ARBORICULTURAL REPORT

3080A POINT NEPEAN ROAD, SORRENTO.

06 SEPTEMBER 2024.

PREPARED BY:

Michael Rogers

Senior Arboricultural Consultant
Assoc. Dip. App. Sc. (Arb)

JOHN PATRICK

LANDSCAPE ARCHITECTS
ENVIRONMENTAL HORTICULTURISTS
LANDSCAPE HERITAGE CONSULTANTS
CONSULTANT ARBORISTS

JOHN PATRICK LANDSCAPE ARCHITECTS PTY LTD

324 Victoria Street, Richmond, VIC 3121, Australia
T +61 3 9429 4855 E admin@johnpatrick.com.au
F +61 3 9429 8211 W www.johnpatrick.com.au

CONTENTS

1 INTRODUCTION

1.1 Ilario G. Cortese Architects have engaged John Patrick Landscape Architects – Arboricultural Consultants, to prepare an Arboricultural Report – Tree Impact Assessment Report for the subject site known as 3080a Pt. Nepean Rd, Sorrento.

1.2 The site is a vacant allotment with the exception of a boat shed, as a result of a sub-division and their client is proposing to develop the site with a double storey single dwelling and basement, (Ilario G. Cortese, Job No. 2406, June 2024).

2 OBJECTIVES

2.1 The intent of this report is to.

- Assess the condition of trees within and directly neighbouring the subject site that may have their Tree Protection Zones (TPZ) impacted by the proposed development and estimate the extent of any impact in accordance with AS-4970 Protection of Trees on Development Sites.
- Identify any trees worthy of retention and provide preliminary arboricultural advice to assist in their protection and retention.

2.2 The report will include the following.

- Tree Number.
- Botanic / Common names.
- Origin.
- Height & Canopy width.
- DBH (trunk diameter).
- Tree Protection Zones (TPZ's)
- Tree health & structural condition.
- Age.
- Useful Life Expectancy (ULE)
- Arboricultural Value

3 METHODOLOGY

3.1 A suitably qualified and experience arborist minimum AQF Level 5 or equivalent in arboriculture visited the site on Thursday 29 August 2024 and a visual tree assessment (VTA – Claus Mattheck) of trees within and directly neighbouring was undertaken.

3.2 Each tree was assigned an identification number for reference purposes, denoted in the Tree Data and on the Tree Impact Assessment Plan, which is based on the Feature Survey, (BT Surveys, Ref No. 24612, 01/07/2024).

- Site trees identified with a DBH of 100mm or less (e.g. shrubs) were not assessed in this report unless rare or of unusual attributes.
- The DBH of trees, was measured using a diameter tape, in accordance with AS-4970.
- Where access was not available to the trunk, e.g., neighbouring trees, DBH's were estimated.
- Heights of trees were measured using a laser range finder.
- Widths were calculating by stepping out.
- Tree Protection Zones (TPZ's) were calculated in accordance with AS-4970.
- TPZ encroachments were calculated utilising Computer Added Design (CAD) software.

4 OBSERVATIONS

4.1 The undeveloped vacant subject site utilises a shared driveway with 3080 Pt Nepean Rd which is located to the east of the subject site. The only structure on the site is a boat shed located in the north-west corner of the site abutting the beach. The third of the site closest to the beach is not fenced on the boundaries with the neighbours. There is a one-metre-high cyclone fence at the rear of the site which I presume identifies the boundary with the beach. The site is 1309m2 in size.

4.2 The land backs directly onto Sullivan Bay where there is an approximate 1.5m high grassed embankment down to the sand of the beach. There are several natural occurring indigenous trees around the periphery of the site and a Canary Island Palm in the centre. Indigenous trees have been planted on the boundary in the neighbouring properties of 3080 and 3082 Pt Nepean Rd. Coastal Tea-trees are growing opposite the site in the driveway which are dead from over possum grazing.

Image 1: Site Aerial – Nearmap July 2024.

TREE DATA

Table 1: Tree Data

Tree No.	Botanic Name	Common Name	Origin	Size (m)	DBH (cm)	TPZ (m)	SRZ (m)	Age	Health	Structure	ULE (Yrs.)	Arb Value	Comments
1	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	4 x 1	8	2.0	1.5	Semi-Mature	Good	Fair	20+	Low	
2	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	3 x 2	7/7/7	2.0	1.5	Semi-Mature	Good	Poor	20+	Low	
3	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	4 x 2	10	2.0	1.5	Semi-Mature	Fair	Fair	20+	Low	
4	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	3 x 1	18	2.2	1.8	Semi-Mature	Fair	Fair	20+	Low	
5	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	3 x 2	8/10	2.0	1.8	Semi-Mature	Fair	Poor	20+	Low	
6	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	3 x 2	6/6/6	2.0	1.5	Semi-Mature	Poor	Poor	10-20	Low	
7	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	4 x 3	10/10	2.0	1.7	Semi-Mature	Fair	Poor	10-20	Low	
8	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	3 x 2	5/5/5/5	2.0	1.5	Semi-Mature	Poor	Poor	10-20	Low	
9	*Allocasuarina verticillata (x4)*	Drooping She-Oak	Indigenous	3 x 1	10	2.0	1.5	Semi-Mature	Good	Poor	10-20	Low	
10	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	3 x 4	10	2.0	1.5	Semi-Mature	Good	Fair	20+	Medium	
11	*Allocasuarina verticillata (x3)*	Drooping She-Oak	Indigenous	4 x 1	10	2.0	1.5	Semi-Mature	Good	Poor	10-20	Low	Two specimens growing on boundary in 3080 Pt. Nepean Rd.
12	*Leptospermum laevigatum*	Coast Tea-tree	Indigenous	6 x 5	18/18	3.1	1.8	Semi-Mature	Good	Fair	20+	Low	
13	*Allocasuarina verticillata (x4)*	Drooping She-Oak	Indigenous	7 x 3	10	2.0	1.5	Semi-Mature	Good	Fair	10-20	Medium	Growing on boundary in 3080 Pt. Nepean Rd.
14	*Banksia integrifolia (x3)*	Coast Banksia	Indigenous	6 x 2	10	2.0	1.5	Semi-Mature	Good	Good	20+	High	Growing on boundary in 3080 Pt. Nepean Rd.
15	*Melaleuca lanceolata*	Moonah	Indigenous	4 x 2	10	2.0	1.5	Semi-Mature	Fair	Fair	10-20	Medium	Growing on boundary in 3080 Pt. Nepean Rd.
16	*Melaleuca lanceolata*	Moonah	Indigenous	3 x 2	5/5	2.0	1.5	Semi-Mature	Fair	Fair	20+	Low	
17	*Melaleuca lanceolata*	Moonah	Indigenous	6 x 8	30/30/35/35	7.8	2.8	Over-Mature	Fair	Poor	0-5	Low	Falling apart decay in one of the leaders.
18	*Phoenix canariensis*	Canary Island Date Palm	Exotic	10 x 5	65	2.0	1.5	Maturing	Good	Good	20+	Low	Could be transplanted.
19	*Allocasuarina verticillata*	Drooping She-oak	Indigenous	7 x 3	20	2.4	1.8	Semi-Mature	Good	Good	20+	High	Growing on boundary in 3082 Pt. Nepean Rd.
20	*Banksia integrifolia (x2)*	Coast Banksia	Indigenous	7 x 3	17	2.0	1.8	Semi-Mature	Good	Fair	20+	High	Growing on boundary in 3082 Pt. Nepean Rd.
21	*Banksia integrifolia*	Coast Banksia	Indigenous	4 x 2	7	2.0	1.5	Semi-Mature	Good	Fair	20+	High	Growing on boundary in 3082 Pt. Nepean Rd.
22	*Banksia integrifolia*	Coast Banksia	Indigenous	7 x 4	28	3.4	2.1	Semi-Mature	Good	Fair	20+	High	Growing on boundary in 3082 Pt. Nepean Rd.
23	*Melaleuca lanceolata (x3)*	Moonah	Indigenous	3 x 3	15	2.0	1.8	Maturing	Good	Fair	20+	High	Growing on boundary in 3082 Pt. Nepean Rd.
24	*Leptospermum laevigatum (x8)*	Coast Tea-tree	Indigenous	6 x 6	25/25/25/25	6.0	2.1	Mature	Dead	Poor	0	Nil	In Driveway. Possums have killed them from overgrazing.

Note: Trees to be retained including neighbouring trees must be protected in accordance with AS-4970 and their TPZs encroached no greater than 10% unless further investigation e.g. non-destructive root investigation (NDRI) shows that greater encroachment will not impact on the tree's viability to be retained in its present condition.

IMAGES

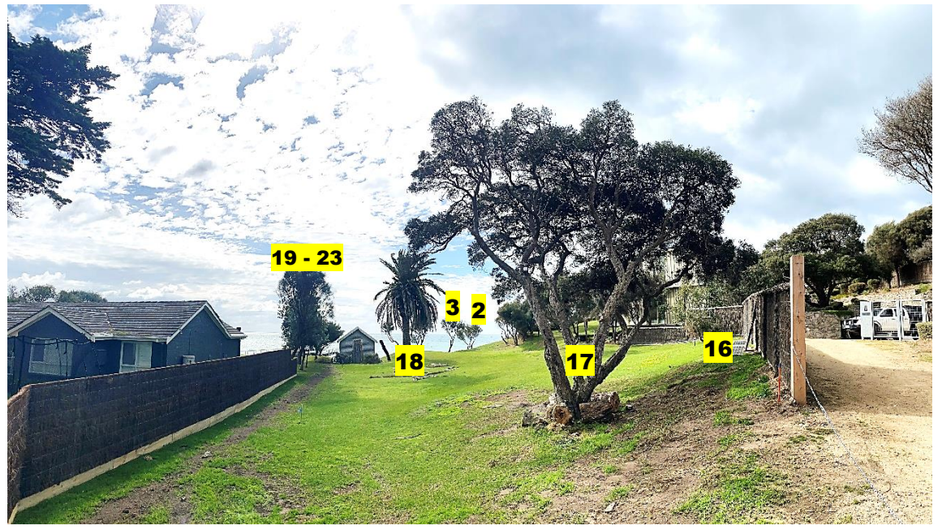


Image 2: Subject site from shred driveway with 3080 Pt. Nepean Rd.

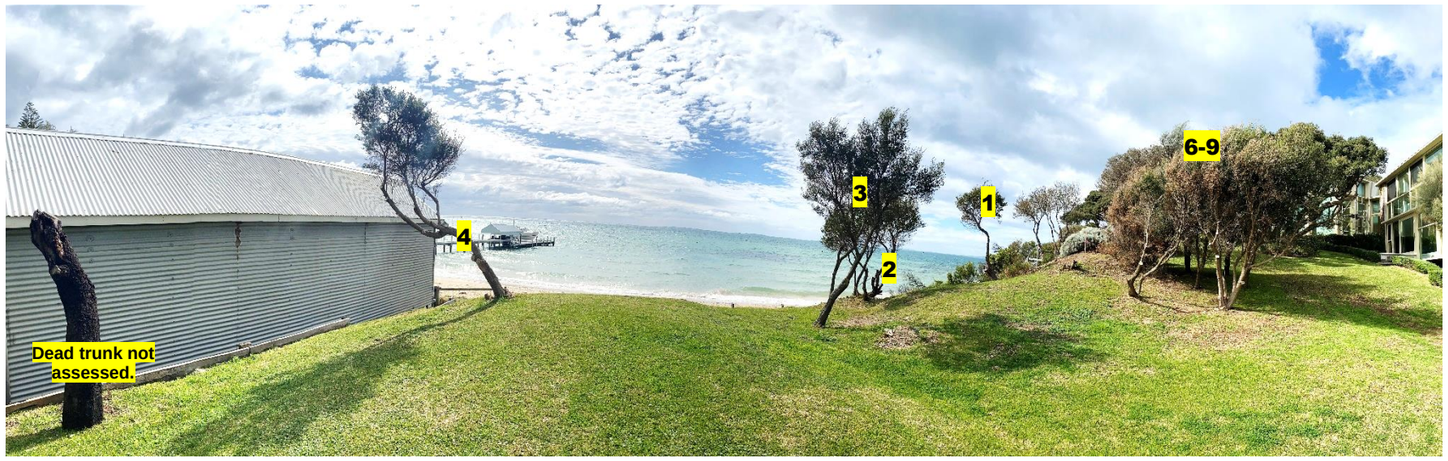


Image 3: The rear of te site facing the beach.

Image 4: Looking Sth from the beach.

Image 5: The rear of the site.

Image 6: Looking east at Trees 6 – 8 with Trees 9 behind.

Image 7: Looking north-east at 3080.

Image 8: Tree 17 falling apart with decay in left trunk.

Image 9 Tree 17 close-up at base, cavities, decay and falling apart.

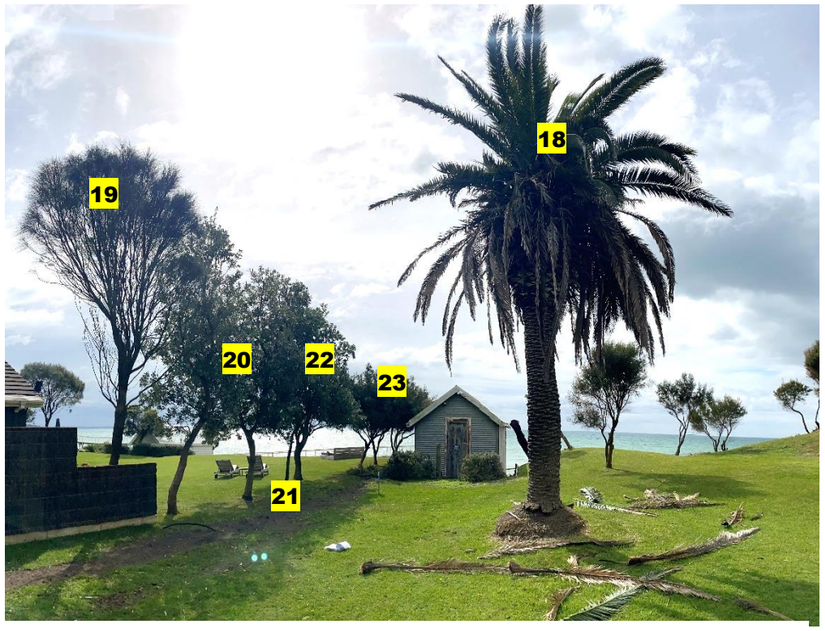


Image 10: Looking north-west.

Image 11: Trees 19 - 23 looking east from rear yard of 3082 Pt. Nepean Rd.

Image 12: Looking south at Trees 24 dead in shared driveway with 3080 Pt. Nepean Rd.

VEGETATION CONTROLS & TREE REMOVALS

4.3 It is proposed to remove Trees 2 – 5, 12, 16, 17 and 18.

4.4 A search of the Vic Plan website https://mapshare.vic.gov.au/vicplan/ identified an Environmental Significant Overlay – Schedule 25, (ESO12). While the overlay has an objective to protect and enhance vegetation, presumably indigenous, it has no specific restrictions to the removal of vegetation.

4.5 It also identified a Vegetation Protection Overlay - Schedule 1 (VPO1).

A permit is required to remove, destroy or lop any vegetation, except for:

- *The removal of vegetation which is to be carried out in conjunction with a development approved under a planning permit and in accordance with an endorsed plan.*
- *The removal of vegetation necessary for the construction of a dwelling, dwelling extension or outbuilding where no planning permit is required and provided that:*
    - *A building permit has been granted for the proposed development.*
    - *No tree with a trunk circumference greater than 0.35 metres (11cm diameter) is removed within 6 metres of a road frontage.*
    - *Vegetation is only removed from the building footprint or within 2 metres of the proposed building.*
- *The removal of vegetation, not within a road reserve, to enable the formation of a single crossing and access driveway with a maximum width of 3.7 metres.*
- *The removal of vegetation which presents an immediate risk of personal injury or damage to property including the culling of single trees located within 3 metres of a dwelling or outbuilding, or which overhangs a boundary line.*
- *The removal of any dead timber or branch which has occurred through natural circumstances, fire or the spread of noxious weeds.*
- *The removal of any tree or branch of a tree which impairs the access of motor vehicles along any existing or approved access track, provided that such access track has a width no greater than 3.7 metres.*
- *The maintenance of landscaping, including pruning, which does not affect the stability, general form and viability of the vegetation.*
- *The removal of vegetation that has been established for less than 10 years and which is not required as landscaping under a planning approval.*
- *The removal of vegetation specified in the schedule to Clause 52.17.*

4.6 It would be expected that Trees 2, 3, 4 and 5 would require a permit to remove in accordance with the VPO1.

The Nearmap aerial March 2014 shows them present and therefore older than 10 years.

4.7 Trees 12, 16 and 18 are in the building footprint or within 2 metres of the proposed building and therefore exempt from requiring a permit.

- *removed from the building footprint or within 2 metres of the proposed building.*

4.8 Tree 17, under my interpretation of the VPO1 is exempt from requiring a permit to remove because it is in the alignment of the driveway.

- *to enable the formation of a single crossing and access driveway with a maximum width of 3.7 metres.*

4.9 A search of the Mornington Peninsula Shire website identified 'No' Local Laws protecting vegetation on te site.

Note: It is recommended that vegetation controls be confirmed with the Responsible authority prior to any tree removal.

5 DISCUSSION

5.1 Trees 1 - 5 are natural occurring indigenous Leptospermum – Tea-tree . They are generally of fair condition but are small and therefore are of Low Arboricultural Value. Their removal could easily be compensated for within a new landscape plan that incorporates the planting of indigenous trees, and grasses. They would be expected to require a permit to remove in accordance with the VPO1.

5.2 Trees 6 – 9 are planted indigenous trees that are not expected to be impacted by the proposed development of the site. They do not have their TPZs encroached and can be retained.

5.3 Tree 10 and one specimen of Tree 11 are growing in the subject site and are planted indigenous trees. Their TPZs are not encroached, and they can be retained. The two other specimens of tree 11 are growing in the neighbouring property of 3080 Pt. Nepean Rd.

5.4 Tree 12 is presumed to be a natural occurring Moonah of generally fair condition. It requires removal to allow for construction and falls within 2m of the proposed dwelling and therefore a permit is not required for its removal.

5.5 Trees 13 – 15 is a row of planted indigenous trees growing along the boundary in 3080 Pt. Nepean Rd. They are do not have their TPZs encroached and can be retained.

5.6 Tree 16 is a Moonah of fair condition which is to be removed because it falls within 2m of the proposed dwelling and therefore is exempt from requiring a permit to remove.

5.7 Tree 17 is an over-mature Moonah that is full of decay and cavities and falling apart (Image 8 & 9). Its ULE is estimated at 5 years. It is in the driveway and proposed to be removed and my interpretation of the VPO1 is a permit is not required for its removal. It is recommended indigenous trees are incorporated into the landscape plan to compensate for its removal.

5.8 Tree 18 a palm which is to be removed because it falls within the footprint of the proposed dwelling and therefore does not require a permit to remove. The owner is looking at getting the palm relocated off site.

5.9 Trees 19 – 23 are indigenous semi-mature trees growing on the boundary in 3032 Pt. Nepean Rd. Their TPZs are not encroached, and they can be retained.

5.10 Trees 24 are not impacted by the proposed development of the site because they are in the shared driveway. Many of them are dead from overgrazing of possums. The dead specimens should be removed and planted with new indigenous trees.

6 CONCLUSION

6.1 A suitably qualified and experience arborist minimum AQF Level 5 or equivalent in arboriculture visited the site on Thursday 29 August 2024 and a visual tree assessment (VTA – Claus Mattheck) of trees within and directly neighbouring was undertaken.

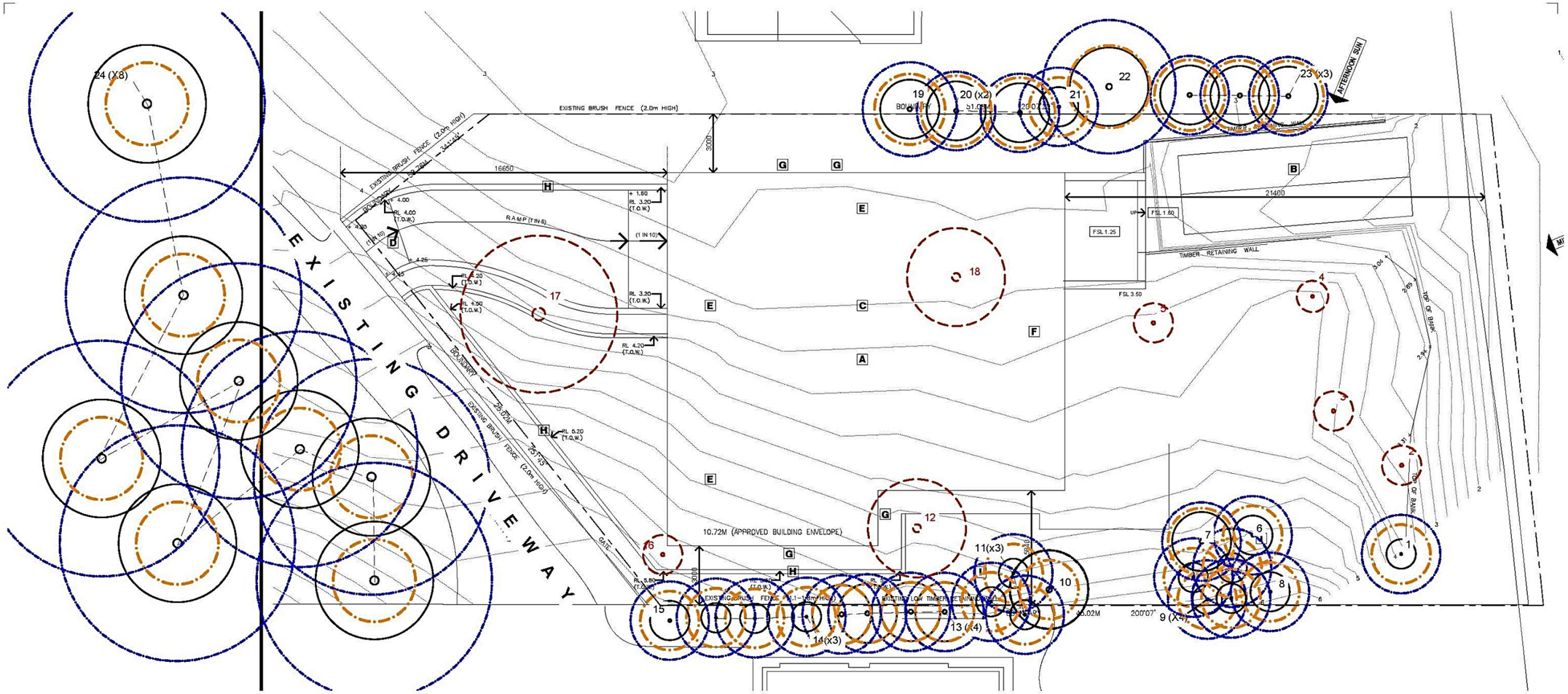
6.2 Trees 2 – 5, 12, 16, 17 and 18 are proposed to be removed.

6.3 Trees 12, 16, 17 and 18 are presumed to not require a permit to remove in accordance with the VPO1 because they are within the footprint of the dwelling or within 2m of the dwelling or in the case of Tree 17 in the driveway.

6.4 Al the trees are of Low Arboricultural Value and their removal can easily be compensated for with new indigenous tree planting within the landscape plan.

6.5 All other trees assessed do not have their TPZs encroached and therefore can be retained.

7 TREE IMPACT ASSESSMENT PLAN



LEGEND

Existing Tree
Blue denotes TPZ
Orange denotes SRZ

Existing Tree To Be Removed

JOHN PATRICK
LANDSCAPE ARCHITECTS PTY LTD
324 Victoria Street,
Richmond, VIC 3121
T +61 3 9429 4855
F +61 3 9429 8211
admin@johnpatrick.com.au
www.johnpatrick.com.au

CLIENT
Illario G Cortese Architects P/L

PROJECT
[TREE LOCATION PLAN] RESIDENTIAL DEVELOPMENT

ADDRESS
3080A Point Nepean Road, Sorrento

DRAWING
Tree Location Plan

SCALE	1:200 @A3
DATE	Sep-24
DRAWN	BG
CHECKED	MR
JOB NO	24-209
DWG NO	TPP 01

8 DESCRIPTORS

Tree Number:

Refers to the identification number for reference purposes, denoted on the Tree Data and Tree Survey Plan.

Botanical Name:

Botanical name of species, based on nomenclature and spelling in Spencer, R 1995, *Horticultural flora of South Eastern Australia* (vols. 1-5), University of NSW Press, Sydney. Where Eucalyptus spp. are not found in this source, nomenclature is based on Euclid: Eucalypts of Australia, 2006, Centre for Australian National Biodiversity Research (CANBR). Eucalypt subspecies information is also based on this source.

While accurate tree identification is attempted, and uncertainties are indicated, some inaccuracies in tree identification may still be present – especially in the case of difficult to determine genera (e.g. *Cotoneaster* and *Ulmus*), and with cultivars which can have similar characteristics.

From time-to-time taxonomists revise plant classification, and name changes are assigned. If it is known names have been revised post the publication of the relevant above listed source, the new nomenclature has been used.

Common Name:

Common names are based primarily on names and spelling used by Spencer in Horticultural Flora of South Eastern Australia (vols 1-5). The source of common names is taken in the following order:

- Single name supplied in Horticultural Flora of South Eastern Australia.
- First in list of names supplied in Horticultural Flora of South Eastern Australia unless another name in the list is deemed more appropriate.
- Common name as per Costermans, LF 2006, *Trees of Victoria and adjoining areas*; Costermans Publishing, Victoria.
- Most widely used common name if not available in either source previously mentioned.

The botanical name should be used when referring to the tree taxon.

Age:

Juvenile: Tree has recently been planted and is still in establishment phase. Tree currently makes little contribution to the amenity of the landscape. Trees of this age are possible candidates for relocation during development.

Semi-mature: Tree has established but has not yet developed mature habit. The tree provides some landscape contribution. Tree size would still be expected to increase considerably provided there are no significant changes to existing growing conditions.

Maturing: Tree has developed mature structural habit but has substantial potential to increase in size.

Mature: Tree has or is close to reaching full potential and expected size. Growth rate has slowed. The tree does not show any signs of senescence.

Over mature: Tree is no longer actively putting out extension growth and is starting to show signs of senescence in health due to age. Canopy may be thinning and signs of die back in the canopy may be occurring.

Height: The tree's height in metres

Width: The tree's average canopy width in meters. Variations in canopy width to that stated may be present due to canopy asymmetry.

DBH: The tree's trunk Diameter at Breast Height. Measured at 1.4m above ground level, in accordance with AS-4970 'Protection of Trees on Development Sites', unless specified as having been measured lower. DBH may be estimated or measured, as specified in the report. In the case of multi-stemmed trees, stem diameter is either listed individually, or a measurement taken at a point lower than the point of stem divergence. In some cases, especially where trees are not considered worthy of retention or stems are too numerous the DBH may simply be listed as 'multi-stemmed'.

Health

Good: Tree is not stressed and shows no obvious signs of pest or disease. It is free of wounding. Annual growth rate is as would be expected of a healthy specimen in the same area. There are no signs of die back and canopy is dense. Tree maybe partially suppressed by neighbouring trees.

Fair: Tree is showing signs of reduced health. It maybe drought stressed or show partial signs of pest or disease. Foliage density is less than optimal and minor die back may be present. Tree is typical of its species. Remedial works may improve tree health.

Poor: Tree exhibits signs of stress, e.g. sparse canopy and possibly stunted growth. A large number of dead branches or dieback are present. Tree is likely to be significantly affected by pests or disease. Tree often in decline. Remedial works not expected to improve long-term health.

Dead: Tree shows no signs of life and is not growing.

Note on Deciduous Species: Assessment of deciduous species can be problematic, and results may vary depending on the time of year. Descriptor comments in relation to foliage density do not apply to deciduous trees assessed when dormant or entering or exiting dormancy. Time of leaf drop, or bud burst, and extent of bud swell may be considered in the health rating of these trees.

The ratings indicate that certain characteristics listed have, or have not, been observed. Inspections do not assess the entire tree in detail for each characteristic. The comments category should be referred to for further information.

Structure:
As a rule, the structure rating is based on identified faults in tree habit which reduce the structural integrity and may lead to partial or entire tree failure. It must be noted, however, that this is not a full hazard or failure assessment.

Good: Tree appears to have no obvious structural defects which would diminish the tree's structural integrity.

Fair: The tree has one or more obvious structural defects. e.g. dead branches or codominant stems, however the observed defects are unlikely to prevent retention of the tree. Judicious remedial intervention could remove structural defects and improve the structure rating.

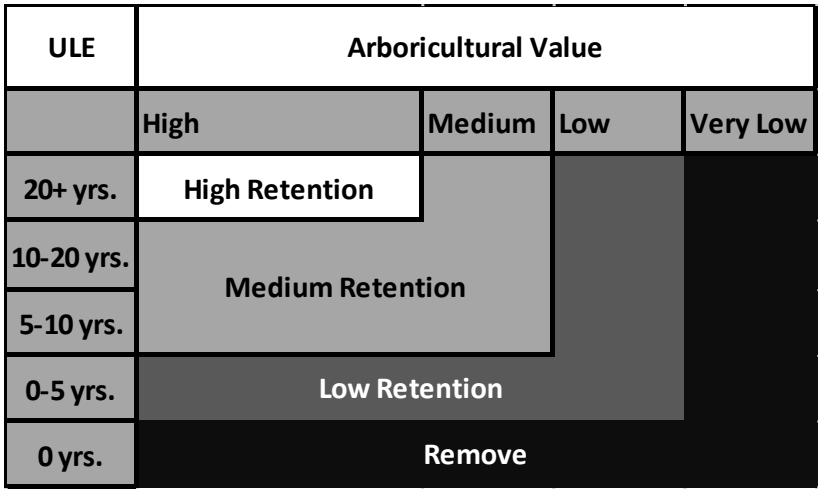
Poor: Tree has at least one or more structural defects that remedial intervention cannot rectify without significantly reducing the retention value of the tree. These defects reduce the useful life expectancy of the tree.

Hazardous: The tree shows one or more structural faults that are prone to failure and present an immediate safety concern. Judicious intervention to remove structural faults and reduce safety risk would leave a tree which is not worthy of retention. These trees should be removed as a high priority.

Arboricultural Value:

The Arboricultural Values shown in the table below are based on the ULE of the tree which considers structure and health ratings and landscape contribution.

The arboricultural value assists in determining the positioning of structures and infrastructure outside the tree's identified TPZ.



ULE: The Useful Life Expectancy of the tree from a health, structure, amenity and weediness viewpoint given no significant changes to the current situation occur. This category is difficult to determine and should be taken as an estimate only. In addition, factors not observed at the time of inspection can lead to tree decline.

- 0 yrs.: Tree should be removed due advanced decline/ dead or hazardous.
- 0-5 yrs. Tree is in decline and has poor health or structural faults which cannot be resolved by intervention. Tree is often over- mature.
- 5-10yrs. Tree of fair health or structure
- 10-20. Semi-mature or mature tree of fair health and structure
- 20+ yrs. Juvenile or semi-mature, or a long-lived species of good health and structure.

TPZ (Tree Protection Zone):

The Tree Protection Zone of the tree, measured as a radial distance in metres from the centre of the trunk. The TPZ is calculated using the method specified in Australian Standard *AS4970-2009 Protection of trees on development sites*. 12 x DBH=TPZ

Recommendation:

i.e. Further exploratory root investigation, alterations to proposed works to allow tree retention.

Comments:

Any additional comments specific to individual tree specimens.

AS-4970:

The recognised Australian Standard for the 'Protection of Trees on Development Sites'. It provides guidelines on tree protection and formulas for calculating Tree Protection Zones (TPZs), Structural Root Zones (SRZs) and the Diameter at Breast Height (DBH).

AS-4373:

The recognised Australian Standard for the 'Pruning of Amenity Trees'. This Standard provides guidelines on tree pruning to encourage good health and structure.

Ecological Vegetation Class (EVC):

A type of native vegetation classification that is described through a combination of its floristics, life form and ecological characteristics, and through an inferred fidelity to environment attributes. Each EVC includes a collection of floristic communities (i.e. lower level in the classification that is based solely on groups in the same species) that occur across a biogeographic range, and although differing in species, have similar habitat and ecological processes operating.