Glen Iris Estate

City of Cockburn Community Update

www.cockburn.wa.gov.au

Acknowledgement of Country

The Mayor, Councillors and staff of the City of Cockburn acknowledge the Whadjuk Nyungar people of Beeliar boodja as the traditional custodians of this land. We pay our respect to the Elders, past and present.

Purpose of this Presentation

Response to Community Feedback

- Introductions.
- There have been a number of community concerns around tree retention and traffic in Glen Iris Estate.
- This presentation will answer these questions in the hope of informing our community on the City's roles and responsibilities.

Presentation Structure:

The City's Role

Trees & Design Considerations

Traffic

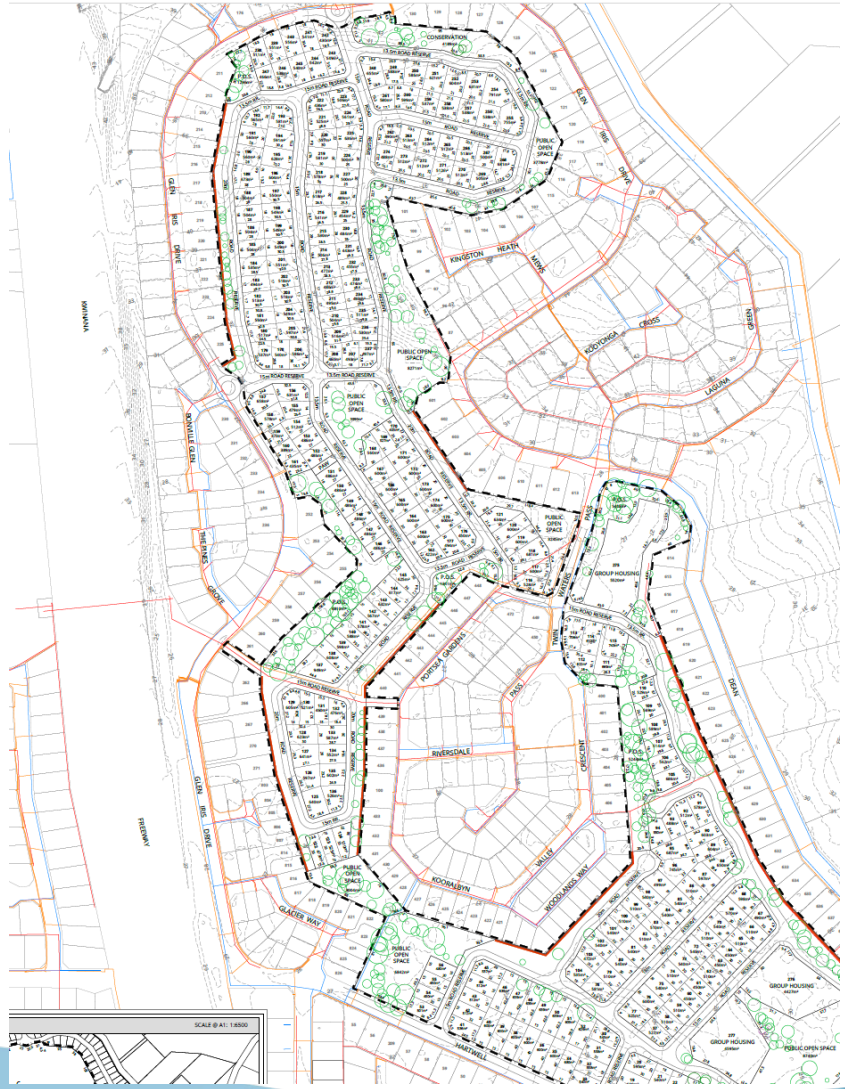
Dilapidation Reports

Question Time

The City’s role ‘The Gatekeepers’

- What is a subdivision approval?
- How does the City assess tree retention and managing traffic considerations following subdivision approval?

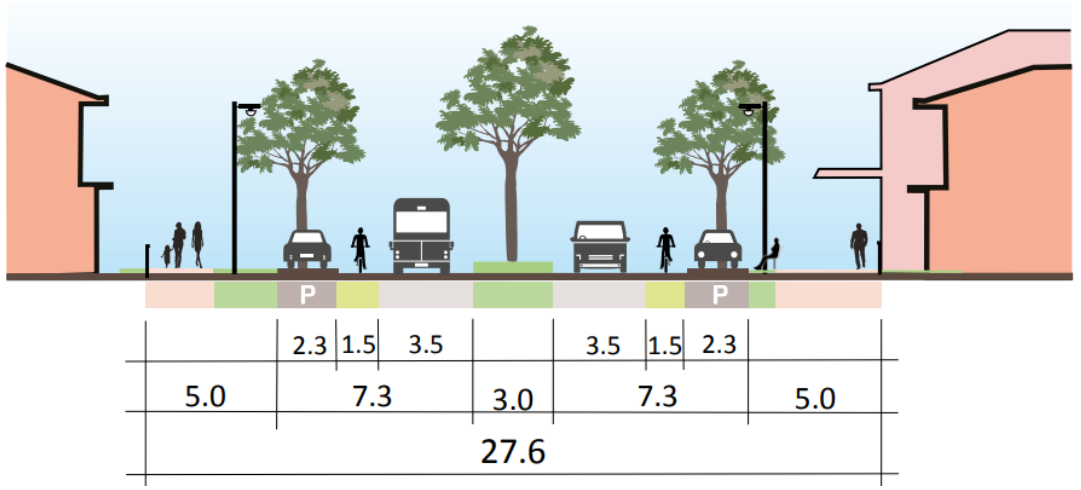
WAPC Approved Subdivision Plan



LEGEND

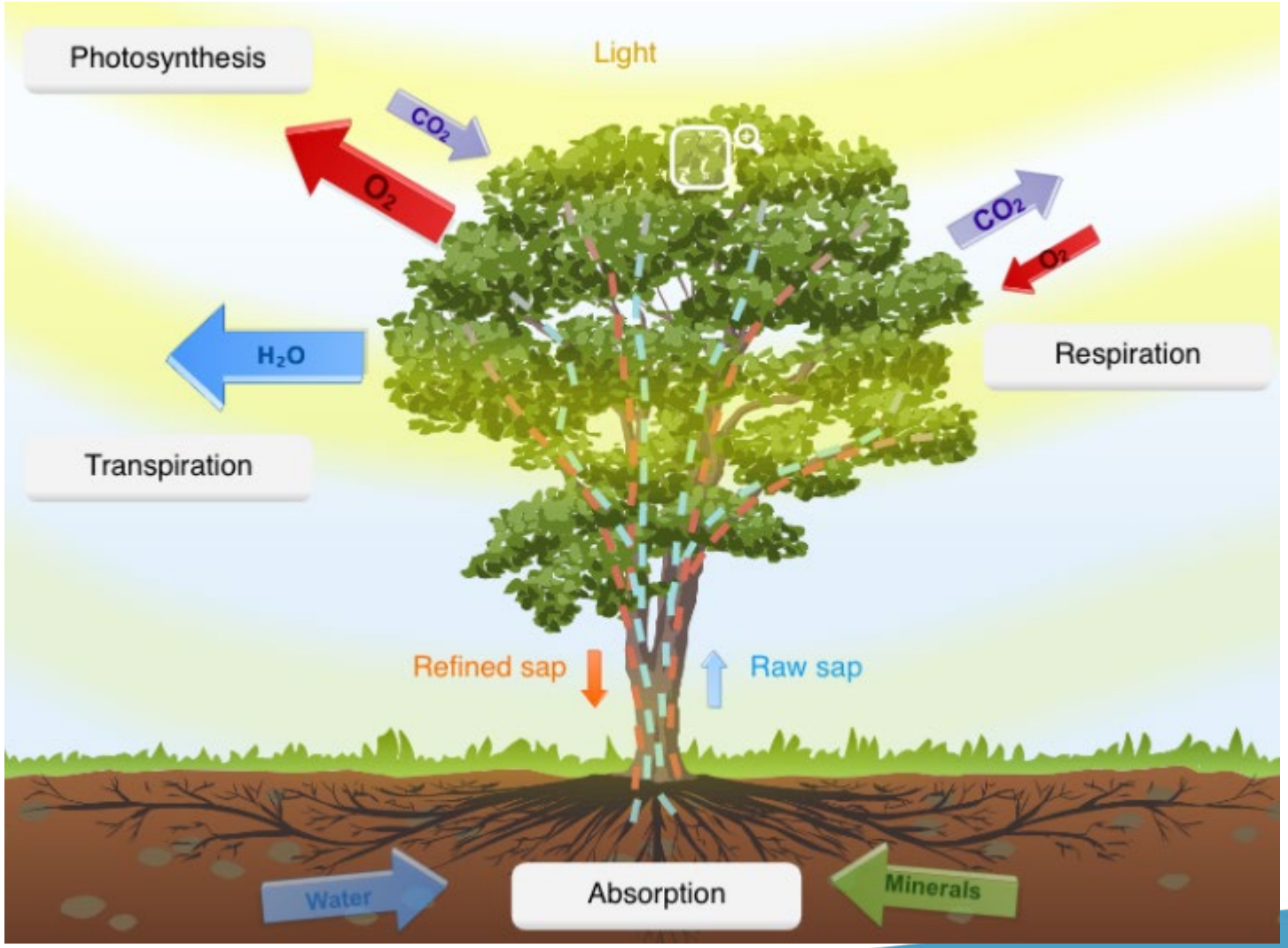
- SUBJECT SITE
- 2 CONTOURS
- EXISTING BOUNDARIES
- 7 EXISTING LOT NUMBERS
- PROPOSED BOUNDARIES
- **7** PROPOSED LOT NUMBERS
- 112.3 PROPOSED LOT DIMENSIONS
- WATER
- SEWER
- POWER
- EXISTING BUILDINGS TO BE DEMOLISHED
- 0.1M PEDESTRIAN ACCESSWAY
- POTENTIAL TREES TO BE RETAINED

Balancing Design Requirements



What the Developer’s project team is doing to protect trees in the development

Tree Biology



Tree Roots

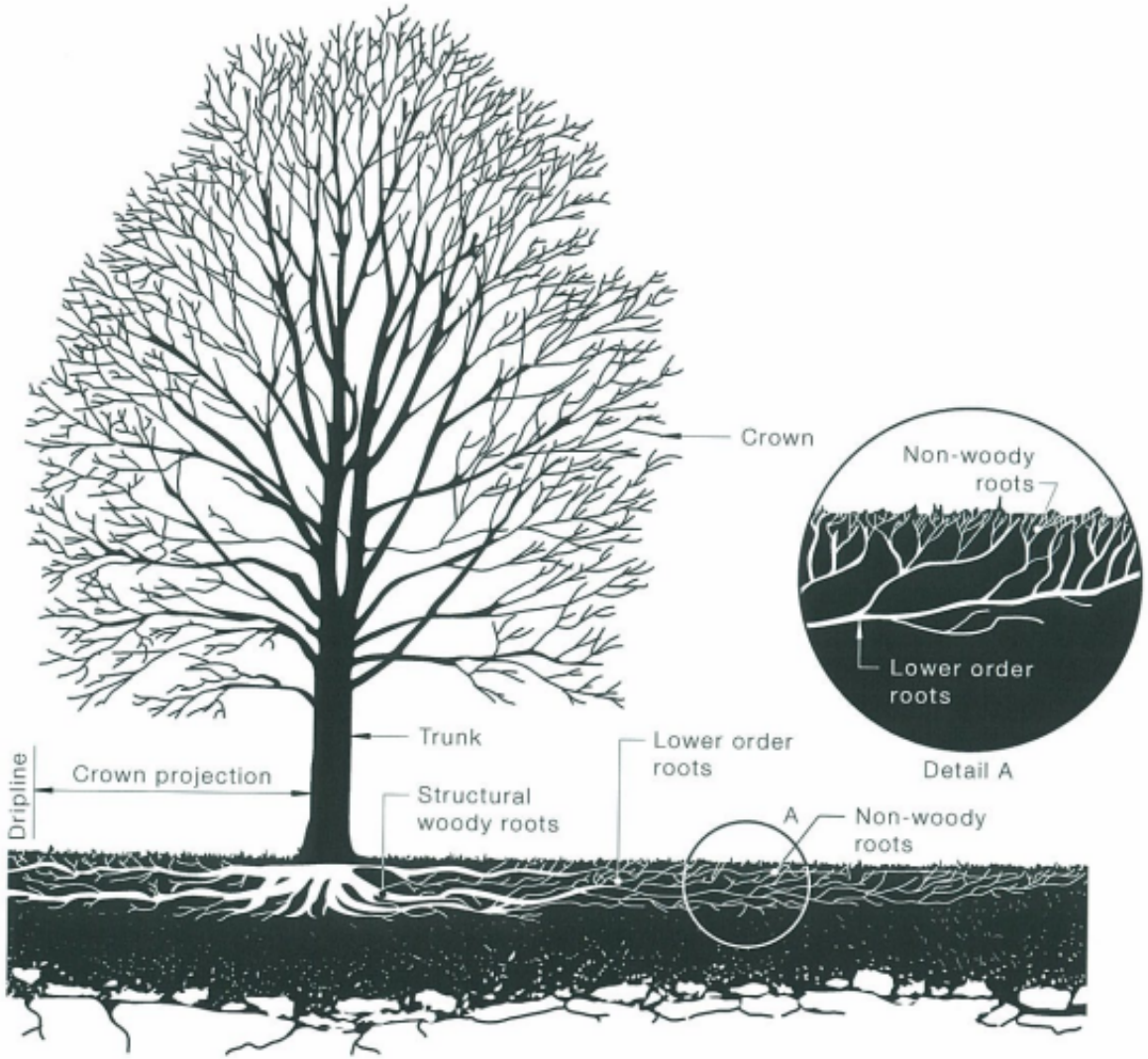
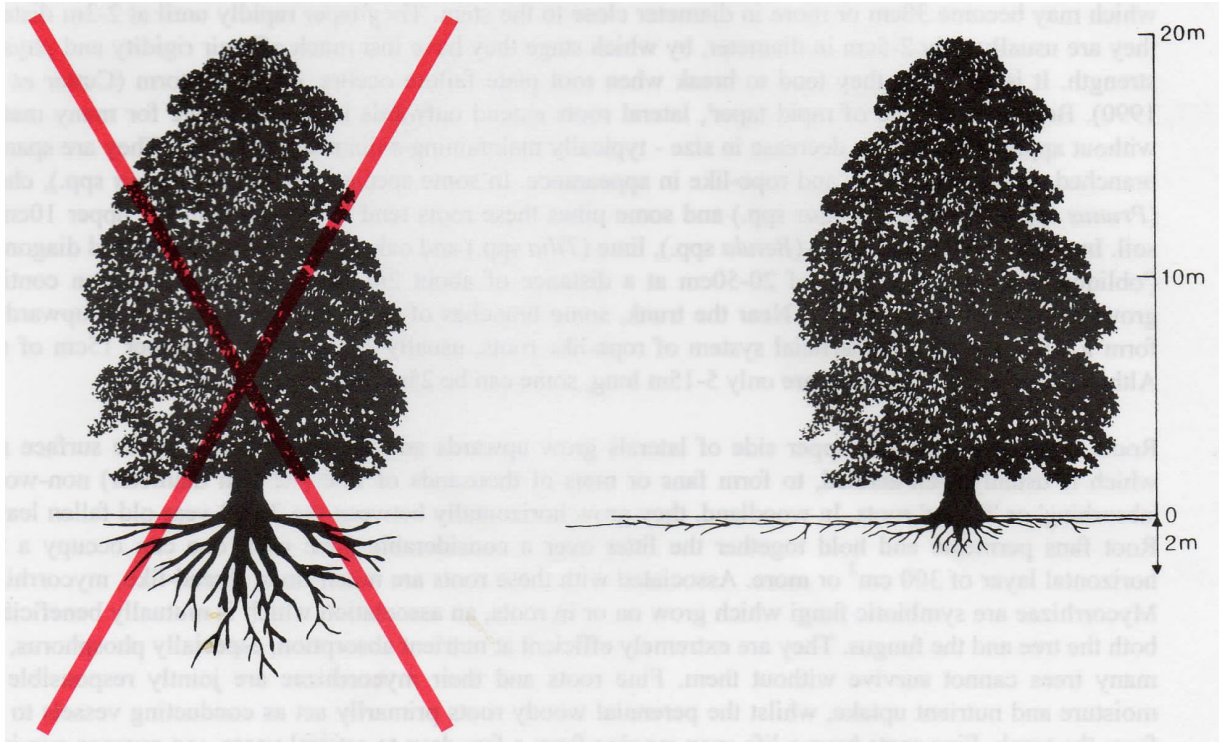


FIGURE B1 STRUCTURE OF A TREE IN A NORMAL GROWING ENVIRONMENT



Tree Retention and Protection

AS 4970—2009
(Incorporating Amendment No. 1)

AS 4970—2009

Australian Standard®

Protection of trees on development sites

STANDARDS Australia

Protection of Trees on Development Sites

Australian Standard 4970

Landscape design is an important component of most development. Established trees of appropriate species and sound structure are beneficial components of the built environment and a potential asset to any development site. Trees may be retained because of their—

(a) aesthetic qualities;

(b) heritage values;

(c) ecosystem benefits, including—

  (i) stormwater management;

  (ii) shade and heat reduction qualities;

  (iii) wildlife habitat and biodiversity;

  (iv) carbon dioxide absorption;

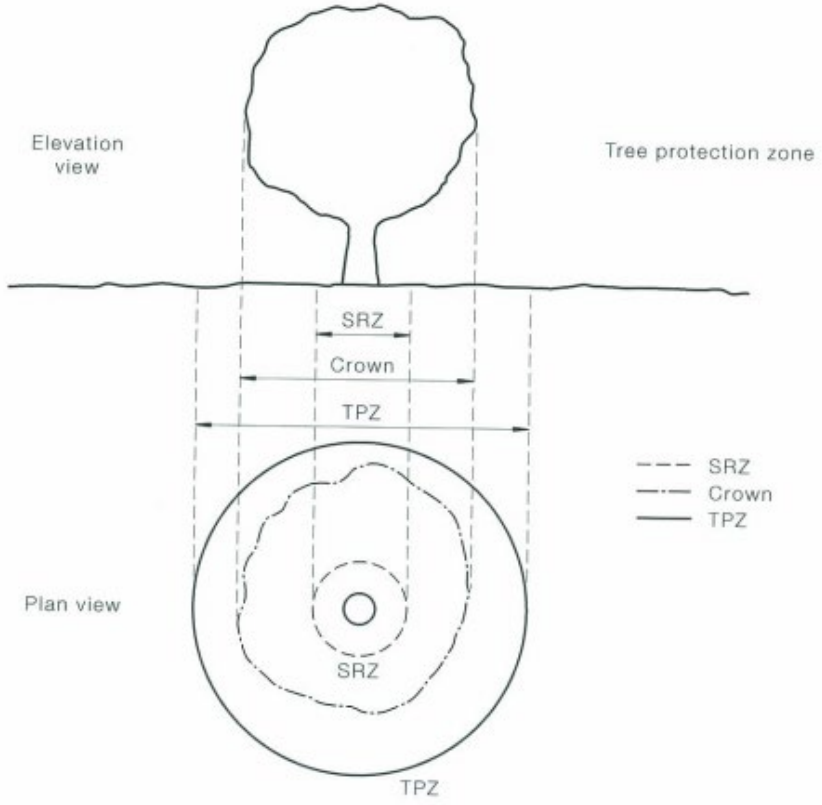
  (v) particulate pollution capture;

  (vi) salt wind protection; and

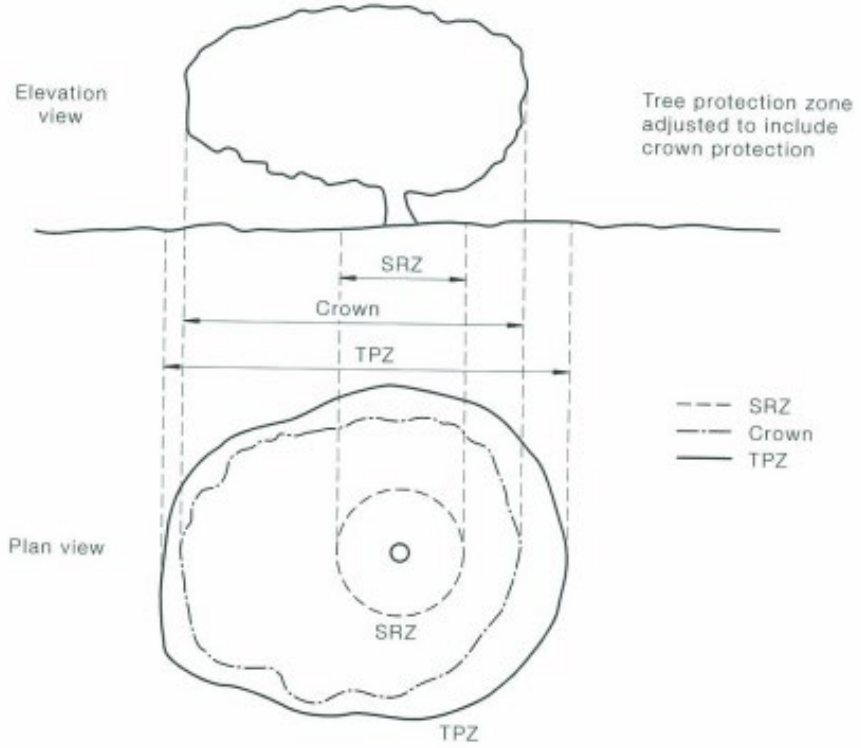
(d) social and psychological values.

Tree Protection Zone

Australian Standard 4970



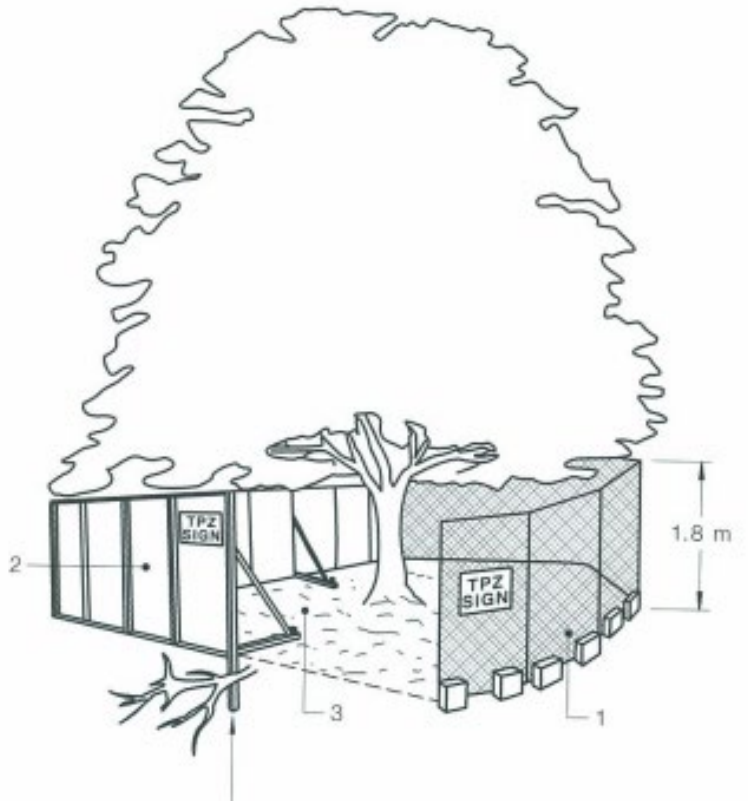
Example 1: TPZ of a tree with symmetrical crown



Example 2: TPZ of a tree with non-symmetrical crown and how the TPZ should be adjusted to protect the crown

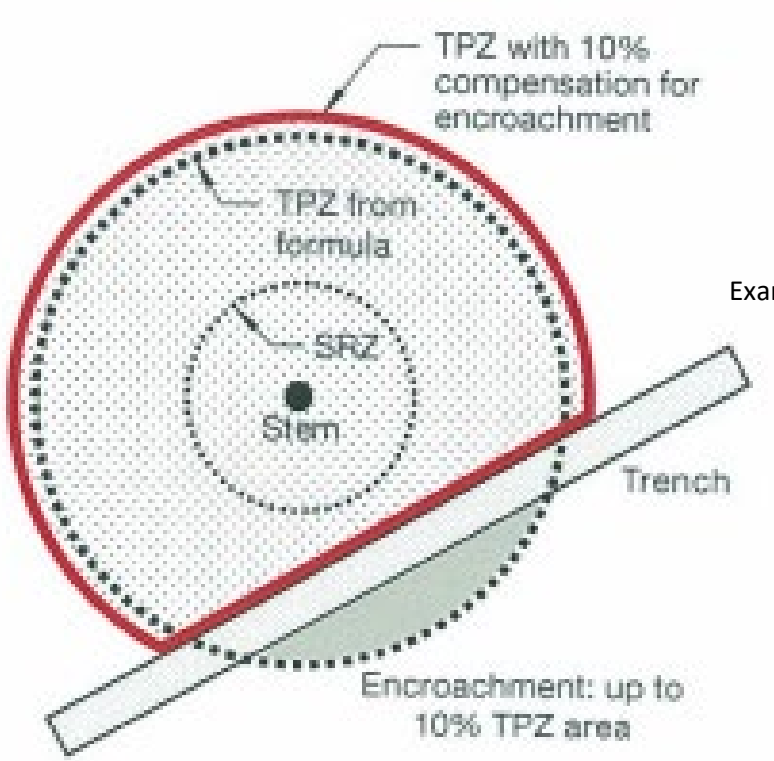
Tree Protection Zone

Australian Standard 4970

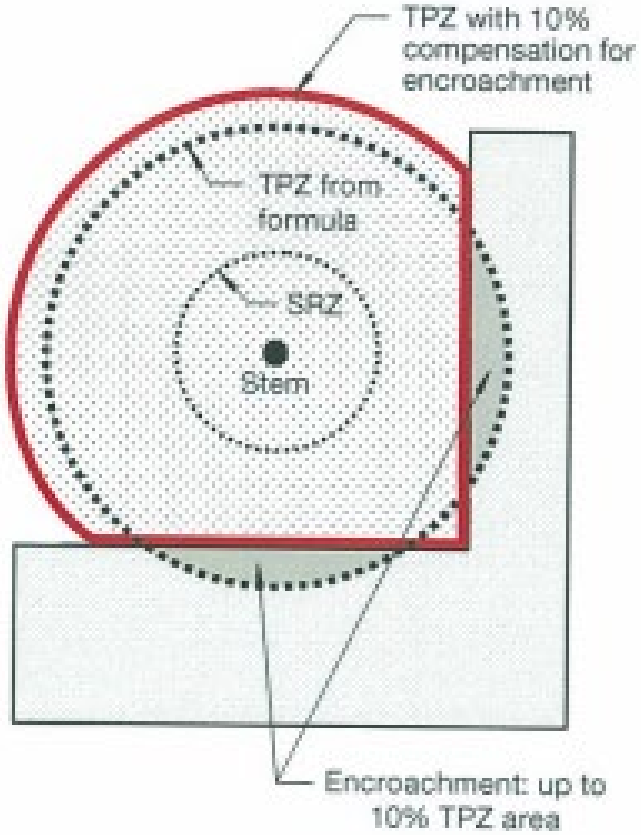


Encroaching into the TPZ

Australian Standard 4970



Examples of minor encroachment



Challenges at Glen Iris

Tree Protection Measures

Through the Different Construction Stages

Arborist Review

Tree Protection Measures

Arborist Review → Bulk Earthworks → Civil Design → Site Investigations → New Landscaping

Arborist Review

Tree Protection Measures

Organic fertilisers used pre and post construction to encourage tree growth and mitigate induced stresses.

Supplementary irrigation to the trees via. the turret on the water cart to maintain soil moisture (example photo)

Canopy reduction to reduce the weight of the canopy, balance the tree and reduce transpiration requirements

Arborist Review

Root mapping and vacuum excavation

An example of root mapping within the TPZ of a large Tuart, uncovering only 1 root @40mm diameter, allowing construction to proceed without detriment to the tree.

root mapping to determine the level of root removal required and to assist with the viability assessment of the tree.

Arborist Review

Root mapping and vacuum excavation

Root mapping to chase and expose roots and clean cutting roots at the desired location to facilitate construction.

With this method, roots can be fully chased and exposed, providing an opportunity to ‘clean cut’ roots at the precise location and reducing the root damage to the absolute minimum.

Arborist Review

Root mapping

Both images are taken about 2-3 m from the base of trees. The tree on the left shows large roots heading towards the former fairway. The right image shows a trench on the former “rough” side of the tree – with almost no roots present (although plenty of lost Titleist and Callaway balls were found).

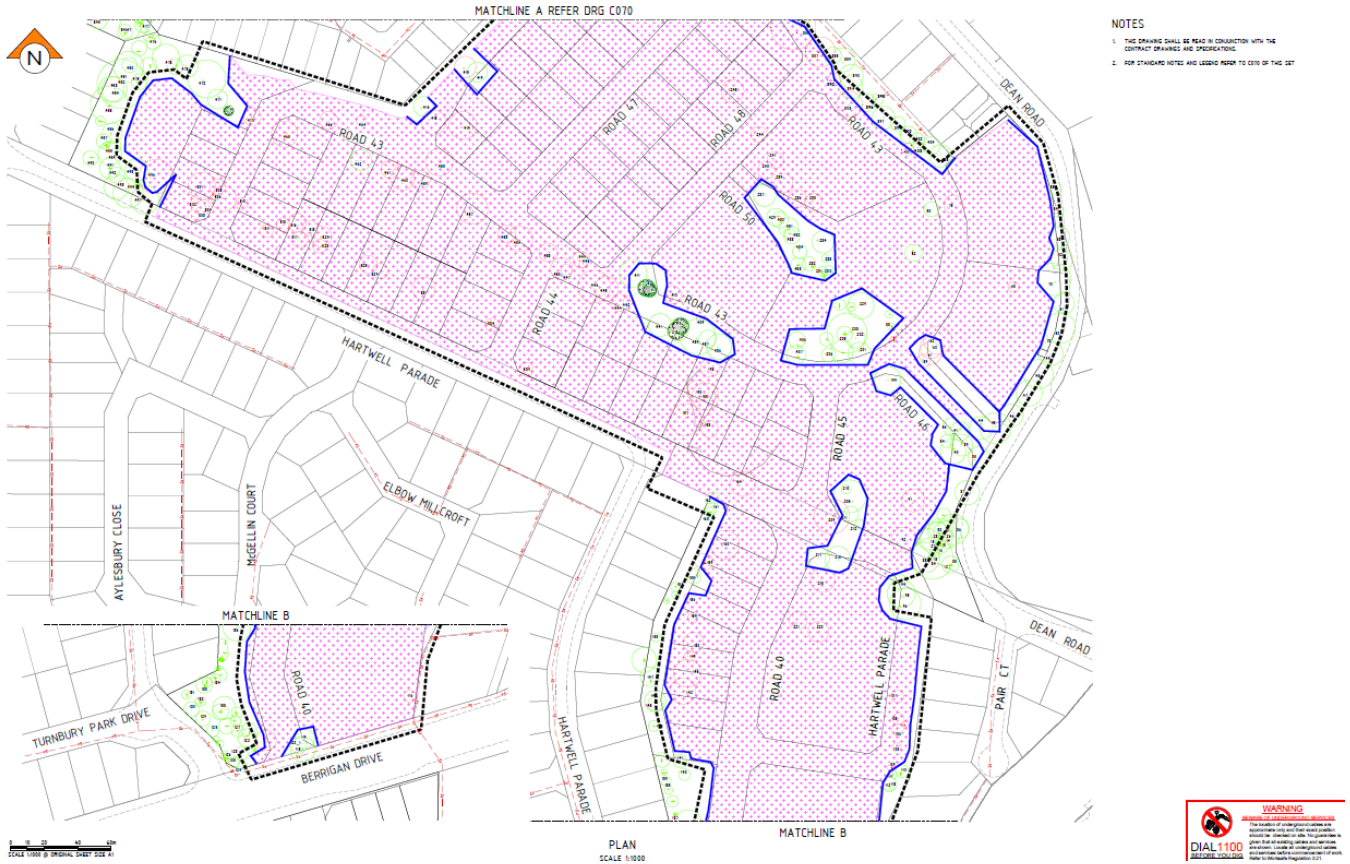
Bulk Earthworks

Tree Protection Measures

Arborist Review | Bulk Earthworks | Civil Design | Site Investigations | New Landscaping

LEGEND

- LIMIT OF WORKS
- EXISTING ROAD/KERB
- EXISTING SEWER
- EXISTING EMBANKMENT / BATTER
- PROPOSED BATTER
- EXISTING STREET LIGHT
- EXISTING TREE TO REMAIN AND BE PROTECTED
- EXISTING TREE TO BE REMOVED
- BLACK COCKATOO HABITAT TREE (SURVEYED)
- BLACK COCKATOO HABITAT TREE (UN-SURVEYED)
- 590 — TREE NUMBER
- AREA OF CLEARING AND GRUBBING
- TREE PROTECTION FENCING TO AS4970



Bulk Earthworks

Fencing

Civil Design

Tree Protection Measures

Arborist Review → Bulk Earthworks → Civil Design → Site Investigations → New Landscaping

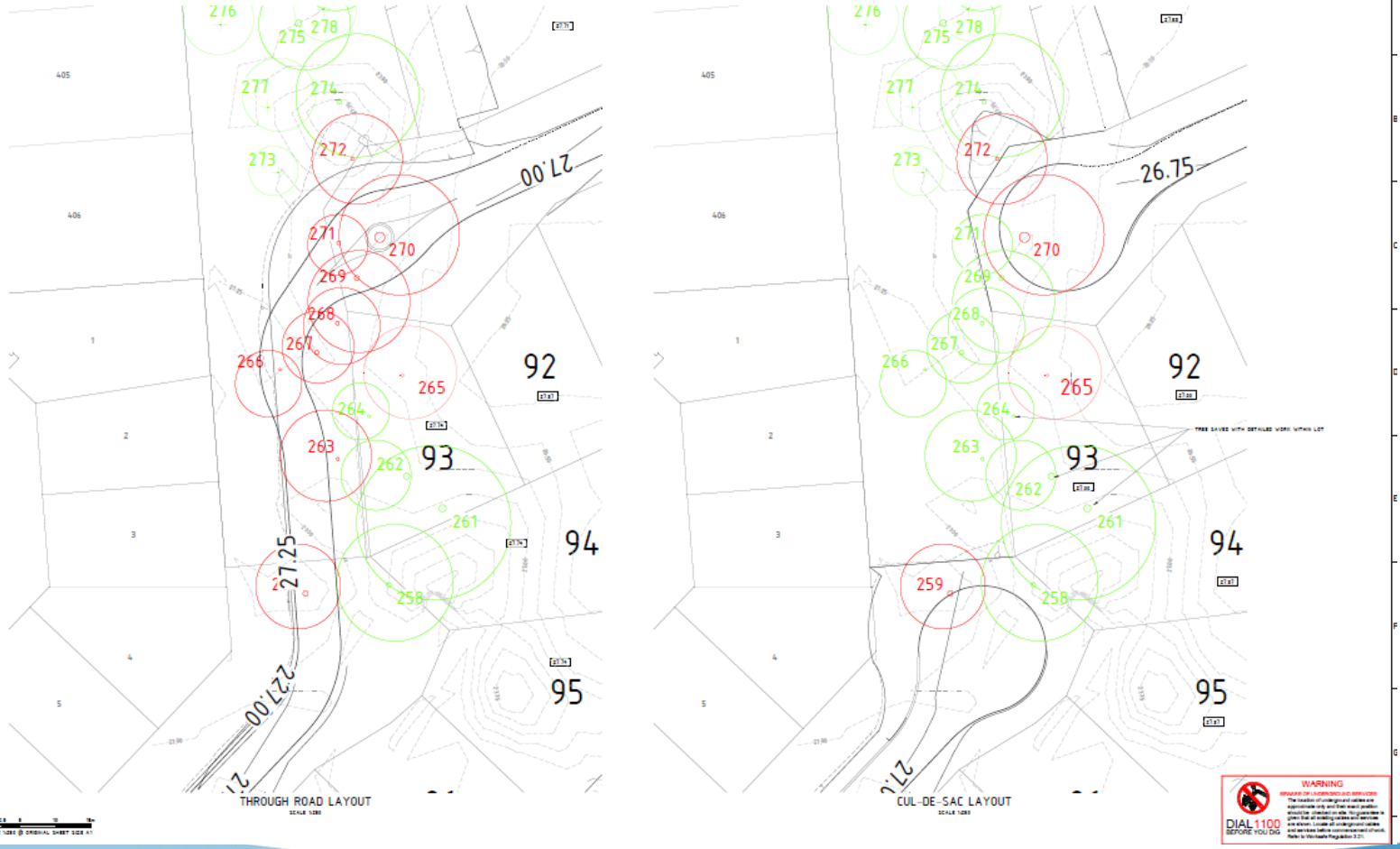
Civil Design

Other examples

Civil Design

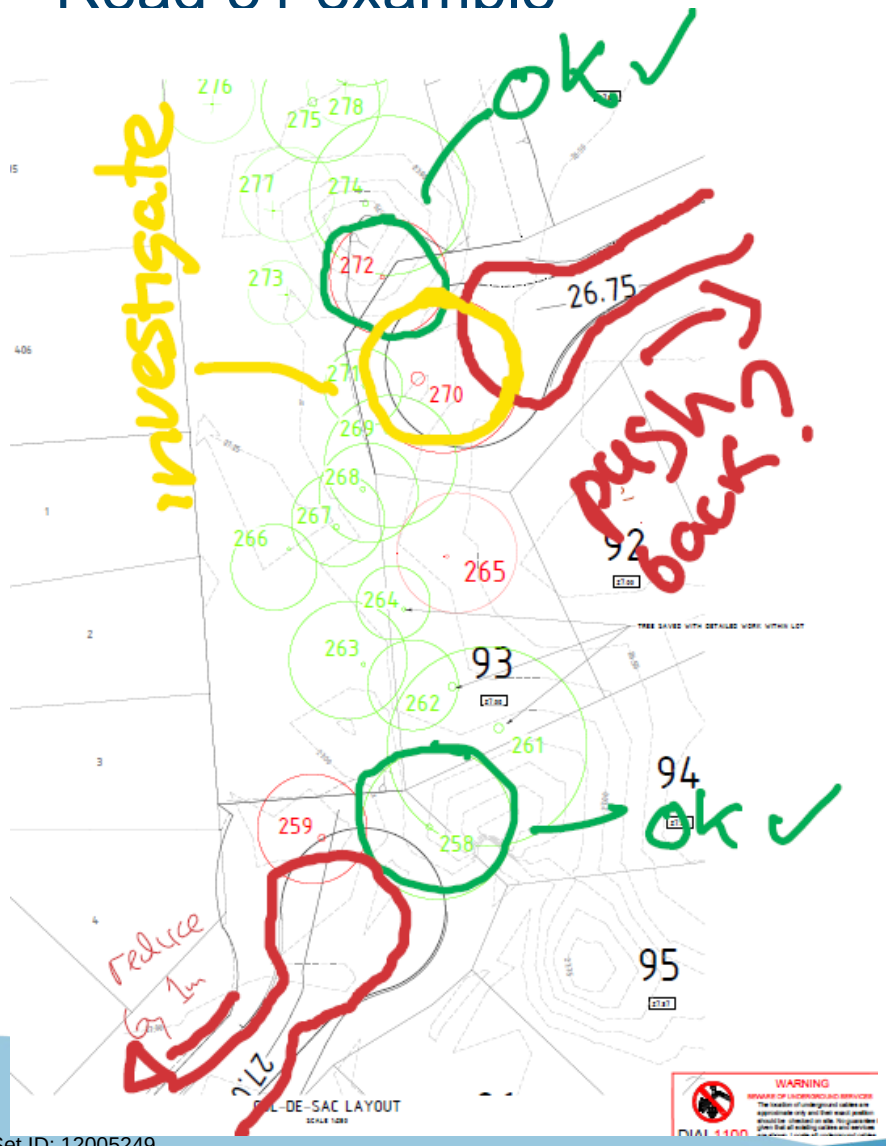
Road 51 example

Initial design (left) vs alternative design (right) showing trees that can be retained (green)



Site Investigations

Road 51 example



Arborist Review → Bulk Earthworks → Civil Design → **Site Investigations** → New Landscaping

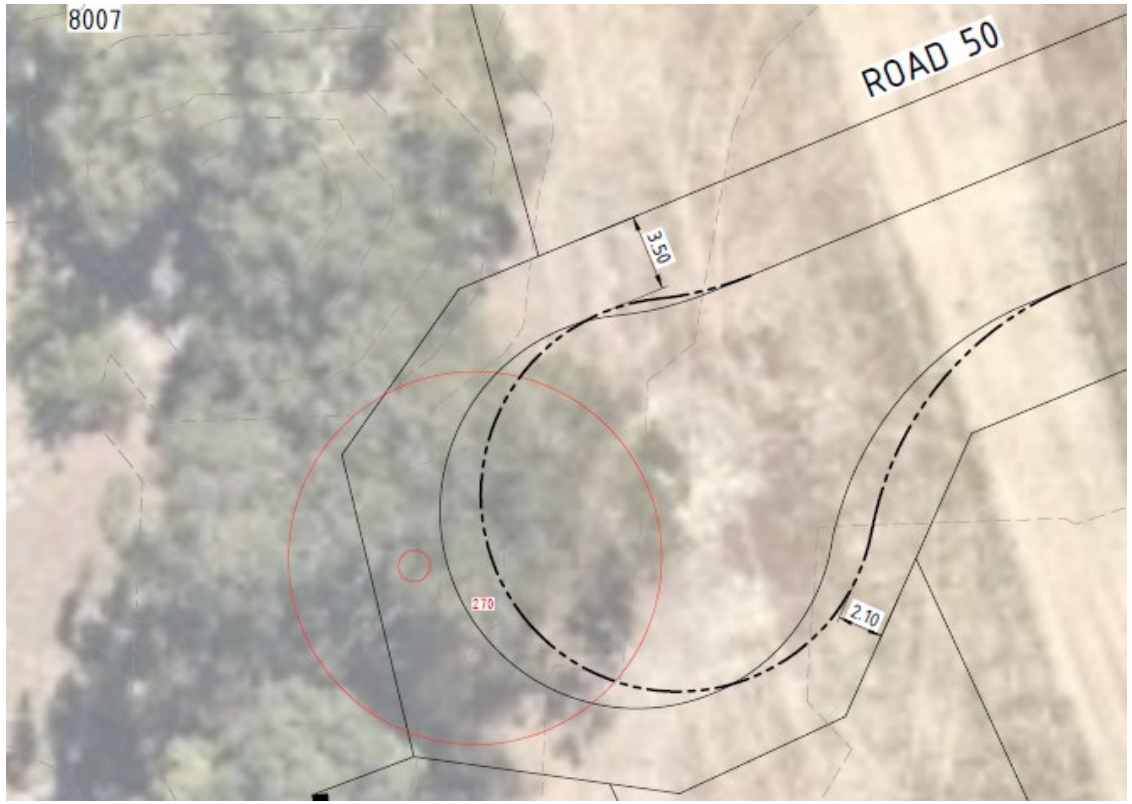
Civil Design

Road 51 and Tree 270 example

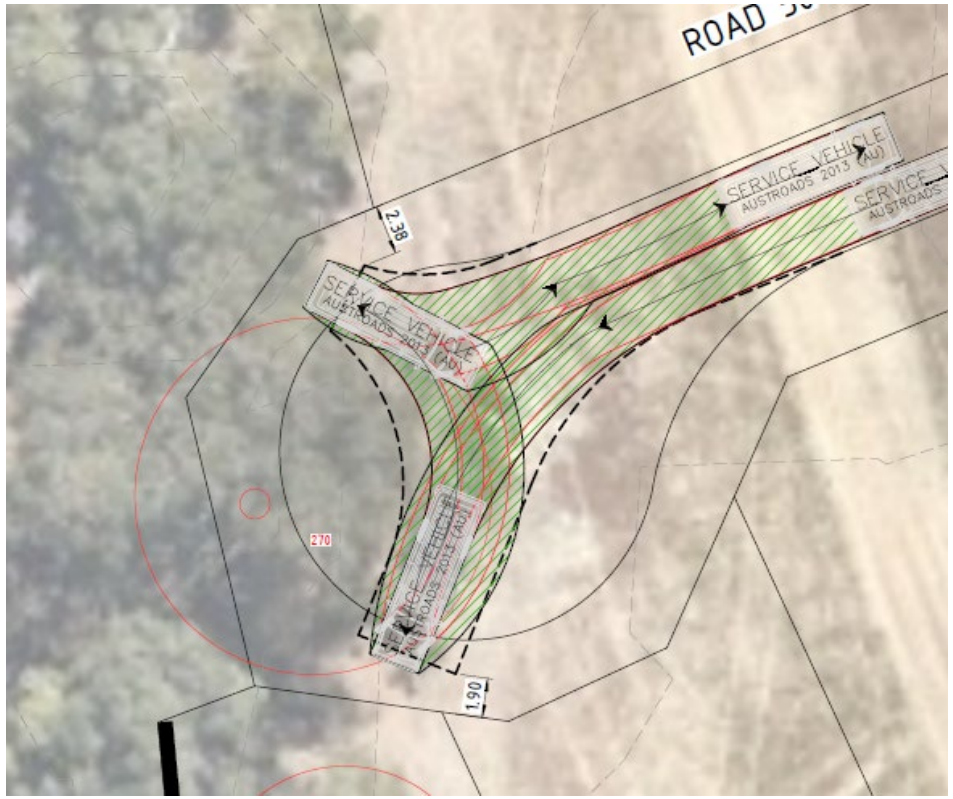
Tree 270 with the original road layout staked in blue and a picture of its root mapping

Civil Design

Road 51 and Tree 270 example



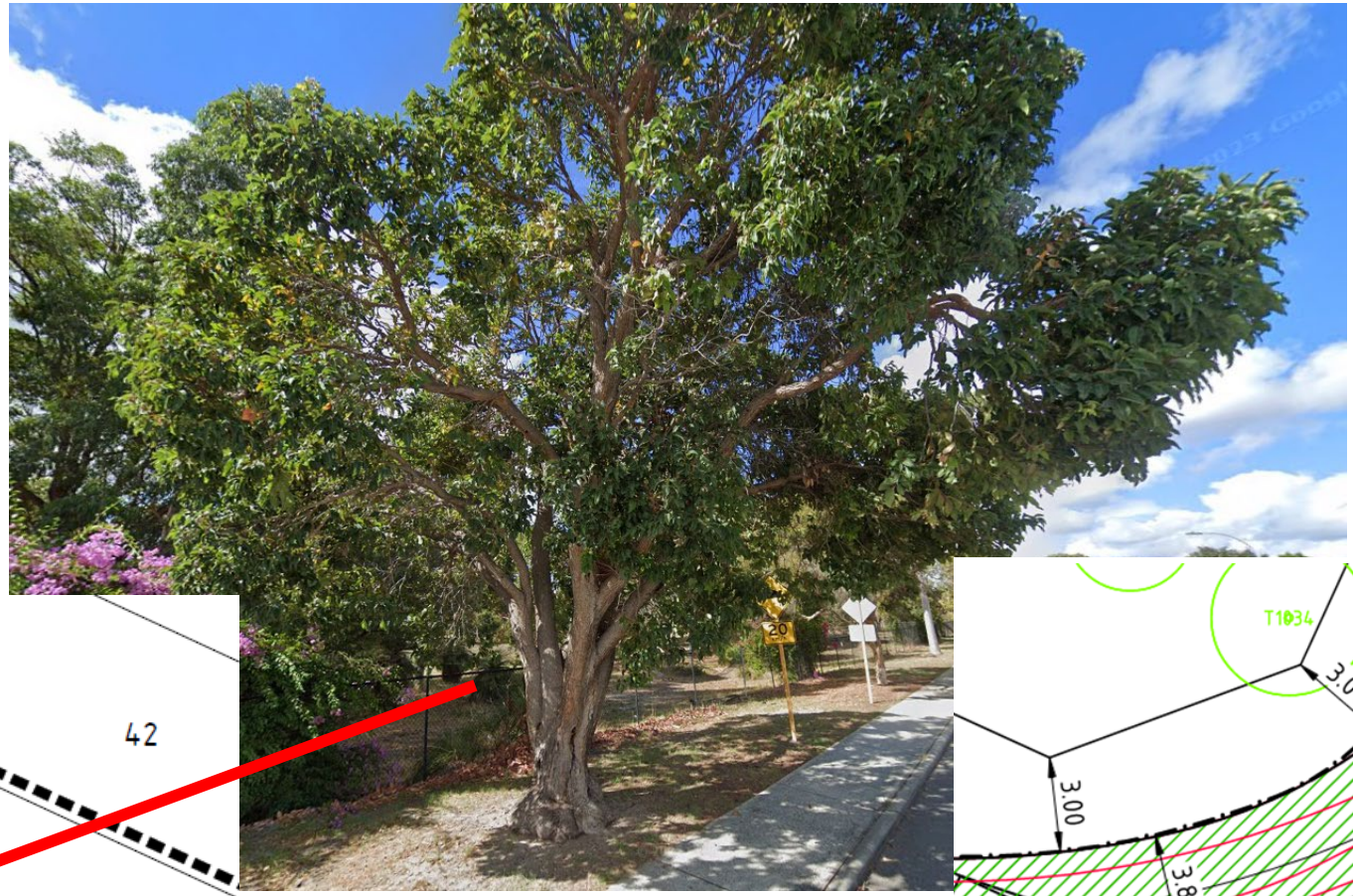
New cul-de-sac alignment in black dotted line



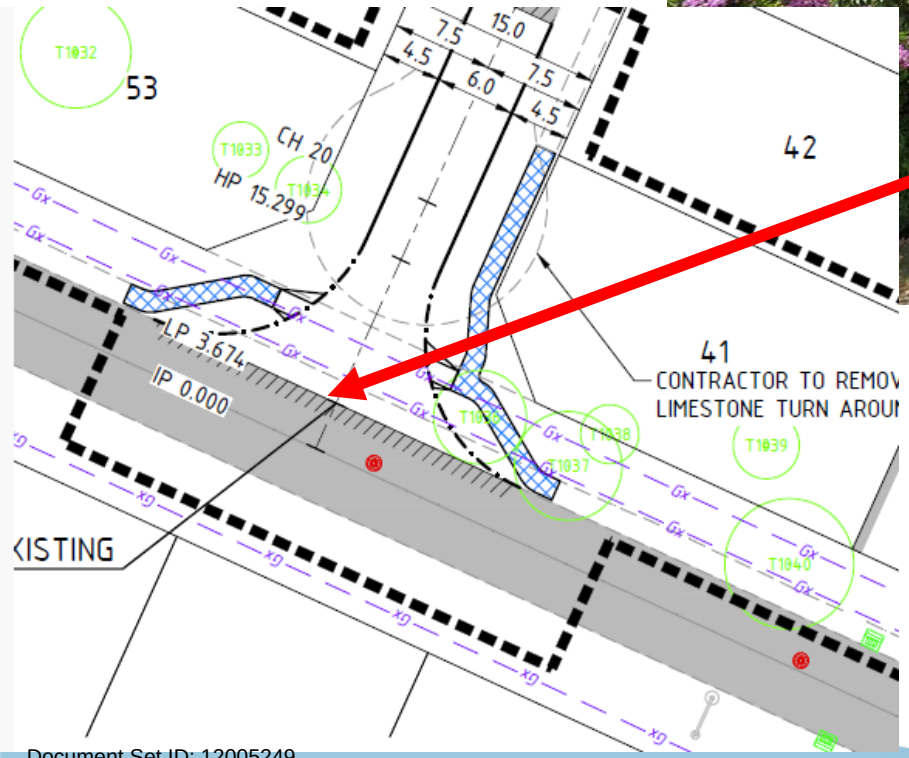
Alternative
Hammerhead
Proposal

Civil Design

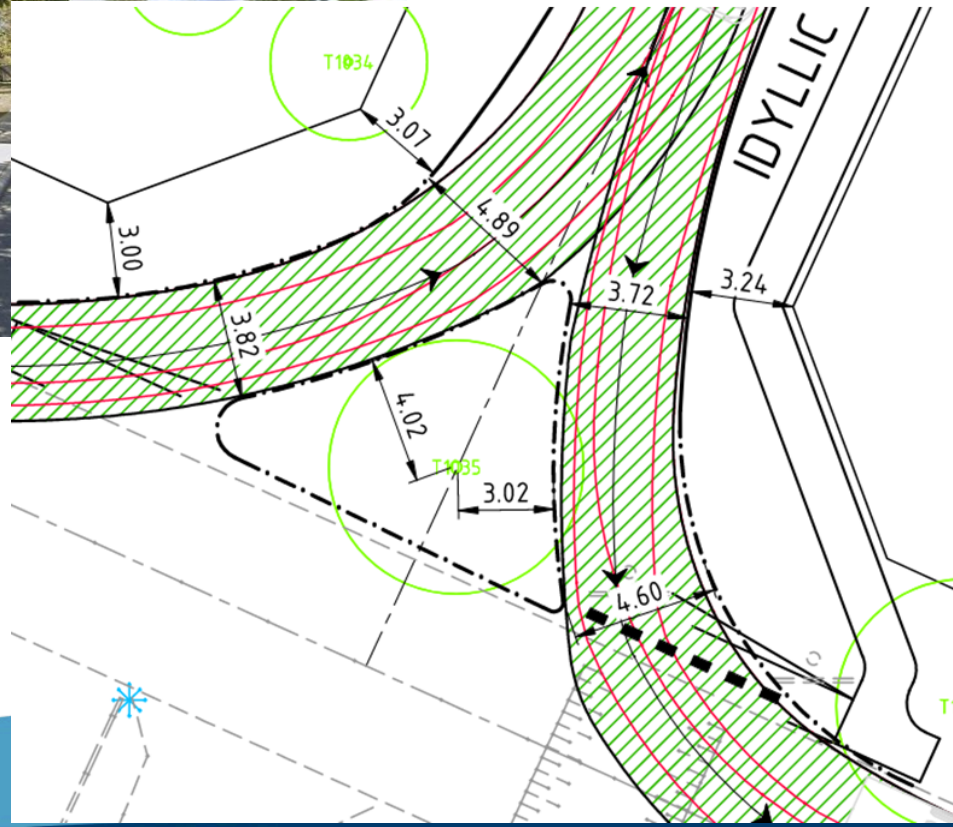
Tree 1035 example



Original T junction intersection



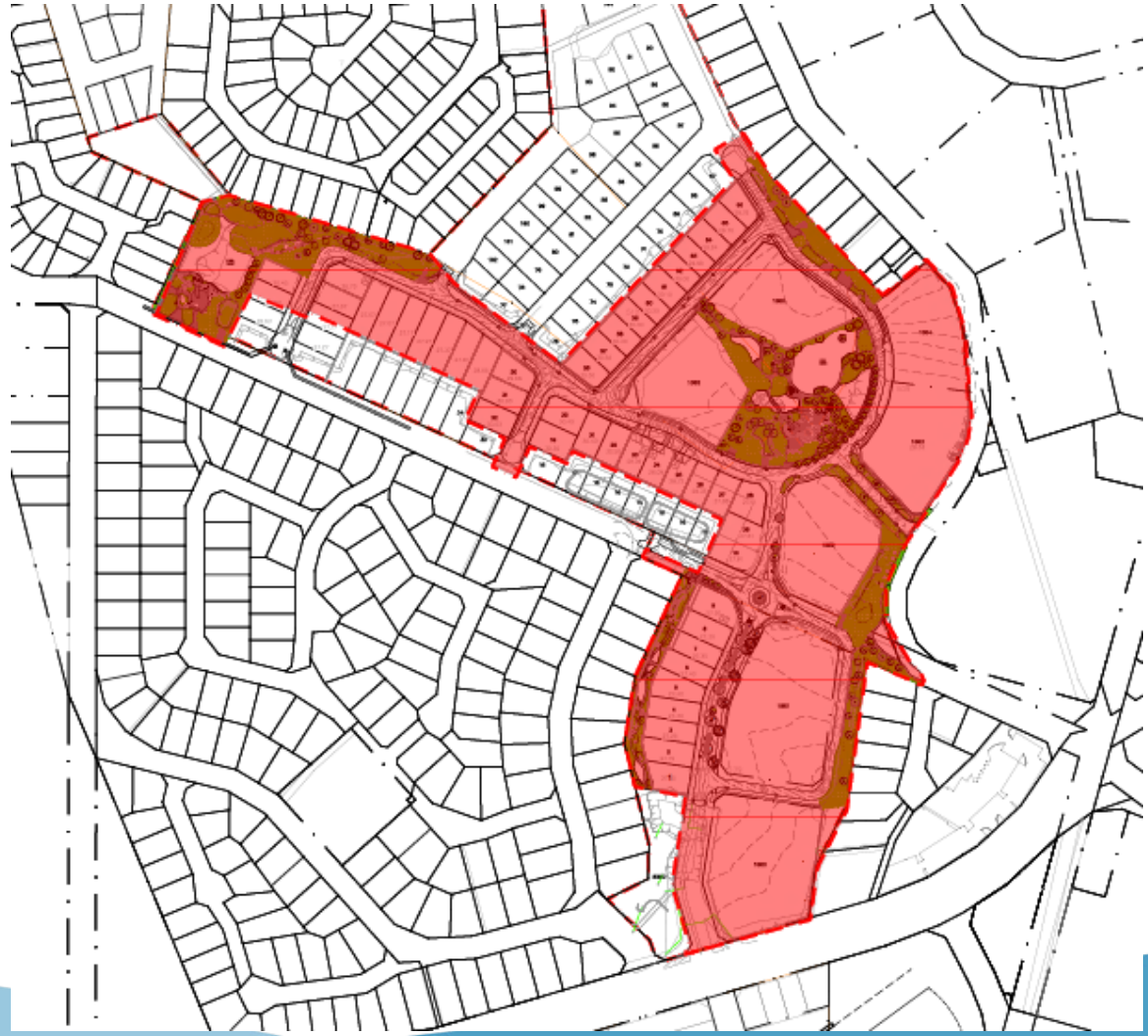
New left in left out design to retain the tree



New Landscaping

Preserving and improving TPZ

Arborist Review → Bulk Earthworks → Civil Design → Site Investigations → New Landscaping



Tree Retention

Progress to date

Original Assessment	Grand Total		Onsite Status (April 2024)		
			Removed	Retained	Grand Total
High Value	71		14	57	71
Retain	48		1	47	48
Remove	23		13	10	23
Medium Value	175		69	106	175
Retain	92		7	85	92
Remove	83		62	21	83
Low Value	281		136	145	281
Retain	108		10	98	108
Remove	173		126	47	173
Grand Total	527		219	308	527

Summary

Progress to date

The works on site are supervised by a qualified arborist and being undertaken in close consultation with the City.

Tree retention works are industry best practice and in accordance with AS 4970.

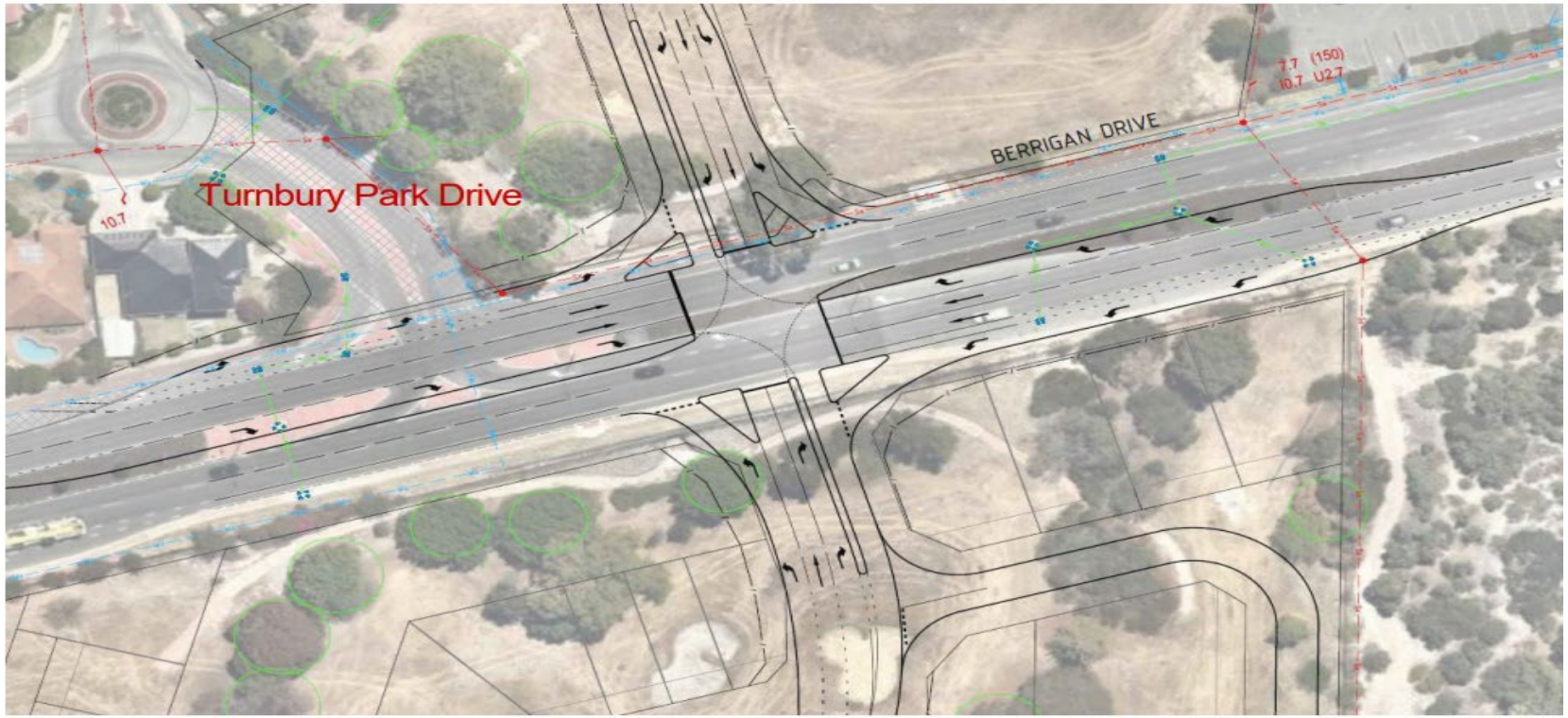
Due to challenging site conditions, not all trees are capable of retention, but all efforts are being made to retain as many as possible.

New landscaping will greatly enhance the amount of trees in the public sphere, as well as to improve the biodiversity and aesthetics of the area.

Transport Upgrades

Key Upgrade: New Signalised Intersection with closure of Turnbury Park Drive

Figure 4.8: Berrigan Drive Intersection – Concept Design only

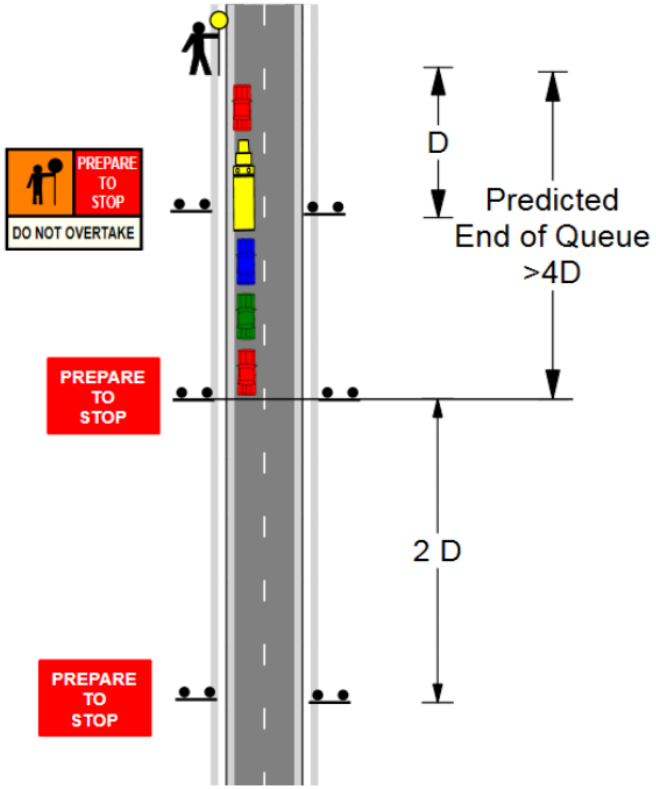


(map source: Reproduced with permission from Nearmap)

Objectives:

- ✓ Safer Access
- ✓ Replaces uncontrolled intersection
- ✓ Protected pedestrian crossing ability
- ✓ Protected right turn movements

Traffic Management & Operations



Source: MRWA fact sheet- traffic control

- ✓ Traffic management & operation of construction vehicles to be in accoradnce with the approved Traffic Management Plan (TPM), forming part of the Construction Management Plan (CMP)
- ✓ Any inconsistency or non-compliance is promptly raised to the developer for rectification.
- ✓ Contact representatives of the project

Community Liaison Officer Maria Mendoza
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Email mmendoza@densfordcivil.com.au

Dilapidation Reports

Progress to date

Questions?

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wetlands to waves

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