
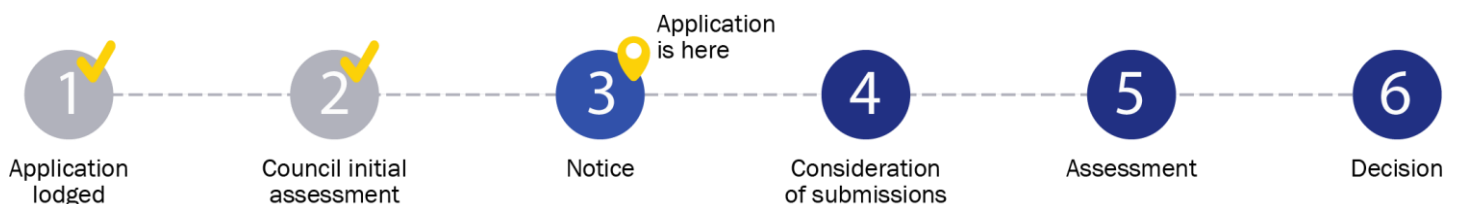


Notice of Application for a Planning Permit

The land affected by the application is located at:	L1 TP157958 18 Station Avenue, Emerald VIC 3782
The application is for a permit to:	Buildings and Works (Extension to an Existing Dwelling)
A permit is required under the following clauses of the planning scheme:	
43.02-2	Construct a building or construct or carry out works
44.06-2	Construct a building or construct or carry out works associated with Accommodation
APPLICATION DETAILS	
The applicant for the permit is:	BM Town Planning
Application number:	T250497
<p>You may look at the application and any documents that support the application at the office of the Responsible Authority:</p> <p>Cardinia Shire Council, 20 Siding Avenue, Officer 3809.</p> <p>This can be done during office hours and is free of charge.</p> <p>Documents can also be viewed on Council's website at cardinia.vic.gov.au/advertisedplans or by scanning the QR code.</p>	
	
HOW CAN I MAKE A SUBMISSION?	
This application has not been decided. You can still make a submission before a decision has been made. The Responsible Authority will not decide on the application before:	24 October 2025
WHAT ARE MY OPTIONS? Any person who may be affected by the granting of the permit may object or make other submissions to the responsible authority. If you object, the Responsible Authority will notify you of the decision when it is issued.	<p>An objection must:</p> <ul style="list-style-type: none">• be made to the Responsible Authority in writing;• include the reasons for the objection; and• state how the objector would be affected. <p>The Responsible Authority must make a copy of every objection available at its office for any person to inspect during office hours free of charge until the end of the period during which an application may be made for review of a decision on the application.</p>



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ePlanning

Application Summary

Portal Reference A32533NJ

Basic Information

Proposed Use	Construct a new dwelling addition and associated works
Current Use	Single dwelling
Cost of Works	\$400,000
Site Address	18 Station Avenue Emerald 3782

Covenant Disclaimer

Does the proposal breach, in any way, an encumbrance on title such as restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope?

Not Applicable, no such encumbrances apply.

Contacts

Type	Name	Address	Contact Details
Applicant	BM Town Planning	9a Scott Street, Seaford VIC 3198	E: bmtownplanning@gmail.com
Preferred Contact	BM Town Planning	9a Scott Street, Seaford VIC 3198	M: 0498 667 834 E: bmtownplanning@gmail.com

Fees

Regulation Fee Condition	Amount	Modifier	Payable
9 - Class 4 More than \$100,000 but not more than \$500,000	\$1,462.50	100%	\$1,462.50
Total			\$1,462.50



Civic Centre
20 Siding Avenue, Officer, Victoria

Council's Operations Centre (Depot)
Purton Road, Pakenham, Victoria

Postal Address
Cardinia Shire Council
P.O. Box 7, Pakenham VIC, 3810

Email: mail@cardinia.vic.gov.au

Monday to Friday 8.30am–5pm
Phone: 1300 787 624
After Hours: 1300 787 624
Fax: 03 5941 3784

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Documents Uploaded

Date	Type	Filename
13-08-2025	A Copy of Title	00773367410012025070606040001.pdf
13-08-2025	A Copy of Title	00773367410022025070606040001.pdf
13-08-2025	Alteration statement	Planning report - 18 Station Avenue Emerald - Dwelling addition (2).pdf
13-08-2025	Site plans	22025.REV5 - ADD.pdf
13-08-2025	Existing floor plan	24-10-225 (FSRE).pdf
13-08-2025	Additional Document	18 Station Ave Arboricultural impact and defendable space stat1024hh_AIA.V2.pdf
13-08-2025	Additional Document	BMP - 18 Station Avenue, Emerald V1.pdf

☐ Remember it is against the law to provide false or misleading information, which could result in a heavy fine and cancellation of the permit



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**REGISTER SEARCH STATEMENT (Title Search) Transfer of
Land Act 1958**

Page 1 of 1

VOLUME 09399 FOLIO 350

Security no : 124125962870Q

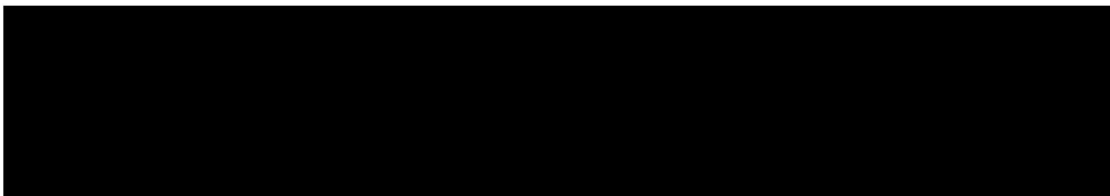
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LAND DESCRIPTION

Lot 1 on Title Plan 157958N.
PARENT TITLE Volume 05583 Folio 550
Created by instrument J136186 02/09/1980

REGISTERED PROPRIETOR



ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AW536701R 10/02/2023
WESTPAC BANKING CORPORATION

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP157958N FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

-----END OF REGISTER SEARCH STATEMENT-----

Additional information: (not part of the Register Search Statement)

Street Address: 18 STATION AVENUE EMERALD VIC 3782

ADMINISTRATIVE NOTICES

NIL

eCT Control 16977H ST GEORGE BANK
Effective from 10/02/2023

DOCUMENT END

Imaged Document Cover Sheet

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Document Type	Plan
Document Identification	TP157958N
Number of Pages (excluding this cover sheet)	1
Document Assembled	06/07/2025 16:04

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TITLE PLAN		EDITION 1	TP 157958N						
Location of Land		Notations							
<div>Parish: GEMBROOK</div> <div>Township:</div> <div>Section:</div> <div>Crown Allotment: 44(PT)</div> <div>Crown Portion:</div> <div>Last Plan Reference: LP 13266</div> <div>Derived From: VOL 9399 FOL 350</div> <div>Depth Limitation: NIL</div>		<div>This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.</div> <div>ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN</div>							
Description of Land / Easement Information		THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT COMPILED: 20/09/1999 VERIFIED: M.P							
<div>ENCUMBRANCES REFERRED TO</div> <div>As to the land shown marked A - - - --</div> <div>THE EASEMENTS (if any) existing over-- the same by virtue of Section 98 of -- the Transfer of Land Act - - - - -</div>									
<table><tr><th colspan="2">TABLE OF PARCEL IDENTIFIERS</th></tr><tr><td colspan="2">WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962</td></tr><tr><td colspan="2">PARCEL 1 = LOT 76 ON LP 13266</td></tr></table>				TABLE OF PARCEL IDENTIFIERS		WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962		PARCEL 1 = LOT 76 ON LP 13266	
TABLE OF PARCEL IDENTIFIERS									
WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962									
PARCEL 1 = LOT 76 ON LP 13266									
LENGTHS ARE IN METRES		Metres = 0.3048 x Feet Metres = 0.201168 x Links	Sheet 1 of 1 sheets						



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ARBORICULTURAL IMPACT ASSESSMENT (inc. defensible space requirement)

SITE ADDRESS:

18 Station Ave, Emerald VIC. 3782

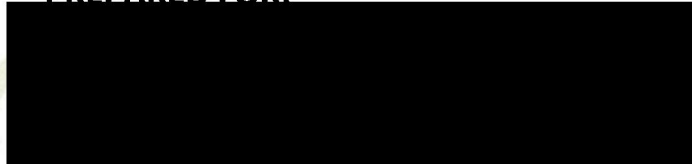
REPORT DATE:

22 September 2025

TREETEC REFERENCE:

stat1024hh_AIA

PREPARED FOR:



PREPARED BY:



Graduate Certificate of Arboriculture (Melbourne Uni)

03 8644 8005

Email: admin@treetec.net.au

STAGE	REPORT REF	PURPOSE	DATE
	stat1024hh_AIA	Impact assessment	11/10/2024
	stat1024hh_AIA.V2	Impact assessment inc. defensible space	16/5/2025
✓	stat1024hh_AIA.V3	Impact assessment, RFI response	22/9/2025

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1 Introduction

1.1 Purpose

Treetec have been engaged to assess the tree population at, or in close proximity to, 18 Station Avenue, Emerald (the site). In accordance with AS4970-2009 *Protection of trees on development sites* (section 2.3.5), the purpose of this report is to identify and assess development related impacts relating to assessed trees, and to provide a summary of the assessment findings.

Additionally, due to the applicable Bushfire Management Overlay (BMO), this report discusses the actions required to comply with the defensible space requirements. This report is an update of a previous Treetec report (ref-stat1024hh_AIA) assessing amended plans.

1.2 Background

The proposed works involve construction of a residential dwelling on site, including installation of associated infrastructure. Due to the BMO, establishing a suitably accessible driveway will also be required along with the installation of typical residential infrastructure. This version, V3, has been prepared to include defensible space requirements and comply with Cardinia council RFI.

1.3 Scope

- Provide details on the subject trees including their species, amenity value, condition and dimensions
- Assess the impact the proposed development is likely to have on the subject trees
- Comment on measures likely to be required to enable the protection of subject trees proposed to be retained.
- Comment on required management actions to comply with defensible space requirements (prune, remove, or no action).

1.4 Method

- Hayden Hatcher undertook an arboricultural assessment on 14 October 2024. A secondary assessment was conducted on 2 May 2025.
- All observations were taken at ground level, using stage 1 of the Visual Tree Assessment (VTA) method (Mattheck and Breloer 1994)
- Data collected has been categorised in line with definitions found in Appendix 7.2- Glossary.

1.5 Limitations

- Root assessment requiring excavation was not undertaken. Therefore, root condition has not been included unless above ground signs, such as soil heaving or cracking were observed
- Aerial examination (tree climbing) was not undertaken
- Tree height and canopy width were estimated
- Only noteworthy trees that might be significantly impacted by the proposed works (regardless of property boundaries) are included in this report. Environmental weeds, shrubs, dead trees and juvenile exotic trees of very low amenity/retention value were not assessed individually
- Diameter at Breast Height (DBH) of trees on neighbouring properties was estimated

- Tree 3 is dead, the TPZ has therefore been removed.

For the full list of assumptions and limitations for this report please refer to Appendix 7.1

1.6 Documents viewed

- Site context plan. REV 4. Project Number - 22025. Project Date- 9/10/2023. Prepared by- Ds Building Design

1.7 Planning scheme and applicable overlays

The site is covered by the Cardinia Shire Council Planning Scheme and is zoned Low Density Residential Zone – Schedule 2 (LDRZ2).

Relevant planning overlays

- Bushfire Management Overlay – Schedule 2 (BMO2)
 - *Minimum of 5m space between canopy trees must be maintained*
- Vegetation Protection Overlay – Schedule 1 (VPO1)
 - *A permit is required to remove, destroy or lop any vegetation (exemptions apply)*

2 Findings

2.1 Site summary

The site consists of a single storey weatherboard dwelling with an attached garage, accessed via gravel driveway located on the Station Avenue frontage. Vegetation within the site is dominated by exotic, deciduous species, mainly English Elm. A large canopy tree dominates the rear yard, whilst a mixture of small to medium sized canopy trees are growing within the front setback.



Plate 1 – Panoramic view of the rear of the subject site (west facing), illustrating current site conditions.



Plate 2 – Panoramic view of the front of the subject site (east facing), illustrating current site conditions.

2.2 Vegetation on adjoining land

Tree number	Location
Trees 3-6 and 17	Neighbouring property to the north

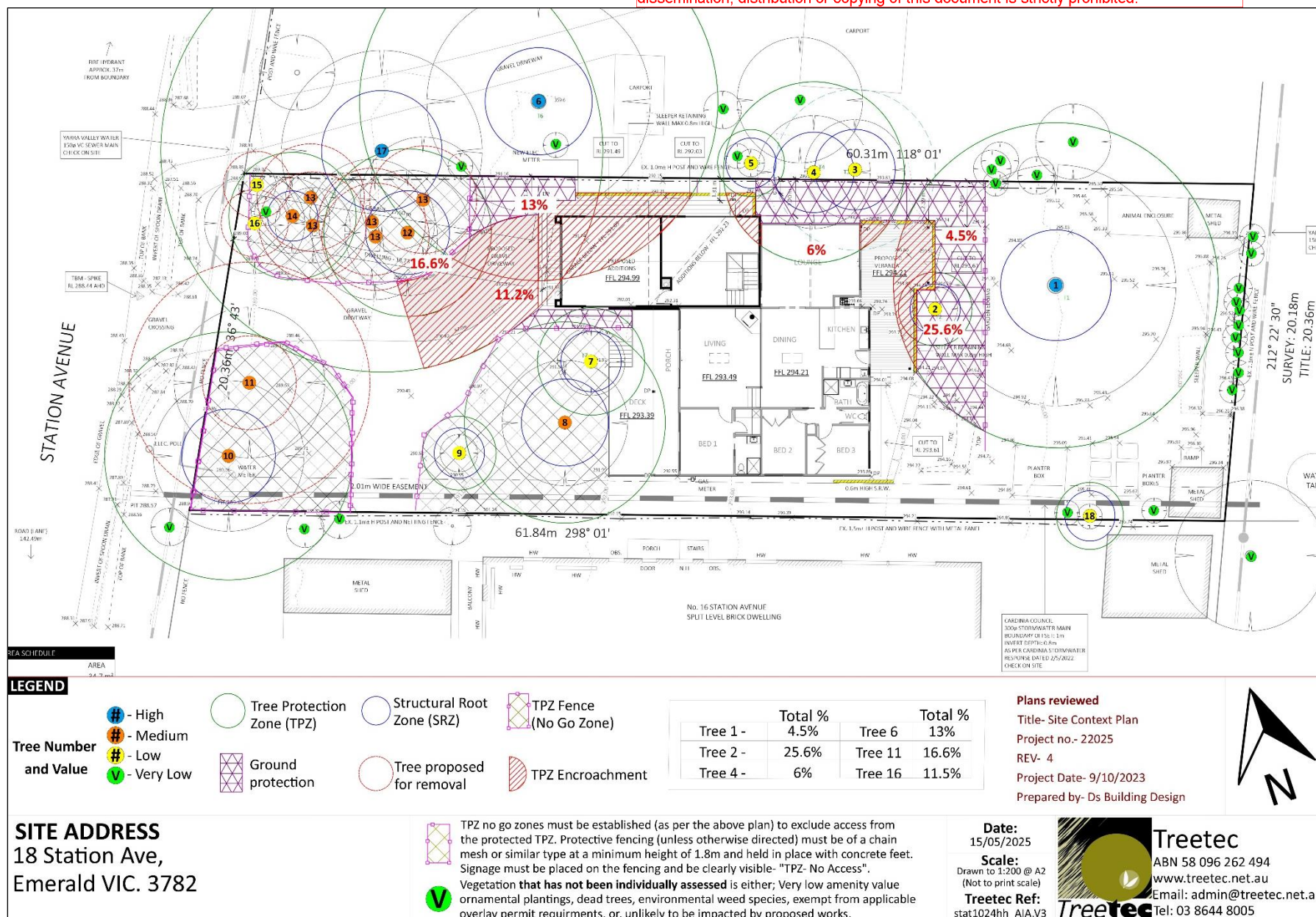
2.3 Vegetation not detailed

Some additional vegetation has been identified on the plan (plotted as 'V') but these have not been individually assessed as they are unlikely to be impacted by the proposed works shown on the plan, or are very low amenity value shrubs/plants.

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2.4 Site plan

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SITE ADDRESS
18 Station Ave,
Emerald VIC. 3782

LEGEND

- Tree Number and Value
- Off-site
- High
- Medium
- Low
- Very Low
- Removed
- Retain (no action) Indicative canopy spread
- Prune canopy (to comply with defendable space requirements) Indicative canopy spread
- Remove (to comply with defendable space requirements) Indicative canopy spread

SITE ADDRESS
18 Station Ave,
Emerald VIC. 3782

Vegetation that has not been individually assessed is either; Very low amenity value ornamental plantings, dead trees, environmental weed species, exempt from applicable overlay permit requirements, or unlikely to be impacted by proposed works.

Plans reviewed
Title- Site Context Plan
Project no.- 22025
REV- 4
Project Date- 9/10/2023
Prepared by- Ds Building Design

Date:
19/09/2025
Scale:
Drawn to 1:200 @ A2
(Not to print scale)
Treetec Ref:
stat1024hh_A1A V3

Treetec
ABN 58 096 262 494
www.treetec.net.au
Email: admin@treetec.net.au
Tel: 03 8644 8005

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2.6 Tree data

Tree #	Species	Common name	Type	DBH (cm)	Height (m)	Spread (m)	Structure	Health	Age	Amenity value	ULE (yrs)	TPZ (m)	SRZ (m)
1	<i>Aesculus hippocastanum</i>	Horse Chestnut	Exotic	81	13	12	Fair	Fair	Mature	High	15 to 40	9.7	3.3
Notes: Within the subject site. Codominant stem union at the base, minor dieback/retained deadwood. Approx. 4m of canopy separation currently exists between Tree 2.													
Impact assessment: Low. The site cut and retaining wall will result in a minor (4.5%) TPZ encroachment. Minor root severance may occur, however adverse tree related impacts are unlikely. Canopy pruning needed to achieve DSR (see discussion).													
Recommendations: Erect fencing and ground protection to protect from development related impacts (see site plan). Prune canopy to ensure 5m+ canopy clearance from Tree 2 is achieved.													
2	<i>Magnolia x soulangeana</i>	Saucer Magnolia	Exotic	18	6	4	Fair	Fair	Mature	Low	15 to 40	2.2	1.5
Notes: Within the subject site. Codominant leaders from a union at base.													
Impact assessment: Moderate. The proposed retaining wall and site cut will result in a 25.6% encroachment into the TPZ, with works marginally entering the SRZ. Significant root severance may occur, likely resulting in dieback or a reduction in ULE.													
Recommendations: Mulch, irrigate and remove deadwood post development. Install ground protection to protect from development related impacts (see site plan).													
3	<i>Syzygium smithii</i>	Lily Pilly	Victorian native	45	8	4	Poor / fair	Dead	Unknown	Low	0	N/A	2.4
Notes: Neighbouring property (north boundary). Decay and borer activity in the trunk.													
Impact assessment: Low proposed works are outside the SRZ. Canopy pruning needed to achieve DSR (see discussion).													
Recommendations: Discuss removal with the neighbour or remove all branches overhanging the property boundary.													
4	<i>Syzygium smithii</i>	Lily Pilly	Victorian native	45	8	5	Fair	Good	Semi-mature	Low	15 to 40	5.4	2.4
Notes: Neighbouring property (north boundary). Trunk obscured by ivy. Multiple codominant leaders. Sunscald on the trunk, canopy overhangs the site by 1m. Canopy abuts tree 3.													
Impact assessment: The proposed garage and veranda will result in a minor (6%) encroachment into the TPZ. Minor root disturbance may occur, however adverse tree related impacts are unlikely. Canopy pruning needed to achieve DSR (see discussion).													
Recommendations: Install ground protection to protect from development related impacts (see site plan). Pruning back to boundary, whilst adhering to													

5	<i>Prunus sp.</i>	Cherry sp.	Exotic	11	5	4	Fair	Good	Semi-mature	Low	5 to 15	2.0	1.5
Notes: Neighbouring property (north boundary). Sunscald on the trunk, canopy overhangs the site by 1m. Canopy abuts tree 4. Canopy pruning needed to achieve DSR (see discussion).													
Impact assessment: Low. The proposed retaining wall works will result in a minor 1% encroachment into the TPZ. Adverse impacts are highly unlikely. Canopy pruning needed to achieve DSR (see discussion).													
Recommendations: Install ground protection to protect from development related impacts (see site plan). Prune canopy back to the boundary.													
6	<i>Quercus robur</i>	English Oak	Exotic	89	21	18	Good	Good	Mature	High	>40	10.7	3.2
Notes: Neighbouring property (north boundary). Healthy specimen. Canopy overhangs site by approx. 4m.													
Impact assessment: Low. The proposed garage footprint, retaining wall and gravel driveway will result in a major (13%) encroachment into the TPZ. 9.1% encroachment is from the garage footprint, 3.9% is from the driveway. Root severance is likely, however adverse tree related impacts are unlikely.													
Recommendations: Install the gravel driveway at or above-grade. Install a combination of ground protection and tree protection fencing to minimise construction related impacts.													
7	<i>Magnolia x soulangeana</i>	Saucer Magnolia	Exotic	27	6	5	Fair	Good	Mature	Low	15 to 40	3.2	1.8
Notes: Within the subject site. Codominant at base. Good canopy density.													
Impact assessment: Low. Proposed works are outside of the TPZ; however, may be impacted by construction related activities. Canopy pruning needed to achieve DSR (see discussion).													
Recommendations: Prune the southwest canopy to maintain 5m clearance from Tree 8. Install TPZ fencing and ground protection to protect from development related impacts (see site plan).													
8	<i>Liquidambar styraciflua</i>	Sweet Gum	Exotic	50	15	9	Good	Good	Semi-mature / mature	Medium	>40	6.0	2.5
Notes: Within the subject site. Lower branches of the canopy abuts both Tree 7 and Tree 9.													
Impact assessment: Low. Proposed works are outside of the TPZ; however, may be impacted by construction related activities. Canopy pruning needed to achieve DSR (see discussion).													
Recommendations: Prune lower branches to maintain 5m clearance from Trees 6 and 8. Install TPZ fencing to protect from development related impacts (see site plan).													
9	<i>Ulmus glabra</i> 'camperdownii'	Weeping Wych Elm	Exotic	18	5	4	Good	Fair	Semi-mature / mature	Low	15-40	2.2	0.0
Notes: Within the subject site. Canopy abuts Tree 8.													
Impact assessment: Low. Proposed works are outside of the TPZ; however, may be impacted by construction related activities.													
Recommendations: Install TPZ fencing to protect from development related impacts (see site plan).													

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10	<i>Ulmus procera</i>	English Elm	Exotic	62	14	8	Fair / good	Fair	Semi-mature / mature	Medium	>40	7.4	2.8
Notes: Within the subject site. Canopy bias to the northwest. Signs of elm leaf beetle. Extensive corking on lower branches, typical of this species.													
Impact assessment: Low. Proposed works are outside of the TPZ; however, may be impacted by construction related activities.													
Recommendations: Install TPZ fencing to protect from development related impacts (see site plan).													
11	<i>Ulmus procera</i>	English Elm	Exotic	60	13	7	Fair / good	Fair	Semi-mature / mature	Medium	>40	7.2	2.8
Notes: Within the subject site. Codominant stem union at 5m. Canopy abuts Tree 10.													
Impact assessment: Proposed for removal.													
Recommendations: Remove to comply with DSR.													
12	<i>Ulmus procera</i>	English Elm	Exotic	42	15	7	Fair	Good	Semi-mature / mature	Medium	>40	5.0	2.5
Notes: Within the subject site. Prior failure in lower canopy. Vigorous upright specimen. Canopy abuts tree group 13.													
Impact assessment: Moderate. The proposed gravel driveway will result in a major (16.6%) encroachment into the TPZ. If significant grade changes occur for the driveway installation, root severance is likely and adverse impacts may occur. Canopy pruning needed to achieve DSR (see discussion).													
Recommendations: Prune the north and east of the canopy to maintain 5m clearance from Trees 14 and 17. Install the gravel driveway at or above-grade. Install TPZ fencing to protect against development related impacts (see site plan).													
13 (group of 5)	<i>Ulmus procera</i>	English Elm	Exotic	27	14	5	Fair	Good	Semi-mature / mature	Medium	>40	3.2	2.1
Notes: Within the subject site. 5 trees in proximity of similar dimensions. Canopies abut Tree 12 and 14 within the site.													
Impact assessment: Proposed for removal.													
Recommendations: Remove to comply with DSR.													
14	<i>Ulmus procera</i>	English Elm	Exotic	32	15	5	Good/Fair	Fair	Semi-mature	Medium	>40	3.8	2.1
Notes: Within the subject site. Canopy abuts Tree group 13 and Tree 15.													
Impact assessment: Low. Proposed works are outside of the TPZ; however, may be impacted by construction related activities.													
Recommendations: Prune the east side of the canopy to maintain 5m clearance from Tree 12. Install TPZ fencing to protect against development related impacts (see site plan).													

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15	<i>Unkown sp.</i>	Unkown	Unkown	12	6	5	Good	Good	Semi-mature	Low	15 to 40	2.0	1.5
Notes: Within the subject site. Canopy abuts Trees 13 and 14. Lean towards roadside. Vigorous specimen.													
Impact assessment: Proposed for removal													
Recommendations: Remove to ensure to DSR are met.													
16	<i>Ulmus procera</i>	English Elm	Exotic	10	6	5	Fair	Fair	Semi-mature	Low	15 to 40	2.0	1.5
Notes: Within the subject site. Prior failure. Decurrent canopy. Corking of bark. Canopy abuts Tree 15.													
Impact assessment: Proposed for removal.													
Recommendations: Remove to ensure to DSR are met.													
17	<i>Eucalyptus botryoides</i>	Southern Mahogany	Australian native	110	28	18	Good	Good	Mature	High	>40	13.2	3.6
Notes: Neighbouring property (north boundary). Dominant canopy tree. Upper canopy overhangs the site by 5m.													
Impact assessment: Low. The proposed gravel driveway will result in a minor (11.2%) TPZ encroachment. 8.7% is from the driveway and 2.5% is from the garage footprint. If significant grade changes occur for the driveway installation, root severance may occur. Adverse tree related impacts are unlikely.													
Recommendations: Install the gravel driveway at or above-grade. Install TPZ fencing to protect against development related impacts (see site plan).													
18	<i>Prunus persica</i>	Peach	Exotic	7	4	2	Fair	Fair	Juvenile / semi-mature	Low	5 to 15	2.0	1.5
Notes: Within the subject site. Sparse canopy, managed form. Canopy abuts neighbouring verified Variegated Pittosporum hedge.													
Impact assessment: Low. Proposed works are outside of the TPZ.													

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3 Discussion

3.1 Encroachment/ Impacts on trees

Likely impacts are assessed based on the degree of encroachment, the type of proposed works, the tree, and surrounding conditions.

Rear setback retaining wall/site cut

Tree 2 - The proposed works will result in a 25.6% encroachment into the TPZ, with works entering the SRZ. This level of encroachment will likely sever a large portion of the root system; significant dieback and a reduction in ULE may occur. Application of mulch, fertiliser and irrigation will help offset root severance and mitigate adverse impacts. Removal of deadwood as required will ensure aesthetics are maintained.

Garage and driveway works

Tree 6 - 13% total TPZ encroachment (9.1% from the garage and 3.9% from the driveway).

Tree 12 – 16.6% TPZ encroachment from the driveway.

Tree 17 – 11.2% total encroachment (8.7% from the driveway and 2.5 garage).

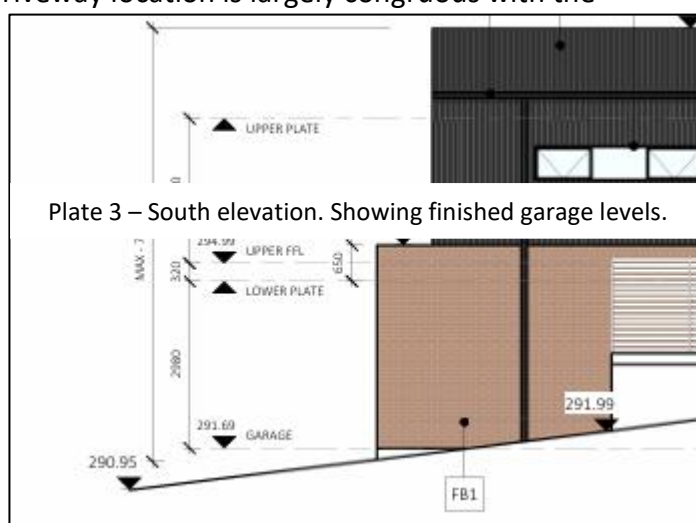
Installation of the driveway at or above grade without disturbing soil levels beneath will help ensure root disturbance is minimised. Elevations on plans indicate fill will likely be utilised to match garage and driveway levels (see Plate 3), root disturbance is therefore expected to be minimal. Additionally, the proposed gravel driveway location is largely congruous with the existing access route. The installation of a new driveway is therefore unlikely to cause significant additional soil compaction.

Despite incurring major encroachments Trees 6, 12 and 17 are unlikely to be significantly impacted by the proposed works.

3.2 Construction related activities

Trees without planned encroachment but in the vicinity of works may be impacted by construction related activities including, (but not limited to); compaction from vehicle parking, positioning of plant and/or foot traffic, and mechanical damage to trunk/branches from delivery/drop off of materials, etc.

Adequate tree protection measures including fencing or ground protection are important in preventing these impacts during construction.



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Defendable space requirements (DSR)

Meeting DSR requirements is readily achievable whilst minimising tree removals.

Required actions are assigned with consideration to the proximity of trees to one another, their species, health, structure, and useful life expectancy (ULE).

Where practicable, trees of lower value, reduced health, structure and/or shorter ULE are prioritised for removal ahead of trees of higher value (indigenous/native), better health, structure and/or longer ULE.

Pruning of trees may be recommended to limit the outright loss of vegetation onsite while achieving the defendable space requirements.

Specific pruning requirements – Photos within appendix 7.7 are marked up with likely pruning targets. An indicative pruning map is included in section 2.5, however this not representative of exact pruning required (e.g. Tree 1 only needs lower canopy pruning to achieve DSR requirements).

- **Trees 1 and 2:** Tree 1 has weeping branches that are within 5m of the canopy of Tree 2. Adequate reduction points exist to uplift these branches to create 5m of clearance, whilst adhering to Australian Standards, *AS 4373 2007 - Pruning of Amenity Trees*.
- **Trees 3-5:** Tree 3 is dead and should be removed completely to reduce fire risk, alternatively all dead branches overhanging the subject site should be removed. Both Trees 4 and 5 can be pruned close to the boundary without significantly impacting canopy symmetry, whilst still adhering to industry standards and achieving 5m canopy separation within the subject site.
- **Trees 7-9:** To achieve 5m clearance Tree 7 requires reduction of the southwest of the canopy, this represents approx. 10% of the canopy. Tree 8 requires significant uplifting to the north and south to maintain clearance from adjacent trees. This represents approx. 25% of the canopy, however good vitality and its semi-mature age means long-term viability is not expected to be impacted by pruning. Pruning is required on both sides and will not significantly impact canopy symmetry.
- **Trees 10 and 11:** Maintaining 5m clearance is likely not achievable without lopping one or both trees. Removal of Tree 11, the smaller specimen, is the most practical way to achieve the defendable space requirements.



Plate 3 – Showing the elm trees within the front setback. The largest of which can be pruned to meet DRS. The stand of Elms to right of screen can be thinned by removing the smallest specimens.

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4 Conclusion

The arboricultural assessment undertaken at 18 Station Avenue, comprised eighteen trees. Eleven trees, including one tree group, are growing within the subject site, and all other trees are growing on adjoining land surrounding the site.

Specific impacts on the assessed trees are summarised below.

- The proposed veranda site-cut and retaining wall will result in a 4.5% and 25.6% encroachment into the TPZ of Trees 1 and 2. Tree 1 is not expected to be significantly impacted. Adverse impacts to Tree 2 are likely but can be somewhat mitigated by remedial actions.
- The proposed garage and veranda retaining wall/site cuts will result in a minor (6%) encroachment into the TPZ of Tree 4. Adverse impacts are unlikely.
- The proposed garage retaining wall/site cut and driveway will result in a 13% encroachment into the TPZ of Tree 6, adverse impacts may occur. Installation of the driveway surfacing above-grade will help minimise root disturbance. The 9.1% encroachment from the garage earthworks is not expected to impact long-term viability.
- The driveway will result in a major encroachment to both Trees 12 and 17. Installation of the driveway at or above-grade will minimise potential root disturbance and adverse tree related impacts.
- Below ground service/utility locations are not shown or accurately detailed on site plans, therefore, assessed impacts may be greater if trenching occurs within TPZs of retained trees.

Works for Defendable Space Requirements are summarised below:

Amenity Value	Defendable space summary (only applicable to trees within the site)		
	No action Compliant with defendable space requirements.	Prune canopy Canopy separation pruning required to isolate canopy from surrounding trees.	Remove Tree requires removal to comply with defendable space canopy separation requirements, or is listed as an environmental weed.
 - Low	Trees 2 and 18	Trees 7 and 9	Trees 15 and 16
 - Medium	-	Trees 8, 12 and 14	Tree 11 and Tree group 13
 - High	-	Tree 1	-

No other trees are expected to be impacted by the proposed development.

5 Recommendations

Remove – Trees 11, 15 and 16, and Tree Group 13, to comply with defendable space requirements. Can be removed under clause 53.02.

Canopy pruning – Prune the canopies of Trees 1, 3-5, 7-12 and 14 to comply with defendable space requirements (e.g. 5m canopy separation). Pruning should be conducted in accordance with Australian Standards, *AS 4373 2007 - Pruning of Amenity Trees*, by a suitably qualified contractor (AQF level 3+).

Gravel driveway surfacing – Should be installed at or above grade with no disturbance of soil levels beneath (see appendix 7.7).

Tree protection fencing – Erect fencing to protect Trees 1, 6-12, 14 and 17 from development related impacts (see site plan). Fencing should consist of chain wire mesh panels held in place with concrete feet, or similar, in accordance with AS 4970-2009 *Protection of trees on development sites*.

Ground protection – Install ground protection over the accessible root zones of Trees 1, 2, 4, 6 and 7 to minimise soil compaction (see site plan). Protection should consist of a geotextile type membrane under a layer of mulch or a suitable permeable aggregate that are topped with timber rumble boards or track mats (See appendix 7.6).

Underground services/utilities – Ensure underground installations are routed outside of TPZs. If they must pass through a TPZ, utilise low impact methods for the installation, such as;

- horizontal boring at a depth greater than 700mm
- hydro excavation under arborist supervision, ensuring significant roots (to be determined by the arborist) are retained and protected from damage.

General - Design of any landscaping should be cognisant of root protection. Do not excavate within the nominated tree protection zones of retained trees including those trees on neighbouring properties unless permitted by the responsible authority.

6 References

Department of Transport and Planning. VicPlan, Accessed - September 25, Available at: <https://mapshare.vic.gov.au/vicplan/>

Mattheck, C. and Breloer, H. (1994), *The Body Language of Trees: A Handbook for Failure Analysis*, London: HMSO.

Costermans, L. (1981), *Native Trees and Shrubs of South-Eastern Australia*, New Holland publishers (Australia) Pty Ltd, Sydney

Brooker, M.I.H. & Kleining, D.A., (2006), *Field Guide to Eucalypts*, 3rd ed., Vol. 1 – South-eastern Australia, Melbourne, Australia: Bloomings Books.

Brooker, M.I.H. & Kleining, D.A., (2006), *Field Guide to Eucalypts*, 3rd ed., Vol. 2 – South-western and Southern Australia, Melbourne, Australia: Bloomings Books.

ProofSafe Tree Protection Zone encroachment calculator, available online at: https://proofsafe.com.au/tpz_incursion_calculator.html

Standards Australia (2009), AS 4970-2009 *Protection of trees on development sites*

Standards Australia (2007), AS 4373-2007 *Pruning of amenity trees*

7 Appendix

7.1 Assumptions & Limitations

1. **Treetec** does not assume responsibility for legal matters, and assumes that legal descriptions, titles and ownerships are correct and good.
2. **Treetec** assumes that any property or project is not in violation of any applicable codes, ordinances, statutes or other government regulations.
3. **Treetec** takes all reasonable care to ensure all referenced material is accurate and quoted in correct context but does not take responsibility for information quoted or supplied.
4. **Treetec** shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including the payment of an additional fee for such services.
5. Loss or alteration of any part of this report invalidates the entire report.

6. Possession of this report, or a copy thereof, does not imply right of publication or use for any purpose by anyone but the person to whom it is addressed, without the prior written consent of **Treetec**.
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9. This report and any values expressed herein represent the opinion of **Treetec** and **Treetec's** fee is in no way contingent upon the reporting of a specified value, the occurrence of a subsequent event, nor upon any finding to be reported.
10. Site plans, diagrams, graphs and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
11. Information in this report covers only those items that were examined in accordance with the Terms of Reference, and reflects the condition of those items that were examined at the time of the inspection.
12. Inspections are limited to visual examination of accessible components unless otherwise stated in the "Method of Inspection".
13. There is no warranty or guarantee, expressed or implied, that the problems or deficiencies of the plants or property in question may not arise in the future.
14. Due to the dynamic nature of trees and development there can be no guarantee that the Useful Life Expectancy (ULE) of the subject tree/s won't be adversely impacted.

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7.2 Glossary

AGE CATEGORY	The age of the tree is represented as Juvenile, Semi-mature, Mature or Senescent.
	<p>Juvenile: A young tree, given normal environmental conditions for that tree it will not yet flower or fruit.</p> <p>Semi-mature: Able to reproduce but not yet nearly the size of a mature specimen in that location.</p> <p>Mature: Has reached or nearly reached full size and spread for that species in the given location.</p> <p>Senescent: Health and / or structure is being adversely impacted by the old age of the tree.</p>
ARBORICULTURAL VALUES	Values assigned to a tree or group of trees to provide an overview of their significance with consideration to a range of factors (see below)
AMENITY VALUE	<p>Provides a summary of the general condition and also the overall significance contributed to the landscape (Visual appeal). Factors include; physical condition (health, structure, form), age, size, and species.</p> <p>Trees may possess one or more of the attributes listed.</p> <p>High: Large size, good health and structure, significant in relation to the local landscape, prominent location.</p> <p>Medium: Moderate size, fair health and/or structure, somewhat significant in relation to the local landscape, prominent location.</p> <p>Low: Small common species, poor health and structure, insignificant in relation to the local landscape, environmental weed.</p>
CANOPY SPREAD	Overall size of the canopy as looking from a plan view. Recorded at the widest point.
CODOMINANT STEMS	Two stems of approximately the same thickness and height originating from the same position in the tree.
COMMON NAME	A non-scientific name commonly used for that tree.
CROWN WIDTH	See 'Canopy spread'
DEAD (AS DEAD)	Cessation of all metabolic processes (or very soon to be)
DEADWOOD	<p>Deceased above ground tree parts such as stems or branches.</p> <p><i>Minor</i> deadwood – less than 40mm diameter</p> <p><i>Major</i> deadwood – greater than 40mm diameter</p>
DEVELOPMENT	The use of land including; the subdivision of land, erection or demolition of a building or works, the carrying out of a work, road works, the installation of utilities and services, and any other act, matter or thing as defined by the relevant legislation.
DIAMETER AT BREAST HEIGHT (DBH)	<p>The diameter of the trunk measured at or near 1.4m above ground level.</p> <p>Where there is more than 1 stem originating below 1.4m the measurement recorded is calculated as described in AS 4970-2009.</p>
DIAMETER ABOVE ROOT BUTTRESS (DARB)	<p>The diameter of the trunk measured above the root buttress.</p> <p>This measurement is used to calculate the structural root zone (see SRZ).</p>
EPICORMIC GROWTH	New shoots forming from dormant buds within the bark on the trunk and/or branches.
FORM	Reference to the symmetry of the crown as observed from all angles and in accordance with the morphology of that species, and documented as Poor, Fair or Good.
HEALTH	A trees vigour as exhibited by the crown density, leaf colour, seasonal extension growth, presence of stress indicators, ability to withstand diseases and pests, and the

	degree of dieback. Where a deciduous tree is inspected without foliage and health is undetermined a '?' will be noted.
	Dead: Cessation or near cessation of all metabolic processes.
	Poor: Indicating symptoms of extreme stress such as minimal foliage, or extensively damaged leaves from pests and diseases. Death probable if condition of tree deteriorates.
	Fair: Some minor deadwood or terminal dieback indicating a stressed condition. Minor leaf damage from pests.
	Good: Usual for that species given normal environmental conditions – full canopy with only minor deadwood, normal leaf size and extension growth, minimal pest or disease damage
HEIGHT	The distance in metres from the ground to the highest point in the crown, calculated in the vertical plane. This measurement unless otherwise specified is an estimation only.
IMPACT ASSESSMENT	An assessment of adverse impact the proposed works are likely to have on a tree or tree group. May be short or long term; usually judged on the likely reduction in ULE directly attributable to the works. Impact usually relates to the level of TPZ encroachment, but also factors the type of impact. One or more factors may apply.
	Low: Proposed works are outside of the TPZ and impacts are likely to be nil. Or, minor damage may occur such as; smaller roots may be damaged or a small area of canopy pruned. Unlikely to significantly impact tree health, form, or ULE.
	Moderate: Direct (physical wounding), or indirect (environmental impacts) are possible, root damage may occur, canopy pruning likely, and an occurrence will reduce the ULE.
	High: Tree/s likely to be lost in the medium or short term, or adversely impacted so that tree health, and therefore, ULE are significantly reduced, or the tree will become unstable and/or present an unacceptable level of risk.
	Proposed to be removed: Trees that are within the footprint of works and proposed to be removed by the client, or are not viable to retain due to the factors listed in the conclusions of this report. Trees proposed for removal are not always required to be removed.
INCLUDED BARK UNION	A union within a tree that has included bark (bark pressing on bark), these unions are usually poorly attached and more likely to fail as the included bark is equivalent to a split. Often characterized by an acute angle and sometimes forming ribs or flaring immediately below the union where the tree reacts to the weakness by placing secondary growth. Though these unions are weaker than a 'good' union, the risk of failure cannot be calculated and a poor union does not automatically justify the removal of the tree.
LOPPING / TOPPING (includes coppicing)	The removal of parts of a tree giving no consideration to the trees natural defence systems.
PRUNING	Systematic removal of branches of a plant whilst giving consideration to the trees natural defence systems.
RESPONSIBLE AUTHORITY	Those bodies, such as councils, responsible for the area to which the report relates to
STRUCTURAL ROOT ZONE (SRZ)	The area around the base of a tree required for the tree's stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres.

	This zone considers a tree's structural stability only, this is different from the root zone required for a tree's vigour and long-term viability, which will usually be a much larger area.
STRUCTURE	Reference to the structural integrity of the tree with consideration of the crown, trunk and roots. Determined using the Visual Tree Assessment (VTA) method (Mattheck and Breloer 1994). The failure of small (<60mm calliper) live or dead limbs is normal and not considered here.
	Very poor: Clear indications that a significant failure is likely in the near future
	Poor: Obvious signs of structural weakness and a failure is likely, one might expect a significant failure event within the next 5 years, possibly tomorrow
	Fair: Signs of weakness present though not obviously significant, likely to become worse over time
	Good: No obvious signs of structural weakness
TREE	Long-lived, woody perennial plant with one or relatively few main, self-supporting, stems or trunks. Greater than (or usually greater than) 3m in height (or as defined by the responsible authority).
TREE NUMBER	Identifying number allocated to individual trees or groups of trees, may be used to locate trees using site plans or tags on trees.
TREE PROTECTION ZONE (TPZ)	An exclusion area radius measured from the centre of the trunk at ground level that allows for protection of canopy and roots; both the structural roots that give the tree stability and the smaller absorption roots. The radius of the TPZ is normally calculated for each tree by multiplying the DBH × 12. The minimum distance will be 2m and maximum 15 as stipulated in AS 4970-2009 – Protection of Trees on Development Sites.
TREETEC REFERENCE	Unique identifier assigned to an individual report by Treetec
TYPE	Status of the species as it relates to the location.
	Indigenous: Naturally occurring to the local area
	Victorian Native: Naturally occurring within Victoria
	Australian Native: Naturally occurring within Australia
	Exotic: Introduced species to Australia
UNION	The point where a branch or stem is attached to another branch or stem.
USEFUL LIFE EXPECTANCY (ULE)	Useful Life Expectancy is an estimation of how many years a tree can reasonably be retained in the landscape provided growing conditions do not significantly worsen and any recommended works are completed. It takes into consideration factors such as risk, species, age, health and site conditions. Usually represented as either 0, <5, 5 - 15, 15 - 40, or >40.
WORKS	Any physical activity in relation to development. See 'development'.
WOUNDWOOD	Tissue that forms following wounding (sometimes referred to as callus tissue). Wounds include pruning cuts and the site of branch failures, etc.

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7.3 General comments

Pruning standards/Lopping

An Australian Standard exists to give guidance on pruning of trees (*AS 4373 2007 - Pruning of Amenity Trees*).

It is important that all remedial works are carried out by a competent contractor in accordance with the Australian Standard.

Lopping, as defined within the standard, is detrimental to trees and often results in decay and poorly attached epicormic shoots. Natural Target Pruning methods should be used wherever possible when removing sections from trees.

7.4 Impact on trees

Physical/Mechanical damage to trees

Physical damage to tree parts, particularly the trunk, provides entry points for pests and diseases such as fungal infections. This may cause long-term decay and can lead to partial or complete tree failure and death.

Alteration of soil levels

Alteration of soil levels around trees will affect the root zone and stability of a tree as well as tree metabolism. This may result in reduced tree health, excessive deadwood, thinning foliage and poor vigour. It can take years for impacts to become evident, at which time it is usually irreversible.

Works within a TPZ

Works such as site cut and fill, re-grading, installation of underground services, building footings or landscaping have the potential to damage tree roots.

It may be possible to work within a TPZ without significantly impacting a tree, however the size and number of roots in the area, and the specifics of the tree and its resilience to impacts, would all need to be reviewed prior to commencement. Design and construction methods may need alteration to minimise adverse impacts.

Site cut and fill has the potential to physically impact roots and thus should be located to ensure minimal disturbance within the TPZ of retained trees. If a shallow cut is proposed within a TPZ, consider increasing fill to eliminate the cut. If the grade is to be raised, the material should be coarser or more porous than the underlying material. If site cuts must occur, avoid batter cuts and instead design a vertical retaining wall to minimise disturbance.

Installation of underground services should also be routed outside TPZs; if there is no other option, they should be installed using non-destructive methods such as air or hydro excavation, or installed by boring under the TPZ at a depth of at least 700 mm (where practicable). The project arborist should assess the likely impacts of boring (including bore pit locations) on retained trees.

Driveways and pathways should not encroach into a TPZ; if encroachment is unavoidable, any hard surfaces should:

- 1) not involve any scraping or excavation – most small absorbing roots are within the upper 100mm of soil.
- 2) be constructed of a permeable material and laid on a base and sub-base specifically designed to allow the movement of water through and into the soil below.

If buildings are permitted within a TPZ, foundations should be suspended on piers leaving the ground undisturbed other than the careful placement of pier holes. The bottom of supporting beams should be above existing ground level or, if this is not possible, beams should run radially

away from the tree trunk. There should be no excavation of any description, including piers, within a Structural Root Zone (SRZ).

All works within TPZs must be approved by the responsible authority prior to commencement.

Description of TPZ encroachment

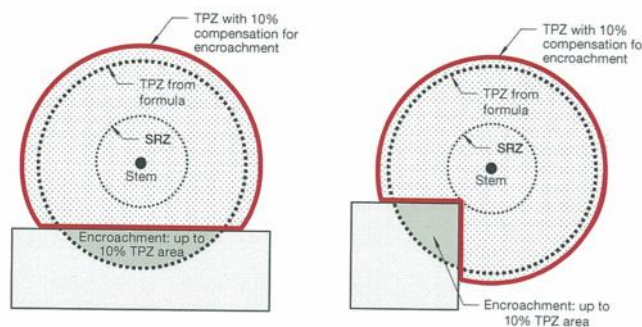
In accordance with *Australian Standard 4970-2009 (Protection of trees on development sites)* encroachment and TPZ variations is determined as per below.

General

It may be possible to encroach into or make variations to the standard TPZ. Encroachment includes excavation, compacted fill and machine trenching.

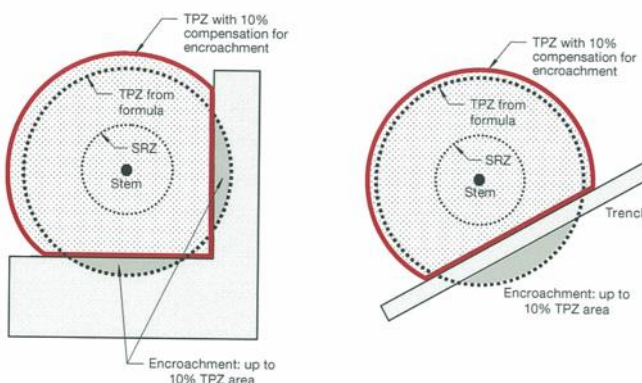
Minor encroachment

If the proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ detailed root investigations should not be required. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. Variations must be made by the project arborist considering relevant factors listed in (see standard)...



Major encroachment

If the proposed encroachment is greater than 10% of the TPZ or inside the SRZ, the project arborist must demonstrate that the tree(s) would remain viable. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. This may require root investigation by non-destructive methods and consideration of relevant factors listed in (see standard)...



NOTE: Less than 10% TPZ area and outside SRZ. Any loss of TPZ compensated for elsewhere.

Any additional encroachment that becomes necessary as the site works progress should be reviewed by the project arborist and be approved by the Responsible Authority before being carried out.

Where the project arborist identifies roots to be pruned within or at the outer edge of the TPZ, they should be pruned with a final cut to undamaged wood. Pruning cuts should be made with sharp tools such as secateurs, pruners, handsaws or chainsaws. Pruning wounds should not be treated with dressings or paints.

It is not acceptable for roots within the TPZ to be severed with machinery such as backhoes or excavators.

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7.5 Protection of retained trees

Establishment of Tree Protection Zones

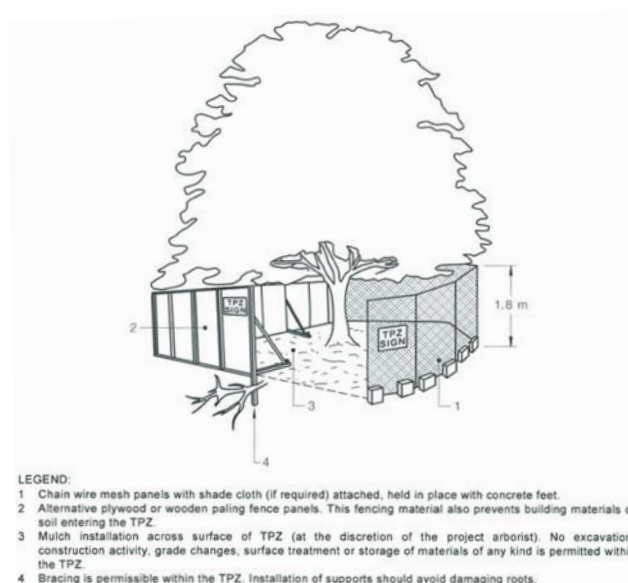
The tree protection zone (TPZ) is the principal means of protecting trees on development sites. Usually fencing will delineate the Tree Protection Zones (TPZ) as defined by *AS 4970-2009 Protection of trees on development sites*.

Fencing is installed following permitted vegetation removal and pruning, but prior to site establishment. Unless stated otherwise and approved by the responsible authority, fencing should be retained until completion of all construction related activity.

Tree protection zone fencing

The fence must provide high visibility and act as a physical barrier to construction activity. The fence should be adequately signed "Tree Protection Zone – No Access", be sturdy and prevent the entry of heavy equipment, vehicles, workers and the public.

Where feasible, tree protection fencing will consist of chain wire mesh panels held in place with concrete feet. Where chain mesh fencing is impractical to implement, alternate protection measures must be arranged.



Restricted activities within TPZ

A TPZ area may surround a single tree or group, or a patch of vegetation. Activities that must NOT be carried out within a TPZ unless permitted by the Responsible Authority include, but are not limited to, the following:

Source – AS 4970-2009 Protection of trees on development sites
(Tree Protection)

- (a) machine excavation including trenching;
- (b) excavation for silt fencing;
- (c) cultivation;
- (d) storage;
- (e) preparation of chemicals, including preparation of cement products;
- (f) parking of vehicles and plant;
- (g) refuelling;
- (h) dumping of waste;
- (i) wash down and cleaning of equipment;
- (j) placement of fill;
- (k) lighting of fires;
- (l) soil level changes;
- (m) vehicle movement – access ways;
- (n) changes of grade;
- (o) temporary or permanent installation of utilities and signs, and
- (p) damage to the tree.

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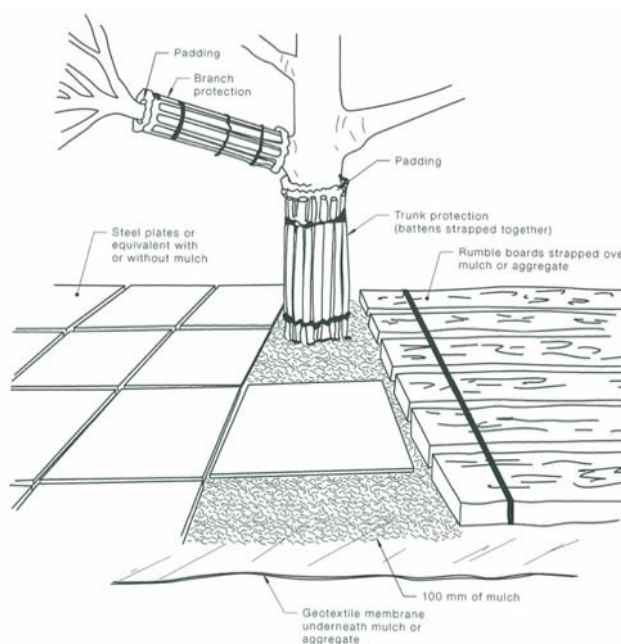
7.6 Alternative protection measures

If temporary access to the TPZ is required, protection for the trunk, branches or ground may be required. The materials and positioning of protection will be specified by the project arborist.

For temporary foot traffic through the TPZ, this may be facilitated using sheets of heavy plywood or similar material; this should not be considered a long term solution.

For machinery access within the TPZ, ground protection should be utilised to prevent root damage and soil compaction. Measures may include a permeable membrane such as geotextile fabric beneath a layer of mulch, or crushed rock below rumble boards or HPDE track mats. These measures may also be applied to root zones beyond the TPZ.

Where roots within the TPZ are exposed during approved works, temporary root protection should be installed to prevent them drying out. This may include jute mesh or hessian sheeting as multiple layers over any exposed roots and the excavated soil profile, extending to the full depth of the root zone. Root protection sheeting should be pegged in place and kept moist at all times.



NOTES:

- 1 For trunk and branch protection use boards and padding that will prevent damage to bark. Boards are to be strapped to trees, not nailed or screwed.
- 2 Rumble boards should be of a suitable thickness to prevent soil compaction and root damage.

**Source – AS 4970-2009 Protection of trees on development sites
(Ground Protection)**

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7.7 Photos (pruning targets marked in yellow)

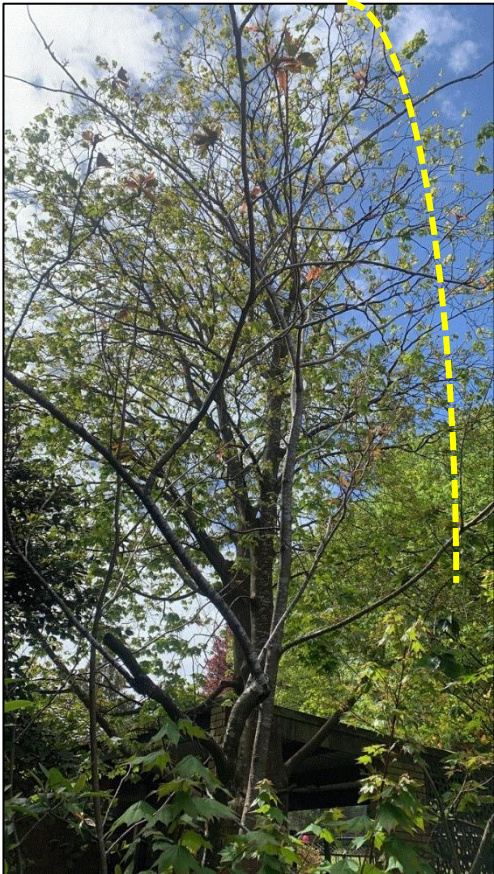


Tree 1

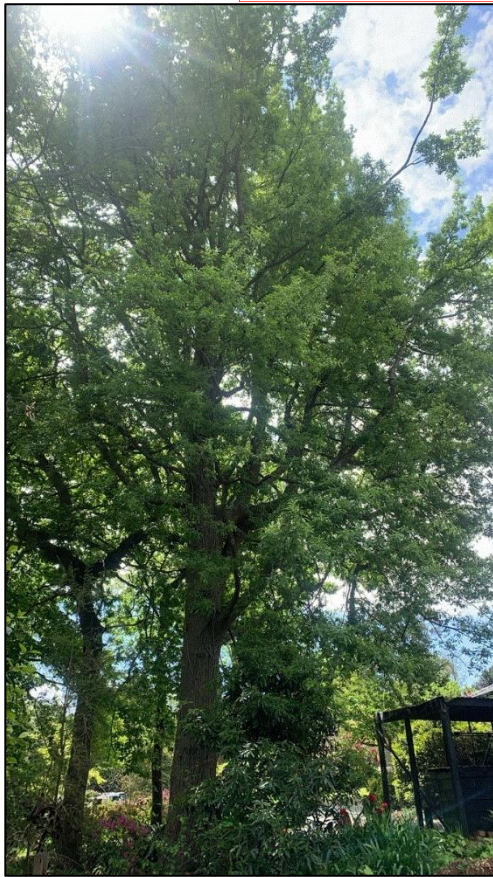


Tree 2

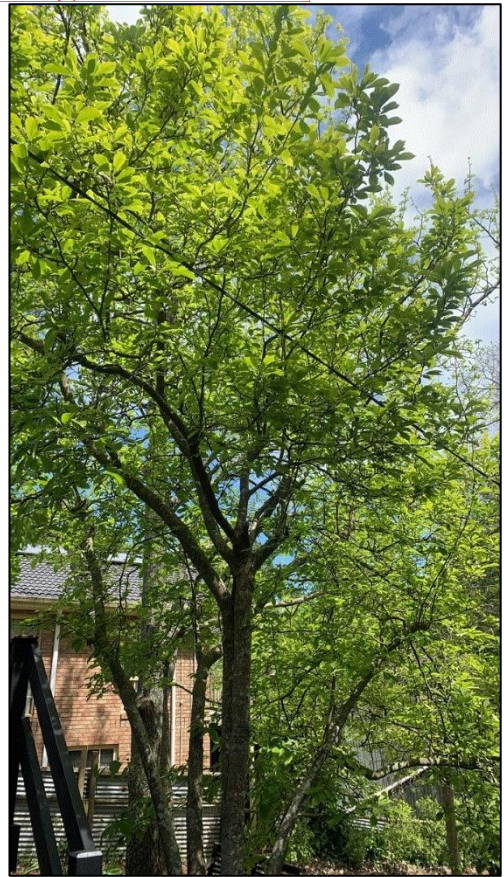
Trees 3 & 4



Tree 5



Tree 6

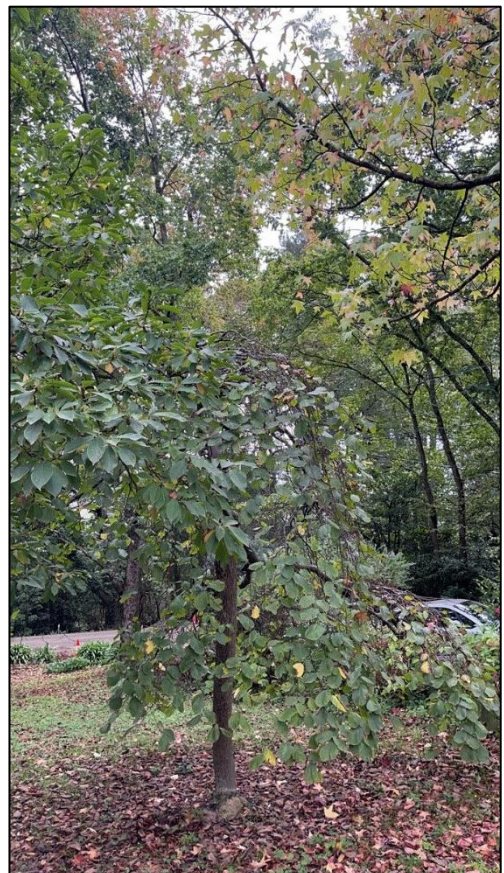


Tree 7

Tree 8



Tree 9





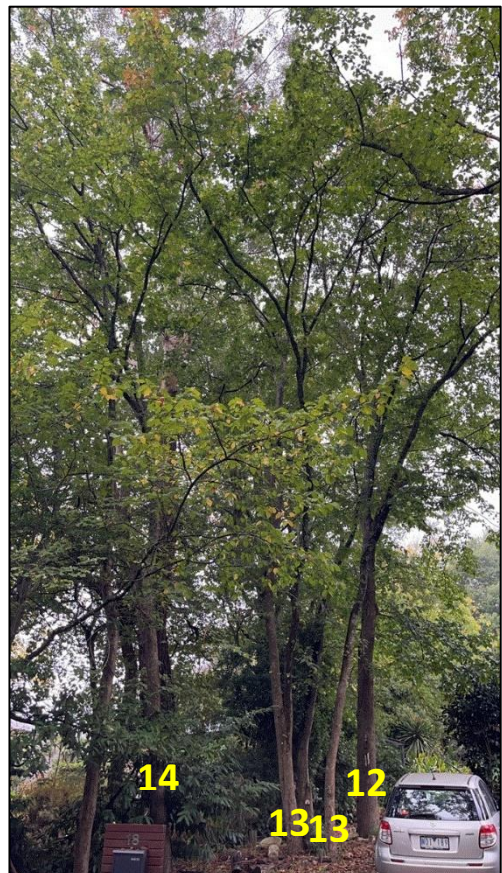
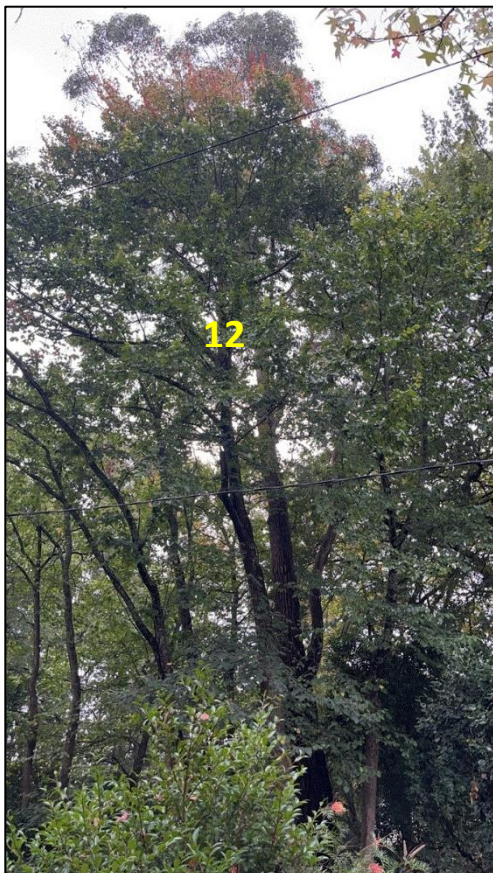
Tree 10



Tree 11

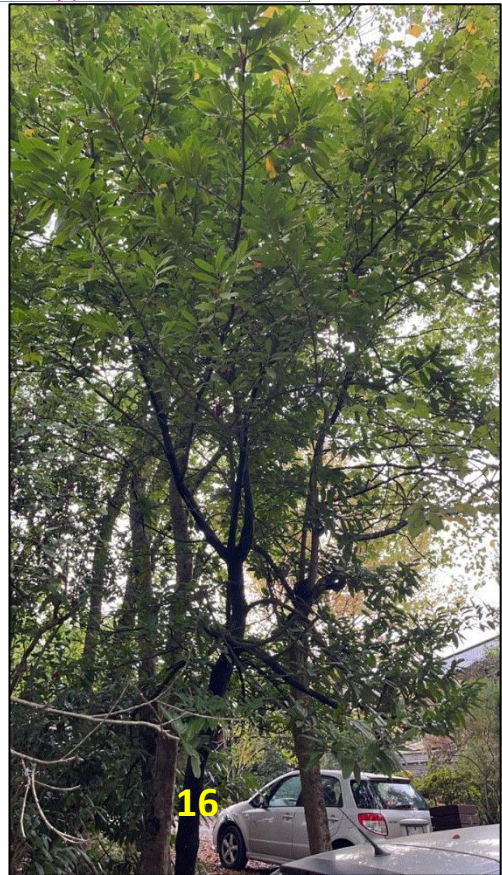
Tree 12

Tree group 13 and Tree 14





Tree 15



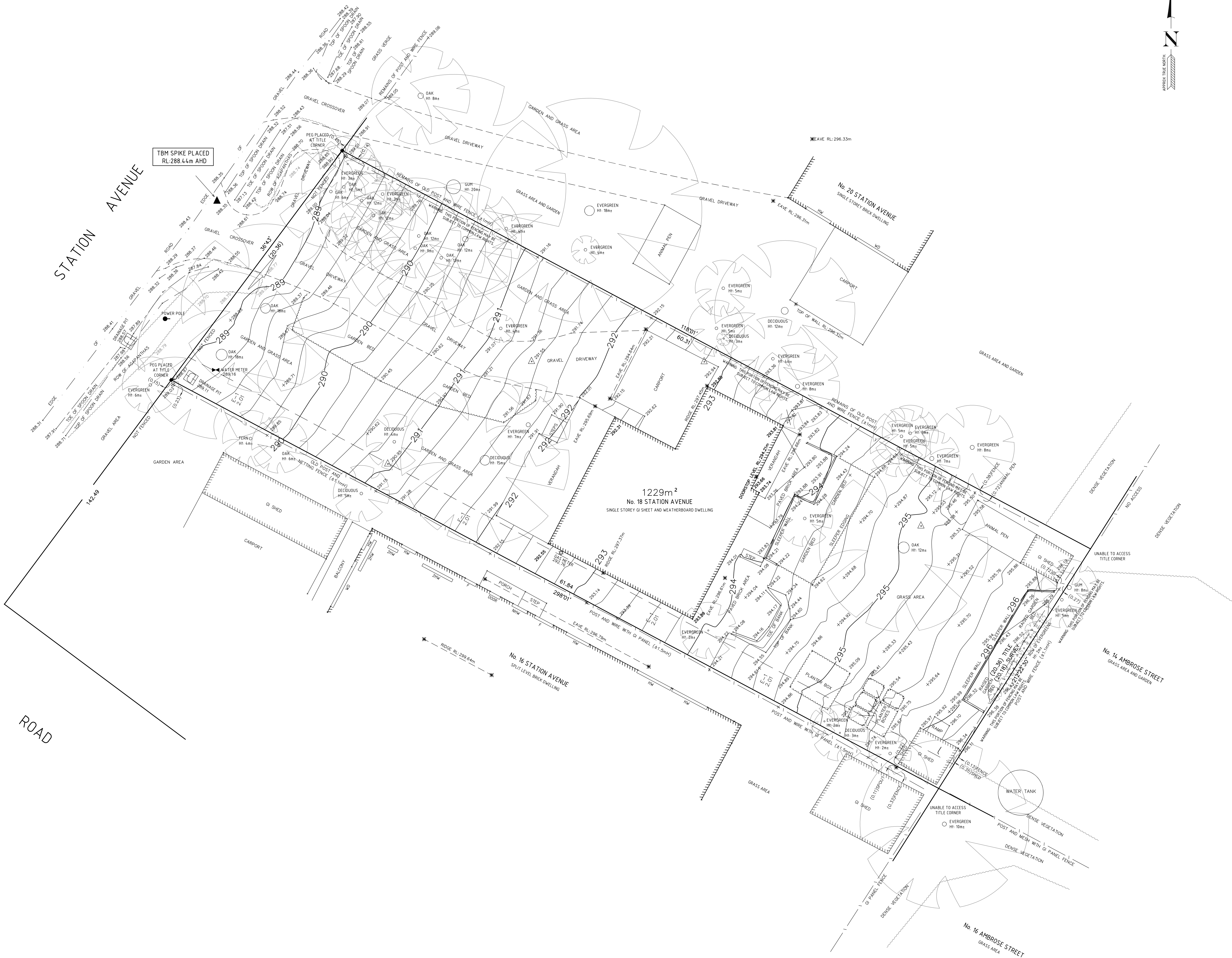
Tree 16

Tree 17



Tree 18





WARNING

Where fencing encroaches onto the subject land, no building should extend past that fencing without written agreement from any neighbor who may have possessory rights over the land under survey.

IMPORTANT NOTICE

This plan must be used only for the purpose for which it was intended. Any uncertainty in this plan must be clarified with the author.

WARNING

Features and windows which were obstructed on the date of survey have not been located or shown on this plan. M. J. Reddie Surveys Pty Ltd takes no responsibility for any damages caused as a result of this.

WARNING

This plan is prepared for the purpose of designing new constructions on the land and should not be used for any other purpose. Services shown herein have been located by field survey. Prior to any demolition, excavation or construction on site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services.

WARNING

The position of the occupation, when in close proximity to the title, has been altered for clarity of presentation. MORE PARTICULARLY, owners or purchasers should be aware that no building or building to the boundary, the author of the plan or consulting surveyor of choice should be first contacted in case boundary location on this or adjoining lots carries higher than normal risk. M. J. Reddie Surveys Pty Ltd therefore can accept no responsibility for failure to use this plan within the limitations intended.

NOTATIONS

AHD Heights have been computed from GNSS data using AUSGeoid2020. Data was provided by VRShow CORS services on 10/12/2024. Heights have not been calibrated on to permanent marks.

Level datum: AHD
Levels shown thus: X 286.44
Contour interval: 0.2m
POSTAL ADDRESS: 18 STATION AVENUE EMERALD 3782

LAND SUBJECT TO EASEMENT:

E-1. Drainage, 2.0m wide.

Date of survey: 10/12/2024.

HW: Habitable Window
NHW: Non-Habitable Window
W/D: Habitable window and door
2HW: Second floor habitable window
F: Frosted window
Window status an estimate of M. J. Reddie Surveys, prior to detailed design internal inspections should be undertaken to confirm window status.

CERTIFICATION BY SURVEYOR

I, Michael Reddie of 1 Horner Street, Beaconsfield certify that this plan has been prepared from a survey made under my direction and supervision in accordance with the Surveying Act 2004 and completed on 10/12/2024, that this plan is accurate and correctly represents the adopted boundaries and the survey accurately accords with that required from level land as defined in regulation 7(2) of the surveying (Cadastral Surveys) Regulations 2005.

Date: 10/12/2024

Licensed Surveyor
Surveying Act 2004.

THE LAND IN THE SURVEY IS SHOWN ENCLOSED

BY CONTINUOUS THICK LINES
TITLE REF: VOL 9399 FOL 350
LAST PLAN REF: LOT 1 ON TP157958N

PLAN OF SURVEY

SCALE
0 1 2 4 6
1:100
LENGTHS ARE IN METRES

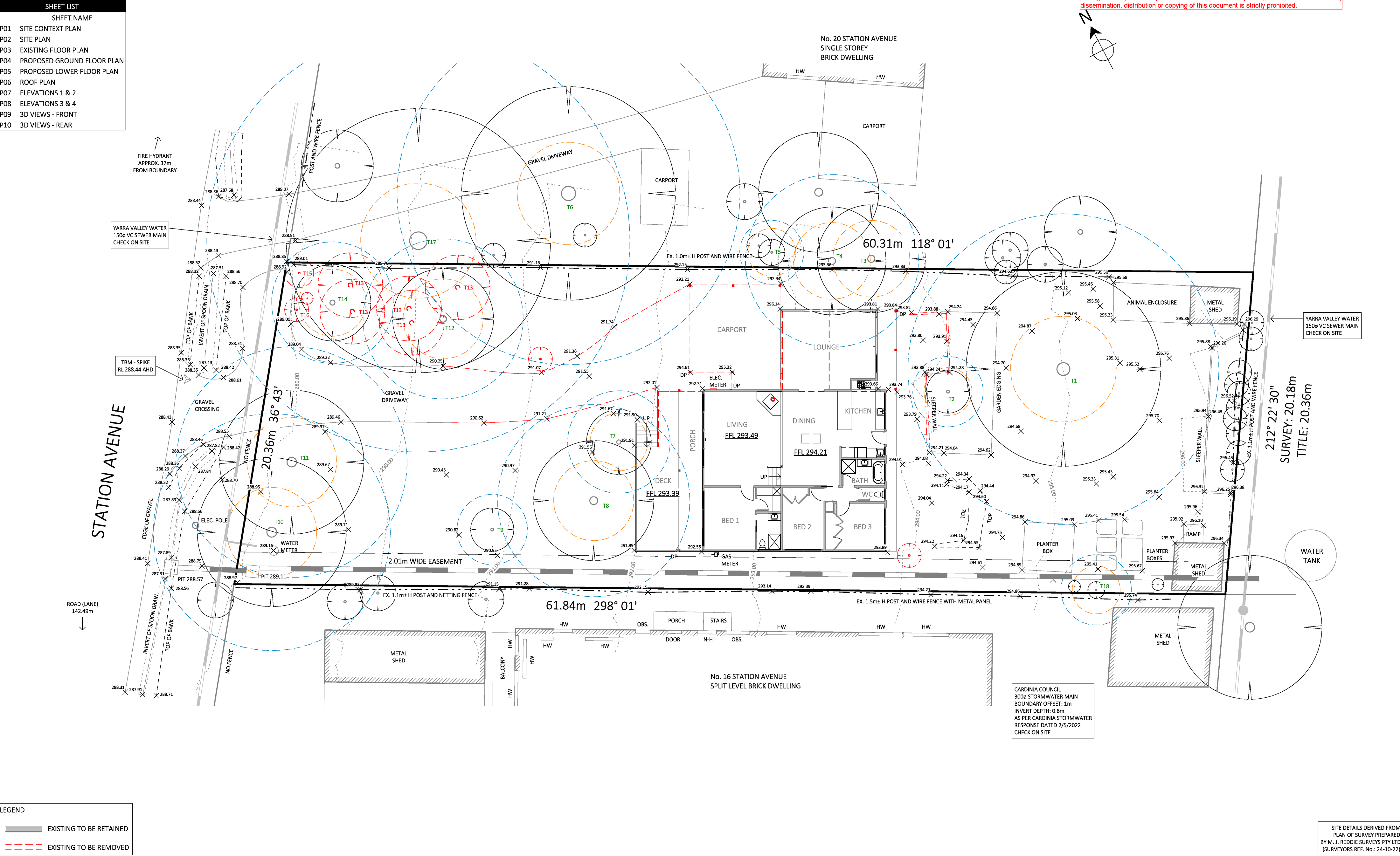
NUMBER OF SHEETS IN PLAN 1
NUMBER OF THIS SHEET 1
SURVEYORS REF 24-10-225
VERSION 1
FILE RN

LEGEND

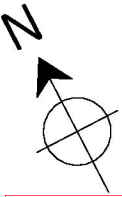
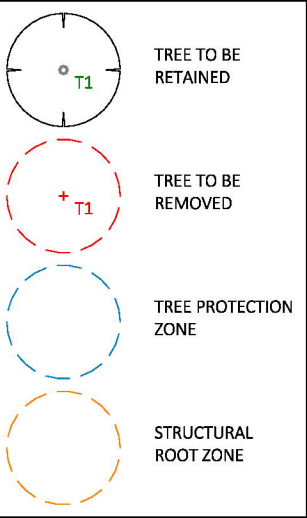
- ELECTRICITY PIT
- ELECTRICITY POLE
- AND LIGHT
- FIRE HYDRANT
- SEWER INSP. PT.
- GAS METER
- GAS VALVE
- LIGHT/LIGHT POLE
- SIGN
- SEWER PIT
- GRADED PIT
- PHOTO POINT
- T.B.M.
- INSTRUMENT POINT
- P.M.
- WATER METER
- TAP
- DATE
- TELLTALE PIT
- TREE

M. J. Reddie Surveys Pty Ltd
ABN 49 005 965 287
1 Horner Street, Beaconsfield, 3807
P.O. Box 268, Berwick, 3806
Phone (03) 9707 4117 Fax (03) 9707 4428

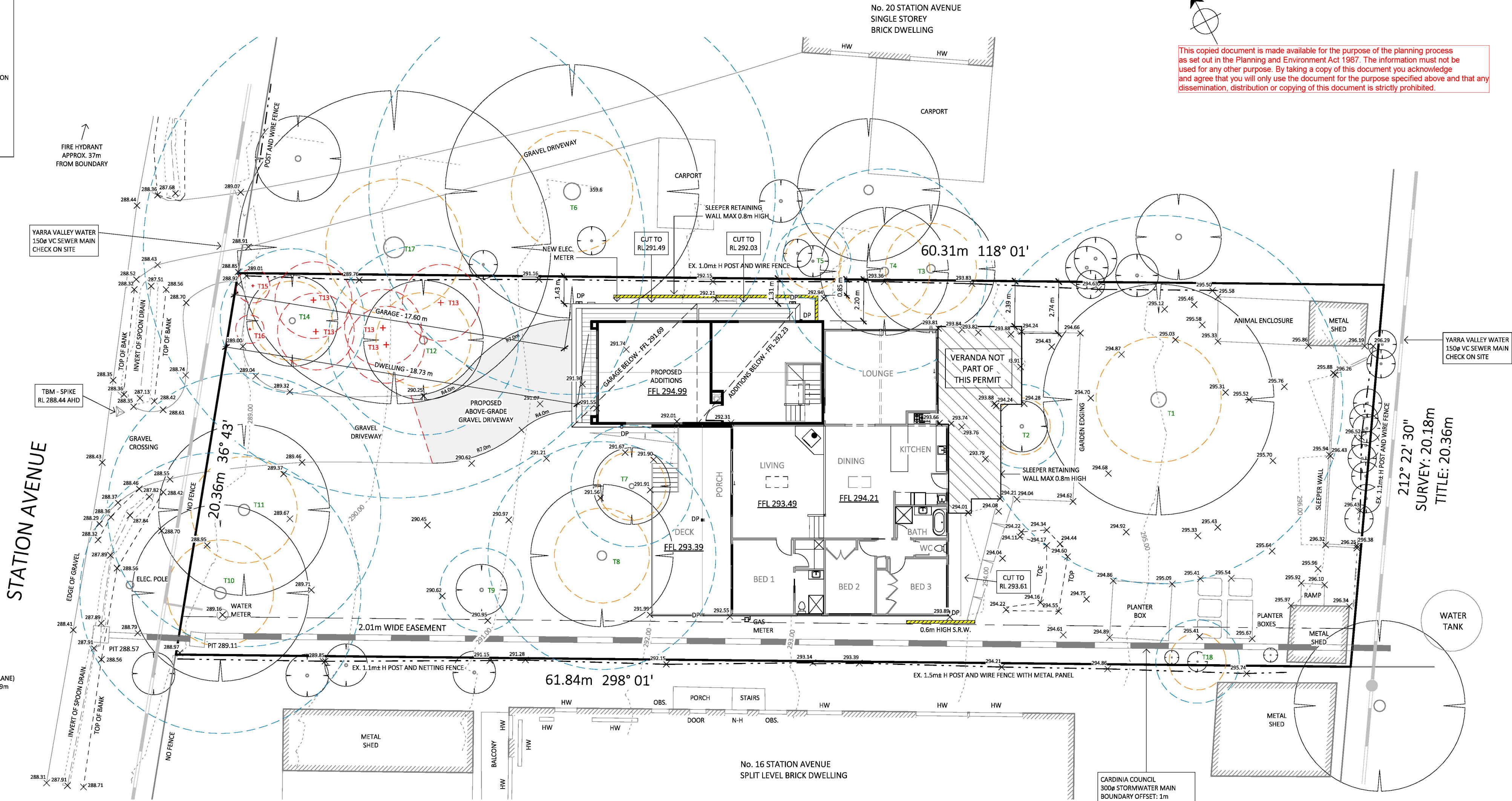
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SITE DETAILS DERIVED FROM
PLAN OF SURVEY PREPARED
BY M. J. REDDIE SURVEYS PTY LTD
(SURVEYORS REF. No.: 24-10-22)



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AREA SCHEDULE	
	AREA
EXISTING CARPORT	34.7 m ²
EXISTING DECK (BEYOND PORCH ROOF)	22.0 m ²
EXISTING DWELLING	145.6 m ²
EXISTING PORCH	15.1 m ²
EXISTING VERANDA	6.1 m ²
PROPOSED ADDITIONS - GROUND FLOOR	65.5 m ²
PROPOSED ADDITIONS - LOWER FLOOR	35.2 m ²
PROPOSED GARAGE	42.8 m ²
PROPOSED VERANDA	26.9 m ²
SITE AREA	1228.9 m ²
SITE COVERAGE (22.1%)	271.7 m ²

REV	DESCRIPTION	DATE
1	PRELIMINARY	16/10/2023
2	PRELIMINARY	04/03/2024
3	PRELIMINARY	18/03/2024
4	PRELIMINARY	13/02/2025
5	PLANNING ISSUE	22/05/2025

PROJECT: DWELLING ADDITIONS
18 STATION AVENUE, EMERALD



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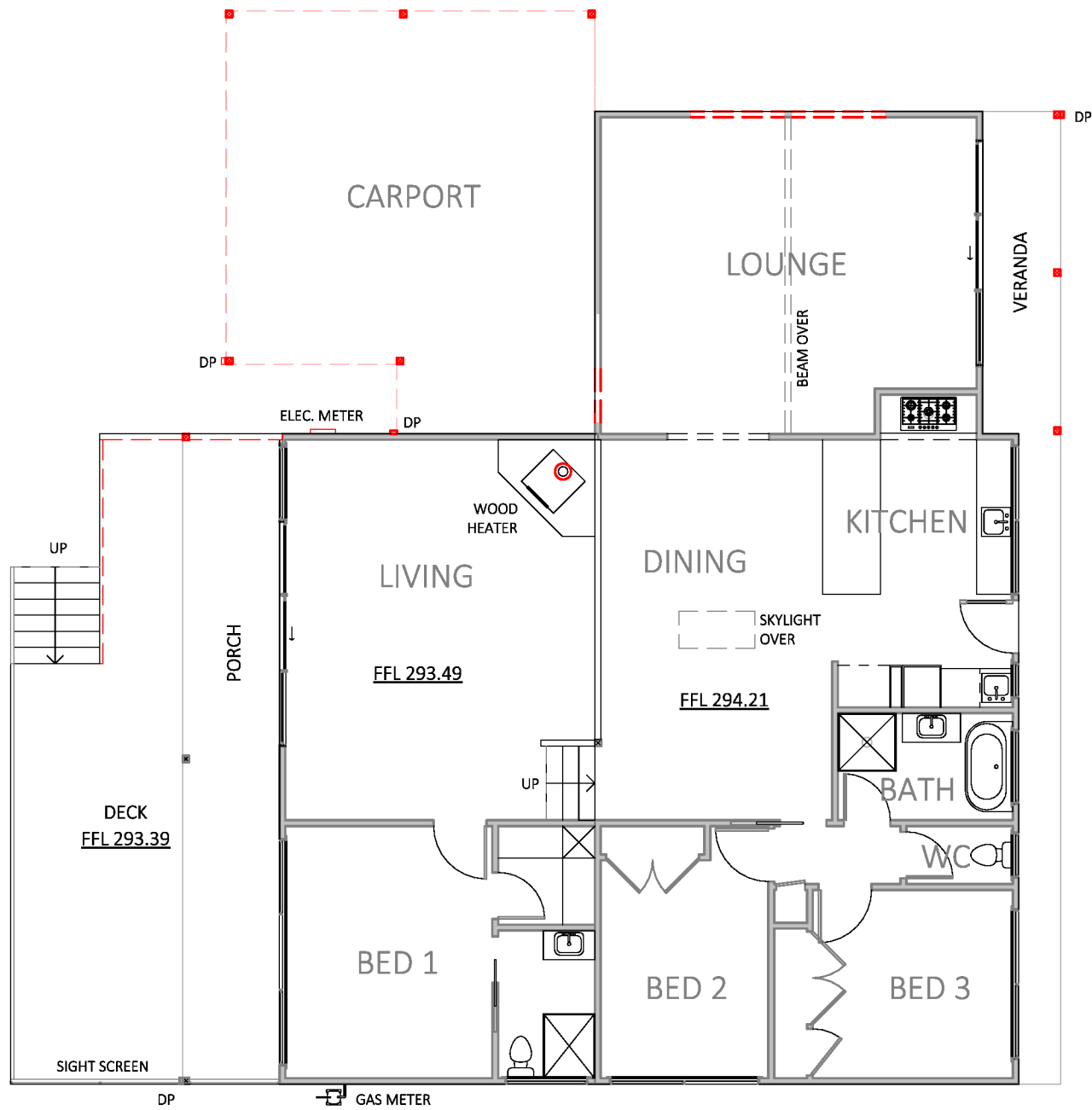
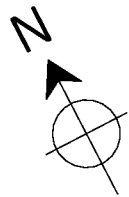
A.B.N. 80 203 904 837
PO BOX 439, MONBULK VIC 3793
0400 998 522
daniel@dsbuildingdesign.com.au

SHEET TITLE: SITE PLAN	
PROJECT No.: 22025	PROJECT DATE: 09/10/2023
DWN BY: DS	SCALE @ A2: 1 : 150

REVISION: 5
SHEET No.: P02

SITE DETAILS DERIVED FROM
PLAN OF SURVEY PREPARED
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LEGEND		
	EXISTING TO BE RETAINED	
	EXISTING TO BE REMOVED	

REV	DESCRIPTION	DATE
1	PRELIMINARY	16/10/2023
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3	PRELIMINARY	18/03/2024
4	PRELIMINARY	13/02/2025
5	PLANNING ISSUE	22/05/2025

PROJECT:	DWELLING ADDITIONS 18 STATION AVENUE, EMERALD
CLIENT:	[REDACTED]

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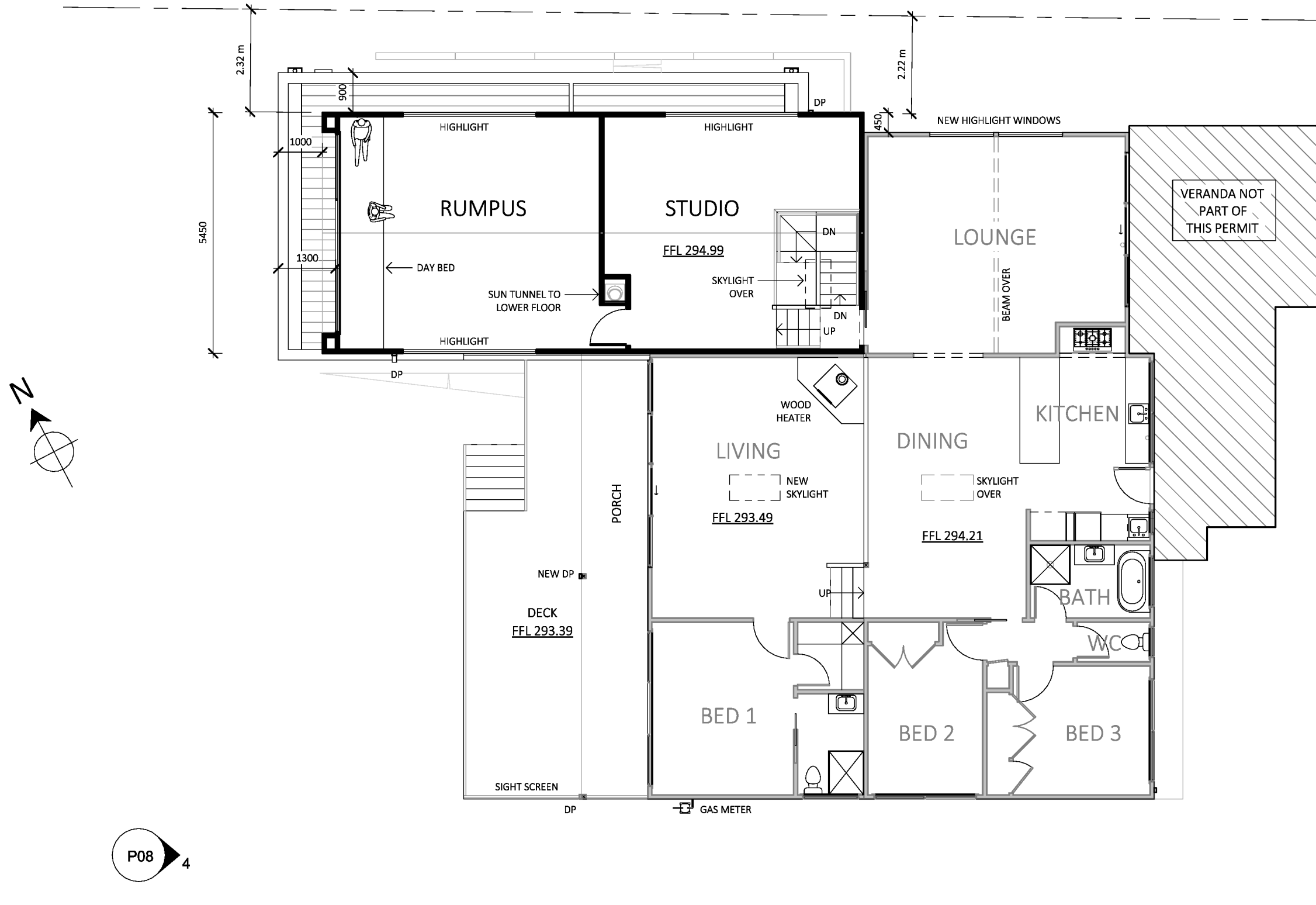
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SHEET TITLE:		REVISION: 5
EXISTING FLOOR PLAN		SHEET No.:
PROJECT No.:	22025	PROJECT DATE: 09/10/2023
DWN BY:	DS	SCALE @ A3: 1 : 100

P03

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4	PRELIMINARY	13/02/2025
5	PLANNING ISSUE	22/05/2025

PROJECT: DWELLING ADDITIONS
18 STATION AVENUE, EMERALD

CLIENT: [REDACTED]

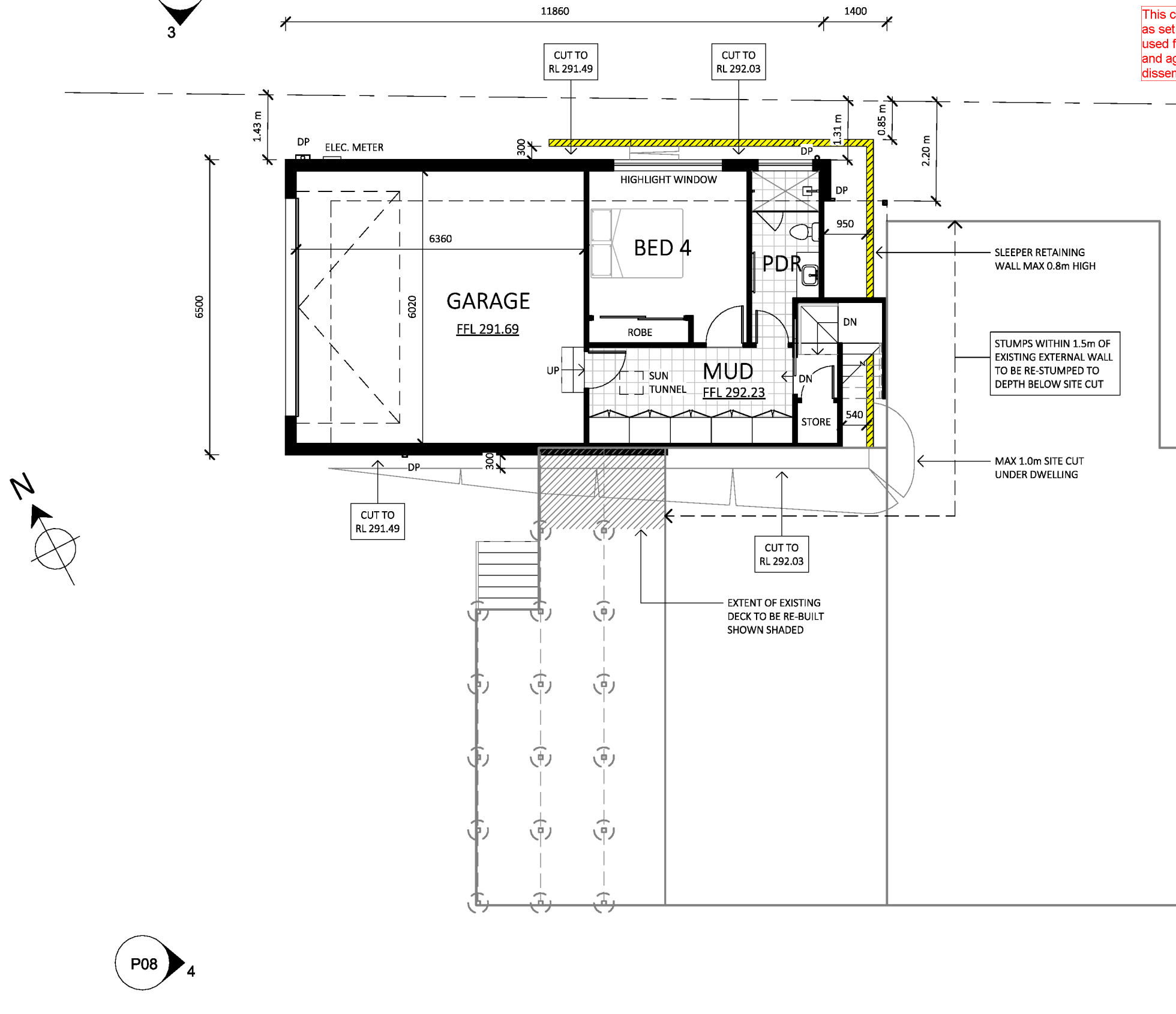
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SHEET TITLE:		REVISION: 5
PROPOSED GROUND FLOOR PLAN		SHEET No.: P04
PROJECT No.: 22025	PROJECT DATE: 09/10/2023	
DWN BY: DS	SCALE @ A3: 1 : 100	

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PROJECT: DWELLING ADDITIONS
18 STATION AVENUE, EMERALD

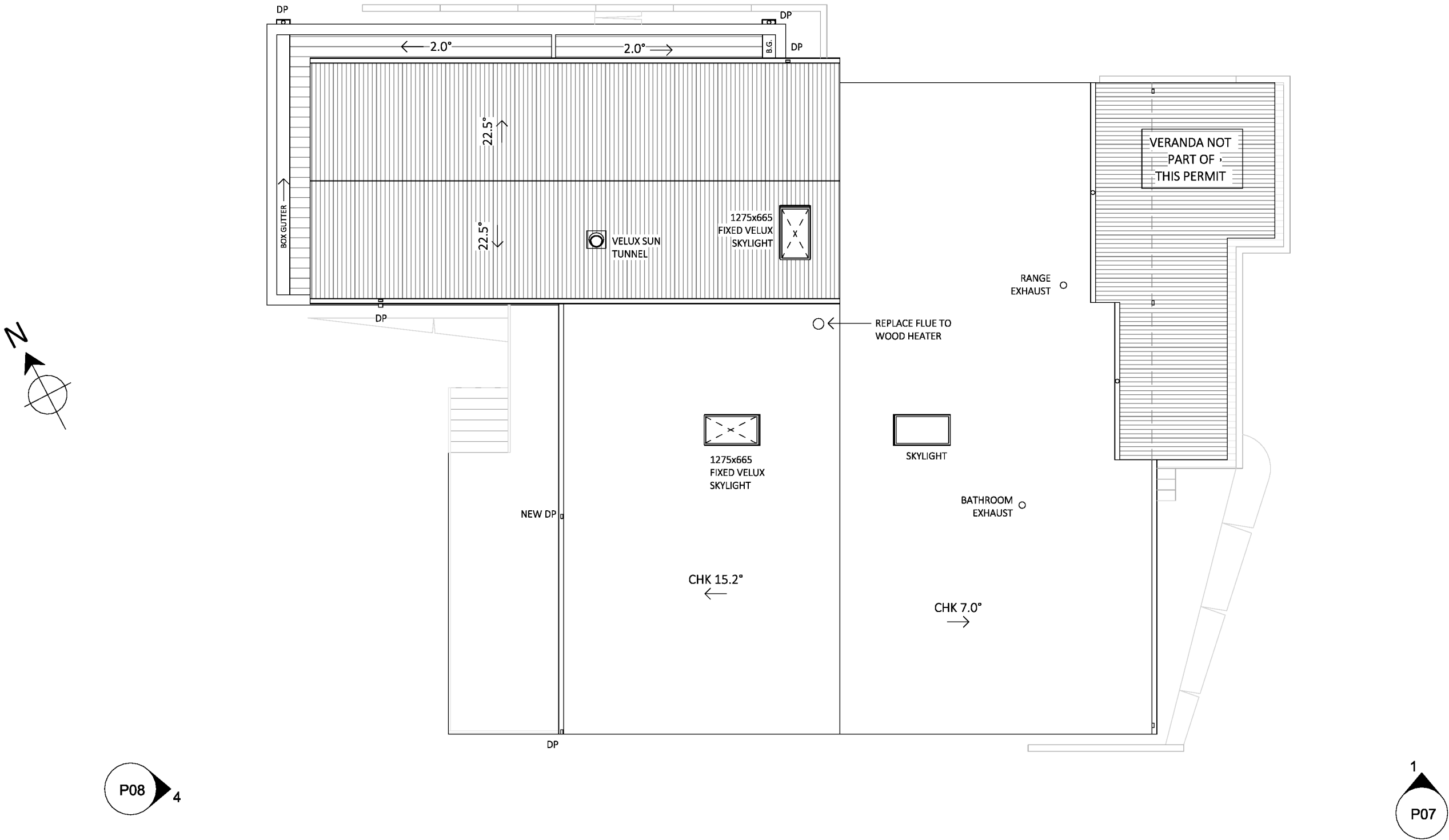
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SHEET TITLE:		REVISION: 5
PROPOSED LOWER FLOOR PLAN		SHEET No.: P05
PROJECT No.: 22025	PROJECT DATE: 09/10/2023	
DWN BY: DS	SCALE @ A3: 1 : 100	

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18 STATION AVENUE, EMERALD

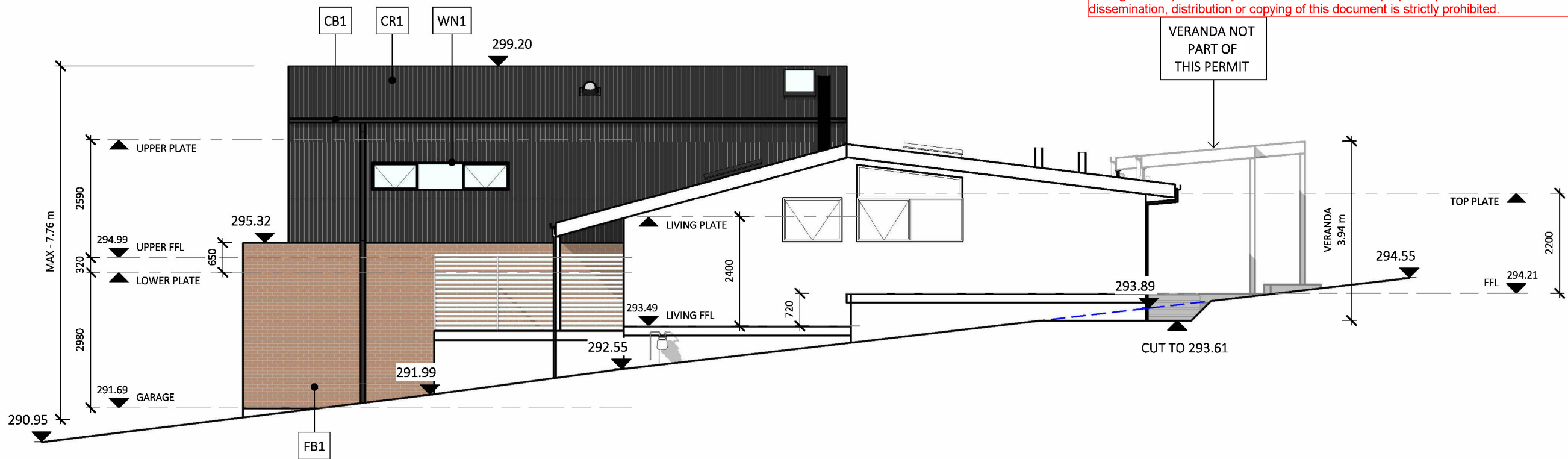
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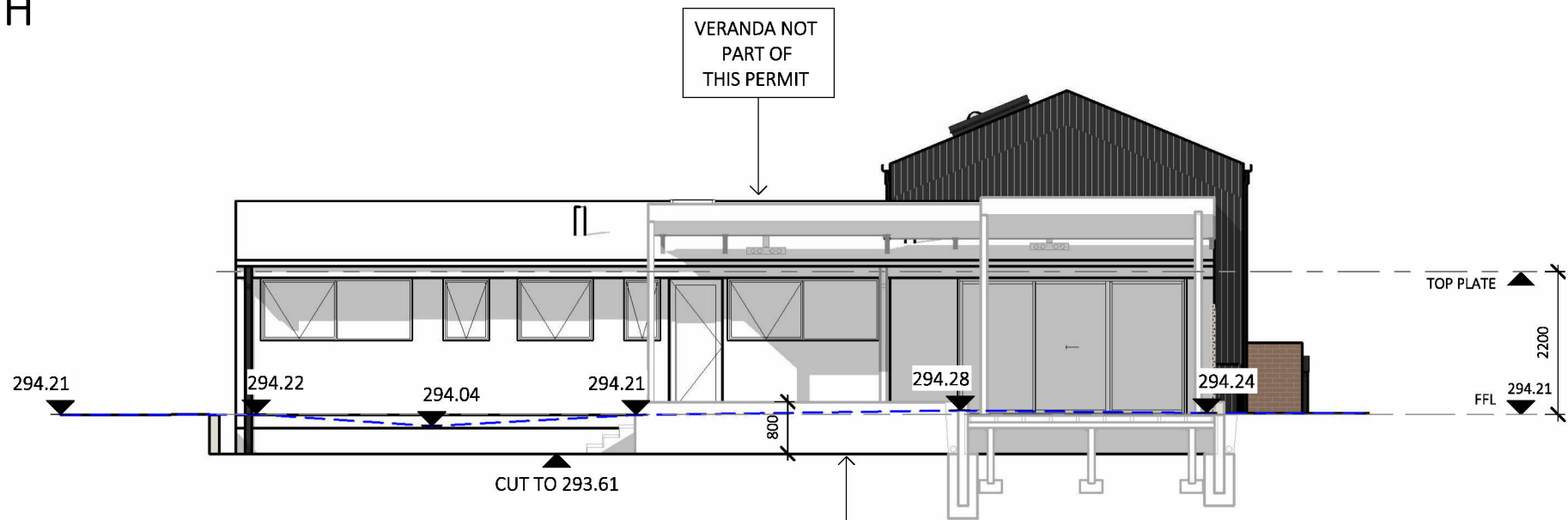
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SHEET TITLE:		REVISION: 5
ROOF PLAN		SHEET No.:
PROJECT No.: 22025	PROJECT DATE: 09/10/2023	P06
DWN BY: DS	SCALE @ A3: 1 : 100	

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ELEVATION 1 - SOUTH
SCALE 1 : 100



ELEVATION 2 - EAST
SCALE 1 : 100

MATERIAL SCHEDULE		
CB1	COLORBOND FASCIAS, GUTTERS, DOWNPIPES - NIGHT SKY	
CC1	CORRUGATED SHEET CLADDING - NIGHT SKY	
CD1	COLORBOND SECTIONAL DOOR - NIGHT SKY	
CF1	CONCEALED FASTENED SHEET ROOFING - NIGHT SKY	
CR1	CORRUGATED SHEET ROOFING - NIGHT SKY	
FB1	FACE BRICKWORK - RECYCLED RED BRICKS	
TD1	SELECTED HARDWOOD OR 'TIMBER-LOOK' DECKING	
WN1	ALUMINIUM WINDOW/DOOR FRAME - BLACK	

REV	DESCRIPTION	DATE
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4	PRELIMINARY	13/02/2025
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PROJECT: DWELLING ADDITIONS
18 STATION AVENUE, EMERALD

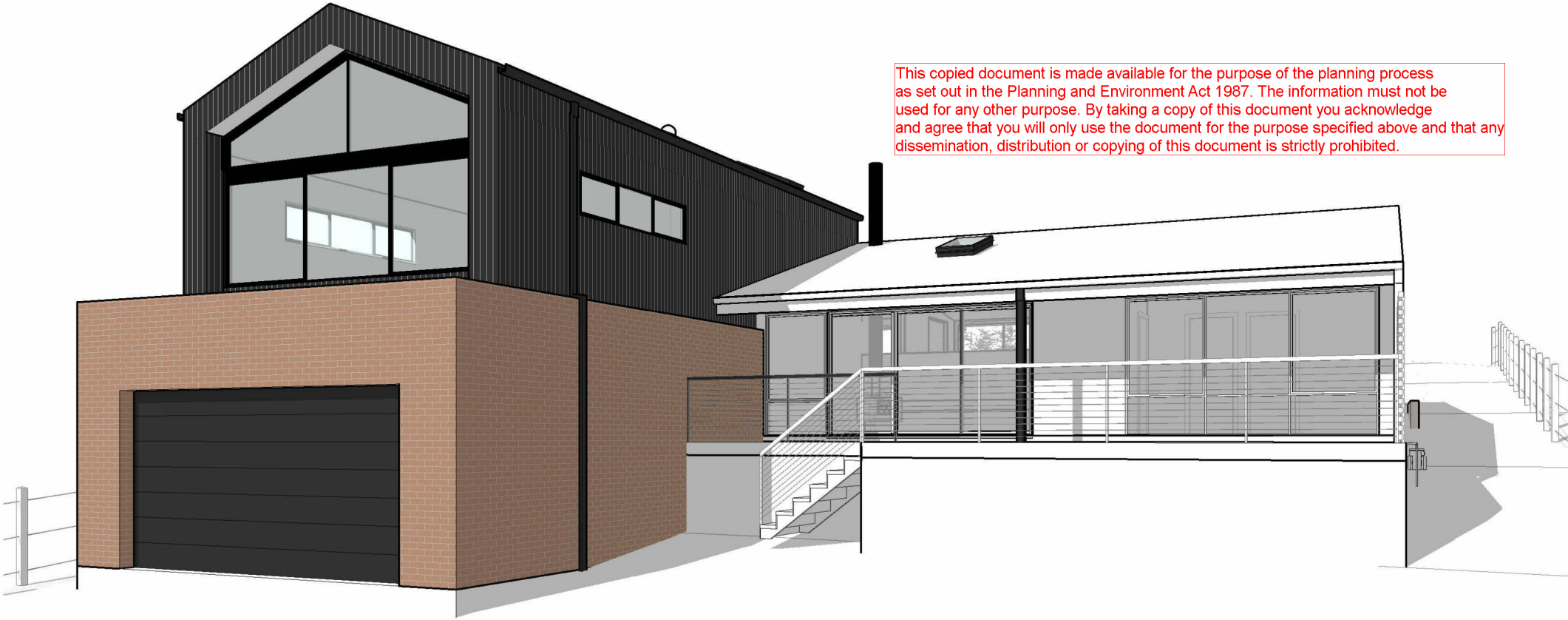
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SHEET TITLE: ELEVATIONS 1 & 2		REVISION: 5
PROJECT No.: 22025	PROJECT DATE: 09/10/2023	SHEET No.: P07
DWN BY: DS	SCALE @ A3: 1 : 100	

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PROJECT: DWELLING ADDITIONS
18 STATION AVENUE, EMERALD

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SHEET TITLE: 3D VIEWS - FRONT		REVISION: 5
PROJECT No.: 22025	PROJECT DATE: 09/10/2023	P09
DWN BY: DS	SCALE @ A3:	



18 STATION AVENUE, EMERALD 3782

Version 1, 4/06/2025, Nobelius Land Surveyors

Mandatory Condition

The bushfire protection measures forming part of this permit or shown on the endorsed plans, including those relating to construction standards, defendable space, water supply and access, must be maintained to the satisfaction of the responsible authority on a continuing basis. This condition continues to have force and effect after the development authorised by this permit has been completed.

Bushfire Construction Level

All construction works need to comply with a minimum BAL of BAL29 from AS 3959.

The subject site at 18 Station Avenue, Emerald must provide defendable space for the entire lot surrounding the dwelling modified and managed in accordance with the following requirements:

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 meters of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 cm in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5sq. meters in area and must be separated by at least 5 meters.
- Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least **5 meters**.
- There must be a clearance of at least 2 meters between the lowest tree branches and ground level.

Firefighting Water Supply (In accordance with the requirements of Table 4 to Clause 52.02-5)

At the time of building, 10,000 litres of effective water supply for firefighting purposes which meets the following requirements:

- Is stored in an above ground water tank constructed of concrete or metal.

-
- Be stored in an above ground water tank constructed of concrete or metal.
- Have all fixed above ground water pipes and fittings required for firefighting purposes made of corrosive resistant metal.
- Include a separate outlet for occupant use.
- Be readily identifiable from the building or appropriate identification signage to the satisfaction of the relevant fire authority.
- Be located within 60 metres of the outer edge of the approved building.
- The outlet/s of the water tank must be within 4 metres of the accessway and unobstructed.
- Incorporate a separate ball or gate valve (British Standard Pipe (BSP 65 millimetre) and coupling (64 millimetre CFA 3 thread per inch male fitting).
- Any pipework and fittings must be a minimum of 65 millimetres (excluding the CFA coupling).

Access (In accordance with the requirements of Table 5 to Clause 53.02-5)

Where fire authority access to the Static Water Supply is required under AM4.1 fire ability vehicles should be able to get within 4 metres of the water supply outlet. Where the water supply of 10,000 litres is required, all access conditions are required:

All-weather construction.

- A load limit of at least 15 tonnes.
- Provide a minimum trafficable width of 3.5 metres.
- Be clear of encroachments for at least 0.5 metres on each side and at least 4 metres vertically.
- Curves must have a minimum inner radius of 10 metres.
- The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum grade of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- Dips must have no more than a 1 in 8 (12.5%)(7.1°) entry and exit angle.

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BUSHFIRE MANAGEMENT PLAN

NOBELIUS
LAND SURVEYORS

