This planning application is open for public comment until 20 October 2025

Reference no	PLN-25-0184
Site	31 TORLESSE STREET CAMPBELL TOWN
Proposed Development	Dwelling/Shed (C2.0 Parking and Sustainable Transport Code)
Zone	8.0 General Residential
Use class	Residential

Written representations may be made during this time to the General Manager; mailed to PO Box 156, Longford, Tasmania 7301, delivered to Council offices or a pdf letter emailed to planning@nmc.tas.gov.au

(no special form required)



PLANNING APPLICATION

FOR BUILDINGS, WORKS AND CHANGE OF USE (E.g. Residential houses, sheds, carports, retaining walls, visitor accommodation, commercial

development, signage etc.)

Office Use Only:

Exhibited

The Proposal
The Land
Compacted road base material
C/T: 184347/5
N/A
Residential lot
nt justification of any variation/discretion to the anian Planning Scheme – Northern Midlands
•



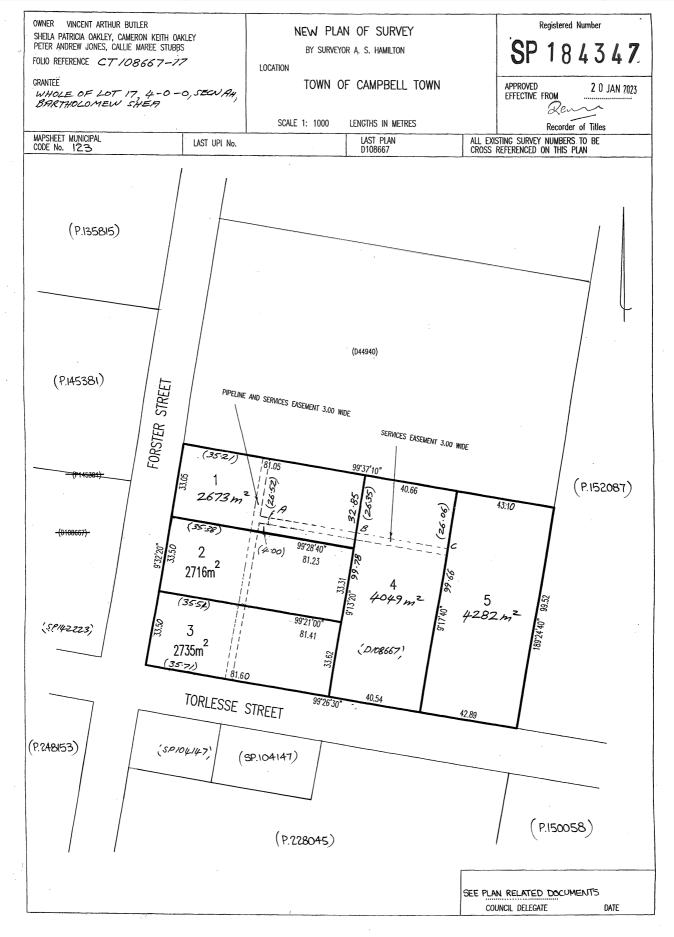
FOLIO PLAN

RECORDER OF TITLES

Exhibited



Issued Pursuant to the Land Titles Act 1980





Geoton Pty Ltd ABN 81 129 764 629 PO Box 522 Prospect TAS 7250 Unit 24, 16-18 Goodman Court Invermay TAS 7248 Tel (+61) (3) 6326 5001 www.geoton.com.au

Reference No. GL25510Ab

29 August 2025

The Shed Company 5 Legana Park Drive LEGANA TAS 7277

Attention: Mr.Ray Heald

Dear Sir

RE: Site Classification & On-site Wastewater Disposal Assessment and Design 31 Torlesse Street, Campbell Town

We have pleasure in submitting herein our report detailing the results of the geotechnical investigation conducted at the above site.

Should you require clarification of any aspect of this report, please contact Bassam AL-Sinayyid or the undersigned on 03 6326 5001.

For and on behalf of

Geoton Pty Ltd

Tony Barriera

Director - Principal Geotechnical Engineer

Rev No.	Date	Written By	Reviewed By	Description
Ab	29/08/2025	B AL-Sinayyid	S Shahandeh	Original

1 INTRODUCTION

A limited scope investigation has been conducted for The Shed Company at the site of a proposed residential development at 31 Torlesse Street, Campbell Town.

The investigation has been conducted to assess the following:

- The general subsurface conditions at the site and consequently assign a Site Classification in accordance with AS 2870 – 2011 "Residential Slabs and Footings":
- Review the topographical setting and provide a Wind Classification in accordance with AS 4055 – 2021 "Wind Loads for Housing"; and
- The suitability of the site for disposal of domestic wastewater and the design of an on-site wastewater disposal system in accordance with AS/NZS 1547:2012 "On-site Domestic Wastewater Management".

Plans of the proposed development were provided, prepared by Creek to Coast Designs, job no 7231, sheet no.s 1 to 7, Revision 3, dated 11.08.2025. We understand that the proposed development will comprise a two-bedroom dwelling to be located in the southwestern portion of the site. It is understood that client's preference is to have the wastewater irrigation field to the north of the proposed dwelling.

2 FIELD INVESTIGATION

The field investigation was conducted on 19 August 2025 and involved the drilling of 7 boreholes by hand auger to the auger refusal depths of 0.2m to 0.25m.

Insitu Dynamic Cone Penetrometer tests were conducted at the site.

The results of the field tests are shown on the borehole logs.

The logs of the boreholes are included in Appendix A and their locations are shown in Drawing 1 and 2 attached.

3 SITE CONDITIONS

The site is currently vacant, with the ground surface having a very gentle fall of 1° to 2° towards the northeast and scattered outcropping rocks. Site vegetation comprises a low cover of grass and trees along the northern and eastern boundaries.

The MRT Digital Geological Atlas, 1: 250,000 Series, indicates that the site is mapped as Cretaceous – Neogene period basalt, with this being generally confirmed by our field investigation.



Plate 1: View of the site looking to the southwest 19/08/2025

Examination of the LIST Landslide Planning Map indicates that the site is not within a mapped landslide hazard band.

The investigation indicated that the soil profile is relatively uniform across the site. The Boreholes BH1 to BH7 encountered clayey silt topsoil to the refusal depths of 0.2m to 0.25m.

Auger refusal within all boreholes was inferred to be on highly weathered basalt bedrock.

The boreholes did not encounter any signs of groundwater seepage over the investigated depths.

Full details of soil conditions encountered are presented on the borehole logs.

4 SITE CLASSIFICATION

After allowing due consideration of the site geology, drainage and soil conditions, the site has been classified as follows:

CLASS A (AS 2870)

Foundation designs in accordance with this classification are to be subject to the overriding conditions of the Foundations section below.

This classification is applicable only for ground conditions encountered at the time of this investigation. If cut or fill earthworks are carried out, then the site classification will need to be re-assessed, and possibly changed.

5 FOUNDATIONS

Particular attention should be paid to the design of footings as required by AS 2870 – 2011.

In addition to normal founding requirements arising from the above classification, particular conditions at this site dictate that the founding medium for all footings would be as follows:

BEDROCK (BASALT) – highly weathered or better, encountered 0.25m from the existing ground surface

An allowable bearing pressure of **250kPa** is available for edge beams, strips, pads and bored piers founded as above.

Where the footings are founded on rock and deeper weathered zones are encountered, the clay should be removed and replaced with fine crushed rock or lean-mix concrete to ensure the lightly reinforced footings do not span an appreciable distance between rock outcrops.

The site classification presented assumes that the current natural drainage and infiltration conditions at the site will not be markedly affected by the proposed site development work. Care should therefore be taken to ensure that surface water is not permitted to collect adjacent to the structure and that significant changes to seasonal soil moisture equilibria do not develop as a result of service trench construction or tree root action.

Attention is drawn to Appendix B of AS 2870 and CSIRO Building Technical File BTF18 "Foundation Maintenance and Footing Performance: A Homeowner's Guide" as a guide to maintenance requirements for the proposed structure.

Although the borehole data provides an indication of subsurface conditions at the site, variations in soil conditions may occur in areas of the site not specifically covered by the field investigation. The base of all footing or beam excavations should therefore be inspected to ensure that the founding medium meets the requirements referenced herein with respect to type and strength of founding material.

The boreholes were backfilled shortly after being drilled, not allowing time for groundwater seepage flows to develop. Groundwater seepages or higher groundwater levels can occur during and/or after a prolonged period of wet weather or a heavy rainfall event.

6 WIND CLASSIFICATION

After allowing due consideration of the region, terrain, shielding and topography, the site has been classified as follows:

WIND CLASSIFICATION N2 (AS 4055)

REGION	TERRAIN CATEGORY	SHIELDING	TOPOGRAPHY
А	TC2	NS	ТО

7 EFFLUENT DISPOSAL

The AS/NZS 1547:2012 and *Building Act 2016:* Director's Guidelines for On-site Wastewater Management Systems provide guidelines for typical wastewater flow allowances under a range of circumstances. The documents recommend a typical wastewater flow of 150L/person/day for households on reticulated water supply. As the proposed development is to be a two-bedroom dwelling, a population equivalent of 4 persons and a wastewater design flow rate of **600L/day** have been adopted.

7.1 Permeability of Soil and Soil Category

The soil has been classified as follows:

- Texture Light Clay (Table E1 from AS/NZS 1547);
- Structure Weakly structured (Table E4 from AS/NZS 1547); and
- Category 5 (Table E1 from AS/NZS 1547).

For weakly structured Category 5 soils the indicative permeability (K_{sat}) from AS/NZS1547 Table 5.1 is <0.06m/day.

• Adopted Permeability – 0.06m/day.

7.2 Disposal and Treatment Method

Due to the soils being assessed as shallow Category 5 soils that have a very low permeability and shallow depth to bedrock, the site is not suitable for a conventional trench or bed system.

As such, the site is considered suitable for the disposal of domestic wastewater by way of a Secondary Treatment System (STS) and sub-surface (near surface) irrigation mounded above the natural ground surface by 300mm.

7.3 Tank Installation

Care must be taken when installing the STS unit. "AS/NZS 1546.1:2008 Section 3.2.2 – Anchorage," provides guidance on the installation of in-ground tanks, and the specific STS unit manufacturer's installation instructions should be adhered to.

7.4 Design Irrigation Rate

According to AS/NZS 1547 Tables M1, the recommended design irrigation rate (DIR) for sub-surface irrigation (drip irrigation) on Category 5 soils is 3mm/day.

7.5 STS and Sub-Surface Irrigation

The disposal area is calculated using the following equation:

A = Q/DIR,

where A is area in m^2 ;

Q is design daily flow in L/day; and

DIR is design irrigation rate in mm/day.

As the DIR has been set at 3mm/day and the Q at 600L/day, the area required for the effluent disposal field is 200m² as per the equation above.

There is adequate area for effluent disposal on site.

A reserve (back-up) area of 200m² is available if required.

The sub-surface irrigation is to be constructed as per the cross sections detailed in Drawing 3 attached. The design details for the irrigation area are as follows:

- To satisfy the required setbacks from bedrock the irrigation field shall be built up by the importation of 300mm of good quality topsoil or use insitu topsoil;
- The irrigation lines are generally installed at a depth of 150mm into a minimum depth of 300mm of good quality topsoil. We consider the topsoil encountered as suitable for sub-surface irrigation;
- The irrigation lines are required to have a typical line spacing of 1m; and
- The irrigation area is not to be located through any poorly drained depressions. As such, minor filling/mounding of the irrigation area may be required to ensure there is no localised saturated area.

Guidelines for the design of sub-surface irrigation are outlined in AS/NZS 1547 Appendix M.

The area of the disposal field shall be vegetated with grasses or other suitable vegetation. A list of Tasmanian plants suitable for treated wastewater from STS units is attached as Appendix B.

The risk management process is an inherent part of the on-site wastewater disposal design. The on-site wastewater disposal system has been designed by considering the site characteristics and with risk identification in accordance with AS1547:2012. The risk reduction measures are detailed in the report and form the basis of the system selection and design.

As part of the Building Act, the client must specify the STS model and provide the Certificate of Accreditation for that particular model before the proposed development gets approval. A list of accredited STS models can be found on the Tasmanian Consumer, Building and Occupational Services website. An 8EP or 10EP (8 or 10 equivalent persons) STS is appropriate.

https://www.cbos.tas.gov.au/topics/technical-regulation/plumbing-standards/wastewater/aerated-wastewater-treatment-systems

7.6 Setbacks

The minimum separation distances between the disposal area and downslope features are based on Appendix R from AS/NZS 1547 "Recommended Setback Distances for Land Application Systems" and Section 3.1 from the *Building Act 2016:* Director's Guidelines for On-site Wastewater Management Systems. The following minimum setbacks are required:

- 19.0m from downslope sensitive features such as watercourses;
- 1.5m from upslope and cross-slope property boundaries;
- 3.5m from downslope property boundaries;
- 3.0m from upslope and cross-slope buildings;
- 3.5m from downslope buildings; and
- 0.5m vertically from a limiting layer (bedrock).

The closest groundwater bore as mapped on the LIST is 155m from the disposal field/site.

7.7 Wastewater Recommendations

It is recommended that the following actions are undertaken in looking after your system:

- Minimise domestic water use;
- Minimise the use of non-biodegradable detergents;
- Minimise the use of detergents containing phosphorous (e.g. Calgon or similar);
- Avoid discharging polluting chemicals into wastewater systems; and
- Monitor quality of groundwater.

References:

- Department of Justice. (2017). Building Act 2016 Director's Guidelines for On-site Wastewater Management Systems v2.0. Consumer, Building and Occupational Services.
- Standards Australia Limited. (2011). AS 2870: Residential Slabs and Footings Construction. Sydney: SAI Global Limited.
- Standards Australia Limited. (2012). AS/NZS 1547 On-site Domestic Wastewater Management. Sydney: SAI Global Limited.
- Standards Australia Limited. (2017). *AS 1726: Geotechnical Site Investigation.* Sydney: SAI Global Limited.
- Standards Australia Limited. (2021). AS 4055: Wind Loads for Housing. Sydney: SAI Global Limited.



Attachments:

Limitations of report

Drawing 1 - Locality Plan

Drawing 2 – Site Plan

Drawing 3 – Mounded Subsurface Irrigation Section

Drawing WW-01 - Typical Cut-off Drain Section

Appendix A: Borehole Logs & Explanation Sheets

Appendix B: List of STS Example Plants

Appendix C: Certificate Forms



Geotechnical Consultants - Limitations of report

These notes have been prepared to assist in the interpretation and understanding of the limitations of this report.

Project specific criteria

The report has been developed on the basis of unique project specific requirements as understood by Geoton and applies only to the site investigated. Project criteria are typically identified in the Client brief and the associated proposal prepared by Geoton and may include risk factors arising from limitations on scope imposed by the Client. The report should not be used without further consultation if significant changes to the project occur. No responsibility for problems that might occur due to changed factors will be accepted without consultation.

Subsurface variations with time

Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. In the event of significant delays in the commencement of a project, further advice should be sought.

Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and at the time they are taken. All available data is interpreted by professionals to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, as it is virtually impossible to provide a definitive subsurface profile which includes all the possible variabilities inherent in soil and rock masses.

Report Recommendations

The report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until earthworks and/or foundation construction is almost complete and therefore the report recommendations can only be regarded as preliminary. Where variations in conditions are encountered, further advice should be sought.

Specific purposes

This report should not be applied to any project other than that originally specified at the time the report was issued.

Interpretation by others

Geoton will not be responsible for interpretations of site data or the report findings by others involved in the design and construction process. Where any confusion exists, clarification should be sought from Geoton.

Report integrity

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way.

Geoenvironmental issues

This report does not cover issues of site contamination unless specifically required to do so by the client. In the absence of such a request, Geoton take no responsibility for such issues.

Exhibited N BOUNDARY 198 RESERVE AREA 200m² BH 5 • IRRIGATION FIELD 200m² (See Drawing 2) BH 4

◆ STS AND DISK FILTER BH 6 BH 3 PROPOSED DWELLING BH 7 BH 2 BH 1 Torlesse Street Approximate Scale 10 10 20 m Legend THE SHED COMPANY

BH 1

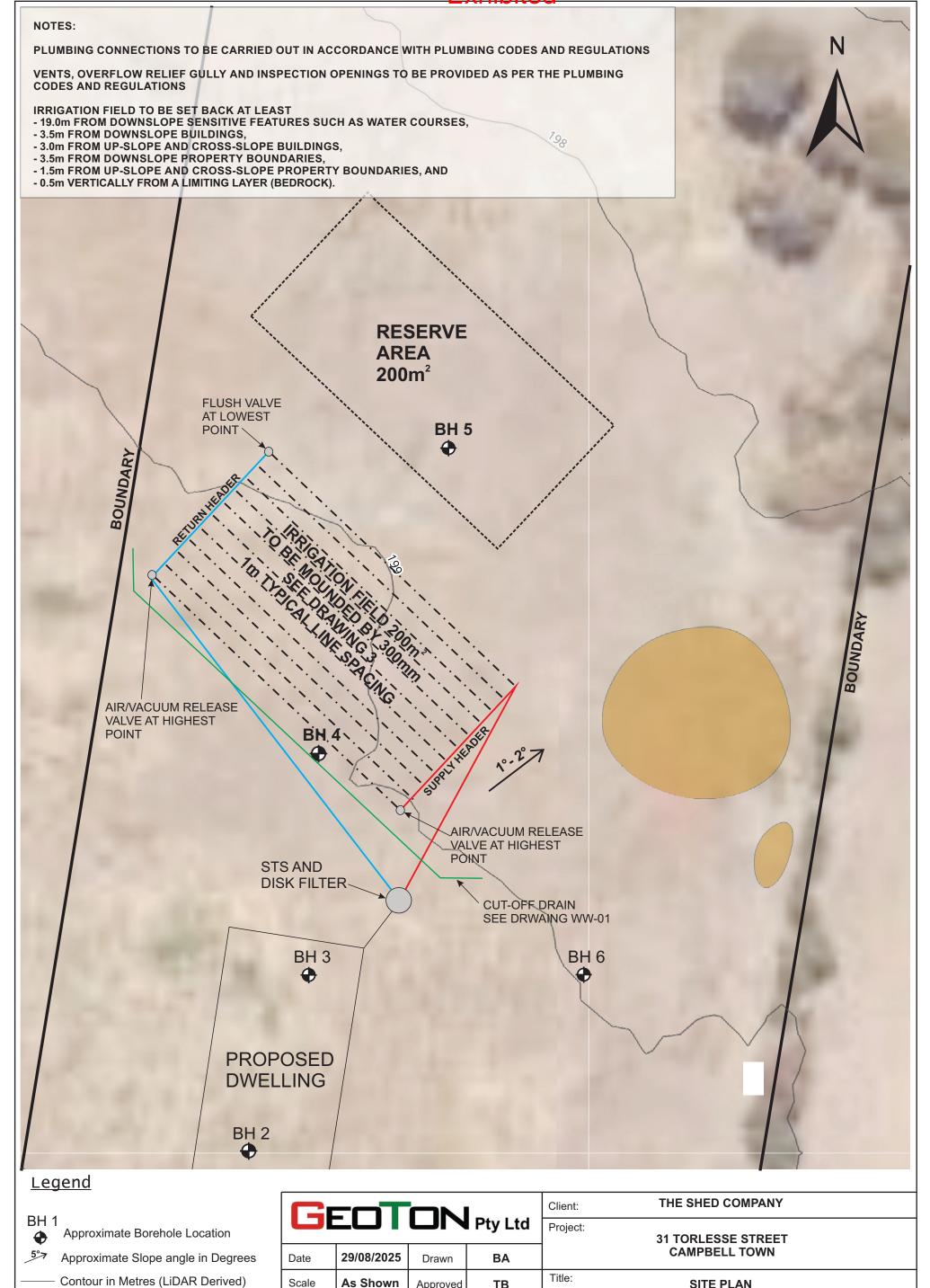
Approximate Borehole Location

Approximate Slope angle in Degrees

Contour in Metres (LiDAR Derived)

Rock Outcrop

			1	Client:	THE SHED COMPA	IN I	
			Pty Ltd	Project:	31 TORLESSE STRI	EET	
Date	29/08/2025	Drawn	ВА		CAMPBELL TOW	N	
Scale	As Shown	Approved	ТВ	Title:	LOCALITY PLAN	I	
Original size	А3	Rev		Project no:	GL25510A	Drawing no.	1



As Shown

A3

TB

Project no:

Approved

Rev

Scale

size

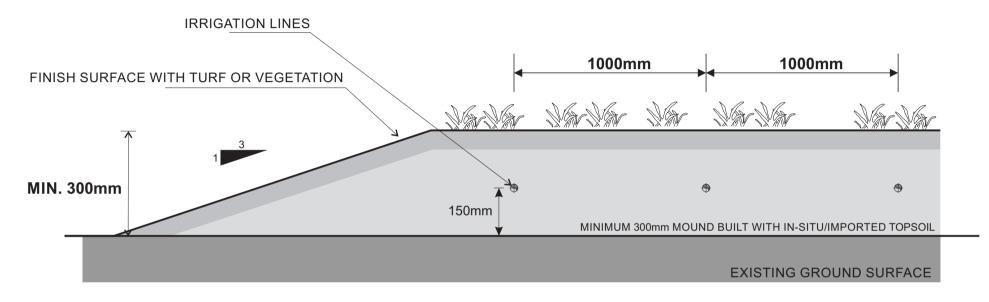
Original

Rock Outcrop

SITE PLAN

GL25510A

Drawing no.

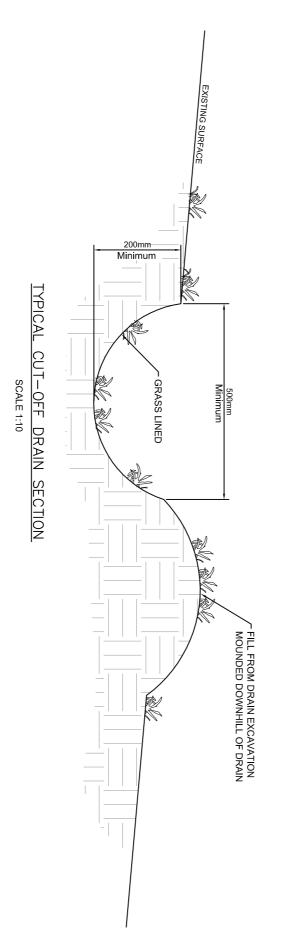


MOUNDED SUBSURFACE IRRIGATION TYPICAL SECTION

1:10@A4

C	-OT		1	client:	THE SHED COMPA	NY
		רוט	Pty Ltd	project:	31 TORLESSE STR	EET
date	29/08/2025	drawn	ВА		CAMPBELL TOW	N
scale	1 : 10	approved	ТВ	title:	MOUNDED SUBSURFACE	DRIP IRRIGATION
original size	A4	rev		project no:	GL25510A	drawing no.





DRAWN:

REVISION: SCALE:

@ A4 B.STREET

DESIGNED:

T.BARRIERA

APPROVED: T BARRIERA

DRAWING: DATE:

WW-01

06/01/25

Appendix A

Borehole Logs



Exhibited ENGINEERING BOREHOLE LOG: BH1

Sheet : 1 OF 1

Easting : 541053.93 Job No : GL25510A Client : The Shed Company Northing : 5356574.27 Inclination : N/A Logged : BA

Project : Site Classification and On-site Wastewater Disposal Logged Date : 19/08/2025 Azimuth Drill Rig

Location : 31 Torlesse St, Campbell Town

L	ocation : 31	Torle	sse St, Camp	bell Town				Azimuth :	Drill Ri	g	:
Method	Drilling	Water	Samples	Testing	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture condition	Consistency density, index	Structure, Additional Observations
				2	-		ML	TOPSOIL-Clayey SILT-low plasticity, red brown, root fibres	М	St	
Ŧ				3							
				R			ML	becoming pale grey,	D	St	
				R				BH1 Refusal at 0.25 m (Borehole BH1 refusal @ 0.25m on inferred highly weathered basalt)			



Sheet

Easting : 541053.93 : The Shed Company

: 1 OF 1 : GL25510A Job No

Client Northing : 5356574.27

Logged : BA Logged Date : 19/08/2025 Drill Rig : Project : Site Classification and On-site Wastewater Disposal Inclination : N/A

Lo	cation : 31 T	orle	sse St, Camp	bell Town				Azimuth :	Drill Ri	9	:
Method	Drilling	Water	Samples	Testing O O	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture	Consistency density, index	Structure, Additional Observations
НА				2	-		ML	TOPSOIL-Clayey SILT-low plasticity, red brown, root fibres	М	St	
					-		ML	becoming pale grey,	 D	St	
				R				BH2 Refusal at 0.25 m (Borehole BH2 refusal @ 0.25m on inferred highly weathered basalt)			



Project

ENGINEERING BOREHOLE LOG: BH3

Client : The Shed Company Easting : 541053.93 Sheet : 1 OF 1 Job No : GL25510A

: Site Classification and On-site Wastewater Disposal

Northing : 5356574.27

Logged Date : BA Logged Date : 19/08/2025

Inclination : N/A

L	ocation	31 Torl	esse St, Can	pbell Town			Порос	Azimuth :	Drill Ri	9	:
Mathod	Drilling	Water	Samples	Testing	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture	Consistency density, index	Structure, Additional Observations
НА					-		ML	TOPSOIL-Clayey SILT-low plasticity, red brown, root fibres	М	St	
					-		ML	becoming pale grey,	D	St	
								BH3 Refusal at 0.25 m (Borehole BH3 refusal @ 0.25m on inferred highly weathered basalt)			



Easting : 541053.93 Client : The Shed Company

Sheet : 1 OF 1 Job No : GL25510A

: 5356574.27 Northing Logged : BA

Project : Site Classification and On-site Wastewater Disposal Inclination : N/A Logged Date : 19/08/2025

			sse St, Camp	d On-site vva: bell Town	siewa	lei L	vispos	al Inclination : N/A Azimuth :	Drill Rig	Date	: 19/08/2025 :
Method	Drilling	Water	Samples	Testing a O O	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture	Consistency density, index	Structure, Additional Observations
Η				2	- -		ML	TOPSOIL-Clayey SILT-low plasticity, red brown, root fibres	М	St	
				R	_		ML	becoming pale grey,	D	St	
				R			ML	becoming pale grey, BH4 Refusal at 0.25 m (Borehole BH4 refusal @ 0.25m on inferred highly weathered basalt)	D	St	
											Page 1 of 1



Sheet

Client : The Shed Company Easting : 541053.93

: 5356574.27

Job No : GL25510A

Project : Site Classification and On-site Wastewater Disposal

Northing Inclination : N/A Logged : BA Logged Date : 19/08/2025 Drill Rig :

: 1 OF 1

			ssification and sse St, Camp		stewa	ter L	nspos	al Inclination : N/A Azimuth :	Logged Drill Riq	Date	: 19/08/2025 :
Method	Drilling	Water	Samples	Testing	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture	Consistency density, index	Structure, Additional Observations
¥					-		ML	TOPSOIL-Clayey SILT-low plasticity, red brown, root fibres	М	St	
					_		ML	becoming pale grey,	D	St	
							ML	becoming pale grey, BH5 Refusal at 0.2 m (Borehole BH5 refusal @ 0.2m on inferred highly weathered basalt)	D	St	



Sheet

: 1 OF 1

: GL25510A

Client : The Shed Company

Easting : 541053.93 Job No

: 5356574.27 Northing

Logged : BA Logged Date : 19/08/2025 Project : Site Classification and On-site Wastewater Disposal Inclination : N/A Location : 31 Torlesse St, Campbell Town Azimuth Drill Rig

Lo	cation : 3	31 To	orles	sse St, Camp	bell Town				Azimuth :	Drill Ri	g	:
Method	Drilling		Water	Samples	Testing a O O	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture condition	Consistency density, index	Structure, Additional Observations
_					2	-		ML	TOPSOIL-Clayey SILT-low plasticity, red brown, root fibres	М	St	
HA					3	-		ML	becoming pale grey,	D	St	
					R			IVIL	BH6 Refusal at 0.25 m (Borehole BH6 refusal @ 0.25m on inferred highly weathered basalt)		SI	



Sheet

Client : The Shed Company Easting : 541053.93 Job No : GL25510A

Project : Site Classification and On-site Wastewater Disposal Northing : 5356574.27 Logged : BA Logged Date : 19/08/2025

: 1 OF 1

Inclination : N/A

	ocation : 31			bell Town	otowa		,	Azimuth :	Drill Ri		: 19/08/2025 :
Method	Drilling	Water	Samples	Testing	Depth (m)	Graphic Log	Classification Code	Material Description	Moisture	Consistency density, index	Structure, Additional Observations
HA					-		ML	TOPSOIL-Clayey SILT-low plasticity, red brown, root fibres	М	St	
					_		ML	becoming pale grey,	D	St	
								BH7 Refusal at 0.25 m (Borehole BH7 refusal @ 0.25 on inferred highly weathered basalt)			





Investigation Log Explanation Sheet

METHOD - BOREHOLE

TERM	Description	
AS	Auger Screwing*	
AD	Auger Drilling*	
RR	Roller / Tricone	
W	Washbore	
СТ	Cable Tool	
HA	Hand Auger	
DT	Diatube	
В	Blank Bit	
V	V Bit	
Т	TC Bit	

^{*} Bit shown by suffix e.g. ADT

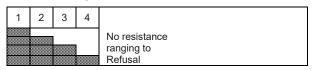
METHOD - EXCAVATION

TERM	Description	
N	Natural exposure	
X	Existing excavation	
Н	Backhoe bucket	
В	Bulldozer blade	
R	Ripper	
Е	Excavator	
HT	Hand Tools	

SUPPORT

TERM	Description
М	Mud
N	Nil
С	Casing
S	Shoring

PENETRATION



WATER

Symbol	Description
—	Water inflow
-	Water outflow
	17/3/08 water on date shown

NOTES, SAMPLES, TESTS

TERM	Description
U ₅₀	Undisturbed sample 50 mm diameter
U ₆₃	Undisturbed sample 63 mm diameter
U ₈₁	Undisturbed sample 81 mm diameter
D	Disturbed sample
N	Standard Penetration Test (SPT)
N*	SPT – sample recovered
Nc	SPT with solid cone
V	Vane Shear
PP	Pocket Penetrometer
Р	Pressumeter
Bs	Bulk sample
E	Environmental Sample
R	Refusal – Material cannot be penetrated
DCP	Dynamic Cone Penetrometer (blows/100mm)
PL	Plastic Limit
LL	Liquid Limit
LS	Linear Shrinkage

CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION

Based on AS 1726:2017

MOISTURE

TERM	Description
D	Dry
М	Moist
W	Wet

CONSISTENCY/DENSITY INDEX

TERM	Description	
VS	very soft	
S	soft	
F	firm	
St	stiff	
VSt	very stiff	
Н	hard	
Fr	friable	
VL	very loose	
L	loose	
MD	medium dense	
D	dense	
VD	Very dense	





Soil Description Explanation Sheet (1of 2)

DEFINITION

In engineering terms, soil includes every type of uncemented or partially cemented inorganic or organic material found in the ground. In practice, if the material can be remoulded or disintegrated by hand in its field condition or in water it is described as a soil. Other materials are described using rock description terms.

CLASSIFICATION SYMBOL AND SOIL NAME

Soils are described in accordance with the AS 1726: 2017 as shown in the table on Sheet 2.

PARTICLE SIZE DEFINITIONS

NAME	SUBDIVISION	SIZE (mm)
BOULDERS		>200
COBBLES		63 to 200
	Coarse	19 to 63
GRAVEL	Medium	6.7 to 19
	Fine	2.36 to 6.7
	Coarse	0.6 to 2.36
SAND	Medium	0.21 to 0.6
	Fine	0.075 to 0.21
SILT		0.002 to 0.075
CLAY		<0.002

MOISTURE CONDITION

Coarse Grained Soils

Non-cohesive and free running. Dry Soil feels cool, darkened in colour. Moist Soil tends to stick together.

Wet As for moist but with free water forming when

handling.

Fine Grained Soils

Moist, dry of Plastic Limited - w < PL

Hard and friable or powdery.

Moist, near Plastic Limit – w ≈ PL

Soils can be moulded at a moisture content approximately equal to the plastic limit.

Moist, wet of Plastic Limit - w > PL

Soils usually weakened and free water forms on hands when handling.

Wet, near Liquid Limit - w≈LL Wet, wet of Liquid Limit - w > LL

CONSISTENCY TERMS FOR COHESIVE SOILS

TERM	UNDRAINED STRENGTH s _u (kPa)	FIELD GUIDE	
Very Soft	≤12	Exudes between the fingers when squeezed in hand	
Soft	12 to 25	Can be moulded by light finger pressure	
Firm	25 to 50	Can be moulded by strong finger pressure	
Stiff	50 to 100	Cannot be moulded by fingers	
Very Stiff	100 to 200	Can be indented by thumb nail	
Hard	>200	Can be indented with difficulty by thumb nail	
Friable	-	Can be easily crumbled or broken into small pieces by hand	

RELATIVE DENSITY OF NON-COHESIVE SOILS

TERM	DENSITY INDEX (%)
Very Loose	≤15
Loose	15 to 35
Medium Dense	35 to 65
Dense	65 to 85
Very Dense	> 85

DESCRIPTIVE TERMS FOR ACCESSORY SOIL **COMPONENTS**

NATION OF	GR	COARSE RAINED SOILS	IN FINE GRAINED SOILS	
DESIGNATION OF COMPONENT	% Fines	% Accessory coarse fraction	% Sand/ gravel	TERM
Minor	≤5	≤15	≤15	Trace
Minor	>5, ≤12	>15, ≤30	>15, ≤30	With
Secondary	>12	>30	>30	Prefix

SOIL STRUCTURE

ZONING		CEMENTING			
Layer	Continuous across the exposure or sample.	Weakly cemented	Easily disaggregated by hand in air or water.		
Lens	Discontinuous layer of different material, with lenticular shape.	Moderately cemented	Effort is required to		
Pocket	An irregular inclusion of different material.		disaggregate the soil by hand in air or water.		

GEOLOGICAL ORIGIN

WEATHERED IN PLACE SOILS

Extremely Weathered material	Material is weathered to such an extent that it has soil properties. Structure and/or fabric of parent rock material retained and visible.
Residual soil	Structure and/or fabric of parent rock
	material not retained and visible.

TRANSPORTED SOILS

Aeolian soil	Carried and deposited by wind.
Alluvial soil	Deposited by streams and rivers.
Colluvial soil	Soil and rock debris transported downslope by gravity.
Estuarine soil	Deposited in coastal estuaries, and including sediments carried by inflowing rivers and streams, and tidal currents.
Fill	Man-made deposit. Fill may be significantly more variable between tested locations than naturally occurring soils.
Lacustrine soil	Deposited in freshwater lakes.
Marine soil	Deposited in a marine environment.





Soil Description Explanation Sheet (2 of 2)

SOIL CLASSIFICATION INCLUDING IDENTIFICATION AND DESCRIPTION

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 63 mm and basing fractions on estimated mass)					GROUP SYMBOL	PRIMARY NAME					
	f m	CLEAN SRAVEL (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes			GW	GRAVEL				
rsize	SOIL ing oversize 775 mm syes)	SRAVEL e than half o se fraction is than 2.36 m	CLEAN GRAVEL (Little or no fines)	l	edominantly one size or a	•	GP	GRAVEL			
SOIL ling ove 075 mm		GRAVEL More than half of coarse fraction is larger than 2.36 mm	GRAVEL WITH FINES (Appreciable amount of fines)		on-plastic fines (for identil e ML and MH below)	fication procedures	GM	Silty GRAVEL			
COARSE GRAINED SOIL an 65% of soil excluding c	naked	N c	GRAVEL WITH FINE (Appreciab amount of fines)		astic fines (for identification, CI and CH below)	on procedures see	GC	Clayey GRAVEL			
RSE GR 5% of so is larger	visible to	s smallest particle visible to SAND More than half of coarse fraction is smaller than 2.36 mm	CLEAN SAND (Little or no fines)		ide range in grain size an nounts of all intermediate		SW	SAND			
COA than 6 fraction	SRAINED SOIL COARSE GRAINED SOIL fraction is larger than 0.075 mm A 0.075 mm particle is about the smallest particle visible to naked eyes)		CLEAN SAND (Little or no fines)		edominantly one size or a th some intermediate size	•	SP	SAND			
More		SA More tha coarse fr	SAND WITH FINES (Appreciable amount of fines)		on-plastic fines (for identife e ML and MH below)	fication procedures	SM	Silty SAND			
		l ms	SA WITH (Appre amc of fii		astic fines (for identification, CI and CH below)	on procedures see	SC	Clayey SAND			
Ze	s abo	IDENTIFICATION	N PROCEDURES O	PROCEDURES ON FRACTIONS < 0.075 mm							
versi	cle is		DRY STRENGTH		DILATANCY	TOUGHNESS					
IIL ing o 075 i	parti	LAY o m ty,	SILT & CLAY (low to medium plasticity, LL < 50)	.LAY 0, ty, 0	.LAY o m o (y,	None to Low		Slow to Rapid	Low	ML	SILT
O SC colud	mm	LT & CLA (low to medium plasticity, LL ≤ 50)	Medium to High		None to Slow	Medium	CL, CI	CLAY			
INEI oil ex er th	INEE oil ex ser tha	SILT SILT m pla	Low to Medium		Slow	Low	OL	ORGANIC SILT			
GRA of se	(A 0	SILT & CLAY (high plasticity, LL > 50)	Low to Medium		None to Slow	Low to Medium	МН	SILT			
ווי: 35% אפני ר	FINE GRAINED SOIL More than 35% of soil excluding oversize fraction is smaller than 0.075 mm (A 0.075 mm particle is ab		High to Very High		None High		СН	CLAY			
F than actior		SILT plk	Medium to High		None to Very Slow Low to Medium		ОН	ORGANIC CLAY			
More		Highly Organic Soil	Readily identified by colour, odour, spongy feel and frequently by fibrous texture.			Pt	PEAT				
• LL – Liquid	◆ LL – Liquid Limit.										

COMMON DEFECTS IN SOILS

TERM	DEFINITION	DIAGRAM
PARTING	A surface or crack across which the soil has little or no tensile strength. Parallel or sub parallel to layering (e.g. bedding). May be open or closed.	
FISSURE	A surface or crack across which the soil has little or no tensile strength, but which is not parallel or sub parallel to layering. May be open or closed. May include desiccation cracks.	
SHEARED SEAM	Zone in clayey soil with roughly parallel near planar, curved or undulating boundaries containing closely spaced, smooth or slickensided, curved intersecting fissures which divide the mass into lenticular or wedge-shaped blocks.	
SHEARED SURFACE	Tribal planal dalities	

TERM	DEFINITION	DIAGRAM	
SOFTENED ZONE	A zone in clayey soil, usually adjacent to a defect in which the soil has a higher moisture content than elsewhere.		
TUBE	Tubular cavity. May occur singly or as one of a large number of separate or inter-connected tubes. Walls often coated with clay or strengthened by denser packing of grains. May contain organic matter.		
TUBE CAST	An infilled tube. The infill may be uncemented or weakly cemented soil or have rock properties.		
INFILLED SEAM	Sheet or wall like body of soil substance or mass with roughly planar to irregular near parallel boundaries which cuts through a soil mass. Formed by infilling of open defects.		

Appendix B

STS Example Plants

Taz Wild Plants



Phone: (03) 6384 2165 Fax: (03) 6384 2165 Web site: www.tazwild.com

Wastewater Treatment Units

Tasmanian Plants suitable for Water from Wastewater Treatment Units

Water from septic tanks and aerated wastewater treatment units such as Biocycle, Envirocycle or other may contain salts, boron and disease bearing microbes. The major ingredients of most cleaning fluids are various salts, of which common kitchen salt (sodium chloride) is the least common. These salts may have large concentrations in wastewater, which can have a detrimental effect on plants. The survival of plants will depend on the concentrations of salts. Long-term build up of chemicals and salts in the soil will adversely affect any plantings.

We can't guarantee these plants will survive but they are tolerant to reasonable amounts of the main offenders and will tolerate wet conditions.

Below is a list of plants to help make an attractive garden bed for your wastewater treatment area.

PLANTS 1 - 6m

Acacia mucronata

Variable sallow wattle. Narrow leaf wattle

An upright or spreading, medium to tall shrub 3-4m X 2-3m. Quick growing. Profuse cream to yellow flowers in spring, showy. Attracts seed eating birds. Drought tolerant.

Acacia verticillata

Prickly Moses

Prickly shrub to 2m. Useful habitat plant and very attractive in flower.

Banksia marginata

Honeysuckle, Silver banksia

Evergreen shrub or small tree with attractive narrow, smooth edged leaves which are square or notched at the end and silvery beneath. Greenish yellow cones of flowers that last as cut flowers. Grows well in sandy soil. Strong upright growth.

Bauera rubioides

Dog Rose

Hardy small to medium dense shrub. 1-2m X 1-2m wide with masses of dainty pink flowers, flowering most of year, attracting butterflies. Grows well in wet or moist soils, prefers acid soils. Likes full or filtered sun. Good coastal pant. Frost tolerant. Prune regularly. Good erosion control.

Callistemon pallidus

Lemon Bottlebrush

Evergreen medium shrub, very upright with silky leaves that become smooth with age. Lovely lemon yellow bottlebrushes in spring and summer. Likes a dry or moist position. Tolerates full or filtered sunlight. Attracts nectar eating birds.

Callitris oblonga

Cypress pine, South esk pine

This is one of Australia's native conifers. It has an attractive shrubby shape and is suitable for use in the garden as a fast growing hedge, since it can be pruned to shape. It is also useful for gardens where the soil is rocky and sandy but will tolerate a range of soils, providing the drainage is good.

Correa backhousiana

Velvet correa

A dense, bushy, spreading shrub to 1.5m high by 2m wide. Leaves are glossy green on top, rusty coloured underneath. Greenish cream bell flowers in winter. Spring bird attracting. Tolerates lime and coastal plantings. Usually frost resistant.

Leptospermum lanigerum

Woolley tea-tree

Hardy medium to large shrub 2.5 to 5m high x 1.2-3m wide, massed with white flowers during spring. Soft grey foliage. Prefers moist to wet soils with good drainage and will grow well in full or filtered sun. Attracts butterflies and seed eating birds. Tolerates light snow, smog and frost.

Melaleuca ericifolia

A very hard, fast growing small evergreen tree suited to most soils and aspects. Suita and or saline soils and withstands coastal exposure. Needle-like leaves and 2-3cm long cream flower spikes, in spring and early summer. Ideal for planting as a screen.

Melaleuca gibbosa

Fine leafed paperbark, Slender honey-myrtle

Evergreen small shrub with mauve/purple ball shaped flowers in late spring and summer. Suitable for most soils, tolerating lime and salt soil. Frost resistant.

Melaleuca squarrosa

Tall, bushy shrub, good foliage. Scented, yellow brush flowers, in spring-summer. Suitable for most soils, tolerating very wet conditions, lime, saline and frost.

Micrantheum hexandrum

River box

Attractive foliage plant with new growth showing red stems. Cream flowers in spring. Grows up to 2m high. Prune to form a dense screen plant.

Notelaea ligustrina

Native Olive, Mock olive, Privet mock olive

Tall shrub with smooth, dark green leaves. Small yellow flowers and purple fruit. Prefers a moist, semi-shaded position but grows well in a wide range of conditions.

Pomaderris apetala

Dogwood

Medium to tall shrub 3 to 15 m. This shrub grows in a wide variety of sites from very dry to very wet but will grow larger with moisture. Looks good planted in copses.

SHRUBS TO 1m

Amperea xiphoclada

Upright or arching stems. Attractive foliage sculpturesque in appearance to 60cm. Useful for basket weaving. Dry to moist sites.

Blechnum penna-marina

Alpine Water Fern

Attractive, low growing, matted ground cover. Leathery dark green fronds to 15cm long, tinged pink when young. Ideal hanging baskets. Rockeries and moist positions in the open ground.

Blechnum wattsii

Hard Water Fern

Hardy and vigorous fern with dark green leathery fronds to 1m tall. Very easily grown in large pot or a moist, shady position in the ground.

Callistemon viridiflorus

Green Bottlebrush

Erect shrub with pale green bottlebrushes. Good in damp conditions. 1-2m X 1m. Frost resistant.

Carex appressa

Tall sedge, Tussock sedge

A tall perennial to 1.8m high. Stems acutely 3 angled and leaves 3-6mm broard. Occurs in winter wet depressions that can dry out completely in summer. Flowers in spring.

Carex inyx

Tassell Sedge

Evergreen clump forming sedge with green foliage and gorgeous golden brown pendulous tassels 1m x 1m.

Carex tasmanica

Curley Sedge

An upright sedge to 30cm. Attractive tight curls on tips of leaves. Wet sites but will tolerate long dry spells.

Dianella tasmanica

Flax Lily

An evergreen perennial plant with arching, strap-like leaves which can be up to 1.2m long. During spring and summer this plant bears clusters of nodding, star shaped, bright blue to purple flowers which are followed by glossy deep blue berries. Thrives in a sunny to partly shaded position in humus rich, well drained soil. Ideal for rockeries, poolside planting and containers.

Ficinea nodosa (syn isolepis nodosa)

Knobby club rush



Dense tufted native rush with stiff stems. Rounded brown flower knobs in summer. Suit damp or moist sandy soil. 60cm X 1m wide.

Ficinea nodosa (syn isolepis nodosa)

Knobby club rush (syn. Isolepis nododa)

Ideal for planting around pond margins, this fast growing perennial plant forms clumps of upright, often arching, dark green stems. Brownish, globular flower heads are produced throughout the year. A tough hardy plant which thrives in full sun in a range of soils. Tolerates salt spray, waterlogged and saline soils. Adds texture and colour to seaside gardens and water features, useful for general garden planting.

Goodenia elongata

Lanky Goodenia

Suckering ground cover 10cm tall X 50cm. Glossy green leaves, rich yellow flowers on tall stems spring-summer, prefers moist soils in full sun or part shade.

Isolepis inundata

Knobby club rush, Swamp club rush

Handy aquatic for waters edge or general planting (eg. shrub beds, dry creek beds).

Lomandra longifolia

Long leaf mat bush, Sagg

A popular plant for use as accent in gardens, where the rush like foliage contrasts well with broad leafed plants. Use it next to ponds or as a boarder plant. Flowers in spring, bearing clusters of cream, strongly perfumed flowers - great for use in flora arrangements. A very adaptable plant that will grow well in a range of soils but does best in a moist position.

Mazus pumilio

Mauve carpet

Low growing creeping plant. Ideal ground cover, with mauve flowers, spring and summer. Semi shade or sun.

Melaleuca squamea

A bushy shrub to 1m with stunning mauve flowers in spring-summer. Grows well in a damp spot. Frost hardy.

Poa labillardieri

A popular native grass grown for its soft blue foliage. In the warmer months this clumping plant produces an attractive flower head with a purple tint. Thrives in a sunny to partly shaded position and grows in a range of soils. Suitable for planting under trees, embankments and mass plantings. Cut to just above ground level in late winter for fresh new spring growth.

Polystichum proliferum

Mother Shield Fern

An easy to grow fern with attractive green fronds. New fronds are covered with eye catching brownish scales. An ideal plant for ferneries and shaded garden positions but will perform equally well when planted in a container. Plant in humus rich, moist, well drained soil in part shade. Fertilise with a good organic fertilizer. When planting in containers use a premium potting mix.

Polystichum proliferum

Mother Shield Fern

Attractive native fern with arching fronds to 1m long forming plantlets near the tip. Very easily grown in a moist position in morning or filtered sun. Suitable for tubs.

Pratia pedunculata

Blue pratia, Common pratia, White pratia

This dainty, spreading plant forms a carpet of tiny green leaves which from spring to early summer is smothered in a mass of tiny, white flowers. This carpeting plant is ideal for filling in spaces near rocks and sleepers and makes an attractive groundcover. Thrives in a sunny to semi-shaded position in moist soil. Keep moist at all times.

Pratia pedunculata

Blue pratia, Common pratia, White pratia

This dainty, spreading plant forms a carpet of tiny, green leaves, which from spring to early summer is smothered in a mass of tiny blue flowers. This carpeting plant is ideal for filling in spaces near rocks and sleepers, and makes an attractive groundcover, thrives in a sunny to semi-shaded position in moist soil. Keep moist at all times.

Scaevola hookeri

Creeping fan flower, Mat fan flower

A very densely matting, evergreen groundcover with glossy, dark green leaves and small, white fan-shaped flowers in flushes, during spring, summer and autumn. An excellent soil binding plant for average to moist positions. Frost hardy.

Velleia paradoxa

Spur valleia



Wild flower 20cm X 20cm with large yellow flowers spring and summer. Prefers moist soils which are well drained and part shade to full sun.

Viola fuscoviolacea

A spreading, matting violet with attractive dense foliage and tiny deep purple-blue flowers in spring and summer. Prefers a moist position. Withstands frosts and snow.

Viola hederacea

Native violet

An attractive creeping evergreen perennial with fan shaped leaves. This plant produces beautiful mauve flowers over a long flowering period. An ideal ground cover for full sun to part shade in well drained soils.

TREES

Acacia dealbata

Silver Wattle

A tall tree with a smooth trunk, often decorated with silvery, mottled patches contrasting with the greyish-green leaves. In spring, clusters of golden-yellow, fluffy ball like flowers almost cover the whole tree.

Acacia melanoxylon

Blackwood

A beautiful formal tree that produces one of Australia's most sought after woods for cabinet making. Light yellow flowers occur in winter and early spring. A useful tree for a windbreak or screen as it grows densely. It is also tolerant of a wine range of positions, however its height and width will be greatest if the soil is moist and fertile.

Eucalyptus ovata

Black gum, Swamp gum

Evergreen medium to tall moisture loving tree, good for poorly drained soils. Smooth white trunk. Masses of white flowers in autumn which attract birds. Frost hardy. Good tree for cool districts. Water absorber. Drought tolerant. Excellent shade and windbreak tree.

Eucalyptus rodwayi

Swamp Peppermint

This tree is suitable for a wide range of conditions, from very dry sandy soils to river banks. Grows 15 to 20m.

Eucalyptus viminalis

White Gum

A magnificent tree with a lovely white trunk. This tree is suitable for very dry to very wet sites. Its height is 20 to 40m depending on availability of moisture.

Pomaderris apetala

Dogwood

Medium to tall shrub 3 to 15 m. This shrub grows in a wide variety of sites from very dry to very wet but will grow larger with moisture. Looks good planted in copses.

Prostanthera lasianthos

Christmas bush, Tasmanian Christmas bush

The Tasmanian Christmas bush comes into flower around Christmas with masses of mint scented foliage. A rapid growth in a range of soils but for best results grow in a well drained soil and mulch to retain moisture in the drier months. An attractive plant that will grow in a range of positions in the garden.

Tasmannia lanceolata

Mountain pepper, Native pepper

Small leafed mountain form. Handsome foliage shrub with bright green leaves and red stems. Creamy-yellow flowers in spring. Slow growing to 1.5m, hardy in a cool moist well drained position in sun or shade.

Appendix C

Certificate Forms

CERTIFICATE OF QUALIFIED PERSON - ASSESSABLE Section 321 ITEM Owner /Agent The Shed Company To: Address 5 Legana Park Drive Suburb/postcode Legana Tas 7277 Qualified person details: Tony Barriera - Geoton Pty. Ltd. Qualified person: PO Box 522 Phone No: 03 6326 5001 Address: Prospect Tas 7250 Fax No: CC6220 P Email address: tbarriera@geoton.com.au Licence No: (description from Column 3 of the Director's Tony Barriera - BEng, MSc Determination - Certificates by Qualified Persons CPEng, NER - IEAust 471929 for Assessable Items Qualifications and Civil, Geotechnical Insurance details: Certain Underwriters at Lloyd's-About Underwriting Speciality area of (description from Column 4 of the Director's Geotechnical Engineering Determination - Certificates by Qualified Persons expertise: for Assessable Items) **Details of work:** 31 Torlesse Street Lot No: 5 Address: Campbell Town Tas 7210 Certificate of title No: 184347/5 (description of the assessable item being The assessable Classification of foundation conditions certified) item related to according to AS2870 - 2011 Assessable item includes this certificate: a material; a design a form of construction a document testing of a component, building system or plumbing system an inspection, or assessment, performed Certificate details: (description from Column 1 of Schedule 1 of the Foundation Site Classification -Certificate type: Director's Determination - Certificates by Qualified AS2870 Persons for Assessable Items n) This certificate is in relation to the above assessable item, at any stage, as part of - (tick one) building work, plumbing work or plumbing installation or demolition work: a building, temporary structure or plumbing installation:

In issuing this certific	ate the following matters are relevant –				
Documents:	Geoton Pty Ltd, Report Reference No. GL25510Ab, dated 29/08/2025				
Relevant calculations:	Refer to report				
References:	AS 2870 – 2011 Residential Slabs and Footings Construction AS 4055 – 2021 Wind Loads for Housing CSIRO Building Technical File 18				
	Substance of Certificate: (what it is that is	being certified)			
Wind Loading in	on in accordance with AS2870 - 2011 accordance with AS 4055 - 2021 commendations of report				
	Scope and/or Limitations				
The classification applies to the site as investigated at the time and does not account for any future alteration to foundation conditions resulting from earthworks, drainage condition changes or site maintenance variations.					
I certify the matter	s described in this certificate.				
	Signed:	Certificate No:	Date:		
Qualified person:	bons	GL25510Ab	29/08/2025		



CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94 Section 106 Section 129 Section 155

To:	The Shed Company			Owner name		25		
	5 Legana Park Drive			Address		Form 35		
	Legana Tas			7277	Suburb/posto	code		
Designer details:								
	J.							
Name:	Tony Barriera				Catego		Civil Engineer Hydraulic - Domestic	
Business name:	Geoton Pty Ltd				Phone N	lo: (03 6326 5001	
Business address:	P O Box 522							
	Prospect TAS			7250	Fax N	lo:		
Licence No:	IEAust 471929, CC6220 P	ddress:	tba	rriera@	geoton.co	m.aı	ı	
Details of the p	roposed work:							
Owner/Applicant	The Shed Company				Designer's p		GL25510Ab	
Address:	31 Torlesse Street				Lot	No:	184347/5	
	Campbell Town Tas			7210				
Type of work:	Building wo	ork			Plumbing wo	ork	X (X all applicable)	
Description of wo	rk:							
New building on-site wastewater management system (new building / alteration / addition / repair / removal / re-erection water / sewerage / stormwater / on-site wastewater management system / backflow prevention / other					tion / repair / removal / rection er / sewerage / nwater / ite wastewater agement system / flow prevention / other)			
•	Design Work (Scope, limita	tions or	exc		, , ,,		<u> </u>	
Certificate Type:	Certificate				esponsible F			
	☐ Building design ☐ Structural design				rchitect or Building Designer ngineer or Civil Designer			
	☐ Fire Safety design				re Engineer			
	☑ Civil design					I Engineer or Civil Designer		
	☐ Hydraulic design Building Services Designer					esigner		
	☐ Fire service design			В	uilding Servic	ilding Services Designer		
☐ Electrical design Build					uilding Servic	lding Services Designer		
<u> </u>					ilding Service Designer			
				umber-Certifier; Architect, Building esigner or Engineer				
	☐ Other (specify)							
Deemed-to-Satisfy: Performance Solution				ıtion: 🔲 (X the	appropriate box)		
Other details: All design documents provided in Report GL25510Ab, dated 29/08/2025								

Design documents provided: The following documents are provided with this Certificate – Document description: Drawing numbers: Prepared by: Date: Schedules: Prepared by: Date: Specifications: Prepared by: Date: Computations: Prepared by: Date: Performance solution proposals: Prepared by: Date: Prepared by: Date: Test reports: Standards, codes or guidelines relied on in design process: All design documents are contained within report AS/NZS1547:2012 On-site domestic-wastewater management Any other relevant documentation: Attribution as designer: I Tony Barriera of Geoton Pty Ltd am responsible for the design of that part of the work as described in this certificate; The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the Building Act 2016 and sufficient detail for the builder or plumber to carry out the work in accordance with the documents and the Act; This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code. Name: (print) Signed Date Designer: Tony Barriera 29/08/2025

CC6220P

Licence No:

Exhibited

Assessment of Certifiable Works: (TasWater)

Note: single residential dwellings and outbuildings on a lot with an existing sewer connection are not considered to increase demand and are not certifiable.

If you cannot check ALL of these boxes, LEAVE THIS SECTION BLANK.							
TasWater must the	n be contacted to determine if the p	proposed works are Certifiable	e Works.				
	roposed works are not Certifiable \sessments, by virtue that all of the		Guidelines for				
The works will not increase the demand for water supplied by TasWater							
The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure							
The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure							
The works will not damage or interfere with TasWater's works							
The works will not adversely affect TasWater's operations							
The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement							
I have checked the LISTMap to confirm the location of TasWater infrastructure							
If the property applied for to T	is connected to TasWater's water sys ⁻asWater.	tem, a water meter is in place, c	or has been				
Certification:							
described above at that I have answer Guidelines for Tas	Geoton Pty Ltd being responsible for the not Certifiable Works, as defined worked the above questions with all due displayed and Water CCW Assessments. The secondary community is a secondary community in the secondary community is a secondary community.	ithin the <i>Water and Sewerage In</i> ligence and have read and unde	ndustry Act 2008, erstood the				
	Name: (print)	Signed	Date				
Designer:	Tony Barriera	bonn	29/08/2025				





LOADING CERTIFICATE

Owner /Agent Certificate Ref: To: The Shed Company AS/NZS 1547:2012 Address 5 Legana Park Drive Section 7.4.2

Suburb/postcode Legana Tas 7277

Details of work:

Address: 31 Torlesse Street Lot No: | 5

Certificate of title No: 184347/5

Campbell Town Tas

7210

(description of the work or part work being

management

related to this certificate:

The work

On-site domestic-wastewater

certified)

Certificate details:

In issuing this certificate the following matters are relevant –

Documents: Report GL25510Ab dated 29/08/2025

> Drawing 1 – Locality Plan Drawing 2 - Site Plan

Drawing 3 - Subsurface Mound Section

Drawing WW-01 - Typical Cut-off Drain Section

Relevant

calculations:

Contained in the above

AS/NZS1547:2012 On-site domestic-wastewater management References:

Substance of Certificate:

This certificate sets out the design criteria and the limitations associated with use of the system.

Wastewater Characteristics

Population equivalent used for this assessment = 4 (2 bedroom dwelling) Wastewater volume (L/day) used for this assessment = 600 (150 Litres per person)

Approximate blackwater volume (L/day) = 240 Approximate greywater volume (L/day) = 360

Soil Characteristics/Design Criteria

Texture (Table E4 from AS/NZS 1547) = Light Clay

Soil category (Table E1 from AS/NZS 1547) = 5

Soil structure (Table E4 from AS/NZS 1547) = Weakly structured

Indicative permeability (Table 5.1 from AS/NZS 1547) = <0.06m/day Adopted permeability = 0.06 m/dayAdopted Design Irrigation Rate = 3mm/day Soil thickness for disposal = 0.2mMinimum depth (m) to water = >0.25m

Exhibited

Dimensions for On-Site Treatment System

Disposal and treatment methods = Secondary Treatment System (STS) and sub-

surface irrigation

Site modification and specific design = Importation and mounding of topsoil by 300mm

Primary disposal area required = 200m² Reserve disposal area required = 200m²

Location and use of Reserve area = Reserve area located to the north of the

proposed irrigation field. Currently vacant.

Is there sufficient area available on site for disposal (including reserve) = Yes

Notes

The purpose of the reserve area is to allow for future extention of the land application system to allow a factor of safety against unforseen malfunction or failure, perhaps following increased household occupancy or inadvertent misuse of the system.

The land application area may be reduced to account for flow reductions by water-saving devices, provided the organic loading rate is not higher than it would have been without the flow reduction.

Allowable Variation from Design Flow

Based on an approved minimum STS 8 EP system (8 equivalent persons) rated at 1200 litres per day and a wastewater design volume of 600L/day the allowable variation from design flow (peak loading events) would be an additional 600L/day.

System Limitations

Consequences of overloading the system:

- (A) Adverse effects on soil properties and plant growth through excess salt accumulation in the root zone during extended dry periods
- (B) Harmful long-term environmental effects to the soil of land application system or the adjacent surface water and groundwater; or
- (C) Increased risk to public heath from surface ponding in the land application area or channelling or seepage beyond the land application area.

Consequences of underloading the system:

Not applicable to this type of system.

Operation Requirements

Refer to operation manual of preferred aerated waterwater treatment system. Adverse effects of not operating the system correctly may include:

- (A) Odour; and
- (B) Disease.

Maintenace Requirements

Refer to operation manual of preferred aerated waterwater treatment system. Adverse effects of not maintaining and monitoring the system correctly may include:

- (A) Odour;
- (B) Pump failure;
- (C) Air blower failure or filter blockage;
- (D) Alarm failure;
- (E) Irrigation field failure; and
- (F) Poor water quality, lack of disinfection.

Exhibited

I certify the matters described in this certificate.

	Signed:	Date:	_	Certificate No.
Certifier:	bonn	29/08/2025		GL25510Ab

GENERAL PROJECT NOTES

CHECK CAREFULLY ALL ASPECTS OF THESE DOCUMENTS BEFORE COMMENCING WORK

ANY ERRORS OR ANOMALIES TO BE REPORTED TO THE DRAWER BEFORE WORK IS CONTINUED

CONFIRM ALL SIZES AND HEIGHTS ON SITE DO NOT SCALE OFF PLAN

ALL CONSTRUCTION IS TO COMPLY WITH THE BUILDING CODE OF AUSTRALIA AND ALL RELEVANT AUSTRALIAN STANDARDS CONSTRUCTION STANDARDS

ALL WORKS SHOULD BE GENERALLY INLINE WITH THE PRACTICES SET OUT IN THE 'GUIDE TO STANDARDS AND TOLERANCES 2007'

WIND LOADS DETERMINED IN ACCORDANCE WITH AS 4055 - WIND LOADS FOR HOUSING

THESE DOCUMENTS TO BE USED WITH ALL DOCUMENTATION PREPARED BY AN ENGINEER

THESE DOCUMENTS ARE INTENDED FOR COUNCIL APPLICATIONS AND NORMAL CONSTRUCTION, THEY ARE NOT TO BE USED FOR TENDERING PURPOSES OR INSPECTIONS

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REQUIREMENTS OF SCHEDULE 1

DESIGNER: D. Cooper #300139920
PROJECT ADDRESS: Lot 5 #31 Torlesse Street,
Campbell Town, Tasmania 7210
CLIENT NAME: Michael Zeckomske
TITLE REF: 184347
FLOOR AREA: 208m²
DESIGN WIND SPEED: N2
SOIL CLASSIFICATION: M
CLIMATE ZONE: 7
BAL LEVEL: N/A
ALPINE AREA: N/A
CORROSION ENVIRONMENT: N/A
KNOWN SITE HAZARDS: NONE

INDEX OF APPLICATION SET:

ARCHITECTURAL DRAWINGS - PAGE 01 - 16 ENGINEERING DRAWINGS - NO SPECIFICATIONS - NO ADDITIONAL PAGES - FORM 35.

Exhibited

PROPOSED PROPOSED RESIDENCE for Michael Zeckomske Lot 5 #31 Torlesse Street, Campbell Town, Tasmania 7210

LIST OF SHEETS NO. SHEET NAME TITLE SHEET LOCALITY PLAN 3 SITE PLAN FLOOR PLAN **ELEVATIONS A & B ELEVATIONS C & D** SECTION **DETAILS DETAILS - BLOCKING** 10 SLAB PLAN **ELECTRICAL PLAN** FLOOR COVERINGS 13 SEWER PLAN ROOF PLAN **PERSPECTIVES** 16 **BAL NOTES**

 REV: AMENDMENT:
 INI:
 DATE:

 1 Ini. Round 1 Changes
 DC 01.07.25

 2 Plan Changes
 DC 05.08.25

 3 Plan Updates
 DC 11.08.25

 4 Construction Plans
 DC 03.09.25

 5 Notes Updated
 DC 10.09.25



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PROPOSED RESIDENCE for Michael Zeckomske

Lot 5 #31 Torlesse Street, Campbell Town, Tasmania 7210

TITLE SHEET

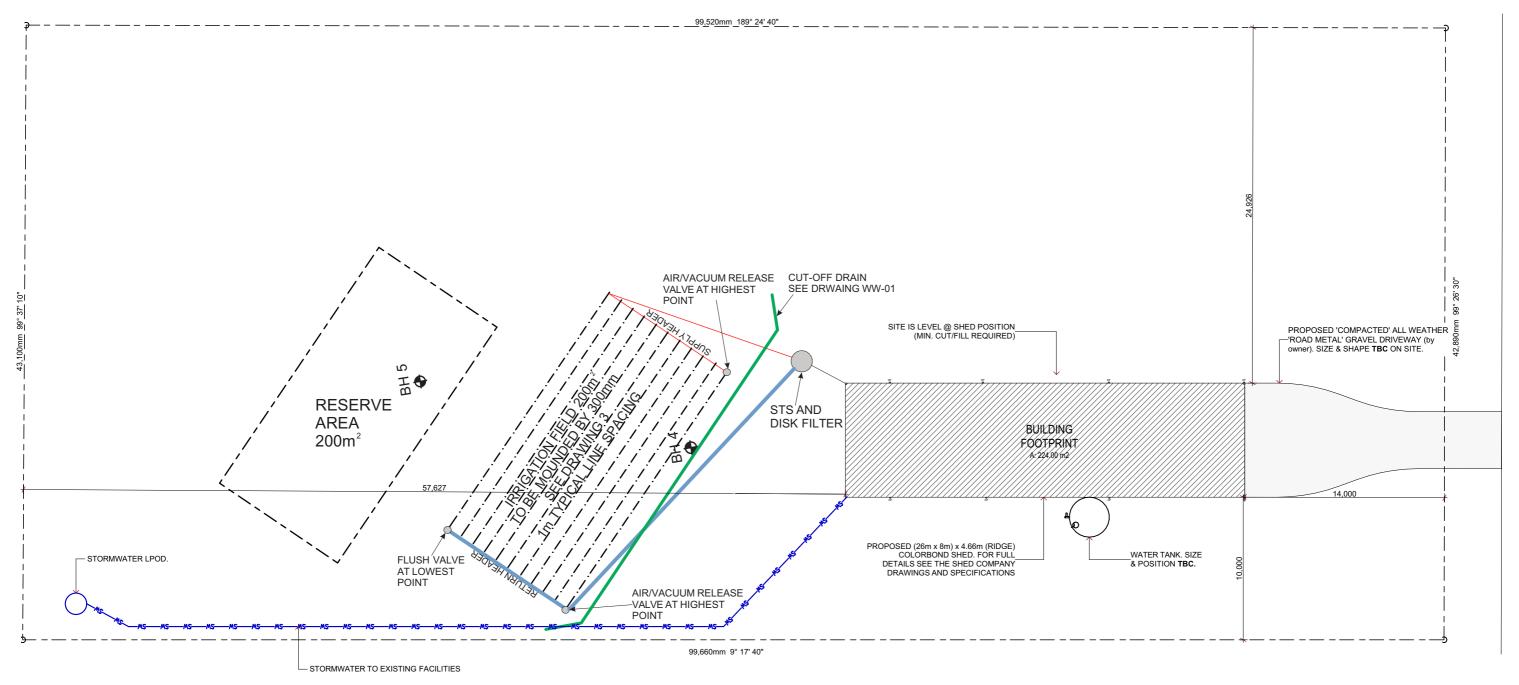
DATE: 10/09/2025
CONSTRUCTION

SHEET NUMBER: 1 of 16

CONSTRUCTION SALES TO TO THE SALES TO THE SA

LOT NUMBER: 5
PLAN NO: 184347
SITE AREA: 4,282m²
DESIGN BASE: Custom
LOCAL AUTHORITY: Northern Midlands

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PROPOSED RESIDENCE for Michael Zeckomske

Lot 5 #31 Torlesse Street, Campbell Town, Tasmania 7210

LOCALITY PLAN

DATE: 10/09/2025
CONSTRUCTION

JOB NUMBER: 7231
SHEET NUMBER: 2 of 16



LOT NUMBER:

 PLAN NO:
 184347

 SITE AREA:
 4,282m²

 DESIGN BASE:
 Custom

LOCAL AUTHORITY: Northern Midlands

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SET OUT NOTES

THE BUILDER IS TO SET OUT THE WORKS IN CONJUNCTION WITH THE ACCOMPANYING PLANS. THE FINAL POSITION IS TO BE CONFIRMED BY THE CLIENT AS TO BEING CORRECT. ALL DIMENSIONS HEIGHTS AND LEVELS ARE TO BE CONFIRMED ON SITE BY ALL PARTIES INCLUDING LOCAL COUNCIL OWNER AND ENGINEER BEFORE ANY EXCAVATION IS TO BE CARRIED OUT.

PLUMBING NOTES

ALL PLUMBING WORK BOTH WASTE AND WATER TO COMPLY WITH CURRENT BCA AND AS 3500 WITH ALL LOCAL COUNCIL REQUIREMENTS SATISFIED. ALL DRAINS ARE TO BE 100mm PVC SEWER PIPE SET IN 12mm BLUEMETAL WITH A MINIMUM DEPTH OF 500mm ALL AS PER AS 3500 "PLUMBING AND DRAINAGE". STORMWATER DRAIN INSTALLATION SHALL COMPLY WITH AS 3500.

NOTE: UNPROTECTED EMBANKMENT SLOPES

Exhibited

NOTE: SHED POSITION TBC. ON SITE BY BUILDER

SLOPE = H:L SOIL TYPE COMPACTED FILL CUT STABLE ROCK 8:1 SAND 1:2 1:2 1:4 1:4 SILT (FIRM) 8:1 CLAY 1:2 (SOFT) NOT SUITABLE 2:3

SOFT SOILS NOT SUITABLE NOT SUITABLE AIR/VACUUM RELEASE CUT-OFF DRAIN SEE DRWAING WW-01 VALVE AT HIGHEST **POINT** SITE IS LEVEL @ SHED POSITION (MIN. CUT/FILL REQUIRED) owner). SIZE & SHAPE TBC ON SITE. STS AND DISK FILTER BUILDING FOOTPRINT A: 224,00 m2 57,627 14,000 TO BOUNDARY PROPOSED (26m x 8m) x 4.66m (RIDGE) COLORBOND SHED. FOR FULL WATER TANK. SIZE DETAILS SEE THE SHED COMPANY & POSITION TBC. DRAWINGS AND SPECIFICATIONS AIR/VACUUM RELEASE -VALVE AT HIGHEST **POINT** 99.660mm 9° 17' 40"

BUSHFIRE NOTE: This allotment has been assessed to have a **Bush Fire Attack Level**

(BAL) 12.5

REV: AMENDMENT: DATE: 1 Ini. Round 1 Changes 01.07.25 05.08.25 2 Plan Changes 3 Plan Updates 11.08.25 4 Construction Plans 03.09.25 5 Notes Updated 10.09.25

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PROPOSED RESIDENCE for Michael Zeckomske

Lot 5 #31 Torlesse Street, Campbell Town, Tasmania 7210

SITE PLAN

DATE: 10/09/2025 CONSTRUCTION

JOB NUMBER: 7231 SHEET NUMBER: 3 of 16



PLAN NO:

LOT NUMBER:

184347 SITE AREA: 4,282m² DESIGN BASE: Custom

LOCAL AUTHORITY: Northern Midlands

Scale 1:200 E

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GENERAL FLOOR PLAN NOTES

SHELVING ROBE X 1 SHELF & RAIL UNO BROOM X 1 SHELF UNO LINEN X 4 SHELF UNO STORE X 4 SHELF UNO PANTRY X 4 SHELF UNO ALL SHELVING 450mm WIDE UNO. DENOTES BULKHEAD.

ALL SMOKE ALARMS ARE TO BE INSTALLED IN ACCORDANCE WITH NCC VOL2, PART 9.5 SMOKE ALARMS, H3D6 AND AS3786-2023, SMOKE ALARMS AND STATE & TERRITORY LEGISLATIONS.

WALL SARKING MATERIAL TO COMPLY WITH AS4200.1 AND NCC VOLUME 2 PART 10.8.1 AND H4D9. BE INSTALLED IN ACCORDANCE WITH AS4200.2.

TERMITE PROTECTION TO COMPLY WITH AS3660.1-2014 AND NCC VOL2 H1D3 PART A PRE SLAB AND SUB-FLOOR **PROTECTION**

• PVC COLLARS TO ALL SERVICE **PENETRATIONS**

PART B - PERIMETER PROTECTION

• 75mm SLAB EDGE EXPOSURE -VERTICAL SLAB EDGE.

ALL MECHANICAL VENTILATION DUCTED TO EXTERNAL IN ACCORDANCE AS1668.2 AND NCC VOLUME 2. H4P5 VENTILATION RATE NOT LESS THAN 25L/s FOR BATHROOMS AND 50L/s FOR RANGEHOODS.

ALL GLAZING MUST COMPLY WITH AS1288-2021, AS2047-2014 & NCC VOLUME 2 PART'S 8.3 AND 8.4 AND H1D8.

WET AREAS MUST BE WATERPROOFED IN ACCORDANCE WITH AS3740-2021 OR NCC VOLUME 2 PART 3.8.1.2.

WC DOORS ARE TO BE PROVIDED WITH LIFT OFF HINGES IN ACCORDANCE WITH NCC VOLUME 2 PART 10.4.2.

ADDITIONAL NOGGINGS PROVIDED AT: 750 mm FOR TOILET ROLL HOLDERS 1000 mm FOR TOWEL RAILS 1000 mm FOR TOWEL RINGS.

REFER TO ENGINEERING DRAWINGS FOR STRUCTURAL DESIGN, FOOTING, SLAB. TRUSS, SET DOWNS, TIE DOWN. BRACING, RETAINING WALLS AND ALL STRUCTURAL DETAILS.

ADDITIONAL DUCTS, VOIDS & BULKHEADS MAY BE REQUIRED FOR SERVICES.

ELEVATIONS

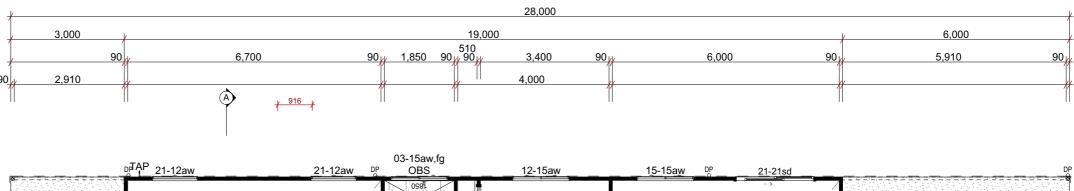


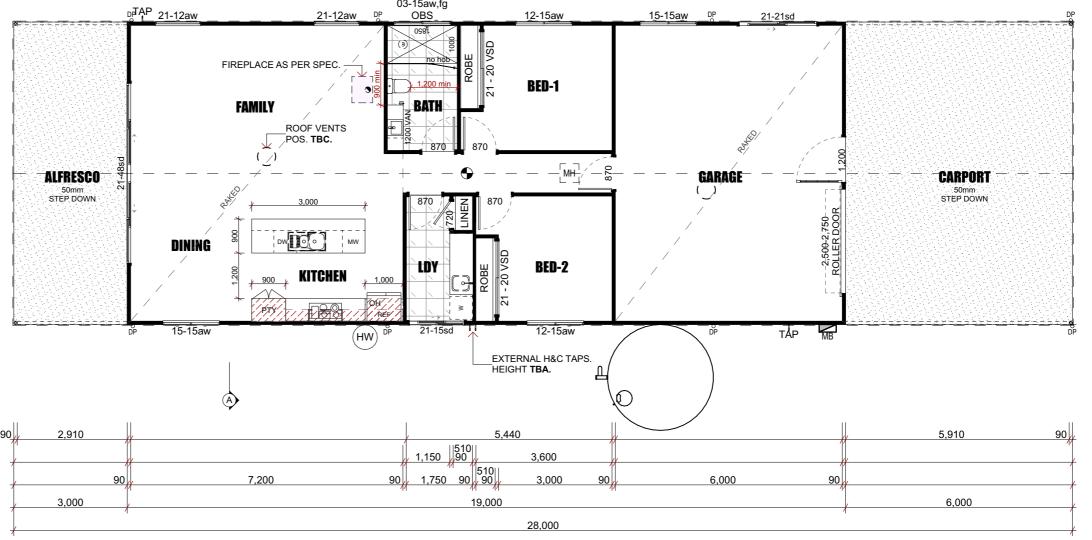


AREA	4
LIVING	103.55
GARAGE	48.72
CARPORT	48.00
ALFRESCO	23.73
	224.00 m²
WFT AREAS	11.88 m²

90 1,030 1,020 190

90 1,020









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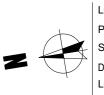
PROPOSED RESIDENCE for Michael Zeckomske

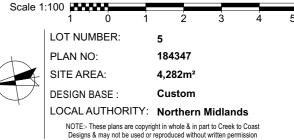
Lot 5 #31 Torlesse Street, Campbell Town, Tasmania 7210

FLOOR PLAN

DATE: 10/09/2025 CONSTRUCTION

JOB NUMBER: 7231 SHEET NUMBER: 4 of 16





GENERAL ELEVATION NOTES

ALL GLASS & GLAZING MUST COMPLY WITH AS1288-2021, AS2047-2014 & NCC VOLUME 2 PART'S 8.3 AND 8.4 AND H1D8. GLASS IN BUILDINGS -SELECTION AND INSTALLATION.

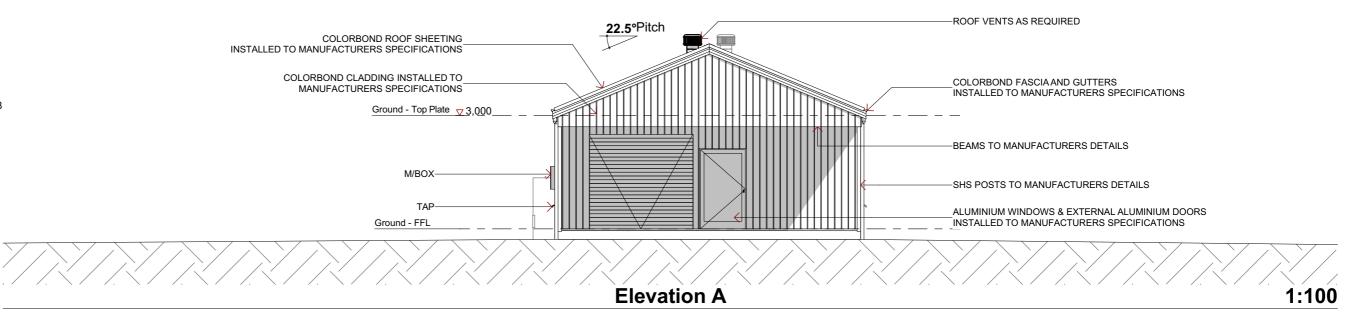
ALL STAIRS TO BE IN ACCORDANCE WITH NCC VOLUME 2, PART 11.2.

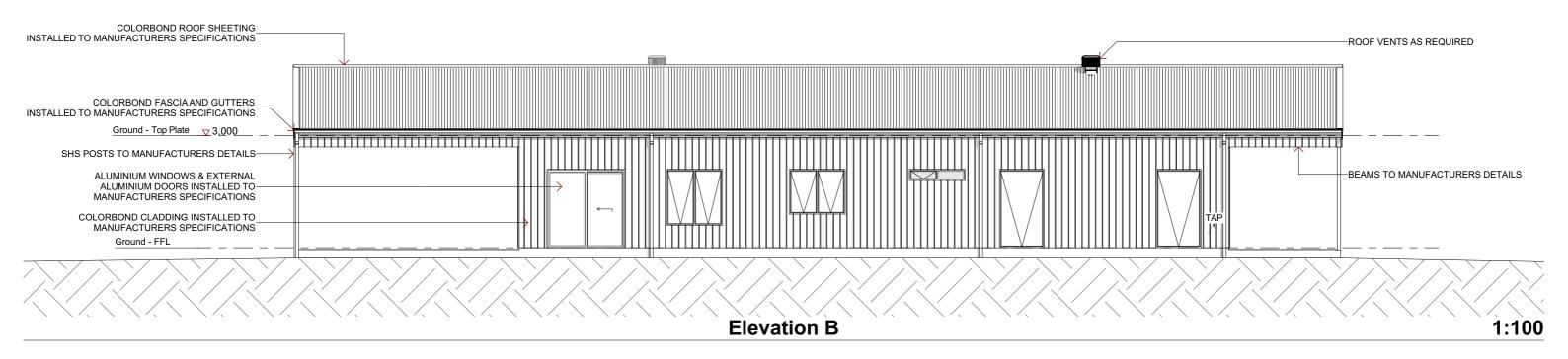
BALUSTRADE TO BE MINIMUM 1000MM ABOVE FFL WITH NO OPENINGS GREATER THAN 124MM IN ACCORDANCE WITH NCC VOL2, PART 11.3.

40mm ALLOWANCE TO CEILING HEIGHT FOR CEILING BATTENS & PLASTERBOARD.

WATER RESISTANT CEILING WITH 18x18 PERIMETER BEAD PROVIDED TO EXTERNAL CEILINGS (ALFRESCO & PORCH ONLY, UNO).

Exhibited







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PROPOSED RESIDENCE for Michael Zeckomske

Lot 5 #31 Torlesse Street, Campbell Town, Tasmania 7210

ELEVATIONS A & B

DATE: 10/09/2025 CONSTRUCTION

JOB NUMBER: 7231
SHEET NUMBER: 5 of 16

LOT NUMBER:

 PLAN NO:
 184347

 SITE AREA:
 4,282m²

 DESIGN BASE:
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LOCAL AUTHORITY: Northern Midlands

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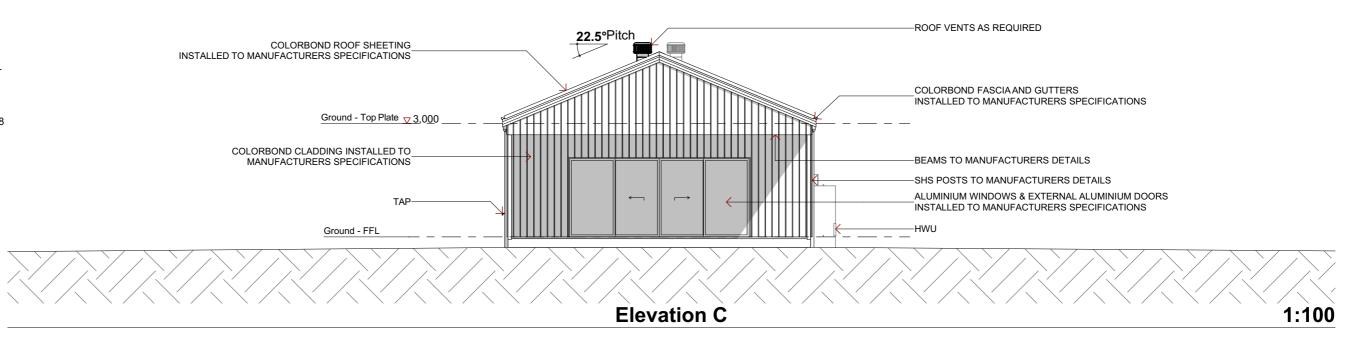
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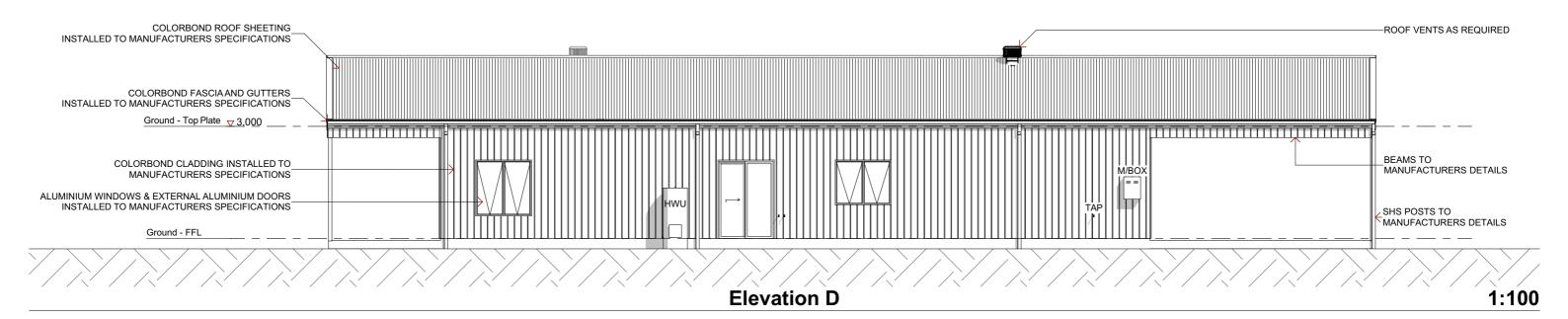
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PROPOSED RESIDENCE for Michael Zeckomske

Lot 5 #31 Torlesse Street, Campbell Town, Tasmania 7210 **ELEVATIONS C & D**

DATE: 10/09/2025 CONSTRUCTION

JOB NUMBER: 7231
SHEET NUMBER: 6 of 16

 LOT NUMBER:
 5

 PLAN NO:
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 SITE AREA:
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DESIGN BASE: Custom

LOCAL AUTHORITY: Northern Midlands

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