Public Notice Details

Planning Application Details

Application No	DA2400094

Property Details

Property Location	273 Phipps Road Runnymede

Application Information

Application Type	Discretionary Development Application
Development Category	Dwelling/Shed
Advertising Commencement Date	21/2/25
Advertising Closing Period If the Council Offices are closed during normal office hours within the above period, the period for making representations is extended.	7/3/25

Enquiries regarding this Application can be made via to Southern Midlands Council on (03) 6254 5050 or by emailing planningenquires@southernmidlands.tas.gov.au. Please quote the development application number when making your enquiry.

Representations on this application may be made to the General Manager in writing either by

Post: PO Box 21, Oatlands Tas 7120
Email: mail@southernmidlands.tas.gov.au
Fax: 03 6254 5014

All representations must include the authors full name, contact number and postal address and be received by the advertising closing date.

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RECEIVED
22/07/2024

SOUTHERN MIDLANDS COUNCIL

APPLICATION FOR PLANNING PERMIT – USE AND DEVELOPMENT
Residential Use

Use this form to apply for planning approval in accordance with section 57 and 58 of the *Land Use Planning and Approvals Act 1993*

Applicant / Owner Details:

Owner / s Name Zachary Hucker & Kimberley Martyn

Postal Address: 40 Marina Drive
Phone No: 413014473
Barretta 7054
Fax No:
Email address: zac.hucker@gmail.com & kimmartyn4@gmail.com

Applicant Name
(if not owner)

Postal Address:
Phone No:
Fax No:
Email address:

Description of proposed use and/or development:

Address of new use and development: 273 Phipps Road, Runnymede, 7190

Certificate of Title No: Volume No 141076 Lot No: 1

New Dwelling

ie: New Dwelling /Additions/ Demolition / /Shed / Farm Building / Carport / Swimming Pool or detail other etc.

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SOUTHERN MIDLANDS COUNCIL

Description of proposed use or development:	We wish to build a new dwelling on our property, comprising of a gable roof shed, measuring approximately 9m x 20m. We intend to have an internal section of this shed built to a class 1a specification. This dwelling will serve as our interim home, until we are in a position to build a more suitable home in the future. In the future, provided our future house is approved and built, we would request to declassify the subject of this application to a 10a building, to solely store equipment and stores.
Current use of land and buildings:	Recreational bush block There are currently no dwellings or permanent buildings located on the property

Is the property Heritage Listed

Please tick ✓answer

Yes		No	x

Address all correspondence to: The General Manager, PO Box 21, Oatlands Tasmania 7120
Oatlands Office: 71 High Street Oatlands Phone (03) 62545000 Fax (03) 62545014
Kempton Office: 85 Main Street Kempton Phone (03) 62545050
Email Address: mail@southernmidlands.tas.gov.au Web www.southernmidlands.tas.gov.au
ABN 68653459 589

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Proposed Material	What are the proposed external wall colours	Dark Grey - Monument	What is the proposed roof colour	Dark Grey - Monument
	What is the proposed new floor area m².	180m sq	What is the estimated value of all the new work proposed:	$210000

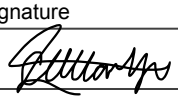
Please attach any additional information that may be required by Part 8.1 Application Requirements of the Planning Scheme.

Signed Declaration

We **hereby apply for a planning approval to carry out the use or development described in this application and in the accompanying plans and documents, accordingly I declare that**:

1. The information given is a true and accurate representation of the proposed development. I understand that the information and materials provided with this development application may be made available to the public. I understand that the Council may make such copies of the information and materials as, in its opinion, are necessary to facilitate a thorough consideration of the Development Application. I have obtained the relevant permission of the copyright owner for the communication and reproduction of the plans accompanying the development application, for the purposes of assessment of that application. I indemnify the Southern Midlands Council for any claim or action taken against it in respect of breach of copyright in respect of any of the information or material provided.
2. I am the applicant for the planning permit and I have notified the owner/s of the land in writing of the intention to make this application in accordance with Section 52(1) of the *Land Use Planning Approvals Act 1993* (or the land owner has signed this form in the box below in "Land Owner(s) signature);

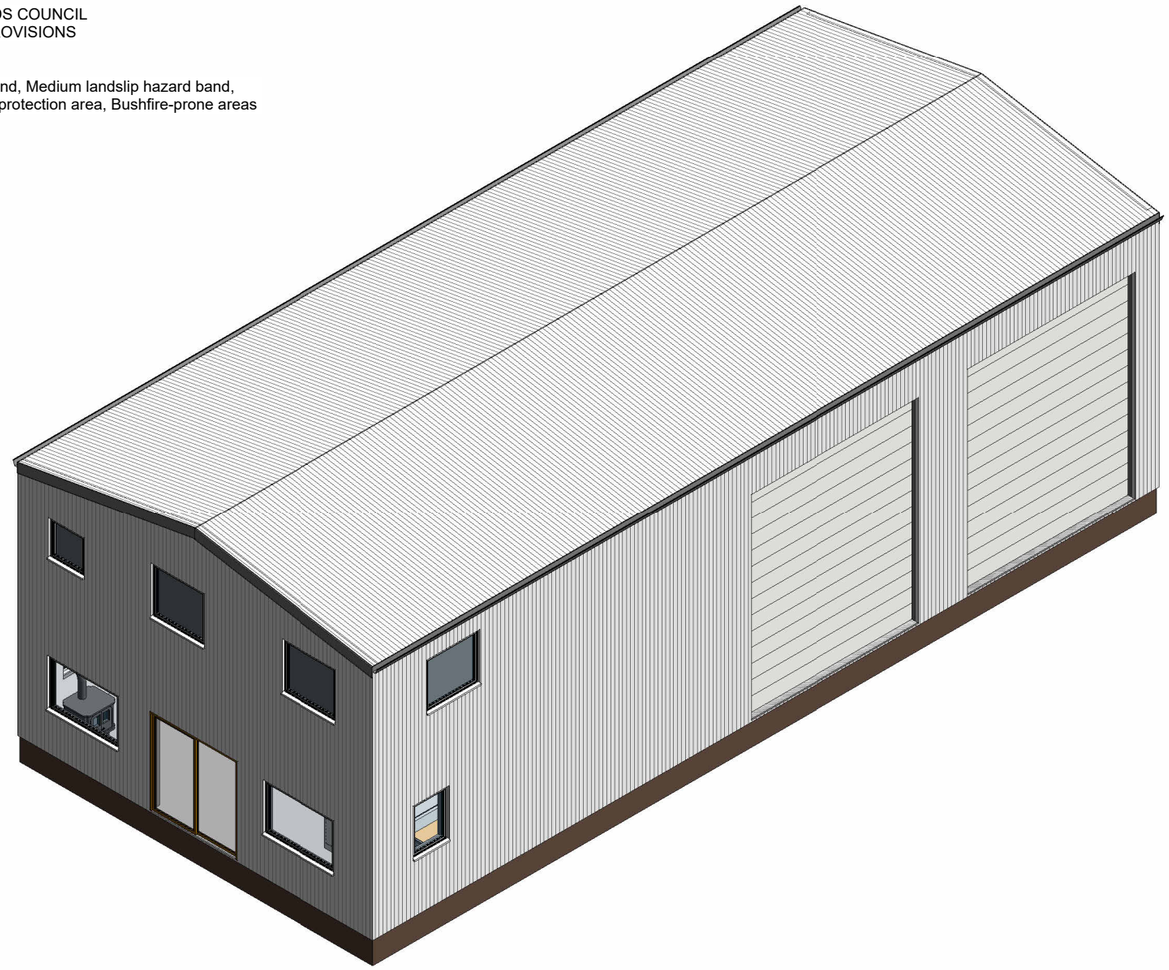
Applicant Signature (if not the Owner)	Applicant Name (*Please print*)	Date

Land Owner(s) Signature	Land Owners *Name (please print)*	Date
	**Zachary Hucker**	18 July 24
Land Owner(s) Signature	Land Owners *Name (please print)*	Date
	**Kimberley Martyn**	18 July 24

Address all correspondence to: The General Manager, PO Box 21, Oatlands Tasmania 7120
Oatlands Office: 71 High Street Oatlands Phone (03) 62545000 Fax (03) 62545014
Kempton Office: 85 Main Street Kempton Phone (03) 62545050
Email Address: mail@southernmidlands.tas.gov.au Web www.southernmidlands.tas.gov.au
ABN 68653459 589

DEVELOPMENT APPLICATION - PROPOSED NEW DWELLING (CLASS 1)

CLIENT	Zac Hucker
PROPERTY TITLE REFERENCE	141076/1
PROPERTY IDENTIFICATION NUMBER	2302184
PROPERTY ADDRESS	273 Phipps Road, Runnymede 7190
LOCAL AUTHORITY	SOUTHERN MIDLANDS COUNCIL
PLANNING SCHEME	STATE PLANNING PROVISIONS
ZONE	AGRICULTURE
OVERLAYS	Low landslip hazard band, Medium landslip hazard band, Waterway and coastal protection area, Bushfire-prone areas
BUSHFIRE ATTACK LEVEL (BAL)	29
CORROSION ENVIRONMENT	MILD
SOIL CLASSIFICATION	S CLASS
WIND CLASSIFICATION	N3
PROPERTY LOT SIZE	840000m2/
EXISTING BUILDING FOOTPRINT/S	NIL
PROPOSED DWELLING FOOTPRINT	180m2/



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DIMENSION NOTE:
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(03) 6263 6545
hobart@shedsnhomes.com.au

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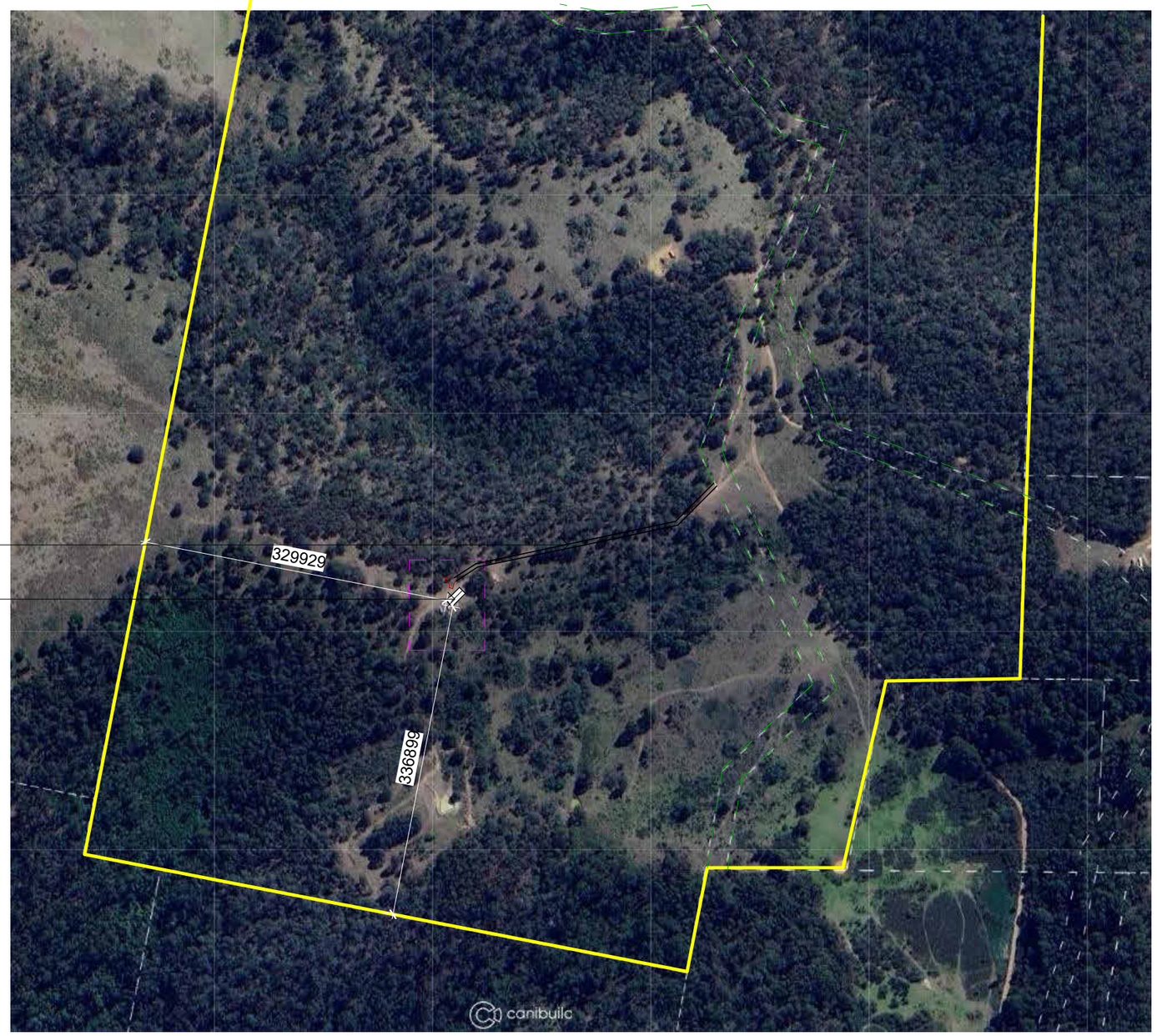
ABN 52 660 422 159

CLIENT NAME: Zac Hucker			DRAWING TITLE: COVER SHEET	
PROJECT ADDRESS: 273 Phipps Road, Runnymede TAS 7190	DATE: 22/01/2025	SCALE:		DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C1.0



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ABN 52 660 422 159

CLIENT NAME: Zac Hucker		DRAWING TITLE: SITE PLAN			
PROJECT ADDRESS: 273 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE: 1 : 5000		DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060		SHEET No: C2.0

PROPERTY ACCESS

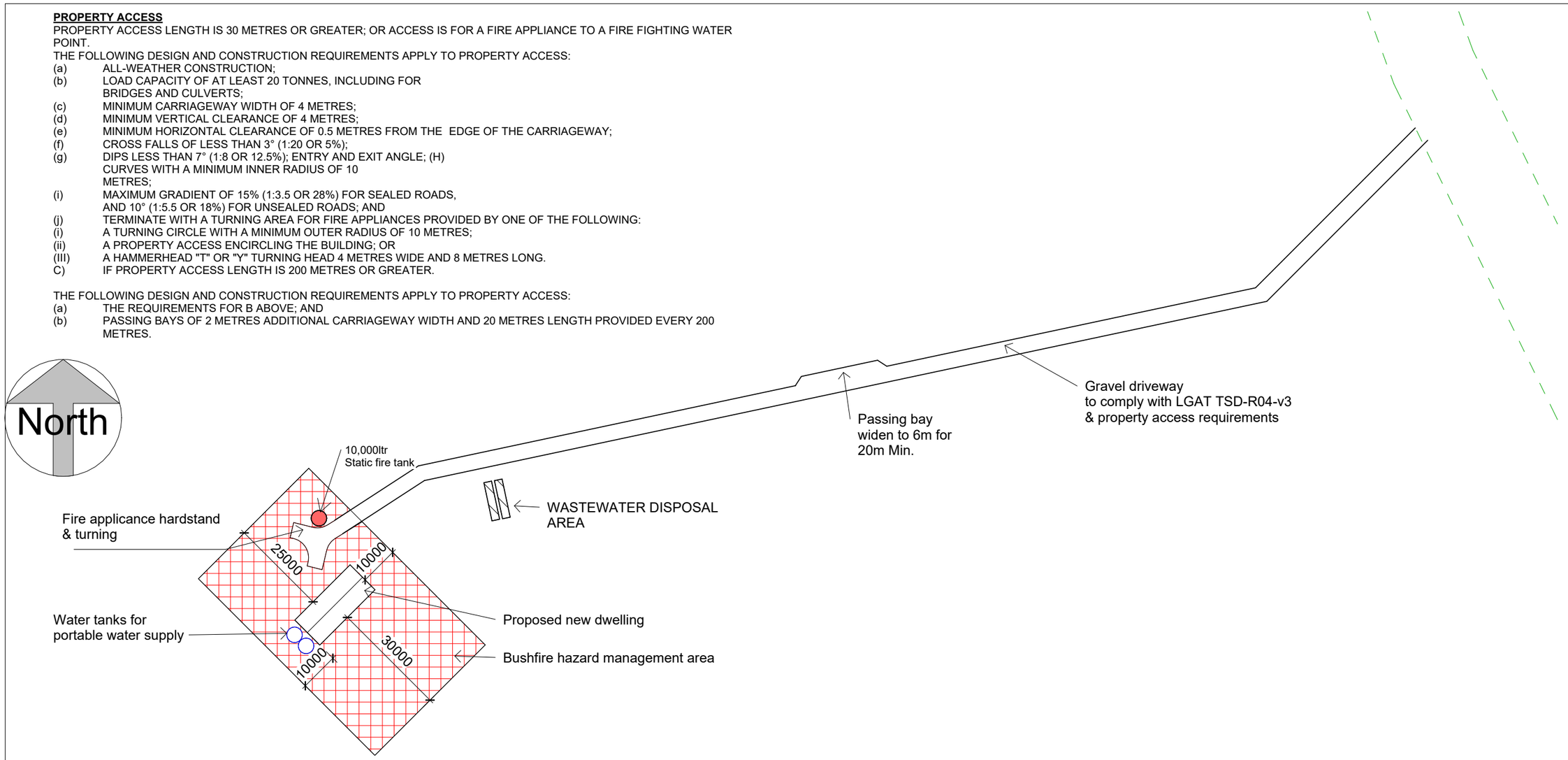
PROPERTY ACCESS LENGTH IS 30 METRES OR GREATER; OR ACCESS IS FOR A FIRE APPLIANCE TO A FIRE FIGHTING WATER POINT.

THE FOLLOWING DESIGN AND CONSTRUCTION REQUIREMENTS APPLY TO PROPERTY ACCESS:

(a) ALL-WEATHER CONSTRUCTION;
(b) LOAD CAPACITY OF AT LEAST 20 TONNES, INCLUDING FOR BRIDGES AND CULVERTS;
(c) MINIMUM CARRIAGEWAY WIDTH OF 4 METRES;
(d) MINIMUM VERTICAL CLEARANCE OF 4 METRES;
(e) MINIMUM HORIZONTAL CLEARANCE OF 0.5 METRES FROM THE EDGE OF THE CARRIAGEWAY;
(f) CROSS FALLS OF LESS THAN 3° (1:20 OR 5%);
(g) DIPS LESS THAN 7° (1:8 OR 12.5%); ENTRY AND EXIT ANGLE; (H) CURVES WITH A MINIMUM INNER RADIUS OF 10 METRES;
(i) MAXIMUM GRADIENT OF 15% (1:3.5 OR 28%) FOR SEALED ROADS, AND 10° (1:5.5 OR 18%) FOR UNSEALED ROADS; AND
(j) TERMINATE WITH A TURNING AREA FOR FIRE APPLIANCES PROVIDED BY ONE OF THE FOLLOWING:
(i) A TURNING CIRCLE WITH A MINIMUM OUTER RADIUS OF 10 METRES;
(ii) A PROPERTY ACCESS ENCIRCLING THE BUILDING; OR
(III) A HAMMERHEAD "T" OR "Y" TURNING HEAD 4 METRES WIDE AND 8 METRES LONG.
C) IF PROPERTY ACCESS LENGTH IS 200 METRES OR GREATER.

THE FOLLOWING DESIGN AND CONSTRUCTION REQUIREMENTS APPLY TO PROPERTY ACCESS:

(a) THE REQUIREMENTS FOR B ABOVE; AND
(b) PASSING BAYS OF 2 METRES ADDITIONAL CARRIAGEWAY WIDTH AND 20 METRES LENGTH PROVIDED EVERY 200 METRES.



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CLIENT NAME: Zac Hucker		DRAWING TITLE: SITE PLAN		
PROJECT ADDRESS: 273 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE: 1 : 1000	DRAWN BY: BH
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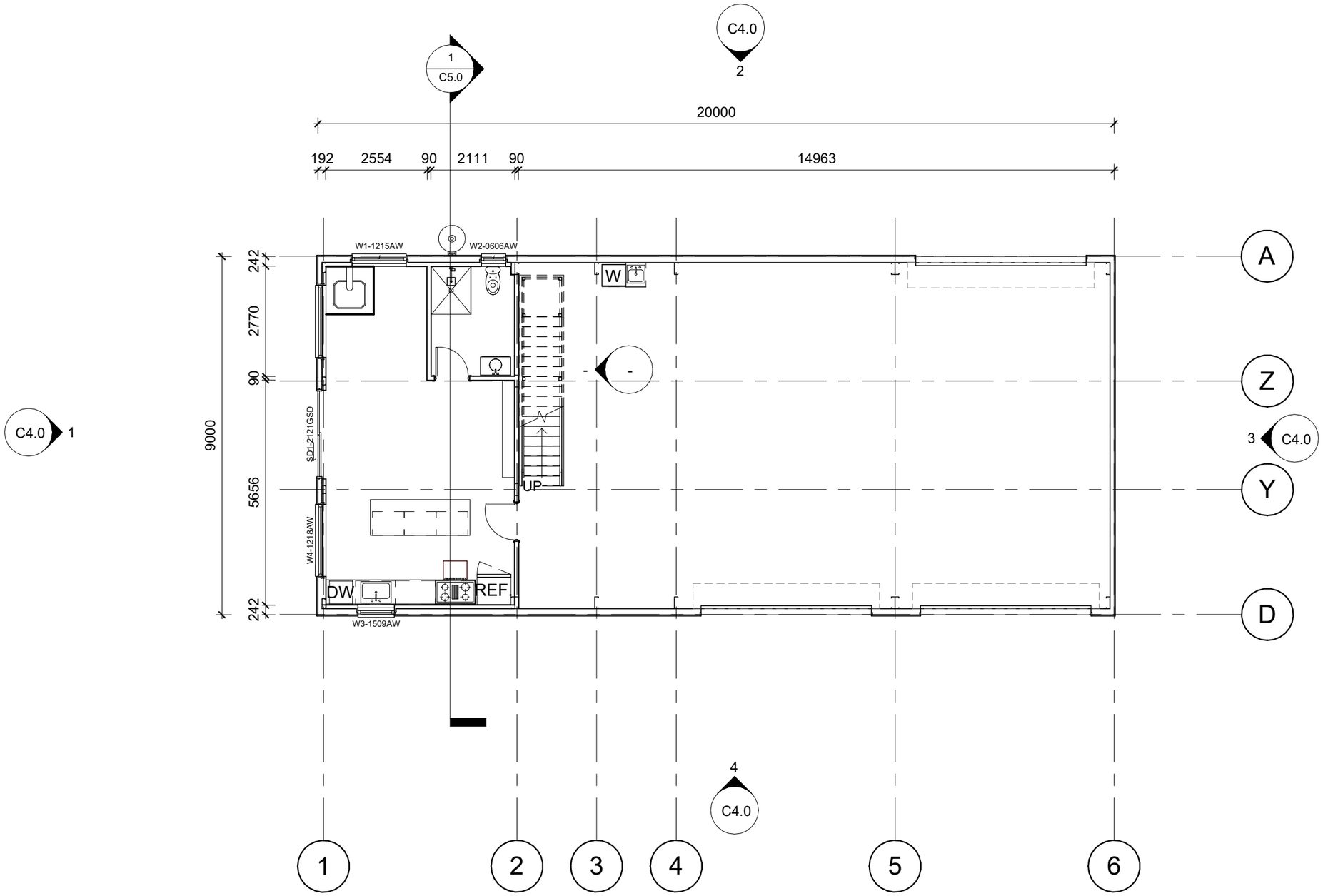

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CLIENT NAME: Zac Hucker		DRAWING TITLE: Ground			
PROJECT ADDRESS: 273 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE: 1 : 100		DRAWN BY: BH
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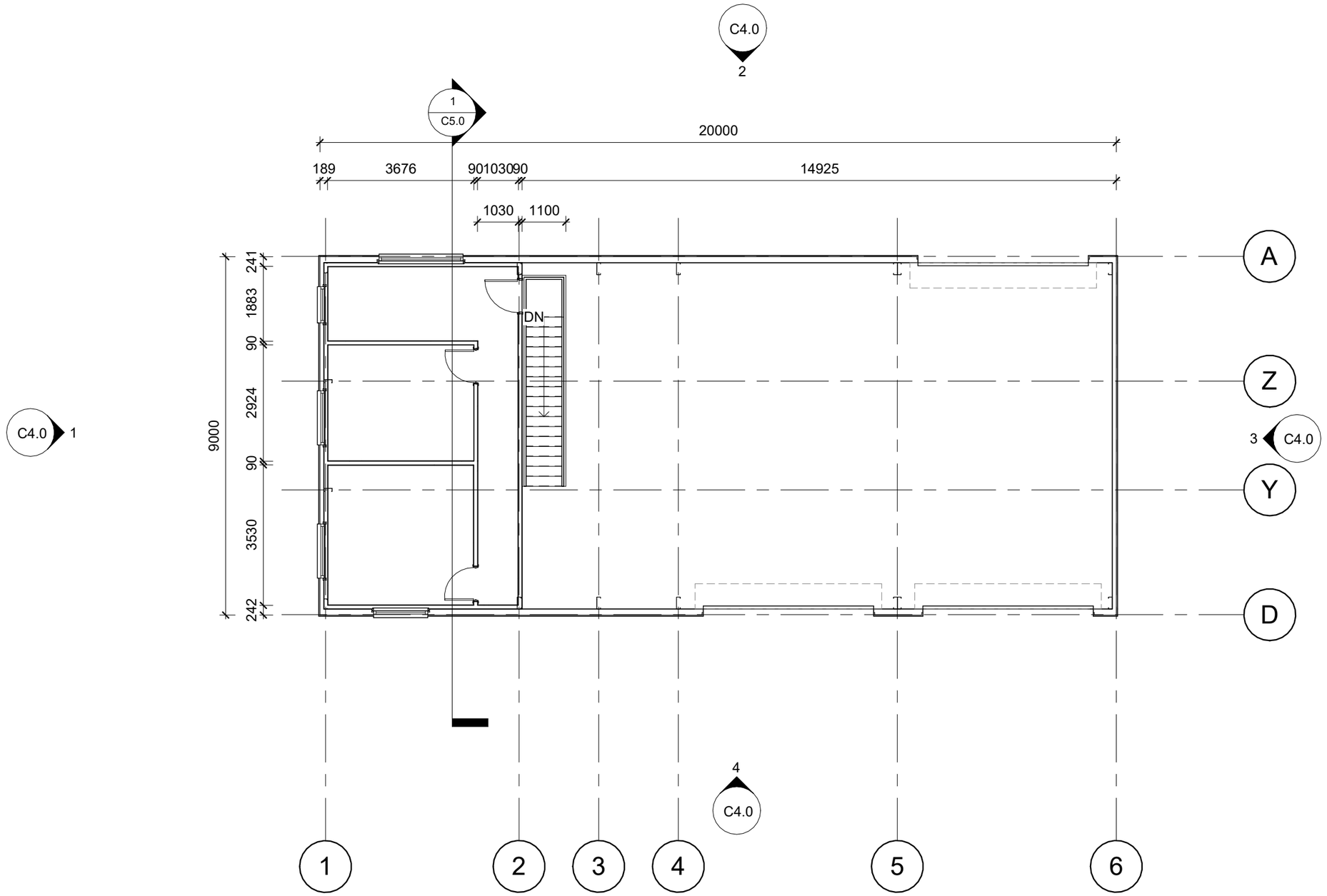

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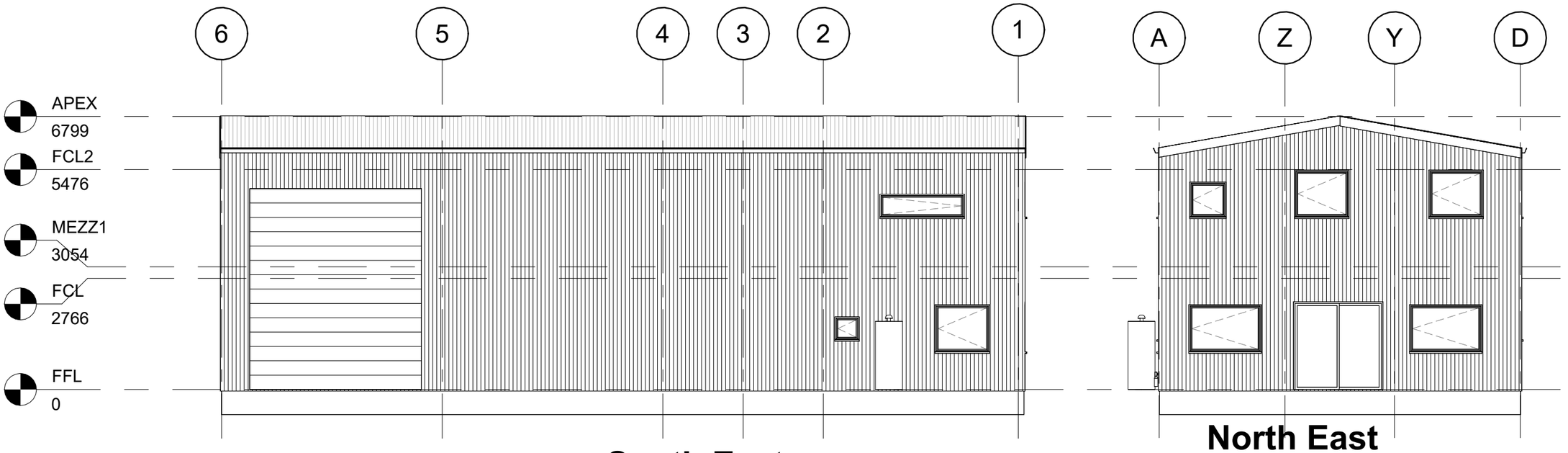
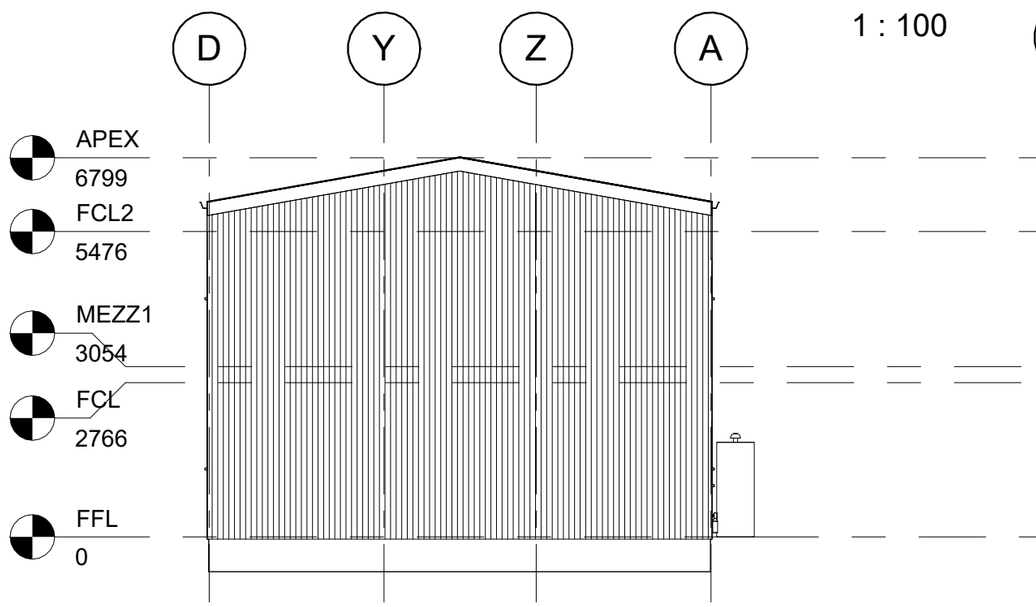
CLIENT NAME: Zac Hucker		DRAWING TITLE: Level 1			
PROJECT ADDRESS: 273 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE: 1 : 100		DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C3.1	



South East
1 : 100

North East
1 : 100



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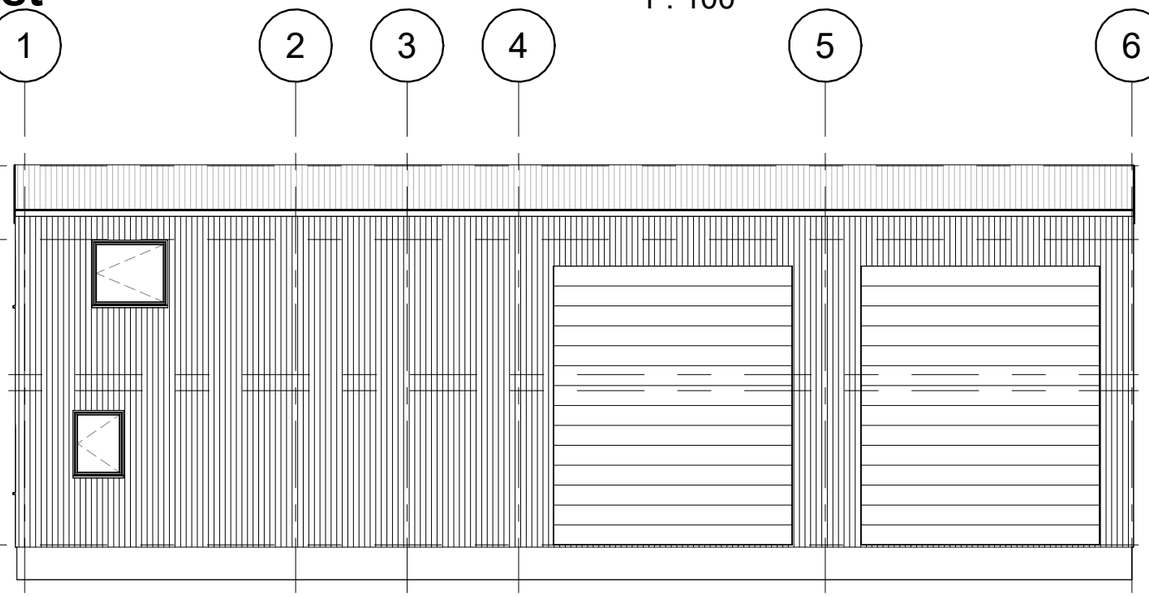

North West
1 : 100

DIMENSION NOTE:
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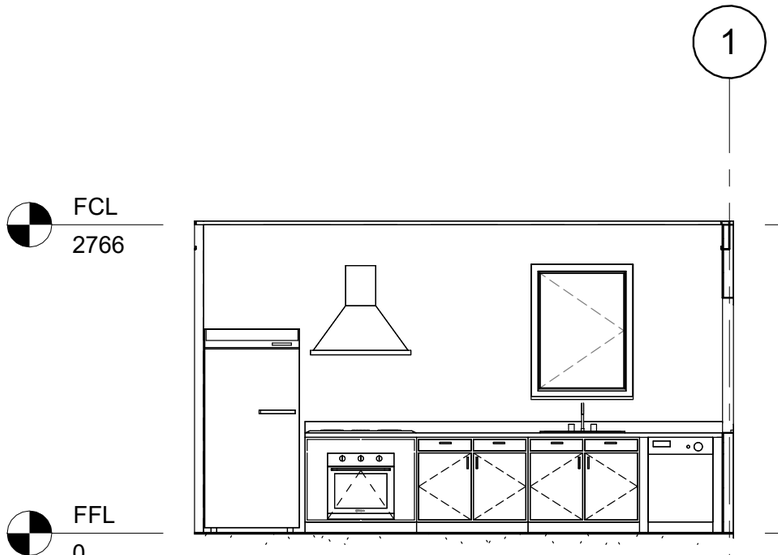
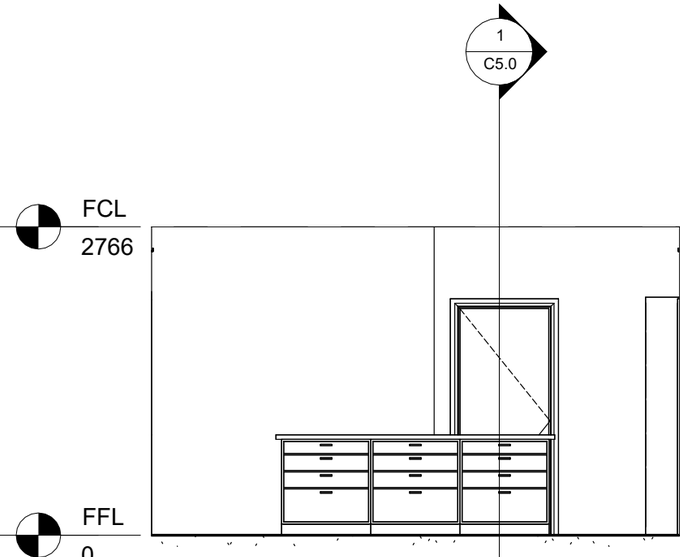
ABN 52 660 422 159

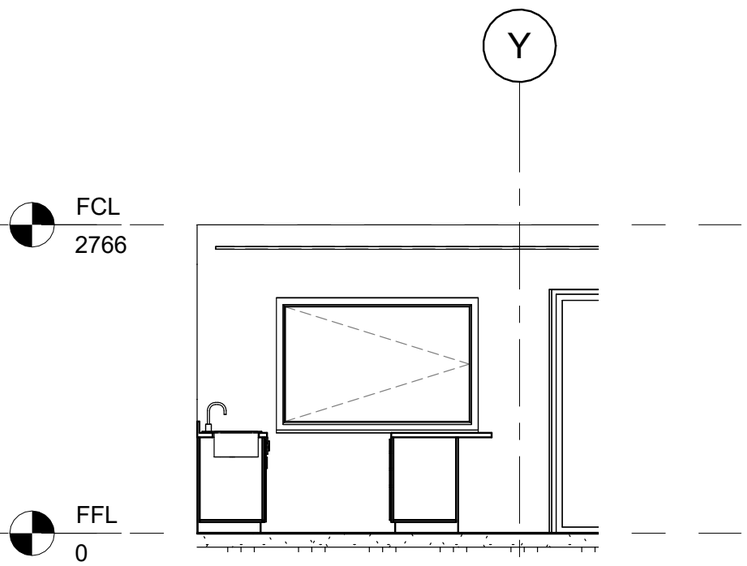
CLIENT NAME: Zac Hucker		DRAWING TITLE: ELEVATIONS			
PROJECT ADDRESS: 273 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE: 1 : 100		DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C4.0	



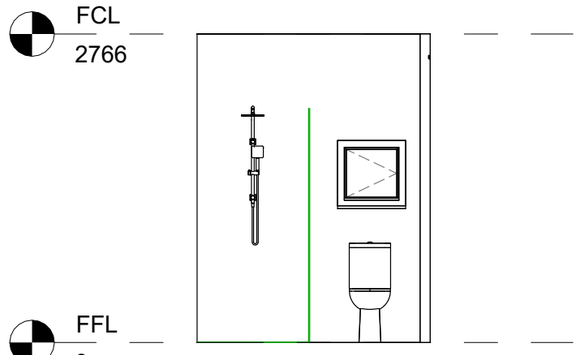
1 Kitchen - A
1 : 50



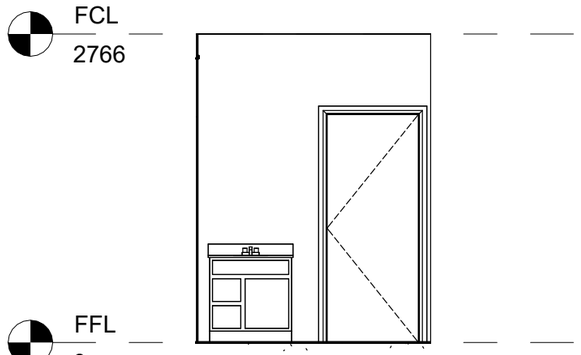
2 Kitchen - B
1 : 50



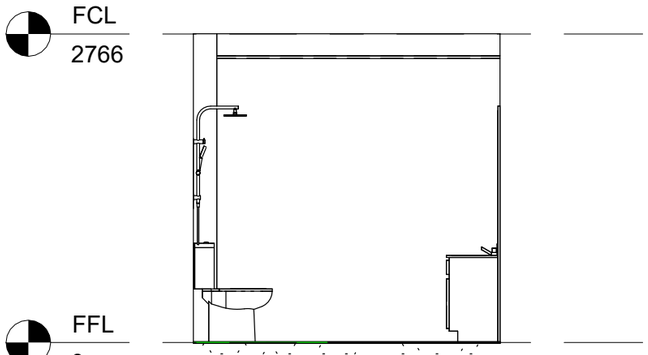
6 Kitchen - C
1 : 50



5 Bathroom - B
1 : 50



4 Bathroom - C
1 : 50



3 Bathroom - A
1 : 50

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PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C4.1

Land Capability and Planning Scheme Assessment

273 Phipps Road, Runnymede

Landowner: Zac Hucker & Kim Martin

Author: Eve Lazarus

Date of Assessment: 20/09/2024

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Contents

Introduction

This report has been prepared in support of a house development application under the *Tasmanian Planning Scheme (Southern Midlands Local Provisions Schedule 2022)* which requires an assessment of the proposed development against the discretionary use standards of the *Tasmanian Planning Scheme* and the *Southern Midlands Local Provisions Schedule 2022*. The report has been prepared after a desktop assessment of available remote data, a site visit and consultation with the current landowner Zac Hucker.

Background

1.1 Site description

The Property (PID 2302184, 273 Phipps Road, Runnymede; +/- 86 ha) is situated adjacently west of Mt Phipps at the southern end of Phipps Road approximately 2.3 km from turning off the Tasman Highway (Figure 1). To the south and southeast there are acreage properties, some with dwellings. The eastern border of The Property is adjacent to the Mount Morrison Forest Reserve managed by the Parks & Wildlife Service. To the west and north of the property there is a farming enterprise owned by Paul & Katheine Tate which currently maintains a low stocking rate of sheep. The paddocks adjacent to The Property are not actively utilised for sheep grazing.

The property at 273 Phipps Road has been partially cleared and grazed with some areas of remnant vegetation remaining. Much of the property can be considered as regenerating land.

The area of the proposed new house is in an existing cleared area off an access road in the mid-south of the property (Figure 2).

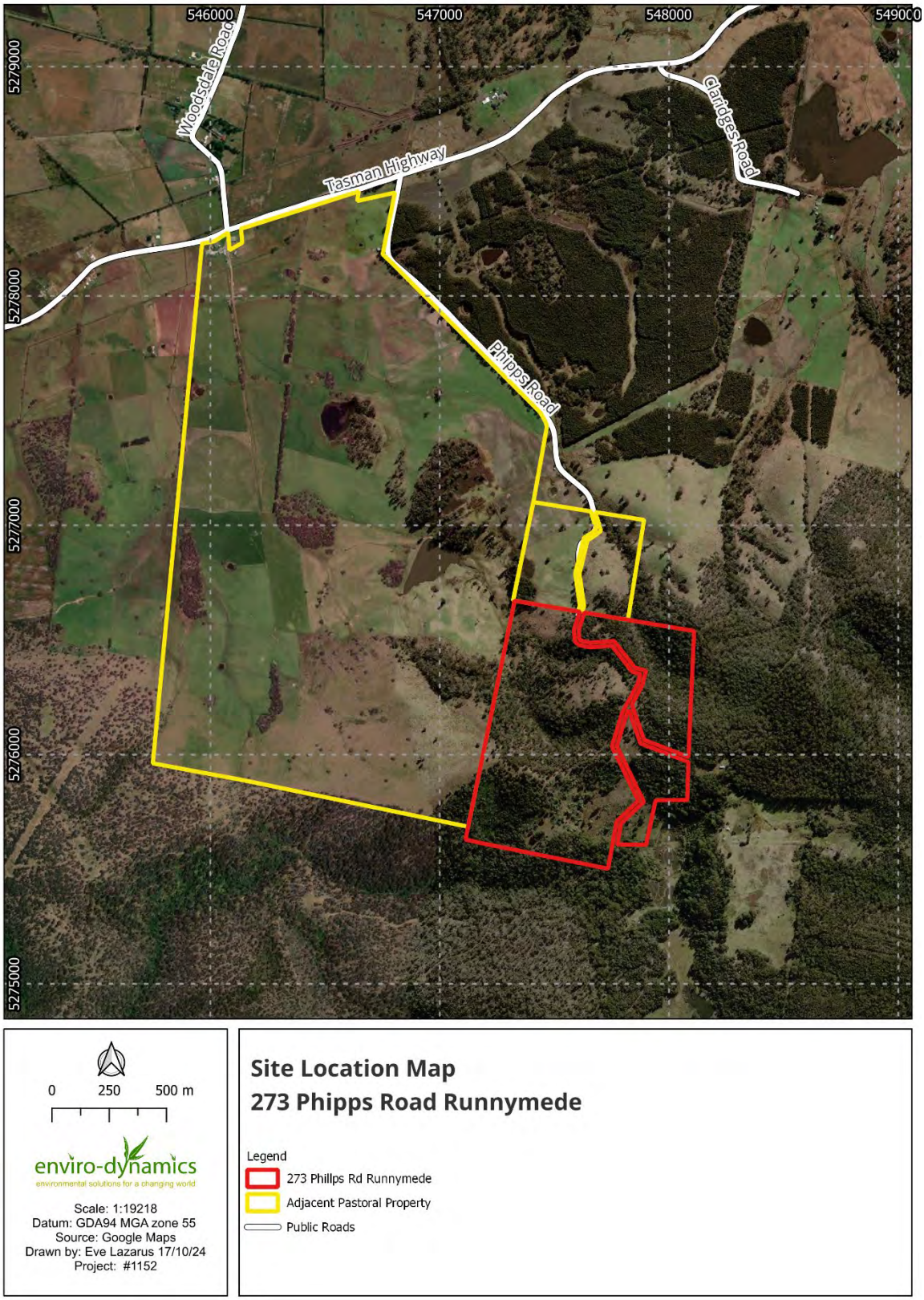

Figure 1 – Site Location

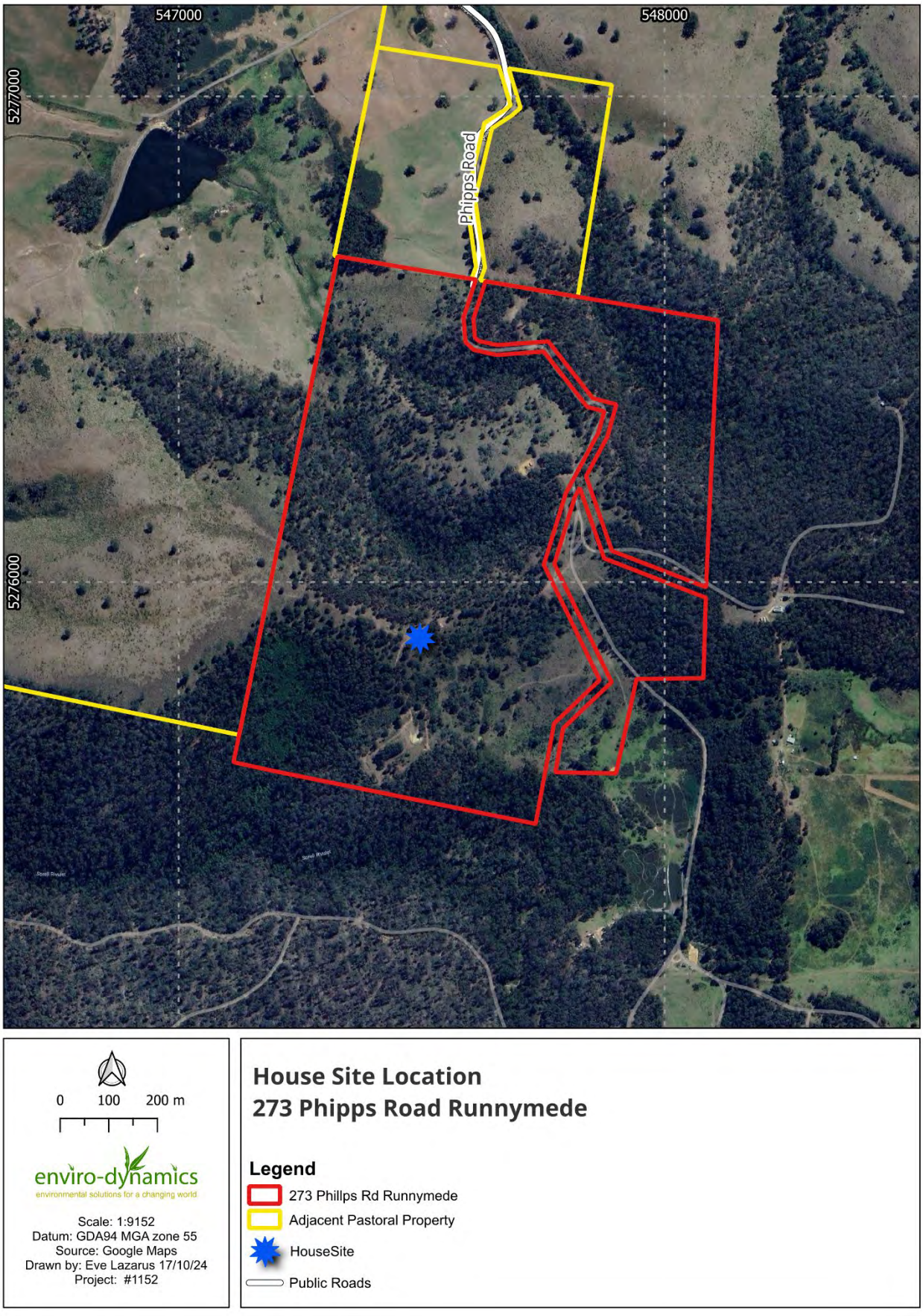

Figure 2 – Proposed house site location

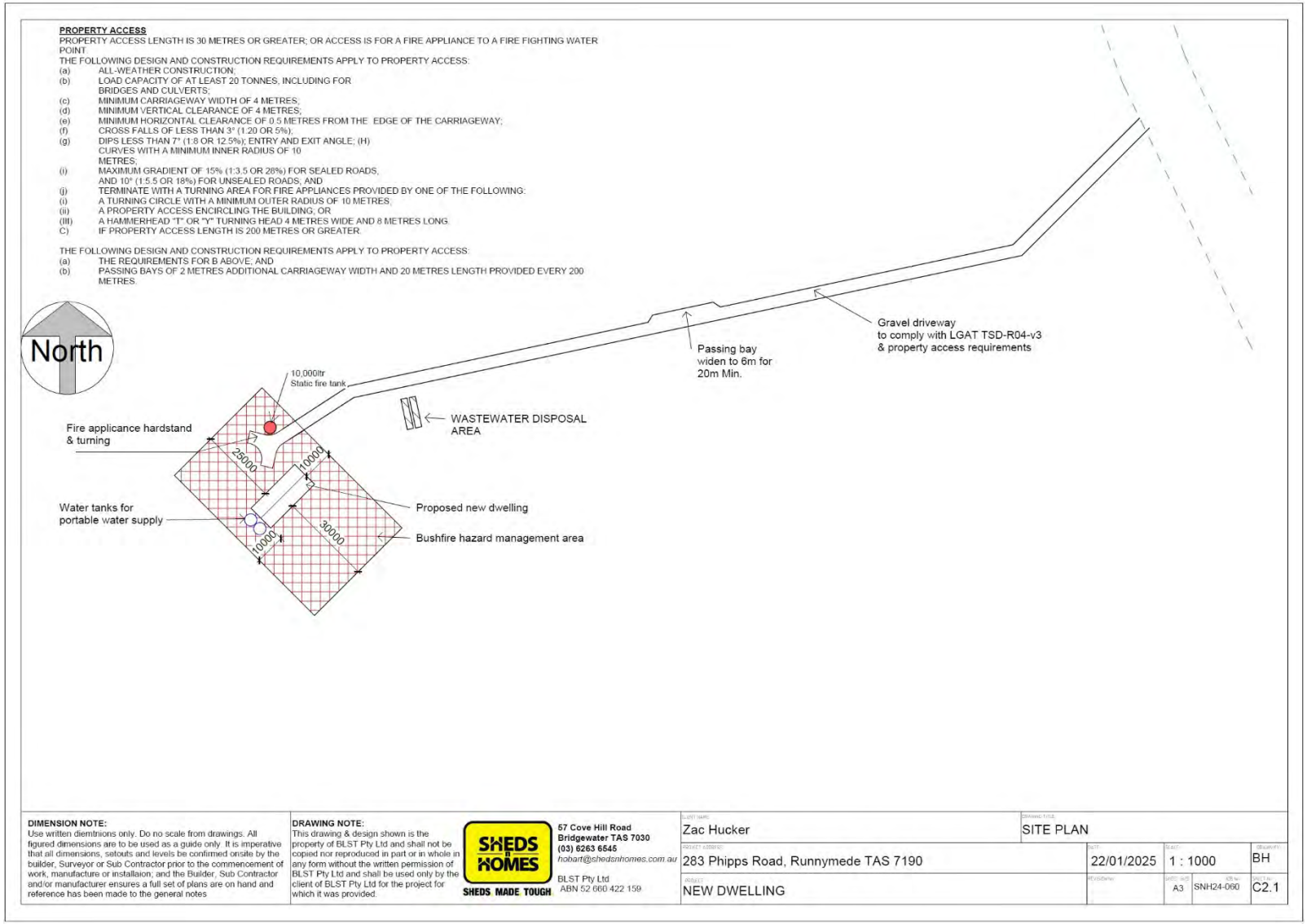

Figure 3 – Proposed house plan

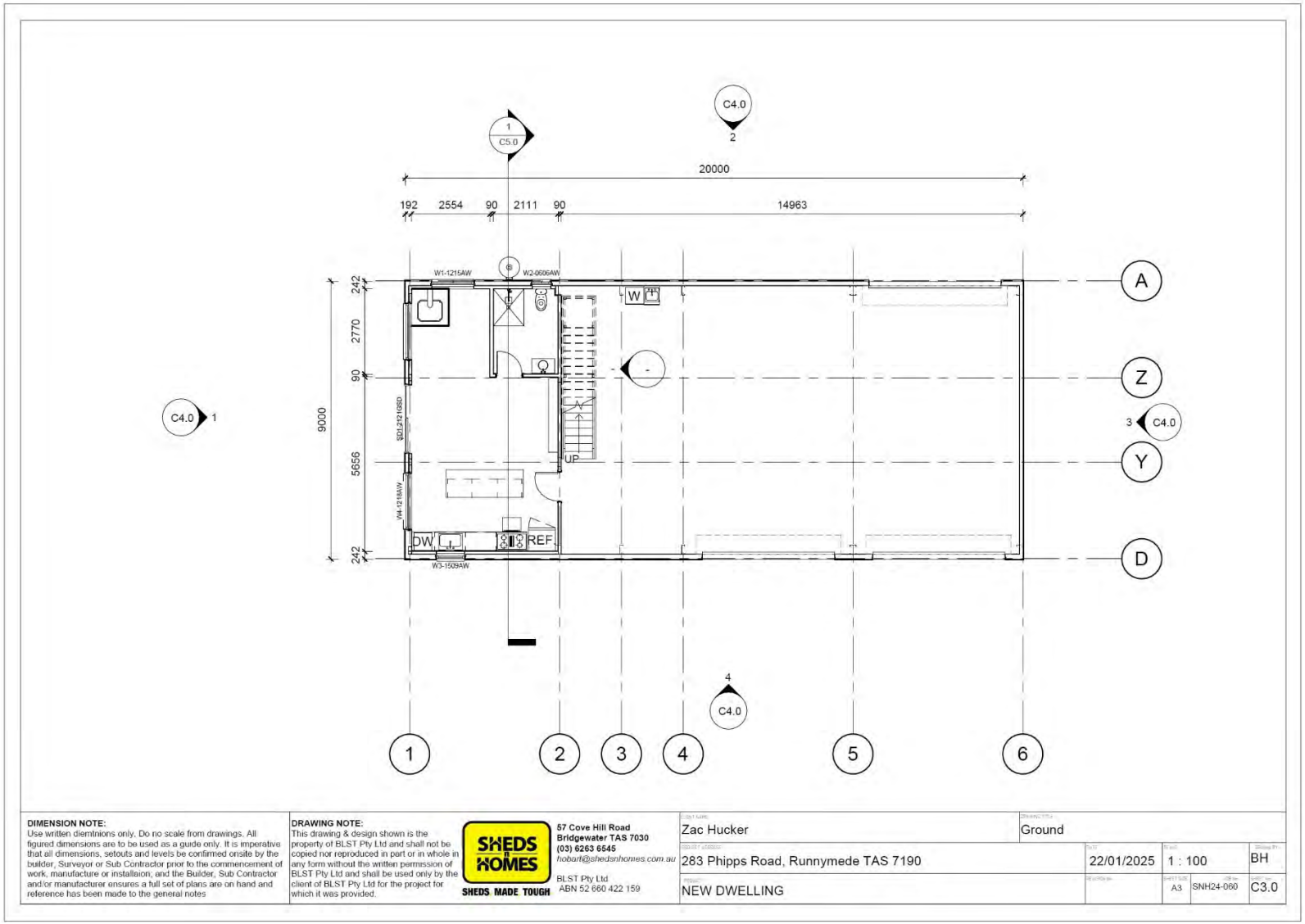

Figure 4 – Proposed house plan (detail)

1.2 Development proposal

The proposed house is within land zoned as agricultural under the *Tasmanian Planning Scheme (Southern Midlands Local Provisions Schedule 2022)* as outlined in Figure 2 above. The proposed house plan is provided in Figure 3 above.

The purpose of land under Agricultural Zoning is to prioritise and protect farmland by restricting non-agricultural activities that might disrupt farming. It ensures that development aligns with and supports agriculture, preventing land from being permanently converted to non-farming uses, particularly in irrigation areas.

Under the Tasmanian Planning Scheme some non-agricultural uses on farmland are permitted, but they must support or be compatible with farming. These include homes compatible with farming, small tourism ventures such as farm stays, resource development such as timber harvesting, utility services, and small farm-related businesses like roadside stalls. These uses are controlled to ensure farming remains the primary focus.

Methodology

A site visit was undertaken on Friday 20th September to meet the owner and assess the proposed placement of the house in relation to the adjacent pastoral enterprise for the purposes of developing a land capability assessment and to address criteria outlined in the Agricultural Zoning of the *Tasmanian Planning Scheme* and the *Southern Midlands Local Provisions Schedule 2022*.

1.1.1 Land capability

A Land Capability Assessment is a ranking of the ability of land to sustain a range of agricultural land uses without degradation of the land resource (Grose, 1999). The Land Capability Assessment considers limitations to sustainable agricultural use of the land, including soil quality and depth, the risk of erosion or other hazards, water security, climate and topography. Generally, it is the most limiting attribute that determines the Land Capability class. If soils on their own do not constitute the most limiting attribute, then detailed soil profile analysis is not always warranted.

In this case, given the obvious constraints of the property and the lack of capacity for intensive cropping or other high input agricultural use evident from the site visit, available remote data, owner discussions, the soils/substrate mapping and existing vegetation cover and condition, it was not considered necessary to take soil samples or conduct detailed analysis of soil profiles.

The following are the Land Capability classes defined by Grose (1999).

CLASS 1

Land well suited to a wide range of intensive cropping and grazing activities. It occurs on flat land with deep, well drained soils, and in a climate that favours a wide variety of crops. While there are virtually no limitations to agricultural usage, reasonable management inputs need to be maintained to prevent degradation of the resource. Such inputs might include very minor soil conservation treatments, fertiliser

inputs or occasional pasture phases. Class 1 land is highly productive and capable of being cropped eight to nine years out of ten in a rotation with pasture or equivalent without risk of damage to the soil resource or loss of production, during periods of average climatic conditions.

CLASS 2

Land suitable for a wide range of intensive cropping and grazing activities. Limitations to use are slight, and these can be readily overcome by management and minor conservation practices. However, the level of inputs is greater, and the variety and/or number of crops that can be grown is marginally more restricted, than for Class 1 land. This land is highly productive but there is an increased risk of damage to the soil resource or of yield loss. The land can be cropped five to eight years out of ten in a rotation with pasture or equivalent during 'normal' years, if reasonable management inputs are maintained.

CLASS 3

Land suitable for cropping and intensive grazing. Moderate levels of limitation restrict the choice of crops or reduce productivity in relation to Class 1 or Class 2 land. Soil conservation practices and sound management are needed to overcome the moderate limitations to cropping use. Land is moderately productive, requiring a higher level of inputs than Classes I and 2. Limitations either restrict the range of crops that can be grown or the risk of damage to the soil resource is such that cropping should be confined to three to five yens out of ten in a rotation with pasture or equivalent during normal years.

CLASS 4

Land primarily suitable for grazing but which may be used for occasional cropping. Severe limitations restrict the length of cropping phase and/or severely restrict the range of crops that could be grown. Major conservation treatments and/or careful management is required to minimise degradation. Cropping rotations should be restricted to one to two years out of ten in a rotation with pasture or equivalent, during 'normal' years to avoid damage to the soil resource. In some areas longer cropping phases may be possible but the versatility of the land is very limited.

CLASS 5

This land is unsuitable for cropping, although some areas on easier slopes may be cultivated for pasture establishment or renewal and occasional fodder crops may be possible. The land may have slight to moderate limitations for pastoral use. The effects of limitations on the grazing potential may be reduced by applying appropriate soil conservation measures and land management practices.

CLASS 6

Land marginally suitable for grazing because of severe limitations. This land has low productivity, high risk of erosion, low natural fertility or other limitations that severely restrict agricultural use. This land should be retained under its natural vegetation cover.

CLASS 7

Land with very severe to extreme limitations which make it unsuitable for agricultural use.

1.1.2 Planning scheme assessment

The proposed residential dwelling is within Agricultural Zoning under the *Tasmanian Planning Scheme.* An assessment against the relevant criteria has been requested by Council and has been undertaken as part of this report. The *Southern Midlands Local Provisions Schedule 2022* was also reviewed. The following criteria were assessed under the *Tasmanian Planning Scheme's provisions*.

21.3.1 Discretionary uses

P4

A Residential use listed as Discretionary must:

(a) be required as part of an agricultural use, having regard to:

(i) the scale of the agricultural use

(ii) the complexity of the agricultural use

(iii) the operational requirements of the agricultural use

(iv) the requirement for the occupier of the dwelling to attend to the agricultural use; and

(v) proximity of the dwelling to the agricultural use; or

(b) be located on a site that:

(i) is not capable of supporting an agricultural use

(ii) is not capable of being included with other agricultural land (regardless of ownership) for agricultural use and

(iii) does not confine or restrain agricultural use.

21.4.2 Setbacks

P1

Buildings must be sited to provide adequate vehicle access and not cause an unreasonable impact on existing use on adjoining properties, having regard to:

(a) the bulk and form of the building

(b) the nature of existing use on the adjoining properties

(c) separation from existing use on the adjoining

properties and

(d) any buffers created by natural or other features.

21.4.3 Access for new dwellings

P1

New dwellings must have legal access, by right of carriageway, to a road maintained by a road authority, that is appropriate having regard to:

(a) the number of users of the access

(b) the length of the access

(c) the suitability of the access for use by the occupants of the dwelling

(d) the suitability of the access for emergency services vehicles

(e) the topography of the site

(f) the construction and maintenance of the access

(g) the construction, maintenance and usage of the road and

(h) any advice from the road authority.

Management of adjacent land

The proposed house development site is 800+ m from land used for pastoral purposes. To the west and north of the Property there is a farming enterprise owned by Paul & Katheine Tate which currently maintains a low stocking rate of sheep. However it should be noted that paddocks adjacent to the Property are not actively utilised for sheep grazing.

Resources and Constraints

1.3 Geology and Soils

The substrate over the Property is largely imperfectly drained texture contrast (podzolic soils) developed on Jurassic dolerite bedrock and colluvium on rolling to steep (10-56%). There is a small section (5 ha) of podzolic soils on sandstone at the northwest of the Property (figure 4).

The most common podzolic soils on dolerite (Eastfield SPC) have a shallow surface horizon (5-10cm thick) over a bleached subsurface usually with some ferruginous gravel, both surface and subsurface having a fine sandy loam to loamy sand texture. These overlie abruptly a weakly mottled yellow-grey and yellow-brown, usually dense clay subsoil with some ferruginous gravel, and prismatic to blocky structure. The clay passes into an horizon of mealy decomposing dolerite at about a metre. Dolerite gravel and stone are usually present throughout the profile (Spanswick & Kidd 2000).

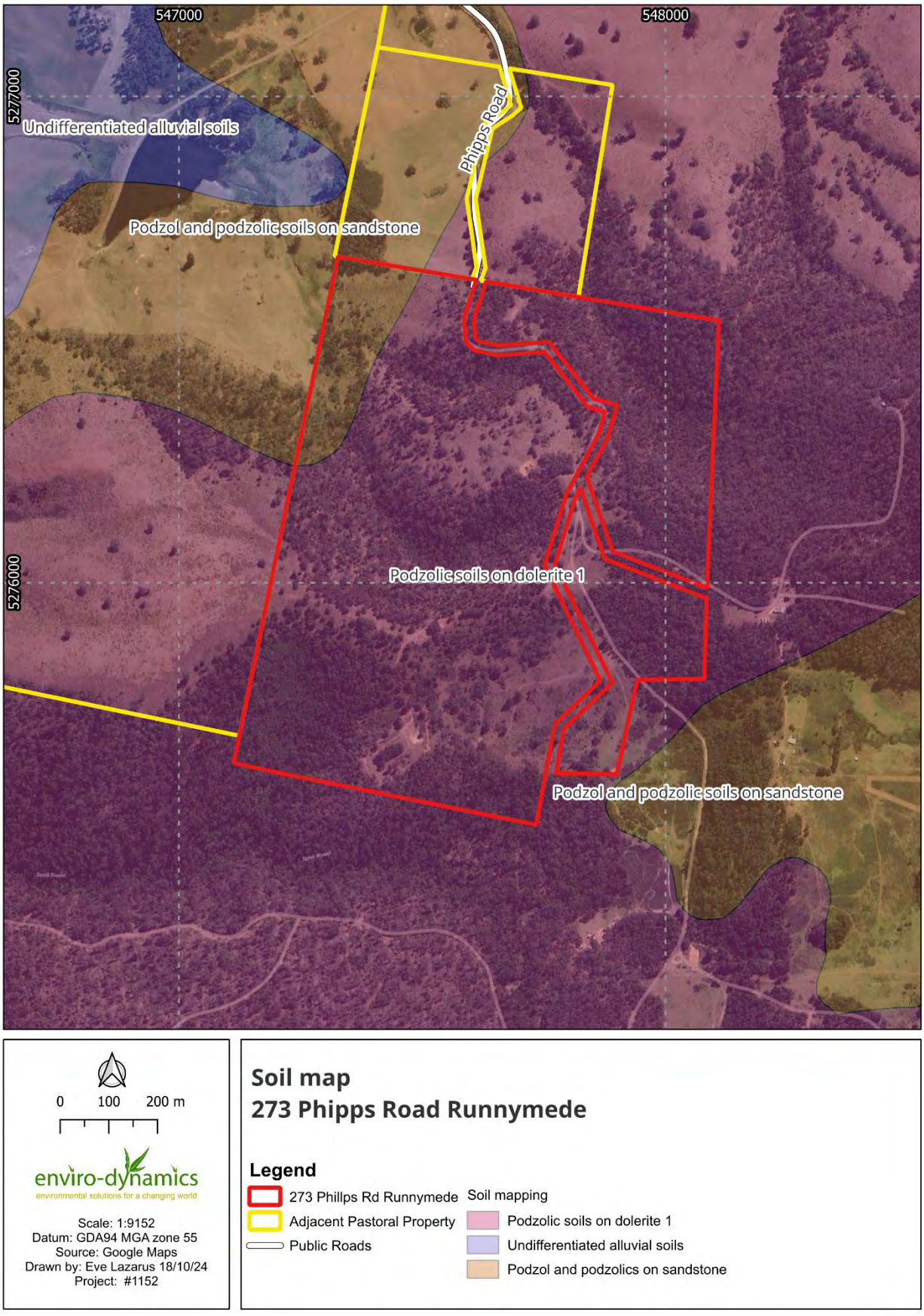

Figure 5 – Soils on the subject land and adjacent pastoral property

Planning assessment

Responses to the proposed development that falls within Agricultural Zoning under the *Tasmanian Planning Scheme's State Planning Provisions 2024* are provided below.

21.3.1 Discretionary uses

P4

A Residential use listed as Discretionary must:

(a) be required as part of an agricultural use, having regard to:

(i) the scale of the agricultural use

(ii) the complexity of the agricultural use

(iii) the operational requirements of the agricultural use

(iv) the requirement for the occupier of the dwelling to attend to the agricultural use; and

(v) proximity of the dwelling to the agricultural use; **or**

(b) be located on a site that:

(i) is not capable of supporting an agricultural use

- Response: The proposed residential dwelling at 273 Phipps Road Runnymede is sited on land with limited agricultural potential due to the constraints of soils and topography. These limitations are reflected by the majority of land being classified as class 6 under Grose (1999) as 'land marginally suitable for grazing because of severe limitations'.

(ii) is not capable of being included with other agricultural land (regardless of ownership) for agricultural use; and

- Response: The proposed residential dwelling at 273 Phipps Road Runnymede is sited on land with limited agricultural potential due to the constraints of soils and topography. These limitations are reflected by the majority of land being classified as class 6 under Grose (1999) as 'land marginally suitable for grazing because of severe limitations'.

(iii) does not confine or restrain agricultural use

- Response: the pastoral enterprise on adjacent land is running on mix of perennial pastures and annual grasses. It is not highly renovated and is lightly grazed with a low stocking rate. As a result, there is a limited potential for land use conflict. There is a sound neighbourly relationship between the landowners of 273 Phipps Road and the adjacent landowners.

21.4.2 Setbacks

P1

Buildings must be sited to provide adequate vehicle access and not cause an unreasonable impact on existing use on adjoining properties, having regard to:

(a) the bulk and form of the building;

(b) the nature of existing use on the adjoining properties;

(c) separation from existing use on the adjoining

properties; and

(d) any buffers created by natural or other features.

- Response: the structure is placed in an area on the block with no visibility to other dwellings or infrastructure on adjacent properties and will have no impact on adjoining land use.

21.4.3 Access for new dwellings

P1

New dwellings must have legal access, by right of carriageway, to a road maintained by a road authority, that is appropriate having regard to:

(a) the number of users of the access;

(b) the length of the access;

(c) the suitability of the access for use by the occupants of the dwelling;

(d) the suitability of the access for emergency services vehicles;

(e) the topography of the site;

(f) the construction and maintenance of the access;

(g) the construction, maintenance and usage of the road; and

(h) any advice from the road authority.

- Response: The dwelling is using an existing functional track from a maintained road into the new driveway, the primary occupants will maintain the track.

Land Capability Assessment

Both the current owner of 273 Phipps Road and the adjacent pastoral enterprise recognise that the land is unsuited to a viable commercial enterprise or cropping pursuits (please see Table 1).

The majority of the land is mapped under the Land Capability layer on the List (NRE, 2023) as Class 6 with 5ha of land at the northwest corner mapped as Class 5.

Class 6: land marginally suitable for grazing because of severe limitations.

Class 5: land is unsuitable for cropping, although some areas on easier slopes may be cultivated for pasture establishment or renewal and occasional fodder crops may be possible.

Table 1 outlines broad constraints to various commercial agricultural activities in Tasmania and highlights the unsuitability of the subject properties to an intensive farming operation.

Table 1. Biophysical resource constraints for some commercial agricultural land uses

Constraint	**Livestock**			**Cereals**	**Vegetables**	**Berries**	**Orchard fruits & vines**	**Plantation forestry**
	Sheep (wool)	**Beef Cattle**	**Dairy Cattle**					
Land capability class	3-6	3-5/6	3-5	1-4	1-4	1-4/5	1-4/5	4-6
Scale for viable commercial enterprise (ALMP)*	333ha	333ha	40ha	133ha	25ha	10ha	10ha	-
Irrigation water	Not required	Not required	Often required (4-6Ml/ha)	Not required	Required (2-6Ml/ha)	Required (1-3Ml/ha)	Required (2-3Ml/ha)	Not required
Rainfall	Lower rainfall areas	-	High rainfall (or irrigation)	-	-	High rainfall (or irrigation)	-	Above 700-800mm
Comments relative to subject land	Inadequate land area for commercial viability	Inadequate land area for commercial viability	Inadequate water resources	Inadequate land area & unsuitable land class	Inadequate water resources & unsuitable land class	Inadequate water resources & unsuitable land class	Inadequate water resources & unsuitable land class	Inadequate land area and rainfall

*Source: Agricultural Land Mapping Project (2017)

Conclusion

The proposed residential dwelling at 273 Phipps Road Runnymede is sited on land with limited agricultural potential due to the constraints of its soils and topography. These limitations are reflected by the majority of land being classified as Class 6 under Grose (1999) as 'land marginally suitable for grazing because of severe limitations'.

The pastoral enterprise on adjacent land is running a low stocking rate and is unlikely to intensify due to land capacity constraints. There is a sound neighbourly relationship between the owners of 273 Phipps Road and the adjacent landowners. The house site location is secluded and will not be visible from adjacent landowners.

From our assessment there is limited potential for land use conflict with this house development.

References

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TPC (2024). Tasmanian Planning Scheme. State Planning Provisions. Tasmanian Planning Commission.

Southern Midlands (2022). Local Planning Provisions Schedule.

Spanswick, T. & Kidd, D (2000) Buckland Soil Report. Reconnaissance Soil Map Series of Tasmania: a Revised Edition, Department of Primary Industries, Water and Environment, Tasmania.

Bushfire Hazard Report

283 Phipps Road
Runnymede

Tasmanian Planning Scheme

Property ID 2302184 Title Reference 141076/1

New house

Z Hucker

January 2025

Roger Fenwick Bush Fire Consultant
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0411 609 906
Accreditation No. BFP - 162

Table of Contents

Executive summary

I am an Accredited Person permitted to assess bushfire hazards and to define Bushfire Hazard Management Areas and to prepare appropriate plans for their ongoing management. A summary of my *curriculum vitae* is Annexure A.

This report concerns proposed new construction of a BCA Class 1a structure in a bushfire-prone area under the *Tasmanian Planning Scheme*, assessed under the provisions of the *Director's Determination Bushfire Hazard Areas v 1.2 (*DDBHA)

The works are located in a setting which meets BAL-29 setback requirements. All proposed new construction will meet appropriate specifications.

I certify that the proposed new works satisfy all of the provisions of all of the relevant bushfire-related legislation.

Roger Fenwick

Purpose

I have been engaged to undertake a Bushfire Assessment for construction of a new Class 1a house on bushfire-prone land located at 283 Phipps Rd, Runnymede, known as Property ID 2302184, Title Reference 141076/1.

This report provides an assessment of the bushfire risk as required within an area subject to the Tasmanian Planning Scheme by the provisions of the *Director's Determination – Bushfire Hazard Areas* v1.2 (DDBHA)

The fire rating for the new structure is BAL-29

Methodology

The assessment protocol relies on definitions and specifications in the Australian Standard *Construction of buildings in bushfire-prone area 2018* (AS 3959), *Nash Standard – Steel Framed Construction in Bushfire Areas*, vegetation classification by Specht 1970, and in particular, State variations defined in the DDBHA. Those variations specify additional requirements for access, water supply, and a Hazard Management Area (HMA) plan.

For defined vegetation classes, litter and other flammable vegetation component standard values have been determined. These, slope values and standard weather conditions are used to calculate bushfire behaviour, including rate of forward spread, radiant heat output and flame height. When considered in conjunction with the distance between the edge of the fire and the point of measurement (eg the wall of a house), they show the intensity of the fire exposure.

Those combined values are expressed as a Bushfire Attack Level (BAL) plus a number which expresses the radiant heat output in kilowatts per square metre (kWm^{-2}). The BAL rating determines the required construction standard. As the setback distance increases, the BAL rating decreases.

Proposal

Plans showing the site and proposed development are Annexure E.

The proposal is to specify appropriate construction standards and specifications, and design the corresponding Hazard Management Area (HMA), for a new residence.

General site description

This 84ha site is centred on a west-running ridge off Mt Phipps. It is partly cleared, moderately to steeply sloping, wooded grazing land.

The proposed house site is an existing clearing on a prominent E-W ridge.

Vegetation

The house site is fairly clear of vegetation. Adjoining land in all directions supports mixed unimproved grass pasture species, *Lomandra*, various wattles, with *E amygdalina* (Black peppermint) dry open Woodland and *E ovata* (Messmate stringybark) dry open Forest (form & density) more prevalent to the south.

Topography

The house site is essentially flat and level to the east and west, with steeper slope exposures developing to the north and south. The exposure to the east is a 2° downslope.to open woodland commending at 44m and then upslope, and to the west is an upslope of 3° for 30m becoming level and then a downslope of 7° at 87m. To the north the general slope is down at 6° for 53m becoming down 16°, and to the south the initial downslope of 4° increases to 14° where the trees start at 30m.

There was a concern that nearby (within 100m) downslopes exceeding 20º may have necessitated a Method 2 evaluation of the site. There are no such slopes within the necessary distance, and the evaluation can be made on a Deemed to Satisfy basis.

Slope and vegetation are summarised as:

Direction	First slope	vegetation	Second slope	Dist/veg
East	-2º for 44m	Grassland	level	Woodland
South	-4º for 30m	Grassland	-14º	Forest
West	+3º for 30m	Grassland	level for 57m	Woodland
North	-6º for 53m	Grassland	-16º	Woodland

From house site to East

and West

Looking North

and South

Fire history

The LIST records no fire in the immediate area.

Bushfire Context

A bushfire prone area is defined as land so mapped, or land within 100m of bushfire prone vegetation equal to or exceeding 1 hectare in area. Bushfire prone vegetation includes areas of grasses and shrubs other than defined exceptions such as maintained lawns, gardens, some horticultural land and the like. Properly managed urban land can be classified as Low Threat.

The slope used in bushfire assessments is the gradient beneath unmanaged adjoining vegetation able to support fire movement towards structures. It varies from Upslope and Level (both defined

as 0º) to groups of Downslope in 5º increments. Downslope means that fire is travelling uphill when moving towards the structure.

Setbacks are defined as the plan view (horizontal) distance between the edge of unmanaged vegetation and the nearest part of a structure subject to the assessment. This means to the nearest wall, or if there is no wall, to the nearest supporting post or column of a carport, deck, veranda, landing, stairs or ramps. Eaves and overhangs, tanks, chimneys, unroofed pergolas and sun blinds are excluded.

For planning purposes, it is assumed that the McArthur Forest Fire Danger Index (FDI) is 50. This defined FDI may not cover the worst case exposure at a site, and even strict adherence to the mandatory and other recommended specifications will not guarantee that structures will not be ignited by bushfire.

Access

The house is not in a reticulated water supply area. Property access must comply with the provisions of DDBHA Table 2 C.

All access, including Phipps Rd off the Tasman Highway, is unsealed. The property has access via Crown Licences to Phipps Rd. One of those traverses an adjoining property, with a general carriageway width of 5.75m over a distance of about 450m. There are no formal passing bays on this or the Phipps Rd portion of the access to the subject property, but both are land over which the general public has permanent right of passage, and are therefore part of the road network from which access (to a building site) must comply with the provisions of DDBHA.

Crown licences apply to two (connected) internal roads on the subject property. These are similarly open to the public, and the section used to provide access to the (fenced-off) part of the land on which the house is sought to be built has a carriageway width of over 5m.

A newly created (or improved) access on the property has a length of about 350m, and a carriageway width of almost 4m, with adequate lateral clearance. It needs a slightly improved general width plus a passing bay not less than 6m wide over 20m length within 200m of the entry point and the house site – ie about half-way along its length.

Water

As no reticulated water supply exists the provisions of DDBHA Table 3B apply. A separate 10kl reserved fire-fighting water supply is required in a non-combustible tank, with non-combustible exposed fittings, suitably signposted, to be provided within 90m by hoselay of the dwelling, reserved for fire fighting use. The tank outlet will be within 3m of hardstanding suitable for use by a fire tanker.

It is permissible to share a single water tank, provided that domestic use drawdown cannot remove the 10kl reserved for fire fighting.

Environmental & other constraints

Landslide and Waterway & coastal protection overlays cover parts of the property, but not the land on which works are proposed.

Assessment

Hazard Management Area

Exposure to unmanaged vegetation will be as shown in the following table:

Direction	Slope	Veg	BAL-29 setback	Dist	Slope	Veg	BAL-29 setback
East	-2º	Grass	7m	44m	Level	Wood	10m
South	-4º	Grass	7m	30m	-14º	Forest	30m
West	+3º	Grass	6m	30m	Level	Wood	10m
North	-6º	Grass	8m	53m	-16º	Wood	25m

Per DDBHA Table 4, all vegetation within the limiting (highlighted) distances shown in the above table is to be managed as an HMA to the specifications in Annexure C, as shown on the plan at Annexure B.

Construction specification

All works are within a BAL-29 setting, which applies to the roof and all sides of the house.

Water supply

Water supply must meet the requirements of DDBHA Table 3B. A water tank with a capacity of not less than 10kl reserved for fire fighting will be located and provided with signage and fittings so that a tanker parked on the hardstanding will be within 3m of the outlet, which will be between 6m and 90m of the house.

Fittings and signage specifications are detailed in Annexure C.

Property access

Property access must meet the requirements of DDBHA Table 2 C, which requires an all-weather 2wd trafficable surface not less than 4m in width, 0.5m clear of obstructions on each side, 4m overhead clearance, 20 tonne capacity, and slope limits which are all met. Turning capability and hardstanding near the water tank outlet will comply. A passing bay not less than 6m total width and 20m length must be provided within 200m of either the property entry point or the residence – ie at about the half-way point along the property access.

Conclusion

The proposal will comply with all provisions of the relevant regulatory documents and instruments for construction at BAL-29.

Summary of recommendations

Initial checklist

1. Create the Hazard Management Area over the area shown and prescribed in Annexure B, to the specifications in Annexure C. In particular, keep lawn mown to less than 25mm, and to the extent possible, keep it green by regular watering.
2. Upgrade the access road on the site to 4m width plus a 6 x 20m passing bay within 200m of either the entry point or the house site.
3. Complete construction to BAL-29 specifications under s3 and s7 of AS 3959-2018.
4. Install a non-combustible tank with 10kl capacity reserved for fire fighting plus an outlet and the signage and fittings specified in Annexure C, so that the outlet is within 3m of a tanker parked on the hardstanding. Fill the tank with water.

Annual checklist

1. Maintain the Hazard Management Area as prescribed in Annexure B. In particular, keep lawn mown to less than 25mm, and to the extent possible, keep it green by regular watering.
2. Ensure that the tank is filled, and that all fittings are in proper working order.

Annexure A Curriculum vitae

Qualifications

Graduate Certificate in Bushfire Protection, UWS, 2013

Bachelor of Science (Forestry), ANU, 1969

Work Experience

Self-employed consultant – 1988 to present

ACT Bush Fire Council

Chief Fire Control Officer – 1986 to 1987

Secretary – 1985

Chief Fire Control Officer -1976 to 1978

Deputy Chief Fire Control Officer – 1972 to 1975

Assistant to Chief Fire Control Officer - 1970 to 1971

CSIRO

Experimental Officer, Project Aquarius 1982 to 1984

Chemonics Industries USA 1979 to 1981

Field Service Representative, chemical fire retardants

Project Experience

- Responsible for all aspects of staff administration, finance, bush fire safety planning, fire management, training, and fire control operations in the ACT.
- Attended approximately 2000 wildfires, experimental fires and controlled burns.
- Attended to an additional approximately 1000 wildfires.
- Personally prepared approximately 2800 compliance reports to accompany Development Applications for subdivisions, Special Purpose structures, houses, industrial buildings and Defence complexes.
- Prepared assessments for 31 schools in the Nation-Building Program for the Dept of Education, Employment & Workplace Relations.
- Gave evidence in the Land & Environment Court on contested DA matters.
- Prepared Vegetation Management Plans for large (primarily Defence) estates throughout Australia.
- Prepared training plans and the Bushfire Response Action Plan for Puckapunyal Base, Dept of Defence.
- Provided studies of bush fire behaviour to assist planning and risk management by plantation insurance companies, Councils and other land management agencies.
- As an Expert Witness, investigated, reported on and gave evidence in 47 matters involving fire causation and fire management activities, mainly in connection with civil litigation.
- As Senior Research Officer, assisted in the experiment design and data analysis and responsible for all field operations for Project Aquarius, the major study of large aircraft assisted bush fire control by CSIRO Division of Forestry Research.
- As a field representative for Chemonics Industries in the USA, maintained and oversaw the operation of all of the US Forest Service air tanker bases in Washington & Oregon, and introduced the use of fire retardants by ground application for fire management in the western states.
- Lectured in bush fire behaviour and control principles at the ANU and the Canberra College of Advanced Education (now University of Canberra).
- Wrote the bush fire training module for the ACT Fire Brigade.
- Prepared the first urban-rural interface bush fire protection planning guidelines in the ACT for the National Capital Development Commission.

Annexure B Bushfire Hazard Management Plan

BUSHFIRE HAZARD MANAGEMENT PLAN

283 Phipps Road, Runnymede

Property ID 2302184 Title 141076/1

Report 2412BEN.RUN.PHI1.0
Roger Fenwick BFP 162 Scope 1, 2, 3A, 3B

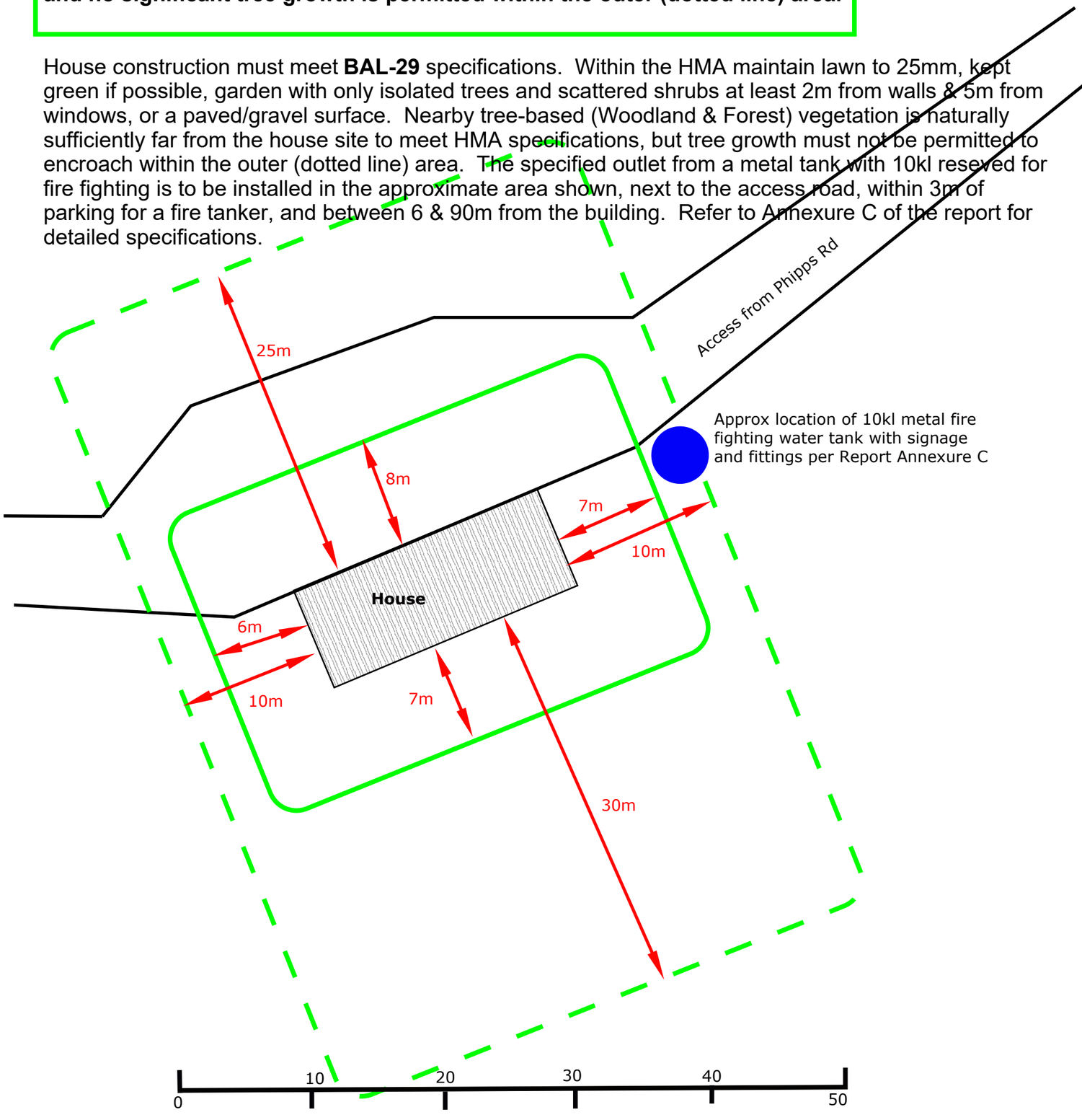
24 January 2025

Alignment of property access 4m wide plus 2x0.5m and one 6m x 20m passing bay about half way between the entry gate and the house site.

House site

The Hazard Management Area covers the part of the site outlined in green. Grass-based HMA management is required within the inner (solid line) area, and no significant tree growth is permitted within the outer (dotted line) area.

House construction must meet **BAL-29** specifications. Within the HMA maintain lawn to 25mm, kept green if possible, garden with only isolated trees and scattered shrubs at least 2m from walls & 5m from windows, or a paved/gravel surface. Nearby tree-based (Woodland & Forest) vegetation is naturally sufficiently far from the house site to meet HMA specifications, but tree growth must not be permitted to encroach within the outer (dotted line) area. The specified outlet from a metal tank with 10kl reseved for fire fighting is to be installed in the approximate area shown, next to the access road, within 3m of parking for a fire tanker, and between 6 & 90m from the building. Refer to Annexure C of the report for detailed specifications.



Annexure C Management specifications

Hazard Management Areas

The intent is to maintain the Hazard Management Area in a condition that will not allow the development or passage of fire able to ignite structures through radiant heat or flame contact. In addition, providing protection against ember attack is highly desirable. Much of the aim is to limit the intensity of the approaching fire to a level which can be absorbed without damage by the passive protection measures included in the house construction. The materials used have been chosen to (probably) not be ignited (eg walls) or be sufficiently heat-affected to break (eg windows) during the passage of the fire. It is assumed that nobody will necessarily be present during the passage of the fire, so that the structure will hopefully survive by itself. Heat from the head of the approaching fire will probably be at its peak for around 5 minutes, but embers, smoke and uncomfortably high heat will continue for around an hour or so. Attendance by suitably clothed, trained, fit and able-bodied people with appropriate equipment immediately after passage of the fire increases the likelihood of the structure surviving, particularly if small local patches have ignited.

Fire must be kept far enough away to limit the radiant heat which will threaten both structures and anyone (homeowners, fire-fighters) in the path of the fire. Basically, fire spreads rapidly in surface litter and low grassy growth, and develops tall flames in the shrub layer. That makes things difficult for fire-fighters trying to work the fire edge. With enough heat generated by vigorous fire in the shrubs and sapling (understorey) layers, the fire flame height will increase, and involve the crowns of the overstorey trees. Flames also run up the bark of many fibrous-barked eucalypt species, adding to the overall heat output but primarily creating showers of embers

Limiting fire behaviour is achieved by separating the various vegetation components both vertically and horizontally. Less surface litter will result in a slightly slower-moving fire, putting out less heat and therefore slower to ignite the shrub layer. Partial removal of the shrub layer significantly reduces the low-level flame height, making it easier for fire-fighters to work near the fire edge, and becoming less likely to ignite the sapling layer. Keeping the shrub and sapling layer fire intensity low means that fire is unlikely to move into the canopy of the overstorey. That is a crown fire, and is completely uncontrollable by any means.

Protecting against ember attack relies largely on proper construction material selection, good design that will not trap embers or the litter on which they may land and ignite. Properly screened openings are essential, but good plant selection and layout can create an ember shield, to deflect or trap embers approaching the house. Remember that embers will also accumulate in the sheltered side, in the eddy zone behind the house. Anywhere leaves accumulate, so will embers.

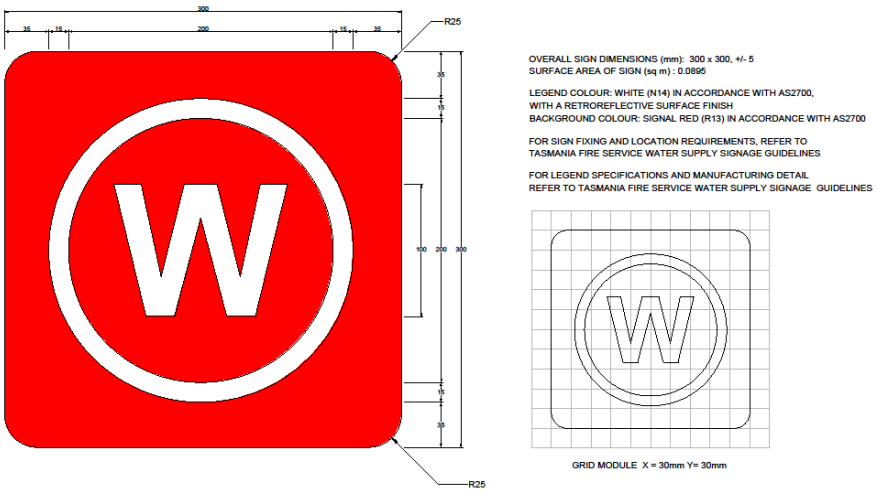
It is essential to keep even low creeping flames from contacting walls of the house. Maintain a path at least 30cm wide completely clear of all flammable material immediately between the garden/ lawn area – a concrete or gravel path, bare soil, whatever – and the house.

The HMA is to be kept in a substantially cleared condition, with a minimum of flammable material and plants.

- Within the HMA, mown lawn and only occasional scattered low-flammability ornamental shrubs, garden plants and the like should be allowed.
- Immediately beside the house there must be a strip not less than 30cm wide which is kept bare of any combustible material.
- Grass must be kept mown to not more than 25mm in height, and should be kept watered and green within 5m of a wall.

- Shrubs should not be located within 2m of a wall, or within 5m of a window.
- Avoid using combustible mulch within 2m of a window and within 1m of a wall – use pebbles instead in these settings.
- Trees are to be kept well-spaced, with one crown diameter between canopy crowns, and one shrub (or shrub cluster to 5m diameter) between shrubs or shrub clusters.
- Favour smooth-barked over rough-barked trees, and low-flammability species.
- Prune all tree branches to a height of 2m.
- Shrubs should not be located directly under trees.
- Don't have open woodpiles or locate rubbish heaps within the HMA.

Water tank signage meeting the requirements of AS 2304-2011 or as per the design below, is required. The sign must be within 1m of the location of the outlet, at least 400mm above ground level, located to be visible from an approaching vehicle, and not obstruct access to the outlet.



All above-ground components must be metal, or lagged with non-combustible material. Buried components must be not less than 300mm deep.

An underground tank must have a removeable cover not less than 250mm diameter. The bottom of the tank must not be more than 2m below the level of the ground on which the drafting tanker is parked.

The (not less than 50mm bore) outlet and ball or gate valve must be

- on the water storage tank, or
- beside an approved remote takeoff point located in a protected position, 450-600mm above ground and supplied by a pipe not less than 50mm internal diameter,

so that all parts of the building are within 90m of the outlet.

Water takeoff points must be fitted with a Storz 65mm coupling and suction washer, plus a blank cap on a chain at least 220mm long. They must not be within a parking area, and must be accessible from a hardstanding area located within 3m of the take-off point and not closer than 6m to the building. The hardstanding area must be at least 3m in width, and connected to the general access driveway, and be constructed so that when occupied by a tanker, the tanker will not obstruct the passage of other vehicles. A tanker must have direct access from the hardstanding to a turning T or Y with arms 4m in width and 8m in length.

Annexure D Form 55 Certificate

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

To: Z Hucker *Owner /Agent*
40 Marina Drive *Address*
Barretta Tas 7054 *Suburb/postcode*

Form **55**

Qualified person details:

Qualified person:
Roger Fenwick
PO Box 86B
Address: Kettering 7155
Licence No: BFP-162
Phone No: 0411 609 906
Fax No:
Email address: roger@bushfire-consultant.com.au

Qualifications and Insurance details:
Accredited under the *Fire Service Act 1979*
Professional Indemnity & Public Liability insurance by Lloyd's

(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items

Speciality area of expertise:
Analysis of hazards in bushfire-prone areas

(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work:

Address:
283 Phipps Rd
Runnymede Tas 7190
Lot No: 1
Certificate of title No: 141076

The assessable item related to this certificate:
Assessment of bushfire attack level for new construction Class 1a

(description of the assessable item being certified)
Assessable item includes –
- *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:

Certificate type:
Bushfire hazard assessment & HMA Plan

(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable items, at any stage, as part of – *(tick one)*

◉ building work, plumbing work or plumbing installation or demolition work
OR
○ a building, temporary structure or plumbing installation

In issuing this certificate the following matters are relevant –

Documents:	Bushfire Hazard Assessment Report dated January 2025 including Bushfire Hazard Management Plan dated January 2025 AS 3959-2018 *Construction of buildings in bushfire-prone areas* Plans by Shedsnhomes
Relevant calculations:	Shown in above documents
References:	N/A

Substance of Certificate: *(what it is that is being certified)*

A bushfire assessment and management plan for proposed new construction, in accordance with BAL-29 construction standards of AS 3959-2018.

Scope and/or Limitations

A Bushfire Hazard Assessment was commissioned by B Harriss to identify the potential bushfire risk and BAL rating, and to recommend appropriate compliance and protection measures. This has been provided.

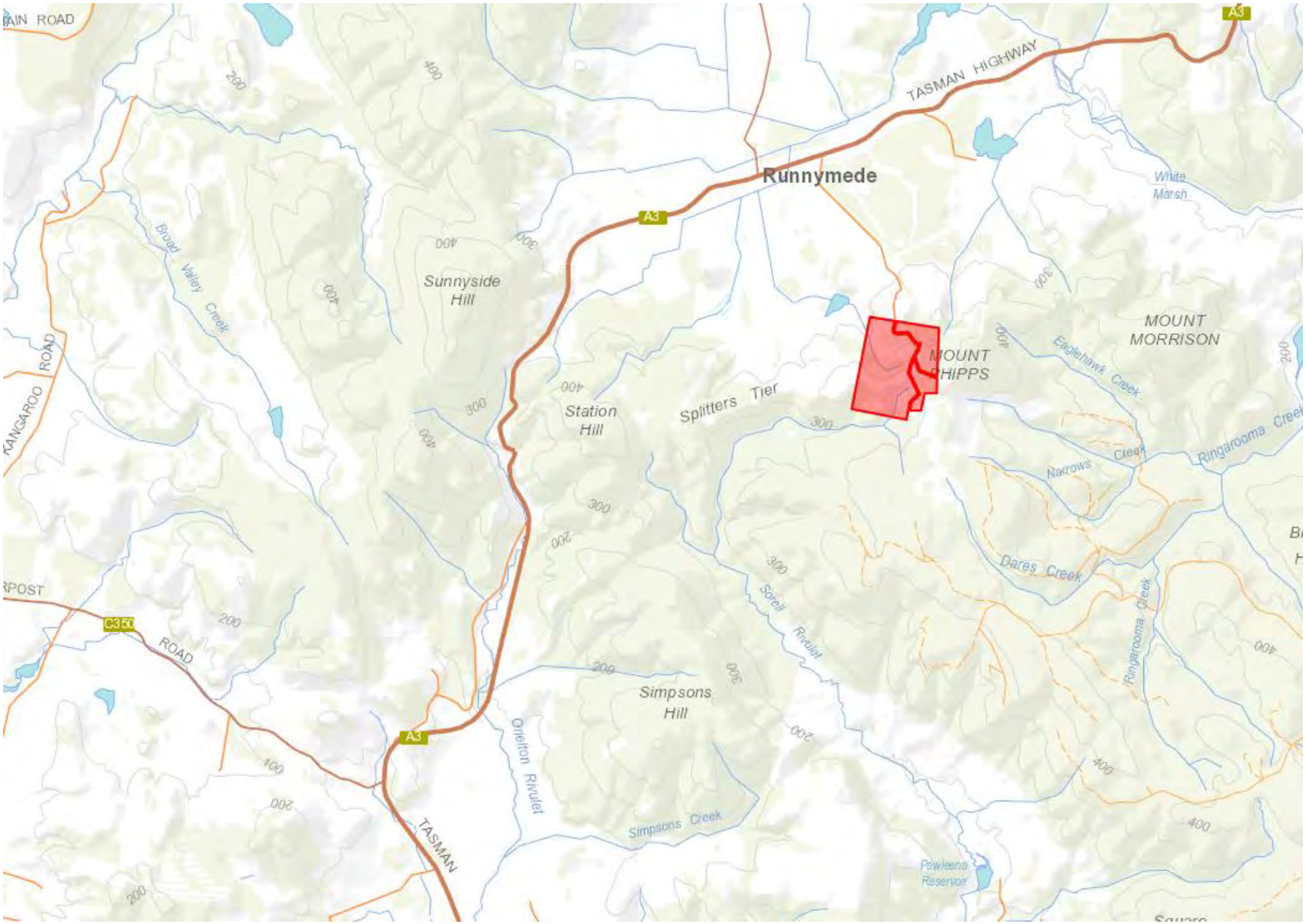
Limitations: The proposed measures comply with the guidelines. Full compliance with the requirements in this report and/or AS 3959-2018 does not guarantee survival of structures or persons.

I certify the matters described in this certificate.

Signed:	*Certificate No:*	*Date:*
	2412BEN.RUN.PHI1.0	24 January 2025

Qualified person

Annexure E Plans


TASMAN HIGHWAY
A3
Runnymede
White Marsh
Broad Valley Creek
Sunnyside Hill
MOUNT MORRISON
MOUNT HIPPS
Eaglehawk Creek
Station Hill
Splitters Tier
Ringarooma Creek
Narrows Creek
Dares Creek
Sorell Rivulet
Ringarooma Creek
C350
ROAD
Simpsons Hill
Orielton Rivulet
Simpsons Creek
Powleena Reservoir
TASMAN

Existing track
into new driveway

New propsoed
dwelling

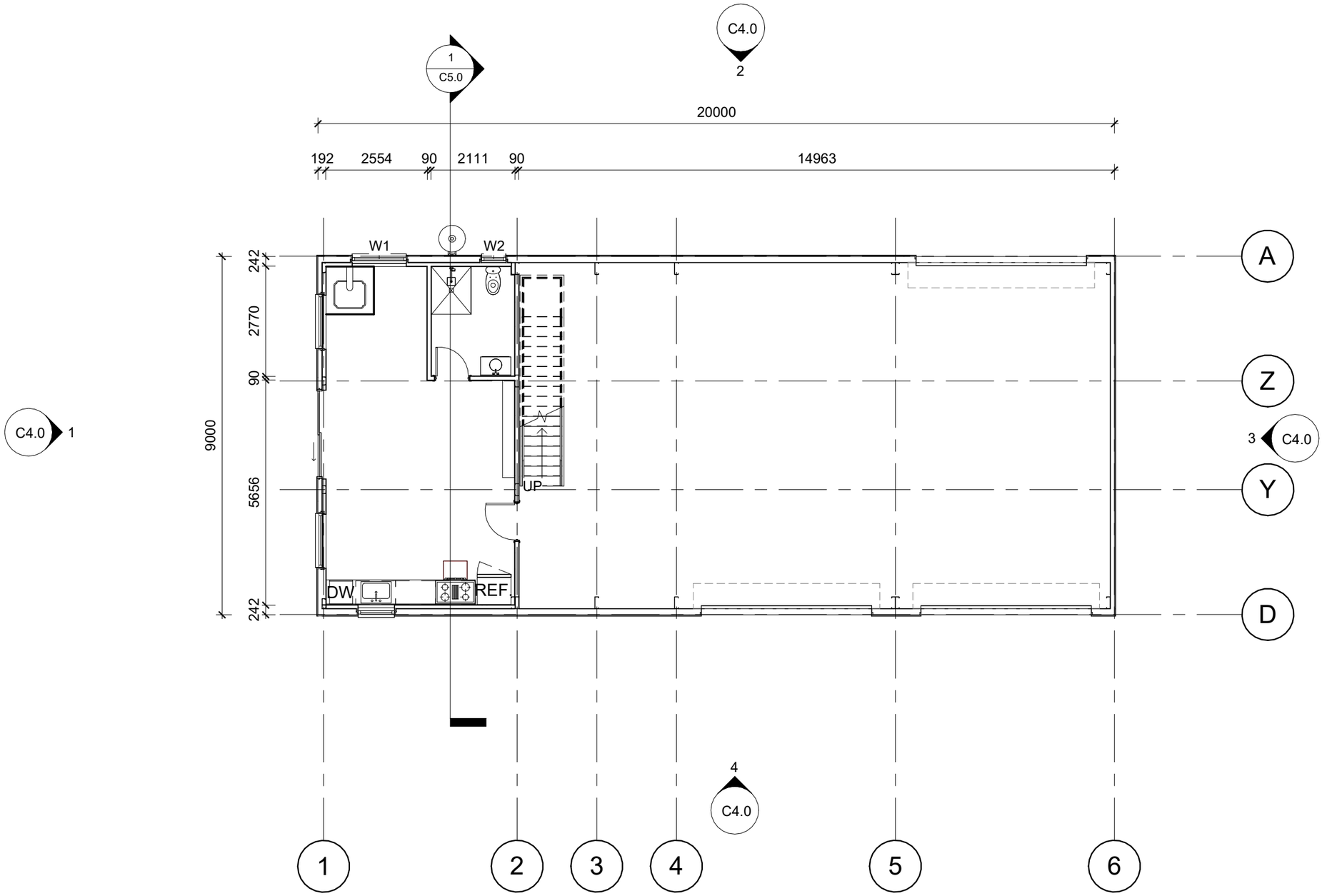
DIMENSION NOTE:
Use written diemtnions only. Do no scale from drawings. All figured dimensions are to be used as a guide only. It is imperative that all dimensions, setouts and levels be confirmed onsite by the builder, Surveyor or Sub Contractor prior to the commencement of work, manufacture or installaion; and the Builder, Sub Contractor and/or manufacturer ensures a full set of plans are on hand and reference has been made to the general notes

SHEDS n HOMES
SHEDS. MADE. TOUGH.

57 Cove Hill Road
Bridgewater TAS 7030
(03) 6263 6545
hobart@shedsnhomes.com.au

BLST Pty Ltd
ABN 52 660 422 159

CLIENT NAME: Zac Hucker		DRAWING TITLE: SITE PLAN		
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190		DATE: 07/04/24	SCALE: 1 : 5000	DRAWN BY: Author
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C2.0



DIMENSION NOTE:
Use written diemtnions only. Do no scale from drawings. All figured dimensions are to be used as a guide only. It is imperative that all dimensions, setouts and levels be confirmed onsite by the builder, Surveyor or Sub Contractor prior to the commencement of work, manufacture or installaion; and the Builder, Sub Contractor and/or manufacturer ensures a full set of plans are on hand and reference has been made to the general notes

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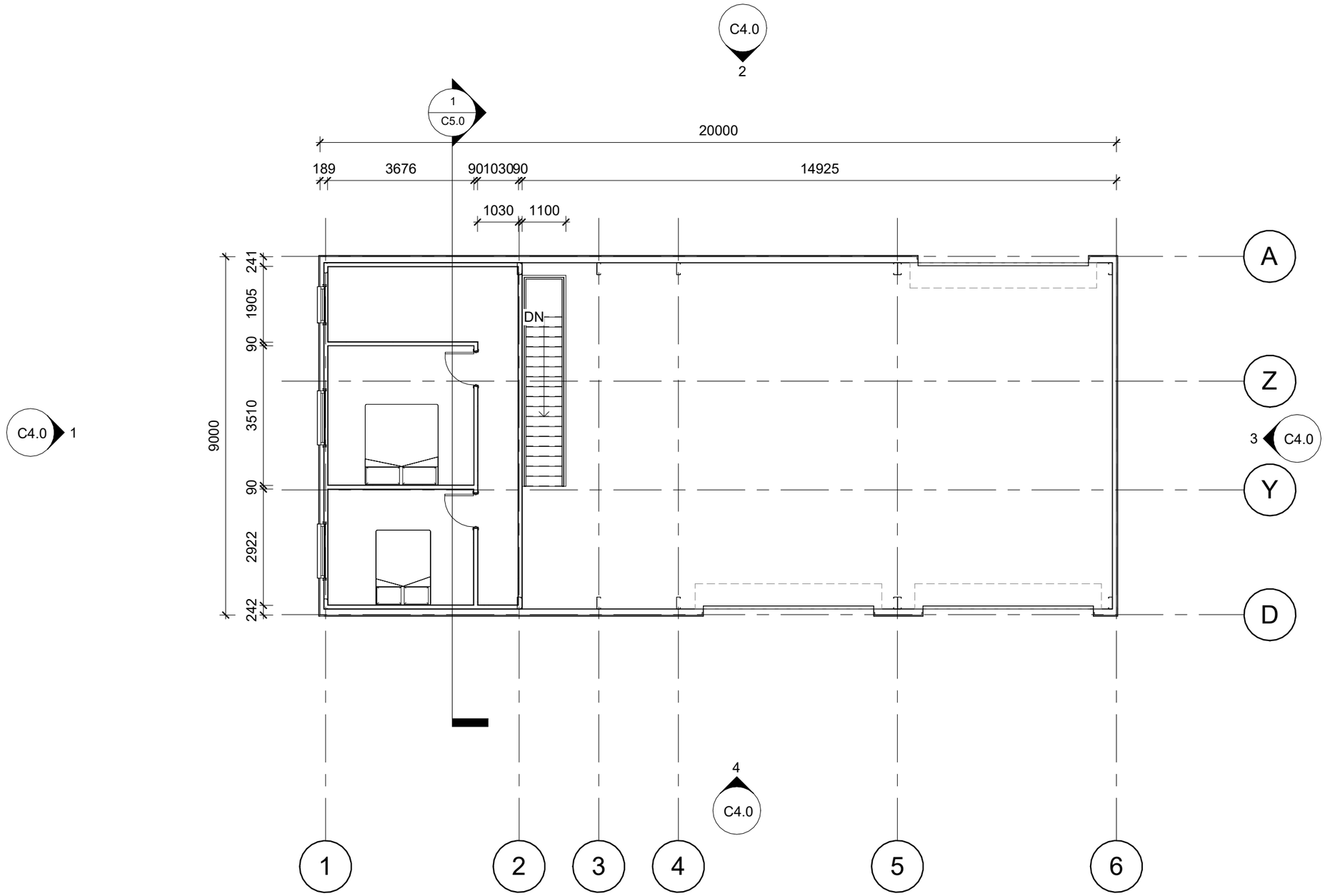
hobart@shedsnhomes.com.au

BLST Pty Ltd
ABN 52 660 422 159

CLIENT NAME: Zac Hucker		DRAWING TITLE: Ground			
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190		DATE: 07/04/24	SCALE: 1 : 100		DRAWN BY: Author
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	DRAWING No: C3.0	



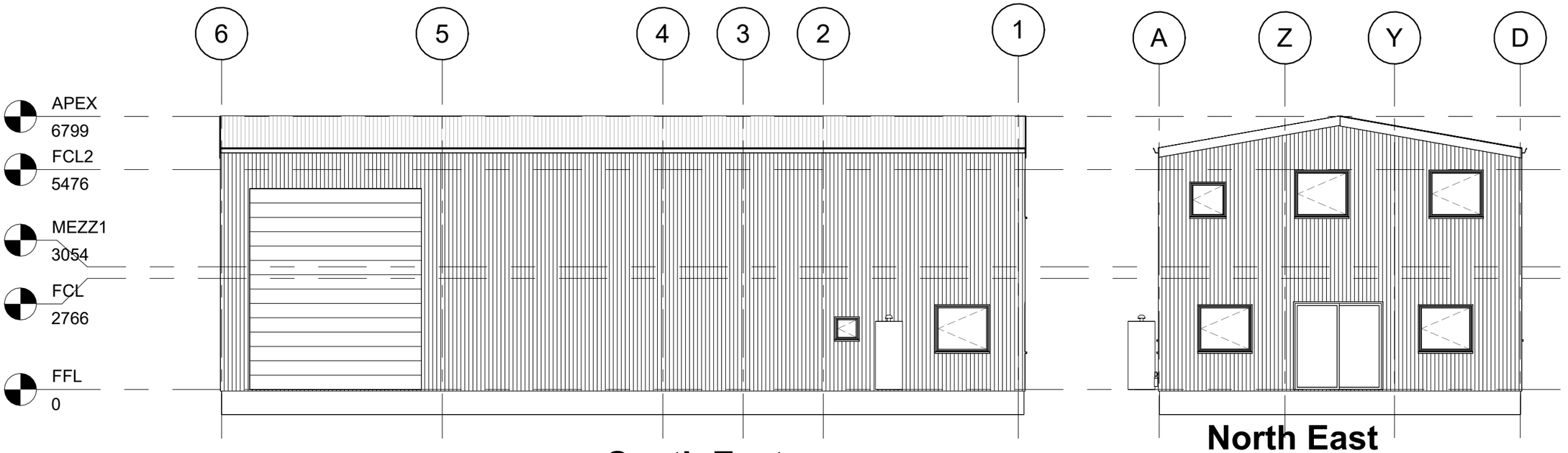
DIMENSION NOTE:
Use written diemtnions only. Do no scale from drawings. All figured dimensions are to be used as a guide only. It is imperative that all dimensions, setouts and levels be confirmed onsite by the builder, Surveyor or Sub Contractor prior to the commencement of work, manufacture or installaion; and the Builder, Sub Contractor and/or manufacturer ensures a full set of plans are on hand and reference has been made to the general notes

SHEDS n HOMES
SHEDS MADE TOUGH

57 Cove Hill Road
Bridgewater TAS 7030
(03) 6263 6545
hobart@shedsnhomes.com.au

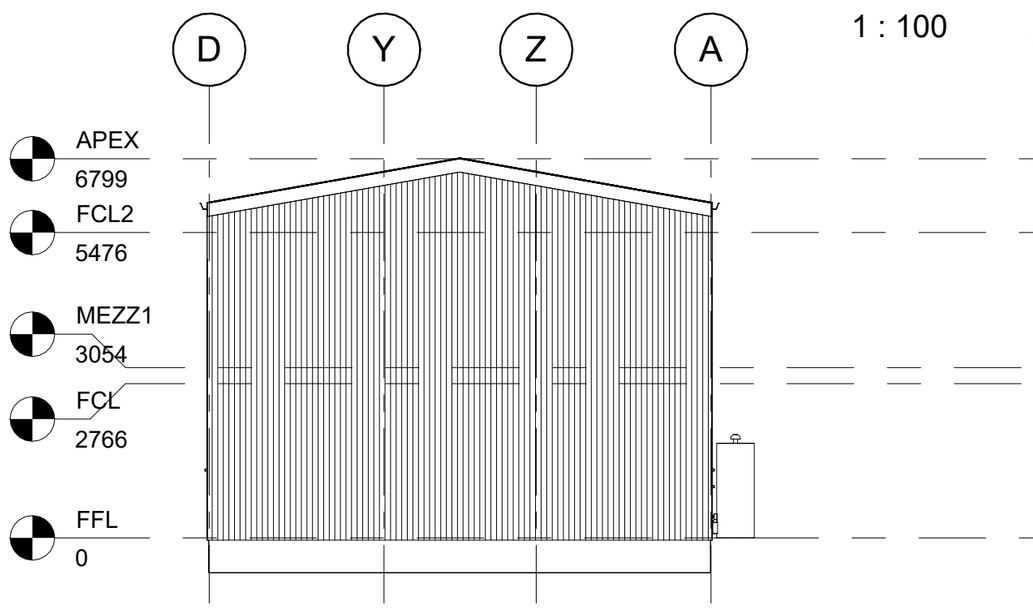
BLST Pty Ltd
ABN 52 660 422 159

CLIENT NAME: Zac Hucker		DRAWING TITLE: Level 1			
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190		DATE: 07/04/24	SCALE: 1 : 100		DRAWN BY: Author
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C3.1	



South East
1 : 100

North East
1 : 100



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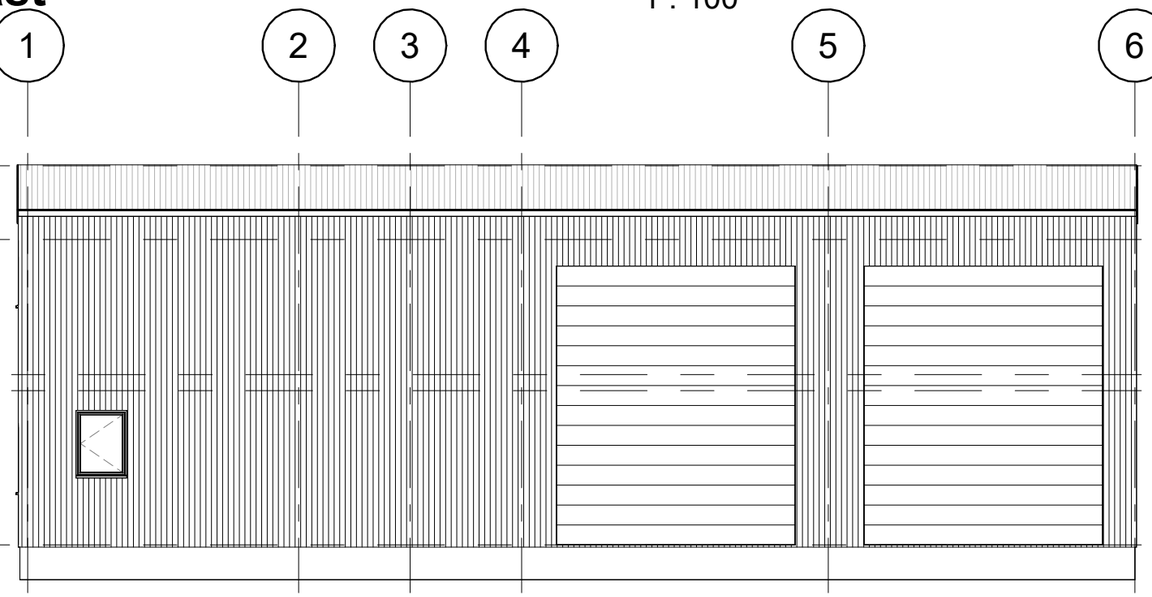
1 : 100



North West
1 : 100

DIMENSION NOTE:
Use written diemtnions only. Do no scale from drawings. All figured dimensions are to be used as a guide only. It is imperative that all dimensions, setouts and levels be confirmed onsite by the builder, Surveyor or Sub Contractor prior to the commencement of work, manufacture or installaion; and the Builder, Sub Contractor and/or manufacturer ensures a full set of plans are on hand and reference has been made to the general notes

SHEDS IN HOMES
SHEDS MADE TOUGH

57 Cove Hill Road
Bridgewater TAS 7030
(03) 6263 6545
hobart@shedsnhomes.com.au

BLST Pty Ltd
ABN 52 660 422 159

CLIENT NAME: Zac Hucker		DRAWING TITLE: ELEVATIONS			
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190	DATE: 07/04/24	SCALE: 1 : 100		DRAWN BY: Author	
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C4.0	

enviro •tech
CONSULTANTS
Geotechnical & Environmental Services

SITE SOIL EVALUATION FOR FOUNDATIONS AND WASTEWATER

283 PHIPPS ROAD - RUNNYMEDE
PROPOSED DWELLING

Client:	**Sheds n Homes**
Certificate of Title:	**141076/1**
Investigation Date:	**Tuesday, 12 November 2024**

Refer to this Report As

Enviro-Tech Consultants Pty. Ltd. 2024. Site Soil Evaluation for Foundations and Wastewater Report for a Proposed Dwelling, 283 Phipps Road - Runnymede. Unpublished report for Sheds n Homes by Enviro-Tech Consultants Pty. Ltd., 12/11/2024.

Report Distribution

This report has been prepared by Enviro-Tech Consultants Pty. Ltd. (Envirotech) for the use by parties involved in the proposed development of the property named above.

Permission is hereby given by Envirotech and the client, for this report to be copied and distributed to interested parties, but only if it is reproduced in colour, and only distributed in full. No responsibility is otherwise taken for the contents.

Limitations of this report

In some cases, variations in actual Site conditions may exist between subsurface investigation boreholes. This report only applies to the tested parts of the Site at the Site of testing, and if not specifically stated otherwise, results should not be interpreted beyond the tested areas.

The Site investigation is based on the observed and tested soil conditions relevant to the inspection date and provided design plans (building footprints presented in Attachment A). Any site works which has been conducted which is not in line with the Site plans will not be assessed. Subsurface conditions may change laterally and vertically between test Sites, so discrepancies may occur between what is described in the reports and what is exposed by subsequent excavations. No responsibility is therefore accepted for any difference in what is reported, and actual Site and soil conditions for parts of the investigation Site which were not assessed at the time of inspection.

This report has been prepared based on provided plans detailed herein. Should there be any significant changes to these plans, then this report should not be used without further consultation which may include drilling new investigation holes to cover the revised building footprint. This report should not be applied to any project other than indicated herein.

No responsibility is accepted for subsequent works carried out which deviate from the Site plans provided or activities onsite or through climate variability including but not limited to placement of fill, uncontrolled earthworks, altered drainage conditions or changes in groundwater levels.

At the time of construction, if conditions exist which differ from those described in this report, it is recommended that the base of all footing excavations be inspected to ensure that the founding medium meets that requirement referenced herein or stipulated by an engineer before any footings are poured.

Investigation Summary

Site Classification

In accordance with AS2870 – 2011 and after thorough consideration of the known details pertaining to the proposed building and associated works (hereafter referred to as the Site), the geology, soil conditions, soil properties, and drainage characteristics of the Site have been classified as follows:

CLASS S is based on soil profiles around the proposed building envelope being classified as slightly reactive to soil moisture variation, with test locations potentially subject to surface movement ranging from 0 to 20 mm.

In the case where all footings and concrete pourings including slab are directly founded onto the underlying slightly weathered dolerite bedrock with all soil completely removed, then a CLASS A applies.

Foundations

All footings (edge beams, internal beams, and load support thickenings) must be founded on natural soil through the FILL material.

It is recommended that concentrated loads including but not limited to slab edge or internal beam or strip footings supported directly on piers or pads which are founded in the Slightly Weathered DOLERITE Bedrock at 0.5 to 0.6 m depth or greater.

Wind Load Classification

The AS 4055-2021 Wind loads for Housing classification is summarised.

Region:	A
Terrain category:	TC2
Shielding Classification:	PS
Topographic Classification:	T2
Wind Classification:	N3
Design Wind Gust Speed ($V_{h,u}$) m/s	50

I recommend that during construction, I and/or the design engineer are notified of any major variation in the foundation conditions as predicted in this report.

Kris Taylor, BSc (hons)

Environmental & Engineering Geologist

Site Investigation

The Site investigation is summarised in Table 1.

Table 1 Summary of Site Investigation

Client	**Sheds n Homes**
Project Address	283 Phipps Road - Runnymede
Council	Southern Midlands
Planning Scheme	Tasmanian Planning Scheme
Inundation, Erosion or Landslip Overlays	Low Landslip Hazard Code
Proposed	Dwelling
Investigation	Fieldwork was carried out by an Engineering Geologist on the 12/11/2024
Site Topography	The building site has a gentle slope of approximately 7% (4°) to the northeast
Site Drainage	The site receives overland flow runoff directly from the southwest.
Soil Profiling	Three investigation holes were direct push sampled around the proposed dwelling (Appendix A):
Investigation Depths	The target excavation depth was estimated at 2.3 m. Borehole BH01 was direct push sampled to 0.5 m, Borehole BH02 was direct push sampled to 0.6 m, and Borehole BH03 was direct push sampled to 0.6 m (all ending in DOLERITE). Borehole logs and photos are presented in Appendix B & C.
Soil moisture and groundwater	Recovered soil at the site was moist at the time of the investigation. Groundwater was not encountered.
Geology	According to 1:250,000 Mineral Resources Tasmania geological mapping (accessed through The LIST), the geology comprises of: Jurassic Dolerite and related rocks

Soil Profiles

The geology of the site has been documented and described according to Australian Standard AS1726 for Geotechnical Site Investigations, which includes the Unified Soil Classification System (USCS). Soil layers, and where applicable, bedrock layers, are summarized in Table 2.

Table 2 Soil Summary Table

#	Layer	Details	USCS	BH01	BH02	BH03
1	Silty GRAVEL	FILL: Silty GRAVEL with clay, trace sand, very dark grey, well sorted, fine to medium grained sand; sub-rounded gravel; 65% DOLERITE cobbles/boulders	GM		0-0.1 DS@0.0	
2	Silty Gravelly CLAY	SOIL & BOULDERS/COBBLES: Silty Gravelly CLAY, very dark olive brown, well sorted, medium plasticity, trace roots, 5 % roots; sub-angular gravel; 25% DOLERITE boulders/cobbles	CI	0-0.4 DS@0.1		
3	Silty GRAVEL	SOIL & COBBLES: Silty GRAVEL, very dark brown, well sorted, fine to medium grained sand, with clay, trace roots, 5 % roots; sub-rounded gravel; 10% DOLERITE cobbles	GM		0.1-0.5 DS@0.2	0-0.4
4	Silty GRAVEL	SOIL & COBBLES/BOULDERS: Silty GRAVEL with clay, trace sand, grey, well sorted, coarse grained sand; sub-angular gravel; 70% DOLERITE cobbles/boulders	GM		REF	0.4-0.5
5	DOLERITE	Slightly Weathered DOLERITE Bedrock, EH (rock strenght inferred from BH01,0.4)		0.4-0.5 PL@0.4 REF	0.5-0.6 DS@0.5 REF	0.5-0.6 REF

Consistency[1] **VS** Very soft; **S** Soft; **F** Firm; **St** Stiff; **Vst** Very Stiff; **H** Hard. Consistency values are based on soil strengths AT THE TIME OF TESTING and is subject to variability based on field moisture condition
Density[2] **VL** Very loose; **L** Loose; **MD** Medium dense; **D** Dense; **VD** Very Dense
Rock Strength **EL** Extremely Low; **VL** Very Low; **L** Low; M Medium; **H** High; **VH** Very High; **EH** Extremely High
PL Point load test (lump)
DS Disturbed sample
PV Pocket vane shear test
FV Downhole field vane shear test
U50 Undisturbed 48mm diameter core sample collected for laboratory testing.
REF Borehole refusal
INF DCP has continued through this layer and the geology has been inferred.

[1] Soil consistencies are derived from a combination of field index, DCP and shear vane readings.
[2] Soil density descriptions presented in engineering logs are derived from the DCP testing.

Recommendations

Plumbing

Refer to hydraulic design drawings for detailed plumbing advice and requirements.

Refer to Table 3 to assess soil movement (Ys) around pipework for different depth ranges.

*Table 3 Millimetres soil movement (Ys) for determining plumbing requirements for various soil depths **

Building	Profiles	P*	E Ys >75	H2 Ys 60-75	H1 Ys 40-60	M Ys 20-40	S Ys 0-20	A Ys 0
Dwelling	BH01 BH02	No					0-0.5	0.5-3

* Depths in this table are based on surfaces at the time of testing and do not allow for the influence of any additional fill added to the soil profile. If additional fill is proposed to be added at these locations, then the reactivity will need to be recalculated depending on the thickness and reactivity of any additional fill added.

Plumbing – Class P

This standard applies to buildings located on Sites which are classified as Class P according to Table 3 or are to be reclassified as Class P as detailed above due to proposed fill works.

Where Class P is applicable, all sanitary drains and fixtures are to be designed in accordance with Appendix G of AS3500.2.

With Class P sites, consideration is given to factors including but not limited to, filled/cut sites, soil dispersion, slope instability or loose/collapsing soils, soft clay/silt soils.

Plumbing – Class A and S

When pipework falls within the Class A to S depth range as shown in Table 3, and all Class P management measures have been implemented, the drainage system does not require any additional protection and should be installed following the AS/NZS 3500 series standards.

Site Drainage

As part of the building design plan, drains are recommended upslope of earth retaining structures, soil cuts, filled areas and the proposed building Site to capture and divert Site stormwater flow.

Ideally, the areas around the footprint of the building should be graded or drained so that the water cannot pond against or near the building. As soon as footing construction has been completed, the ground immediately adjacent to the building should be graded to a uniform fall of 50mm minimum away from the building over the first metre. The final provision of paving to the edge of the building can greatly limit soil moisture variations due to seasonal wetting and drying.

Wastewater

The saturated soil permeability is estimated to be at a rate of 21mm per hour. Soil overlying the bedrock is generally classified as Category 4 sandy clay loam.

Temporary Site Drainage

It is recommended that drainage protection works (cut off drains/mounds) are put in place above (upgradient of) the work area to prevent water and sediment from accumulating in and around footings and reduce the risk of erosion and instability around any proposed earth retaining structures.

Trees

Tree roots are required to be removed from the proposed building envelope which will cause disturbance to the soil profile and settlement. Large trees within a radius of 10 m of the building envelope will need to be removed, as these can cause differential movement in the soil due to capillary suction, resulting in differential foundation movement.

Rock Excavatability

Rock excavation should be avoided where possible. It is recommended that a large (~20 tone) excavator equipped with a rock breaker is required if bedrock is to be removed.

Permanent Cut Batters – Soil and Rock

To ensure that cuts remain serviceable, it is recommended that unretained cuts in soil do not exceed 1V: 2H and unsupported baters in bedrock do not exceed 2V: 1H. Before cuts are approached by workers, cuts must be appropriately scaled to remove any loose soil and rock. The bedrock should not be increased beyond 2.0 m height relative to depth below natural level, without inspection by a suitably qualified person to ensure that these cuts are safe to work under.

Filling Works

In the case where filling works are proposed at the Site:

- Subject to compaction control, all footings (edge beams, internal beams, and load support thickenings) must be founded on natural ground through:
    - FILL OTHER THAN SAND not exceeding 0.4 m depth. If FILL OTHER THAN SAND is to exceed 0.4 m depth, then a Class P applies (AS2870 Clauses 2.5.2 and 2.5.3), with footings designed in accordance with engineering specifications.
    - SAND FILL not exceeding 0.8 m depth. If SAND FILL is to exceed 0.8 m depth, then a Class P applies (AS2870 Clauses 2.5.2 and 2.5.3) , with footings designed in accordance with engineering specifications.
- Where readily available, SAND FILL is always recommended rather than fill containing SILT or CLAY.
- Compacted CLAY or SAND FILL on well drained slopes should not exceed 1V:2H unless supported by an engineered retaining wall.
- Compacted SILT fill on well drained slopes should not exceed 1V:4H unless supported by an engineered retaining wall.
- Compacted stable rock fill on well drained slopes should not exceed 2V:3H unless supported by an engineered retaining wall.
- Any proposed filling works must be in accordance with AS3798 'Earthworks for Residential and Commercial Developments'.
- Before placing fill for landscaping, all topsoil should be removed from the filled area.
- Ideally, the fill should be free draining and placed to prevent water ponding. The fill should be placed in layers no greater than 150mm height and suitably compacted.

Long-term erosion management

The following measures are generally recommended for maintaining long-term erosion stability of soil slopes:

- Slopes exceeding 1V: 4H and up to 1V: 3H will need to be effectively stabilised with mulch/topsoil mixes, drill/broadcast seeding, hydroseeding or soil binders.

- Slopes up to 1V:2Hcan be stabilised with straw mulching.
- Slopes exceeding 1V: 2H and up to 1V:1.5H may be effectively stabilised with hydromulching
- Slopes exceeding 1V:1.5H but no greater than 1V: 1H will generally require measures such as erosion control blankets.

Earth-Retaining Structures

Any excavations higher than 1.0m and exceeding the recommended batter angle should be supported with a retaining wall engineered that allows free drainage of the retained soil and rock.

Building Pad Preparation

Any organic matter or other deleterious materials will need to be removed from the building envelope.

Unless otherwise stated in an engineering report, fill or loose, soft, low bearing capacity soil should either be removed from the building pad, or otherwise footings should ideally be established to the base of this material.

Earthworks should be carried out in accordance with AS3798 'Earthworks for Residential and Commercial Developments'. Unsuitable materials in structural fill are listed in AS2870 Section 4.3.

Bulk Pier Excavations – Shallow Bedrock

Where column footings are proposed, bulk pier excavations are recommended (excavated with a bucket rather than an auger).

Foundation Maintenance

Details on appropriate site and foundation maintenance practises from the CSIRO BTF 18 Foundation Maintenance and Footing Performance: A Homeowner's Guide are presented in Appendix F of this report.

Kris Taylor, BSc (hons)

Environmental & Engineering Geologist

Notes About Your Assessment

The Site classification provided and footing recommendations including foundation depths are assessed based on the subsurface profile conditions present at the time of fieldwork and may vary according to any subsequent *Site works* carried out. *Site works* may include changes to the existing soil profile by cutting more than 0.5 m and filling more than 0.4 to 0.8 m depending on the type of material and the design of the footing. All footings must be founded through fill *other than* sand not exceeding 0.4 m depth or sand not exceeding 0.8 m depth, or otherwise a Class P applies (AS2870 Clauses 2.5.2 and 2.5.3).

For reference, borehole investigation depths relative to natural soil surface levels are stated in borehole logs where applicable.

In some cases, variations in actual Site conditions may exist between subsurface investigation boreholes. At the time of construction, if conditions exist which differ from those described in this report, it is recommended that the base of all footing excavations be inspected to ensure that the founding medium meets the requirement referenced herein or stipulated by an engineer before any footings are poured.

The site classification assumes that the performance requirements as set out in Appendix B of AS 2870 are acceptable and that site foundation maintenance is carried out to avoid extreme wetting and drying.

It is the responsibility of the homeowner to ensure that the soil conditions are maintained and that abnormal moisture conditions do not develop around the building. The following are examples of poor practises that can result in abnormal soil conditions:

- The effect of trees being too close to a footing.
- Excessive or irregular watering of gardens adjacent to the building.
- Failure to maintain Site drainage.
- Failure to repair plumbing leaks.
- Loss of vegetation near the building.

The pages that make up the last six pages of this report are an integral part of this report. The notes contain advice and recommendations for all stakeholders in this project (i.e. the structural engineer, builder, owner, and future owners) and should be read and followed by all concerned.

References

AS 1289.6.3.2-2003 Soil strength and consolidation tests - Determination of the penetration resistance of a soil - 9 kg dynamic cone penetrometer test, Standards Australia, Sydney, Retrieved from SAI Global

AS 1289.7.1.1-2003 Methods of testing soils for engineering purposes Method 7.1.1: Soil reactivity tests—Determination of the shrinkage index of a soil—Shrink-swell index, Standards Australia, Sydney, Retrieved from SAI Global

AS 1726-2017, Geotechnical Site investigations, Standards Australia, Sydney, Retrieved from SAI Global

AS 2870-2011, Residential slabs and footings, Standards Australia, Sydney, Retrieved from SAI Global

AS4055 (2021). Australian Standard. Prepared by Committee BD-099, Wind Loads for Housing. Approved on behalf of the Council of Standards Australia on 1st June 2021 and published on 25th June 2021.

DPIPWE 2009. Dispersive Soils and their Management. Technical Reference Manual. Sustainable Land Use Department of Primary Industries Water and Environment.

Webster, S.L., Brown, R.W. and Porter, J.R. (1994) Force Projection Site Evaluation Using the Electric Cone Penetrometer (ECP) and the Dynamic Cone Penetrometer (DCP). Technical Report No. GL-94-17, Air Force Civil Engineering Support Agency, US Air Force, Tyndall Air Force Base, FL.

Appendix A Mapping

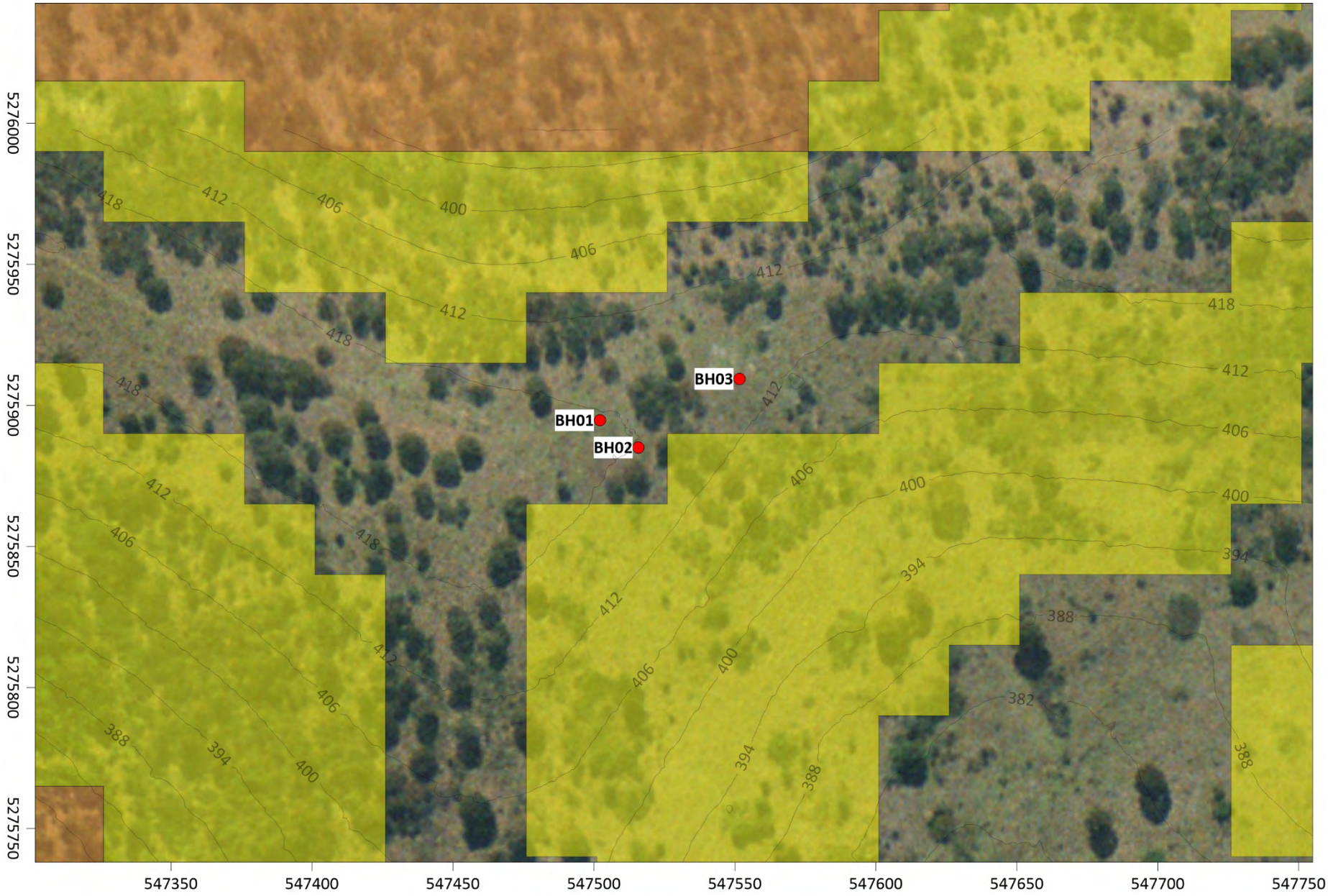


Figure 1 Planning Scheme Landslip Hazard Overlay Mapping, Proposed Building and Works & Photo Locations

Figure 2 Site Borehole Locations

Appendix B Borehole Logs

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ASSESSMENT: Foundation Classification
STRUCTURE: Dwelling
EASTING: 547502 **HORIZONTAL**
NORTHING: 5275895 **ACCURACY:** 1m

HOLE ID NO.: BH01
DATE TESTED: 12/11/2024
LOGGED BY: M. Scalisi
ELEVATION: 418.00

LOCATION: 283 Phipps Road - Runnymede
CLIENT: Sheds n Homes

EQUIPMENT: Core & Auger
NATURAL SURFACE (RL):

DEPTH (m)	GRAPHIC	DESCRIPTION	LAYER	DENSITY CONSISTENCY STRENGTH	MOISTURE INDEX	%	SAMPLES	TEST	Cu (kPa)	UCS (kg/cm²)	BLOW COUNT	blows/100mm 0 5 10 15 20
0.0	CI	SOIL & BOULDERS/COBBLES: Silty Gravelly CLAY, very dark olive brown, well sorted, medium plasticity, trace roots, 5 % roots, gravel 35%, medium grained, sub-angular; 25% DOLERITE boulders/cobbles	2	very stiff	Moist	26	DS	PP		2.9		
0.5		Slightly Weathered DOLERITE Bedrock very dark grey	5	very high			PL	IS 50				
		Direct Push Sampler Refusal on Slightly Weathered DOLERITE Bedrock End of borehole at 0.5m depth.										

GROUNDWATER: Not Encountered

PAGE 1 of 1

TESTING:

Where blows per 100mm are less than 1, distance travelled per penetrometer blow is measured and converted to blows per 100mm.

DS - Disturbed Sample; U50 - Undisturbed 50mm Core; FV - Field Vane; PP - Pocket Penetrometer; CBR - Californian Bearing Ratio; PV - Pocket Vane

enviro·tech CONSULTANTS

ASSESSMENT: Foundation Classification
STRUCTURE: Dwelling
EASTING: 547516 **HORIZONTAL**
NORTHING: 5275885 **ACCURACY:** 1m

HOLE ID NO.: BH02
DATE TESTED: 12/11/2024
LOGGED BY: M. Scalisi
ELEVATION: 418.00

LOCATION: 283 Phipps Road - Runnymede
CLIENT: Sheds n Homes

EQUIPMENT: AMS Powerprobe 9120 RAP
NATURAL SURFACE (RL):

DEPTH (m)	GRAPHIC	DESCRIPTION	LAYER	DENSITY CONSISTENCY STRENGTH	MOISTURE INDEX	%	SAMPLES	TEST	Cu (kPa)	UCS (kg/cm²)	BLOW COUNT	blows/100mm 0 5 10 15 20
0.0	GM	FILL: Silty GRAVEL with clay, trace sand, very dark grey, well sorted, fine to medium grained sand, gravel 70%, medium grained, sub-rounded; 65% DOLERITE cobbles/boulders	1		Dry	3	DS					
	GM	SOIL & COBBLES: Silty GRAVEL, very dark brown, well sorted, fine to medium grained sand, with clay, trace roots, 5 % roots, gravel 65%, fine to medium grained, sub-rounded; 10% DOLERITE cobbles	3		Slightly Moist	7	DS					
0.5		Slightly Weathered DOLERITE Bedrock very dark grey	5			3	DS					
		Direct Push Sampler Refusal on Slightly Weathered DOLERITE Bedrock										
		End of borehole at 0.6m depth.										

GROUNDWATER: Not Encountered

PAGE 1 of 1

TESTING:

Where blows per 100mm are less than 1, distance travelled per penetrometer blow is measured and converted to blows per 100mm.

DS - Disturbed Sample; U50 - Undisturbed 50mm Core; FV - Field Vane; PP - Pocket Penetrometer; CBR - Californian Bearing Ratio; PV - Pocket Vane

enviro·tech CONSULTANTS

ASSESSMENT: Foundation Classification
STRUCTURE: Dwelling
EASTING: 547552 **HORIZONTAL**
NORTHING: 5275909 **ACCURACY:** 1m

HOLE ID NO.: BH03
DATE TESTED: 12/11/2024
LOGGED BY: M. Scalisi
ELEVATION: 413.00

LOCATION: 283 Phipps Road - Runnymede
CLIENT: Sheds n Homes

EQUIPMENT: Power Auger
NATURAL SURFACE (RL):

DEPTH (m)	GRAPHIC	DESCRIPTION	LAYER	DENSITY CONSISTENCY STRENGTH	MOISTURE INDEX	%	SAMPLES	TEST	Cu (kPa)	UCS (kg/cm²)	BLOW COUNT	blows/100mm 0 5 10 15 20
0.0	GM	SOIL & COBBLES: Silty GRAVEL, very dark brown, well sorted, fine to medium grained sand, with clay, trace roots, 5 % roots, gravel 65%, fine to medium grained, sub-rounded; 10% DOLERITE cobbles	3		Slightly Moist							
0.5	GM	SOIL & COBBLES/BOULDERS: Silty GRAVEL with clay, trace sand, grey, well sorted, coarse grained sand, gravel 70%, medium grained, sub-angular; 70% DOLERITE cobbles/boulders	4		Dry							
		Slightly Weathered DOLERITE Bedrock very dark grey	5									
		Direct Push Sampler Refusal on Slightly Weathered DOLERITE Bedrock										
		End of borehole at 0.6m depth.										

GROUNDWATER: Not Encountered
TESTING: Permeameter: AS 1289.6.7.3

PAGE 1 of 1

Where blows per 100mm are less than 1, distance travelled per penetrometer blow is measured and converted to blows per 100mm

DS - Disturbed Sample; U50 - Undisturbed 50mm Core; FV - Field Vane; PP - Pocket Penetrometer; CBR - Californian Bearing Ratio; PV - Pocket Vane

Appendix C Core Photographs

BH01

BH02

BH03

*** 1 metre core tray length**

Appendix D Geotechnical Testing

Dynamic Cone Penetrometer (DCP)

Dynamic cone penetrometer (DCP) testing was conducted according to AS 1289.6.3.2 with the results presented in Appendix B.

Linear shrinkage

Disturbed soil samples (DS) are collected for linear shrinkage testing with soil laboratory testing conducted according to AS 1289.3.4.1. The results of the linear shrinkage tests are presented in Table 4.

Table 4 Linear shrinkage index test results

Layers	Soil	Hole ID	Depth (m)	Field Moisture %	Linear Shrinkage %
2	Silty Gravelly CLAY	BH01	0.1-0.2	26.5	9*

* Testing conducted by Envirotech

Soil Dispersion (Emerson aggregate test)

Select soil samples were tested for sodicity using the Emerson Class number method according to AS1289.3.8.1. The results presented in Table 5 demonstrate that:

- Most of the samples collected from the Site were either not dispersive (Emerson Class 4 or greater) or were slightly dispersive (Emerson Class 3). Therefore, no specific management measures are required.

It is recommended that the dispersive soils are adequately managed corresponding to the Emerson Class number and pH value, as detailed in the recommendations section of this report.

Table 5 Summary of the Emerson class results.

Layer	Soil	Depth	Sample ID	Emersion Class	Date Tested	Water	pH
1	Silty GRAVEL	0	BH02 0.0	Class >4	13/11/2024	DI 24°C	
2	Silty Gravelly CLAY	0.1	BH01 0.1	Class 3	13/11/2024	DI 24°C	6.17
3	Silty GRAVEL	0.2	BH02 0.2	Class >4	13/11/2024	DI 24°C	

Permeameter Testing

Permeameter testing was carried out in borehole BH03. A soil auger was used to excavate the Soil to prepare for the test to ensure the soak well was effectively draining. Where applicable, the reported water table height has been used as the test depth. Results are presented Table 6.

Table 6 Permeameter testing results.

Borehole	Hole Depth (m)	Hole Diameter (mm)	Test Duration (min)	Flow Rate (cm3/min)	Ksat (m/day)	Ksat (mm/hr)
BH03	0.5	65	3.5	189.9	5.0E-01	20.8

Rock Point Load Testing

Rock samples collected from the Project Area were tested using a digital rock point load tester which has been manufactured in accordance with AS 4133.4.1. The 'lump' sample method and calculation have been used in the tests.

A dolerite rock sample was collected from the building pad within the Project Area. The dolerite is inferred to have a very high rock strength based on interpretation of the point load testing results (Table 7).

Where possible, excavations should be avoided.

Table 7 Point load index testing results.

	Units	BH01
Depth	m	0.400
Layer		5
Test	MPa (IS50)	15.026
Index		VH

Appendix E Geotechnical Interpretation

Footing Minimum Target Depths

Footing design for the proposed structures are to consider the depths of limiting layers at the base of Class P soils where present. Where practical/allowable, thickened beams may be deepened through problematic soil layers according to engineering specifications (Table 8). **Error! Reference source not found.** should be referred to where only 50kPa allowable bearing capacity is required.

Table 8 also presents a summary of the estimated soil depths and associated layers where less than 5mm of vertical soil movement can expected due to soil moisture fluctuations from normal seasonal wetting and drying cycles. Where 5mm tolerances are required, concentrated loads including but not limited to slab edge or internal beam or strip footings shall be supported directly on piers in accordance with minimum target layer depths presented in Table 8, with considerations given to required bearing capacities in accordance with **Error! Reference source not found.**.

Table 8 Soil characteristic surface movements and recommended footing minimum target depths

Footing design parameters	BH01	BH02
Iss Calculation Depth^	0.00	0.00
Surface movement Ys (mm)	15	5
Soil class	S	S
Base of problem soil layer (m)*	-	-
Layer at base of problem soil*	-	-
Pier/Footing recommended target depth (m)#	0.5	0.6
Pier/footing recommended target layer#	5	5

- No problem layers encountered

*Base of problematic soil layer depth at test location below top of borehole surface to achieve 100 kPa allowable bearing capacity or greater.

Target soil layer depth where Ys values from normal wetting and drying cycles are estimated at less than 5mm vertical movement

^ Calculated based on depth below cut (with negative value) or above fill (with positive value) borehole drilling depth. Inferred fill reactivity will be conservatively assessment unless requested otherwise.

Soil and Rock Allowable Bearing Capacity

Soil allowable bearing capacity is normally calculated with the use of a dynamic cone penetrometer. At the time of Site inspection, given the soil was dry and the bedrock was shallow, a decision was made not to DCP test the soil given the sub optimal moisture range to allow for the provision of meaningful results.

An allowable bearing capacity of more than 5,000kPa is expected on the bedrock.

Foundation Maintenance and Footing Performance:
A Homeowner's Guide

CSIRO

BTF 18
replaces
Information
Sheet 10/91

Buildings can and often do move. This movement can be up, down, lateral or rotational. The fundamental cause of movement in buildings can usually be related to one or more problems in the foundation soil. It is important for the homeowner to identify the soil type in order to ascertain the measures that should be put in place in order to ensure that problems in the foundation soil can be prevented, thus protecting against building movement.

This Building Technology File is designed to identify causes of soil-related building movement, and to suggest methods of prevention of resultant cracking in buildings.

Soil Types

The types of soils usually present under the topsoil in land zoned for residential buildings can be split into two approximate groups – granular and clay. Quite often, foundation soil is a mixture of both types. The general problems associated with soils having granular content are usually caused by erosion. Clay soils are subject to saturation and swell/shrink problems.

Classifications for a given area can generally be obtained by application to the local authority, but these are sometimes unreliable and if there is doubt, a geotechnical report should be commissioned. As most buildings suffering movement problems are founded on clay soils, there is an emphasis on classification of soils according to the amount of swell and shrinkage they experience with variations of water content. The table below is Table 2.1 from AS 2870, the Residential Slab and Footing Code.

Causes of Movement

Settlement due to construction
There are two types of settlement that occur as a result of construction:

- Immediate settlement occurs when a building is first placed on its foundation soil, as a result of compaction of the soil under the weight of the structure. The cohesive quality of clay soil mitigates against this, but granular (particularly sandy) soil is susceptible.
- Consolidation settlement is a feature of clay soil and may take place because of the expulsion of moisture from the soil or because of the soil's lack of resistance to local compressive or shear stresses. This will usually take place during the first few months after construction, but has been known to take many years in exceptional cases.

These problems are the province of the builder and should be taken into consideration as part of the preparation of the site for construction. Building Technology File 19 (BTF 19) deals with these problems.

Erosion
All soils are prone to erosion, but sandy soil is particularly susceptible to being washed away. Even clay with a sand component of say 10% or more can suffer from erosion.

Saturation
This is particularly a problem in clay soils. Saturation creates a bog-like suspension of the soil that causes it to lose virtually all of its bearing capacity. To a lesser degree, sand is affected by saturation because saturated sand may undergo a reduction in volume – particularly imported sand fill for bedding and blinding layers. However, this usually occurs as immediate settlement and should normally be the province of the builder.

Seasonal swelling and shrinkage of soil
All clays react to the presence of water by slowly absorbing it, making the soil increase in volume (see table below). The degree of increase varies considerably between different clays, as does the degree of decrease during the subsequent drying out caused by fair weather periods. Because of the low absorption and expulsion rate, this phenomenon will not usually be noticeable unless there are prolonged rainy or dry periods, usually of weeks or months, depending on the land and soil characteristics.

The swelling of soil creates an upward force on the footings of the building, and shrinkage creates subsidence that takes away the support needed by the footing to retain equilibrium.

Shear failure
This phenomenon occurs when the foundation soil does not have sufficient strength to support the weight of the footing. There are two major post-construction causes:

- Significant load increase.
- Reduction of lateral support of the soil under the footing due to erosion or excavation.
- In clay soil, shear failure can be caused by saturation of the soil adjacent to or under the footing.

GENERAL DEFINITIONS OF SITE CLASSES

Class	Foundation
A	Most sand and rock sites with little or no ground movement from moisture changes
S	Slightly reactive clay sites with only slight ground movement from moisture changes
M	Moderately reactive clay or silt sites, which can experience moderate ground movement from moisture changes
H	Highly reactive clay sites, which can experience high ground movement from moisture changes
E	Extremely reactive sites, which can experience extreme ground movement from moisture changes
A to P	Filled sites
P	Sites which include soft soils, such as soft clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soils subject to erosion; reactive sites subject to abnormal moisture conditions or sites which cannot be classified otherwise

Tree root growth
Trees and shrubs that are allowed to grow in the vicinity of footings can cause foundation soil movement in two ways:

- Roots that grow under footings may increase in cross-sectional size, exerting upward pressure on footings.
- Roots in the vicinity of footings will absorb much of the moisture in the foundation soil, causing shrinkage or subsidence.

Unevenness of Movement

The types of ground movement described above usually occur unevenly throughout the building's foundation soil. Settlement due to construction tends to be uneven because of:

- Differing compaction of foundation soil prior to construction.
- Differing moisture content of foundation soil prior to construction.

Movement due to non-construction causes is usually more uneven still. Erosion can undermine a footing that traverses the flow or can create the conditions for shear failure by eroding soil adjacent to a footing that runs in the same direction as the flow.

Saturation of clay foundation soil may occur where subfloor walls create a dam that makes water pond. It can also occur wherever there is a source of water near footings in clay soil. This leads to a severe reduction in the strength of the soil which may create local shear failure.

Seasonal swelling and shrinkage of clay soil affects the perimeter of the building first, then gradually spreads to the interior. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Swelling gradually reaches the interior soil as absorption continues. Shrinkage usually begins where the sun's heat is greatest.

Effects of Uneven Soil Movement on Structures

Erosion and saturation
Erosion removes the support from under footings, tending to create subsidence of the part of the structure under which it occurs. Brickwork walls will resist the stress created by this removal of support by bridging the gap or cantilevering until the bricks or the mortar bedding fail. Older masonry has little resistance. Evidence of failure varies according to circumstances and symptoms may include:

- Step cracking in the mortar beds in the body of the wall or above/below openings such as doors or windows.
- Vertical cracking in the bricks (usually but not necessarily in line with the vertical beds or perpends).

Isolated piers affected by erosion or saturation of foundations will eventually lose contact with the bearers they support and may tilt or fall over. The floors that have lost this support will become bouncy, sometimes rattling ornaments etc.

Seasonal swelling/shrinkage in clay
Swelling foundation soil due to rainy periods first lifts the most exposed extremities of the footing system, then the remainder of the perimeter footings while gradually permeating inside the building footprint to lift internal footings. This swelling first tends to create a dish effect, because the external footings are pushed higher than the internal ones.

The first noticeable symptom may be that the floor appears slightly dished. This is often accompanied by some doors binding on the floor or the door head, together with some cracking of cornice mitres. In buildings with timber flooring supported by bearers and joists, the floor can be bouncy. Externally there may be visible dishing of the hip or ridge lines.

As the moisture absorption process completes its journey to the innermost areas of the building, the internal footings will rise. If the spread of moisture is roughly even, it may be that the symptoms will temporarily disappear, but it is more likely that swelling will be uneven, creating a difference rather than a disappearance in symptoms. In buildings with timber flooring supported by bearers and joists, the isolated piers will rise more easily than the strip footings or piers under walls, creating noticeable doming of flooring.

Trees can cause shrinkage and damage

As the weather pattern changes and the soil begins to dry out, the external footings will be first affected, beginning with the locations where the sun's effect is strongest. This has the effect of lowering the external footings. The doming is accentuated and cracking reduces or disappears where it occurred because of dishing, but other cracks open up. The roof lines may become convex.

Doming and dishing are also affected by weather in other ways. In areas where warm, wet summers and cooler dry winters prevail, water migration tends to be toward the interior and doming will be accentuated, whereas where summers are dry and winters are cold and wet, migration tends to be toward the exterior and the underlying propensity is toward dishing.

Movement caused by tree roots
In general, growing roots will exert an upward pressure on footings, whereas soil subject to drying because of tree or shrub roots will tend to remove support from under footings by inducing shrinkage.

Complications caused by the structure itself
Most forces that the soil causes to be exerted on structures are vertical – i.e. either up or down. However, because these forces are seldom spread evenly around the footings, and because the building resists uneven movement because of its rigidity, forces are exerted from one part of the building to another. The net result of all these forces is usually rotational. This resultant force often complicates the diagnosis because the visible symptoms do not simply reflect the original cause. A common symptom is binding of doors on the vertical member of the frame.

Effects on full masonry structures
Brickwork will resist cracking where it can. It will attempt to span areas that lose support because of subsided foundations or raised points. It is therefore usual to see cracking at weak points, such as openings for windows or doors.

In the event of construction settlement, cracking will usually remain unchanged after the process of settlement has ceased.

With local shear or erosion, cracking will usually continue to develop until the original cause has been remedied, or until the subsidence has completely neutralised the affected portion of footing and the structure has stabilised on other footings that remain effective.

In the case of swell/shrink effects, the brickwork will in some cases return to its original position after completion of a cycle, however it is more likely that the rotational effect will not be exactly reversed, and it is also usual that brickwork will settle in its new position and will resist the forces trying to return it to its original position. This means that in a case where swelling takes place after construction and cracking occurs, the cracking is likely to at least partly remain after the shrink segment of the cycle is complete. Thus, each time the cycle is repeated, the likelihood is that the cracking will become wider until the sections of brickwork become virtually independent.

With repeated cycles, once the cracking is established, if there is no other complication, it is normal for the incidence of cracking to stabilise, as the building has the articulation it needs to cope with the problem. This is by no means always the case, however, and monitoring of cracks in walls and floors should always be treated seriously.

Upheaval caused by growth of tree roots under footings is not a simple vertical shear stress. There is a tendency for the root to also exert lateral forces that attempt to separate sections of brickwork after initial cracking has occurred.

The normal structural arrangement is that the inner leaf of brickwork in the external walls and at least some of the internal walls (depending on the roof type) comprise the load-bearing structure on which any upper floors, ceilings and the roof are supported. In these cases, it is internally visible cracking that should be the main focus of attention, however there are a few examples of dwellings whose external leaf of masonry plays some supporting role, so this should be checked if there is any doubt. In any case, externally visible cracking is important as a guide to stresses on the structure generally, and it should also be remembered that the external walls must be capable of supporting themselves.

Effects on framed structures
Timber or steel framed buildings are less likely to exhibit cracking due to swell/shrink than masonry buildings because of their flexibility. Also, the doming/dishing effects tend to be lower because of the lighter weight of walls. The main risks to framed buildings are encountered because of the isolated pier footings used under walls. Where erosion or saturation cause a footing to fall away, this can double the span which a wall must bridge. This additional stress can create cracking in wall linings, particularly where there is a weak point in the structure caused by a door or window opening. It is, however, unlikely that framed structures will be so stressed as to suffer serious damage without first exhibiting some or all of the above symptoms for a considerable period. The same warning period should apply in the case of upheaval. It should be noted, however, that where framed buildings are supported by strip footings there is only one leaf of brickwork and therefore the externally visible walls are the supporting structure for the building. In this case, the subfloor masonry walls can be expected to behave as full brickwork walls.

Effects on brick veneer structures
Because the load-bearing structure of a brick veneer building is the frame that makes up the interior leaf of the external walls plus perhaps the internal walls, depending on the type of roof, the building can be expected to behave as a framed structure, except that the external masonry will behave in a similar way to the external leaf of a full masonry structure.

Water Service and Drainage

Where a water service pipe, a sewer or stormwater drainage pipe is in the vicinity of a building, a water leak can cause erosion, swelling or saturation of susceptible soil. Even a minuscule leak can be enough to saturate a clay foundation. A leaking tap near a building can have the same effect. In addition, trenches containing pipes can become watercourses even though backfilled, particularly where broken rubble is used as fill. Water that runs along these trenches can be responsible for serious erosion, interstrata seepage into subfloor areas and saturation.

Pipe leakage and trench water flows also encourage tree and shrub roots to the source of water, complicating and exacerbating the problem.
Poor roof plumbing can result in large volumes of rainwater being concentrated in a small area of soil:

- Incorrect falls in roof guttering may result in overflows, as may gutters blocked with leaves etc.
- Corroded guttering or downpipes can spill water to ground.
- Downpipes not positively connected to a proper stormwater collection system will direct a concentration of water to soil that is directly adjacent to footings, sometimes causing large-scale problems such as erosion, saturation and migration of water under the building.

Seriousness of Cracking

In general, most cracking found in masonry walls is a cosmetic nuisance only and can be kept in repair or even ignored. The table below is a reproduction of Table C1 of AS 2870.

AS 2870 also publishes figures relating to cracking in concrete floors, however because wall cracking will usually reach the critical point significantly earlier than cracking in slabs, this table is not reproduced here.

Prevention/ Cure

Plumbing
Where building movement is caused by water service, roof plumbing, sewer or stormwater failure, the remedy is to repair the problem. It is prudent, however, to consider also rerouting pipes away from the building where possible, and relocating taps to positions where any leakage will not direct water to the building vicinity. Even where gully traps are present, there is sometimes sufficient spill to create erosion or saturation, particularly in modern installations using smaller diameter PVC fixtures. Indeed, some gully traps are not situated directly under the taps that are installed to charge them, with the result that water from the tap may enter the backfilled trench that houses the sewer piping. If the trench has been poorly backfilled, the water will either pond or flow along the bottom of the trench. As these trenches usually run alongside the footings and can be at a similar depth, it is not hard to see how any water that is thus directed into a trench can easily affect the foundation's ability to support footings or even gain entry to the subfloor area.

Ground drainage
In all soils there is the capacity for water to travel on the surface and below it. Surface water flows can be established by inspection during and after heavy or prolonged rain. If necessary, a grated drain system connected to the stormwater collection system is usually an easy solution.

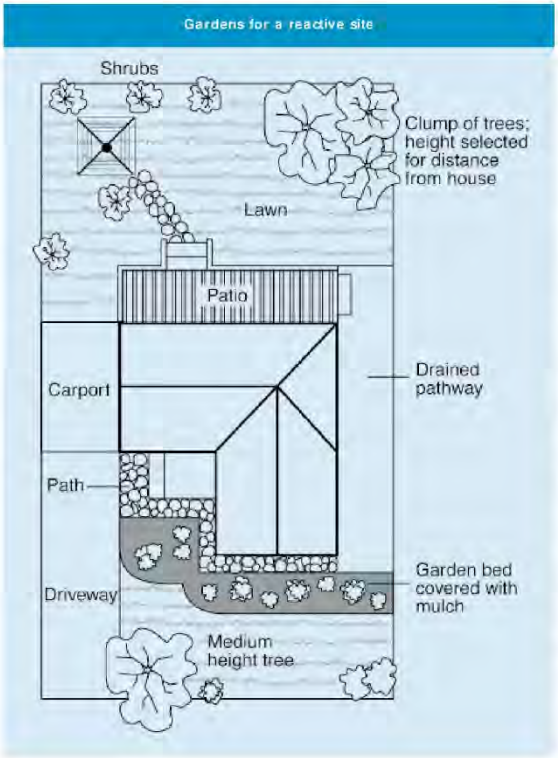
It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject is referred to in BTF 19 and may properly be regarded as an area for an expert consultant.

Protection of the building perimeter
It is essential to remember that the soil that affects footings extends well beyond the actual building line. Watering of garden plants, shrubs and trees causes some of the most serious water problems.

For this reason, particularly where problems exist or are likely to occur, it is recommended that an apron of paving be installed around as much of the building perimeter as necessary. This paving

CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS

Description of typical damage and required repair	Approximate crack width limit (see Note 3)	Damage category
Hairline cracks	<0.1 mm	0
Fine cracks which do not need repair	<1 mm	1
Cracks noticeable but easily filled. Doors and windows stick slightly	<5 mm	2
Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weathertightness often impaired	5–15 mm (or a number of cracks 3 mm or more in one group)	3
Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted	15–25 mm but also depend on number of cracks	4



should extend outwards a minimum of 900 mm (more in highly reactive soil) and should have a minimum fall away from the building of 1:60. The finished paving should be no less than 100 mm below brick vent bases.

It is prudent to relocate drainage pipes away from this paving, if possible, to avoid complications from future leakage. If this is not practical, earthenware pipes should be replaced by PVC and backfilling should be of the same soil type as the surrounding soil and compacted to the same density.

Except in areas where freezing of water is an issue, it is wise to remove taps in the building area and relocate them well away from the building – preferably not uphill from it (see BTF 19).

It may be desirable to install a grated drain at the outside edge of the paving on the uphill side of the building. If subsoil drainage is needed this can be installed under the surface drain.

Condensation
In buildings with a subfloor void such as where bearers and joists support flooring, insufficient ventilation creates ideal conditions for condensation, particularly where there is little clearance between the floor and the ground. Condensation adds to the moisture already present in the subfloor and significantly slows the process of drying out. Installation of an adequate subfloor ventilation system, either natural or mechanical, is desirable.

Warning: Although this Building Technology File deals with cracking in buildings, it should be said that subfloor moisture can result in the development of other problems, notably:

- Water that is transmitted into masonry, metal or timber building elements causes damage and/or decay to those elements.
- High subfloor humidity and moisture content create an ideal environment for various pests, including termites and spiders.
- Where high moisture levels are transmitted to the flooring and walls, an increase in the dust mite count can ensue within the living areas. Dust mites, as well as dampness in general, can be a health hazard to inhabitants, particularly those who are abnormally susceptible to respiratory ailments.

The garden
The ideal vegetation layout is to have lawn or plants that require only light watering immediately adjacent to the drainage or paving edge, then more demanding plants, shrubs and trees spread out in that order.

Overwatering due to misuse of automatic watering systems is a common cause of saturation and water migration under footings. If it is necessary to use these systems, it is important to remove garden beds to a completely safe distance from buildings.

Existing trees
Where a tree is causing a problem of soil drying or there is the existence or threat of upheaval of footings, if the offending roots are subsidiary and their removal will not significantly damage the tree, they should be severed and a concrete or metal barrier placed vertically in the soil to prevent future root growth in the direction of the building. If it is not possible to remove the relevant roots without damage to the tree, an application to remove the tree should be made to the local authority. A prudent plan is to transplant likely offenders before they become a problem.

Information on trees, plants and shrubs
State departments overseeing agriculture can give information regarding root patterns, volume of water needed and safe distance from buildings of most species. Botanic gardens are also sources of information. For information on plant roots and drains, see Building Technology File 17.

Excavation
Excavation around footings must be properly engineered. Soil supporting footings can only be safely excavated at an angle that allows the soil under the footing to remain stable. This angle is called the angle of repose (or friction) and varies significantly between soil types and conditions. Removal of soil within the angle of repose will cause subsidence.

Remediation

Where erosion has occurred that has washed away soil adjacent to footings, soil of the same classification should be introduced and compacted to the same density. Where footings have been undermined, augmentation or other specialist work may be required. Remediation of footings and foundations is generally the realm of a specialist consultant.

Where isolated footings rise and fall because of swell/shrink effect, the homeowner may be tempted to alleviate floor bounce by filling the gap that has appeared between the bearer and the pier with blocking. The danger here is that when the next swell segment of the cycle occurs, the extra blocking will push the floor up into an accentuated dome and may also cause local shear failure in the soil. If it is necessary to use blocking, it should be by a pair of fine wedges and monitoring should be carried out fortnightly.

This BTF was prepared by John Lewer FAIB, MIAMA, Partner, Construction Diagnosis.

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CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form 55

To: Sheds n Homes *Owner /Agent*

57 Cove Hill Rd *Address*

Bridgewater 7030 *Suburb/postcode*

Qualified person details:

Qualified person: Kris Taylor

Address: 162 Macquarie Street

Hobart 7000

Phone No: 036224 9197

Fax No:

Licence No: NA

Email address: office@envirotechtas.com.au

Qualifications and Insurance details: Bachelor of Science with Honours in Geology. Lloyd's Underwriting $2,000,000: Site classification. Soil & rock testing. Soil & rock mechanics.

(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items

Speciality area of expertise: Foundation classification in accordance with AS 2870*

(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work: Foundation Classification

Address: 283 Phipps Road

Runnymede 7190

Lot No: 1

Certificate of title No: 141076/1

The assessable item related to this certificate: Classification of foundation Conditions according to AS2870-2011*

(description of the assessable item being certified)
Assessable item includes –
- *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:

Certificate type: Foundation classification - AS 2870 and Stability Report in accordance with Foundation and Footings Society (Tasmania) Code of Practice.*

(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable items, at any stage, as part of – *(tick one)*

- (•) building work, plumbing work or plumbing installation or demolition work

OR

- ( ) a building, temporary structure or plumbing installation

In issuing this certificate the following matters are relevant –

Documents:	*Enviro-Tech Consultants Pty. Ltd. 2024. Site Soil Evaluation for Foundations and Wastewater Report for a Proposed Dwelling, 283 Phipps Road - Runnymede. Unpublished report for Sheds n Homes by Enviro-Tech Consultants Pty. Ltd., 12/11/2024.
Relevant calculations:	
References:	AS2870-2011 Residential Slabs and Footings AS1726-2017 Geotechnical site investigations AS1289-2014 Methods of testing soils for engineering purposes CSIRO Building technology file – 18.

Substance of Certificate: (what it is that is being certified)

Foundation classification consistent with AS2870-2011.

Scope and/or Limitations

The classification applies to the Site as inspected and does not account for future alteration to foundation conditions as a result of earth works, placement of fill, uncontrolled earthworks, drainage condition changes, variations in site maintenance other than indicated in supplied plans.

*This report contains soil classification information prepared in accordance with AS2870 as well as AS2870 extracts which may be used as general guidance for plumbing design. The hydraulic designer is to use their own judgment in the application of this information and this report must be read in in conjunction with hydraulic plans prepared for the proposed development.

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:			12/11/2024

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form 55

To: Sheds n Homes *Owner /Agent*
57 Cove Hill Rd *Address*
Bridgewater 7030 *Suburb/postcod*

Qualified person details:

Qualified person: Kris Taylor
Address: 162 Macquarie Street
Hobart 7000
Phone No: 036224 9197
Fax No:
Licence No: NA
Email address: office@envirotechtas.com.au

Qualifications and Insurance details: Bachelor of Science with honours in geology, 25 years environmental geology experience, PI Insurance to $2,000,000 in environmental geology

(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items

Speciality area of expertise: Site and soil evaluation and land application system design*

(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work

Address: 283 Phipps Road
Lot No: 1
Runnymede 7190
Certificate of title No: 141076/1

The assessable item related to this certificate: Site and soil evaluation for wastewater management

(description of the assessable item being certified)
Assessable item includes –
- *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:

Certificate type: On-site wastewater management

(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable items, at any stage, as part of – *(tick one)*

(•) building work, plumbing work or plumbing installation or demolition work

OR

( ) a building, temporary structure or plumbing installation

In issuing this certificate the following matters are relevant –

Documents:

Enviro-Tech Consultants Pty. Ltd. 2024. Site Soil Evaluation for Foundations and Wastewater Report for a Proposed Dwelling, 283 Phipps Road - Runnymede. Unpublished report for Sheds n Homes by Enviro-Tech Consultants Pty. Ltd., 12/11/2024.

Site 'On-site wastewater design report' (CKEMP Design)

References:

Substance of Certificate: *(what it is that is being certified)*

- An assessment of Site and soil conditions for on-site wastewater management and design

Scope and/or Limitations

*Site and soil evaluation by Enviro-Tech Consultants Pty. Ltd.
Land application system design is assessed in a separate 'On-site wastewater report' by a licensed building service designer:
- Chris Fysh Licensed Building Services Designer - Civil / Hydraulic (License No: 479819732)

I certify the matters described in this certificate.

Qualified person:

Signed: 

Certificate No:

Date: 12/11/2024

DEVELOPMENT APPLICATION - PROPOSED NEW DWELLING (CLASS 1)

CLIENT	Zac Hucker
PROPERTY TITLE REFERENCE	141076/1
PROPERTY IDENTIFICATION NUMBER	2302184
PROPERTY ADDRESS	283 Phipps Road, Runnymede 7190
LOCAL AUTHORITY	SOUTHERN MIDLANDS COUNCIL
PLANNING SCHEME	STATE PLANNING PROVISIONS
ZONE	AGRICULTURE
OVERLAYS	Low landslip hazard band, Medium landslip hazard band, Waterway and coastal protection area, Bushfire-prone areas
BUSHFIRE ATTACK LEVEL (BAL)	29
CORROSION ENVIRONMENT	MILD
SOIL CLASSIFICATION	S CLASS
WIND CLASSIFICATION	N3
PROPERTY LOT SIZE	840000m2/
EXISTING BUILDING FOOTPRINT/S	NIL
PROPOSED DWELLING FOOTPRINT	180m2/

CONTENTS

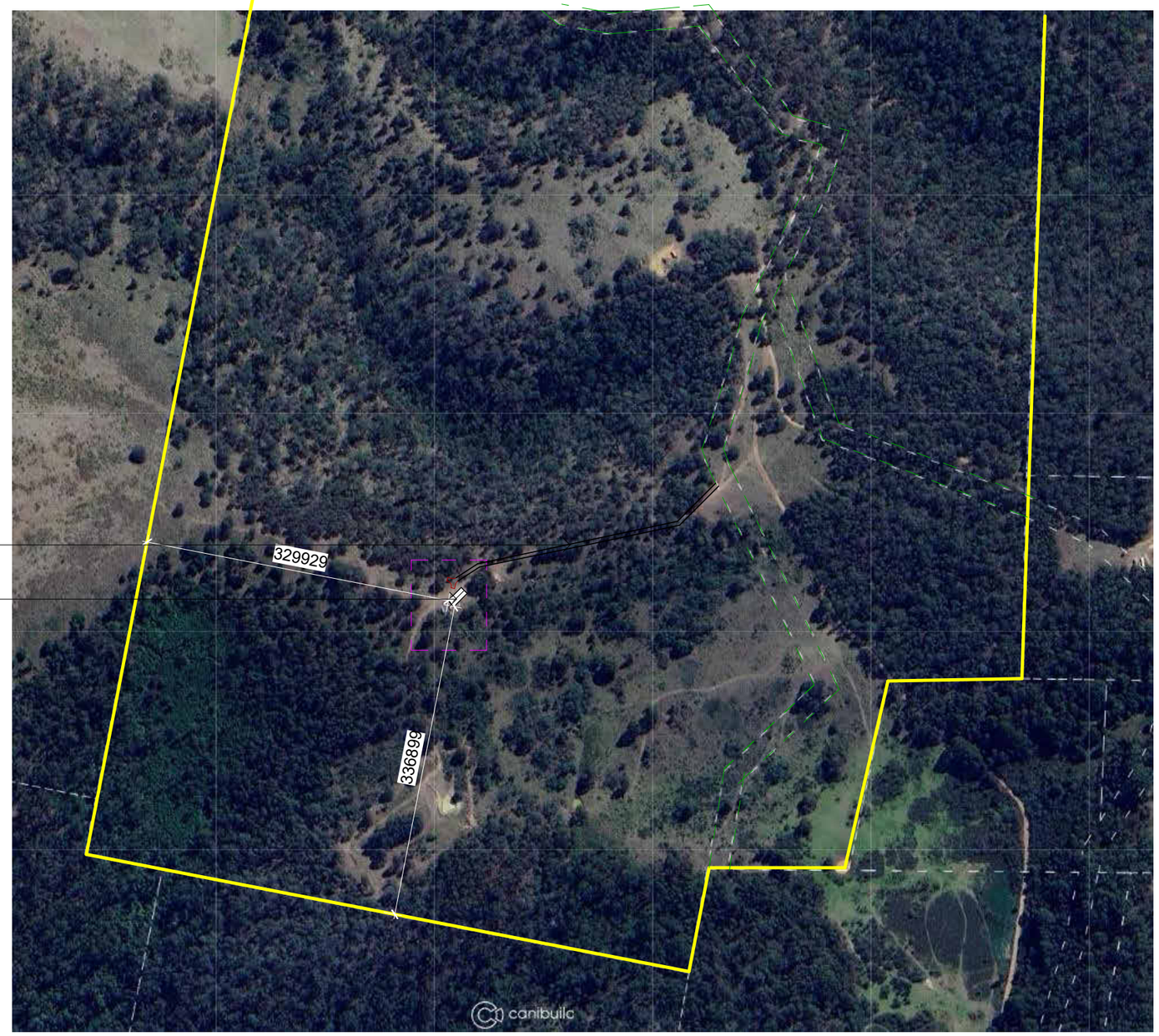
DIMENSION NOTE:
Use written diemtnions only. Do no scale from drawings. All figured dimensions are to be used as a guide only. It is imperative that all dimensions, setouts and levels be confirmed onsite by the builder, Surveyor or Sub Contractor prior to the commencement of work, manufacture or installaion; and the Builder, Sub Contractor and/or manufacturer ensures a full set of plans are on hand and reference has been made to the general notes

SHEDS n HOMES
SHEDS MADE TOUGH

57 Cove Hill Road
Bridgewater TAS 7030
(03) 6263 6545
hobart@shedsnhomes.com.au

BLST Pty Ltd
ABN 52 660 422 159

CLIENT NAME: Zac Hucker			DRAWING TITLE: COVER SHEET		
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE:		DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060		DRG. No: C1.0



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DRAWING NOTE:

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(03) 6263 6545
hobart@shedsnhomes.com.au

BLST Pty Ltd
ABN 52 660 422 159

CLIENT NAME: Zac Hucker		DRAWING TITLE: SITE PLAN		
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE: 1 : 5000	DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C2.0

PROPERTY ACCESS

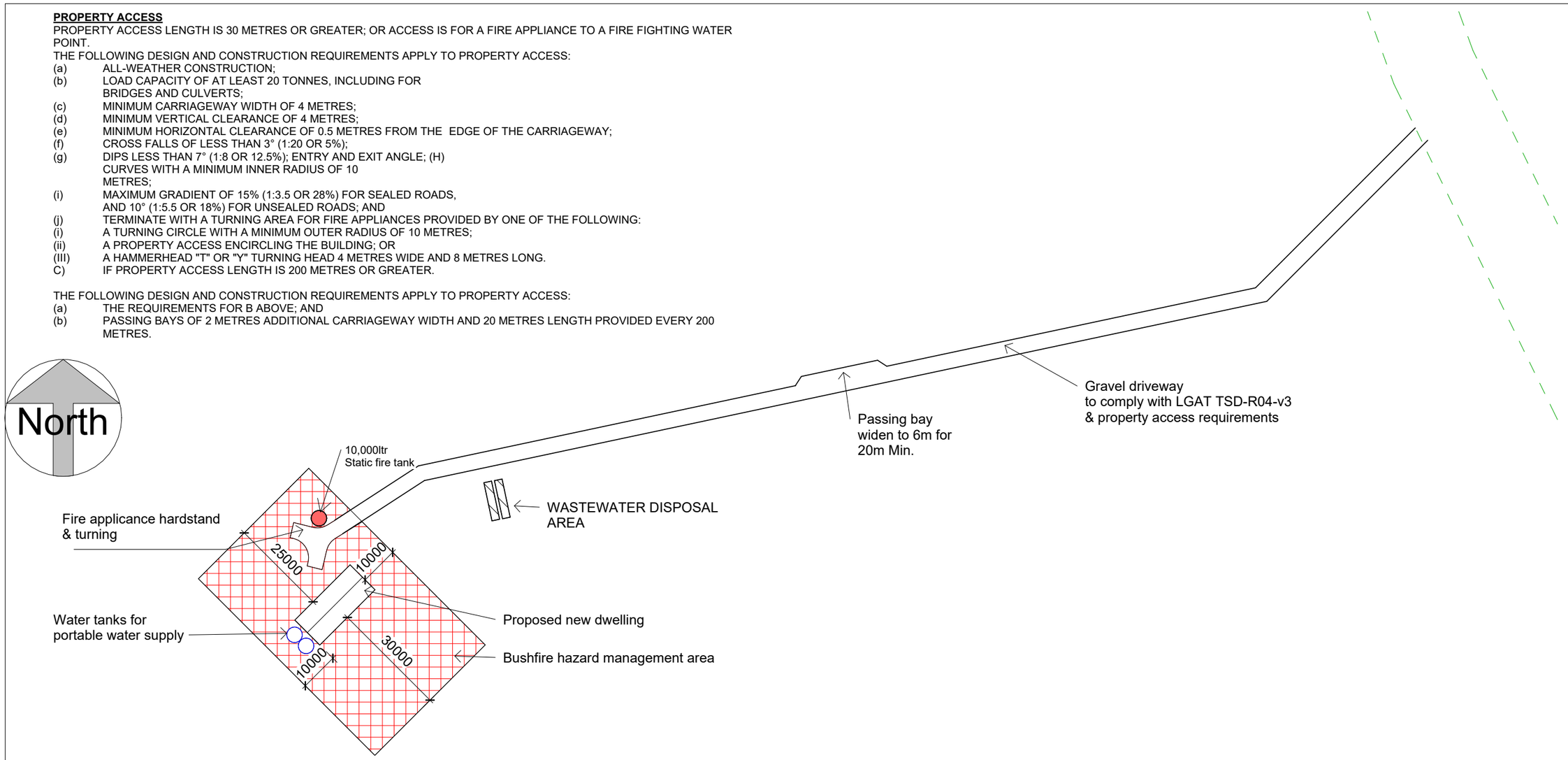
PROPERTY ACCESS LENGTH IS 30 METRES OR GREATER; OR ACCESS IS FOR A FIRE APPLIANCE TO A FIRE FIGHTING WATER POINT.

THE FOLLOWING DESIGN AND CONSTRUCTION REQUIREMENTS APPLY TO PROPERTY ACCESS:

(a) ALL-WEATHER CONSTRUCTION;
(b) LOAD CAPACITY OF AT LEAST 20 TONNES, INCLUDING FOR BRIDGES AND CULVERTS;
(c) MINIMUM CARRIAGEWAY WIDTH OF 4 METRES;
(d) MINIMUM VERTICAL CLEARANCE OF 4 METRES;
(e) MINIMUM HORIZONTAL CLEARANCE OF 0.5 METRES FROM THE EDGE OF THE CARRIAGEWAY;
(f) CROSS FALLS OF LESS THAN 3° (1:20 OR 5%);
(g) DIPS LESS THAN 7° (1:8 OR 12.5%); ENTRY AND EXIT ANGLE; (H) CURVES WITH A MINIMUM INNER RADIUS OF 10 METRES;
(i) MAXIMUM GRADIENT OF 15% (1:3.5 OR 28%) FOR SEALED ROADS, AND 10° (1:5.5 OR 18%) FOR UNSEALED ROADS; AND
(j) TERMINATE WITH A TURNING AREA FOR FIRE APPLIANCES PROVIDED BY ONE OF THE FOLLOWING:
(i) A TURNING CIRCLE WITH A MINIMUM OUTER RADIUS OF 10 METRES;
(ii) A PROPERTY ACCESS ENCIRCLING THE BUILDING; OR
(III) A HAMMERHEAD "T" OR "Y" TURNING HEAD 4 METRES WIDE AND 8 METRES LONG.
C) IF PROPERTY ACCESS LENGTH IS 200 METRES OR GREATER.

THE FOLLOWING DESIGN AND CONSTRUCTION REQUIREMENTS APPLY TO PROPERTY ACCESS:

(a) THE REQUIREMENTS FOR B ABOVE; AND
(b) PASSING BAYS OF 2 METRES ADDITIONAL CARRIAGEWAY WIDTH AND 20 METRES LENGTH PROVIDED EVERY 200 METRES.



DIMENSION NOTE:
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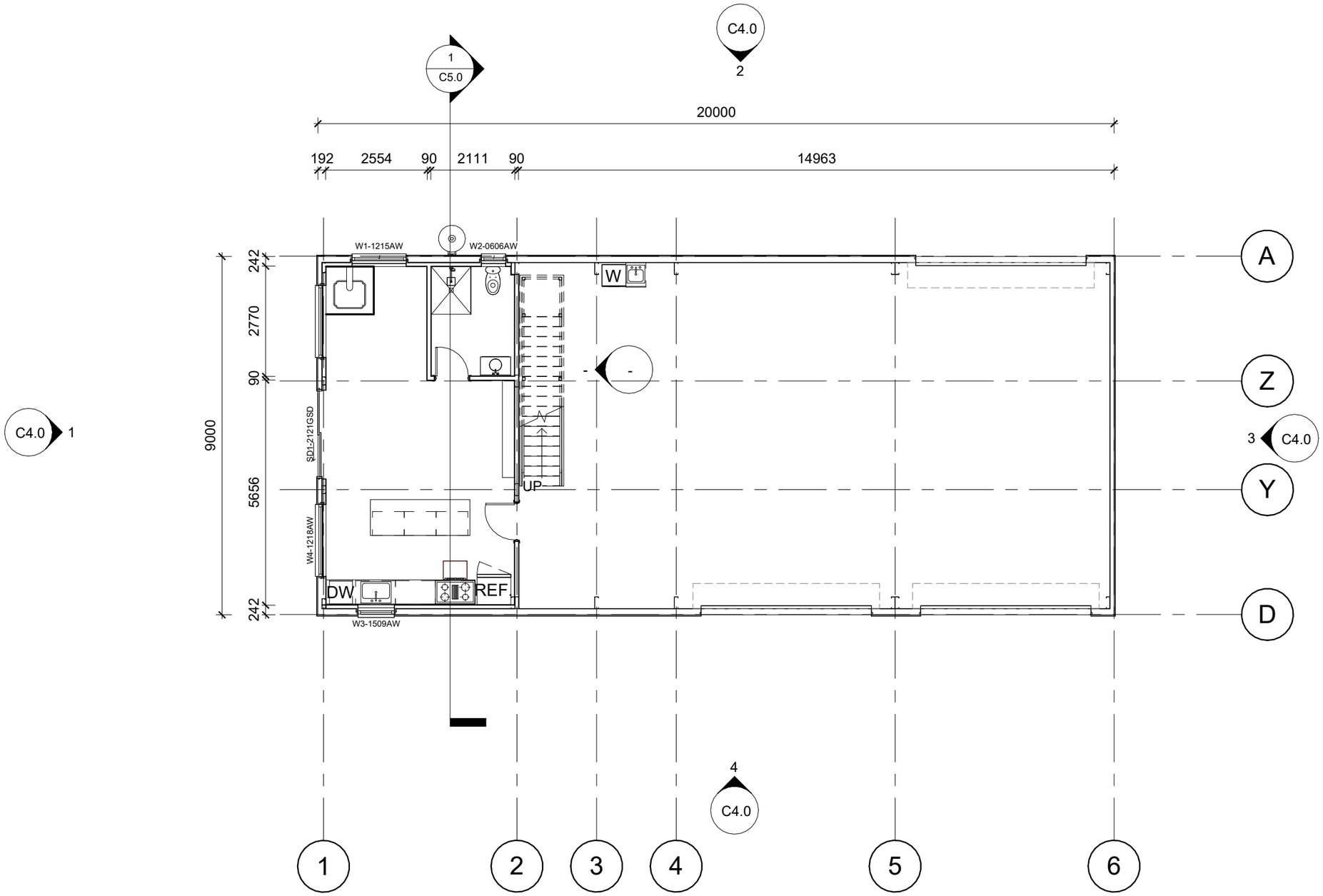
Bridgewater TAS 7030
(03) 6263 6545
hobart@shedsnhomes.com.au

BLST Pty Ltd
ABN 52 660 422 159

CLIENT NAME: Zac Hucker			DRAWING TITLE: SITE PLAN	
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE: 1 : 1000	DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C2.1



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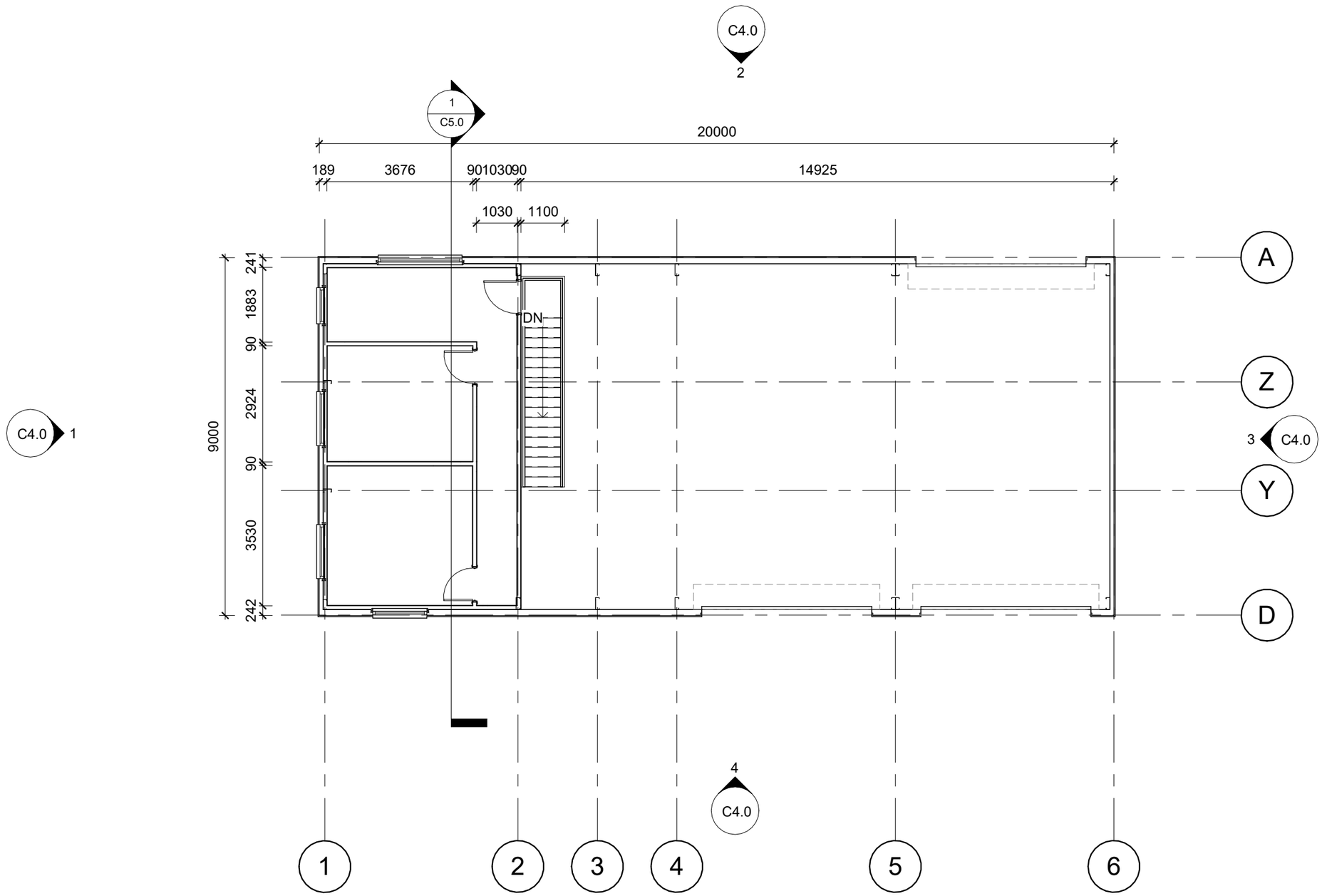
hobart@shedsnhomes.com.au

BLST Pty Ltd
ABN 52 660 422 159

CLIENT NAME: Zac Hucker		DRAWING TITLE: Ground			
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE: 1 : 100		DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C3.0	



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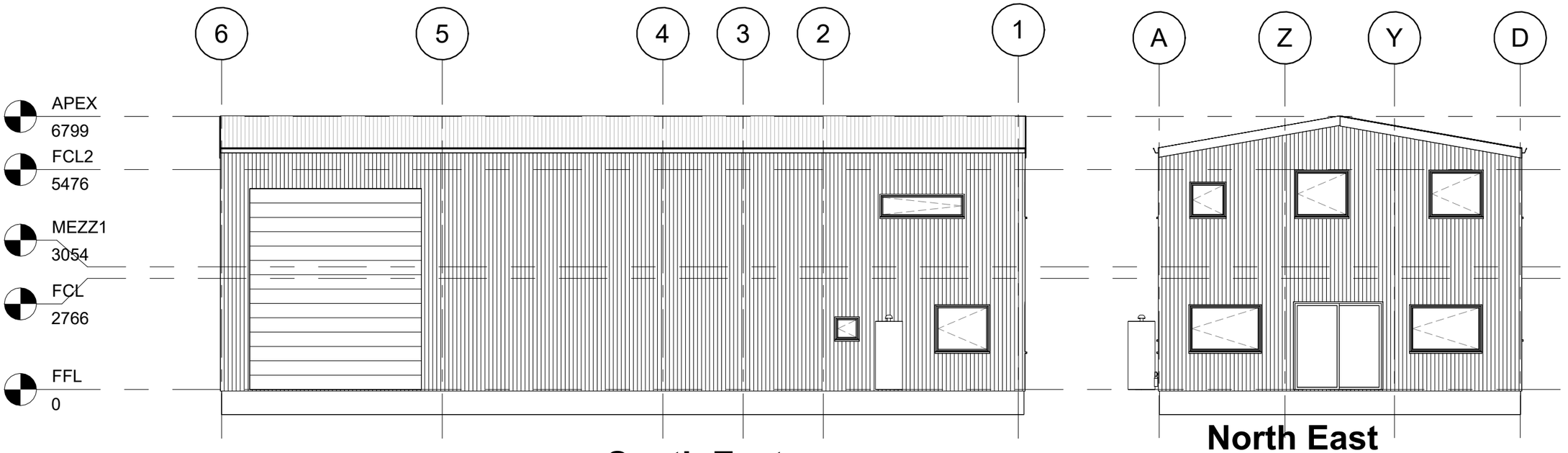
hobart@shedsnhomes.com.au

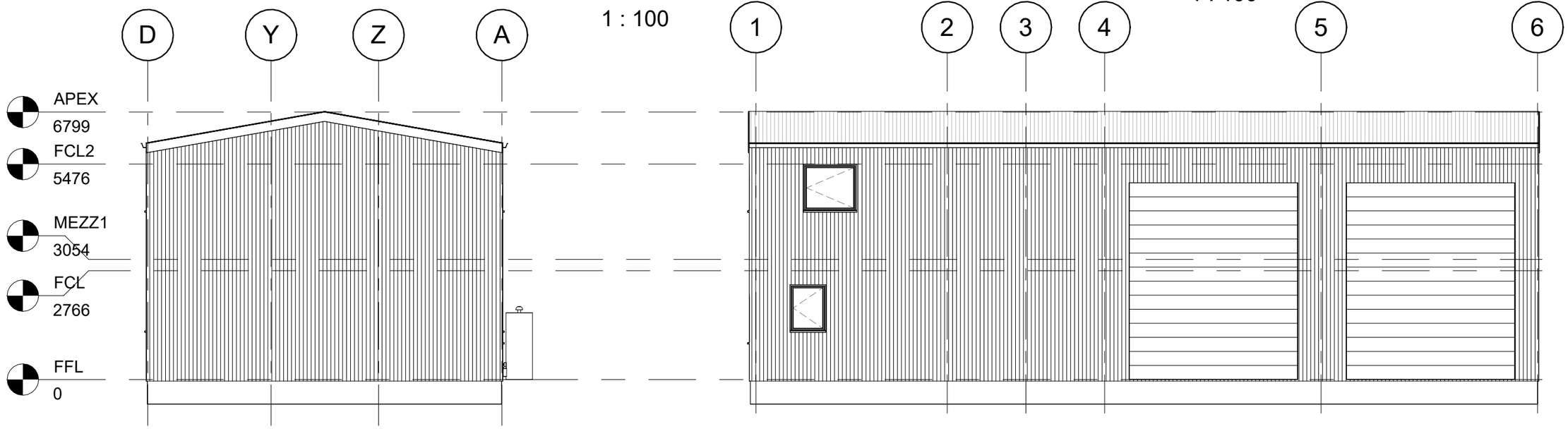
BLST Pty Ltd
ABN 52 660 422 159

CLIENT NAME: Zac Hucker		DRAWING TITLE: Level 1			
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190		DATE: 22/01/2025	SCALE: 1 : 100		DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C3.1	



South East
1 : 100

North East
1 : 100



South West
1 : 100

North West
1 : 100

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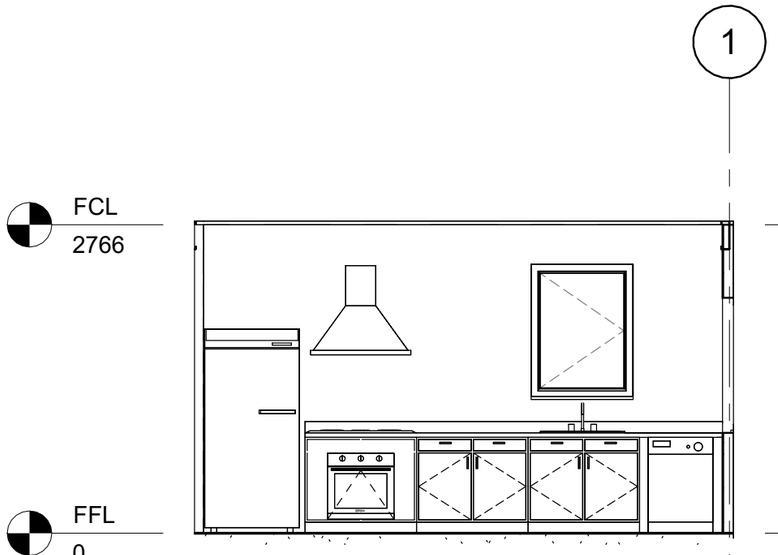
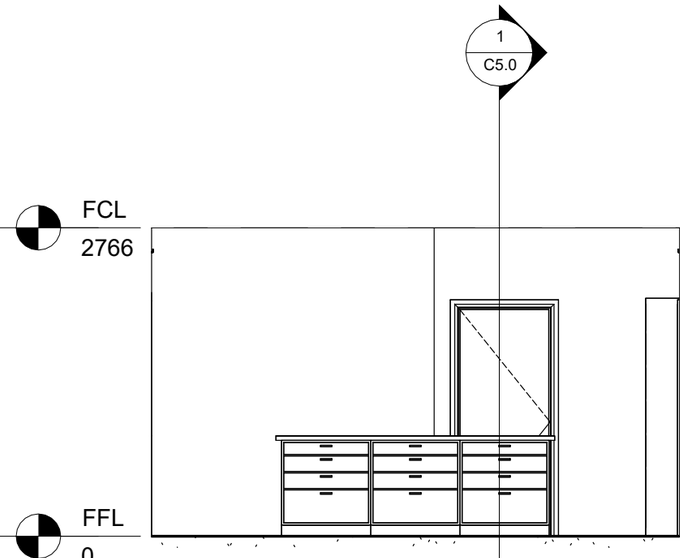
hobart@shedsnhomes.com.au

BLST Pty Ltd
ABN 52 660 422 159

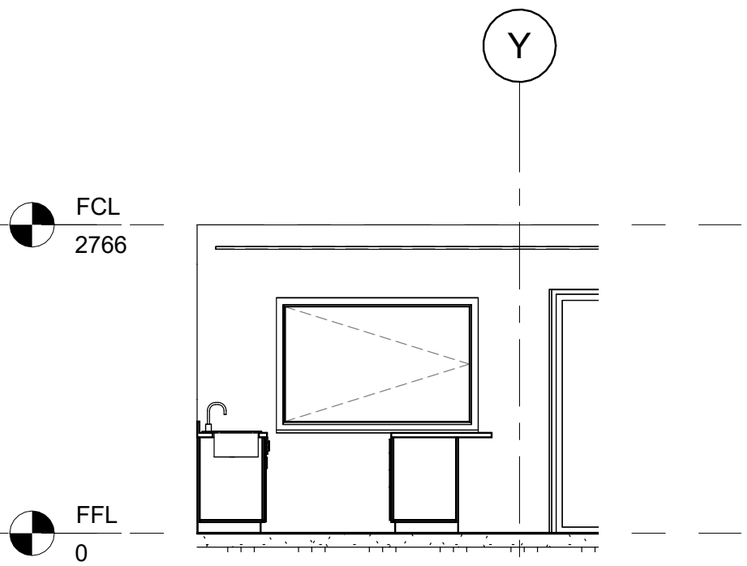
CLIENT NAME: Zac Hucker	DRAWING TITLE: ELEVATIONS			
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190	DATE: 22/01/2025	SCALE: 1 : 100		DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C4.0



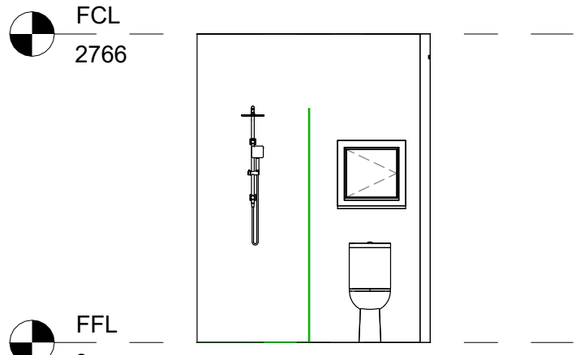
1 Kitchen - A
1 : 50



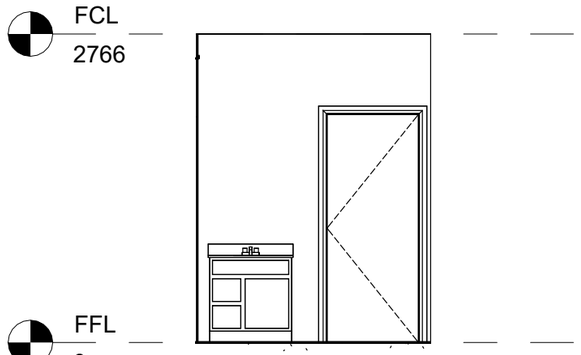
2 Kitchen - B
1 : 50



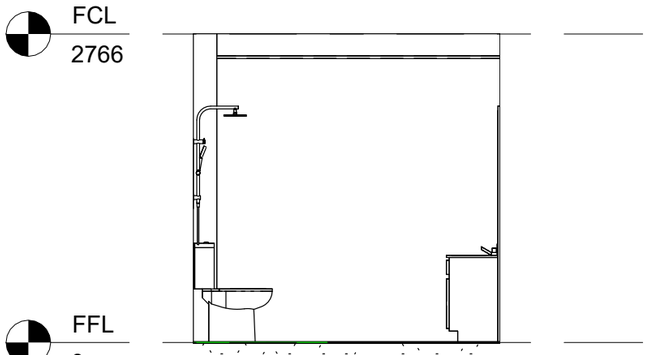
6 Kitchen - C
1 : 50



5 Bathroom - B
1 : 50



4 Bathroom - C
1 : 50



3 Bathroom - A
1 : 50

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DRAWING NOTE:

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ABN 52 660 422 159

CLIENT NAME: Zac Hucker		DRAWING TITLE: ELEVATIONS		
PROJECT ADDRESS: 283 Phipps Road, Runnymede TAS 7190	DATE: 22/01/2025	SCALE: 1 : 50		DRAWN BY: BH
PROJECT: NEW DWELLING	REVISION No:	SHEET SIZE: A3	JOB No: SNH24-060	SHEET No: C4.1

OWNER

FOLIO REFERENCE F/R 116893-2

GRANTEE

PLAN OF TITLE

LOCATION

PEMBROKE - KILLINGFORD

FIRST SURVEY PLAN No. 7/14, 18/20 & 42/16LO

COMPILED BY LDRB

SCALE 1: 10,000 LENGTHS IN METRES

Registered Number

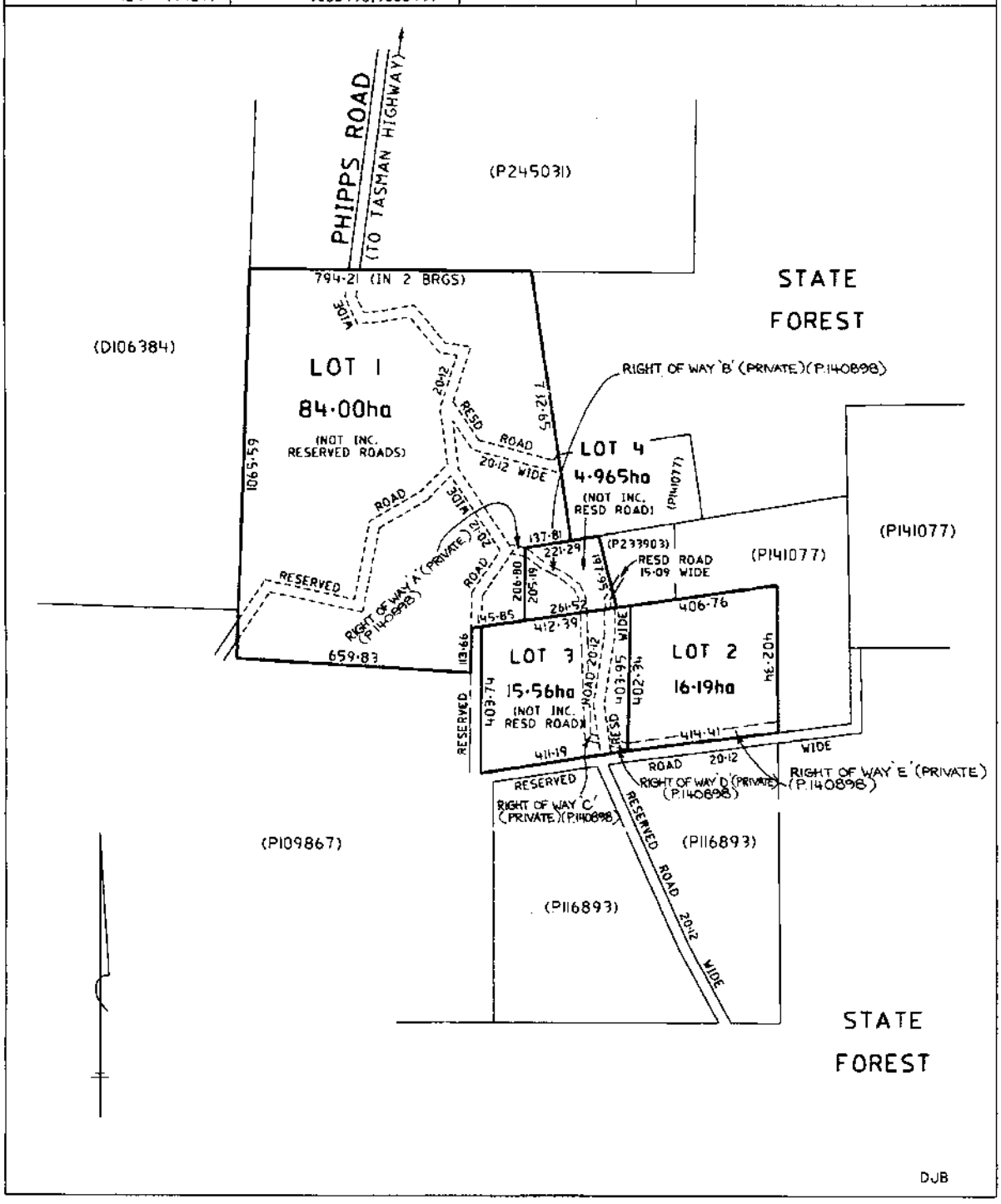
P.141076

APPROVED 12 MAY 2004

Alice Kava

Recorder of Titles

MAPSHEET MUNICIPAL CODE No.	LAST UPI No	LAST PLAN No.	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN
125 (5427)	2900682,2900683 3000438,3000439	P116893	



RESULT OF SEARCH

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

SEARCH OF TORRENS TITLE

VOLUME	FOLIO
141076	1
EDITION	DATE OF ISSUE
6	09-Dec-2021

SEARCH DATE : 09-Nov-2024
SEARCH TIME : 08.55 PM

DESCRIPTION OF LAND

Parish of KILLINGFORD Land District of PEMBROKE
Lot 1 on Plan 141076
Derivation : Whole of Lot 18285 Gtd. to G.P. Phipps.
Prior CT 116893/2

SCHEDULE 1

M928617 TRANSFER to ZACHARY LIKTUAN HUCKER and KIMBERLEY MARGARET MARTYN as tenants in common in equal shares Registered 09-Dec-2021 at noon

SCHEDULE 2

Reservations and conditions in the Crown Grant if any

C556983 BURDENING EASEMENT: Right of Carriageway (appurtenant to Lot 3 on P.141076) over Right of Way 'A' shown passing through the said land within described

C569100 BURDENING EASEMENT: Right of Carriageway (appurtenant to Lot 2 on P.141076) over Right of Way 'A' shown passing through the said land within described

C628609 BURDENING EASEMENT: A Right of Carriageway (appurtenant to Lot 4 on P.141076) over Right of Way `A' shown passing through the said land within described

C667797 BURDENING EASEMENT: A Right of Carriageway (appurtenant to Lot 2 on P.141077) over Right of Way 'A' shown on passing through the said land within described

D118809 BURDENING EASEMENT: a right of carriageway (appurtenant to Lot 1 on Plan 141077) over the Right of Way 'A' on Plan 141076 Registered 02-Jun-2014 at 12.01 PM

E284337 MORTGAGE to National Australia Bank Limited Registered 09-Dec-2021 at 12.01 PM

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations