ARBORICULTURAL & IMPACT ASSESSMENT REPORT

23 MADDENS LANE, GRUYERE

REPORT PREPARED FOR: MILLAR MERRIGAN

REPORT PREPARED BY: DAMIEN BURGESS
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Contents

1. Brief

Millar Merrigan has requested an Arboricultural & Impact Assessment Report for specified trees within the property at 23 Maddens Lane, Gruyere.

2. Overview

The property contains a winery and is in the Glen Eira Council area, Planning Scheme Zone GWZ4. The following Planning Scheme Overlays apply: SLO6. The property is in a Designated Bushfire Prone Area.

3. Methodology

A visual site inspection of the trees took place on November 27th, 2023. The trees were not climbed nor was any soil excavation or diagnosis of the internal or below ground components of the trees undertaken.

The trees were photographed on site using an iphone 14. Height and Spread of trees was recorded via visual estimation. Diameter at Breast Height (DBH) was taken at 1.4 metres above ground level using a diameter tape.

A Retention Value for each tree has been determined using tree condition factors and values as listed on Page 17 of this report.

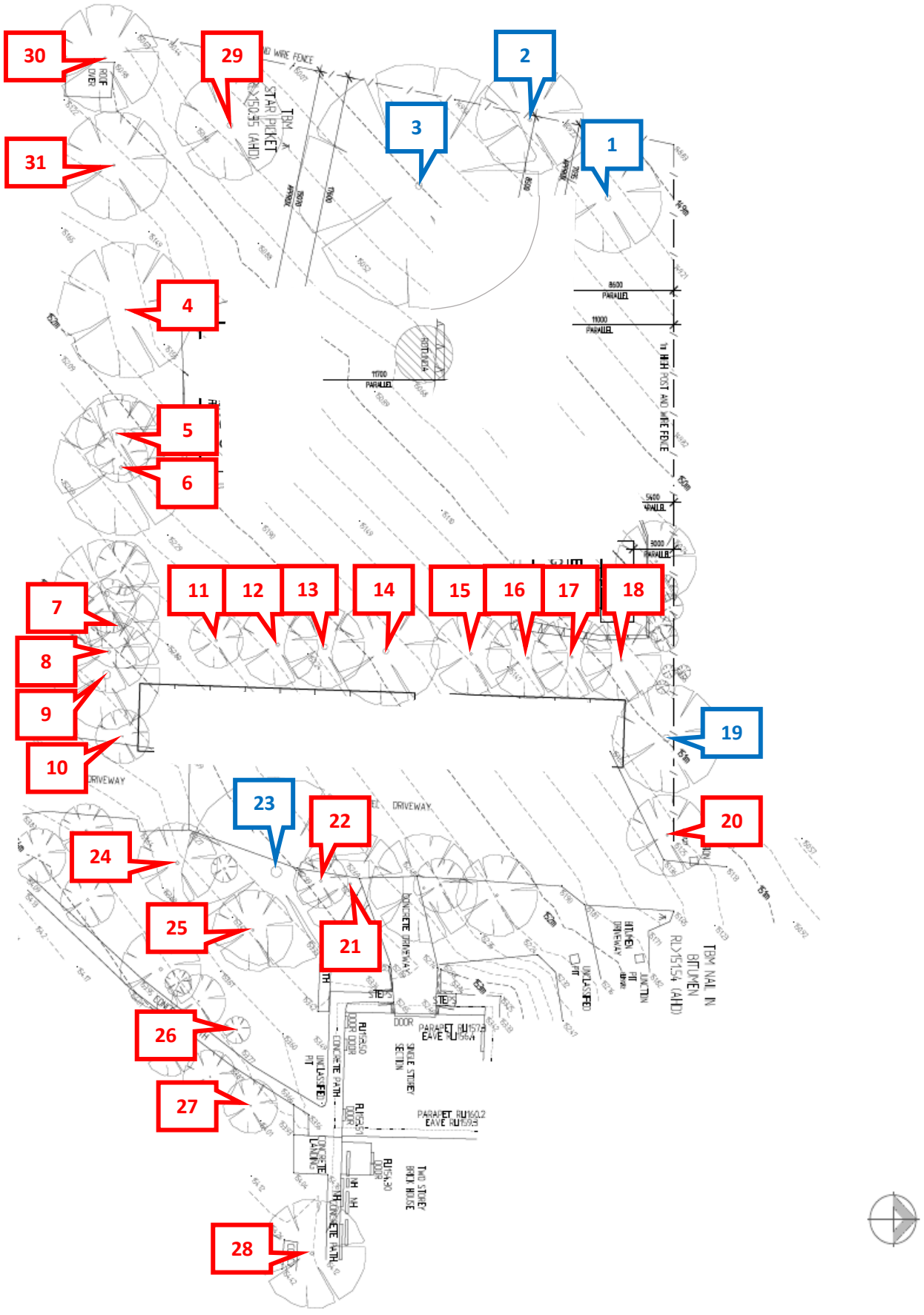
4. Tree Protection Zones (TPZ's)

Where appropriate, Tree Protection Zones and Structural Root Zones have been applied as per AS4970-2009, 'Protection of Trees on Development Sites'.

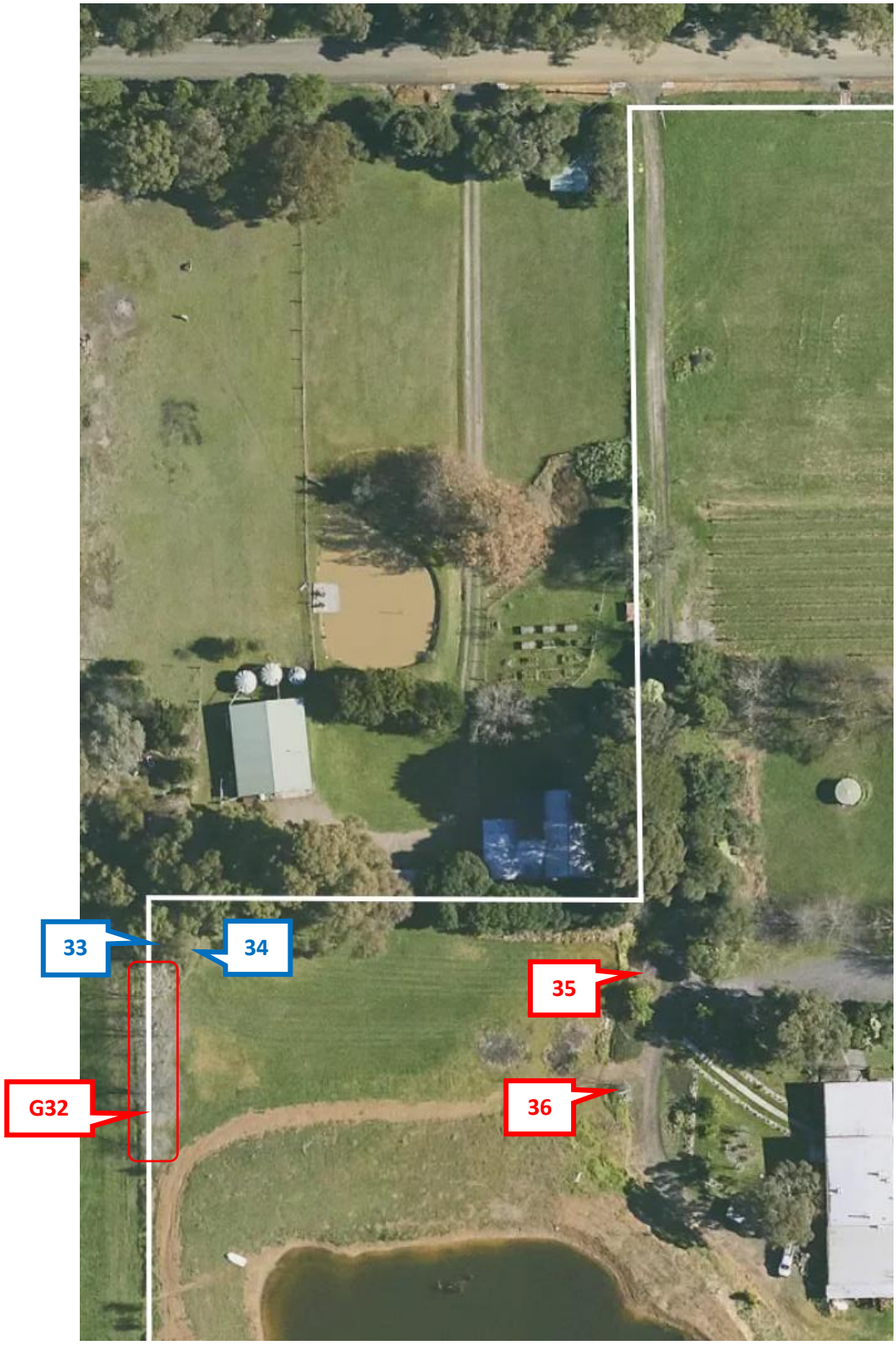
Tree Protection Zones are determined by multiplying the Trunk Diameter @ Breast Height (DBH) x 12. TPZ's are measured from the centre of the trunk.

Structural Root Zones are the area required for tree stability and are only necessary where major encroachment into the TPZ is to occur. The SRZ radius = (Diameter x 50) $^{0.42}$ x 0.64.

5. Site Plan (existing)



6. Site Plan 2 (existing)



7. Tree Assessment Table

#	Species	Common name	Native/ Exotic	Height (m)	Spread (m)	DBH (cm)	TPZ (m)	SRZ (m)	SULE	Age	Condition	Structure	Form	Amenity value	Retention value	Comments
1	*Platanus x acerifolia*	London Plane	E	14	10	46	5.5	2.6	L	M	G	G	G	F	M	
2	*Quercus robur*	English Oak	E	14	9	43	5.2	2.6	L	M	G	G	G	F	M	
3	*Fraxinus angustifolia*	Desert Ash	E	14	13	59/32/35	9.1	3.0	L	M	G	G	G	F	M	Permit exempt weed species
4	*Photinia robusta*	Photinia	E	8	5	15/15/15	3.1	2.3	L	M	F	F	F	P	L	
5	*Photinia robusta*	Photinia	E	6	6	15/15/15	3.1	2.3	L	M	F	F	F	P	L	
6	*Melaleuca armillaris*	Honey Myrtle	N	9	7	31/22/22	5.3	2.6	L	M	F	P	P	P	L	
7	*Melaleuca armillaris*	Honey Myrtle	N	8	6	35	4.2	2.4	L	M	F	F	F	P	L	
8	*Melaleuca armillaris*	Honey Myrtle	N	8	6	23	2.8	2.1	L	M	F	F	F	P	L	
9	*Melaleuca armillaris*	Honey Myrtle	N	8	6	32	3.8	2.4	L	M	F	F	F	P	L	
10	*Cotoneaster glaucophyllus*	Cotoneaster	E						R						L	Permit exempt weed species
11	*Acer pseudoplatanus*	Sycamore Maple	E						R						L	Permit exempt weed species
12	*Ligustrum lucidum*	Glossy Privet	E						R						L	Permit exempt weed species
13	*Ulmus glabra*	Wych Elm	E	12	8	35/26	5.2	2.3	L	M	G	G	G	P	L	
14	*Ulmus glabra*	Wych Elm	E	11	9	20/23	3.7	2.3	L	M	G	F	G	P	L	
15	*Acer negundo*	Box Elder	E	7	4	13	2.0	1.6	L	SM	G	G	G	P	L	
16	*Acer negundo*	Box Elder	E	8	6	12/12/12	2.0	1.8	L	SM	G	F	G	P	L	
17	*Acer negundo*	Box Elder	E	9	7	18/14	2.7	2.1	L	SM	G	F	G	P	L	
18	*Acer negundo*	Box Elder	E	8	4	18	2.2	1.9	L	SM	G	G	G	P	L	
19	*Ulmus minor 'Variegata'*	Silver Elm	E	14	9	38	4.6	2.5	L	M	G	G	G	F	M	
20	*Acer negundo*	Box Elder	E	8	5	12/17	2.5	1.8	L	SM	G	F	G	P	L	
21	*Photinia robusta*	Photinia	E	7	5	12/12/12	2.5	1.7	L	SM	F	F	F	P	L	
22	*Pittosporum eugenoides 'Variegatum'*	Variegated Pittosporum	E	5	3	12/12	2.0	1.7	L	M	G	F	G	P	L	
23	*Eucalyptus robusta*	Swamp Mahogany	N	15	15	91	10.9	3.4	L	M	G	P	G	G	M	
24	*Corymbia ficifolia*	Red-flowering Gum	N	13	6	29	3.5	2.3	L	M	G	P	F	P	L	

#	Species	Common name	Native/ Exotic	Height (m)	Spread (m)	DBH (cm)	TPZ (m)	SRZ (m)	SULE	Age	Condition	Structure	Form	Amenity value	Retention value	Comments
25	*Araucaria heterophylla*	Norfolk Island Pine	E	10	4	19	2.3	1.8	L	SM	F	G	G	P	L	
26	*Cotoneaster glaucophyllus*	Cotoneaster	E						R						L	Permit exempt weed species
27	*Cotoneaster glaucophyllus*	Cotoneaster	E						R						L	Permit exempt weed species
28	*Acer negundo*	Box Elder	E	10	7	24	2.9	2.1	L	SM	G	G	G	P	L	
29	*Platanus x acerifolia*	London Plane	E	8	6	42	5.0	2.5	L	SM	G	F	G	P	L	
30	*Pittosporum undulatum*	Sweet Pittosporum	N						R						L	Permit exempt weed species
31	*Pittosporum undulatum*	Sweet Pittosporum	N						R						L	Permit exempt weed species
G32	*Ulmus glabra*	Wych Elm	E	12	6	18/20/15	3.7	2.1	L	SM	F	F	F	P	L	Nine trees assessed as a group
33	*Eucalyptus viminalis*	Manna Gum	N	15	5	35	4.2	2.3	L	SM	G	G	G	F	M	
34	*Eucalyptus viminalis*	Manna Gum	N	13	8	50	6.0	2.6	L	SM	G	G	G	F	M	
35	*Betula pendula*	Silver Birch	E	9	4	20	2.4	2.0	L	M	G	G	G	P	L	
36	*Fraxinus angustifolia*	Desert Ash	E	8	3	16	2.0	1.7	R	SM	G	G	G	P	L	Permit exempt weed species

**Dimensions listed for neighbouring trees are estimates due to site inaccessibility* **Trees listed in red are rated as Low Retention Value*

8. Photos

Tree 1

Tree 25

Trees 1 & 3

Trees 5 & 6

Trees 7 - 10

Tree 24

Trees 21-23

Trees 11-14

Trees 15-18

Trees 19 & 20

Tree 28

Trees 33 & 34

Group 32

Tree 35

Tree 36

9. Preliminary Discussion / Recommendations

Trees 1 to 36 are all within the subject property. Tree types include Photinia, Desert Ash (weed species), London Plane, English Oak, Honey Myrtle, Swamp Mahogany, Wych Elm, Variegated Pittosporum, Norfolk Island Pine, Red-flowering Gum, Silver Elm, Box Elder, Glossy Privet (weed species), Cotoneaster (weed species), Sycamore Maple (weed species) and Manna Gum.

The following trees are rated as Moderate Retention Value and should be retained in the development if possible:

- Tree 1 – London Plane
- Tree 2 – English Oak
- Tree 3 – Desert Ash
- Tree 19 – Silver Elm
- Tree 23 – Swamp Mahogany Gum
- Tree 33 – Manna Gum
- Tree 34 – Manna Gum

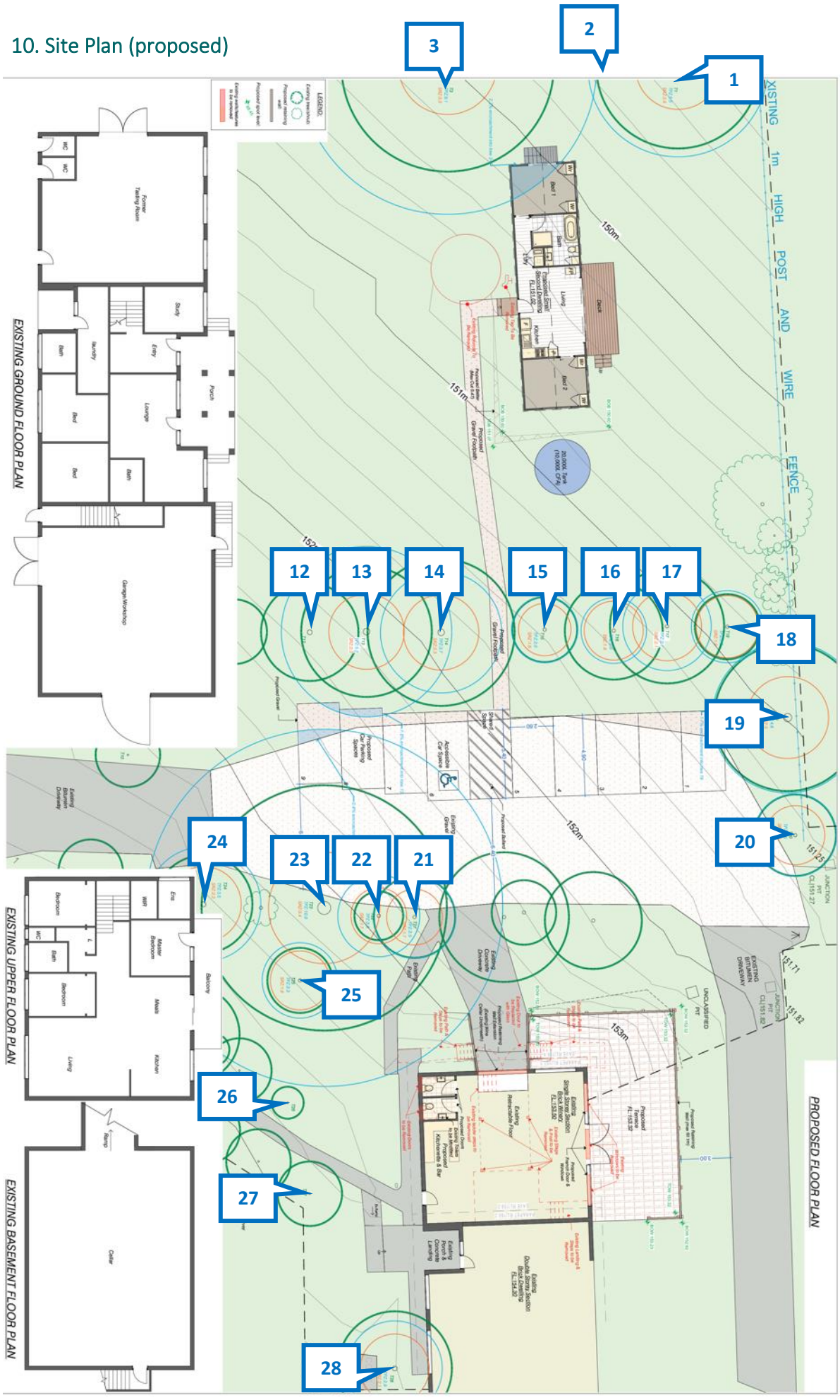
It is noted that Tree 3, the Desert Ash is a permit exempt weed species, however this tree is a very good specimen which provides good amenity value to the site and should be considered for retention.

All other trees are rated as Low Retention Value and considered appropriate for removal if required.

November 27th, 2023

Retention value should be considered in the context of a tree being worthy of being a material constraint on the site. Low retention value trees are by definition not worthy of being a material constraint, however, Low Retention value trees should not necessarily always be removed in all cases. Trees of Moderate Retention Value should be considered for retention where they are not a material constraint on the site. Where they conflict with plans for the site, either retention or removal are considered as appropriate options. High Retention Value trees should be retained and designed around.

10. Site Plan (proposed)



11. Site Plan 2 (proposed)

12. Construction Impact Assessment

- **Tree 4:** Low Value Photinia - **to be removed.**
- **Tree 6:** TPZ = 5.3m; 4.6% encroachment is proposed within the TPZ. This is classified as minor encroachment and there is adequate permeable surface contiguous with the TPZ to compensate for this loss. **This tree can be viably retained.**
- **Tree 11:** Low Value Sycamore Maple (weed species) - **to be removed.**
- **Group 32:** TPZ = 3.7m. Proposed effluent field 3 will encroach into the TPZ's of these trees by 9.7%. This is classified as minor encroachment and there is adequate permeable surface contiguous with the TPZ to compensate for this loss. **These trees can be viably retained.**
- **The proposed effluent fields are 15.0m away from adjacent neighbouring trees to the west and are therefore outside Tree Protection Zones.**
- A small extension is proposed to the north side of the existing, central gravel carpark, which will result in encroachment into the TPZ's of **Trees 13, 19 and 23**. In all cases, encroachment is <2%. **These trees can be viably retained.**
- **All other trees are to be retained and will not be encroached upon.**

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Grad. Cert. Arboriculture (AQF 8) Cert. Horticulture ISA TRAQ

September 19th, 2024

13. Tree Descriptors

Age

Y	Young	Tree is juvenile or recently planted
SM	Semi-mature	Tree is established and actively growing
M	Mature	Tree has reached expected maximum size
OM	Over Mature	Tree is over mature and in decline

Condition

G	Good	Full crown, free of disease, good colour, good extension growth of twigs, no dieback
F	Fair	Tree shows one or more of the following: <25% deadwood, dieback, unbalanced canopy, minor pathogens
P	Poor	Tree shows one or more of the following: >25% deadwood, major pathogen presence, structural faults
D	Dead	Tree is dead

Structure

G	Good	Good branch attachments and no structural defects present, no co-dominant stems, good branch and trunk taper, good buttressing at base of trunk
F	Fair	Some minor structural defects or cavities may be present
P	Poor	Major defects to trunk, branches or roots, poor attachment points, missing bark, likely points of failure
H	Hazardous	Tree poses immediate danger and should be removed

Form

G	Good	Full and balanced canopy
F	Fair	Minor asymmetry in canopy shape
P	Poor	Major asymmetry, unbalanced appearance

Amenity Value

G	Good	Attractive tree which contributes significantly to the surrounding landscape and public realm, may provide good screening and shade qualities
F	Fair	Tree contributes to its immediate surroundings, may be one of a group of trees and/or provide moderate screening and shading qualities
P	Poor	Tree does not make a positive contribution to the landscape and could be considered for removal

Safe Useful Life Expectancy (SULE)

L	Long	Tree appears retainable for 40+ years
M	Medium	Tree appears retainable for 15 – 40 years
S	Short	Tree appears retainable for 5 – 15 years
R	Removal	Tree should be removed
MO	Move or Replaced	Trees which can be readily moved or replaced

Retention Value

L	Low	An assessment rating which incorporates all the above criteria
M	Moderate	
H	High	

14. References

- Barrell, J. (2001), *SULE, its use and status into the new millennium,* NAAA Conference proceedings
- Clark, J.R. & Matheny N.P. (1998), *Trees and Development: A Technical guide to preservation of trees during land development*, ISA Publishing
- Standards Australia (2009), *AS4970-2009 Protection of Trees on Development Sites*, Standards Australia