



## ARBORICULTURAL IMPACT ASSESSMENT REPORT

---

Prepared For: Mr. Barry Myrden

Site Address: 10 Penrose Place,  
FRENCHS FOREST, NSW, 2086

Inspection Dates: 28<sup>th</sup> February 2022  
Report Date: 14<sup>th</sup> March 2022



*Figure 1: The property as seen from the street.*

Prepared by Gordon Blues  
Diploma (Arboriculture) AQF5  
0439 991122  
GORDON@BLUESBROS.COM.AU



## 1 Contents

1	Introduction .....	1
1.1	Background .....	1
1.2	Definitions & Abbreviations: .....	2
1.3	Change log:.....	2
1.4	Disclaimers: .....	2
2	Methodology.....	3
2.1	Visual Tree Assessment.....	3
3	Results.....	4
3.1	Desktop Research .....	4
3.2	The Site.....	5
3.3	The Development.....	5
3.4	The Trees.....	6
3.5	Construction impacts to each tree:.....	7
4	Conclusion.....	8
5	Recommendations: .....	9
5.1	Trees for retention:.....	9
5.2	Trees for removal .....	9
5.3	Construction Recommendations: .....	9
	Appendix 1 – Tree Data Summary .....	10
	Appendix 2 - Tree identification and incursion potentials.....	11
	Appendix 3 – Photographs.....	12



## 1 Introduction

### 1.1 Background

- 1.1.1 Blues Brothers Arboriculture has been engaged by the owner to inspect and report on trees for development purposes. A secondary dwelling is proposed for construction at the rear of the property.
- 1.1.2 The scope of works includes the assessment of eight trees located within the immediate vicinity of proposed amended development.
- 1.1.3 Information supplied and relied upon in the preparation of this report included:
- Architectural suite of plans produced by H&C Design Pty. Ltd.; Revision B, Dated 13/03/2022 and inclusive of:
    - Integrated survey of unknown origin or date,
    - Site plan,
    - Floor plans,
    - Elevations,
    - Sections; and,
    - Perspectives.
  - Dial Before You Dig (DBYD); Job 31566323, Requested 14/03/2022.
  - Planning portal property report, Accessed 14/03/2022.
- 1.1.4 The use of these documents / sources is acknowledged with thanks.
- 1.1.5 The NSW Rural Fire Service online tool for determining eligibility under the '10/50' legislation was interrogated for the purposes of this report. As at the date of this report, the property *is eligible* under the code of practice; relevant clearing rules of the code of practice apply to this property.

Where clearing is desired under this code, eligibility shall be re-confirmed prior to the commencement of works. A print out of the determination is recommended to be kept on-site for the duration of works.



## 1.2 Definitions & Abbreviations:

- 1.2.1 **The Standard** refers to the Australian Standard AS4970:2009 – *Protection of trees on development sites*.
- 1.2.2 **The site** refers to the land within the proposed development site.
- 1.2.3 An **Exempt Tree** is a tree that is exempt from planning controls due to meeting Council's definition of exempt vegetation or trees. Exempt Trees may be removed irrespective of development and at any time without Council approval.
- 1.2.4 **A significant root** is defined as any woody root with a diameter of 30mm or larger.
- 1.2.5 **AGL** – Above Ground Level
- 1.2.6 **LGA** – Local Government Area.
- 1.2.7 **DBH** – Diameter at Breast Height; Approximately 1.4 metres above ground level measured in metres.
- 1.2.8 **DGL** – Diameter at Ground Level; Measured above the root flare / collar measured in metres.
- 1.2.9 **TPZ** – Tree Protection Zone. Calculated per the standard:  
$$TPZ\ radius = 12 \times DBH$$
- 1.2.10 **SRZ** – Structural Root Zone. Calculated per the standard:  
$$SRZ\ radius = (DGL \times 50)^{0.42} \times 0.64$$
- 1.2.11 **FFL** – Finished Floor Level.
- 1.2.12 **RL** – Reduced Level.
- 1.2.13 **SEPP** – State Environmental Planning Policy.
- 1.2.14 **DBYD** – Dial Before You Dig

## 1.3 Change log:

- 1.3.1 Version 1 – Original.

## 1.4 Disclaimers:

- 1.4.1 This report is considered limited to what could reasonably be seen from ground level only and expresses no commentary on changes which may have, or will, impact the trees or their environment outside the scope of works.



## **2 Methodology**

### **2.1 Visual Tree Assessment**

- 2.1.1 The trees were visually inspected from ground level only in accordance with VTA (Visual Tree Assessment); a methodology derived by Mattheck and Breloer (1994).
- 2.1.2 Canopy Assessment included foliage condition (volume and colour); the presence of pests and diseases, dieback, deadwood and epicormic growth.
- 2.1.3 Tree condition included assessment of structural stability, previous pruning and any damage/disturbance which may have occurred.
- 2.1.4 No destructive or aerial investigations occurred to the tree.
- 2.1.5 Hollows, where found or suspected, were probed to ascertain their size and extent to assist in calculating ratios of notional cavity size and useful life expectancy.
- 2.1.6 Access to neighbouring trees was not sought during the site inspection.
- 2.1.7 Tree assessment was limited to protected species on the site. Exempt trees under Northern Beaches Council were not assessed.
- 2.1.8 An existing tree numbering schema was located on the supplied survey. Existing tree numbers have been adopted for this report. Tree tagging did not occur.
- 2.1.9 Tree data is displayed in Appendix 1.
- 2.1.10 Appendix 2 – Arboricultural mark-up including Tree identification, TPZ and SRZ zones and the degree of encroachment proposed by the development.
- 2.1.11 Tree height and canopy width were estimated with the assistance of a Leica Disto X4 (Laser Distometer).
- 2.1.12 A forestry Diameter tape was utilised in the measuring of trunk diameters.



## 3 Results

### 3.1 Desktop Research

3.1.1 Research from the NSW Planning portal revealed the following information for the properties:

- Zoning: R2 – Low Density Residential.
- No Heritage item or conservation area applies to the property.
- Landslide risk land: Area A – Slope <5%

3.1.2 In accordance with published directives of Northern Beaches Council, a protected tree is a tree meeting the following criteria<sup>1</sup>:

- Has a height of 5m or more;
- Not listed on the *Exempt Tree Species List*.

3.1.3 None of the assessed trees were listed in the Council significant tree register or listed under the Threatened species conservation Act 1995.

3.1.4 Interpretation of DBYD data indicates the property is free of civil assets that would otherwise require additional works of protection (ie. Sewer encasement).

---

<sup>1</sup> Northern Beaches Council: Trees on Private Land: <https://www.northernbeaches.nsw.gov.au/planning-development/tree-management/private-land>



## **3.2 The Site**

- 3.2.1 Located in the southern extents of Frenchs Forest, the previously developed site presented without discernible aspect.
- 3.2.2 Structures on the site included a single storey rendered brick dwelling centrally located to the lot and a metal garage located centrally along the western boundary of the site.
- 3.2.3 The site was moderately vegetated with smaller trees, shrubs and ground cover. Lawn dominated the front and rear yards. Vegetation appeared to be in a well kept state.
- 3.2.4 Despite recent wet weather at the time of inspection, the Arborist was of the opinion that the rear of the site had a soil drainage problem due to a build up of moss in the north-western corner of the site.

## **3.3 The Development**

- 3.3.1 All existing structures are proposed for retention under the supplied plans.
- 3.3.2 A new secondary dwelling is proposed to be constructed within the rear yard of the property The secondary dwelling is indicated:
  - To be situated entirely above grade.
  - To be constructed on 230mm<sup>2</sup> brick piers on pad footings to engineer's details
  - To contain two bedrooms, a shared ensuite, laundry and two outdoor living areas.
  - To include an above ground water tank in accordance with BASIX requirements.
- 3.3.3 Supplied plans do not indicate for the removal of any trees.
- 3.3.4 Sections and elevations indicate low levels of excavation limited to pad footings and trenching in accommodation of drainage and utilities.

### 3.4 The Trees

3.4.1 A total of eight trees were assessed forming the scope of works. The trees are identified as follows:

- |            |                 |                                |
|------------|-----------------|--------------------------------|
| • T1, 2, 8 | Ornamental Pear | <i>Pyrus ussuriensis</i>       |
| • T3 & 6   | Poplar          | <i>Populus sp.</i>             |
| • T4       | Cheese Tree     | <i>Glochidion ferdinandi</i>   |
| • T5       | Liquidambar     | <i>Liquidambar styraciflua</i> |
| • T7       | Kentia Palm     | <i>Howea forsteriana</i>       |

3.4.2 Trees located on neighbouring property include:

- |      |             |                                |
|------|-------------|--------------------------------|
| • T4 | Cheese Tree | <i>Glochidion ferdinandi</i>   |
| • T5 | Liquidambar | <i>Liquidambar styraciflua</i> |

Tree 5 is a listed exempt species under Northern Beaches Council DCP but is treated as a protected species for the purposes of this report due to being located on Neighbouring property.

3.4.3 Exempt species identified within the scope of works include:

- |          |             |                          |
|----------|-------------|--------------------------|
| • T3 & 6 | Poplar      | <i>Populus sp.</i>       |
| • T7     | Kentia Palm | <i>Howea forsteriana</i> |

Exempt species on the site may be removed at any time, irrespective of development.

3.4.4 The two Poplars were seen in a poor health state and appeared to be Dying. Tree 3 was observed to have fungal fruiting bodies throughout its central leader which has previously failed, becoming a suspended hanger within T4.

The Poplars were both considered candidates for immediate removal, irrespective of development based on their poor form and risks posed to life and property.

3.4.5 The remaining mature cohort was seen to be generally in good health and condition with generally moderate landscape significance.

3.4.6 The neighbouring trees T4 & T5 pose the largest constraint on the development due to their size and locations respectively. Canopy pruning of Tree 5 will likely be required as part of the project.

3.4.7 Further commentary, TPZ and SRZ areas for the trees can be found in Appendices 1 & 2.



### 3.5 Construction impacts to each tree:

3.5.1 The following trees are located sufficient distance from the proposed development such that negligible impacts are likely:

- T1, 2, 8                      Ornamental Pear                      *Pyrus ussuriensis*
- T7                              Kentia Palm                              *Howea forsteriana*

3.5.2 The following table summarises development impacts for the remaining trees:

Tree ID	Species	Encroachment level (per AS4970:2009)	Comments / Notes
4	Cheese Tree	Minor (<5 % TPZ)	Encroachment due to pad footings only.  <b>Impact: Low</b>
5	Liquidambar	Minor (3.5% TPZ)	Encroachment due to pad footings & canopy pruning.  Excavation for drainage trenches possible pending sub-floor clearance and the use of suspended pipework.  <b>Impact: Low</b>

3.5.3 The main impacts of development are attributed to the excavation of isolated pad footings to support the new development. Overall, the scale of the development offers very low impacts to the surrounding trees.

3.5.4 Consideration of alternative construction locations were discussed with the Architect. It is understood that the translation of the secondary dwelling to the east is undesirable due to site access limitations & solar access.



## 4 Conclusion

- 4.1.1 Eight trees were assessed or identified as part of the scope of works, all seen to be in mostly good health with exception of two dying trees.
- 4.1.2 Two of the assessed trees will be impacted to a minor degree by the proposed development. No trees are anticipated to be impacted by a high degree.
- 4.1.3 The arborist supports the proposed development from an Arboricultural perspective.
- 4.1.4 The management of Tree 5 is likely to act as the largest constraint on the development due to the proposed encroachment.
- 4.1.5 The Arborist is satisfied that all avenues of alternative designs have been considered regarding the development.

## 5 Recommendations:

### 5.1 Trees for retention:

5.1.1 The following trees are recommended for retention due to low or negligible impacts:

- |            |                 |                                |
|------------|-----------------|--------------------------------|
| • T1, 2, 8 | Ornamental Pear | <i>Pyrus ussuriensis</i>       |
| • T4       | Cheese Tree     | <i>Glochidion ferdinandi</i>   |
| • T5       | Liquidambar     | <i>Liquidambar styraciflua</i> |
| • T7       | Kentia Palm     | <i>Howea forsteriana</i>       |

5.1.2 All pruning works for trees to be retained shall be undertaken in accordance with AS4373:2007 – *Pruning of amenity trees* by a fully insured and qualified (AQF3 Arboriculture) contractor. It is recommended that consultation with the neighbour takes place prior to the commencement of works.

### 5.2 Trees for removal

5.2.1 It is recommended that Trees 3 & 6 (Poplar) are removed as soon as possible, irrespective of the development. These trees presented in an advanced state of decline and are likely to die completely within the next 2-3 years.

At present, the trees present with a high risk of branch loss and failure and pose as a hazard to life and property for this site and neighbouring properties.

### 5.3 Construction Recommendations:

5.3.1 It is recommended that works within the TPZ area of all trees to be retained are cautious of *significant roots (1.2.4)* which may exist below ground. These roots shall be protected as much as possible in accordance with the standard (1.2.1) and advice from the project Arborist.

5.3.2 The arborist supports the use of small mechanical excavators to undertake the excavation of pad footings. It is recommended that a machine no larger than 1.5ton in size is used due to having less power than a larger machine.

5.3.3 Significant roots may be found in areas outside the indicated TPZ areas on the plans due to the site's soil profile. In such cases, efforts to protect and preserve these roots should be undertaken where practical.

5.3.4 A formal tree protection plan is not warranted for this development. The following comments shall apply relating to tree protection:

- All trees mentioned within this report shall be protected by manner of Trunk Armouring to a height of at least 1.8m or by protective fencing aligned around each tree's TPZ. (Neighbouring trees will be adequately protected by boundary fences.)
- No area indicated as a TPZ area may be used for the stockpiling of soils, waste, heavy plant or otherwise.



## Appendix 1 – Tree Data Summary

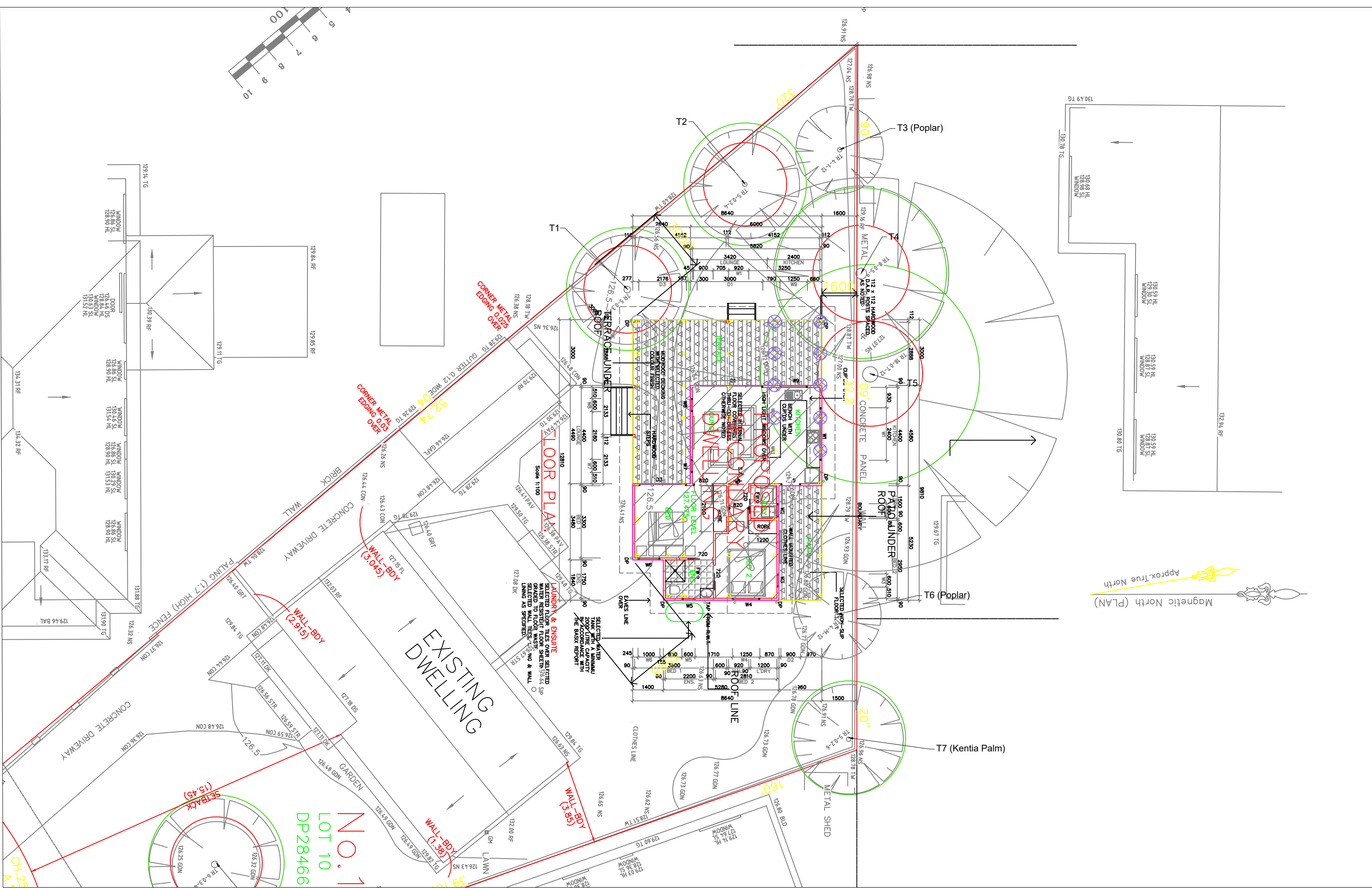
THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.  
*PLEASE SEE NEXT PAGE.*

Tree Data Summary - 10 Penrose Pl, Frenchs Forest - Assessed 28/02/2022																		
Tree ID	Species	Height (m)	Canopy dims n/s in metres	DBH (cm)	DGL (cm)	Foliage condition	Maturity	Trunk type	Trunk lean	Canopy Balanced	Past Pruning	Stability	Vigour	Canopy deadwood	Significance value	Notes	TPZ (M) Radius	SRZ (M) Radius
T1	<i>Pyrus ussuriensis</i> (Ornamental Pear)	6	7	23	29	Good	Mature	Single	Upright	Yes	No	Appears Stable	Good	0-5%	Low	Tree true to form & without comment. Rear yard demonstrates water retention issue following heavy rains, Tree at Elevated risk of basal failure	2.8	2.0
T2	<i>Pyrus ussuriensis</i> (Ornamental Pear)	6	6	23	27	Good	Mature	Single	Upright	Yes	No	Appears Stable	Good	0-5%	Low	Tree true to form & without comment. Rear yard demonstrates water retention issue following heavy rains, Tree at Elevated risk of basal failure	2.8	1.9
T3	<i>Poplar</i>			0												Exempt species in poor form with signs of fungal fruiting bodies throughout trunk Remove irrespective.	0.0	0.0
T4	<i>Glochidion ferdinandi</i> (Cheese Tree)	8	6	32	37	Good	Mature	Single	Upright	Bias NW	No	Unknown	Good	0-5%	Low	NEIGHBOURING TREE - No Access Suspended hanger within canopy, otherwise tree appearing healthy.	3.8	2.2
T5	<i>Liquidambar styraciflua</i> (Liquidambar)	12	12	42	47	Moderate	Mature	Single	Upright	Yes	No	Unknown	Moderate	5-10%	Low	NEIGHBOURING TREE - No Access Foliage appearing sparse & slightly discoloured - seasonally uncharacteristic	5.0	2.4
T6	<i>Poplar</i>			0												Exempt species in poor health & condition. Stability suspect with species due to excessive movement in light winds Remove irrespective.	0.0	0.0
T7	<i>Howea forsteriana</i> (Kentia Palm)	5	5	22												Exempt Palm in good health - outside scope of development	2.6	0.0
T8	<i>Pyrus ussuriensis</i> (Ornamental Pear)	7	6	26	32	Good	Mature	Single	Upright	Bias West	No	Appears Stable	Good	0-5%	Low	Tree true to form & without further comment.	3.1	2.1



## Appendix 2 - Tree identification and incursion potentials

THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.  
*PLEASE SEE NEXT PAGE.*





## Appendix 3 – Photographs



*Image 1: The proposed construction area. Trees 1[left] to 5 [right] shown.*





*Image 2: Canopy pruning of neighbouring trees will be required as part of the development.*





*Image 3: Tree 3 - Exempt Poplar.*





*Image 4: Fungal fruiting bodies seen on Tree 3.*