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CROWN DIAGRAM

CD1049531T

Location of Land

Parish : MALLACOOTA
Township : MALLACOOTA
Section : 13
Allotment : 1

This plan has been created to assist in locating a Crown land parcel

Warning: No warranty is given as to the accuracy or completeness of this plan

Any derived dimensions are approximate

Standard Parcel Identifier (SPI) : 1~13\PP5494

Vicmap Parcel PFI : 45549327

Coordinate Position

MGA : 743390, 5839370 (55)

Vicroads Directory Reference : 683 S7 (ed. 6)

Compiled from VICMAP cadastral mapping data

Date: 22/05/2009

SCALE
0 20 40 60 80 100
METRES

Sheet 1 of 1 Sheets

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Department of Environment, Land, Water & Planning

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The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

Produced: 01/08/2023 11:38:17 AM

Dealing Number: MI273446X

Rectification Date: 06/08/2016
Rectification Category: Crown Land Data Migration
Status: Registered

RECTIFICATION

Raised By: REGISTRAR OF TITLES
DX 250639 MELBOURNE

Folio Affected	CofT Supplied	Controlling Party
11800/901	No	

Details of Rectification

This Crown Land Migration transaction was created as part of the crown land data migration. No instrument is available for this transaction.

Statement End.

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CROWN FOLIO STATEMENT

VOLUME 11800 FOLIO 901
No CofT exists

Security no : 124107935106L
Produced 27/07/2023 04:52 PM

CROWN FOLIO

LAND DESCRIPTION

Crown Allotment 1 Section 13 Township of Mallacoota Parish of Mallacoota.
Created by instrument MI273446X 06/08/2016

CROWN LAND ADMINISTRATOR

SECRETARY TO THE DEPARTMENT OF ENVIRONMENT, LAND, WATER AND PLANNING of 8 NICHOLSON STREET EAST MELBOURNE VIC 3002
MI273446X 06/08/2016

STATUS, ENCUMBRANCES AND NOTICES

DIAGRAM LOCATION

SEE CD104953T FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF CROWN FOLIO STATEMENT----------

Additional information: (not part of the Crown Folio Statement)

Street Address: 82 BETKA ROAD MALLACOOTA VIC 3892

DOCUMENT END

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Ambulance Victoria

Information for Council - Planning Permit Application

Mallacoota – 82 Betka Road

Ambulance Victoria (AV) aims to improve the health of the community by providing high quality pre-hospital care and medical transport. AV provides emergency medical response to more than 5.8 million people in an area of more than 227,000 kilometres.

The location of each Ambulance Branch is carefully considered and then selected to ensure that the best possible coverage of Ambulance Service is available for the local community.

AV has determined that the best service outcome for the Mallacoota community and surrounds is to rebuild and maintain a presence on the same, centrally located site.

Description of Use

The Mallacoota branch generally serves as a garage to house and manage Ambulance vehicles and as an administrative base for Paramedics, Ambulance Community Officers and the Team Manager.

The types of activities that are generally undertaken at the branch include:

- Ambulance Community Officers collect response vehicles to attend to incidents
- Administrative tasks associated with management of the branch and patients that have been transported,
- Restocking of Ambulance Vehicles with medical consumables,
- Cleaning of Ambulance Vehicles,
- Delivery by contracted agencies of medical consumables / linen and general supplies,
- Collection by contracted agencies of medical and general waste,
- Activities associated with attendance to personal care by Paramedics, and
- Training and continuing education activities.

In addition to the activities currently undertaken at the Mallacoota branch, the new branch will incorporate some specialist spaces including:

- A relievers quarters providing accommodation for out-of-town relieving Paramedics, and
- A patient holding area to care for patients whilst remote transport is being arranged.

There is no machinery / mechanical or shop work associated with the operation of an Ambulance Branch.

Vehicle Movement & Frequency

The Mallacoota branch primarily operates as an Ambulance Community Officer (ACO) branch. Generally ACO's only attend the branch when they receive a call-out to collect a vehicle and attend to an incident. At other times the branch will only occupied by a single Team Manager undertaking administrative duties during the day or any relieving Paramedics that may be utilising the relievers quarters (maximum of two).

Vehicle movements and their estimated frequency are as follows:

- Ambulance vehicles will enter the branch from a new crossover on Betka Road and exit the branch through the garage in a forward direction onto Bucknall Street.
- Delivery vehicles will enter and exit the branch from the new Betka Road crossover.

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- Staff vehicles and vehicles requiring access to a disabled carpark will enter and exit the branch from crossovers on Bucknall Street.

The estimated frequency of vehicle movement from the branch can be demonstrated by caseload statistics for the current Mallacoota branch for the 2022 calendar year are as follows:

	Jan 2022	Feb 2022	Mar 2022	April 2022	May 2022	Jun 2022	Jul 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022	Avg Per day
Total Emergency Incidents	48	25	37	23	31	18	25	21	21	31	25	29	0.9
Total Code 1* Incidents	29	11	24	12	16	6	15	7	7	14	13	17	0.5

*Code 1 incidents are those with a life-threatening emergency.

Car Parking

The new Mallacoota branch will incorporate the following onsite carparking facilities.

- A purpose-built garage to accommodate three Ambulance general purpose (AGP) response vehicles that service Mallacoota and its surrounds,
- A dedicated secure compound incorporating twelve vehicle parking bays. The majority of these are intended for staff vehicles however three carparks will be undercover and are intended for the team manager vehicle and overflow operational vehicles when they are required.
- A disabled, delivery and visitor's parking bay.

The number of vehicle parking bays provided are in excess of the number generally required but included so as to ensure there will be no impact on local resident parking in the area as a result of branch operation.

Noise

When occupied by AV Paramedics and/or Ambulance Community Officers, the Mallacoota Branch has the potential to generate a similar amount of noise to that expected from a normal domestic residence. When staff are present at a branch their usual tasks are attendance to administrative duties, collecting, restocking or cleaning of Ambulance Vehicles or undertaking training activities.

Vehicle Sirens

The use of sirens is the only activity that may generate noise above the usual domestic level. AV paramedics are well aware that sirens – or the prospect of the use of sirens – can be distressing to some members of their community and have adopted an attitude of caution, thoughtfulness and respect to the amenity of the neighbourhood.

In contrast to some Emergency Services, AV Paramedics are not required to respond to an emergency with lights and sirens activated, the lights can work independently of the sirens, and Paramedics will generally only use one or both when conditions pertaining to vehicle egress and public safety are relevant.

When practical and when safety permits, Paramedics may use the vehicle's warning beacon lights only. The vehicle siren is used as a warning device in emergency circumstances to comply with AV obligations with road rules in operating an emergency vehicle. The need to utilise lights and/or sirens when exiting from the Mallacoota branch is extremely rare.

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Signage

Corporate livery is designed with reference to the Local Council requirements, but generally is designed to reflect the corporate image of the organisation. The signs proposed for Mallacoota are not illuminated.

Lighting

Lighting at the front of the building intends to provide adequate illumination for personal safety and building identification for staff. AV avoids any high level or permanent overnight illumination. Car parking is generally via bollards or similar low-level lighting.

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Sustainability Management Plan
Ambulance Victoria Station, Mallacoota
for Four Sight Architects

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Revision	Date	Description	Author	Reviewer
P1	14/12/22	Preliminary Issue	KNR	RT
0	18/05/23	Final Issue – For town planning v1	KNR	AA
1	27/07/23	Final Issue – For town planning v2	KNR	--

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Executive Summary

This Sustainability Management Plan (SMP) has been prepared for the proposed Ambulance Victoria Station at 82 Betka Road, Mallacoota VIC 3892, to summarise the ESD initiatives proposed for the project.

This report covers the following requirements from the East Gippsland Planning Scheme:

- Clause 15.01 – 2S - 01 Building Design – Support Environmentally Sustainable Development

Objectives:

To achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.

To satisfy the requirements of the planning scheme and the Ambulance Victoria brief, the following assessments are completed:

- Sustainability Management Plan based on BESS and certain credits from Green Star
- STORM / MUSIC Assessment

This SMP shows that the building has the preliminary design potential to achieve Best Practice, which is in line with the environmental performance outcomes as stipulated in the East Gippsland Planning Scheme.

Key ESD Initiatives

The design for the ambulance station building development includes ESD initiatives in line with council's objectives. BESS and certain credits of Green Star Design & As-built (DAB)v1.3 has been used to benchmark performance. The following summarises the ESD initiatives:

- High performance insulation beyond the minimum requirement in National Construction code (NCC) 2019 Volume 1 Amendment 1;
- High performance HVAC systems and domestic hot water systems beyond the minimum requirement in the National Construction Code (NCC) and designed to achieve Net Zero Carbon;
- Reduction of potable water consumption through high efficiency WELS rated sanitary fixtures and appliances;
- Recycling waste facilities to encourage diversion of waste to landfill;
- Best Practice Lighting Comfort as per green star requirements;
- Ample communal space for occupants;
- Water-efficient landscape;
- Rainwater collection for reuse in toilets, laundry and landscape;
- Recycling and reusing construction and demolition waste
- Replacing cement with Supplementary Cement Materials (SCM)

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Introduction

This Sustainability Management Plan (SMP) has been developed to demonstrate the design potential of the development in line with the ESD requirements of the East Gippsland Planning Scheme for the proposed Ambulance Victoria Station at 82 Betka Road, Mallacoota VIC 3892. This project aims to achieve a 5-star Green Star Buildings v.1 and Climate Active Carbon Neutral Certification for the whole building via Green Star Performance v1.2. It is targeting to achieve Total Net Zero focusing on embodied and operational carbon. This SMP outlines only the minimum requirements as required by the planning application.

Building Description

The proposed development comprises a single storey ambulance station building. The proposed building will include the team office, training/study room, relievers quarters, rest rooms, kitchen/living/dining area, circulation, amenities, auxiliary spaces, and a garage.

Reference Documents

This report is based on the following architectural drawings received from Four Sight Architects:

Architect: Four Sight Architects
333 Queensberry Street, North Melbourne
VIC 3051

The relevant documents and drawings used in compiling this report are as follows:

Project reference No.	Drawing No.	Revision	Title
22-016	A100	July 23	TP - EXISTING AND DEMOLITION PLAN
	A101	July 23	TP - PROPOSED SITE PLAN
	A102	July 23	TP - PROPOSED FLOOR PLAN
	A102	July 23	TP - PROPOSED ROOF PLAN
	A200	July 23	TP - ELEVATIONS
	A202	July 23	TP - PROPOSED LANDSCAPE PLAN
	A300	July 23	TP - VIEWS
	A301	July 23	TP - VIEWS
	A302	July 23	TP - VIEWS

Table 1: Reference documents

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ESD Initiatives

The BESS categories include Management, Water, Energy, Stormwater, Indoor Environment Quality (IEQ), Transport, Waste, Urban Ecology and Innovation. The development intends to target all the initiatives listed in this section. It has the preliminary design potential to achieve Excellence practice with a BESS score of 74%. The disciplines responsible for each initiative during design are also listed below. The Head Contractor will be responsible for incorporating the ESD initiatives during construction and should substitute initiatives if the requirements listed in this report become unfeasible. This ensures that the sustainability requirements of the council are ultimately met.

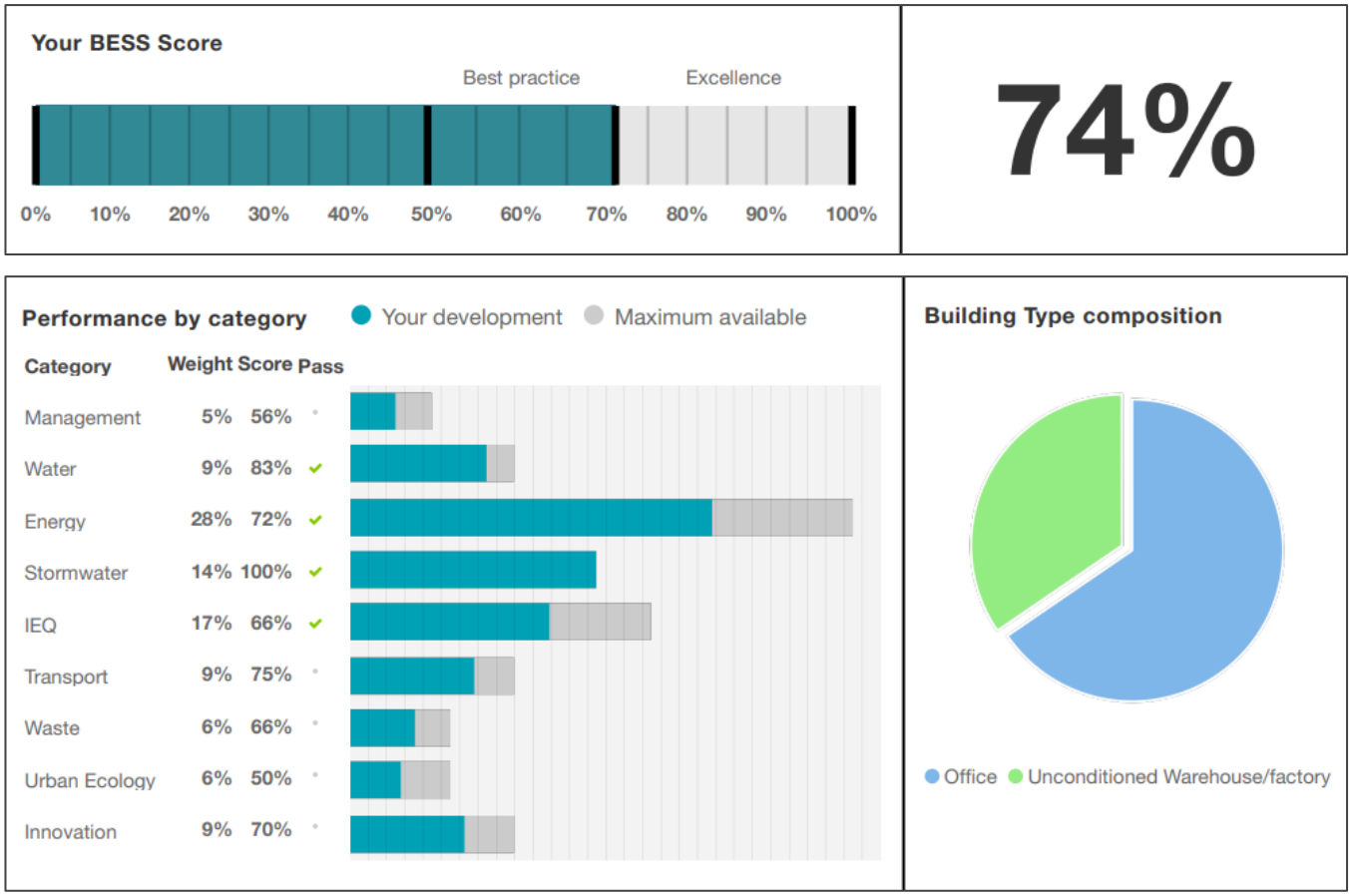

Figure 1 – Best Practice has been achieved with a BESS score of 74%

Management

The management category initiatives encourage passive design principles, monitoring of energy and water consumption, and engagement of stakeholders to use the building more effectively. The category is achieving a score of 56%.

Requirement	Requirement details	Design responsibility
2.3 Thermal Performance modelling	Preliminary façade assessment has been undertaken in accordance with NCC 2019 Section J 1.5 requirements. See Appendix E for preliminary façade assessment. Preliminary modelling (JV3) has been undertaken in accordance with NCC 2019 Section J 1.5 requirements. The model with proposed specifications has been used to prepare the Net Zero advisory report.	ESD consultant

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3.3 Metering – Common Areas	Accessible Metering will be provided for building energy and water consumption, including all energy and water common uses & major uses. Monitoring strategy will be through an automatic monitoring system capable of capturing and processing the data produced by the installed energy and water meters, and accurately and clearly presenting data consumption trends.	Electrical/ Hydraulic / Mechanical Consultant
4.1 Building Users Guide	A building users guide be produced and issued to occupants. A Building Users' Guide should use non-technical language and be targeted to building occupants (and building managers where required). The Building Users' Guide may be a simple booklet and/or a combination of interpretative signage throughout the building. Its purpose is to help facilitate more sustainable behavior by building occupants.	Head contractor

Water

The objective of the requirements listed under the water category is to reduce potable water usage, achieving a score of 83%.

Requirement	Requirement details	Design responsibility
1.1 Potable Water Use Reduction	Provision of efficient water fixtures, fittings and connections. Bathrooms and kitchens will install fixtures with the following minimum WELS rating: • Kitchen taps >= 6 Star WELS rating • Bathroom taps >= 6 Star WELS rating • Washbasins >= 5 Star WELS rating • Showers – 4 Star • WC >= 4 Star WELS rating • Dishwashers >= 6 Star WELS rating • Washing Machine Water Efficiency >= 5 Star WELS rating - Refer A102 for reference on WELS ratings	Architect
Rainwater reuse	A 10kL rainwater tank is connected to all toilets and Laundry in the development	Architect / Hydraulic consultant
3.1 Water Efficient Landscaping	Xeriscape garden which does not require irrigation system, will be installed. Landscaping featured on site will use water efficiency principles, including low water use plant selection and use of mulch. - Refer to page A202 Landscaping Plan	Landscape consultant
4.1 Building Systems Water Use Reduction	No sprinkler system is proposed for the development and a water-based heat rejection systems will not be used.	Mechanical / Hydraulic consultant

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Energy

The objective of the requirements listed under the energy category is to minimize energy consumption for the development, achieving a score of 72%.

Requirement	Requirement details	Design responsibility
1.1 Building envelope	All exposed floors and ceilings that is part of the thermal envelope demonstrate a minimum 10% improvement in required NCC2019 insulation levels (total R-value upwards and downwards). All wall and glazing demonstrate meet at least the minimum requirement of the NCC2019 facade calculator.	Architect
2.3 Heating and cooling	Heating and cooling systems are within one Star of the most efficient equivalent capacity unit available, or Coefficient of Performance (CoP) & Energy Efficiency Ratios (EER) not less than 85% of the CoP & EER of the most efficient equivalent capacity unit available.	Mechanical consultant
2.2 Water heating system	Water heating systems are within one star of the best available, or 85% or better than the most efficient equivalent capacity unit.	Hydraulic consultant
2.4, 2,6 Electrification	No gas connection is used in the building. The development will be all electric	
3.1 Carpark Ventilation	Mechanical Exhaust ventilation is provided for Garage and a CO sensor controls the operation and speed of the ventilation fans	Mechanical consultant
3.7 Internal Lighting	Maximum power density in at least 90% of the relevant building area meet the requirements in Table J6.2a of the NCC 2019 Vol 1. Refer to table no 1.	Electrical consultant
4.2 Photovoltaic system	Maximum PV array area allowed on the roof in order to achieve NZE (Net Zero Energy). Estimated to be 10kW roof top array at this design stage.	Electrical consultant

Table no. 1 – Illumination power density used in the development according to NCC 2019 Vol 1 table J6.2a.

Space	Illumination power density (W/m2)
Kindergarten rooms/Tutorial rooms	4.5
Director room/Offices	4.5
Staff room	3
Corridors	5
Piazza/Community	8
Kitchen	4
Entry lobby	9
Toilets	3
Meeting room	5
Storage/Cleaner's room	1.5

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Stormwater

The objective of the stormwater category is to achieve best practice stormwater quality outcomes through reduction of pollutant load (suspended solids, nitrogen and phosphorus), achieving a total score of 100%.

Requirement	Requirement details	Design responsibility
1.1 Stormwater Treatment	Treatment of stormwater to reduce the following pollutant loads: total suspended solids, gross pollutants, total nitrogen, and total phosphorus. Rainwater from a roof area of approximately 480m2 will be diverted into two rainwater tanks, each with capacity of 5kL. The catchment area for each tank is 320 sq.m and 160 sq.m. Rain from impervious site parking of approximately 300m^2 will be diverted into a rain garden of 8m^2 and rain from impervious access roads of approximately 200m^2 will be diverted into a rain garden of 4m^2 with 100mm extended detention depth. The STORM assessment achieves a score of 100%, refer to Appendix B for STORM calculator and Appendix C for STORM markup	Architect / Hydraulic consultant / Landscape

Indoor Environment Quality

The indoor environment quality (IEQ) category provides a high level of amenity and energy efficiency by designing for natural lighting, ventilation, and passive cooling opportunities. This category achieves a score of 66%. Additional IEQ requirements from Green Star DAB v1.3 are also targeted for this credit.

Requirement	Requirement details	Design responsibility
1.4 Daylight Access – Non-Residential	20% of the floor area of the main regular used areas achieves a daylight factor of at least 2%. Windows must have VLT equal to or greater than 40%. Refer to Appendix D for daylight mark up. Note: *The unconditioned garage and associated areas which are termed as unconditioned space types in BESS is NA to the credit & must be scoped out. > As the BESS tool does not allow scoping out a separate space, 100 % has been entered for the percentage achieved. 0 % cannot be entered as it is not the same as scoping out.*	Architect
2.3 Ventilation	– Natural ventilation is proposed for majority of rooms (approximately. 90%). – 50 % increase (11.25l/s vs 7.5l/s) in outdoor air can be achieved for two rooms (team office and medical store) with mechanical supply air ventilation	Mechanical Consultant
4.1 Air Quality	All paints, sealants, adhesives, carpet and engineered wood meet the maximum total indoor pollutant emission limits	Architect
11 Lighting comfort as per Green Star DAB v1.3 - Innovation	Minimum Lighting Comfort: The lights in the nominated area will be flicker-free and accurately address the perception of colour in the space. Internal spaces shall be well lit through flicker-free luminaires and a minimum CRI of 80. General illuminance and Glare Reduction: General illuminance and uniformity of maintained illuminance shall meet the appropriate AS/NZS 1680 standards in accordance with the type of activity of the	Electrical Consultant

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	space. All bare light sources shall be fitted with diffusers, baffles, or louvers (or similar) Localised Lighting Control Localised lighting control where individuals or groups of individuals can adjust lighting levels in their immediate environment where appropriate.	
10 Acoustic Comfort as per Green Star DAB v1.3 - Innovation	Appropriate and comfortable acoustic conditions will be proposed for occupants and the different zones and will be specified based on Ambulance Victoria design brief - Team Managers' Offices and training room will be designed to achieve a min. Speech Privacy Class of 85 - Reverberation times in team manager's offices and adjacent spaces will be designed to comply with AS/NZS 2107:2016. - Rest Rooms where staff take rest will be designed to achieve: o A minimum sound insulation rating (Weighted Level Difference) of Dw 50 between the rest area and adjacent spaces where there is no door directly connecting the rest room with the adjacent space. o A minimum sound insulation rating (Weighted Level Difference) of Dw 30 where there is a door connecting the rest room with the adjacent space. o Interior noise levels due to building services and external noise ingress in the range of 35 to 40 dB(A). o Reverberation times in the range of 0.4 to 0.7 seconds	Architect / Acoustic Consultant

Transport

The objective of the transport category is to minimise the usage of private passenger cars. This category achieves a score of 75%.

<table>
<tr><th>Requirement</th><th>Requirement details</th><th>Design responsibility</th></tr>
<tr><td>1.4 , 1.5 Bicycle Parking – Non-Residential</td><td>The development exceeds the planning scheme requirements for employee and visitors bicycle parking by at least 50%, as required by BESS. The development is to have minimum 6 bicycle spaces.
Bicycle space requirements:
<table>
<tr><th></th><th>BESS requirement</th><th>Total for development</th></tr>
<tr><td>Employees</td><td>4</td><td>4</td></tr>
<tr><td>Visitors</td><td>2</td><td>2</td></tr>
</table></td><td>Architect</td></tr>
<tr><td>1.6 End of Trip Facilities</td><td>Lockers and showers provided will be more than the minimum requirement of lockers and showers
Showers – min. required = 2
Lockers – min. required = 4</td><td>Architect</td></tr>
<tr><td>2.1 Electric Vehicle Infrastructure</td><td>Each vehicle bay will be provided with 1 no. suspended switched socket outlet for vehicle charging</td><td>Electrical Consultant</td></tr>
</table>

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Waste

Requirements listed under the waste category aim to reduce the amount of waste and materials going to landfill. This category achieves a score of 66%.

Requirement	Requirement details	Design responsibility
2.1 Operational Waste – Food and Waste	Green waste bins are available for on-site management of food and garden waste.	Architect/Waste consultant
2.2 Operational Waste - Convenience of Recycling	Recycling and general waste bin facilities are available and accessible equally.	Architect/Waste consultant

Urban Ecology

Requirements listed under the urban ecology category aim to encourage green spaces for the development. This category achieves a score of 50%.

Requirement	Requirement details	Design responsibility
1.1 Communal Spaces	There is more than 31.0sqm of common space provided for the occupants / staff.	Architect
2.1 Vegetation	Approximately 22% of the site area is covered with vegetation.	

Innovation

Requirements listed below are not exhaustive but is recommended to be integrated into the design. This category achieves a score of 70%. Lighting and acoustic comfort are also part of Innovation

Requirement	Requirement details	Design responsibility
Urban heat island effect	Light colour roof materials are nominated for most of roof.	Architect
Sustainable construction materials	For concrete used as part of the development, approximately 25% of cement is replaced with Supplementary Cement Materials (SCM); e.g., fly ash or ground granulated blast furnace slag (GGBFS)	Head Contractor
Construction waste	At least 70% of construction and demolition waste to be diverted from landfill by recycling and reuse	
Lighting System and Controls	Motion control sensors will be proposed in all zones including office areas. Max office lighting control zone of 100m2	Electrical Consultant
Light Pollution	<u>Light Pollution to Neighbouring Bodies:</u> Will demonstrate that all outdoor lighting on the project complies with AS 4282:1997 Control of the obtrusive effects of outdoor lighting. The system must comply with both pre- and post-curfew requirements <u>Light Pollution to Night Sky:</u> - No external luminaire on the project has a ULOR that exceeds 5%, relative to its actual mounted orientation	Electrical Consultant

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Appendix A – BESS report

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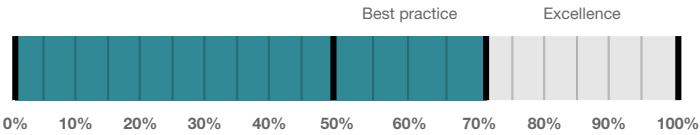
BESS Report

Built Environment Sustainability Scorecard

This BESS report outlines the sustainable design commitments of the proposed development at 82 Betka Rd Mallacoota Victoria 3892. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at ~~Yarra Ranges~~ Shire Council.
East Gippsland

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score

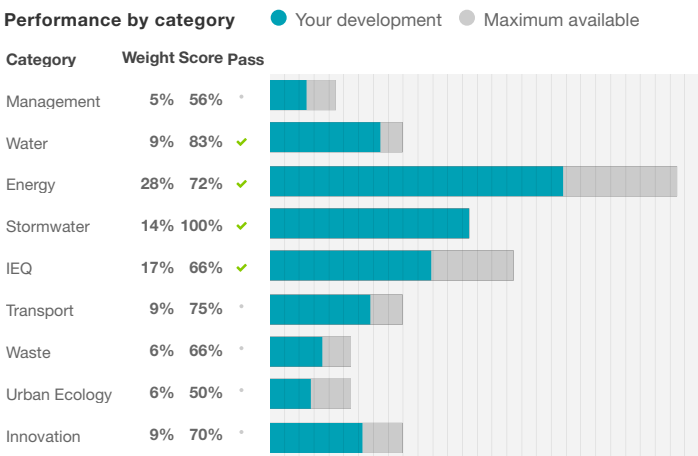


74%

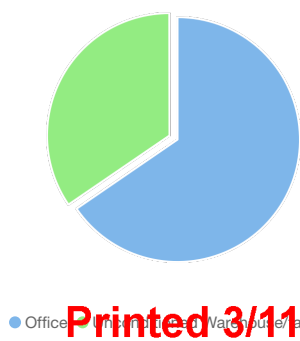
Project details

Address	82 Betka Rd Mallacoota Victoria 3892
Project no	9A641882-R2
BESS Version	BESS-7
Site type	Non-residential development
Account	bess@erbas.com.au
Application no.	
Site area	1,597.00 m²
Building floor area	550.00 m²
Date	27 July 2023
Software version	1.8.0-B.401

Performance by category



Building Type composition



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Buildings

Name	Height	Footprint	% of total footprint
AV Building	1	550 m²	100%

Dwellings & Non Res Spaces

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Office				
AV Building	1	360 m²	AV Building	65%
Total	**1**	**360 m²**	**65%**	
Unconditioned Warehouse/factory				
Garage	1	190 m²	AV Building	34%
Total	**1**	**190 m²**	**34%**	

Supporting information

Floorplans & elevation notes

Credit	Requirement	Response	Status
Management 3.3	Annotation: Sub-meters to be provided to all major common area services (list each)	To be printed Completed. Refer to page A102 Floor Plan	✔
Water 3.1	Annotation: Water efficient garden details	To be printed Completed. Refer to page A202 Landscaping Plan	✔
Energy 3.1	Carpark with natural ventilation or CO monitoring system	To be printed Completed. Confirmed by Mechanical consultant	✔
Energy 4.2	Location and size of solar photovoltaic system	To be printed Completed. Refer to pageA103 Roof Plan	✔
Stormwater 1.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)	To be printed Completed. Refer to page A202 Landscaping Plan	✔
Transport 1.4	Location of non-residential bicycle parking spaces	To be printed Completed, 6 spaces in total provided. Refer to page A101 Site Plan	✔
Transport 1.5	Location of non-residential visitor bicycle parking spaces	To be printed Completed, 6 spaces in total provided. Refer to page A101 Site Plan	✔
Transport 1.6	Location of showers, change rooms and lockers as nominated	To be printed Completed. Refer to page A102 Floor Plan	✔

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Credit	Requirement	Response	Status
Transport 2.1	Location of electric vehicle charging infrastructure	To be printed Completed. Refer to page A102 Floor Plan	✔
Waste 2.1	Location of food and garden waste facilities	To be printed AV/Fourisght to engage a waste specialist in the Design Development stage to action these items	✔
Waste 2.2	Location of recycling facilities	To be printed AV/Fourisght to engage a waste specialist in the Design Development stage to action these items	✔
Urban Ecology 1.1	Location and size of communal spaces	To be printed Completed. Refer to page A102 Floor Plan	✔
Urban Ecology 2.1	Location and size of vegetated areas	To be printed Completed. Refer to page A202 Landscaping Plan	✔

Supporting evidence

Credit	Requirement	Response	Status
Management 2.3a	Section J glazing assessment	To be printed SMP - Appendix E Refer Appendix E for preliminary façade assessment.	✔
Management 2.3b	Preliminary modelling report	To be printed Modelling for Net zero recommendations Preliminary modelling (JV3) has been undertaken in accordance with NCC 2019 Section J 1.5 requirements. The model with proposed specifications has been used to prepare the Net Zero advisory report.	✔
Energy 1.1	Energy Report showing calculations of reference case and proposed buildings	To be printed Modelling for Net zero recommendations Preliminary modelling (JV3) has been undertaken in accordance with NCC 2019 Section J 1.5 requirements. The model with proposed specifications has been used to prepare the Net Zero advisory report.	✔
Energy 3.1	Details of either the fully natural carpark ventilation or CO monitoring system proposed	To be printed Mechanical Schematic Mechanical Exhaust ventilation is provided for Garage and a CO sensor controls the operation and speed of the ventilation fans	✔
Energy 3.7	Average lighting power density and lighting type(s) to be used	To be printed SMP - Table 1, Page 7 Refer to Table 1, Page 7 in SMP FOR Illumination power density used in the development according to NCC 2019 Vol 1 table J6.2a	✔
Energy 4.2	Specifications of the solar photovoltaic system(s)	To be printed Roof Plan and Electrical Schematic Estimated to be 10kW PV system at this design stage.	✔

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Credit	Requirement	Response	Status
Stormwater 1.1	STORM report or MUSIC model	To be printed SMP - Appendix B &C The STORM assessment achieves a score of 104%, refer to Appendix B for STORM calculator and Appendix C for STORM markup	✔
IEQ 1.4	A short report detailing assumptions used and results achieved.	To be printed SMP - Appendix D Refer to Appendix D for daylight mark up.	✔

Credit summary

Management Overall contribution 4.5%

56%

1.1 Pre-Application Meeting	0%	
2.3 Thermal Performance Modelling - Non-Residential	100%	
3.2 Metering - Non-Residential	N/A	Scoped Out
The development will not have more than one separate commercial tenancy and so it is N/A and scoped out.		
3.3 Metering - Common Areas	100%	
4.1 Building Users Guide	100%	

Water Overall contribution 9.0%

Minimum required 50% — 83% — ✔ Pass

1.1 Potable Water Use Reduction	80%	
3.1 Water Efficient Landscaping	100%	
4.1 Building Systems Water Use Reduction	N/A	Scoped Out
No sprinkler system is proposed for the development and water-based heat rejection systems will not be used		

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Energy Overall contribution 27.5%

	Minimum required 50%	72%	✔ Pass
1.1 Thermal Performance Rating - Non-Residential		72%	
2.1 Greenhouse Gas Emissions		100%	
2.2 Peak Demand		100%	
2.3 Electricity Consumption		100%	
2.4 Gas Consumption		N/A	✣ Scoped Out
			No gas connection in use
2.6 Electrification		100%	
3.1 Carpark Ventilation		100%	
3.2 Hot Water		100%	
3.7 Internal Lighting - Non-Residential		100%	
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A	✣ Scoped Out
			No cogeneration or trigeneration system in use.
4.2 Renewable Energy Systems - Solar		100%	
4.4 Renewable Energy Systems - Other		0%	⊘ Disabled
			No other (non-solar PV) renewable energy is in use.

Stormwater Overall contribution 13.5%

	Minimum required 100%	100%	✔ Pass
1.1 Stormwater Treatment		100%	

IEQ Overall contribution 16.5%

	Minimum required 50%	66%	✔ Pass
1.4 Daylight Access - Non-Residential		34%	✔ Achieved
2.3 Ventilation - Non-Residential		86%	✔ Achieved
3.4 Thermal comfort - Shading - Non-Residential		100%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
4.1 Air Quality - Non-Residential		100%	

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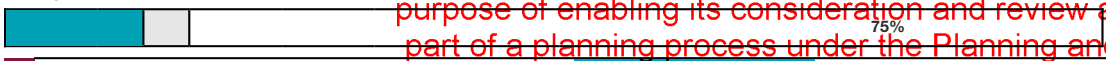
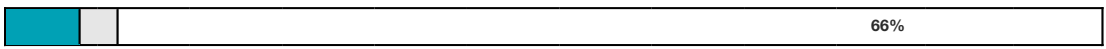
Transport Overall contribution 9.0%



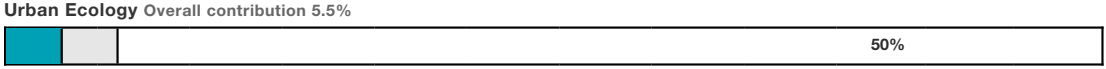
1.4 Bicycle Parking - Non-Residential	100%
1.5 Bicycle Parking - Non-Residential Visitor	100%
1.6 End of Trip Facilities - Non-Residential	100%
2.1 Electric Vehicle Infrastructure	100%
2.2 Car Share Scheme	0%
2.3 Motorbikes / Mopeds	0%

Waste Overall contribution 5.5%



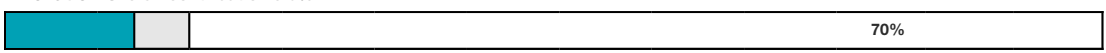
1.1 - Construction Waste - Building Re-Use	0%
2.1 - Operational Waste - Food & Garden Waste	100%
2.2 - Operational Waste - Convenience of Recycling	100%

Urban Ecology Overall contribution 5.5%



1.1 Communal Spaces	100%
2.1 Vegetation	75%
2.2 Green Roofs	0%
2.3 Green Walls and Facades	0%
3.2 Food Production - Non-Residential	0%

Innovation Overall contribution 9.0%



1.1 Innovation	70%

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Credit breakdown

Management

Overall contribution 3%

1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 43.1% towards the category score.	
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?	
Question	Criteria Achieved ?	
Project	No	
2.3 Thermal Performance Modelling - Non-Residential		100%
Score Contribution	This credit contributes 28.1% towards the category score.	
Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2019 Section J1.5?	
Question	Criteria Achieved ?	
Office	Yes	
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2019 Section J (Energy Efficiency), NABERS or Green Star?	
Question	Criteria Achieved ?	
Office	Yes	
3.2 Metering - Non-Residential		N/A ✣ Scoped Out
This credit was scoped out	The development will not have more than one separate commercial tenancy and so it is N/A and scoped out.	
3.3 Metering - Common Areas		100%
Score Contribution	This credit contributes 14.4% towards the category score.	
Criteria	Have all major common area services been separately submetered?	
Annotation	Accessible Metering will be provided for building energy and water consumption, including all energy and water common uses & major uses. Monitoring strategy will be through an automatic monitoring system capable of capturing and processing the data produced by the installed energy and water meters, and accurately and clearly presenting data consumption trends.	
Question	Criteria Achieved ?	
Office	Yes	
Unconditioned Warehouse/factory	Yes	
4.1 Building Users Guide		100%
Score Contribution	This credit contributes 14.4% towards the category score.	
Criteria	Will a building users guide be produced and issued to occupants?	
Question	Criteria Achieved ?	
Project	Yes	

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Water

Overall contribution 7% Minimum required 50%

Water Approach	
What approach do you want to use for Water?:	Use the BESS calculator tool

Project Water Profile Question	
Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No
Are you installing a rainwater tank?:	Yes

Water fixtures, fittings and connections	
Showerhead:	
AV Building	4 Star WELS (>= 6.0 but <= 7.5)
Garage	Scope out
Bath: All	Scope out
Kitchen Taps:	
AV Building	>= 6 Star WELS rating
Garage	Default or unrated
Bathroom Taps:	
AV Building	>= 6 Star WELS rating
Garage	Default or unrated
Dishwashers:	
AV Building	>= 6 Star WELS rating
Garage	Scope out
WC:	
AV Building	>= 4 Star WELS rating
Garage	Default or unrated
Urinals: All	Scope out
Washing Machine Water Efficiency: All	>= 5 Star WELS rating
Which non-potable water source is the dwelling/space connected to?: All	Rainwater tank
Non-potable water source connected to Toilets: All	Yes
Non-potable water source connected to Laundry (washing machine): All	Yes
Non-potable water source connected to Hot Water System: All	No

Rainwater Tank	
What is the total roof area connected to the rainwater tank?: Rainwater tank	480 m^2
Tank Size: Rainwater tank	10,000 Litres
Irrigation area connected to tank: Rainwater tank	350 m^2
Is connected irrigation area a water efficient garden?: Rainwater tank	Yes
Other external water demand connected to tank?: Rainwater tank	-

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1.1 Potable Water Use Reduction		80%
Score Contribution	This credit contributes 33.3% towards the category score.	
Criteria	What is the percentage reduction in annual potable water use (due to efficient fittings, rainwater, stormwater, greywater use, and recycled water use)? To achieve points in this credit, there must be >25% potable water reduction.	
Output	Reference	
Project	1208 kL	
Output	Proposed (excluding rainwater and recycled water use)	
Project	841 kL	
Output	Proposed (including rainwater and recycled water use)	
Project	454 kL	
Output	% Reduction in Potable Water Consumption	
Project	62 %	
Output	% of connected demand met by rainwater	
Project	72 %	
Output	How often does the tank overflow?	
Project	Never / Rarely	
Output	Opportunity for additional rainwater connection	
Project	137 kL	

3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contributes 16.7% towards the category score.	
Criteria	Will water efficient landscaping be installed?	
Annotation	Completed. Refer to page A202 Landscaping Plan	
Question	Criteria Achieved ?	
Project	Yes	

4.1 Building Systems Water Use Reduction		N/A	Scoped Out
This credit was scoped out	No sprinkler system is proposed for the development and water-based heat rejection systems will not be used		

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Energy

Overall contribution 20% Minimum required 50%

Use the BESS Deem to Satisfy (DtS) method for Energy?	Yes
Do all exposed floors and ceilings (forming part of the envelope) demonstrate a minimum 10% improvement in required NCC2019 insulation levels (total R-value upwards and downwards)?:	Yes
Does all wall and glazing demonstrate meeting the required NCC2019 facade calculator (or better than the total allowance)?:	Yes
Are heating and cooling systems within one Star of the most efficient equivalent capacity unit available, or Coefficient of Performance (CoP) & Energy Efficiency Ratios (EER) not less than 85% of the CoP & EER of the most efficient equivalent capacity unit available?:	Yes
Are water heating systems within one star of the best available, or 85% or better than the most efficient equivalent capacity unit?:	Yes
Use the BESS Deem to Satisfy (DtS) method for Energy Unconditioned Spaces?:	No

Non-Residential Building Energy Profile

Heating, Cooling & Comfort Ventilation - Electricity Reference fabric & services:	500 kWh
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and reference services:	200 kWh
Heating, Cooling & Comfort Ventilation - Electricity Proposed fabric & services:	200 kWh
Heating - Wood - reference fabric and services:	0.0 MJ
Heating - Wood - proposed fabric and reference services:	0.0 MJ
Heating - Wood - proposed fabric and services:	0.0 MJ
Hot Water - Electricity - Reference:	2.0 kWh
Hot Water - Electricity - Proposed:	52.0 kWh
Lighting - Reference:	12.0 kWh
Lighting - Proposed:	12.0 kWh
Peak Thermal Cooling Load - Reference:	-
Peak Thermal Cooling Load - Proposed:	-

Solar Photovoltaic system

System Size (lesser of inverter and panel capacity): PV 1	10.0 kW peak
Orientation (which way is the system facing)?: PV 1	North
Inclination (angle from horizontal): PV 1	37.6 Angle (degrees)
Which Building Class does this apply to?: PV 1	-

1.1 Thermal Performance Rating - Non-Residential 37%

Score Contribution	This credit contributes 35.9% towards the category score.
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC 2019 Section J)?

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2.1 Greenhouse Gas Emissions		100%
Score Contribution	This credit contributes 9.2% towards the category score.	
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?	
2.2 Peak Demand		100%
Score Contribution	This credit contributes 4.5% towards the category score.	
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?	
2.3 Electricity Consumption		100%
Score Contribution	This credit contributes 9.2% towards the category score.	
Criteria	What is the % reduction in annual electricity consumption against the benchmark?	
2.4 Gas Consumption		N/A ◈ Scoped Out
This credit was scoped out	No gas connection in use	
2.6 Electrification		100%
Score Contribution	This credit contributes 9.2% towards the category score.	
Criteria	Is the development all-electric?	
Question	Criteria Achieved?	
Project	Yes	
3.1 Carpark Ventilation		100%
Score Contribution	This credit contributes 9.2% towards the category score.	
Criteria	If you have an enclosed carpark, is it: (a) fully naturally ventilated (no mechanical ventilation system) or (b) 40 car spaces or less with Carbon Monoxide monitoring to control the operation and speed of the ventilation fans?	
Annotation	Mechanical Exhaust ventilation is provided for Garage and a CO sensor control the operation and speed of the ventilation fans	
Question	Criteria Achieved ?	
Project	Yes	
3.2 Hot Water		100%
Score Contribution	This credit contributes 4.6% towards the category score.	
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?	
3.7 Internal Lighting - Non-Residential		100%
Score Contribution	This credit contributes 9.2% towards the category score.	
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J6.2a of the NCC 2019 Vol 1?	
Question	Criteria Achieved ?	
Office	Yes	
Unconditioned Warehouse/factory	Yes	

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4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A	Scoped Out
This credit was scoped out	No cogeneration or trigeneration system in use.		
4.2 Renewable Energy Systems - Solar		100%	
Score Contribution	This credit contributes 4.6% towards the category score.		
Criteria	What % of the estimated energy consumption of the building class it supplies does the solar power system provide?		
Output	Solar Power - Energy Generation per year		
Office	13,030 kWh		
Unconditioned Warehouse/factory	13,030 kWh		
Output	% of Building's Energy		
Office	116 %		
Unconditioned Warehouse/factory	1371 %		
4.4 Renewable Energy Systems - Other		0%	⊘ Disabled
This credit is disabled	No other (non-solar PV) renewable energy is in use.		

Stormwater

Overall contribution 14% Minimum required 100%

Which stormwater modelling are you using?:	Melbourne Water STORM tool	
1.1 Stormwater Treatment		100%
Score Contribution	This credit contributes 100.0% towards the category score.	
Criteria	Has best practice stormwater management been demonstrated?	
Question	STORM score achieved	
Project	100	
Output	Min STORM Score	
Project	100	

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IEQ

Overall contribution 11% Minimum required 50%

1.4 Daylight Access - Non-Residential		33%	✔ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Criteria	What % of the nominated floor area has at least 2% daylight factor?		
Annotation	20% of the floor area of the main regular used areas achieves a daylight factor of at least 2%. Windows must have VLT equal to or greater than 40%. The unconditioned garage and associated areas which are termed as unconditioned space types in BESS is NA to the credit & must be scoped out. > As the BESS tool does not allow scoping out a separate space, 100 % has been entered for the percentage achieved. 0 % cannot be entered as it is not the same as scoping out.		
Question	Percentage Achieved?		
Office	20 %		
Unconditioned Warehouse/factory	100 %		
2.3 Ventilation - Non-Residential		86%	✔ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Criteria	What % of the regular use areas are effectively naturally ventilated?		
Question	Percentage Achieved?		
Office	90 %		
Unconditioned Warehouse/factory	100 %		
Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?		
Question	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668:2012?		
Office	50 %		
Unconditioned Warehouse/factory	100 %		
Criteria	What CO2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?		
Question	Value		
Office	0 ppm		
Unconditioned Warehouse/factory	0 ppm		
3.4 Thermal comfort - Shading - Non-Residential		100%	
Score Contribution	This credit contributes 17.6% towards the category score.		
Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?		
Question	Percentage Achieved?		
Office	100 %		
Unconditioned Warehouse/factory	100 %		

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3.5 Thermal Comfort - Ceiling Fans - Non-Residential	0%
Score Contribution	This credit contributes 5.9% towards the category score.
Criteria	What percentage of relevant floor areas in tenancies have ceiling fans?
Question	Percentage Achieved?
Office	0 %
Unconditioned Warehouse/factory	0 %

4.1 Air Quality - Non-Residential	100%
Score Contribution	This credit contributes 5.9% towards the category score.
Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Office	Yes
Unconditioned Warehouse/factory	Yes
Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Office	Yes
Unconditioned Warehouse/factory	Yes
Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Office	Yes
Unconditioned Warehouse/factory	Yes

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Transport Overall contribution 7%

1.4 Bicycle Parking - Non-Residential	100%
Score Contribution	This credit contributes 25.0% towards the category score.
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Office	Yes
Unconditioned Warehouse/factory	Yes
Question	Bicycle Spaces Provided ?
Office	2
Unconditioned Warehouse/factory	2
1.5 Bicycle Parking - Non-Residential Visitor	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?
Question	Criteria Achieved ?
Office	Yes
Unconditioned Warehouse/factory	Yes
Question	Bicycle Spaces Provided ?
Office	1
Unconditioned Warehouse/factory	1
1.6 End of Trip Facilities - Non-Residential	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Where adequate bicycle parking has been provided. Is there also: * 1 shower for the first 5 employee bicycle spaces plus 1 to each 10 employee bicycles spaces thereafter, * changing facilities adjacent to showers, and * one secure locker per employee bicycle space in the vicinity of the changing / shower facilities?
Question	Number of showers provided ?
Office	1
Unconditioned Warehouse/factory	1
Question	Number of lockers provided ?
Office	2
Unconditioned Warehouse/factory	2
Output	Min Showers Required
Office	1
Unconditioned Warehouse/factory	1
Output	Min Lockers Required
Office	2
Unconditioned Warehouse/factory	2

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2.1 Electric Vehicle Infrastructure	100%
Score Contribution	This credit contributes 25% towards the category score.
Criteria	Are provisions made for the charging of electric vehicles?
Question	Criteria Achieved ?
Project	Yes

2.2 Car Share Scheme	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Has a formal car sharing scheme been integrated into the development?
Question	Criteria Achieved ?
Project	No

2.3 Motorbikes / Mopeds	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes (must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?
Project	No

Waste Overall contribution 4%

1.1 - Construction Waste - Building Re-Use	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?
Question	Criteria Achieved ?
Project	No

2.1 - Operational Waste - Food & Garden Waste	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	Yes

2.2 - Operational Waste - Convenience of Recycling	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?
Question	Criteria Achieved ?
Project	Yes

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Urban Ecology

Overall contribution 3%

1.1 Communal Spaces		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Is there at least the following amount of common space measured in square meters: * 1m² for each of the first 50 occupants * Additional 0.5m² for each occupant between 51 and 250 * Additional 0.25m² for each occupant above 251?	
Question	Common space provided	
Office	28.0 m²	
Unconditioned Warehouse/factory	3.0 m²	
Output	Minimum Common Space Required	
Office	28 m²	
Unconditioned Warehouse/factory	3 m²	
2.1 Vegetation		75%
Score Contribution	This credit contributes 50.0% towards the category score.	
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?	
Question	Percentage Achieved ?	
Project	22 %	
2.2 Green Roofs		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Does the development incorporate a green roof?	
Question	Criteria Achieved ?	
Project	No	
2.3 Green Walls and Facades		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Does the development incorporate a green wall or green façade?	
Question	Criteria Achieved ?	
Project	No	
3.2 Food Production - Non-Residential		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	What area of space per occupant is dedicated to food production?	
Question	Food Production Area	
Office	0.0 m²	
Unconditioned Warehouse/factory	0.0 m²	
Output	Min Food Production Area	
Office	8 m²	
Unconditioned Warehouse/factory	1 m²	

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Innovation Overall contribution 6%

Innovations	
Description:	
Lighting	• Internal spaces shall be well lit through flicker-free luminaires and a minimum CRI of 80. General illuminance and uniformity of maintained illuminance shall meet the appropriate AS/NZS 1680 standards in accordance with the type of activity of the space. All bare light sources shall be fitted with diffusers, baffles, or louvers (or similar, to eliminate glare from bare lamps). • Localised lighting control where individuals or groups of individuals can adjust lighting levels in their immediate environment where appropriate. Fixture performance: - A minimum Class A2 Ballast; or - Electronic drivers that feature 12-bit or greater resolution for all Light-emitting Diode (LED) lighting.
Lighting System and Controls	Motion control sensors in all zones including office areas. Max office lighting control zone of 100m2
Light Pollution	Light Pollution to Neighbouring Bodies: Must demonstrate that all outdoor lighting on the project complies with AS 4282:1997 Control of the obtrusive effects of outdoor lighting. The following values from Table 2.1 of AS 4282:1997 must be applied: For Class 3 to 9 buildings (non-residential), the values in Column 3.C. The system must comply with both pre- and post-curfew requirements Light Pollution to Night Sky: - No external luminaire on the project has a ULOR that exceeds 5%, relative to its actual mounted orientation
Acoustic Comfort	Appropriate and comfortable acoustic conditions will be proposed for occupants and the different zones
Urban heat island effect	Light colour roof materials are nominated for most of the roof.
Sustainable construction materials	For concrete used as part of the development, approximately 25% of cement is replaced with Supplementary Cement Materials (SCM); e.g., fly ash or ground granulated blast furnace slag (GGBFS)
Construction waste	At least 70% of construction and demolition waste to be diverted from landfill by recycling and reuse
Points Targeted:	
Lighting	1
Lighting System and Controls	1
Light Pollution	1
Acoustic Comfort	1
Urban heat island effect	1
Sustainable construction materials	1
Construction waste	1

1.1 Innovation	70%
Score Contribution	This credit contributes 100.0% towards the category score.
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?

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Appendix B – STORM Report

STORM Rating Report

TransactionID:	1620695	
Municipality:	EAST GIPPSLAND	
Rainfall Station:	GABO ISLAND	
Address:	82 Betka Road	
	Mallacoota	
	VIC	
	VIC	3892
Assessor:	KNR	
Development Type:	Other	
Allotment Site (m2):	1,597.00	
STORM Rating %:	100	

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Treated roof area	320.00	Rainwater Tank	5,000.00	15	116.20	70.00
Treated roof area	160.00	Rainwater Tank	5,000.00	15	147.20	82.00
Untreated roof area	240.00	None	0.00	0	0.00	0.00
Site Parking	300.00	Raingarden 100mm	8.00	0	129.25	0.00
Access Road	200.00	Raingarden 100mm	4.00	0	125.10	0.00
Untreated pathway+ generator	30.00	None	0.00	0	0.00	0.00

Date Generated: 27-Jul-2023 Program Version: 1.0.0

Figure 2. – STORM Calculator

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Appendix C – STORM Markup

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STORM MARKUP

- Untreated pathway + Generator = 29 sq.m
- Total Untreated Roof Area = 240 sq.m
- Treated Roof = 320 sq.m connected to Rainwater Tank 5kL
- Treated Roof = 160 sq.m connected to Rainwater Tank 5kL
- Site Parking (300 sq.m) connected to Raingarden 1
- Access Road (194 sq.m) connected to Raingarden 2
- Raingarden 1 (8 sq.m)
- Raingarden 2 (4 sq.m)
- Rainwater Tanks (10kL) - 2 tanks of 5kL each
- Pervious Area (354 sq.m)

27230
REAR SETBACK

42400

5000L=ABOVEGROUND=RWT
(800W=x=3200L=x=2020H)

SINGLE STOREY DWELLING

SHED

313°40'20" 77.85m

2000
SIDE SETBACK

14630

3485

233°20'40" 18.40m

Raingarden=1

PROPOSED AMBULANCE STATION
557.87m²

5° FALL

2.5° FALL

25° FALL

12° FALL

5° FALL

3° FALL

DELIVERY

TP

BP

MB

GP

Raingarden=2

43°40'20" 18.11m

6610
SETBACK

13500

BETKA ROAD

BUCKNALL STREET

28600
REAR SETBACK

42400

8225

STORM MARKUP

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Appendix D – Daylight Markup

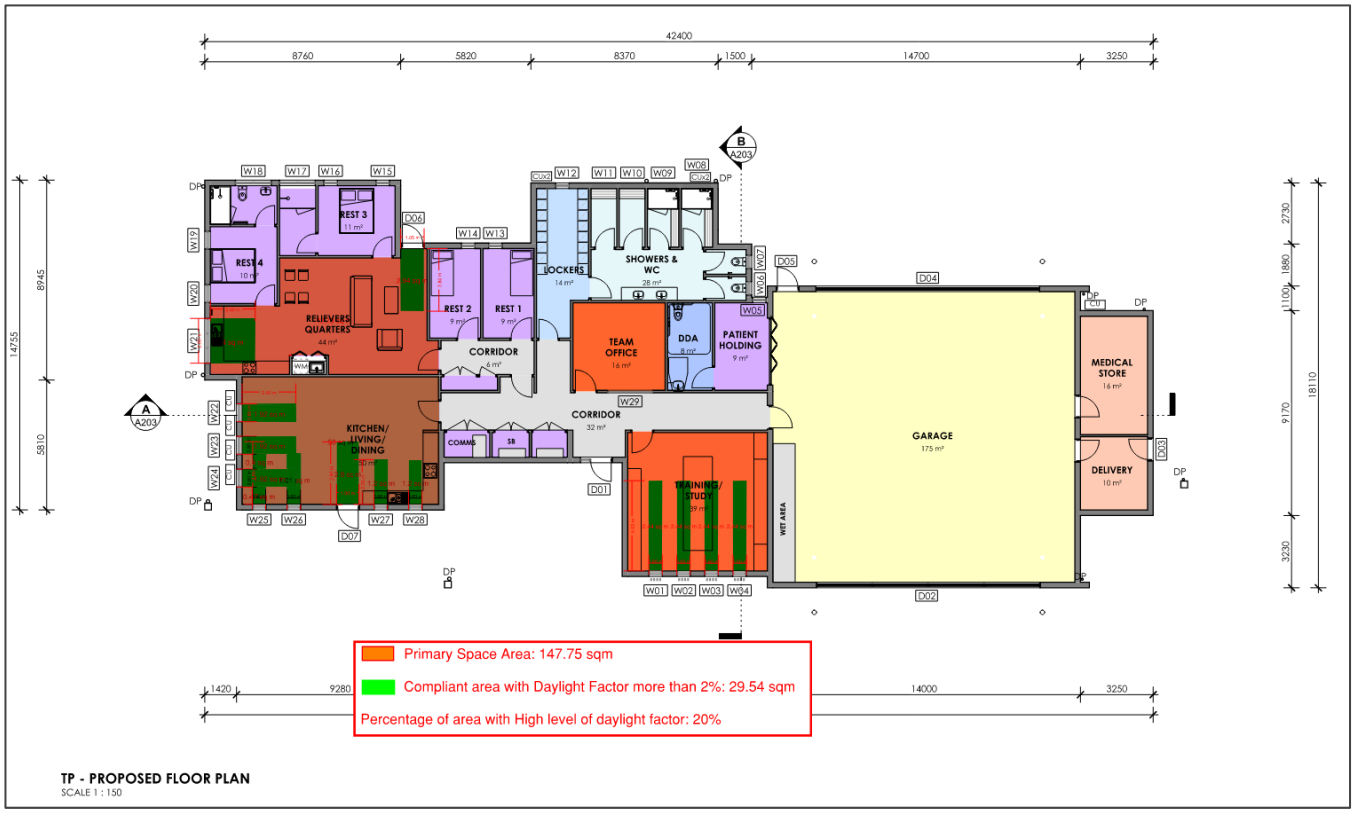

Figure 3. – Ground Floor daylight map

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Appendix E – Preliminary Façade Assessment

Calculator that includes both the External and internal envelope for U value

Façade
Report
Calculator

Project Summary

Date: 16/05/2023
Name: KP
Company: erbas
Position: ESD Modeller
Building Name / Address: Ambulance Victoria, 82 Betka Road, Mallacoota
Building State: VIC
Climate Zone: Climate Zone 6 - Mild temperate
Building Classification: Class 9b - public halls, function rooms or the like
Storeys Above Ground: 1
Tool Version: 1.2 (June 2020)

The summary below provides an overview of where compliance has been achieved for Specification J1.5a - Calculation of U-Value and solar admittance - Method 1 (Single Aspect) and Method 2 (Multiple Apects).

Compliant Solution =
Non-Compliant Solution =

	Method 1 North	Method 1 East	Method 1 South	Method 1 West	Method 2 All
Wall-glazing U-Value (W/m².K)	0.71	1.53	1.10	1.31	1.16
Solar Admittance		0.11	0.05	0.08	
AC Energy					0

Method 1

Method 2

Project Details

	North	East	South	West
Glazing Area (m²)	0	14.964	6.48	10.473
Glazing to Facade Ratio	0%	16%	8%	12%
Glazing References		W.01 W.02 W.03 W.04 W.05	W.01 W.02	W.01 W.02 W.03 W.04 W.05
Glazing System Types		USER (DEFINED)	USER (DEFINED)	USER (DEFINED)
Glass Types		DEFAULTS (GENERIC)	DEFAULTS (GENERIC)	DEFAULTS (GENERIC)
Frame Types		Aluminium	Aluminium	Aluminium
Average Glazing U-Value (W/m².K)		5.80	5.80	5.80
Average Glazing SHGC	0.00	0.80	0.80	0.80
Shading Systems	Horizontal	Horizontal	Horizontal	Horizontal
Wall Area (m²)	91.8725	75.7415	79.23	78.823
Wall Types	Wall	Wall	Wall	Wall
Methodology	Wall			
Wall Construction	R1.4	R1.4	R1.4	R1.4
Wall Thickness	200	200	200	200
Average Wall R-value (m².K/W)	1.40	1.40	1.40	1.40
Solar Absorptance	0.6	0.6	0.6	0.6

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Calculator that includes External facing envelope facade only for SHGC.

Façade

Report

Calculator

Project Summary

Date
16/05/2023

Name
KP

Company
erbas™

Position
ESD Modeller

Building Name / Address
Ambulance Victoria
82 Betka Road, Mallacoota

Building State
VIC

Climate Zone
Climate Zone 6 - Mild temperate

Building Classification
Class 9b - public halls, function rooms or the like

Storeys Above Ground
1

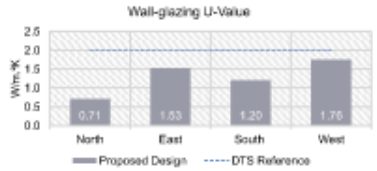
Tool Version
1.2 (June 2020)

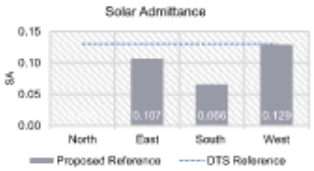
The summary below provides an overview of where compliance has been achieved for Specification J1.5a - Calculation of U-Value and solar admittance - Method 1 (Single Aspect) and Method 2 (Multiple Apects).

Compliant Solution =
Non-Compliant Solution =

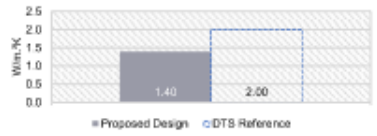
	Method 1 North	Method 1 East	Method 1 South	Method 1 West	Method 2 All
Wall-glazing U-Value (W/m².K)	0.71	1.53	1.20	1.76	1.40
Solar Admittance		0.11	0.07	0.13	
AC Energy					11

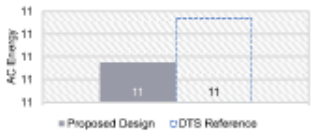
Method 1





Method 2





Project Details

	North	East	South	West
Glazing Area (m²)	0	14.964	6.48	10.473
Glazing to Facade Ratio	0%	16%	10%	21%
Glazing References		W.01 W.02 W.03 W.04 W.05	W.01 W.02	W.01 W.02 W.03 W.04 W.05
Glazing System Types		USER (DEFINED)	USER (DEFINED)	USER (DEFINED)
Glass Types		DEFAULTS (GENERIC)	DEFAULTS (GENERIC)	DEFAULTS (GENERIC)
Frame Types		Aluminium	Aluminium	Aluminium
Average Glazing U-Value (W/m².K)		5.80	5.80	5.80
Average Glazing SHGC	0.00	0.75	0.75	0.75
Shading Systems	Horizontal	Horizontal	Horizontal	Horizontal
Wall Area (m²)	25.79	78.7415	60.765	40.586
Wall Types	Wall	Wall	Wall	Wall
Methodology	Wall			
Wall Construction	R1.4	R1.4	R1.4	R1.4
Wall Thickness	200	200	200	200
Average Wall R-value (m².K/W)	1.40	1.40	1.40	1.40
Solar Absorptance	0.6	0.6	0.6	0.6

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general@erbas.com.au | erbasSUSTAIN.com.au

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MEMBER 2019-2020

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AMBULANCE VICTORIA MALLACOOTA BRANCH

82 BETKA ROAD, MALLACOOTA, VIC 3892

DRAWING REGISTER

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Project
AMBULANCE VICTORIA MALLACOOTA STATION

Project Address
82 BETKA ROAD, MALLACOOTA

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TOWN PLANNING

Date OCTOBER 2023
Scale
Project No 22-016
Drawing No A000
Rev.

foursight
architects interiors landscape designers project managers
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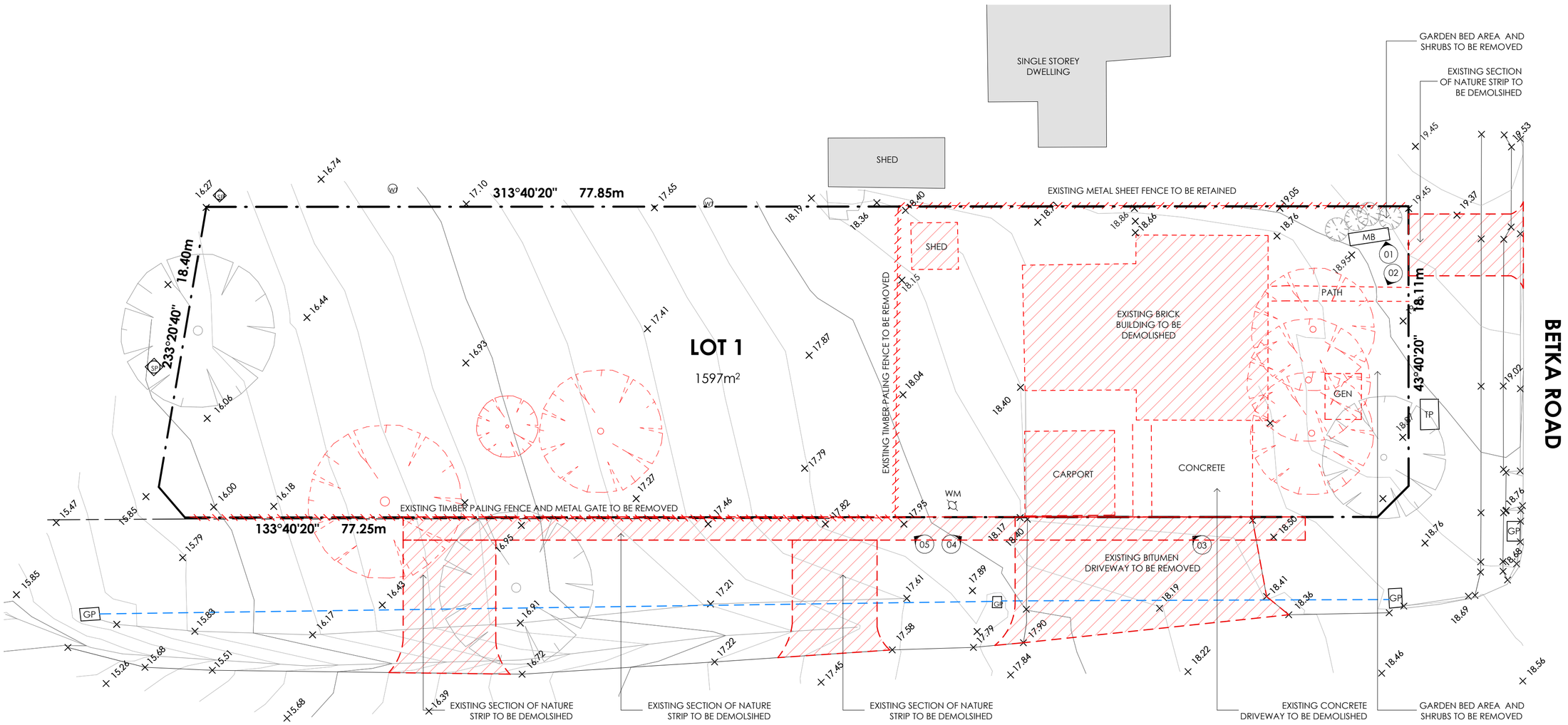
01

02

03

04

05



LEGEND

- EXISTING ADJOINING PROPERTIES
- EXISTING TREES/PLANTING TO BE RETAINED
- EXISTING TREES/PLANTING TO BE REMOVED
- EXISTING ELEMENTS TO BE REMOVED
- IMAGES
- GEN EXISTING GENERATOR TO BE RELOCATED
- GP EXISTING DRAINAGE GRATED PIT
- TP EXISTING TELECOMMUNICATIONS PIT
- SP EXISTING SEWER PIT
- WM EXISTING WATER METER TO BE RELOCATED
- MB EXISTING MEMORIAL BENCH SEAT TO BE RELOCATED

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EXISTING & DEMOLITION SITE PLAN

SCALE 1 : 200

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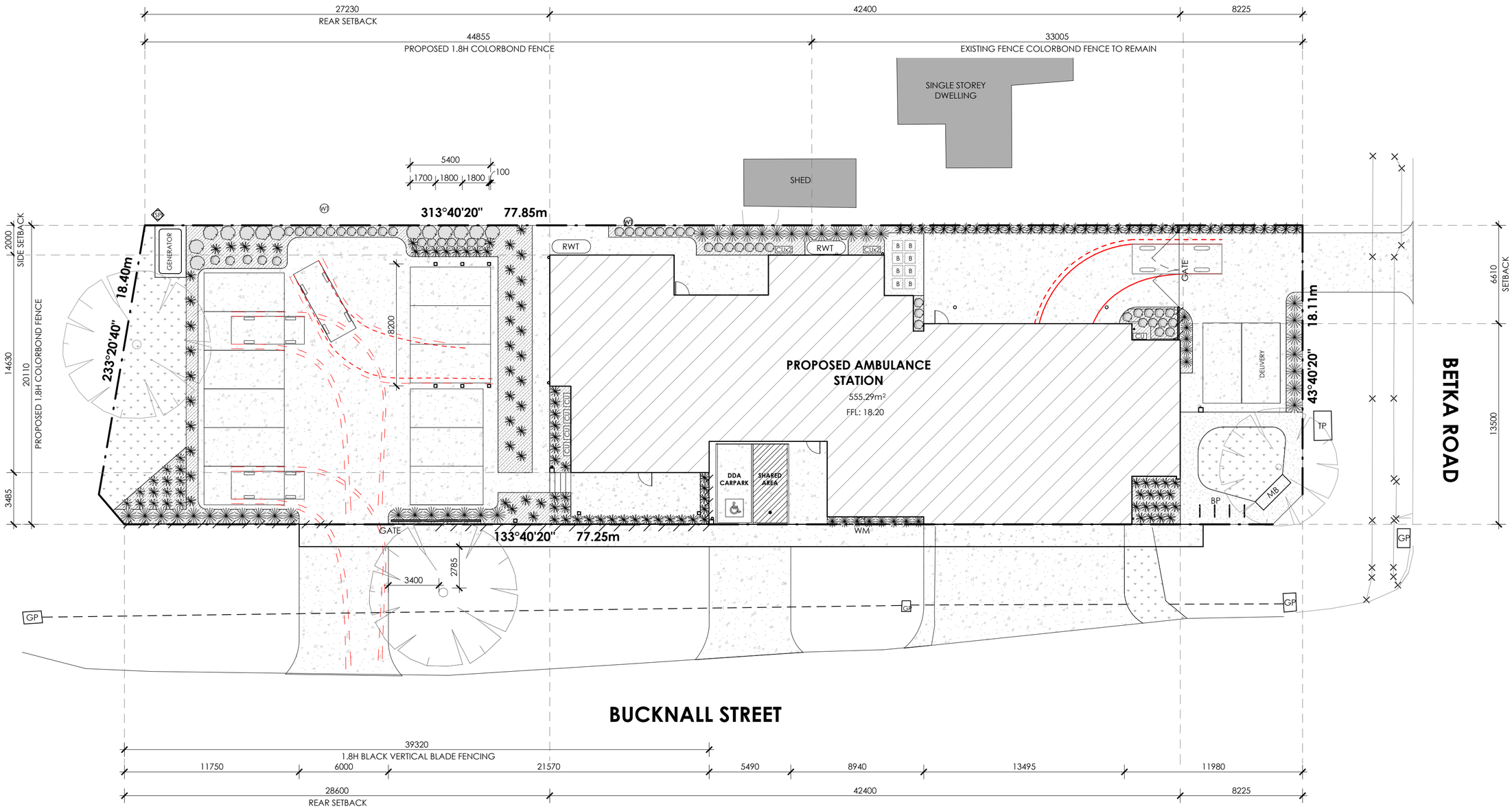

NOTES

PROVISION OF EFFICIENT WATER FIXTURES, FITTINGS AND CONNECTIONS. BATHROOMS AND KITCHENS WILL INSTALL FIXTURES WITH THE FOLLOWING MINIMUM WELS RATING:

- KITCHEN TAPS >= 6 STAR WELS RATING
- BATHROOM TAPS >= 6 STAR WELS RATING
- WASHBASINS >= 5 STAR WELS RATING
- SHOWERS – 4 STAR
- WC >= 5 STAR WELS RATING
- DISHWASHERS >= 6 STAR WELS RATING
- WASHING MACHINE WATER EFFICIENCY >= 6 STAR WELS RATING

EXISTING DEVELOPMENT SUMMARY

TOTAL SITE:	**1597m²**	
BUILDING FOOTPRINT:	**171m²**	(10.71%)
HARD SURFACE:	**106m²**	(6.64%)
PERMEABILITY:	**1320m²**	(82.65%)

PROPOSED DEVELOPMENT SUMMARY

TOTAL SITE:	**1597m²**	
BUILDING FOOTPRINT:	**555.29m²**	(34.79%)
HARD SURFACE:	**682.27m²**	(42.59%)
PERMEABILITY:	**359.44m²**	(22.51%)

LEGEND

- EXISTING ADJOINING PROPERTIES
- EXISTING TREES/PLANTING TO BE RETAINED
- GP EXISTING DRAINAGE GRATED PIT
- TP EXISTING TELECOMMUNICATIONS PIT
- SP EXISTING SEWER PIT
- WM EXISTING RELOCATED WATER METER
- MB EXISTING RELOCATED MEMORIAL BENCH SEAT
- RWT PROPOSED 5KL ABOVE GROUND RAINWATER STORAGE TANK COMPLETE WITH SINGLE SUBMERSIBLE RAINWATER PUMP
- BP **CORA** BIKE PARKING RAIL WITH SPIGOTS FOR SUB SURFACE FIX FOR 2 BIKES QTY: 3
- GATE AUTOMATED GATE TO BE PROVIDED. REFER TO AUTOMATIC MOTORISED SLIDING GATE FUNCTIONAL BRIEF VERSION 02 APRIL 2019. THE SLIDING GATE REQUIRES A MANUAL OVERRIDE.
- 1.8 HIGH SECURITY FENCING

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PROPOSED SITE PLAN
SCALE 1 : 200

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PROPOSED FLOOR PLAN
SCALE 1 : 150

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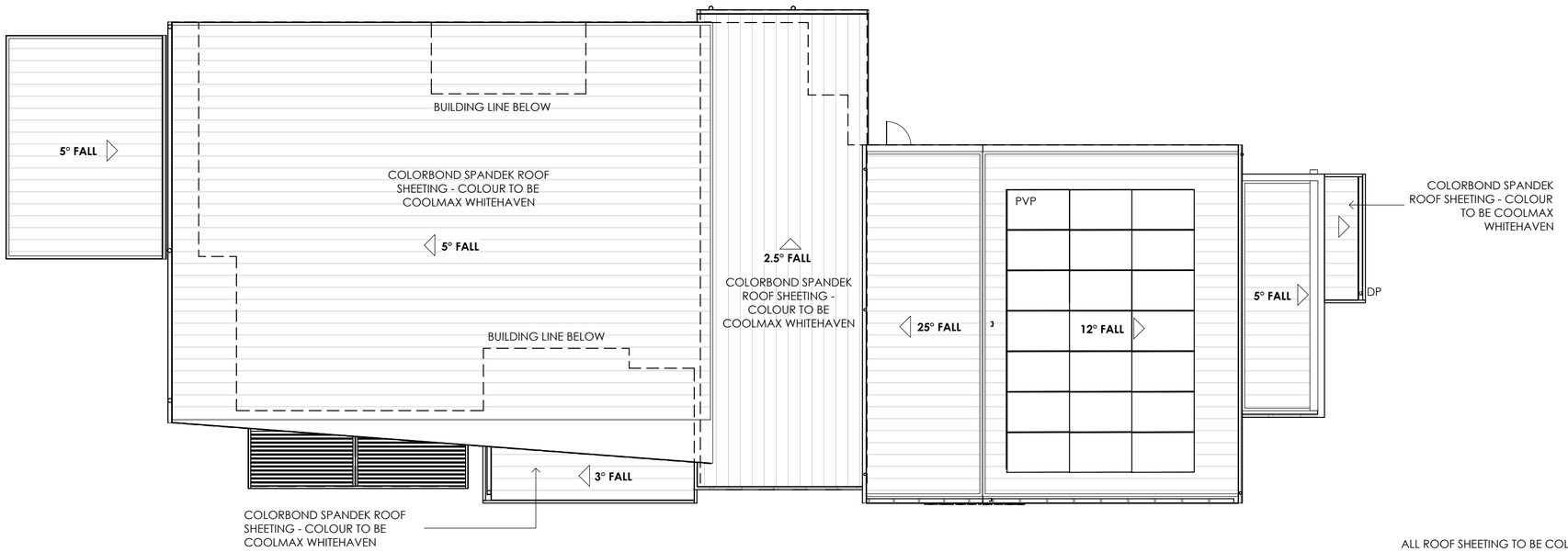

NOTE:
ALL ROOF SHEETING TO BE COLORBOND SPANDEK ROOF SHEETING - COLOUR TO BE COLORBOND COOLMAX WHITEHAVEN UNLESS OTHERWISE SPECIFIED

PROPOSED ROOF PLAN
SCALE 1 : 150

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Project
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TOWN PLANNING

Date OCTOBER 2023
Scale 1 : 150
Project No 22-016
Drawing No A103
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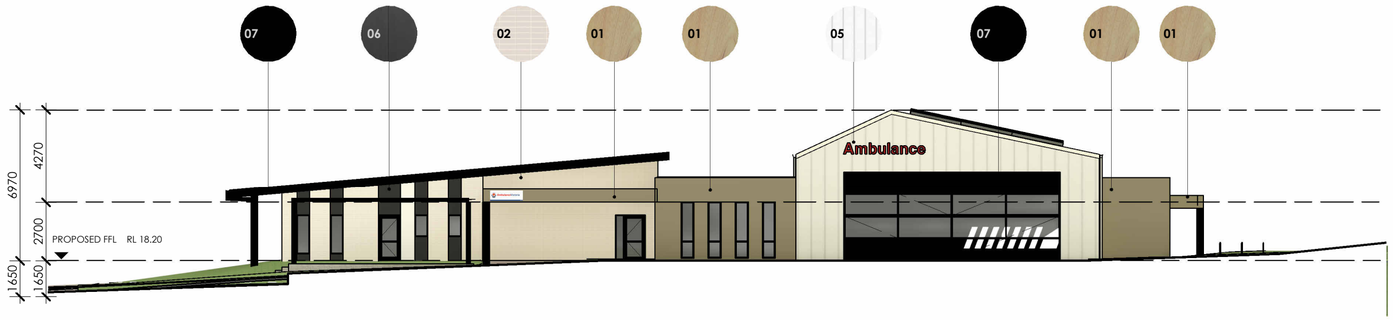
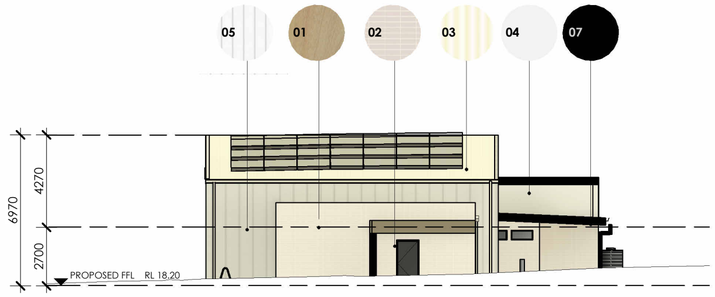
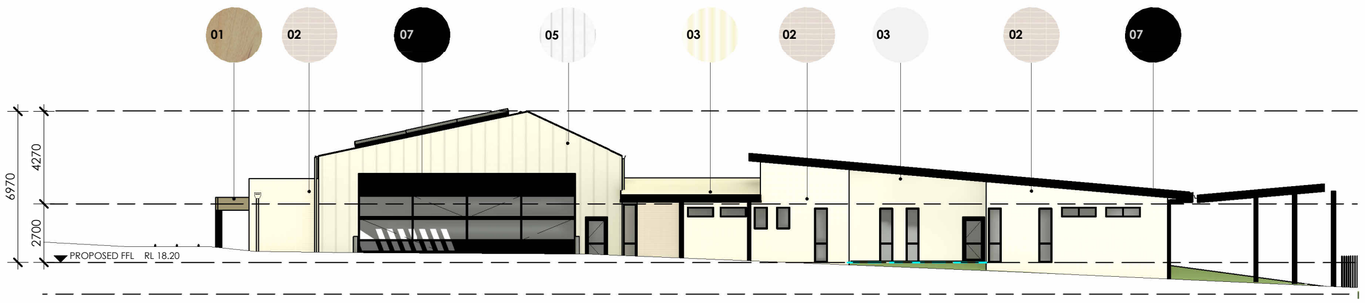


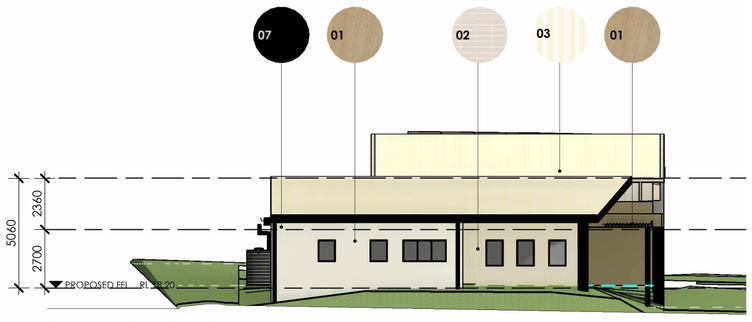
TP - EAST ELEVATION
SCALE 1 : 200



TP - NORTH ELEVATION
SCALE 1 : 200



TP - WEST ELEVATION
SCALE 1 : 200



TP - SOUTH ELEVATION
SCALE 1 : 200

MATERIALS LEGEND

01 ALIWOOD METAL CLADDING
DRIFTWOOD

02 AUSTRAL BRICKS
LA PALOMA MIRO

03 COLORBOND WHITEHAVEN
ROOF SHEETING

04 JAMES HARDIE MATRIX
PANEL PAINTED DULUX
NATURAL WHITE

05 COLORBOND STANDING
SEAM CLADDING IN
SURFMIST

06 JAMES HARDIE MATRIX PANEL
PAINTED DULUX DOMINO

07 COLORBOND NIGHT SKY
FLASHINGS, DOORS AND
WINDOW FRAMES

NOTE:
BUILDING IDENTIFIER AMBULANCE LETTERING
ID CODE: ID-LET-360-LGE-R. REFER TO AV
PROPERTY SIGN SUITE MAY 2018 ISSUE 2.0

AV SIGNAGE DETAIL 01
SCALE 1 : 20

NOTE:
BUILDING IDENTIFIER AMBULANCE LETTERING
ID CODE: **TYPE C** ID-WM-150-C. REFER TO AV
PROPERTY SIGN SUITE MAY 2018 ISSUE 2.0

AV SIGNAGE DETAIL 02
SCALE 1 : 10

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Project
AMBULANCE VICTORIA MALLACOOTA STATION

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TOWN PLANNING

Date	Scale	
OCTOBER 2023	As indicated	
Project No	**Drawing No**	**Rev.**
22-016	A200	

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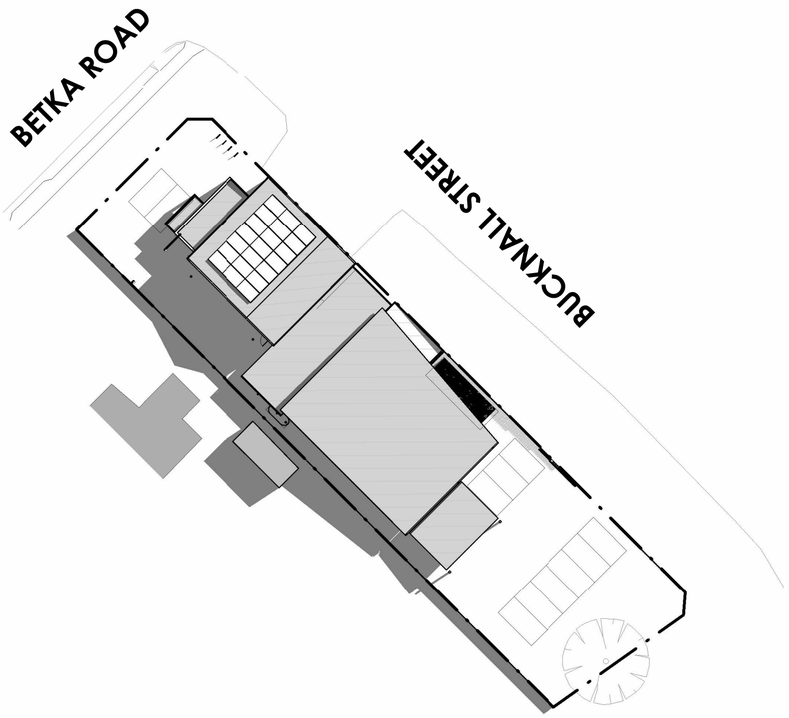
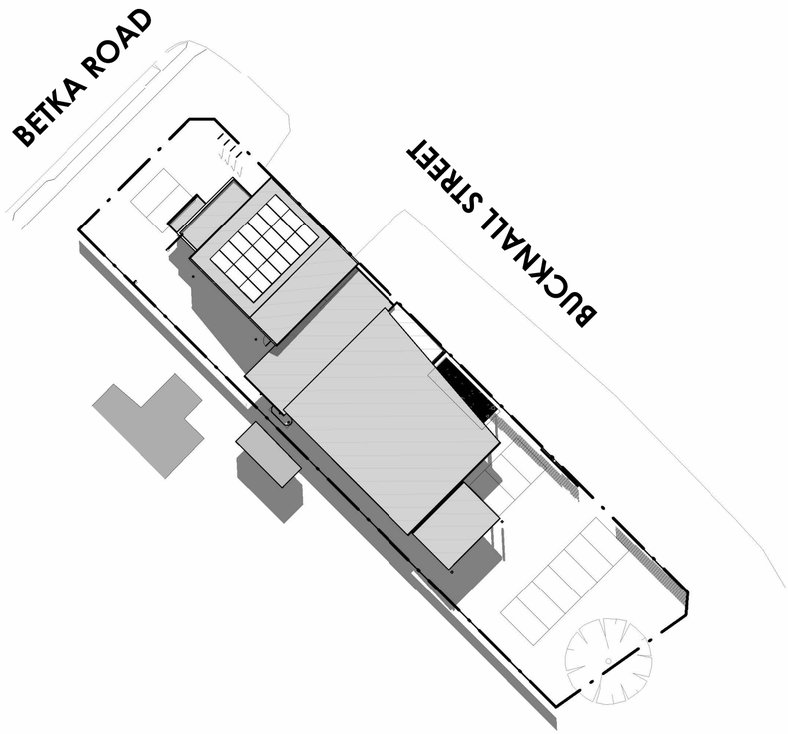
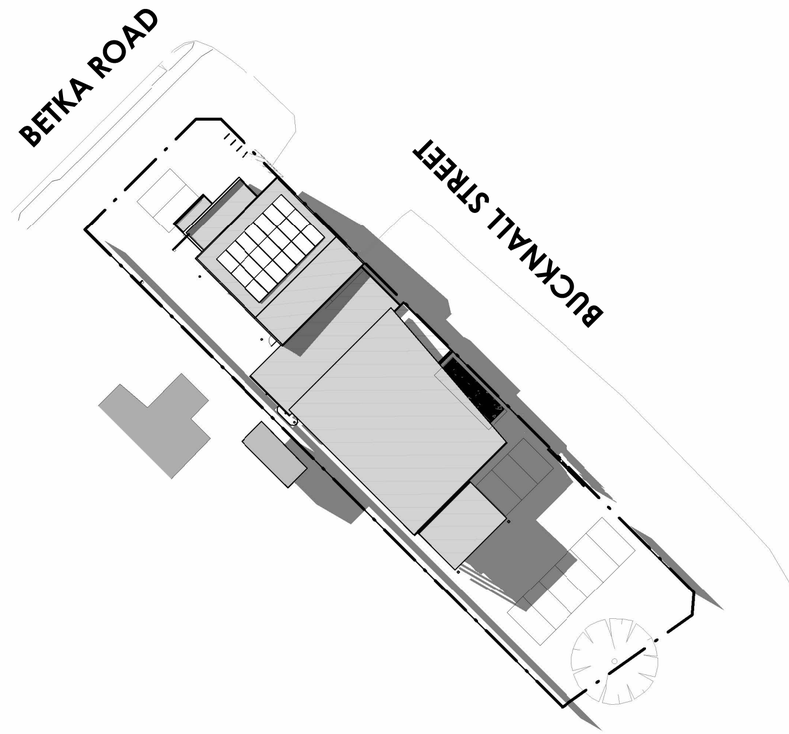


PROPOSED 9AM SHADOW DIAGRAM
SCALE 1 : 500



PROPOSED 12PM SHADOW DIAGRAM
SCALE 1 : 500



PROPOSED 3PM SHADOW DIAGRAM
SCALE 1 : 500

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TOWN PLANNING

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PLANTING SCHEDULE

	LEGEND	BOTANICAL NAME	COMMON NAME	POT SIZE	MATURITY SIZE	QTY
SHRUBS	BS	*Bursaria Spinosa*	SWEET BURSARIA	150Ø	2m X 1.5m	12
	IA	*Indigofera Australis*	AUSTRALIAN INDIGO	150Ø	1-2m X 1-2m	15
	DV	*Dodonaea viscosa*	GREEN HOP BUSH	150Ø	1-2m X 1-2m	15
	CA	Correa Alba Prostrate	DWARF WHITE CORREA	150Ø	1m X 1m	71
	RC	*Rhagodia Candolleana*	SEABERRY SALTBUSH	150Ø	0.3m X 0.6m	21
	LM	*Lomandra*	LITTLE PAL	150Ø	0.7m X 0.7m	74
GROUND COVER	OF	*Calocephalus Lacteus*	MILKY BEAUTY-HEAD	100Ø	0.3m X 1m	14

(AV) Drooping Sheoak

(BS) Sweet Bursaria

(IA) Australian Indigo

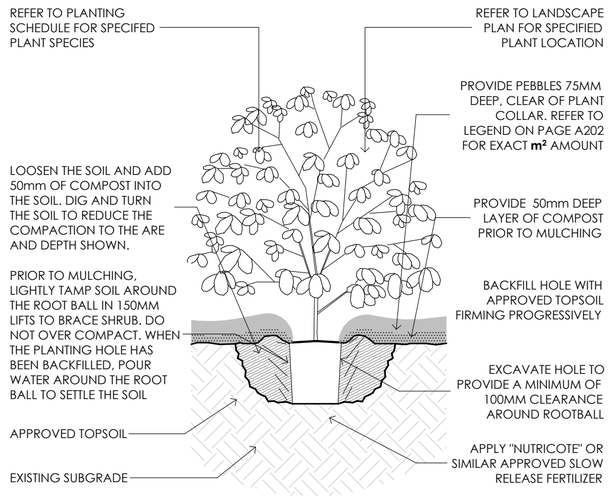
(DV) Green Hop Bush

(CA) Dwarf White Correa

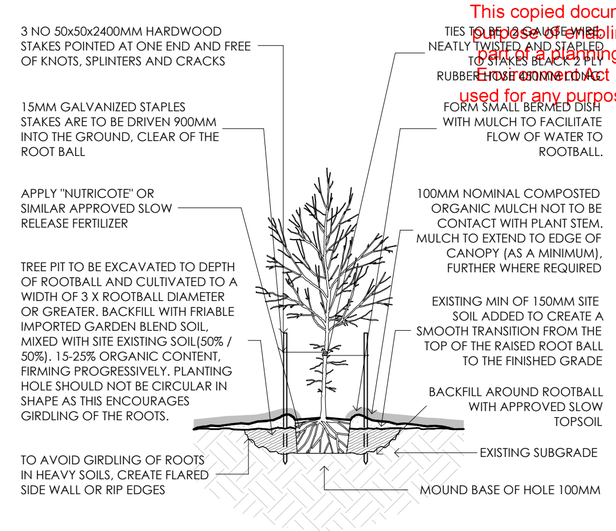
(RC) SEABERRY SALTBUSH

(LM) Little Pal

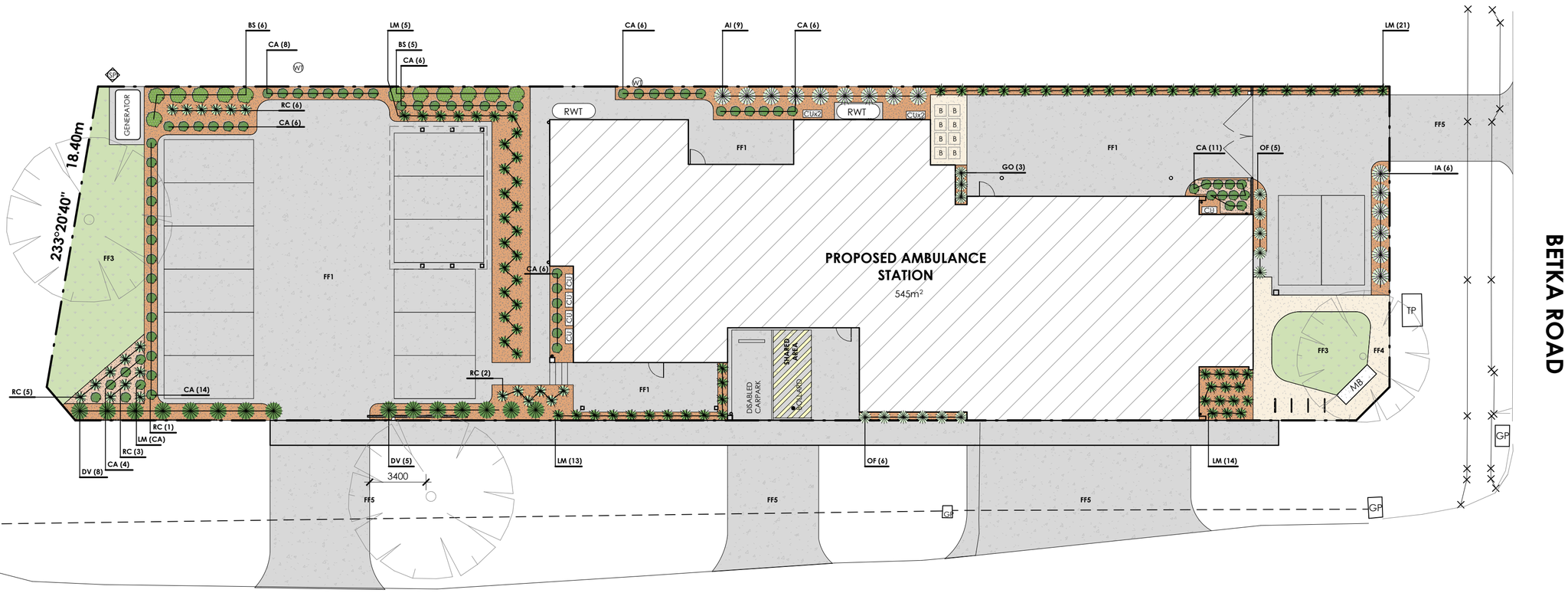
(OF) Milky Beauty-Head



TYPICAL SHRUB PLANTING DETAIL
SCALE 1 : 1



TYPICAL TREE PLANTING DETAIL
SCALE 1 : 2



PROPOSED LANDSCAPE PLAN
SCALE 1 : 200

IMPORTANT NOTE

CONTRACTOR TO PROVIDE IRRIGATION TO ALL GARDEN BEDS AND GRASS AREAS. IRRIGATION SYSTME TO BE CONNECTED TO PROPOSED WATER TANKS ON SITE. ENSURE GARDEN BEDS TO HAVE SUB-SURFACE IRRIGATIONS DRIP SYSTEM. ENSURE IRRIGATION IS SECURED BENEATH GARDEN BED.

CONTRACTOR TO VERIFY NEAREST WATER SUPPLY CONNECTION ON SITE.

THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL LOSSES OF PLANT MATERIAL DUE TO NURSERY STOCK FAILURE OR IMPROPER HORTICULTURAL CARE DURING DEFECTS LIABILITY PERIOD / PLANT ESTABLISHMENT PERIOD (26 WEEKS).

THE CONTRACTOR MUST WATER AND MAINTAIN THE PLANTS FOR A PERIOD OF 13 WEEKS FROM THE DATE OF PRACTICAL COMPLETION.

WEEDING OF GARDEN BEDS AND AROUND TREES IS TO BE DONE ATREGULAR INTERVALS OF NOT LESS THAN A WEEK OR SOONER AS DIRECTED AND JUST PRIOR TO THE END OF THE MAINTENANCE PERIOD.

LEGEND

- EXISTING TREES/PLANTING TO BE RETAINED
- **FF1** PROPOSED CONCRETE PAVEMENT. **APPROX 683m²**
- **FF2** 200mm THICK OF CLEAN IMPORTED FILL WITH 75mm OF PEBBLES OVER. REFER TO DETAIL. **APPROX 203m²**
- **FF3** NEW GRASS WITH IRRIGATION SYSTEM. REFER TO DETAIL ON PAGE A300. **APPROX 103m²**
- **FF4** COMPACTED GRANITIC SAND WITH 50mm CRUSHED ROCK SUB BASE. REFER TO DETAIL ON PAGE A300. **APPROX 46m²**
- **FF5** PROPOSED CONCRETE CROSSOVER. **APPROX 294m²**
- **RG** PROPOSED RAINGARDEN TO BE CONFIRMED BY CIVIL ENGINEER. 200mm THICK OF CLEAN IMPORTED FILL WITH 75mm OF PEBBLES OVER. REFER TO DETAIL. **APPROX 15m²**

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TOWN PLANNING

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Scale As indicated
Project No 22-016
Drawing No A202
Rev.

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TOWN PLANNING

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Arboricultural Report

Construction Impact Assessment with Tree Management Protection Plan

82 Betka Road,
Mallacoota VIC 3892

(Report No. 152-2023)

RIGONI TREE SOLUTIONS

Provide specialist arboriculture advice for vegetation management in the urban forest.

Commissioned By:

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Foursight Architects
P: 03 9348 9802
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Prepared By:

Shaun Rigoni
Dip Hort Arb.
Consulting Arborist
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Date: 20/10/2023

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Introduction

Rigoni Tree Solutions ('RTS') has been engaged by Foursight Architects to assess and survey all trees onsite and on adjoining trees within close proximity to property boundaries including street trees to 82 Betka Road, Mallacoota (the 'Subject Property') for a proposed development within close proximity to these trees, and to prepare a Construction Impact Assessment with a Tree Management Protection Plan (TMPP) to protect retained trees.

Upon recommendations by RTS, the design plans have been amended to protect retained trees.

The site is located within a General Residential Zone (GRZ1), a Design and Development Overlay (DDO12) and a Vegetation Protection Overlay (VPO8) in East Gippsland Shire Council (the 'Responsible Authority') (*DELWP, 2023*).

The VPO8 requires a permit to remove, destroy or lop any vegetation. None of the exemptions apply to any tree within this report.

A project arborist must be appointed to certify works throughout all construction stages.

Tree Protection Zone (TPZ) and Structural Root Zones (SRZ) have been calculated for each tree, with measurements provided to assist with the design and development phases. As part of the arboricultural impact assessment completed for this site a tree management and protection plan has been provided which outlines how retained on and offsite trees are to be protected during the proposed development at this address in line with Australian Standard *AS4970-2009: Protection of Trees on Development Sites*.

Critical Issues

Demolition and construction works can negatively affect retained trees both directly through mechanical injury and indirectly in ways that are not evident immediately but affect the health of the tree in the long term. It is for this reason that tree protection measures should be implemented and adhered to throughout the entire development process.

Arboricultural techniques cannot repair construction damage to a tree or the degradation to its environment. Arborists only have a limited ability to 'cure' specific injuries or generalized stress caused by construction activities. Once a tree has been damaged, few remedial treatments available (*Matheny & Clark 1998).*

Direct damage to roots through trenching and site cuts can remove absorbing roots and sever structural roots. Root activity can be compromised by various activities: soil compaction, sealing the soil surface by adding soil fill over roots. These activities limit the amount of oxygen and moisture that may reach the roots, and without which roots cannot function. Tree trunks and branches are easily damaged by machinery during works. It is important that trees are properly protected throughout all stages of the project starting at the design phase.

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Determining Tree Protection Zones

The following information has been adapted from the Australian Standard for the Protection of trees on development sites (*AS4970-2009*):

The tree protection zone (TPZ) is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.

The radius of the TPZ is calculated for each tree by multiplying its diameter at breast height (DBH) by 12. DBH is measured 1.4m above ground level. The TPZ measurement Is applied by measuring the radius from the centre of the stem at ground level. The following also applies:

- The TPZ incorporates the structural root zone (SRZ).
- A TPZ should not be less than 2 m nor greater than 15 m (except where crown protection is required).
- The TPZ of palms, other monocots, cycads and tree ferns should not be less than 1 m outside the crown projection.

Tree Protection Zone (TPZ) radius is measured from the centre of the trunk giving a circular area to protect the canopy and roots above and below ground during construction. The Structural Root Zone (SRZ) is incorporated in the TPZ to protect the tree's longevity and stability. No encroachment is allowed inside the SRZ as stated in the Australian Standard *AS4970-2009 Protection of Trees on Development Sites.*

Variations to the TPZ

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.

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.

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Methodology

On Monday 10th October 2023, a detailed inspection was undertaken from the ground by Shaun Rigoni. Observations, estimations, measurements and photographs were taken during the inspection. Samples from the trees, including fruit, buds, bark and leaves were gathered to help in identifying the genus/species.

Detailed individual tree data (measurements and assessments) can be found in the observations section, starting on the next page. The Tree Protection Plan showing the TPZ/SRZ of retained trees and tree protection measures as they relate to the proposed plans is in appendix 1. The existing site plan showing all trees numbers and locations is in appendix 2. Tree photos can be found in Appendix 3, with Tree descriptors located in appendix 5 of this report for reference in understanding the data collected for the tree assessed.

Data collected for the trees included:

- **Genus** and **species** identification
- **Common name** of each tree
- An estimation of tree **height** and **canopy width**
- **Origin** of the species
- **Diameter at breast height (DBH)** measured at 1.4m above ground level and **Diameter at base (DAB)** measured at ground level above the root flare of each tree
- An estimation of tree **age**
- The **health** of each tree
- The **structure** of each tree
- The **hazard** that each tree presents to the site
- The **Useful Life Expectancy (ULE)** of each tree
- The **Arboricultural Significance** and **retention value** of each tree, as calculated on the STARS regimen.
- **Tree Protection Zone (TPZ)** in accordance with AS4970-2009
- **Structural Root Zone (SRZ)** in accordance with AS4970-2009

A visual assessment was done above ground on the root system with no evidence of problematic structural issues. Underground exploration was done only in the areas indicated in this report, otherwise no other underground exploration was undertaken, and no liability can be taken for any faults occurring underground. All the information given is in accordance with normal weather conditions and not in severe weather events. The assessment information relates to evidence taken on the day of inspection only and does not include changes thereafter. Rigoni Tree Solutions recommends reassessing the tree annually or directly after severe weather events.

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Note: Tree descriptors are located in the appendix of this report for reference in understanding the data collected for the tree assessed.

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Observations

Table 1 Detailed tree data tree survey at for 82 Betka Rd, Mallacoota All measurements are in metres. Map: Appendix 1 Site Plan

Tree #	Genus/species (Common name)	Height (m)	Width (m)	Origin	Age	Health	Structure	Hazard	ULE	Significance	DBH (m)	DAB (m)	TPZ (m)	SRZ (m)	Retain Y/N	Comments
T1	*Eucalyptus sp.*	12	9x7	Indigenous	Semi-mature	Good	Good-fair	Low	Long	Medium	0.58	0.67	6.96	2.80	Yes	Council street tree. No fruit or buds available
TG2	*Pittosporum undulatum* (Sweet Pittosporum)	7	5x5	Indigenous	Semi-mature	Good	Fair	Low	Remove	Low	0.13	0.16	2.00	1.53	Yes	Group of 5 council street trees. Environmental weed species
T3	*Paulownia tomentosa* (Princess Tree)	10	10x10	Exotic	Semi-mature	Fair	Fair	Low	Long	Medium	0.61	0.65	7.32	2.76	Yes	Onsite tree. Large structural and feeder surface roots visible north of tree
T4	*Eucalyptus sp.*	12	8x8	Indigenous	Semi-mature	Fair	Fair-poor	Low	Remove	Medium	0.83	0.99	9.96	3.30	Yes	Onsite tree. No fruit or buds available. Co-dominant stems from GL with each stem further bifurcating at 1m above GL and again at 2m above GL
TG5	*Paulownia tomentosa* (Princess Tree)	6	8x8	Exotic	Semi-mature	Fair	Fair	Low	Remove	Medium	0.40	0.56	4.80	2.59	Yes	Onsite group of 3 trees
T6	*Callistemon viminalis* (Weeping Bottlebrush)	5	4x4	Aust. Native	Aust. Native	Good	Good	Low	Medium	Medium	0.19	0.31	2.28	2.02	Yes	Onsite tree. Co-dominant stems from GL, typical for species
T7	*Callistemon viminalis* (Weeping Bottlebrush)	5	5x5	Aust. Native	Semi-mature	Good	Fair-poor	Low	Remove	Medium	0.27	0.32	3.24	2.05	Yes	Onsite tree. Both stems are crossed, damaging bark
T8	*Callistemon sp.*	7	5x5	Aust. Native	Semi-mature	Good	Fair	Low	Remove	Medium	0.33	0.39	3.96	2.23	Yes	Onsite tree. Co-dominant stems from ~3m above GL. Stem union is acute and contains included bark. Adaptive tissue growth indicates internal weakness
T9	*Hakea sp.*	5	8x8	Aust. Native	Semi-mature	Good	Fair	Low	Long	Medium	0.38	0.47	4.56	2.41	Yes	Onsite tree

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Discussion / Impact Assessment

Nine tree/tree groups have been assessed as part of this report with seven onsite trees and two street trees. The proposal has been redesigned on advice from RTS to minimise the impact upon T1 but increasing the encroachment of T3 to allow retention of T1, a native species of significant local value.

The proposal calls for the demolition of the existing ambulance station along with the construction of a new carpark, crossovers & driveways, ambulance station and landscaping.

Of the nine tree/tree groups included within this report:

Tree #	Impacted	Minor (<10%)	Major (>10%)	Incursion %	Acceptable	Notes
T1	Yes	-	X	14.9%	Yes	Considered an acceptable impact for the species. Redesign has reduced impact
TG2	Yes	-	X	100%	No	Tree musts be removed to allow the proposal to proceed. Environmental weed
T3	Yes	-	X	17%	Yes	Considered an acceptable impact for the species. Redesign has reduced impact
T4	Yes	-	X	100%	No	Tree must be removed to allow the proposal to proceed
TG5	Yes	-	X	100%	No	Tree must be removed to allow the proposal to proceed
T6	No	-	-	-	Yes	No direct impact. Tree is to be protected at all stages of the proposal
T7	Yes	-	X	14.37%	Yes	Tree must be removed to allow the proposal to proceed
T8	Yes	-	X	100%	No	Tree must be removed to allow the proposal to proceed
T9	Yes	-	X	100%	No	Tree must be removed to allow the proposal to proceed

A Project Arborist must be appointed to certify works throughout all construction stages.

Trunk measurements were taken to determine the tree protection zones (TPZ) and structural root zones (SRZ) of all trees in this report. These measurements are intended to guide the design process and protection during all stages of development. Australian Standard AS4970-2009 stipulates that an encroachment of less than 10% of the TPZ is acceptable as long as the percentage lost is compensated for elsewhere.

An encroachment of greater than 10% may be acceptable if the project arborist can demonstrate through further investigation with non-destructive methods that the tree will remain viable or when root sensitive construction methods are used.

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IMPACTED TREES

Tree 1

This tree will be directly affected by the proposed construction of the crossover, driveway and path, which will encroach into the Tree Protection Zone (TPZ), denoted by the orange, green & pink shaded areas in image 1.

The original proposed plans (now superseded) called for the crossover to be constructed within 1.3m of the tree and within the Structural Root Zone (SRZ). This superseded location would have adversely impacted the tree. After consultation, the crossover is now 3.4m from the tree and outside the SRZ.

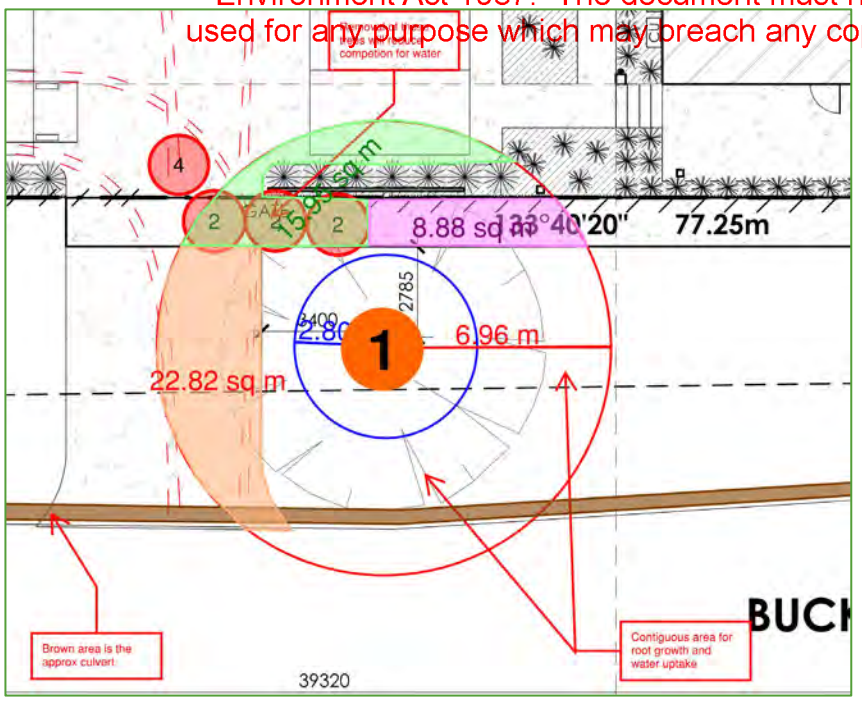

Image 1: TPZ area 152.8m² & incursion area 47.65m²

Whilst this is still classified as a major incursion (31.18%) as per *AS4970-2009 Protection of Trees on Development Sites*, the tree is not likely to be adversely impacted for the following:

- The new pathway (pink area) will not adversely impact the tree as it is to be constructed above grade, eliminating root loss and disturbance. This area was extremely dry and occupied by an ant's nest. These conditions further minimise the likelihood of significant roots in this location. The pink area is not considered an encroachment based on the above points and excluded
- Part of the path and the carpark (green area) is the location of TG2 and competition for water and nutrients below ground limit the likelihood of significant roots in this location. T4, as a large canopy tree, will also limit roots in this area. This green area is not considered an encroachment based on the points above and excluded
- A large open contiguous area to the east and north allow for ample root growth

Image 2: Image of site conditions noted in dot points

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- The topography of the area to the east towards Bucknall St will have encouraged root growth into this area. The land slopes down to the road where a small drainage culvert exists. With excess moisture in this area after rainfall, roots will opportunistically grow to take advantage of additional moisture

Allowing for the above points, the orange area is the only high impact incursion which is 14.9%. Whilst still considered a major incursion, provided that this tree is protected as specified in the site's Tree Management Protection Plan (TMPP). Removal of the surrounding trees will improve conditions for this tree

No other design options are available without the loss of T3, and the redevelopment of the ambulance station is considered significant to Mallacoota and surrounding areas.

Tree Groups 2 & 5 and Tree 4

These trees will be directly affected by the proposal, and they are located within the proposed building envelope for the new driveway and carpark (image 3). The proposed crossover location shown in image 3 shows the original proposed location and has been subsequently amended.

These are classified as major incursions, and the trees must be removed to allow the proposal to proceed.

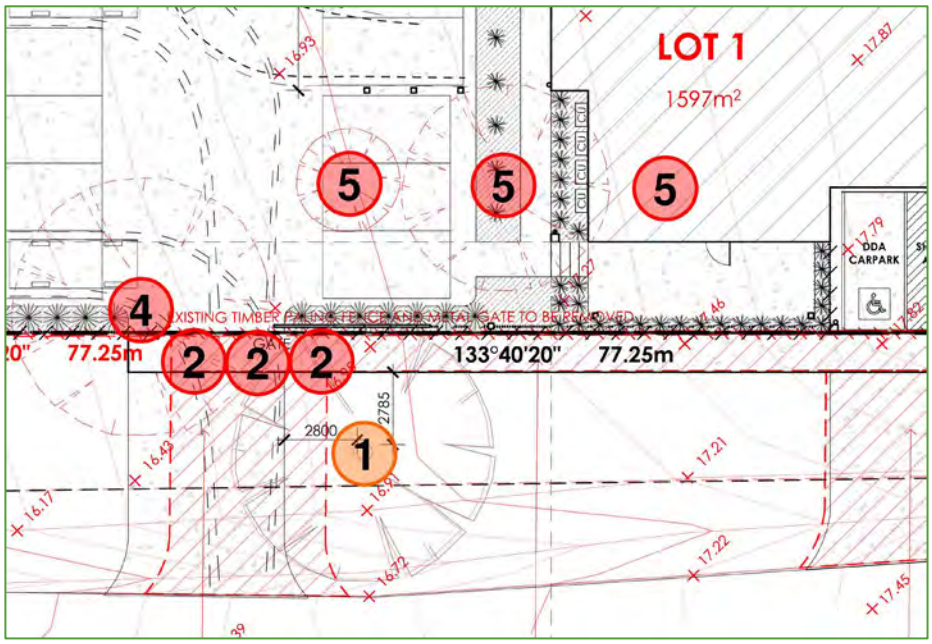

Image 3: Tree locations within the proposed development

No redesign options are available. Permits are required to remove these trees under the VPO8.

Tree 3

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This tree will be directly affected by the proposed car parking area which will encroach into the Tree Protection Zone (TPZ), denoted by the orange shaded area in image 4.

Whilst this is still classified as a major incursion (17%) as per *AS4970-2009 Protection of Trees on Development Sites*, the tree is not likely to be adversely impacted for the following:

- The large surface roots exposed north of the tree will be protected within the lawn area and the incursion is several metre's away from there
- A large open contiguous area to the south and west allow for ample root growth for any lost roots which is the grassed areas in the caravan park
- The grade has minor falls south and west where water will pool, suggesting roots will be drawn to these areas, away from the development
- The removal of T4 will reduce competition below ground for water and nutrients, improving conditions for T3 remaining

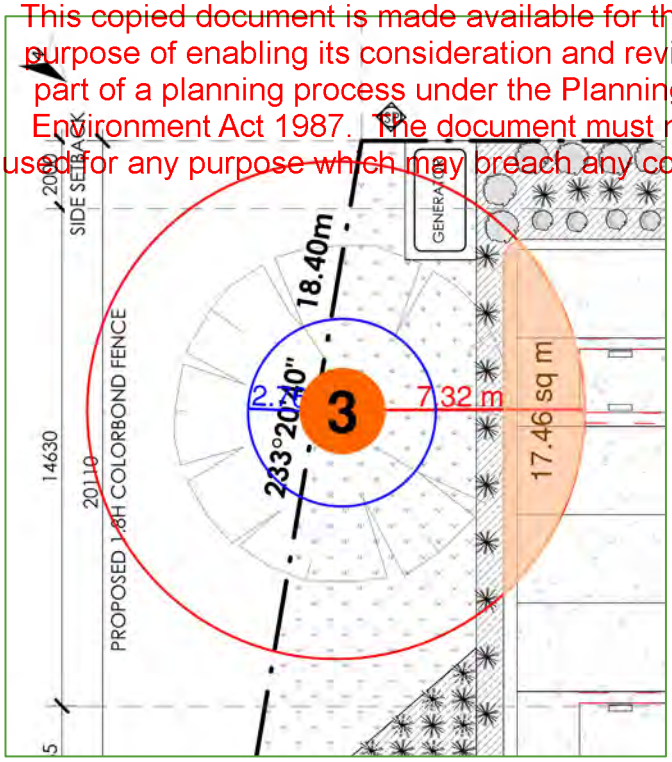

Image 4: TPZ area 168.33m² & incursion area 28.86m²

Allowing for the above points, provided that this tree is protected as specified in the site's Tree Management Protection Plan (TMPP). Removal of the surrounding trees will improve conditions for this tree. The generator has been excluded from the calculation as the generator is to be set on a concrete pad above grade with no root disturbance or loss.

No other design options are available without the loss of T3, and the redevelopment of the ambulance station is considered significant to Mallacoota and surrounding areas.

Image 5: Image of site conditions noted in dot points

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Trees 7 - 9

These trees will be directly affected by the proposal as they are located within the proposed building envelope for the new delivery parking area (image 6).

These are classified as major incursions, and the trees must be removed to allow the proposal to proceed.

T7 requires removal as the tree will require significant pruning to gain clearance from the new building, leaving little canopy. The grade falls towards the existing ambulance station and is shaded from the trees currently in situ so the area will likely retain moisture during rain and roots will be along the footings of the current building. The new building is required closer to the tree so these roots would be lost, adversely impacting the tree

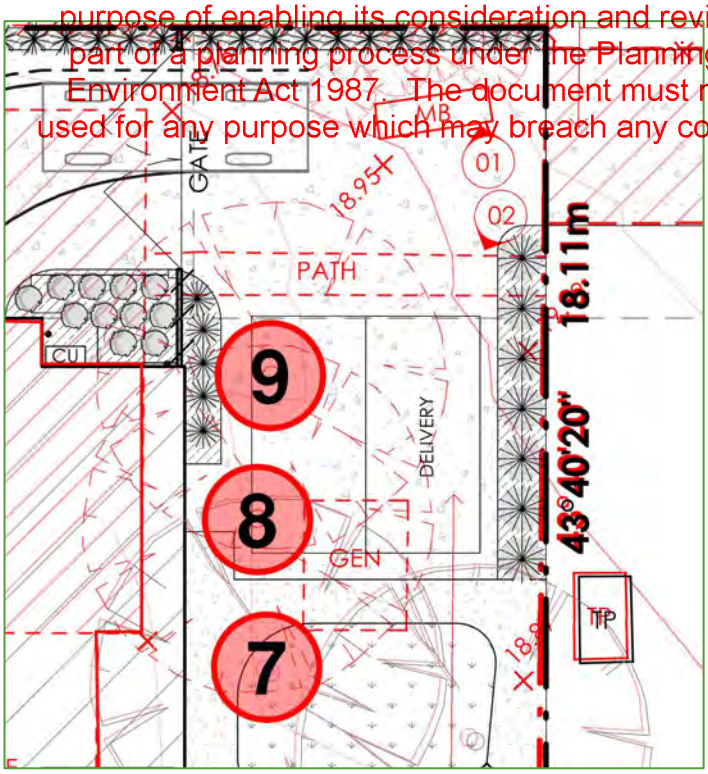

Image 6: Tree locations within the proposed development

No redesign options are available. Permits are required to remove these trees under the VPO8.

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Site address: 82 Betka Road, Mallacoota, VIC 3892
Prepared for: Foursight Architects
Prepared by: Rigoni Tree Solutions
Shaun Rigoni
20/10/2023

A project arborist must be appointed which will form a key part of this Tree Management Plan and to certify works throughout all construction stages to ensure the tree remains viable post-construction.

The proposal calls for the demolition of the existing ambulance station along with the construction of a new carpark, crossovers & driveways, ambulance station and landscaping.

Tree Protection Fencing is to be erected around the trees in the locations shown in the Tree Protection Plan's (TPP). This fencing must be erected during the Pre-Demolition phase shown in Appendix 1A, and must be in compliance with AS4970-2009, see image 7 for an example. The fencing is to remain in place until the demolition works are completed.

From the Pre-Construction phase, the fencing is to be altered as shown in Appendix 1B and remain in place until the Post-Construction phase when all machinery has left the site. Once the fencing is removed, the landscaping is to be undertaken.

Excavations within the TPZ of T1 are to be conducted utilising gentle excavation techniques, with a digging action away from the tree, under the supervision of the Project Arborist.

This report has been created using the 'Existing & demolition Site Plan' and 'Proposed Site Plan' by Foursight Architecture dated September 2023.

- Existing services that run within the TPZ that are to be decommissioned must be left in situ.
- New services must be routed outside the TPZ. Any further installation of utilities with a TPZ will require further review of service plans by the Project Arborist.

TREES TO BE PROTECTED

Tree number and name	Protection requirements
1, Eucalyptus sp. ***3, Paulownia tomentosa*** ***6, Callistemon viminalis***	Erect protective fencing as shown on the Tree Protection Plan (TPP) prior to site demolition, this must remain in place until the Post-Construction phase. Existing boundary fences within the TPZ of retained tree's must be retained.
1, Eucalyptus sp.	Utilise gentle excavation methods including digging away from the tree and the machinery located outside the TPZ. These excavations are to be conducted under supervision of the Project Arborist
All trees	Any postholes for new or replaced fences which are to be installed within any trees' TPZ must be excavated by hand and must be relocated if any roots greater than 50mm in diameter are discovered.

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General Tree Protection

GENERAL	Activities to be isolated from the TPZ: • machine excavation including trenching • excavation for silt fencing • cultivation • storage • preparation of chemicals, including preparation of cement products • parking of vehicles and plant • refuelling • dumping of waste • wash down and cleaning of equipment • placement of fill • lighting of fires • soil level changes • temporary or permanent installation of utilities and signs, and • physical damage to the tree. The above actions must be isolated from the Tree Protection Zone unless approved by Council or within the specific detail of the Tree Protection Management Plan. When tree protection fencing cannot be installed or requires temporary removal, other tree protection measures should be used, including those set out on page 15.
DEMOLITION AND CONSTRUCTION	• Tree protection fencing is to be erected along the perimeter of all TPZs or as shown in the Tree Protection Plan prior to the commencement of site-preparation works and maintained throughout the construction phase. TPZ fencing may only be moved if approved, supervised and documented by the project arborist, to the satisfaction of the responsible authority. • If TPZ fencing is required to be moved temporarily at any point additional protection measures must be in place before it is moved. • If vehicle access will be required over the TPZ additional ground protection measures are required. Measures may include crushed rock below rumble boards (see page 15).
SERVICES	• Services should not be routed through the TPZ. • If encroachment is unavoidable and new services must be routed through the TPZ further review of service plans by the project arborist will be required. • If approved by the project arborist underground services may only be installed by directional drilling or manual excavation (including the use of pneumatic or hydraulic tools).
LANDSCAPING	• Landscaping within the TPZ is to be completed in the final stage of construction once machinery has left the site. • All soft landscaping to be completed at existing ground level, without cultivation or changes to soil levels. • Plants should be selected in small size (max 14cm) nursery pots or tube stock to minimise size of planting holes.

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TREE PROTECTION FENCING SPECIFICATIONS

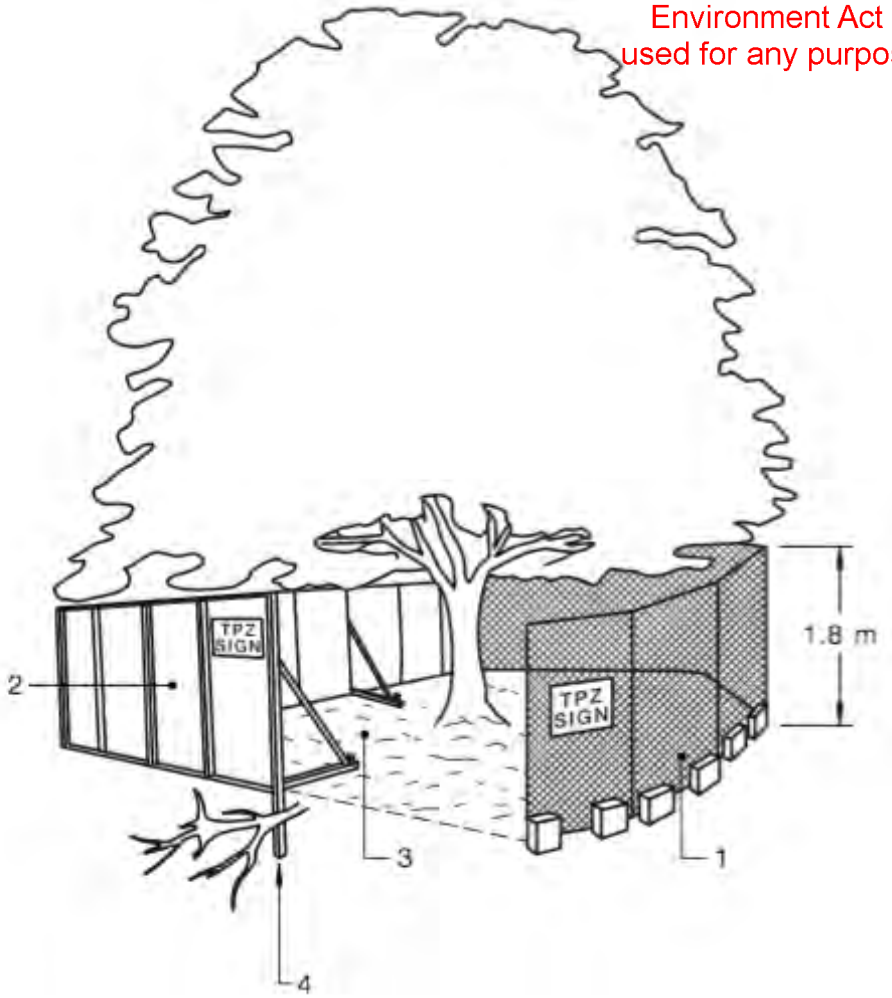

Image 7: Example tree protection zone with fencing, signage, mulch and bracing (AS4970-2009).

Legend:

1	Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
2	Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
3	Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
4	Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots

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OTHER TREE PROTECTION MEASURES

When tree protection fencing cannot be installed or requires temporary removal, other tree protection measures should be used, including those set out below.

Trunk and branch protection	Where necessary, install protection to the trunk and branches of trees as shown below. The materials and positioning of protection are to be specified by the project arborist. A minimum height of 2m is recommended. Do not attach temporary powerlines, stays, guys and the like to the tree. Do not drive nails into the trunks or branches.
Ground protection	If temporary access for machinery is required within the TPZ ground protection measures will be required. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Measures may include a permeable membrane such as geotextile fabric beneath a layer of mulch or crushed rock below rumble boards. These measures may be applied to root zones beyond the TPZ.

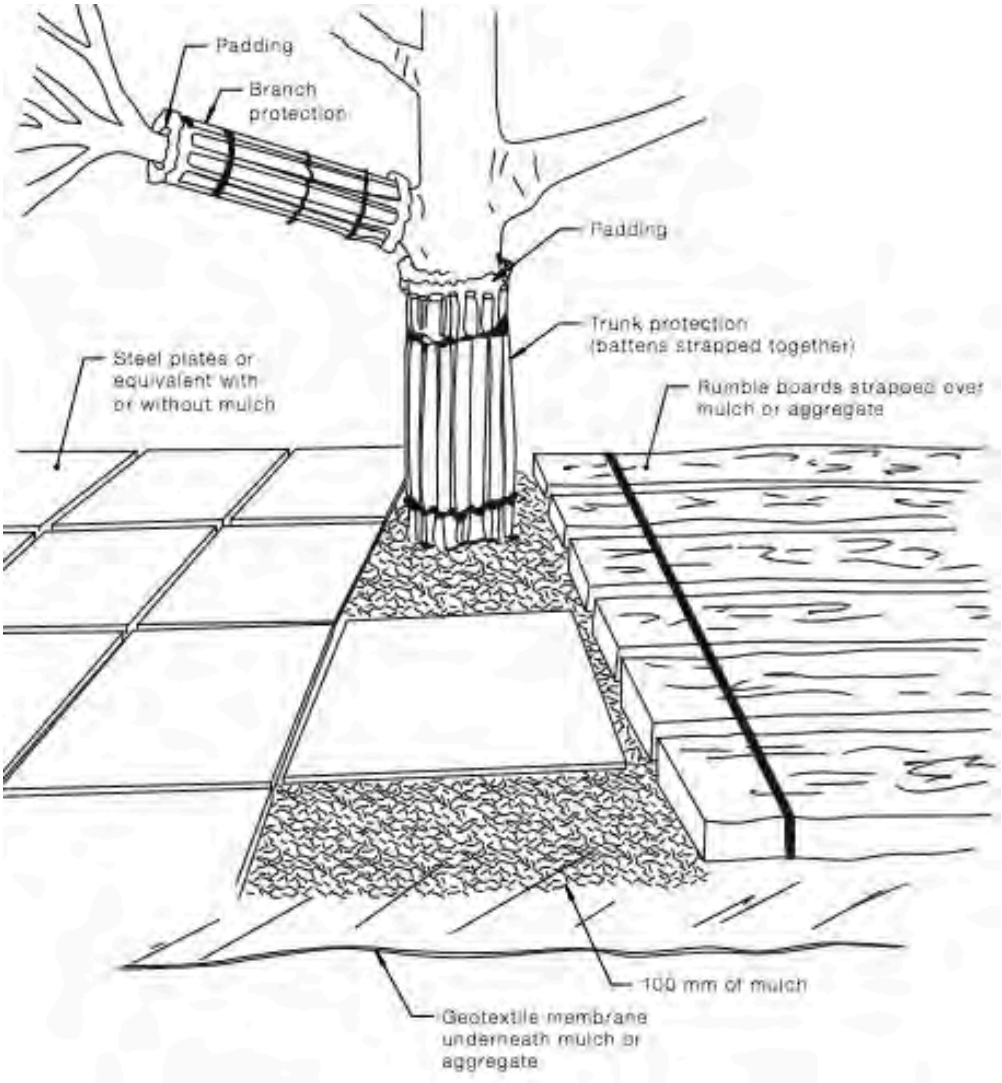

Image 8: Trunk, branch & ground protection examples (AS4970-2009).

Notes:

- 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.
- Rumble boards should be of a suitable thickness to prevent soil compaction and root damage.

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Scaffolding	Where scaffolding is required, it should be erected outside the TPZ. If it is essential for scaffolding to be erected within the TPZ the ground below the scaffolding must be protected by boarding as shown below. A board walk or other surface material should be installed to minimise soil compaction. Boarding should be placed over mulch and impervious sheeting to prevent soil contamination. The boarding can be removed after the scaffolding is removed and the TPZ fencing reinstated.

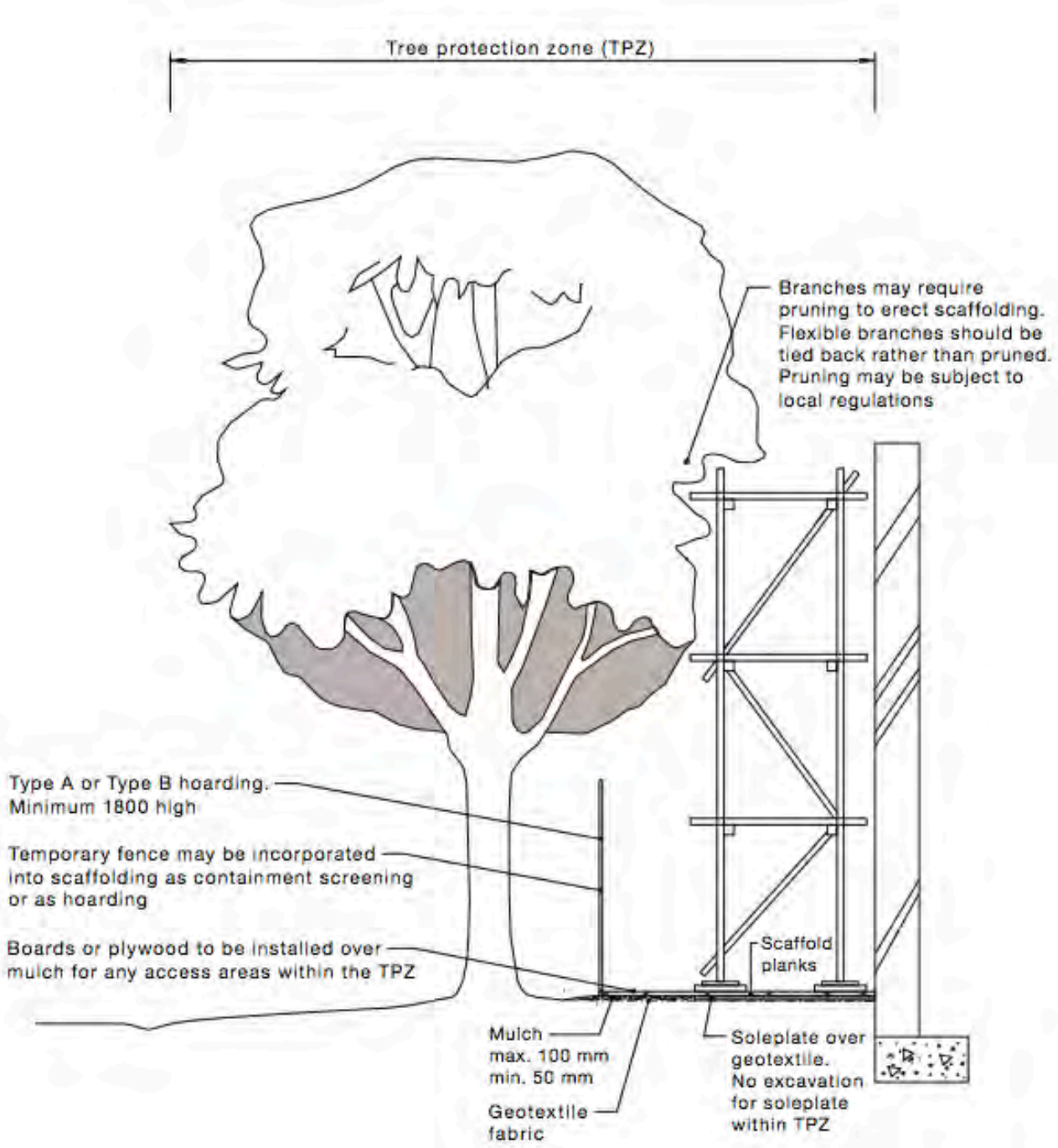

Image 9: Example of scaffolding within a TPZ (AS4970-2009).

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PRE-DEMOLITION

Site induction:

- Project/Construction manager, project arborist and demolition contractors to meet on-site prior to demolition to introduce the requirements of the Tree Protection and Management Plan (TMPP).
- The TMPP induction must be attended by all demolition contractors.
- Project/Construction manager must ensure all contractors abide by the requirement of the TMPP and no modifications may occur without approval from the project arborist.
- Project arborist to ensure site access and storage locations are acceptable.

Tree removal:

- Trees 2, 4, 5, 7, 8 & 9 are to be removed to allow the proposal to proceed. If further removal is required, this must be approved by the Project Arborist and/or the Responsible Authority prior to any works occurring. A permit is required to remove these trees.

Tree pruning:

- No pruning is required. If pruning is required, this must be approved by the Project Arborist prior to any pruning works occurring.

Tree protection:

- Erect tree protection fencing as indicated in the Tree Management Plan and Tree Protection Plan and according to *AS4970-2007 Protection of Trees on Development Sites.* To be organised by construction manager and erected before any machinery or materials are brought onto the site.
- Excavations within the TPZ of T1 are to be conducted utilising gentle excavation techniques, with a digging action away from the tree, under the supervision of the Project Arborist.
- Where fencing cannot be used due to requirements for contractor access additional ground protection must be installed, this alteration must be approved by the project arborist.
- Once all tree protection measures are in place, the project arborist and construction manager are to inspect and sign off.

Protective fencing:

- Once erected, protective fencing must not be removed or altered without approval by the project arborist and the TPZ should be secured to restrict access.
- AS-4687 specifies applicable fencing requirements.
- Shade cloth or similar should be attached to reduce the transport of dust, other particulate matter and liquids into the protected area.
- Fence posts and supports should have a diameter greater than 20 mm and located clear of roots.
- Signs identifying the TPZ should be placed around the edge of the TPZ and be visible from within the development site. The lettering on the sign should comply with AS-1319.

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PRE-CONSTRUCTION

Site induction to be conducted by project arborist for all builders and construction trades if unable to attend pre-demolition site induction.

Utility services:

- Existing services that run within the TPZ that are to be decommissioned must be left in situ.
- New services must be routed outside the TPZ. Any further installation of utilities with a TPZ will require further review of service plans by the project arborist.
- If approved by the project arborist, any further underground services may only be installed by directional drilling or manual excavation (including the use of pneumatic or hydraulic tools). Project arborist to supervise.

Tree protection:

- Alter fencing for T3 as indicated in the Tree Management Plan and Tree Protection Plan (1B) and according to *AS4970-2007 Protection of Trees on Development Sites.* To be organised by construction manager and erected before any machinery or materials are brought onto the site.
- Project arborist to ensure maintenance of Tree Protection Zones as per certification document and sign off.

CONSTRUCTION

Construction manager and project arborist to meet on-site prior to construction to determine number of site inspections to be completed by the project arborist over the construction phase. Typical stages for inspection are installation of footings and slabs, scaffoldings, works within the TPZ and at completion of building works.

Construction:

- During extended dry periods, the construction manager and project arborist to schedule regular watering intervals directed by the project arborist.
- During excavation works any significant roots encountered to be cut must be supervised by the project arborist. Cuts to be made at right angles and with sharp tools.
- If any tree in this report sustains damage the project arborist must be contacted immediately to carry out remedial actions.
- If Tree Protection Fencing or other tree protection measures are to be moved or altered, the project arborist and construction manager must approve followed by supervision by project arborist.

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Post Construction and Landscape Construction Stage

Site induction to be conducted by project arborist for all post construction and landscape construction trades if unable to attend a previous site induction. **Once all construction works are complete and machinery has left the site TPZ fencing can be removed.**

Landscaping:

- Once TPZ fencing is removed, the existing fences can be removed and replaced (if required). Any postholes which are to be installed within the trees' TPZ must be excavated by hand and must be relocated if any roots greater than 40mm dimeter are discovered.
- Landscaping within the TPZ is to be completed in the final stage of construction once machinery has left the site.
- All soft landscaping to be completed at existing ground level, without cultivation or changes to soil levels.
- Plants should be selected in small size (max 14cm) nursery pots or tube stock to minimise size of planting holes. Planting holes within the TPZ of any retained tree are to be excavated by hand and relocated if roots greater than 40mm in diameter are discovered.
- During extended dry periods, the construction manager and project arborist to schedule regular watering intervals directed by the project arborist.
- Project arborist to ensure maintenance of Tree Protection Zones as per certification document and sign off.

Final Certification

Conclusion of landscaping works:

- Project Arborist is to visit the site to provide final certification of tree protection for the project.
- The Tree Management Plan certification document can be found on page 20.
- Certification document and photos (if required) to be provided to the responsible authority, project manager and owner of the land.

Roles, Responsibilities and Reporting

Project Arborist – shall be engaged by and report to the construction manager. The Project Arborist shall have a minimum of five years' industry experience and minimum AQF Level 5 in arboriculture.

Pruning Arborist – shall be employed by and report to the construction manager. The Pruning Arborist must be suitably qualified (AQF 3+) and experienced (minimum 3 years' industry experience). Responsibilities and reporting for each role are set out within this document and the contract documents.

Reporting Responsibilities – should damage occur to a protected tree, it is to be immediately reported to the project/site manager. The project/site manager is to immediately contact the project arborist who is to inspect the damage and determine actions required and contact the Responsible Authority.

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Tree Management Plan Certification

Site Address:			
Project Arborist:		**Contact number:**	
Project/Site manager:		**Contact number:**	

Stage 1 – Pre-demolition

Site Induction – Demolition Contractors			
Meeting onsite held?	Yes / No	Date/Time of Meeting	
Persons Present:			
TMP given to all parties	YES / No		
Site Access			
Site access determined and acceptable?			Yes / No
Modification required to Tree Protection Plan?			Yes / No
Pruning and Vegetation/Infrastructure Clearance within the TPZ			
Tree pruning required?			Yes / No / NA
Tree pruning undertaken to AS4373?			Yes / No / NA
Tree pruning undertaken in accordance with TMP recommendations?			Yes / No / NA
Vegetation cleared from TPZ in accordance with TMP recommendations?			Yes / No / NA
Infrastructure cleared from TPZ in accordance with TMP recommendations?			Yes / No / NA
Fencing/Trunk and Branch protection/Ground Protection/Mulching			
Fencing installed in correct location as per TMPP?			Yes / No / NA
Ground protection installed correctly as per TMPP?			Yes / No / NA
Trunk and branch protection installed correctly as per TMPP?			Yes / No / NA
Has the tree protection area been mulched to 100mm depth?			Yes / No / NA
Is mulch type in accordance with the TMP?			Yes / No / NA
Signage			
Signage present?			Yes / No / NA
Signage complies with TMP?			Yes / No / NA
Signage has project arborist contact details?			Yes / No / NA
Root pruning			
Has root pruning been undertaken in accordance with TMP?			Yes / No / NA
Supplementary Measures			
Has the tree protection area been watered in accordance with the TMP?			Yes / No / NA
Comments			
Photographs taken? Yes / No			
Date(s) inspected:			
Compliance date:			
Signed:			

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Site Induction – Builders/Construction Trades		
Meeting onsite held?	Yes / No	Date/Time of Meeting
Persons Present:		
TMP given to all parties	YES / No	
Site Access		
Site access determined and acceptable?		Yes / No
Modification required to Tree Protection Plan?		Yes / No
Storage of Materials		
Has an area been designated on site for the storage of materials/waste?		Yes / No / NA
Does the storage area of materials etc. comply with the TMPP?		Yes / No / NA
Utility Service Locations		
Hall all utility services been marked out on site?		Yes / No / NA
Are all services located outside of the TPZ?		Yes / No / NA
Are services required to be bored under TPZ?		Yes / No / NA
Maintenance of Tree Protection Areas		
Is all tree protection fencing in the correct location?		Yes / No / NA
Does the tree protection plan need to be modified?		Yes / No / NA
Is all trunk and branch protection or ground protection in place?		Yes / No / NA
Has the tree protection area been mulched to 100mm depth?		Yes / No / NA
Is mulch type in accordance with the TMP?		Yes / No / NA
Has the tree protection area been watered in accordance with the TMP?		Yes / No / NA
Comments		
Photographs taken? Yes / No		
Date(s) inspected:		
Compliance date:		
Signed:		

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Footings	
Are all footings and installation in accordance with the TMP?	Yes / No / NA
Maintenance of Tree Protection Areas	
Is all tree protection fencing in the correct location?	Yes / No / NA
Does the tree protection plan need to be modified?	Yes / No / NA
Is all trunk and branch protection or ground protection in place?	Yes / No / NA
Has the tree protection area been mulched to 100mm depth?	Yes / No / NA
Is mulch type in accordance with the TMP?	Yes / No / NA
Has the tree protection area been watered in accordance with the TMP?	Yes / No / NA
Comments	
Photographs taken? Yes / No	
Date(s) inspected:	
Compliance date:	
Signed:	

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Stage 4 – Post Construction and Landscape Construction

Site Induction - Landscape Construction			
Meeting onsite held?	Yes / No	Date/Time of Meeting	
Persons Present:			
TMP given to all parties	YES / No		
Site Access			
Site access acceptable for landscape construction?			Yes / No
Modification required to Tree Protection Plan?			Yes / No
Storage of Materials			
Has an area been designated on site for the storage of materials/waste?			Yes / No / NA
Does the storage area of materials etc. comply with the TMP?			Yes / No / NA
Removal of Tree Protection Fencing			
Can tree protection fencing and or ground protection be removed?			Yes / No / NA
Are some specialised tree protection measures required?			Yes / No / NA
Landscape Construction			
Do all works within the tree protection area comply with the TMP?			Yes / No / NA
Has the tree protection area been watered in accordance with the TMP?			Yes / No / NA
Comments			
Photographs taken? Yes / No			
Date(s) inspected:			
Compliance date:			
Signed:			

Stage 5 – Final Certification

The Project Arborist has inspected all stages of the project as defined by the Tree Protection Management Plan. Any action that has not complied has been rectified and approved by the Project Arborist. All works as noted within the approved Tree Protection Management Plan have been undertaken and any modifications to the Tree Protection Management Plan have been approved in writing by the local responsible authority.

Final certification approved?	Yes / No
Photographs taken?	Yes / No
Date of final certification:	
Project Arborist:	
Signed:	

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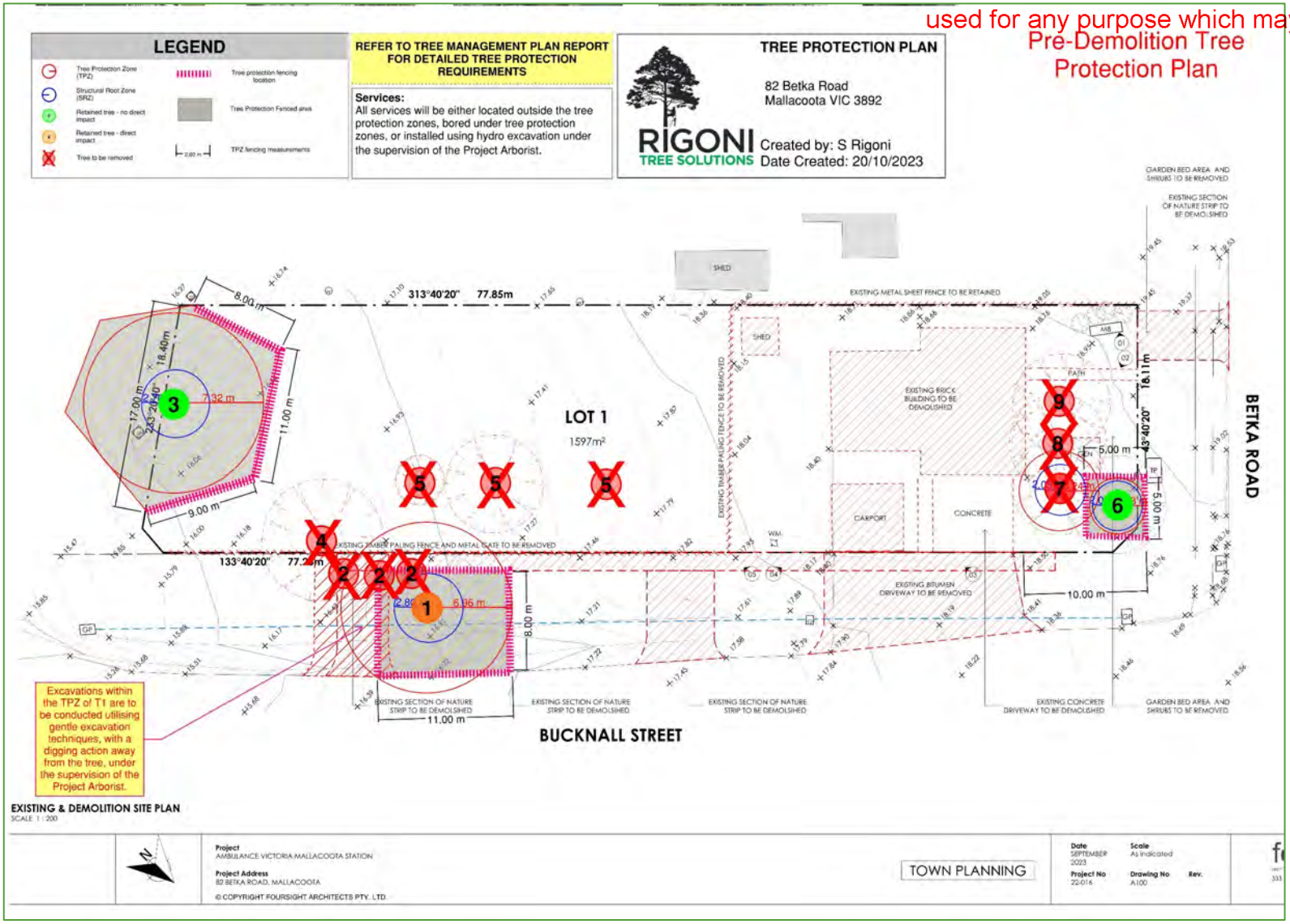
Appendix 1A – Tree Protection Plan (TPP) – Pre-Demolition



All mark ups are scaled to source plan.
Source: 'Existing & Demolition Site Plan' by Foursight Architects dated September 2023

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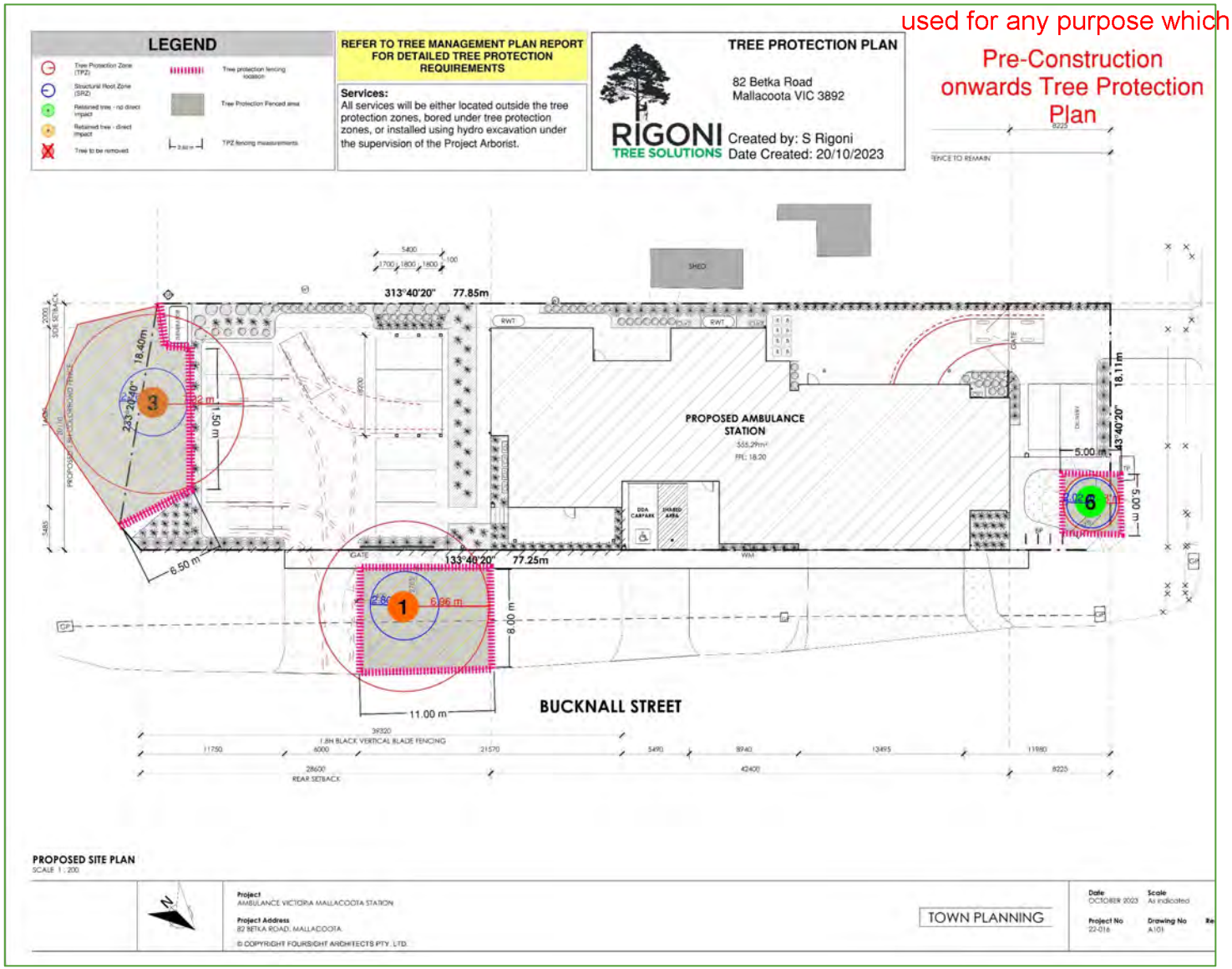
Appendix 1B – Tree Protection Plan (TPP) – Pre-Construction onwards



All mark ups are scaled to source plan.
Source: 'Proposed Site Plan' by Foursight Architects dated October 2023

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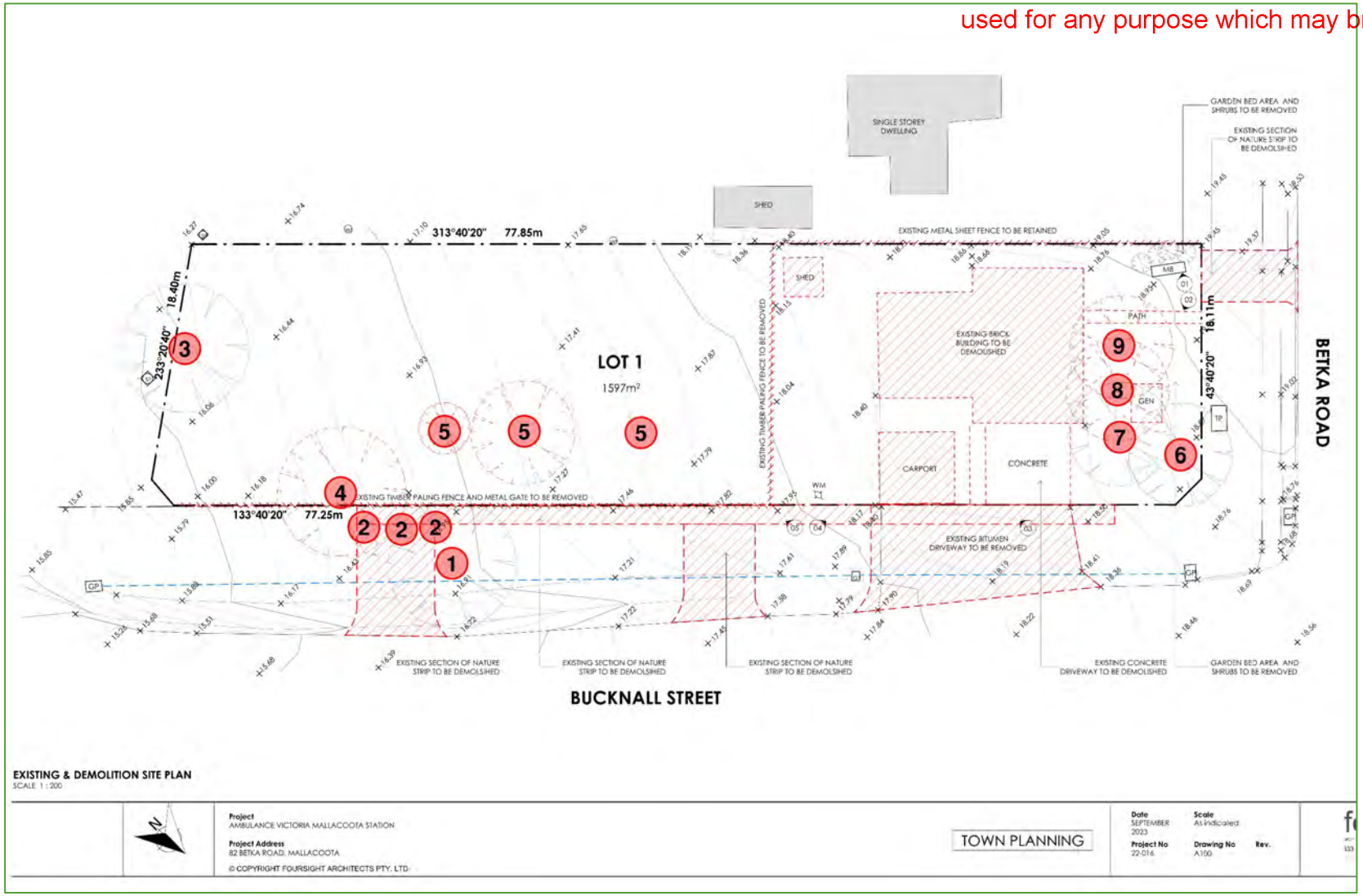
Appendix 2 – Existing Site



Site Plan with tree numbers (green cloud denotes tree group)
Source: 'Existing & Demolition Site Plan' by Foursight Architects dated September 2023

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Appendix 3 – Tree photos

Tree 1

Tree Group 2

Tree 3

Tree 3 (cont.)

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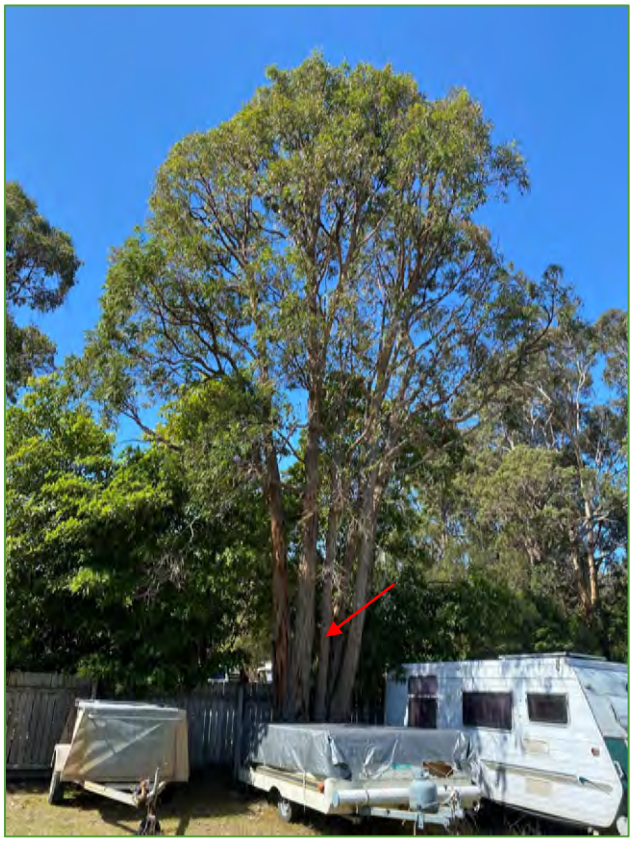

Tree 4

Tree Group 5

Tree 6

Tree 7

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Tree 7 (cont.)

Tree 8

Tree 8 (cont.)

Tree 9

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Appendix 4 - Glossary

Australian Qualification Framework (AQF)	A national framework for all educational and training purposes in Australia.
Arborist:	The person with training to AQF Level 3 in Arboriculture, or above, or equivalent recognized and relevant experience that enables the person to perform the tasks required by this Standard.
Branch:	A lateral shoot on a main axis such as a trunk or another branch. A branch arising off a trunk is a first order branch. A branch arising off a first order branch is a second order branch and so on. Second and successive orders of branches may be referred to as 'lateral branches.'
Buttress root:	Roots at the trunk base that help support the tree.
Bulge:	Swellings on branches, trunks or root flares; often caused by new tissue formed as a response to movement and that reinforces the wood structure at the weak area
Canopy:	A layer or multiple layers of branches and foliage at the top or crown of the tree.
Codominant stems:	Stems or trunks of about the same size originating from the same position from the main stem.
Competition:	Reduction in fitness due to shared use of a resource that is in limited supply.
Crown:	Portion of the tree consisting of branches and leaves and any part of the trunk from which branches arise.
Decay:	The process of degradation of woody tissues by micro-organisms.
Defect:	An imperfection, weakness, or lack of something necessary. In trees, defects are injuries, growth patterns, decay, or other conditions that reduce the tree's structural strength.
Duty of care:	Legal obligation that requires an individual to apply reasonable actions when performing tasks that may potentially harm others.
Epicormic bud:	Latent or adventitious bud located at the cambium and concealed by the bark.
Epicormic shoots:	Shoots produced from epicormic buds at the cambium of trunks or branches.
Failure:	(Of tree or tree part) – breakage of stem, branch or roots, or loss of mechanical support in the root system
Hanging branches:	Unattached, cut or broken branches that are caught in the canopy.
Hazard:	Situation or condition that is likely to lead to a loss, personal injury, property damage, or disruption of activities; a likely source of harm. In relation to trees, a hazard is the tree part(s) identified as a likely source of harm.
Included bark:	Bark that grows between two closely positioned limbs or stems that eventually seals and joins the two structures together seemingly as one.
Lever arm:	The distance between the applied force (or centre of force) and the point where the object will bend or rotate

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Likelihood: The chance of an event occurring. In the context of tree failures, the term may be used to specify: (1) the chance of a tree failure occurring; (2) the chance of impacting a specified target; and (3) the combination of the likelihood of a tree failing and the likelihood of impacting a specified target.

Lopping: The practice of cutting branches or stems between branch unions or internodes.

Mitigation: In tree risk management, the process for reducing risk.

Overextended branch: Branch that extends outside the normal crown area.

Pruning: Removing branches (or occasionally roots) from a tree or other plant, using approved practices, to achieve a specified objective.

Reaction wood: Wood formed in leaning or crooked stems, or on upper or lower sides of branches, as a means of counteracting the effects of gravity (*or other forces*).

Risk: The combination of the likelihood of an event and the severity of the potential consequences. In the context of trees, risk is the likelihood of a conflict or tree failure occurring affecting a target, and the severity of the associated consequences-personal injury, property damage, or disruption of activities.

Scaffold limbs: Permanent or structural limbs that form the scaffold architecture or structure of the tree.

Structural defect: Feature, condition, or deformity of a tree that indicates a weak structure or instability that could contribute to tree failure.

Target: people, property, or activities that could be injured, damaged, or disrupted by a tree.

Union: The action of joining together or the fact of being joined together.

Woundwood: Lignified, differentiated tissue produced on woody plants as a response to wounding.

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Appendix 5 - Tree descriptors

AGE	
Young	Juvenile or recently planted approximately 1-7 years.
Semi-mature	Tree actively growing.
Mature	Tree has reached expected size in situation.
Senescent	Tree is over mature and has started to decline.

HEALTH	
Good	Foliage of tree is entire, with good colour, very little sign of pathogens and of good density. Growth indicators are good i.e., Extension growth of twigs and wound wood development. Minimal or no canopy dieback (deadwood).
Fair	Tree is showing one or more of the following symptoms: <25% dead wood, minor canopy dieback, foliage generally with good colour though some imperfections may be present. Minor pathogen damage present, with growth indicators such as leaf size, canopy density and twig extension growth typical for the species in this location.
Poor	Tree is showing one or more of the following symptoms of decline; >25% deadwood, canopy dieback is observable, discoloured or distorted leaves. Pathogens present, stress symptoms are observable as reduced leaf size, extension growth and canopy density.
Dead or dying	Tree is in severe decline; >55% deadwood, very little foliage, possibly epicormic shoots and minimal extension growth.

STRUCTURE	
Good	Trunk and scaffold branches show good taper and attachment with minor or no structural defects. Tree is a good example of species with well-developed form showing no obvious root problems or pests and diseases.
Fair	Tree shows minor structural defects or minor damage to trunk e.g., bark missing, there could be cavities present. Minimal damage to structural roots. Tree could be seen as typical for this species.
Poor	There are major structural defects, damage to trunk or bark missing. Co-dominant stems could be present with likely points of failure. Girdling or damaged roots obvious. Tree is structurally problematic.
Hazardous	Tree is immediate hazard with potential to fail, this should be rectified as soon as possible.

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HAZARD	
Low	Tree appears to be structurally sound, is healthy with no signs of pests and disease, has good health and is clear of any hazards.
Medium	Tree displays signs of structural problems, evidence of pests or disease, signs of poor health, deadwood, decay, may be growing into an area that could create a hazard.
High	Tree is immediate hazard with the potential to fail, this should be rectified as soon as possible.

ULE - Useful Life Expectancy	
Long	• Trees that appear to be retainable with an acceptable level of risk for more than 40 years. • Structurally sound trees located in positions that can accommodate future growth. • Storm damaged or defective trees that could be made suitable for retention in the long term by remedial tree surgery. • Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long-term retention.
Medium	• Trees that appear to be retainable with an acceptable level of risk for 15-40 years. • Trees that may only live between 15-40 years. • Trees that may live for more than 40 years but would be removed to allow the safe development of more suitable individuals. • Trees that may live for more than 40 years but would be removed during the course of normal management for safety and nuisance reasons. • Storm damaged or defective trees that can be made suitable for retention in the medium term by remedial work.
Short	• Trees that appear to be retainable with an acceptable level of risk for 5-15 years. • Trees that may live for 5-15 years. • Trees that may live for more than 15 years but would be removed to allow the safe development of more suitable individuals. • Trees that may live for more than 15 years but would be removed during the course of normal management for safety and nuisance reasons. • Storm damaged or defective trees that can be made suitable for retention in the medium term by remedial work.
Remove	• Trees with a high level of risk that would need removal within the next 5 years.
Dead Tree	• Dying or suppressed and declining trees through disease or inhospitable conditions. • Dangerous trees through instability or recent loss of adjacent trees. • Dangerous trees through structural defects including decay, included bark, wounds or poor form. • Damaged trees that are considered unsafe to retain.

ORIGIN	
Indigenous	Occurs naturally in the area of the subject site
Victorian native	Occurs naturally in some parts of the State of Victoria
Australian native	Occurs naturally in some parts of Australia
Exotic	Occurs naturally outside of Australia

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Tree Significance

IACA Significance of a Tree, Assessment Rating System (STARS)

The tree is to have a minimum of 3 criteria in a category to be classified in that group.

High	• The tree is in good condition and good vigour. • The tree has a form typical for the species. • The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age. • The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register. • The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity. • The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values. • The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ - tree is appropriate to the site conditions.
Medium	• The tree is in fair-good condition and good or low vigour. • The tree has form typical or atypical of the species. • The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area • The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street, • The tree provides a fair contribution to the visual character and amenity of the local area, • The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ.
Low	• The tree is in fair-poor condition and good or low vigour. • The tree has form atypical of the species. • The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings, • The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area, • The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen, • The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa in situ - tree is inappropriate to the site conditions, • The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms, • The tree has a wound or defect that has potential to become structurally unsound. Environmental Pest / Noxious Weed Species • The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties, • The tree is a declared noxious weed by legislation. Hazardous/Irreversible Decline • The tree is structurally unsound and/or unstable and is considered potentially dangerous, - The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term. • It is insignificant within the landscape and could not reasonably tolerate changes to its environment.

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References

DELWP, 2023, *VicPlan,* viewed October 2023, http://mapshare.maps.vic.gov.au/vicplan/

East Gippsland Planning Scheme, Schedule 8 to Clause 42.02 Vegetation Protection Overlay, viewed October 2023, https://planning-schemes.app.planning.vic.gov.au/EAST%20GIPPSLAND/ordinance/9925069

IACA. 2010. *IACA Significance of a Tree, Assessment Rating System (STARS*), Institute of Australian Consulting Arboriculturists, Australia, www.iaca.org.au

Dunster, JA, Smiley, ET, Matheny, N & Lilly, S 2013. *Tree Risk Assessment Manual*, International Society of Arboriculture, Champaign, Illinois.

International Society of Arboriculture, 2014. *Glossary of Arboricultural Terms*. Martin One Source, United States of America.

Matheny, N & Clark JR, 1998, *Trees and Development: A Technical Guide to Preservation of Trees During Land Development*, International Society of Arboriculture, USA.

Standards Australia, 2007, *AS 4373-2007 Pruning of Amenity Trees*, Standards Australia, Sydney, Australia.

Standards Australia, 2009, *AS 4970-2009, Protection of Trees on Development Sites,* Standards Australia, Sydney, Australia.

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