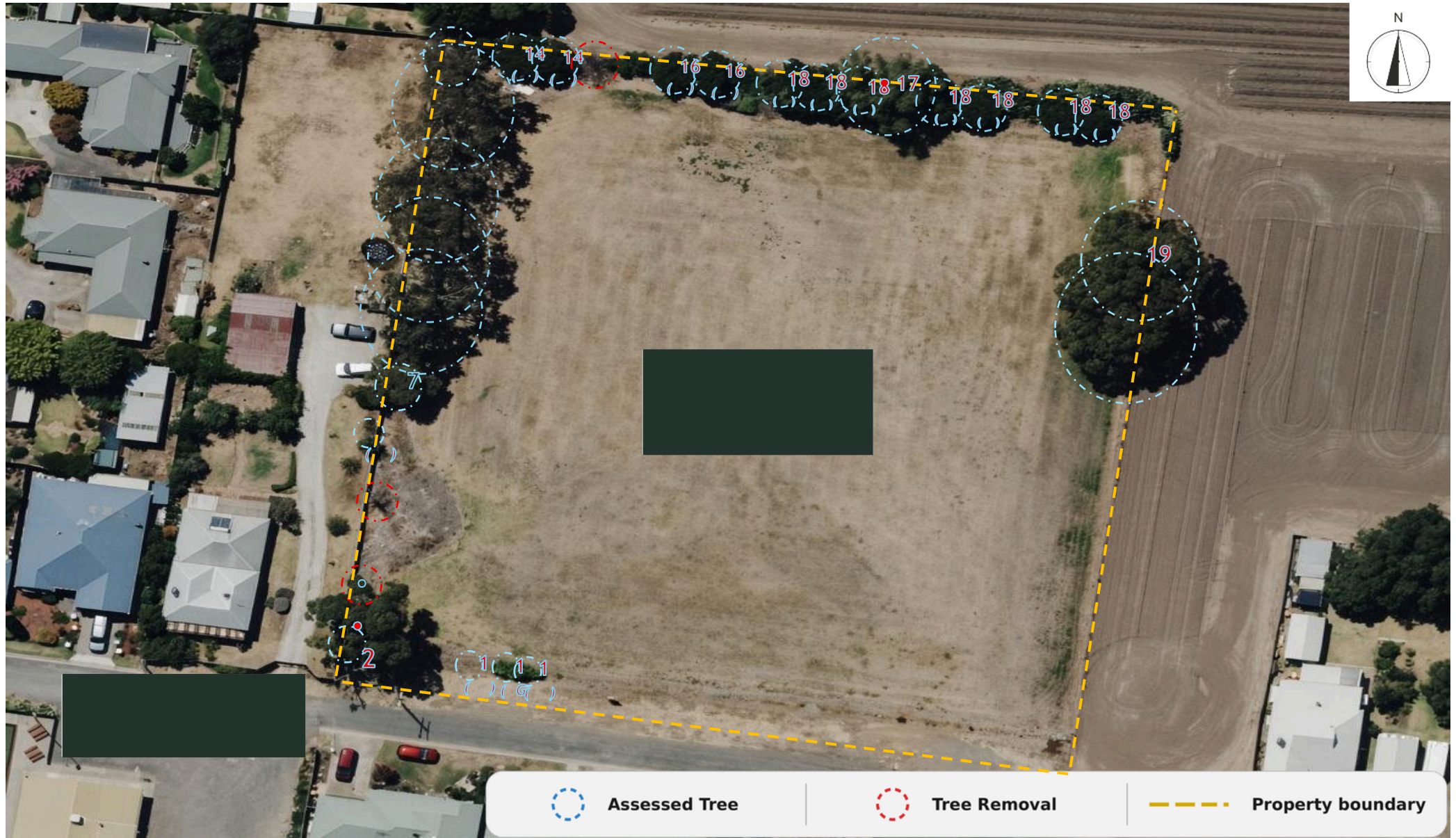


Table 2: Existing trees onsite

Tree ID	Genus Species	Common Name	Height (m)	Crown Spread (m)	DSH (cm)	DAB (cm)	Health	Structure	Maturity	ULE (years)	Ownership	Native	Indigenous	Arboricultural Value
1	<i>Yucca elephantipes</i> TG (4)	Yucca	3	1	10	15	Fair	Fair	Mature	>40 Years	Client	No	No	No
2	<i>Eucalyptus melliodora</i>	Yellow Box	10	6	66	75	Fair	Poor	Mature	15 to 40 Years	Client	Yes	Yes	High
3	<i>Agonis flexuosa</i>	Peppermint	3	1.5	7	10	Fair	Fair	Semi-Mature	15 to 40 Years	Client	Yes	No	Moderate
4	<i>Eucalyptus mannifera</i>	Brittle Gum	15	10	64	73	Good	Fair	Mature	>40 Years	Client	Yes	No	High
5	Dead Tree	Dead Tree	6	3.5	21	26	Dead	Dead	Dead	Dead	Client	N/A	N/A	Low
6	Dead Tree	Dead Tree	6	3	27	32	Dead	Dead	Dead	Dead	Client	N/A	N/A	Low
7	<i>Acacia melanoxylon</i>	Blackwood	7	7	42	53	Good	Good	Mature	15 to 40 Years	Client	Yes	Yes	High
8	Dead Tree TG (2)	Dead Tree	3.5	1.5	15	20	Dead	Dead	Dead	Dead	Third-Party	N/A	N/A	Low
9	<i>Eucalyptus camaldulensis</i>	River Red	13	9	90	111	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
10	<i>Eucalyptus camaldulensis</i>	River Red	16	8	65	74	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
11	<i>Eucalyptus camaldulensis</i>	River Red	16	7	43	54	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
12	<i>Eucalyptus camaldulensis</i>	River Red	15	13	103	115	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
13	<i>Allocasuarin cunninghamiana</i>	River Sheoak	8	6	36	40	Poor	Poor	Mature	<5 Years	Client	Yes	No	Low
14	<i>Photinia robusta</i> TG (4)	Red-Leaved Photinia	4	3	14.1	20	Good	Fair	Mature	>40 Years	Client	No	No	Low
15	Dead Tree	Dead Tree	3.5	3.5	20	27	Dead	Dead	Dead	Dead	Client	N/A	N/A	Low
16	<i>Photinia robusta</i> TG (3)	Red-Leaved Photinia	3.5	3	18	22	Good	Fair	Mature	>40 Years	Client	No	No	Low
17	<i>Schinus molle</i>	Peppercorn	13	12	65	75	Good	Good	Mature	>40 Years	Client	No	No	Moderate
18	<i>Photinia robusta</i> TG (9)	Red-Leaved Photinia	4	5	26	25	Good	Good	Mature	>40 Years	Client	No	No	Low
19	<i>Eucalyptus leucoxylon</i>	Yellow Gum	16	10	74	82	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
20	<i>Eucalyptus polyanthemus</i>	Red Box	15	15	68.7	113	Good	Good	Mature	>40 Years	Client	Yes	Yes	High

5.0 Impact Assessment — NRZ Encroachment

The proposed development footprint and associated services were overlaid against the calculated Notional Root Zone (NRZ) and Structural Root Zone (SRZ) of each retained tree. Five (5) encroachments into calculated NRZs were identified. No works are proposed within the SRZ of any retained tree.

Within the south-western section of the subject site, the proposed Caretaker's Residence extends into the NRZs of **Trees 2 and 4**. Within the western section of the subject site, the proposed Warehouse extends into the NRZs of **Trees 9, 10 and 12**.

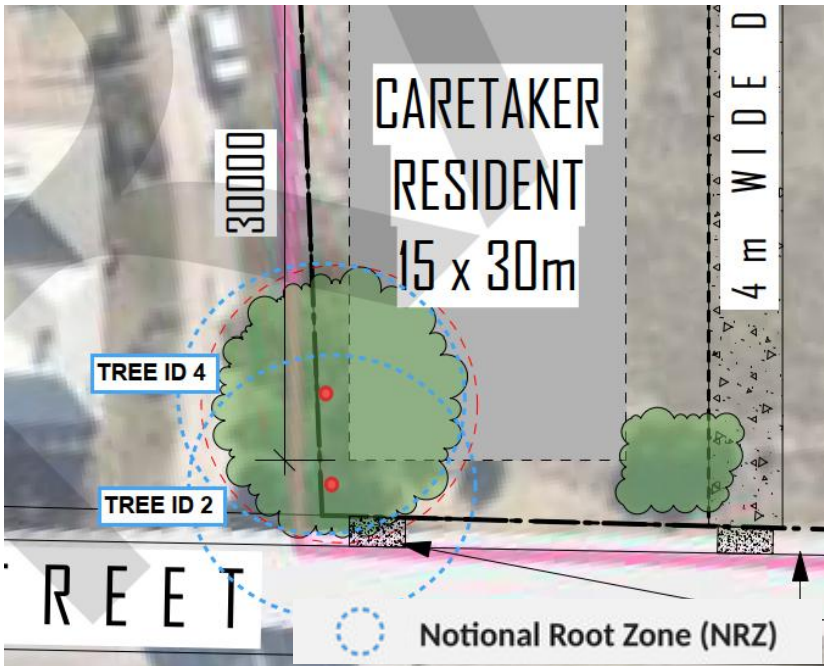


FIGURE 2 - Graphic of the proposed Caretakers Residence relative to the NRZs of Trees 2 and 4. Graphic and dimensions are not to scale. Refer to Diagram 1 – Site Overview for the surveyed tree location.

NRZ/TPZ AREA — TREE 2	NRZ ENCROACHMENT	CLASSIFICATION
196.1 m ²	14.3 %	Moderate
NRZ/TPZ AREA — TREE 4	NRZ ENCROACHMENT	CLASSIFICATION
186.3 m ²	29.8 %	Major

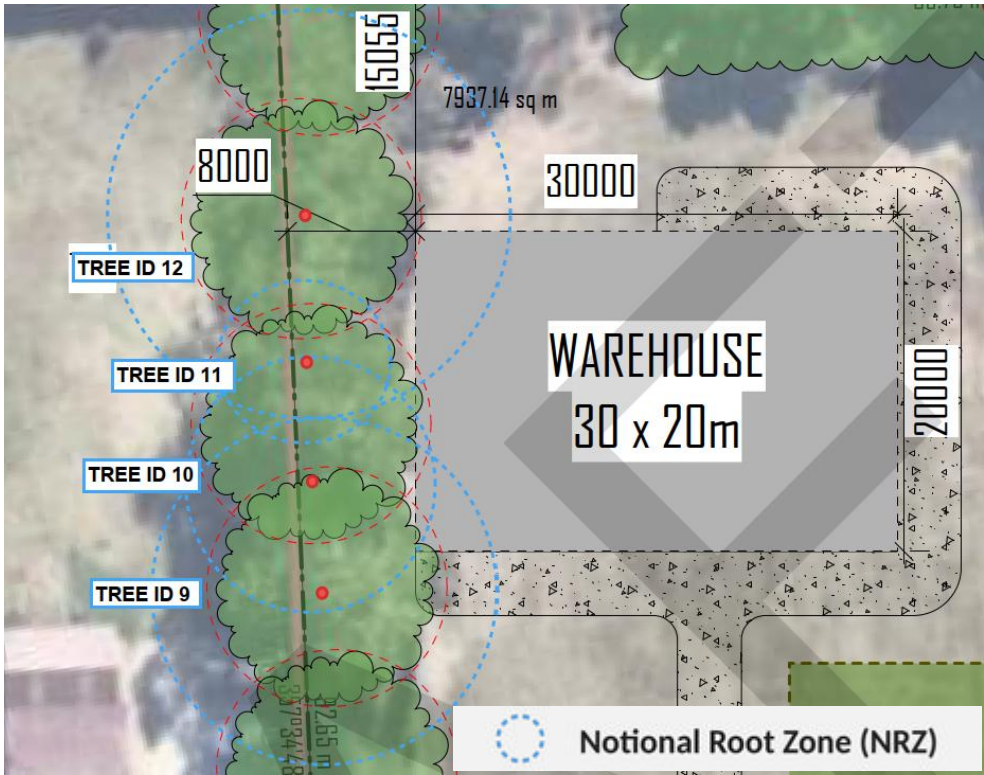


FIGURE 3 - Graphic of the proposed Warehouse relative to the NRZs of Trees 9, 10, 11 and 12.
Graphic and dimensions are not to scale. Refer to Diagram 1 – Site Overview for the surveyed tree location.

NRZ/TPZ AREA — TREE 9	NRZ ENCROACHMENT	CLASSIFICATION
366.4 m ²	4.8 %	Minor
NRZ/TPZ AREA — TREE 10	NRZ ENCROACHMENT	CLASSIFICATION
191.1 m ²	4 %	Minor
NRZ/TPZ AREA — TREE 11	NRZ ENCROACHMENT	CLASSIFICATION
84.9 m ²	NIL	None
NRZ/TPZ AREA — TREE 12	NRZ ENCROACHMENT	CLASSIFICATION
483.1 m ²	16%	Moderate

OTL CONSULTING GROUP PTY LTD

Diagram 2 – Development Plan Drawings OTL CONSULTING GROUP PTY LTD Proposed Site Plan – [REDACTED] – Project TP ID [REDACTED] – Sheet No. 2



6.0 Observations

A visual inspection was conducted at [REDACTED], [REDACTED], assessing twenty (20) trees or tree groups (TG) located within and surrounding the subject site, as detailed in Table 2: Existing Trees Onsite. Each tree was individually assigned a health and structure rating reflective of its vigour and structural form. Trees under Council or third-party ownership, where present, have been assigned High arboricultural value due to ownership and site context.

The following specific observations were recorded:

- **Tree Group 1 - *Yucca elephantipes***; species is a monocot rather than traditional tree. Tree group is anticipated to directly intersect with the proposed development and crossover.
- **Tree 2 - *Eucalyptus melliodora***; the Notional Root Zone (NRZ) is anticipated to intersect with the proposed development footprint.
- **Tree 4 - *Eucalyptus mannifera***; the Notional Root Zone (NRZ) is anticipated to intersect with the proposed development footprint.
- **Tree 9 - *Eucalyptus camaldulensis***; Significantly sized indigenous specimen, Deadwood >50mm diameter observed throughout canopy, typical of species. The Notional Root Zone (NRZ) is anticipated to intersect with the proposed development footprint.
- **Tree 10 - *Eucalyptus camaldulensis***; Indigenous specimen, Deadwood >50mm diameter observed throughout canopy, typical of species. The Notional Root Zone (NRZ) is anticipated to intersect with the proposed development footprint.
- **Tree 12 - *Eucalyptus camaldulensis***; Significantly sized indigenous specimen. Deadwood >50mm diameter observed throughout canopy, typical of species. The Notional Root Zone (NRZ) is anticipated to intersect with the proposed development footprint.
- **Tree 13 - *Allocasuarin cunninghamiana***; assessed as Poor health and Poor structure. The crown is almost entirely dead with only minor living foliage at branch tips.
- **Tree 15 - Dead Tree**; fungal fruiting bodies consistent with a wood-decay species observed at the stem base and throughout the Structural Root Zone (SRZ).
- **Tree 17 - *Schinus molle***; located directly on the shared boundary fence line with the adjoining property to the north.
- **Tree 20 - *Eucalyptus polyanthemus***; outstanding specimen of substantial size, displaying vigorous growth and lots of fruiting buds. Tree is located on Eastern property boundary root zones that extend into with adjoining farming property. Tree appears to receive passive irrigation run off from adjacent land.

7.0 Discussion

As outlined in Section 5, each tree was assessed on its individual merits, taking into account health, structural condition, useful life expectancy and arboricultural value, together with its ownership and the planning and policy context of the site.

- **Tree Group 1-** As noted in Section 5, the entire tree group is anticipated to intersect with the proposed development footprint including crossover. *Yucca elephantipes* provides no arboricultural value and is recommended for removal to facilitate the proposed development. A permit is not required for removal of this tree group.

- **Tree 2;** As noted in Section 5, the Notional Root Zone (NRZ) of this tree will intersect with the proposed development footprint. No encroachment into the Structural Root Zone (SRZ) is proposed.
 - Total encroachment to Tree 2 is calculated at 14.3% (Moderate Encroachment) under AS 4970-2025.
 - Due to moderate encroachment status, to satisfy requirements of AS 4970-2025 modified building techniques are required within the Notional Root Zone of this tree. *See 8.0 Recommendations.*
 - No encroachment percentage has been calculated for the proposed crossover. Under review of the proposed plans, the crossover is indicated to be constructed of a permeable material consistent with crushed rock. Any associated excavation or level change must use a low impact method to minimise encroachment.
- **Tree 4;** As noted in Section 5, the Notional Root Zone (NRZ) of this tree will intersect with the proposed development footprint. No encroachment into the Structural Root Zone (SRZ) is proposed.
 - Total encroachment to Tree 4 is calculated at 29.8% (Major Encroachment) under AS 4970-2025.
 - Due to Major encroachment status, to satisfy requirements of AS 4970-2025 modified building techniques are required within the Notional Root Zone of this tree. *See 8.0 Recommendations.*
 - No encroachment percentage has been calculated for the proposed crossover. Under review of the proposed plans, the crossover is indicated to be constructed of a permeable material consistent with crushed rock. Any associated excavation or level change must use a low impact method to minimise encroachment.
- **Tree 9;** As noted in Section 5, the Notional Root Zone (NRZ) of this tree will intersect with the proposed development footprint. No encroachment into the Structural Root Zone (SRZ) is proposed.
 - Total encroachment to Tree 9 is calculated at 4.8% (Minor Encroachment) under AS 4970-2025.
 - Minor encroachment is considered acceptable under AS 4970-2025. *See 7.3 Arboricultural Impact, NRZ Encroachment.*
 - No encroachment percentage has been calculated for the proposed driveway. Under review of the proposed plans, the driveway is indicated to be constructed of a permeable material consistent with crushed rock. Any associated excavation or level change must use a low impact method to minimise encroachment.
- **Tree 10;** As noted in Section 5, the Notional Root Zone (NRZ) of this tree will intersect with the proposed development footprint. No encroachment into the Structural Root Zone (SRZ) is proposed.
 - Total encroachment to Tree 10 is calculated at 4% (Minor Encroachment) under AS 4970-2025.
 - Minor encroachment is considered acceptable under AS 4970-2025. *See 7.3 Arboricultural Impact, NRZ Encroachment.*
- **Tree 12;** As noted in Section 5, the Notional Root Zone (NRZ) of this tree will intersect with the proposed development footprint. No encroachment into the Structural Root Zone (SRZ) is proposed.
 - Total encroachment to Tree 12 is calculated at 16% (Moderate Encroachment) under AS 4970-2025.
 - Due to moderate encroachment status, to satisfy requirements of AS 4970-2025 modified building techniques are required within the Notional Root Zone of this tree. *See 8.0 Recommendations.*

- **Trees and Tree Groups 17, 18, 19 and 20** – The proposed Nursery Area is located within the Notional Root Zones (NRZ) of these trees.
 - No encroachment percentage has been calculated. The Nursery Area is not anticipated to constitute a development area, and no built form or excavation is shown within it under the reviewed drawings.

Should this area be designated as a development area, or should mechanical excavation or the installation of services be proposed within it, a revised Arboricultural Impact Assessment (AIA) is required.

7.1 Notional Root Zone (NRZ) and Structural Root Zone (SRZ)

AS4970-2025 specifies areas drawn radially from each tree's stem which indicate the area required for its stability (SRZ) and viability (NRZ) throughout nearby disturbance such as development. Further information on TPZs, NRZs and SRZs has provided in Appendix 5: Tree Zones and Encroachment.

7.2 NRZ and SRZ details

NRZ and SRZ details for all trees has been supplied in Appendix 2, Table 5: NRZ and SRZ details.

7.3 Arboricultural Impact, NRZ Encroachment

To assess viability of trees proposed for retention, the Notional Root Zone (NRZ) and Structural Root Zone (SRZ) have been calculated and illustrated in accordance with AS 4970-2025. Any area where the development footprint intersects an NRZ/TPZ is considered an encroachment under AS4970-2025.

Major Encroachment (>20% NRZ Encroachment) AS 4970-2025

Major encroachment and any corresponding variations to a NRZ or TPZ may be deemed acceptable within AS 4970-2025 if the following criteria is met:

- The project arborist confirms that the tree can tolerate the level of disturbance without a decline in health or stability.
- The area of encroachment is compensated for by adding a contiguous area to the TPZ to maintain adequate root protection.
- Construction methods within the affected area are modified to reduce root damage, such as using non-invasive excavation techniques (e.g. air spade, hydro-excavation or manual excavation).

Table 3: Tree with TPZ/NRZ encroachment

Tree ID	Genus Species	Common Name	NRZ Encroachment	SRZ Encroachment	Encroachment Type
2	Eucalyptus melliodora	Yellow Box	14.30%	No	Moderate
4	Eucalyptus mannifera	Brittle Gum	29.80%	No	Major
9	Eucalyptus camaldulensis	River Red	4.80%	No	Minor
10	Eucalyptus camaldulensis	River Red	4.0%	No	Minor
12	Eucalyptus camaldulensis	River Red	16.00%	No	Moderate

8.0 Recommendations

8.1 Development – Recommendations

Prior to finalising design and construction documentation, the builder, landowner and design team must be fully informed of:

- The location and significance of all trees identified within this report.
- Applicable planning and policy requirements.
- Relevant Notional Root Zone and Structural Root Zone dimensions and construction requirements.

If any further design amendments increase NRZ encroachment, a revised Arboricultural Impact Assessment (AIA) must be prepared for review.

8.2 Tree Removals

To facilitate the proposed development and satisfy site access and design requirements, the following trees are recommended for removal. These trees directly intersect with the proposed development under the reviewed drawings.

These trees are not subject to any planning or policy controls applicable to the subject site as they do not meet the relevant criteria for protection. Their removal does not require a planning permit.

- **Tree Group 1 - *Yucca Elephantipes* TG (4) (Yucca)**

8.3 Design Considerations – Trees 2, 4 and 12

Three (3) options are available to address the identified encroachment into the Notional Root Zones (NRZ) of Trees 2, 4 and 12.

Option 1 – Relocation of the proposed built form

The proposed Caretaker's Residence and Warehouse are relocated so that the development footprint falls entirely outside the NRZ of Trees 2, 4 and 12.

Option 2 – Tree sensitive footing system

The proposed built form within the NRZ of Trees 2, 4 and 12 is constructed using a tree sensitive footing system, including but not limited to bored piers or screw piles, with the slab constructed at existing ground level. Footing numbers, diameters and locations must be confirmed by the arborist and provided in an amended Impact Assessment to ensure encroachment does not exceed 10% of the NRZ area (Minor encroachment under AS 4970-2025). No footing is to be located within the SRZ.

Option 3 – Non-destructive root investigation (NDRI)

Where Options 1 and 2 cannot be achieved, Moderate and Major encroachment may alternatively be considered acceptable subject to non-destructive root investigation (NDRI) by hydro or air excavation within the proposed encroachment areas, undertaken with the Project Arborist present on site to record and confirm that no significant or structural roots are located within those areas.

Where significant or structural roots are identified, the design must be amended to avoid them or the affected tree reassessed for ongoing viability.

8.4 Tree Protection Specification (TPS)

A Tree Protection Specification (TPS) and Tree Protection Plan is recommended prior to the commencement of works. Council may also require a TPS or Tree Protection Plan (TPP) as a condition of any permit issued, at its discretion. A Project Arborist holding a minimum qualification of AQF Level 5 in Arboriculture must be appointed prior to the commencement of works and remain engaged for the duration of construction.

9.0 Conclusion

A total of twenty (20) trees or tree groups were assessed as part of this Arboricultural Impact Assessment at [REDACTED], including trees located within the subject site and on adjoining third-party owned properties. Trees identified for retention must be appropriately protected throughout all stages of design and construction in accordance with AS 4970-2025 Protection of Trees on Development Sites.

Tree Group 1 (*Yucca elephantipes*) is recommended for removal to facilitate the proposed development and crossover.

Trees 5, 6 and 15 (Dead Trees) are additionally recommended for removal.

No removals required a planning permit.

Five (5) encroachments into calculated Notional Root Zones were identified, with no works proposed within the Structural Root Zone of any retained tree.

Encroachment to Trees 9 and 10 is Minor and considered acceptable.

Encroachment to Trees 2 (14.3%) and 12 (16%) is Moderate and to Tree 4 (29.8%) is Major, and is considered tolerable subject to the design considerations set out in Section 8.3.

The proposed Nursery Area is located within the Notional Root Zones of Trees and Tree Groups 17, 18, 19 and 20. No encroachment has been calculated on the basis that no built form or excavation is shown within this area under the reviewed drawings. Should the design be amended, a revised Arboricultural Impact Assessment is required.

By adhering to the recommendations outlined in this report, and with appropriate oversight provided by the Project Arborist throughout the construction process, the health and viability of all retained trees at [REDACTED] can be effectively managed. This will ensure that retained trees continue to contribute positively to the landscape amenity of the site and surrounding area.

I am available to respond to any queries related to the contents of this report.

This report must not be reproduced in part; reproduction is only permitted in its entirety.

Signed:

Signature withheld

Jackson Meli
Principal Consultant — Arbor Analytics
AQF Level 5 Arboriculture
International Society of Arboriculture Member

0414 194 034
Jackson@Arboranalytics.com.au
ArborAnalytics.com.au

Appendix 1: Tree Details

Table 4: Existing trees onsite

Tree ID	Genus Species	Common Name	Height (m)	Crown Spread (m)	DSH (cm)	DAB (cm)	Health	Structure	Maturity	ULE (years)	Ownership	Native	Indigenous	Arboricultural Value
1	<i>Yucca elephantipes</i> TG (4)	Yucca	3	1	10	15	Fair	Fair	Mature	>40 Years	Client	No	No	No
2	<i>Eucalyptus melliodora</i>	Yellow Box	10	6	66	75	Fair	Poor	Mature	15 to 40 Years	Client	Yes	Yes	High
3	<i>Agonis flexuosa</i>	Peppermint	3	1.5	7	10	Fair	Fair	Semi-Mature	15 to 40 Years	Client	Yes	No	Moderate
4	<i>Eucalyptus mannifera</i>	Brittle Gum	15	10	64	73	Good	Fair	Mature	>40 Years	Client	Yes	No	High
5	Dead Tree	Dead Tree	6	3.5	21	26	Dead	Dead	Dead	Dead	Client	N/A	N/A	Low
6	Dead Tree	Dead Tree	6	3	27	32	Dead	Dead	Dead	Dead	Client	N/A	N/A	Low
7	<i>Acacia melanoxylon</i>	Blackwood	7	7	42	53	Good	Good	Mature	15 to 40 Years	Client	Yes	Yes	High
8	Dead Tree TG (2)	Dead Tree	3.5	1.5	15	20	Dead	Dead	Dead	Dead	Third-Party	N/A	N/A	Low
9	<i>Eucalyptus camaldulensis</i>	River Red	13	9	90	111	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
10	<i>Eucalyptus camaldulensis</i>	River Red	16	8	65	74	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
11	<i>Eucalyptus camaldulensis</i>	River Red	16	7	43	54	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
12	<i>Eucalyptus camaldulensis</i>	River Red	15	13	103	115	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
13	<i>Allocasuarin cunninghamiana</i>	River Sheoak	8	6	36	40	Poor	Poor	Mature	<5 Years	Client	Yes	No	Low
14	<i>Photinia robusta</i> TG (4)	Red-Leaved Photinia	4	3	14.1	20	Good	Fair	Mature	>40 Years	Client	No	No	Low
15	Dead Tree	Dead Tree	3.5	3.5	20	27	Dead	Dead	Dead	Dead	Client	N/A	N/A	Low
16	<i>Photinia robusta</i> TG (3)	Red-Leaved Photinia	3.5	3	18	22	Good	Fair	Mature	>40 Years	Client	No	No	Low
17	<i>Schinus molle</i>	Peppercorn	13	12	65	75	Good	Good	Mature	>40 Years	Client	No	No	Moderate
18	<i>Photinia robusta</i> TG (9)	Red-Leaved Photinia	4	5	26	25	Good	Good	Mature	>40 Years	Client	No	No	Low
19	<i>Eucalyptus leucoxylon</i>	Yellow Gum	16	10	74	82	Good	Good	Mature	>40 Years	Client	Yes	Yes	High
20	<i>Eucalyptus polyanthemos</i>	Red Box	15	15	68.7	113	Good	Good	Mature	>40 Years	Client	Yes	Yes	High

Appendix 2: NRZ and SRZ Details

Table 5: NRZ and SRZ details of assessed trees (AS4970 2025)

Tree ID	Genus Species	DSH (cm)	DAB (cm)	NRZ/TPZ Radius (m)	NRZ/TPZ Area (m2)	SRZ Radius (m)
1	<i>Yucca elephantipes</i> TG (4)	10	15	2.0	12.6	1.5
2	<i>Eucalyptus melliodora</i>	66	75	7.9	196.1	2.9
3	<i>Agonis flexuosa</i>	7	10	2.0	12.6	1.5
4	<i>Eucalyptus mannifera</i>	64	73	7.7	186.3	2.9
5	Dead Tree	21	26	2.5	19.6	1.9
6	Dead Tree	27	32	3.2	32.2	2.1
7	<i>Acacia melanoxylon</i>	42	53	5.0	78.5	2.5
8	Dead Tree TG (2)	15	20	2.0	12.6	1.7
9	<i>Eucalyptus camaldulensis</i>	90	111	10.8	366.4	3.5
10	<i>Eucalyptus camaldulensis</i>	65	74	7.8	191.1	2.9
11	<i>Eucalyptus camaldulensis</i>	43	54	5.2	84.9	2.6
12	<i>Eucalyptus camaldulensis</i>	103	115	12.4	483.1	3.5
13	<i>Allocasuarin cunninghamiana</i>	36	40	4.3	58.1	2.3
14	<i>Photinia robusta</i> TG (4)	14.1	20	2.0	12.6	1.7
15	Dead Tree	20	27	2.4	18.1	1.9
16	<i>Photinia robusta</i> TG (3)	18	22	2.2	15.2	1.8
17	<i>Schinus molle</i>	65	75	7.8	191.1	2.9
18	<i>Photinia robusta</i> TG (9)	26	25	3.1	30.2	1.8
19	<i>Eucalyptus leucoxylon</i>	74	82	8.9	248.8	3
20	<i>Eucalyptus polyanthemos</i>	68.7	113	8.2	211.2	3.5

Appendix 3: Tree Photos



Tree 1 - Recommended Works: *Vegetation Removal.*



Tree 2 - Recommended Works: *Refer 8.3 Design Considerations.*



Tree 3 - Recommended Works: *None Required.*



Tree 4 - Recommended Works: *8.3 Design Considerations.*



Tree 5 - Recommended Works: Tree Removal.



Tree 6 - Recommended Works: Tree Removal.



Tree 7 - Recommended Works: None Required.



Tree 8 - Recommended Works: None Required.



08/30/2026 09:10:53

Tree 9 - Recommended Works: None Required.



08/30/2026 09:12:30

Tree 10 - Recommended Works: None Required.



08/30/2026 09:13:54

Tree 11 - Recommended Works: None Required.



08/30/2026 09:16:34

Tree 12 - Recommended Works: Refer 8.3 Design Considerations.



Tree 13 - Recommended Works: None Required.



Tree 14 - Recommended Works: None Required.



Tree 15 - Recommended Works: Tree Removal.



Tree 16 - Recommended Works: None Required.



08/30/2026 09:28:05

Tree 17 - Recommended Works: None Required.



08/30/2026 09:30:04

Tree 18 - Recommended Works: None Required.



08/30/2026 09:36:41

Tree 19 - Recommended Works: None Required.



08/30/2026 09:41:15

Tree 20 - Recommended Works: None Required.

Appendix 4: Data Definitions

DSH (Diameter at Breast Height) is measured at 1.4 meters above the ground or calculated from the cumulative area of multiple stems at this height, as per AS4970-2025.

DAB (Diameter at Base) is measured just above the tree's root collar, following the same standard.

Significant or Structural root: This is regarding tree roots $\geq 50\text{mm}$ diameter.

ULE (Useful Life Expectancy): This metric estimates the remaining years a tree will continue to contribute value to its environment without posing undue risks or requiring excessive maintenance. These classifications provide a framework for evaluating and reporting tree conditions in a professional arborist report.

Third Party Ownership: The tree is located on adjoining land to the assessment.

Significant / Structural Roots – Tree roots greater than 50mm in diameter that have undergone lignification (secondary thickening) and contribute to the tree's anchorage, stability and long-term structural support.

Origin

Indigenous - Naturally occurring within the local bioregion and specific site context.

Victorian Native - Indigenous to Victoria broadly, though not necessarily endemic to the subject site.

Native/Australian Native - Indigenous to Australia but occurring naturally outside Victoria.

Exotic - Non-native to Australia; introduced or cultivated species.

Tree Structure Evaluation

Good: The tree has an optimal form for its species with minimal structural issues like lean or asymmetry. Structural failures are likely only under severe weather conditions.

Fair: The tree has minor structural flaws that generally withstand light to moderate weather. There might be minor leans or slight canopy asymmetry.

Poor: The tree exhibits major structural problems that could lead to failure in normal weather conditions. This includes significant leans or highly asymmetric canopies.

Appendix 5: Tree Zones and Encroachment

Structural Root Zone (SRZ)

The Structural Root Zone (SRZ) represents the critical area around a tree's base necessary for maintaining its stability. According to AS4970-2025, the SRZ is determined through the formula:

$$(DAB \times 50) 0.42 \times 0.64$$

This calculation does not apply to grass-like trees such as palms or tree ferns, where SRZs are not typically calculated. This method ensures that the essential root systems are protected to preserve the tree's structural integrity.

Tree Protection Zone (TPZ)

A Tree Protection Zone (TPZ) is a crucial measure for preserving trees during development projects. The purpose of a TPZ is to safeguard an area around a tree to prevent any construction activities - both above and below ground - which might compromise the tree's structural and root integrity.

Under AS4970-2025, the TPZ for trees is calculated using the formula:

$$TPZ \text{ Radius} = 12 \times DSH \text{ (Diameter at Standard Height)}$$

For palms, tree ferns or species of the monocot family, the TPZ and NRZ is calculated by adding 1 meter to the radius of the tree's canopy. In the case of dead trees, the TPZ and NRZ is set to match the size of their Structural Root Zone (SRZ), as protection efforts focus solely on maintaining their stability, not their health or vigour.

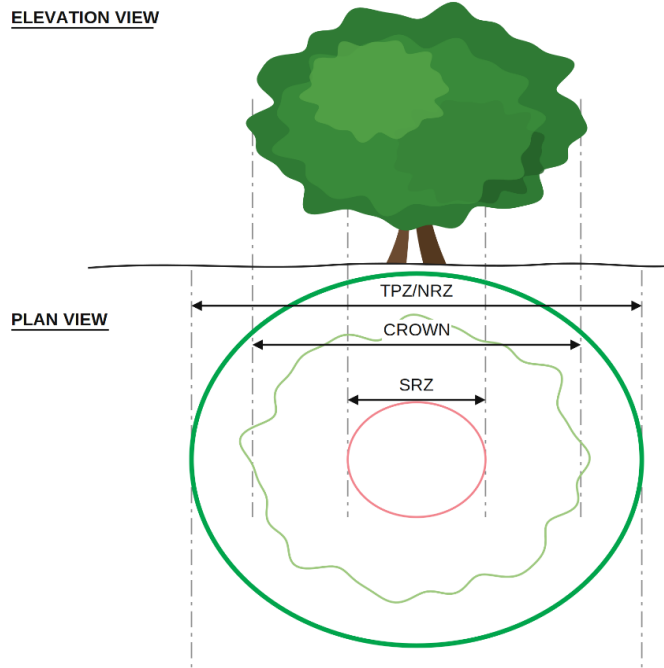
Notional Root Zones (NRZ)

A Notional Root Zone (NRZ) is an important consideration when managing the health and stability of trees in any context, including residential properties, public spaces, and development sites. The NRZ represents an indicative area around a tree that is likely to contain the majority of its structural and absorbing roots. It is used to estimate the probable extent of the root system where detailed root mapping has not been undertaken.

Under AS4970-2025, the NRZ for trees is calculated using the formula:

$$\text{NRZ Radius} = 12 \times \text{DSH (Diameter at Standard Height)}$$

Indicative TPZ, NRZ and SRZ (AS 4970/2025)



TPZ Encroachment

AS 4970-2025 permits modifications to the 'calculated' Tree Protection Zones (TPZs) under specified conditions to accommodate varying degrees of encroachment. Encroachment refers to the impact that activities, such as development or construction, have on a tree's TPZ. The standard recognises three distinct levels of encroachment within AS 4970-2025.

Minor Encroachment

When the encroachment into a Tree Protection Zone (TPZ) is less than 10% of the TPZ area, it is classified as 'Minor Encroachment.' Such minor encroachments and the corresponding adjustments to a TPZ are considered acceptable within AS 4970-2025, provided the area lost is compensated for in a manner that remains contiguous with the existing TPZ.

Moderate Encroachment

When encroachment into a Tree Protection Zone (TPZ) exceeds 10% but remains below 20% of the TPZ area, it is classified as 'Moderate Encroachment'. Moderate encroachment and any corresponding alterations to a TPZ may be deemed acceptable within AS 4970-2025 if the following criteria is met:

- The project arborist confirms that the tree can tolerate the level of disturbance without a decline in health or stability.
- The area of encroachment is compensated for by adding a contiguous area to the TPZ to maintain adequate root protection.
- Construction methods within the affected area are modified to reduce root damage, such as using non-invasive excavation techniques (e.g. air spade, hydro-excavation or manual excavation).

Major Encroachment

When encroachment into a Tree Protection Zone (TPZ) exceeds 20% of its area, this is considered to be 'Major Encroachment.' Major encroachment and any corresponding alterations to a TPZ may be deemed acceptable within AS 4970-2025 if the following criteria is met:

- The project arborist confirms that the tree can tolerate the level of disturbance without a decline in health or stability.
- The area of encroachment is compensated for by adding a contiguous area to the TPZ to maintain adequate root protection.
- Construction methods within the affected area are modified to reduce root damage, such as using non-invasive excavation techniques (e.g. air spade, hydro-excavation or manual excavation).

It is recommended that all tree protection requirements be detailed in a Tree Protection Specification (TPS) and Tree Protection Plan (TPP), which should be prepared by a suitably qualified arborist before any construction activities begin.

Root Encroachment Diagram

The NRZ encroachment diagrams provided below are intended as conceptual and visual representations only. They illustrate indicative and approximate levels of potential encroachment associated with proposed development works and are supplied for explanatory reference.

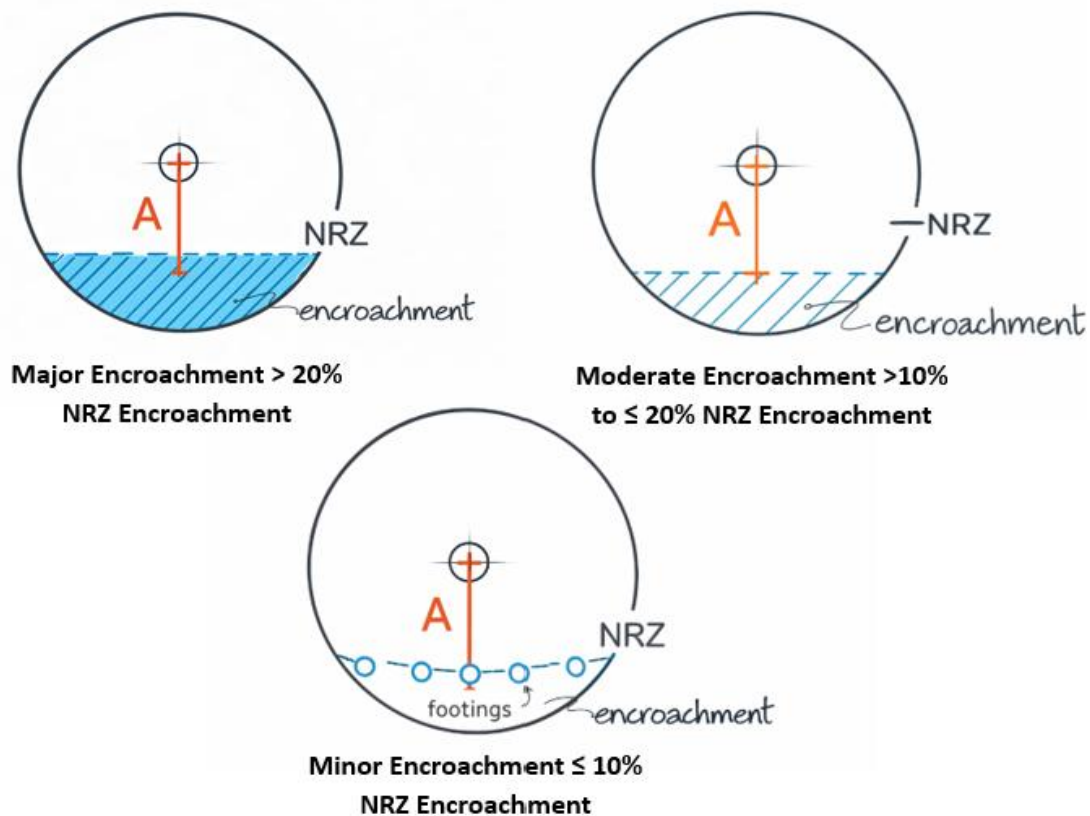
These diagrams are not to scale and do not represent surveyed root distribution, actual root density, or precise excavation extents. Their purpose is to assist in communicating likely encroachment outcomes under various construction and excavation methodologies.

Encroachment scenarios depicted may include, but are not limited to:

- Trenching for service installation
- Bored or drilled pier/footing systems
- Strip footing excavation
- Pad footings and isolated footing installation
- General bulk excavation activities

The diagrams are provided to demonstrate how differing construction techniques may influence the degree, distribution, and intensity of intrusion into the calculated Notional Root Zone (NRZ).

All final encroachment assessments, impact determinations, and construction tolerances must be based on site-specific arboricultural evaluation, confirmed design documentation, and, where applicable, on-site Project Arborist supervision during works.



Tree Protection Guidelines

The following are recommended best practice guidelines for establishing and maintaining a Tree Protection Zone (TPZ) throughout construction activities, adapted from AS 4970-2025:

Built Structures: Avoid constructing hard landscape features such as paving and retaining walls within the TPZ.

Materials Storage: Do not store materials like equipment, fuel, building waste, or rubble within the TPZ.

Soil Disturbance: Prevent any soil stripping or grading changes within the TPZ.

Excavation Works: Exclude all excavation activities, including surface-dug trenches for utilities, within the TPZ.

Placement of Fill: Ensure no fill is placed within the TPZ.

Lighting Fires: Prohibit the lighting of fires within the TPZ.

Chemical Preparation: Avoid any preparation of chemicals, including cement products, within the TPZ.

Access Restrictions: Restrict pedestrian and vehicular access, including pathways, within the TPZ.

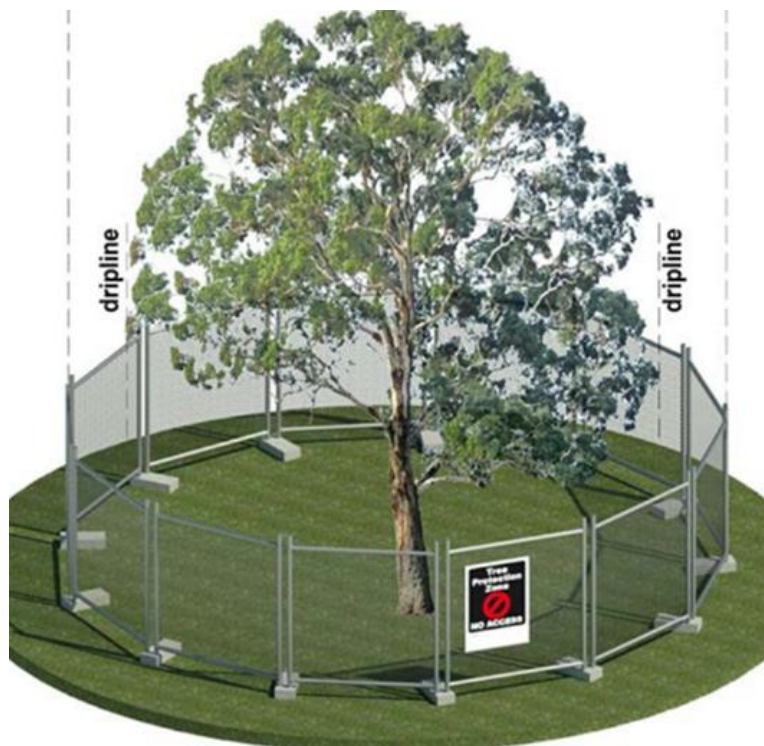
These measures are designed to protect the trees health and structural integrity during construction, ensuring minimal impact to its vital root and canopy areas.

Tree Protection Fencing

To ensure the protection of trees designated for retention during construction, it is essential to install tree protection fencing around the defined area of the Tree Protection Zones (TPZs). This fencing should be erected prior to the initiation of any construction activities and must be maintained throughout the duration of the project. The recommended fencing is a chain mesh type, standing at a minimum height of 1.8 meters, supported by temporary concrete footings for stability. In environments where airborne contaminants pose a risk, incorporating finer mesh materials such as shade cloth on the fencing is advisable to safeguard the TPZ. Additionally, warning signs should be prominently displayed at regular intervals along the fencing to ensure visibility and compliance.

Working within TPZ

Approved works within the TPZ must be undertaken under the direct supervision of the Project Arborist. Any additional encroachment identified during construction is to be reviewed by the Project Arborist and authorised by the responsible authority prior to commencement.



Appendix 6: Arboricultural Value

The following arboricultural value categories are applied to subject trees to guide retention, management and planning decisions. Ratings reflect a balanced consideration of health, structure, useful life expectancy, landscape contribution, ecological value and planning significance.

High Arboricultural Value

Trees assigned a High arboricultural value are of significant merit and are to be considered for priority retention.

These trees typically are or exhibit:

- Protected by planning or policy controls (State or Local)
- Good overall health and vigour
- Good structural integrity with minimal defects
- Long useful life expectancy (ULE)
- High landscape and visual amenity contribution
- Notable canopy spread and/or prominence within the streetscape or site
- Ecological, habitat or biodiversity value
- Cultural, heritage or planning significance (where applicable)

Removal or major encroachment into the TPZ/SRZ of High value trees is generally discouraged and requires strong planning and arboricultural justification. Design modification and tree protection measures should be prioritised.

Moderate Arboricultural Value

Trees assigned a Moderate arboricultural value contribute positively to the site and surrounding landscape but may be subject to some constraints.

These trees typically are or exhibit:

- Fair to good health and vigour
- Minor to moderate structural defects
- Moderate useful life expectancy
- Noticeable but noncritical landscape contribution
- Ecological, habitat or biodiversity value
- Cultural, heritage or planning significance (where applicable)

Low Arboricultural Value

Trees assigned a Low Arboricultural Value provide limited arboricultural, landscape and/or ecological benefit within the site context.

These trees typically are or exhibit:

- Poor health, vigour, or evidence of physiological decline
- Structural defects, instability, or elevated risk profile
- Short Useful Life Expectancy (ULE)
- Limited canopy spread or landscape contribution
- Suppressed form, poor architecture, or environmental stress impacts
- Pest or disease infestation affecting function or longevity
- Weed species status, invasive characteristics or poor retention suitability
- Limited ecological or habitat value
- Low suitability for sustainable long-term retention

Removal of Low value trees is generally considered arboriculturally supportable, subject to relevant planning requirements, particularly where required to facilitate development, improve site functionality, mitigate risk, or enable replacement planting with higher long-term canopy and landscape outcomes.

No Arboricultural Value

Trees assigned No Arboricultural Value are not considered viable for retention.

These trees typically exhibit:

- Advanced physiological decline or evidence of impending mortality
- Severe structural defects, elevated risk profile or failure risk
- Pest or disease infestation affecting function or longevity
- Dead trees with no habitat retention value
- Self-established vegetation of negligible arboricultural merit

Removal is considered appropriate and does not result in meaningful arboricultural or landscape loss.

Limitations and Disclaimers

This report has been prepared for the exclusive use of the commissioning client for the specific purposes outlined, in accordance with the agreed scope of works. It must not be used for any other purpose, project, site, design iteration, or planning submission without prior written consent from Arbor Analytics. No responsibility or liability is accepted to any third party who may rely upon the contents of this report. This assessment has been prepared on the basis of information, documentation, and drawings supplied at the time of inspection. Arbor Analytics accepts no responsibility for inaccuracies, omissions, or subsequent amendments to plans, site conditions, or project design occurring after the date of inspection. Should documentation or design details change, Arbor Analytics reserves the right to review, amend, or withdraw findings and recommendations.

All opinions, conclusions, and recommendations contained within this report are informed by the arborist's professional experience, relevant qualifications, and accepted arboricultural practices, and are based on a visual arboricultural assessment undertaken in accordance with industry standards current at the time of reporting. No invasive investigations, underground service locates, or Hydro-excavation root mapping have been undertaken unless otherwise stated.

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Further Information

It is important to note trees are living organisms subject to various biotic and abiotic influences that affect health and stability. While this report provides an assessment based on visible conditions and available information at the time of inspection, tree health can change unexpectedly. Continuous monitoring is recommended, and if changes in tree condition are observed, it is advisable to consult a Level 5 or higher qualified arborist to conduct a comprehensive evaluation and provide updated management recommendations.

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Documents Reviewed

This Arborist report and assessment has been prepared with reference to documentation supplied by the client and associated consultants. Arbor Analytics has relied upon the accuracy, currency, and completeness of the information provided and accepts no responsibility for discrepancies due to proceeding or subsequent changes to design or subsidiary material.

- **Diagram 2 – Development Plan Drawings OTL CONSULTING GROUP PTY LTD Proposed Site Plan – [REDACTED] – Project TP ID [REDACTED] – Sheet No. 2**



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