



Plan is created for the purpose of planning approval. Site shown are indicative location of log storage and loading areas. No buildings are proposed.

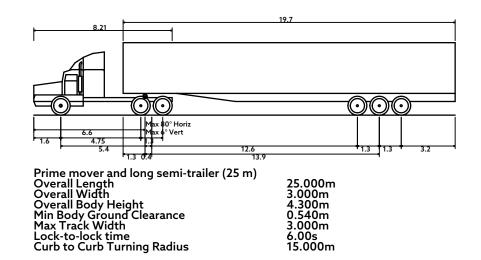
3/23 Brisbane Street,	SCALE	PAPER
Launceston, Tasmania, 7250 PHONE: +61 03 6331 4099	1:1500	(A3)
FAX: +61 03 6334 3098 EMAIL: pda.ltn@pda.com.au	JOB NUMBER	DRAWING
www.pda.com.au Also at: Hobart, Burnie, Devonport & Kingston	48837 -	P02



Turning path from Road to Right of Way to Wiely Park Road

Road





NOTES: **TURNING PATH PLAN** N/A N/A 73 GREENBANKS ROAD, HECKED AB JD FR 153305/1 А Paul Eggins 12 April 2022 REV AMENDMENTS DRAWN DATE APPR





Our Ref: 48837

127 Bathurst Street Hobart, Tasmania 7000 Phone (03) 6234 3217 ABN 71 217 806 325 pda.hbt@pda.com.au www.pda.com.au

7th March 2022

Brighton Council 1 Tivoli Road OLD BEACH TAS 7017

admin@brighton.tas.gov.au

Dear Planning Department,

RE: Planning Compliance EN 2021/00015 Storage - Woodyard/contractors Depot 73 Greenbanks Road, Bridgewater

41

We write on behalf of our client Mr Paul Eggins in response to the above-mentioned planning compliance letter dated 6th December 2021.

We would like to make an application for storage – Woodyard/contractors Depot at 73 Greenbanks Road, Bridgewater.

In response to the points in the planning compliance letter;

- 1. There is no current activity on number 23 Weily Park Road as the business has been moved and the motor vehicles are no longer stored on-site. Included is a letter from the owner of number 73 Greenbanks Road.
- 2. Please find attached development application form
- 3. Attached Certificate of Title
- 4. Site plan
- 5. There are no proposed structures on the site
- 6. There are no proposed fences
- 7. The proposed hours of operation are 7 am to 6 pm, seven days per week. This is fitting with the surrounding industrial businesses.

HOBART:

C.M. Terry, BSurv (Tas.), M.SSSI (Director) H. Clement, BSurv (Tas.), M.SSSI (Director) M.S.G. Denholm, BGeom (Tas.), M.SSSI (Director) T.W. Walter, Dip. Surv & Map (Director) M. Westerberg, M.E.M., M.I.E. AUST., C.P.ENG. (Director) D. Panton, B.E. F.I.E. AUST., C.P.ENG. (Consultant) A. Collins, Ad. Dip. Surv & Map, (Senior Associate) L.H. Kiely, Ad. Dip. Civil Eng, Cert IV I.T., (Associate)

KINGSTON:

A.P. (Lex) McIndoe, BSurv (Tas.), M.SSSI (Director) M.M. Stratton, BSurvSpSc, GradDipLandSurv (Tas.) (Associate)

LAUNCESTON:

J.W. Dent, OAM, B. Surv (Tas.), M.SSSI (Director) M.B. Reid, BGeom (Hons) (Tas.), M.SSSI (Director) J.M. Brooks, MEnvPlg, M.PIA (Director)

BURNIE/DEVONPORT:

A.W. Eberhardt, BGeom (Tas.), M.SSSI (Director) A.J. Hudson, B. SURV. (Tas.), M.SSSI. (Consultant)

OFFICES ALSO AT:

- 6 Freeman St, Kingston, TAS 7050 (03) 6229 2131
- 10/16 Main Rd, Huonville, TAS 7109 (03) 6264 1277
- 3 Franklin St, Swansea, TAS 7190 (03) 6130 9099
- 3/23 Brisbane St, Launceston, TAS 7250 (03) 6331 4099
- 16 Emu Bay Rd, Deloraine, TAS 7304 (03) 6362 2993
- 6 Queen Street, Burnie, TAS 7320 (03) 6431 4400
- 77 Gunn St, Devonport, TAS 7310 (03) 6423 6875

- 8. There is no external lighting proposed
- 9. 73 Greenbanks Road, Brighton is in the General Industrial Zone and a Woodyard/Contractors yard is a permitted use. Please find attached planning assessment.
- 10. There are existing shrubs that will screen the logs
- 11. There are no advertising signs etc proposed

To support this application, the following is submitted:

An email from TasNetworks stating that the use is not likely to adversely affect TasNetworks' operations.

Please forward an invoice for the application fee, made out to Mr Paul Eggins C/O <u>tracey.baillie@pda.com.au</u> as soon as possible to ensure prompt payment. I will provide a copy to our client along with the notification of lodgement in accordance with Section 52 (1) (c) of LUPAA.

If you have any queries about this application, please contact this office directly.

Yours faithfully,

J. Baillie

Tracey Baillie Planning Assistant **PDA Surveyors, Engineers & Planners**

Planning Assessment Report

Proposal:	Log storage yard
Address:	73 Greenbanks Road, Bridgewater
Owners:	Paul Barrett – Clarence Construction
Title:	C/T 153305/1 (PID 2843300)

The Land

The subject land is located at 73 Greenbanks Road, Bridgewater. It is a vacant piece of land which is 2.035ha in area without any significant vegetation.

The surrounding land is mostly zoned General Industrial except for Utilities for the substation at number 23 Weily Park Road and Recreation at 25 Weily Park Road. There is also some Rural Living behind surrounding the substation.



Figure 1: Aerial view of 73 Greenbanks Road, Bridgewater

The Proposal

The application is for retrospective approval of log storage in response to Brighton Council's planning compliance letter issued on 6th December 2021. Log storage is classified as a woodyard/contractors yard. The unregistered/wrecked motor vehicles which is classified as recycling and waste disposal, that was mentioned on the enforcement notice, have now been removed from 23 Weily Park Road. The applicant was using land at 21 and 23 Weily Park Road but has now relocated the business to 73 Greenbanks Road. The owner of 73 Greenbanks Road has consented for use of the top corner of the property, an area of around 30 metres to be used for this business. The business consists of the storage and selling of logs with no processing on site.

An excavator is used to unload and reload the logs and is stored at their private residence at number 21 Weily Park Road.

Planning Scheme

The land, zoned General Industrial, is subject to the provisions of the Tasmanian Planning Scheme - Brighton.

General Industrial Zone

For this type of development application, the relevant clause of the General Industrial Zone is 19.2 (Use Table)

19.2 Use Table

Woodyard/Contractors yard is classified as storage which is listed as a permitted use within the General Residential Zone.

19.4. Development standards for buildings and works

N/A as there are no works proposed

19.4.2 Setback

N/A as there are no proposed buildings on the site

19.4.3 Landscaping

The objective of this clause is that landscaping enhances the amenity and appearance of the streetscape where buildings are setback from the frontage.

If a building is set back from a road, landscaping treatment must be provided along the frontage of the site:

- (a) to a depth of not less than 6m; or
- (b) not less than the frontage of an existing building if it is a lesser distance.

The existing shrubbery will screen the logs from view.

CODES

C2.5.1 Carparking numbers

A1 is met as there is adequate room for carparking on site

C2.5.2 Bicycle parking numbers

A1 is met as there is adequate room for bicycles

C2.5.3 Motorcycle parking numbers

A1 is met as there is adequate room for motorcycles

C2.6.3 Number of accesses for vehicles

A1 is met

The truck will drive up the right-of-way which has access to the substation. It will turn in the top end of number 21 Weily Park Road and it will pull up on the side of the very top corner of 73 Greenbanks Road. They will then unload and reload.

C4 Electricity transmission infrastructure protection code - Substation facility buffer area

A use listed in Table C4.1 and located within a substation facility buffer area must not generate dust or other airborne particulates that will cause an unreasonable impact on the operation of a substation facility;

Ρ1

The business consists of the storage and selling of logs with no processing on site.

The operator has recently purchased a 10,000 litre water cart tank which will be used to eliminate any dust which may happen to generate - this has not been a problem previously.

He will, if need be, set up a water system for the right of way road to once again alleviate any dust problem that has not happened previously.

This right of way road to the substation has been maintained and the drains both built and maintained by Mr Eggins in the past and he will continue to do this.

TasNetworks have provided an email stating that the use is not likely to adversely affect TasNetworks' operations.

C9 Attenuation code – Bridgewater Quarry

A1 is met as the Bridgewater Quarry is over 1km away

BRI-S10.0 Specific Area plan – Brighton Industrial Hub Specific Area plan

A1 is met as the application is not for sensitive use

CONCLUSION

Given the above assessment, this report for retrospective approval of log storage has demonstrated compliance with the requirements of the Tasmanian Planning Scheme - Brighton and associated local Council policy.

We seek that the council support this application in its current form and grant a planning permit.

Yours faithfully

J. Baillie

Tracey Baillie Planning Assistant PDA Surveyors, Engineers and Planners



Our Ref: 48837JB Your Ref: DA2022/053 127 Bathurst Street Hobart, Tasmania 7320 Phone (03) 6234 3217

13/04/22

Brighton Council 1 Tivoli Road OLD BEACH TAS 7017

admin@brighton.tas.gov.au

Dear Planning Department,

RE: STORAGE – WOODYARD/CONTRACTORS DEPOT 73 GREENBANKS ROAD, BRIDGEWATER

Thank you for your letter dated 23rd March 2022. I write to provide the additional information you have requested on behalf of our clients, to finalize the assessment of the application.

Please see my response to each section of the information request provided below:

No.	Brighton Council	Planning Scheme Ordinance
	Information Request	
1.	Pleaseprovideanamended site plan showingallproposedparking,accessways,manouevring,andcirculation spaces	6.1 – Please find attached updated site plan
2.	Car parking numbers 2.1 Please indicate the site area in square metres for the proposed storage use	2.5.1 P1.1 The total area for the log storage area is 1440m ² .
	2.2 Please indicate the number of employees associated with the proposed storage use (if any).	There will only ever be two truck drivers on site at any given time.

HOBART:

C.M. Terry, BSurv (Tas.), M.SSSI (Director) H. Clement, BSurv (Tas.), M.SSSI (Director) M.S.G. Denholm, BGeom (Tas.), M.SSSI (Director) T.W. Walter, Dip. Surv & Map (Director) M. Westerberg, M.E.M., M.I.E. AUST., C.P.ENG. (Director) D. Panton, B.E. F.I.E. AUST., C.P.ENG. (Consultant) A. Collins, Ad. Dip. Surv & Map, (Senior Associate)

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OFFICES ALSO AT:

- 77 Gunn St, Devonport, TAS 7310 (03) 6423 6875
- 3/23 Brisbane St, Launceston, TAS 7250 (03) 6331 4099
- 16 Emu Bay Rd, Deloraine, TAS 7304 (03) 6362 2993
- 6 Queen St, Burnie, TAS 7000 (03) 6431 4400
- 6 Freeman St, Kingston, TAS 7050 (03) 6229 2131
- 10/16 Main Rd, Huonville, TAS 7109 (03) 6264 1277
- 3 Franklin St, Swansea, TAS 7190 (03) 6130 9099

47

The number of on-site car parking spaces for uses, excluding dwellings, must meet the reasonable needs of the use, having regard to (a) The availability of off-street public car parking spaces within reasonable walking distance of the site;
 (b) the ability of multiple users to share spaces because of; (i) variations in car parking demand over time; or (ii) efficiencies gained by consolidation of car parking spaces; (c) the availability and frequency of public transport within reasonable walking distance of the site; (d) the availability and frequency of other transport alternatives; (e) any site constraints such as existing buildings, slope, drainage, vegetation and landscaping; (f) the availability, accessibility and safety of on-street parking, having regard to the nature of the roads, traffic management and other uses in the vicinity; (g) the effect on streetscape; and (h) any assessment by a suitably qualified person of the actual car parking demand determined having regard to the scale and nature of the use and development.

Planners Response:

The client has advised; The proposed storage use is for log storage only. There will be no cars parked within the area. A truck will drive up, unload and another truck will come in and reload. No cars will be on site.

There is an existing solid gravel road that has been maintained to the highest standard. There are no storm water services and the logs will not generate water run-off.

Weily Park Road is not sealed up to the right of way. The bitumen stops just prior and is potholed and rough.

The application meets the following performance criteria 'tests':

(a) There would be ample room for at least 7 car parking spaces in accordance with the requirements of Table C2.1 on the site area, however, no cars will be used for the running of the log storage business.

There are no off-street public car parking spaces within reasonable walking distance and there are no car parking spaces required for the use.

(b) The land is currently vacant and is not used by the owner. The log storage use is the only proposed use of the land with an area of 1440m². The total site area is 2.035ha.

- (c) The closest bus stop is located 645m away on the East Derwent Highway. It is noted that the clientele of the existing retrospective use do not access the site via public transport.
- (d) Taxis and ride sharing providers would be another form of transport available in the event that someone accessing the site does not have access to a privately owned vehicle.
- (e) There are no existing buildings, vegetation or landscaping on the site. No known site constraints affect the provision of transport to and from the site.
- (f) With its location within an industrial area, Green Banks Road does not support off-street parking and it would be unreasonable to expect off-street parking to be provided for a timber yard use in an industrial area.
- (g) There will be no effect on streetscape as the surrounding properties are industrial businesses with mostly trucks using the roads. It is noted that no cars would be parked on the site.
- (h) Based on the responses to the performance criterion above, a traffic impact assessment is not provided.

3	Construction of parking	261 P1
3.	Construction of parking, access ways, manoeuvring, and circulation spaces Please provide an amended site plan showing	 2.6.1 P1 All parking, access ways, manoeuvring and circulation spaces must be readily identifiable and constructed so that they are useable in all weather conditions, having regard to: (a) The nature of the use; (b) The topography of the land;
	that all proposed parking, access ways, manouevring and circulation spaces will be in accordance with the Acceptable Solution	 (c) The drainage system available (d) The likelihood of transporting sediment or debris from the site onto a road or public place; (e) The likelihood of generating dust; and (f) The nature of the proposed surfacing

The retrospective development application is not capable of meeting the acceptable solution. The corresponding performance criteria are addressed below:

- (a) The use is log storage and there will be no cars parked on site. The site acts as a distribution node for timber whereby one truck unloads timber then another truck loads the same timber to take elsewhere.
- (b) The land is relatively flat.
- (c) No known Council or privately-administered drainage system is available.
- (d) The existing vehicle access infrastructure is well-used by heavy vehicles and therefore is well-settled and unlikely to transport sediment or debris onto the road or public place that is unreasonable for log truck operations.
- (e) The existing vehicle access infrastructure is well-used by heavy vehicles and therefore is well-settled and unlikely to generate an unreasonable quantity of dust.
- (f) There is an existing solid gravelled drive that is maintained a high standard in accordance with ARRB guidelines for unsealed roads.

4.	Design and layout of parking access ways,	See attached amended site plan.
	manoeuvring, and circulation spaces.	The access width for the proposed new access via the existing Right of Way connected to Weily Park Road is
	Please provide an amended site plan	10.7 metres
5.	Dust or other airborne particulates within a	4.5.3 P1
	substation facility buffer area	An email from Tas Networks was included in the application

The above information is provided to resolve the Councils request for additional information. We trust that the application for assessment can now progress through to public consultation.

Please do not hesitate to contact me at your earliest convenience should you require additional information or further clarification.

Yours faithfully,

J. Baillie

Tracey Baillie Planning Assistant PDA Surveyors, Engineers and Planners



Submission to Planning Authority Notice

Council Planning Permit No.	DA 2022 / 00053		•	Cou	ncil notice date	21/03/2022			
TasWater details									
TasWater Reference No.	TWDA 2022/003	e of response	28/03/2022						
TasWater Contact	Jake Walley		7 625 805						
Response issued to									
Council name	BRIGHTON COUNCIL								
Contact details	development@brighton.tas.gov.au								
Development details									
Address	73 GREENBANKS	RD, BRIDGEWA	TER	Prop	perty ID (PID)	2843300			
Description of development	Storage – Woody	vard/Contractor	rs Depot	1					
Schedule of draw	ings/documents	-							
Prepa	red by	Drawing/	document No.		Revision No.	Date of Issue			
PDA		Site Plan 4883	37 – P01			02/03/2022			
Conditions									
Pursuant to the <i>Water and Sewerage Industry Act 2008 (TAS)</i> Section 56P(1) TasWater does not object to the proposed development and no conditions are imposed.									
• •	elopment and no co	•				des not object to			
Advice	elopment and no co	•				bes not object to			
Advice General For information o	elopment and no co n TasWater develop /technical-standarc	onditions are im	posed.						
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Advice General For information o and-development For application for application-form Declaration The drawings/doc Authority Notice. Authorised by May May May Jason Taylor Development Ass	n TasWater develop /technical-standard rms please visit <u>http</u> suments and conditi	onditions are im oment standard ls os://www.taswa	s, please visit <u>l</u>	https: uildin	//www.taswater.c	com.au/building- nt/development-			
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From: Sent: To: Subject: Anita Bourn <Anita.Bourn@tasnetworks.com.au> Tuesday, 5 April 2022 9:48 AM Development RE: Brighton Council - DA Referral [DA 2022 / 00053 (73 Greenbanks Road, Bridgewater)]

Hi Andres,

Thanks for your email dated 21/03/2022 regarding the proposed storage – wood yard/contractors depot at 73 Greenbanks Road, Bridgewater.

Based on the information provided, the use is not likely to adversely affect TasNetworks' operations.

Kind regards,



Anita Bourn Land Use Planner

P 03 6271 6413 | **M** 0458 015 441 1 – 7 Maria Street, Lenah Valley 7008 PO Box 606, Moonah TAS 7009

www.tasnetworks.com.au @TasNetworks []/TasNetworks

From: Development <Development@brighton.tas.gov.au>
Sent: Monday, 21 March 2022 2:56 PM
To: Land Use Planning TasNetworks <LandUsePlanning@tasnetworks.com.au>
Subject: Brighton Council - DA Referral [DA 2022 / 00053 (73 Greenbanks Road, Bridgewater)]

WARNING: This email originated from an EXTERNAL source. Please do not click links, open attachments or reply unless you recognise the sender and know the content is safe.

Good afternoon,

Please find attached DA 2022 / 00053 for a 'Storage – Woodyard/Contractors Depot' use within a substation facility buffer area for your consideration.

Kind regards,

ANDRES PEREZ-ROCA PLANNING OFFICER MON-THU





[brighton.tas.gov.au] 1 Tivoli Road, Old Beach TAS 7017 Tel: (03) 6268 7049 www.brighton.tas.gov.au [brighton.tas.gov.au]

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Dunbabin & Williamson Pty Ltd ABN 72 125 072 540

Studio 4, 147 Liverpool Street Hobart Tasmania 7000 p (03) 6234 5644 f (03) 6234 5844

Brighton City Council 20th, December 2021

Attention: Planning dept Development Application 20 Barton Crescent, Bridgewater – Assisted care housing

City planner,

Please find attached our planning application for an assisted care housing development at the above address.

This project is being undertaken for Langford Support Services, a not-for-profit organisation who are looking to provide quality specialist disability accommodation in line with NDIS standards for their participants.

We have recently completed a similar assisted care facility in Glenorchy and have also undertaken a preliminary planning enquiry with Clarence City Council for a similar facility in Risdon Vale.

This proposed project is based on $-2 \times \text{single}$ bed units with associated carer facility. Two single participants will occupy the units and receive 1:1 care during daytime hours, hence the need for the adjoined carers room.

Units Occupants don't drive and will not have vehicles but the carer will require a vehicle . 3 car spaces are provide in accordance with the scheme.

We understand that this property is zoned in the General Residential Area of the newly effective Tasmanian Planning Scheme.

We believe that an assisted care facility use can be applied to this development as a permitted use requiring a planning permit.

We understand from Councils preliminary assessment feedback that the site sits on the edge of the low risk landslip overlay. Our proposal has a front setback similar to the house adjacent and from the Listmap overlay would suggest Unit 1 would be considered outside of the overlay

Please review and let us know if any further information is required. With thanks Andrew

Andrew Williamson Director IDW ARCHITECTURE & INTERIORS DRAWING INDEX DA01 rev A

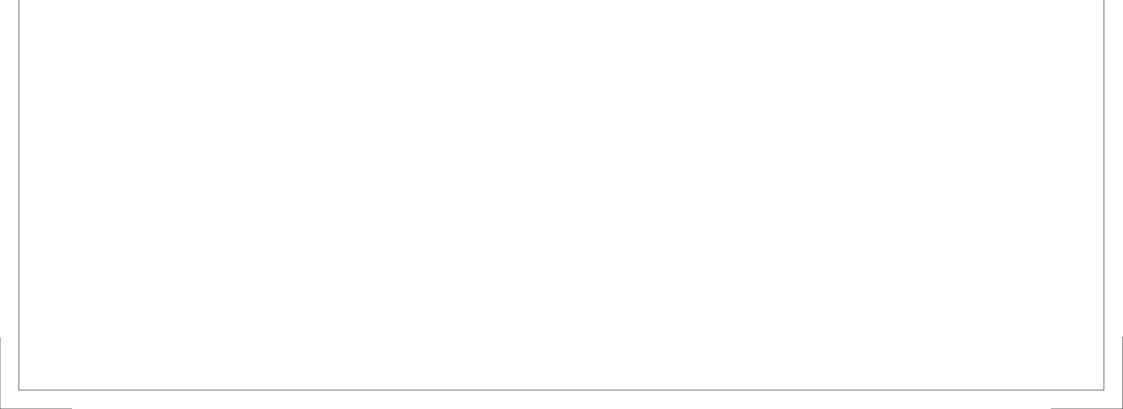
Development Application Set:

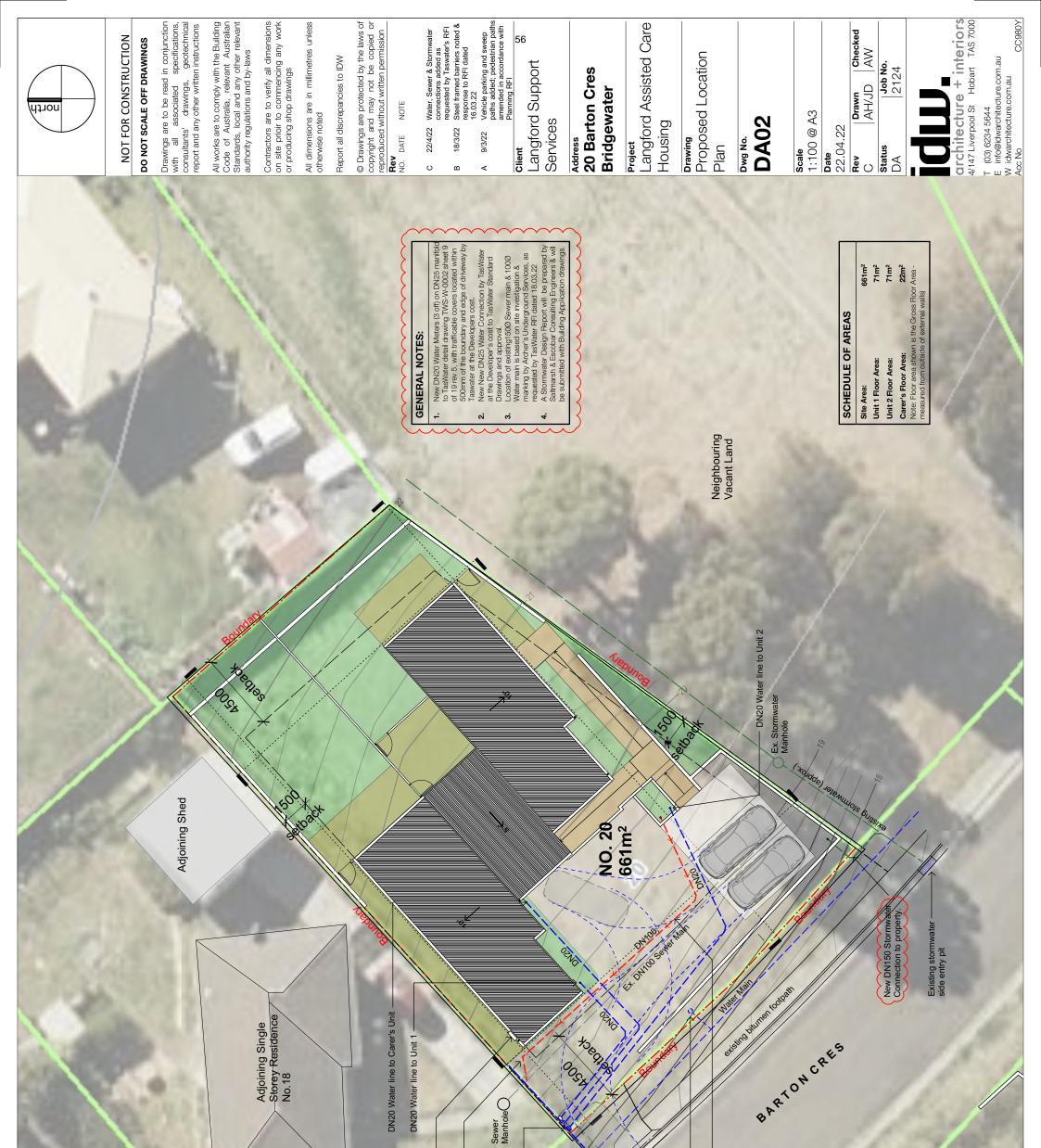
dwg no:	dwg title:	scale:	rev: ^	date:	by:
DA02	Proposed Location Plan	1:100 @ A3	K C	22.04.22	
DA03	Proposed Site Plan	1:100 @ A3	00	20.04.22	AH/JD
DA04	Proposed Elevations 01	1:100 @ A3	C	22.04.22	AH/JD
DA05	Proposed Elevations 02	1:100 @ A3	В	18.03.22	AH/JD
DA06	Proposed Sections	1:100 @ A3	۷	22.04.22	AH/JD



20 Barton Cres Bridgewater Tasmania

Langford Assisted Care Housing 2124 Langford Support Services





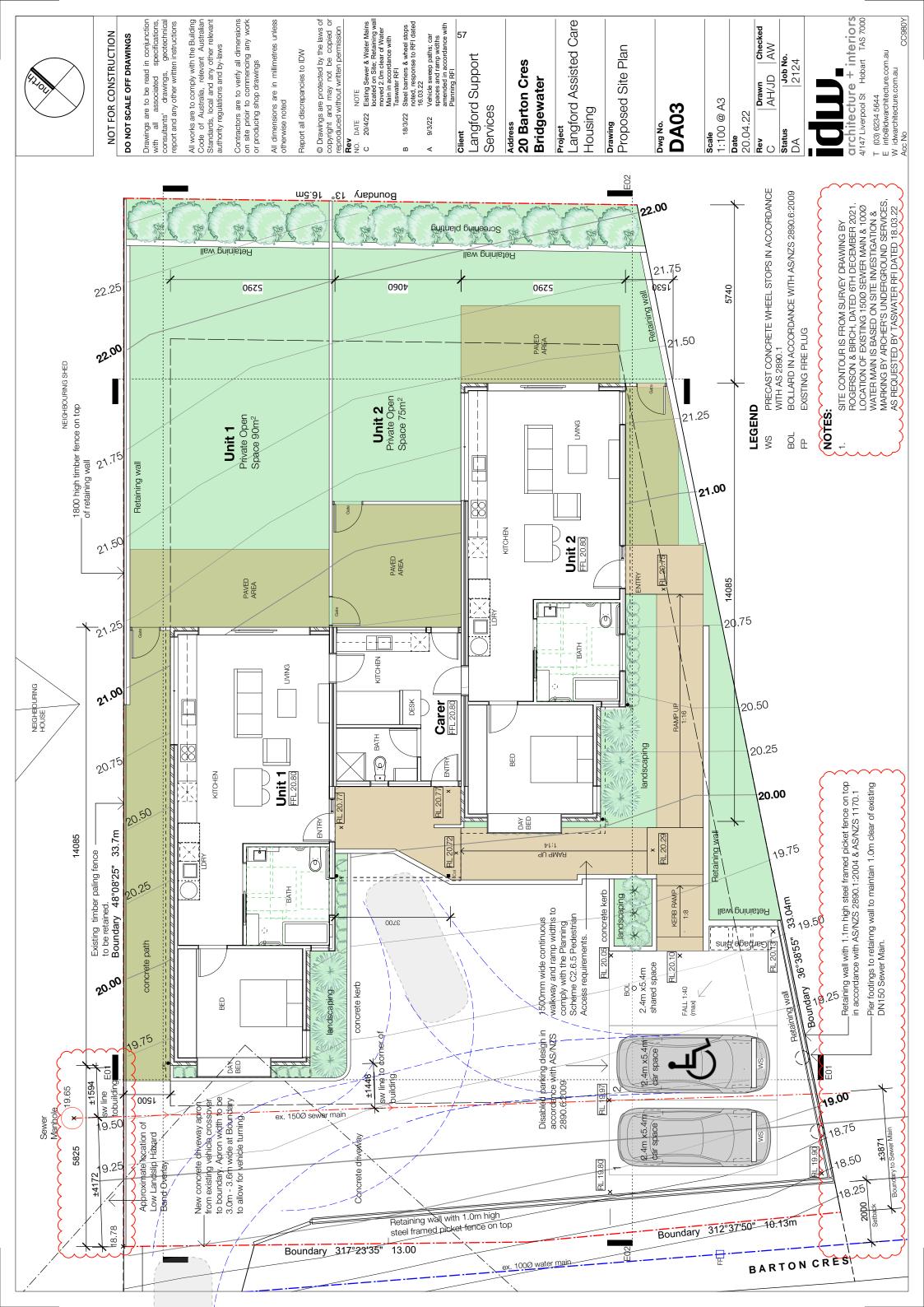
Fire Sprinkler Valve box location. New Sewer lot Connection by TasWater. Refer General Notes. New Water Meters (x3): Refer General Notes.

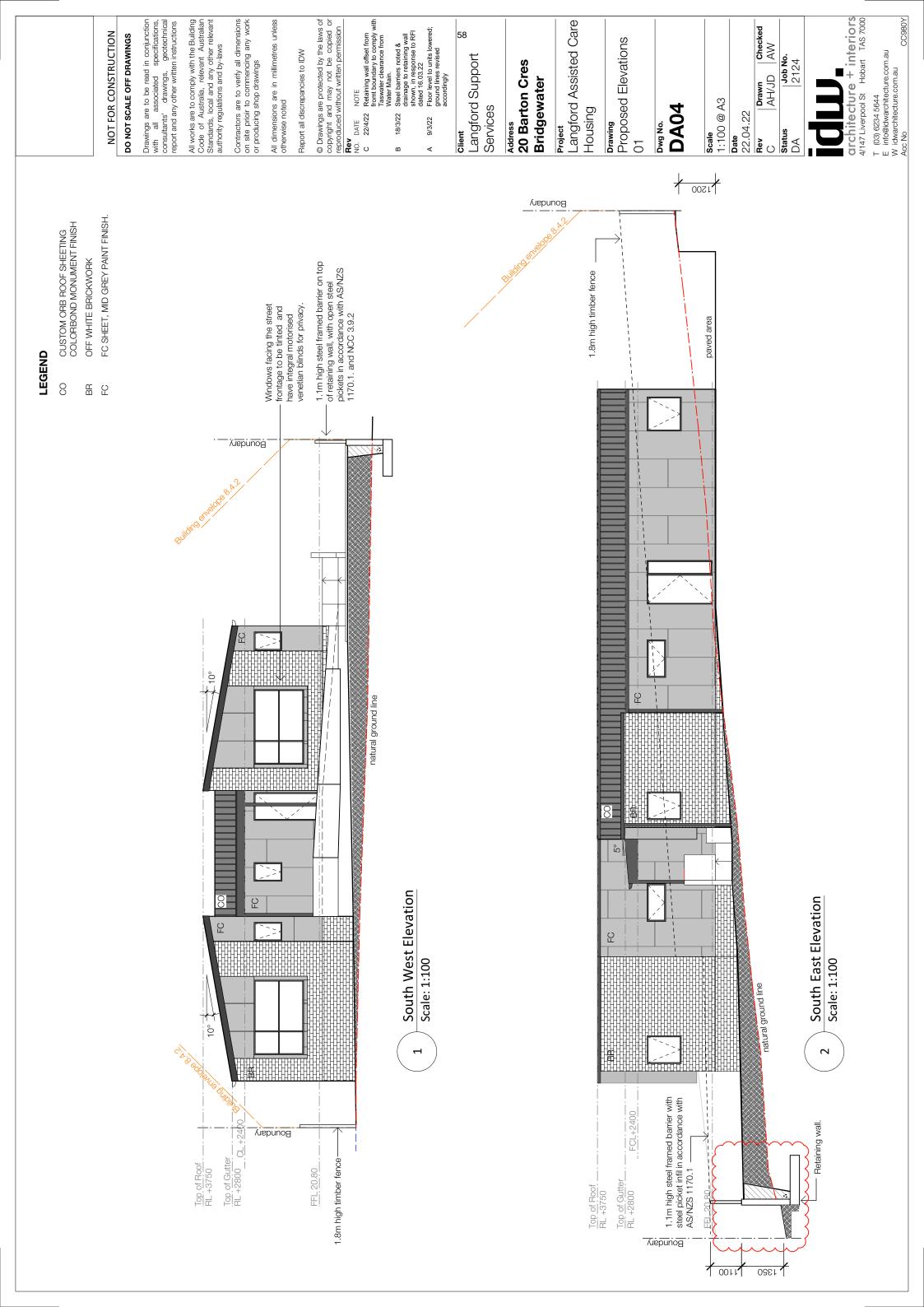
New DN25 Water connection by TasWater at the Developer's cost, to TasWater's Standard Drawings. DN25 Fire Sprinkler Water Supply to AS 2118.4 or AS 2118.5 in accordance with Taswaters guidelines.

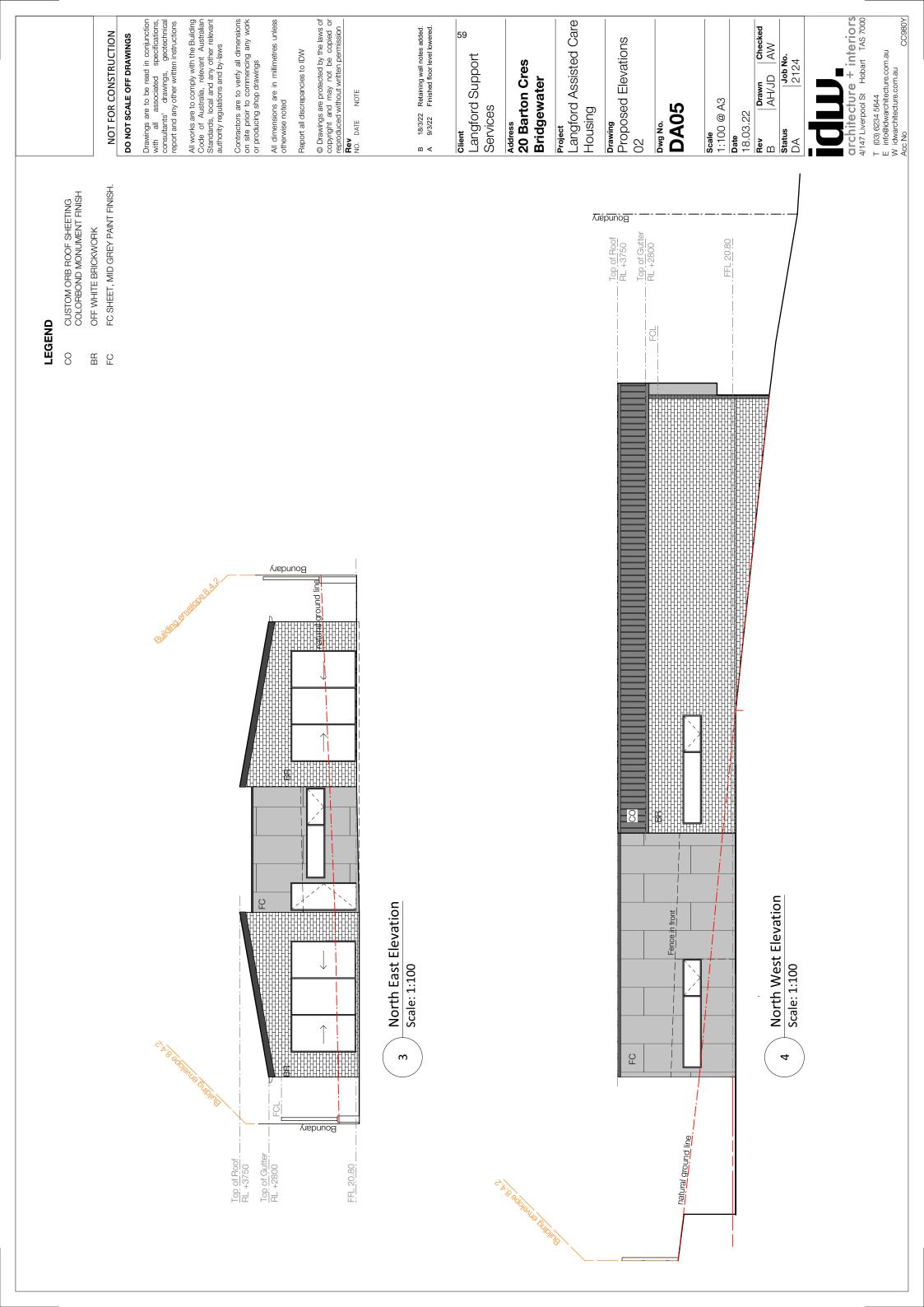
Existing concrete crossover. Form new concrete apron in accordance with standard drawings and Council approval.

Disconnect and cap the existing water connection and remove the existing . meter if required.

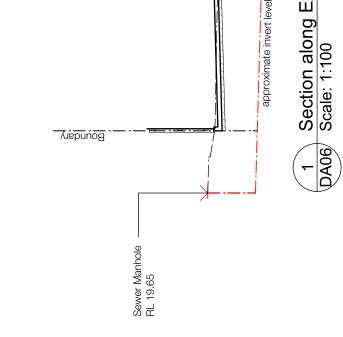
DN100 Private Sewer line @1.65% min.grade.

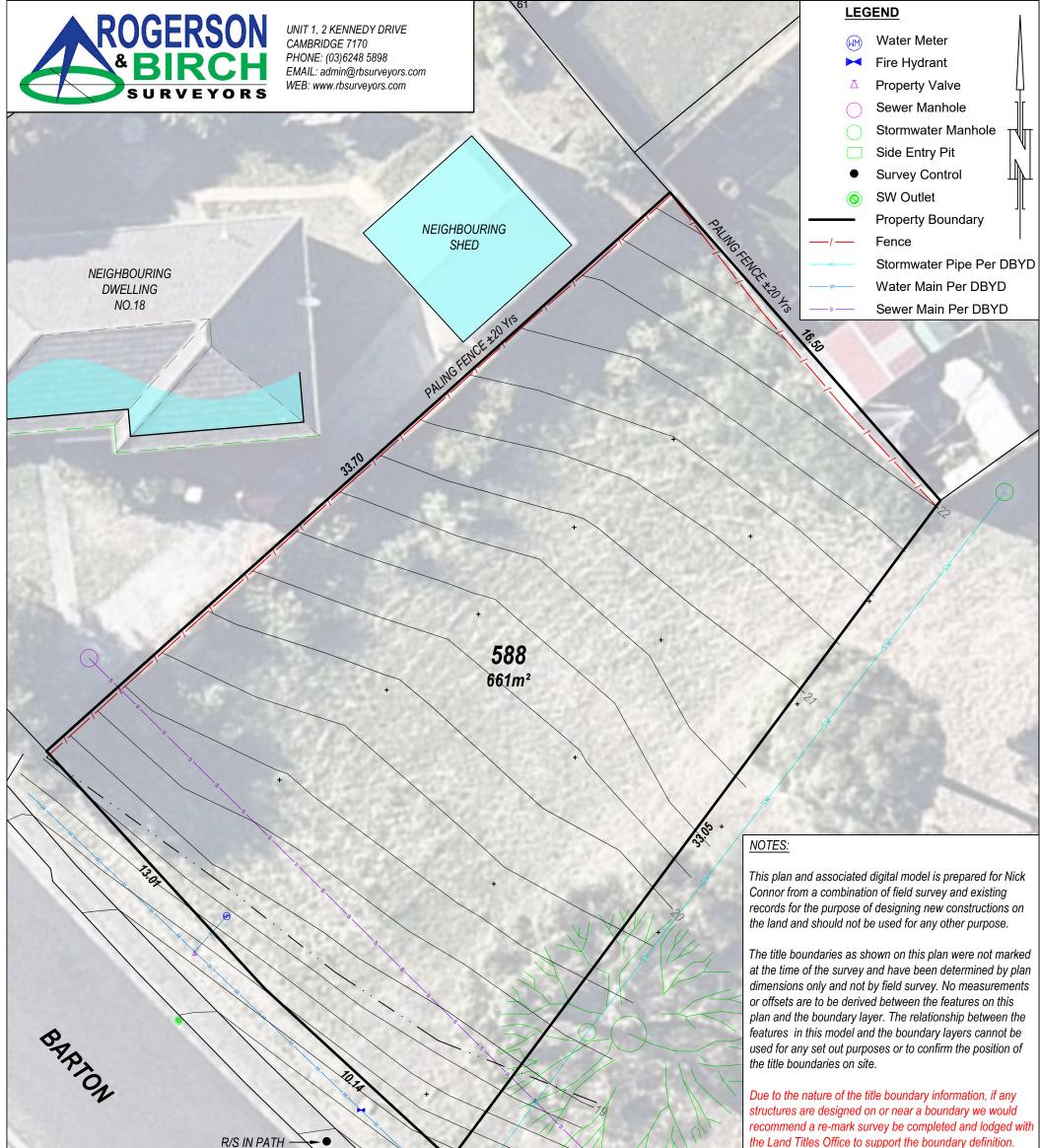






NOT FOR CONSTRUCTION DO NOT SCALE OFF DRAWINGS	Drawings are to be read in conjunction with all associated specifications, consultants' drawings, geotechnical report and any other written instructions All works are to comply with the Building Code of Australia, relevant Australian Standards, local and any other relevant authority regulations and by-laws Contractors are to verify all dimensions on site prioir to commencing any work or producing shop drawings All dimensions are in millimetres unless otherwise noted	Report all discrepancies to IDW © Drawings are protected by the laws of copyright and may not be copied or reproduced without written permission Rev NO. DATE NOTE	A 22/4/22 Section added as requested by Taswater Client 8 Upport Services	Address 20 Barton Cres Bridgewater Project Langford Assisted Care Housing	Drawing Proposed Sections Dwg No. DA06	Scale 1:100 @ A3 Date 22.04.22 A AH/JD AW Status Job No. DA 2124	architecture + interiors 4/147 Liverpool St Hobart TAS 7000 T (03) 6234 5644 E info@idwarchitecture.com.au W idwarchitecture.com.au Acc No
A T T A OBTAINED FROM ARCHER'S UNDERGROUND SERVICES SITE INVESTIGATION ON 19TH APRIL 2022.	1.1m high steel framed picket fence on top of retaining wall, in accordance with AS/NZS 1170.1 Concrete pavement over crushed	aggregate & compacted fill, to future Engineer's details.					





	R/S IN PATH RL: 17.48					Services showr survey. Service approximate ar demolition, exc relevant author	n have been locate as denoted as bein ad for illustrative po avation or constru ity should be conta	he boundary definition. ad where visible by field g "Per DBYD only" are urposes only. Prior to any ction on the site, the acted for possible location nd detailed locations of all
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D					Contour & Detail Plan	06/12/2021	0.250m	ZZGEN-01 9999-99
С					FOR: NICK CONNOR	Drawn:	Scale:	Bearing Datum: MGA2020 per
В		_			LOCATION: 20 BARTON CRESCENT	NC	1:150 (A3)	RTK GPS
A REV	AMENDMENTS	DRAWN	DATE	APPR.	BRIDGEWATER	Approved: NC	C.T. Reference: C.T.6706/588	Vertical Datum: AHD83 per SPM7066



Dunbabin & Williamson Pty Ltd ABN 72 125 072 540

Studio 4, 147 Liverpool Street Hobart Tasmania 7000 p (03) 6234 5644 f (03) 6234 5844

Brighton Council 1 Tivoli Road, Old Beach. TAS. 7017

8th March 2022

Attention: Andres Perez-Roca

Re: Request For Further Information for Development Application No: DA2022/001 20 Barton Crescent, Bridgewater – Assisted Care Housing

In reference to your letter dated 18th January 2022 requesting further information, please see the following responses to your points:

1. Please provide current copy of Title

Current copy of Folio Text and Plan is attached.

2. Fences within 4.5m of the Frontage

The siting, orientation and finished levels of the proposed Units have been guided by the existing topography, solar access, privacy to adjoining neighbours and passive surveillance to the street frontage. We have endeavoured to provide a maximum retaining wall height of 1200mm for the majority of the street boundary, but it will increase to a maximum of 1700mm at the Southern corner. We propose to build a 1m high picket fence along the front boundary which will continue along the top of the masonry retaining wall, inkeeping with the neighbouring fencing and streetscape and will comply with the 30% uniform transparency as outlined in the Planning Scheme. The retaining wall along the street boundary is balanced by a stepped retaining wall at the rear of the property with similar retaining wall heights.

We will be maintaining the existing timber paling fence along the North-Eastern boundary adjoining No.18 Barton Crescent. A paling fence will be built on top of a masonry retaining wall to the rear of Unit 1, which will provide privacy to both dwellings.

We trust the height of the southern corner retaining wall and fence to the street frontage will be assessed favourably based on the siting and design intent outlined above.

3. Construction of parking areas

Please refer to the amended Site Plan & Proposed Ground Floor Plan with the proposed surface finish to the new driveway apron, driveway, parking and turning

spaces to be concrete.

4. Design of parking areas

Please refer to the amended Site Plan with the existing vehicle crossover width noted -3.0m wide.

Vehicle turning path, based on the Australian Standard B85 turning / Sweep path template has been added to the Site Plan and Ground Floor Plan.

2 x car spaces (1 space for Disabled) are identified on the Plans with a shared space adjoining the disabled car space in accordance with AS2890.6:2009

- 5. Parking for people with a disability (clause C2.6.2 P1.2 and C2.6.5 P1.2 of the Planning Scheme
 - 5.1 The proposed development is to provide accommodation / housing for two individuals living with a disability who require support.
 - 5.2 Please refer to the amended Ground Floor Plan for dimensions of the 2 carpsaces, 1 car Space being a designated Disabled Car space with adjoining shared area to allow wheelchair / mobility aided tenants to transfer in and out of the vehicle, in accordance with AS2890.6:2009.

A 1.5m wide walkway and ramp from the Disabled car space to the front entry doors of both Units has now been shown on the Plans.

6. Landslip Hazard Code

Please find attached, Landslide Risk Assessment report dated February 2022 prepared by Geo-Environmental Solutions.

Please do not hesitate to contact me if you require any further information so you can fully assess our development application.

Regards,

Andrew Williamson Director IDW ARCHITECTURE & INTERIORS



GEO-ENVIRONMENTAL

S O L U T I O N S

LANDSLIDE RISK ASSESSMENT

20 Barton Crescent Bridgewater 7030

CLIENT

Langford Support Service Ltd

February 2022



Geo-Environmental Solutions P/L 29 Kirksway Place Battery Point, 7004. Ph 6223 1839 Fax 6223 4539

1	Intro	oduction	4
2	Obje	ectives	4
3	Site l	Details	
4	Plani	ning	
	4.1	Australian Building Code Board	
	4.2	The Tasmanian Building Regulations 2016	6
	<i>4.3</i> 4.3.1	Tasmanian Planning Scheme Overlays – Brighton 1 Landslide Overlay	
	4.4	Site and Proposed Works	8
	<i>4.5</i> 4.5.1	Development & Works Acceptable Solutions 1 Landslide Hazard Code (LHC)	
	4.6	Development Performance Criteria	
5	Site	Mapping	9
	5.1	Site Geology	9
	5.2	Site Geomorphology	9
	5.3	Field Investigation	
6	Land	Islide Hazard and Risk Analysis	11
	6.1	۰ Hazard Analysis	
	6.1.1		
	6.1.2		
	6.2	Risk Analysis	
	6.2.1	•	
	6.2.2	2 Risk to Life	
7	Conc	clusions and Recommendations	14
8	Refe	erences	15
Aı	ppendix	1 Acceptable Solutions	
		•	
A	ppendix	2 Qualitative Risk Assessment Tables	
A	ppendix	3 Qualitative Risk Assessment	19
A	ppendix	4 AGS Geoguides 2007 LR8	22
A	ppendix	5 Site Photos	26

Table 1 Borehole investigation logs	10
Table 2 Frequency analysis for landslide hazards 1 and 2	
Table 3 Consequence analysis for landslide hazards 1 & 2 - Properties	
Table 4 Consequence analysis for landslide hazards 1 & 2 – Life – Post Treatment	
	_

Figures

5	
Figure 1 Regional Location of Project Area (The LIST)	5
Figure 2 Local Project Area Setting (The LIST)	5
Figure 3 Landslide Overlay near the Site (The LIST)	7
Figure 4 Proposed Development Works – DA03	8
Figure 5 Site Geology (Extract from 1:25,000 Mineral Resources Tasmania (MRT) Map Sheet: 5026)	
Figure 6 Slope model from MRT mapping (The LIST)	

1 Introduction

Geo-Environmental Solutions Pty Ltd (GES) were contracted by Langford Support Service Ltd to prepare a landslide risk assessment for a proposed assisted housing property at Bridgewater. The proposed development is located at cadastral title (CT 6706/588) located at 20 Barton Crescent, Bridgewater 7030 (The Site). GES are to undertake a geotechnical assessment of the proposed development in conjunction with the requirements of the Tasmania Planning Scheme – Brighton.

GES have undertaken this assessment through using site observations and investigation, photographs and publicly available datasets. Estimations are determined by approximation with regional information applied where appropriate to site specific information. Data collection and site-specific modelling was undertaken in assessment of the site.

2 Objectives

The objective of the site investigation is to:

- Identify the requirements of the Landslide Hazard Code;
- Conduct a landslide risk assessment of the cutting in accordance with the Australian Geomechanics Society (AGS) *Landslide Risk Management (2007) guidelines';*
- Identify which codes need to be addressed in terms of landslip and identify the relevant performance criteria relevant to the project which need addressing;
- Used geological mapping and site inspections to determine site physical conditions and cutting observations;
- Conduct a site risk assessment for the proposed development ensuring relevant performance criteria are addressed; and
- Where applicable, provide recommendations on foundation conditions and anticipated earthworks to ensure safe slope management.

3 Site Details

The land studied in this report is defined by the following title reference:

• CT 6706/588

This parcel of land is referred to as the 'Site' and/or the 'Project Area' in this report.



Figure 1 Regional Location of Project Area (The LIST)



Figure 2 Local Project Area Setting (The LIST)

4 Planning

4.1 Australian Building Code Board

This report presents a summary of the overall site risk to landslide hazards. This assessment has been conducted for the year 2070 which is representative of a 'normal' 50-year building design life category.

Per the Australian Building Code Board (ABCB 2015), when addressing building minimum design life:

'The design life of buildings should be taken as 'Normal'' for all building importance categories unless otherwise stated.'

As per Table 3-1, the building design life is 50 years for a normal building.

Table 3-1 Design life of building and plumbing installations and their components

Building Design Life Category	Building Design Life (years)	Design life for components or sub systems readily accessible and economical to replace or repair (years)	Design life for components or sub systems with moderate ease of access but difficult or costly to replace or repair (years)	Design life for components or sub systems not accessible or not economical to replace or repair (years)
Short	1 < dl < 15	5 or dl (if dl<5)	dl	dl
Normal	50	5	15	50
Long	100 or more	10	25	100

Note: Design Life (dl) in years

4.2 The Tasmanian Building Regulations 2016

Building in hazardous areas

As outlined in the Department of Justice web site:

http://www.justice.tas.gov.au/building/building-and-plumbing/building_in_hazardous

Hazardous areas include areas which are bushfire prone, comprise reactive soils or substances, or are subject to coastal erosion, coastal flooding, riverine flooding, and landslip.

Division 5 –

59. Landslip hazard areas

- 1) For the purposes of the Act, land is a landslip hazard area if
 - a. the land is shown on a planning scheme overlay map as being land that is within a landslip hazard area; and
 - b. the land is classified as land within a hazard band of a landslip hazard area.
- 2) For the purposes of the definition of hazardous area in section 4(1) of the Act
 - a. classification under a landslip determination as being land that is within a hazard band of a landslip hazard area is a prescribed attribute; and
 - b. a landslip hazard area is a hazardous area.

60. Works in landslip hazard areas

- 1) A person must not perform work in a landslip hazard area unless he or she is authorised to do so under the Act.
- 2) A responsible person for work being performed in a landslip hazard area must ensure that the work is being performed in accordance with the Act and the landslip determination.
- 3) A person performing work in a landslip hazard area must ensure that the work complies with the Act and the landslip determination.

61. Significant works in landslip areas

- 1) In this regulation significant work includes the following work:
 - a. excavation equal to or greater than one metre in depth, including temporary excavations for the installation or maintenance of services and pipes;
 - b. excavation or depositing of material greater than 100 cubic metres, whether or not the material is sourced on the site or imported;
 - c. felling, or removal, of vegetation, over a contiguous area greater than 1 000 square metres;
 - d. the collection, pooling or storage of water in a dam, pond, tank or swimming pool with a volume greater than 45 000 litres;
 - e. removal, redirection or introduction of drainage for surface water or subsoil water;
 - f. discharge of stormwater, sewage, water storage overflow or other wastewater.
- 2) A person must not perform significant work as part of permit work, or notifiable plumbing work, in a landslip hazard area unless the relevant permit authority has authorised the significant work in writing.
- 3) A person must not perform significant work as part of notifiable building work or notifiable demolition work, in a landslip hazard area unless the relevant building surveyor for the notifiable work has authorised the significant work in writing.
- 4) A person must not perform significant work not covered by sub regulation (2) or (3) in a landslip hazard area unless
 - a. the person has written authorisation under sub regulation (2) or (3) to perform the work; or
 - b. the relevant general manager has given written authorisation for the work.
- 5) For the avoidance of doubt, a written authorisation by a permit authority, or building surveyor, under this regulation may form part of a document issued or given under the Act by the permit authority, or building surveyor, in respect of the relevant work.

4.3 Tasmanian Planning Scheme Overlays – Brighton

4.3.1 Landslide Overlay

The proposed dwelling is approx. 1% within the Low Landslip Hazard Overlay as well as the access driveway approx. 15 % of the site fall in this overlay (Figure 3).



Figure 3 Landslide Overlay near the Site (The LIST)

4.4 Site and Proposed Works

The site is located on a south to south-west sloping hillside dipping between 8° to 20° with the dwelling situated on slopes at approx. 14° .

The proposed development is a residential assisted living facility which comprises an adjoining single storey dwelling with 2 units with each floor area approx. 72 m^2 and a carer room situated in between both units. The proposed development is to be constructed on a prepared fill pad on the natural ground surface on the east portion of the site and small cut in the north side of the dwelling. Fills are expected to be approximately 1.7 in height according to the provided plans. (Figure 4).

Greater Hobart 2013 Geoscience Australia LiDAR elevations have been considered accurate for display purposes and localised adjustments have not been made to the digital elevation model given the relative accuracy is +/- 50 mm vertical.



Figure 4 Proposed Development Works – DA03

4.5 Development & Works Acceptable Solutions

Where applicable, the need for further performance criteria compliance is outlined in Appendix 1.

4.5.1 Landslide Hazard Code (LHC)

Given that the proposed building and works within the Low Landslip Hazard Area, and there are no acceptable solutions for 'Buildings and Works within a landslip hazard area' in a Landslip Hazard Area, the performance criteria will need to be addressed C15.6.1 P1.1 and P1.2. Also, there are no acceptable solution for this proposal as assisted housing so "Use within a landslip hazard area" the performance criteria will need to be addressed to C15. 5. P1.1 and P4.

4.6 Development Performance Criteria

The following performance criteria need to be addressed:

- C15.5.1 P1.1
- C15.5.1 P4

5 Site Mapping

5.1 Site Geology

Based on the MRT 1:25,000 Mineral Resources Tasmania (MRT) mapping of New Norfolk (Map No:5026) the site geology comprises of the following geological units:

• Tholeiite Basalt (Map Unit – Tbs):

The site is entirely underlain by Tholeiite Basalt (Figure 5), which known as dark colour, dense and strong, fine-grained igneous rock.

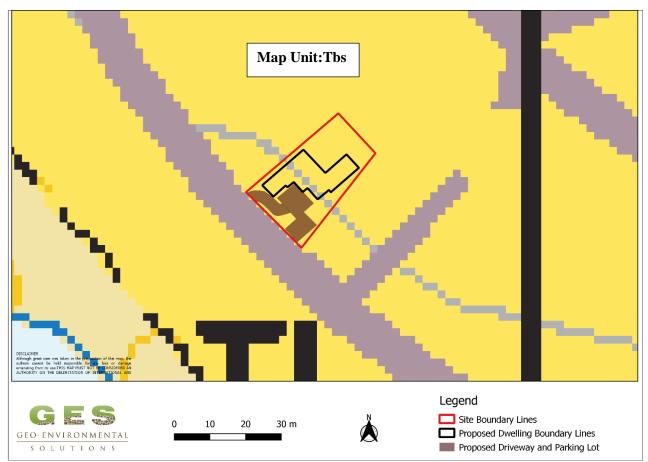


Figure 5 Site Geology (Extract from 1:25,000 Mineral Resources Tasmania (MRT) Map Sheet: 5026)

5.2 Site Geomorphology

The site is located on a gently sloping south-westerly dipping hillslope, with slope angles ranging between 5 to 20 $^{\circ}$ and boundary next to the Barton Street has around 25° slope. The site is covered by grass. Figure 4

presents a slope angle map of the site showing areas of steep slope angles in dark and light green, which has been generated using QGIS software based on the 2013 Greater Hobart LiDAR.



Figure 6 Slope model from MRT mapping (The LIST)

5.3 Field Investigation

A site soil class investigation was conducted by GES in February 2022 with the completion of a number of boreholes to identify soils on site. Investigations encountered a duplex soil profile of 0.1 m of sandy SILT overlying very stiff, dark brown CLAY subsoils before experiencing refusal on bedrock between 0.4 m and 0.6 mbgs. Borehole logs are represented in Table 1 below.

BH1	BH2	Horizon	Description	
Depth (m)	Depth (m)			
0.0 - 0.1	0.0-0.10		Sandy Silt (Ms) dark brown, loose	
0.10 - 0.50	0.10-0.40		Clay (CL) dark brown s/m, very stiff	
0.5 - 0.6	0.4 -0.5		Sandy Gravel (GW) yellow dark, very dens to refusal	

 Table 1 Borehole investigation logs

5.4 AS2870 Site Classification

According to "AS2870-2011 - Residential slabs & footings" the site has been classified as Class M, which is a slightly reactive site and is expected to exhibit relatively moderate ground surface movement due to moisture variations. Design and construction should be made in accordance with this classification. It should be noted the above classification is only applicable to the current proposed dwelling location. If the location of the proposed dwelling is significantly moved, a reclassification of the site will be required.

6 Landslide Hazard and Risk Analysis

The following risk assessment is based upon the Australian Geomechanics Society Sub-committee report (March 2007) Landslide Risk Management Concepts and Guidelines. *Australian Geomechanics Journal 35* (1) p49-92. The geotechnical risk associated with residential development and driveway on the site is classified as **Low** according to *Australian Geomechanics Society* Guidelines. Provided the risk treatment suggestions are implemented, the risk can be reduced to **Very Low**.

The geotechnical assessment of slope stability at the property takes into account the following parameters:

Potential for instability in soil deposits

The development areas are situated upon gentle slopes with an average slope angle of 14° to the southsouthwest. The proposed dwelling is located mid-slope and is planned to a cut and fill platform. Foundations of the dwelling are to account for this gradient. The northern portion of the proposed dwelling is to be situated on a concrete block retaining wall approx. 1.7m in height. Provided foundations of the retaining wall extend into the underlying basalt bedrock there is a very low risk of instability within site soil deposits.

The site appears stable in its present form with no evidence of recent or active land instability, therefore, the geotechnical risk associated with instability in the natural soils is low. The soil examined would be subject to limited erosion if exposed, and therefore care would need to be taken during and after excavation to maintain a stable land surface.

Modification of drainage on site could also cause localised instability as excess water destabilises sediments - therefore drainage design should avoid water accumulation in the construction area – with cut-off drainage at the base and above site cut strongly recommended - *Please refer to the extract on good hillside construction practice from the Australian Geomechanics Society and CSIRO BTF-18*.

Potential for runoff to cause instability

Given the sloping nature of the site and the site cutting there is potential for excess water flow onto the site to accumulate and cause shallow seated instability if the construction does not make allowance for appropriate drainage. In particular, care should be taken to correctly channel any possible accumulated water from sealed areas or any future driveway away from any foundations. A cut-off drain is recommended above the residential development and any site cutting should be considered to redirect water away from the building.

6.1 Hazard Analysis

6.1.1 Landslide Characteristics

Based on the slope characteristics including site geology, slope geometry and the existing cut slope angles, the following scenarios have been identified as potential slope failure mechanisms for the site:

- Scenario 1 Shallow rotational failure in unconsolidated fill material placed immediately below the building platform of the proposed dwelling; and
- Scenario 2 Retaining Wall Failure above construction

6.1.2 Frequency Analysis

Table 2 presents the frequency analysis for the identified slope failure mechanisms. Terminology used is in accordance with the Australian Geomechanics Society (AGS) guidelines for landslide risk management (2007a,b,c,d). Under current untreated conditions, the likelihood of a shallow rotational failure is possible. The likelihood of a shallow rotational within the unconsolidated sediments and fill is likely.

Scenario Failure **Unit Affected** Observed Potential Potential Water Current Treated Mechanism Likelihood Likelihood in the Size Speed Content field Scenario Shallow Unconsolidated No Small Wet Unlikely Rare Rapid to Rotational Saturated Fill 1 Failure (Fill) Scenario Retaining Unconsolidated No Very Very Wet Unlikely Rare to Wall Failure Fill Small to Slow to Saturated 2 Small above and Rapid below constructions

Table 2 Frequency analysis for landslide hazards 1 and 2

6.2 Risk Analysis

6.2.1 Risk to Property

There is low risk to the primary dwelling if the recommended risk treatment is not met. Treated risk may be reduced to low for Scenarios 1 and 2 (Table 3).

		Current Ris	ks		
Scenario	Issue	Likelihood of occurrence	Consequence to property	Level of risk to property	Recommended risk treatment
Scenario 1	Shallow Rotational Failure (Fill)	Unlikely	Minor	Low	Foundations of the proposed dwelling should extend into the basalt bedrock and be adequately designed in accordance with the good hillside construction practices as outlined in the Australian Geomechanics Society (AGS) Geoguide LR8.
					Site stormwater should be managed as to not be outlet on to the moderately steep slopes immediately below the proposed dwelling.
					Prior to placement of fill for landscaping purposes, all topsoil should be stripped from the fill pad footprint and benches should be keyed into the slope.
Scenario 2	Retaining Wall Failure above and below constructions	Unlikely	Insignificant	Very Low	Prior to placement of fill for landscaping purposes, all topsoil should be stripped from the fill pad footprint and benches should be keyed into the slope. Fill material should not exceed 1.0m in height without a suitably designed, drained retaining wall. The fill slopes should be no steeper than 1V:3H unless otherwise supported by a suitably designed, drained retaining wall.

 Table 3 Consequence analysis for landslide hazards 1 & 2 - Properties

6.2.2 Risk to Life

Risk to life is considered acceptable given the likelihood and consequence of a shallow translational failures within the residual soils and or fill for landscaping (Table 4).

Hazard	Scenario 1	Scenario 2
Factor	Shallow Rotational Failure (Fill)	Retaining Wall Failure
Likelihood	Unlikely	Unlikely
Indicative Annual Probability	0.0001	0.0001
Use of Affected Structure/Site	Primary Dwelling	Landscaped gardens
Probability of Spatial Impact	0.5	0.1
Proportion of Time	Estimated 12 hours a day = 0.5	8 hours daily (work hours) 0.33
Probability of Not Evacuating	Structure not likely to fail. Sufficient time for evacuation and/ or remediation.	Potential to be working immediately above or below the excavations. Will not allow time for evacuation. a) very slow $= 0.05$
Vulnerability	Building unlikely to collapse = 0.1	Building unlikely to collapse = 0.1
Risk for Person Most at Risk	1.25 x 10 ⁻⁶	a) 5.0 x 10 ⁻¹⁰ b) 5.0 x 10 ⁻⁹
Total Risk	6.25 x 10 ⁻⁶	a) 5.0 x 10 ⁻¹⁰ b) 5.0 x 10 ⁻⁹
Risk Evaluation	Acceptable	Acceptable

Table 4 Consequence analysis for landslide hazards 1 & 2 – Life – Post Treatment

Note 1 It has been assumed that each person has an equal probability of death for each of the hazards. This is a conservative estimate of societal risk.

7 Conclusions and Recommendations

Based on the outcome of the landslide hazard analysis and risk assessment, the following conclusions are made:

- The risk of slope destabilisation is considered very low;
- The risk to life from the development is considered acceptable;
- A toe drain is to be placed at the base of cutting and fill pad to be graded to drain surface water into drain, away from base of cut and building foundations; and
- Proposed assisted housing development satisfies the performance criteria for C15.5.1 P1.1, C15.5.1 P4 and C15.6.1 P1.1, C15.6.1 P1.1 as per Tasmanian Planning Scheme Brighton 2021;
- It is recommended to install cut-off drains upslope of the construction area and at base of upslope cutting to redirect surface water away from the proposed development, driveway and cutting face;
- Prior to placement of fill for landscaping purposes, all topsoil should be stripped from the fill pad footprint and benches should be keyed into the slope.
- All earthworks on site must comply with AS3798-2007 and a sediment and erosion control plan should be implemented on site during and after construction;
- The proposed dwelling should have appropriately designed footings and should be placed into underlying bedrock in line with best practice recommendations;
- Fill material should not exceed 1.0m in height without a suitably designed, drained retaining wall; and
- Good hillside construction practices should be adopted as per Australian Geoguide LR8.

Thank you for providing us the opportunity to assist you on this project. Please contact me if you have any further questions.

J Traynor B.Sc. Engineering Geologist

8 References

- ABCB 2015. Durability in Buildings Including Plumbing Installations. Second Edition. Handbook. Non-Mandatory Document. Australian Building Code Board 2015.
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- AMS 2007. American Meteorological Society Glossary of Meteorology. Retrieved 2007-06-30. Antarctic Climate & Ecosystems Cooperative Research Centre (ACE CRC), 2010.
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- AGS (2007a). Guideline for Landslide Susceptibility, Hazard and Risk Zoning. Australian Geomechanics, Vol 42 No 1 March 2007
- AGS (2007b). Commentary on Guideline for Landslide Susceptibility, Hazard and Risk Zoning. Australian Geomechanics, Vol 42 No 1 March 2007
- AGS (2007c). Practice Notes Guidelines for Landslide Risk Management. Australian Geomechanics Vol 42 No 1 March 2007
- AGS (2007d). Commentary on Practice Notes Guidelines for Landslide Risk Management. Australian Geomechanics Vol 42 No 1 March 2007
- AGS (2007e). The Australian Geoguides for Slope Management and Maintenance. Australian Geomechanics Vol 42 No 1 March 2007

Appendix 1 Acceptable Solutions

Landslide Code Areas

Standard	Code		Acceptable Solution	Performance Criteria
	C15.5.1 That uses, including	A1	No Acceptable Solution	P1.1 P1.2
	critical, hazardous, or vulnerable use,	A2	No Acceptable Solution	P2
Use	can achieve and maintain a tolerable	A3	No Acceptable Solution	P3
	risk from exposure to a landslip for the nature and intended duration of the use.	A4	No Acceptable Solution	P4
Development	C15.6.1 Building and works within a landslip hazard area	A1	No Acceptable Solution	P1.1 P1.2 P1.3
Subdivision	C15.7.1 Subdivision within a landslip hazard area	A1	 Each lot, or a lot proposed in a plan of subdivision, within a landslip hazard area, must: (a) be able to contain a building area, vehicle access, and services, that are wholly located outside a landslip hazard area; (b) be for the creation of separate lots for existing buildings; (c) be required for public use by the Crown, a council or a State authority; or (d) be required for the provision of Utilities. 	Р1

Appendix 2 Qualitative Risk Assessment Tables	
e Risk Asse	X
2 Qualitativ	Likelihood & Consequence Index
Appendix 2	Likelihood & C

1	Level	A	В	c	D	ш	ц
Q	nescriptor	ALMOST CERTAIN	LIKELY	POSSIBLE	NNLIKELY	RARE	BARELY CREDIBLE
	Testibuon	The event is expected to occur over the design life.	The event will probably occur under adverse conditions over the design life.	The event could occur under adverse conditions over the design life.	The event might occur under very adverse circumstances over the design life.	The event is conceivable but only under exceptional circumstances over the design life.	The event is inconceivable or fanciful over the design life.
ttive Landslide ce Interval		:	20 years	200 years	20 000 trans	stable 000 000	200,000 years
Implied Indicative Landslide Recurrence Interval		10 years	100 years	1000 years	10,000 years	100,000 years	1,000,000 years
Approximate Annual Probability	Notional Boundary	5~10 ⁻²	2010 5 4 0-3	OTXC	5x10 ⁻⁷	- 01xC	AIAC
Approximate A	Indicative Value	10^{-1}	10^{-2}	10^{-3}	10^{4}	10 ⁻⁵	10^{-6}

QUALITATIVE MEASURES OF LIKELIHOOD

The table should be used from left to right; use Approximate Annual Probability or Description to assign Descriptor, not vice verso. Ξ Note:

QUALITATIVE MEASURES OF CONSEQUENCES TO PROPERTY

Approximate (Approximate Cost of Damage			-
Indicative Value	Notional Boundary	Description	Descriptor	Level
200%	,000 t	Structure(s) completely destroyed and/or large scale damage requiring major engineering works for stabilisation. Could cause at least one adjacent property major consequence damage.	CATASTROPHIC	1
60%	100%	Extensive damage to most of structure, and/or extending beyond site boundaries requiring significant stabilisation works. Could cause at least one adjacent property medium consequence damage.	MAJOR	2
20%	40%	Moderate damage to some of structure, and/or significant part of site requiring large stabilisation works. Could cause at least one adjacent property minor consequence damage.	MEDIUM	3
5%	10%	Limited damage to part of structure, and/or part of site requiring some reinstatement stabilisation works.	MINOR	4
0.5%	0/1	Little damage. (Note for high probability event (Almost Certain), this category may be subdivided at a notional boundary of 0.1%. See Risk Matrix.)	INSIGNIFICANT	5
Nates: (2)		The Approximate Cost of Damage is expressed as a percentage of market value, being the cost of the improved value of the unaffected property which includes the land plus the	property which includes the l	and plus the

unaffected structures.

- The Approximate Cost is to be an estimate of the direct cost of the damage, such as the cost of reinstatement of the damaged portion of the property (land plus structures), stabilisation works required to render the site to tolerable risk level for the landslide which has occurred and professional design fees, and consequential costs such as legal fees, temporary accommodation. It does not include additional stabilisation works to address other landslides which may affect the property. 6
 - The table should be used from left to right, use Approximate Cost of Damage or Description to assign Descriptor, not vice versa 4

Qualitative Risk Matrix

LIKELIHOOD	OD	CONSEQU	CONSEQUENCES TO PROPERTY (With Indicative Approximate Cost of Damage)	CRTY (With Indicativ	ve Approximate Cost	of Damage)
	Indicative Value of Approximate Annual Probability	1: CATASTROPHIC 200%	2: MAJOR 60%	3: MEDIUM 20%	4: MINOR 5%	5: INSIGNIFICANT 0.5%
A - ALMOST CERTAIN	10 ⁻¹	НЛ	НЛ	НЛ	Н	M or L (5)
B - LIKELY	10^{-2}	ΗΛ	НЛ	Н	М	Г
C - POSSIBLE	10 ⁻³	НΛ	Н	М	М	ΛΓ
D - UNLIKELY	10 ⁻⁴	Н	М	Г	L	ΛΓ
E - RARE	10 ⁻⁵	М	Г	L	ΛΓ	ΛΓ
F - BARELY CREDIBLE	10-6	Т	ΛT	ΛΓ	ΛΓ	ΛΓ
Notor: (5) Ear Call AS ma	Ter Call A5 must be autidad and the sourcement of the 0.10% in Terr Didt	i /01 0 and and 100 and 10/ is	. I Dict			

QUALITATIVE RISK ANALYSIS MATRIX – LEVEL OF RISK TO PROPERTY

For Cell A5, may be subdivided such that a consequence of less than 0.1% is Low Risk. Notes:

When considering a risk assessment it must be clearly stated whether it is for existing conditions or with risk control measures which may not be implemented at the current time. ତ୍ତ

RISK LEVEL IMPLICATIONS

	Risk Level	Example Implications (7)
НЛ	VERY HIGH RISK	Unacceptable without treatment. Extensive detailed investigation and research, planning and implementation of treatment options essential to reduce risk to Low; may be too expensive and not practical. Work likely to cost more than value of the property.
Н	HIGH RISK	Unacceptable without treatment. Detailed investigation, planning and implementation of treatment options required to reduce risk to Low. Work would cost a substantial sum in relation to the value of the property.
М	MODERATE RISK	May be tolerated in certain circumstances (subject to regulator's approval) but requires investigation, planning and implementation of treatment options to reduce the risk to Low. Treatment options to reduce to Low risk should be implemented as soon as practicable.
L	LOW RISK	Usually acceptable to regulators. Where treatment has been required to reduce the risk to this level, ongoing maintenance is required.
ΛΓ	VERY LOW RISK	Acceptable. Manage by normal slope maintenance procedures.
E.		

The implications for a particular situation are to be determined by all parties to the risk assessment and may depend on the nature of the property at risk; these are only given as a general guide. Note: (7)

Performance Criteria C15.5.1 P1.1			Managed (treated) Risk Assessment	ted) Risk As	sessment	
A use, including a critical use, hazardous use, or vulnerable use, within a landslip hazard area achieve and maintain a tolerable risk from exposure to landslip, having regard to:	Relevance	Management Options	Consequence	Likeliho od	Risk	Further Assessment Required
 (a) the type, form and duration of the use; and (b) a landslip hazard report that demonstrates that: (i) any increase in the level of risk from landslip does not require any specific hazard reduction or protection measure; or (ii) the use can achieve and maintain a tolerable risk for the intended life of the use. 	Very small portion of proposed unit 1 is within a low landslide hazard overlay.	Foundations of the proposed dwelling should extend to bedrock and be adequately designed in accordance with the good hillside construction practices as outlined in the Australian Geomechanics Society (AGS) Geoguide LR8. Prior to placement of fill for landscaping purposes, all topsoil should be stripped from the fill pad footprint and benches should be keyed into the slope. Fill material should not exceed 1.0m in height without a suitably designed, drained retaining wall. The fill slopes should be no steeper than 1V:3H unless otherwise supported by a suitably designed, drained retaining wall.	Minor	Rare	Very Low	°Z.

Appendix 3 Qualitative Risk Assessment

Page 19

In addition within a la regard to:	In addition to the requirements in clause C15.5.1 P1.1, a vulnerable use within a landslip hazard area must be protected from landslip, having regard to:						
(a)	any protection measures, existing or proposed;						
(b) live, wo	(b) the ability and capability of people in a landslip event who may live, work or visit the site, to:						
(i)	protect themselves;						
(ii)	evacuate in an emergency; and ur	Very small portion of proposed unit 1 is within a low landslide		Minor	Rare	Very Low	No
(iii) ur emergency.	nderstand and respond to instructions in the event of an	hazard overlay.					
(c)	any emergency evacuation plan;						
(p)	the advice contained in a landslip hazard report; and						
(e)	any advice from a State authority, regulated entity or a council.						
Perform	Performance Criteria C15.6.1 P1.1 and P1.2			Managed (treated) Risk Assessment	d) Risk Asses	ssment	
A use, i landslip to lands	A use, including a critical use, hazardous use, or vulnerable use, within a landslip hazard area achieve and maintain a tolerable risk from exposure to landslip, having regard to:	Relevance	Management Options	Consequence	Likelihoo d	Risk	Further Assessment Required
Building of trigge landslip	Building and works within a landslip hazard area must minimise the likelihood of triggering a landslip event and achieve and maintain a tolerable risk from landslip, having regard to:		All earthworks on site must				
(a) the (b) wh	the type, form, scale and intended duration of the development; whether any increase in the level of risk from a landslip requires	Very small portion of proposed unit 1 is within a low landslide hazard	comply with AS3798-2007 and a sediment and erosion control plan should be implemented on site during	Minor	Rare	Very Low	No

and after construction; overlay. any advice from a State authority, regulated entity or a council; and any specific hazard reduction or protection measures; the advice contained in a landslip hazard report. (j) (p)

No
Very Low
Rare
Minor
Very small portion of proposed unit 1 is within a low landslide hazard overlay.
P1.2 A landslip hazard report also demonstrates that the buildings and works do not cause or contribute to landslip on the site, on adjacent land or public infrastructure

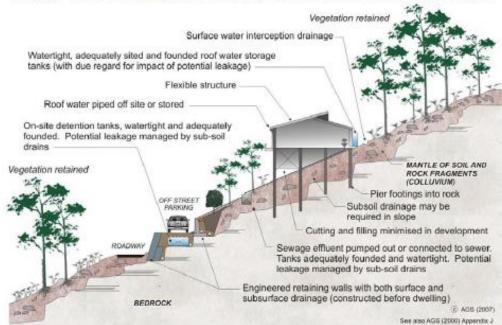
Appendix 4 AGS Geoguides 2007 LR8

AUSTRALIAN GEOGUIDE LR8 (CONSTRUCTION PRACTICE)

HILLSIDE CONSTRUCTION PRACTICE

Sensible development practices are required when building on hillsides, particularly if the hillside has more than a low risk of instability (GeoGuide LR7). Only building techniques intended to maintain, or reduce, the overall level of landslide risk should be considered. Examples of good hillside construction practice are illustrated below.

EXAMPLES OF GOOD HILLSIDE CONSTRUCTION PRACTICE



WHY ARE THESE PRACTICES GOOD?

Roadways and parking areas - are paved and incorporate kerbs which prevent water discharging straight into the hillside (GeoGuide LR5).

Cuttings - are supported by retaining walls (GeoGuide LR8).

Retaining walls - are engineer designed to withstand the lateral earth pressures and surcharges expected, and include drains to prevent water pressures developing in the backfill. Where the ground slopes steeply down towards the high side of a retaining wall, the disturbing force (see GeoGuide LR6) can be two or more times that in level ground. Retaining walls must be designed taking these forces into account.

Sewage - whether treated or not is either taken away in pipes or contained in properly founded tanks so it cannot soak into the ground.

Surface water - from roofs and other hard surfaces is piped away to a suitable discharge point rather than being allowed to infiltrate into the ground. Preferably, the discharge point will be in a natural creek where ground water exits, rather than enters, the ground. Shallow, lined, drains on the surface can fulfil the same purpose (GeoGuide LR5).

Surface loads - are minimised. No fill embankments have been built. The house is a lightweight structure. Foundation loads have been taken down below the level at which a landslide is likely to occur and, preferably, to rock. This sort of construction is probably not applicable to soil slopes (GeoGuide LR3). If you are uncertain whether your site has rock near the surface, or is essentially a soil slope, you should engage a geotechnical practitioner to find out.

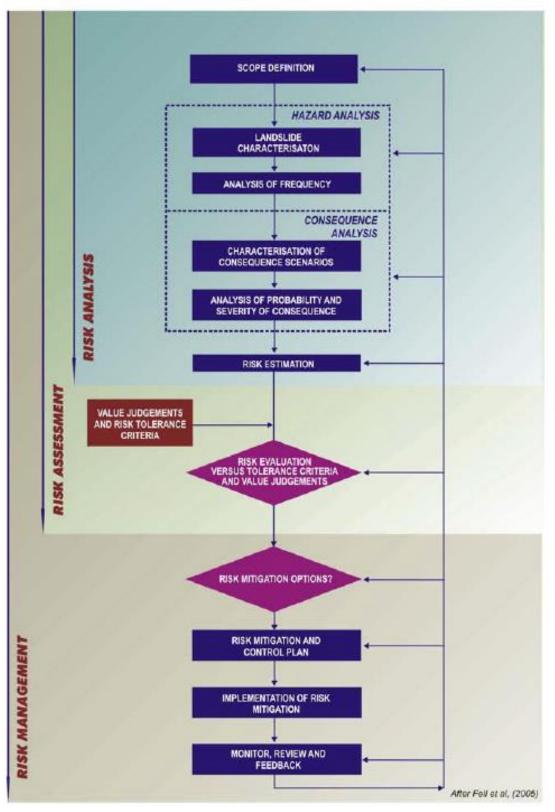
Flexible structures - have been used because they can tolerate a certain amount of movement with minimal signs of distress and maintain their functionality.

Vegetation clearance - on soil slopes has been kept to a reasonable minimum. Trees, and to a lesser extent smaller vegetation, take large quantities of water out of the ground every day. This lowers the ground water table, which in turn helps to maintain the stability of the slope. Large scale clearing can result in a rise in water table with a consequent increase in the likelihood of a landslide (GeoGuide LR5). An exception may have to be made to this rule on steep rock slopes where trees have little effect on the water table, but their roots pose a landslide hazard by dislodging boulders.

Possible effects of ignoring good construction practices are illustrated on page 2. Unfortunately, these poor construction practices are not as unusual as you might think and are often chosen because, on the face of it, they will save the developer, or owner, money. You should not lose sight of the fact that the cost and anguish associated with any one of the disasters illustrated, is likely to more than wipe out any apparent savings at the outset.

ADOPT GOOD PRACTICE ON HILLSIDE SITES

Australian Geomechanics Vol 42 No 1 March 2007



FRAMEWORK FOR LANDSLIDE RISK MANAGEMENT

APPENDIX B - LANDSLIDE TERMINOLOGY

The following provides a summary of landslide terminology which should (for uniformity of practice) be adopted when classifying and describing a landslide. It has been based on Cruden & Varnes (1996) and the reader is recommended to refer to the original documents for a more detailed discussion, other terminology and further examples of landslide types and processes.

Landslide

The term *landslide* denotes "the movement of a mass of rock, debris or earth down a slope". The phenomena described as landslides are not limited to either the "land" or to "sliding", and usage of the word has implied a much more extensive meaning than its component parts suggest. Ground subsidence and collapse are excluded.

Classification of Landslides

Landslide classification is based on Varnes (1978) system which has two terms: the first term describes the material type and the second term describes the type of movement.

The material types are Rock, Earth and Debris, being classified as follows:-

The material is either rock or soil.

- *Rock*: is "a hard or firm mass that was intact and in its natural place before the initiation of movement."
- *Soil:* is "an aggregate of solid particles, generally of minerals and rocks, that either was transported or was formed by the weathering of rock in place. Gases or liquids filling the pores of the soil form part of the soil."
- *Earth*: "describes material in which 80% or more of the particles are smaller than 2 mm, the upper limit of sand sized particles."
- *Debris*: "contains a significant proportion of coarse material; 20% to 80% of the particles are larger than 2 mm and the remainder are less than 2 mm."

The terms used should describe the displaced material in the landslide before it was displaced.

The types of movement describe how the landslide movement is distributed through the displaced mass. The five kinematically distinct types of movement are described in the sequence *fall*, *topple*, *slide*, *spread* and *flow*.

The following table shows how the two terms are combined to give the landslide type:

Table B1: Major types of landslides. Abbreviated version of Varnes' classification of slope movements (Varnes, 1978).

		Т	YPE OF MATERIA	L	
	TYPE OF MOVEMENT		ENGINEER	ING SOILS	
		BEDROCK	Predominantly	Predominantly	
			Coarse	Fine	
	FALLS	Rock fall	Debris fall	Earth fall	
	TOPPLES	Rock topple	Debris topple	Earth topple	
SLIDES ROTATIONAL		Rock slide	Debris slide	Earth slide	
TRANSLATIONAL		ROCK SHOC	Deons shae		
LATERAL SPREADS		Rock spread	Debris spread	Earth spread	
FLOWS		Rock flow	Debris flow Earth flow		
		(Deep creep)	(Soil creep)		
	COMPLEX Combination of	f two or more princip	le types of movemen	nt	

Figure B1 gives schematics to illustrate the major types of landslide movement. Further information and photographs of landslides are available on the USGS website at http://landslides.usgs.gov.

PRACTICE NOTE GUIDELINES FOR LANDSLIDE RISK MANAGEMENT 2007

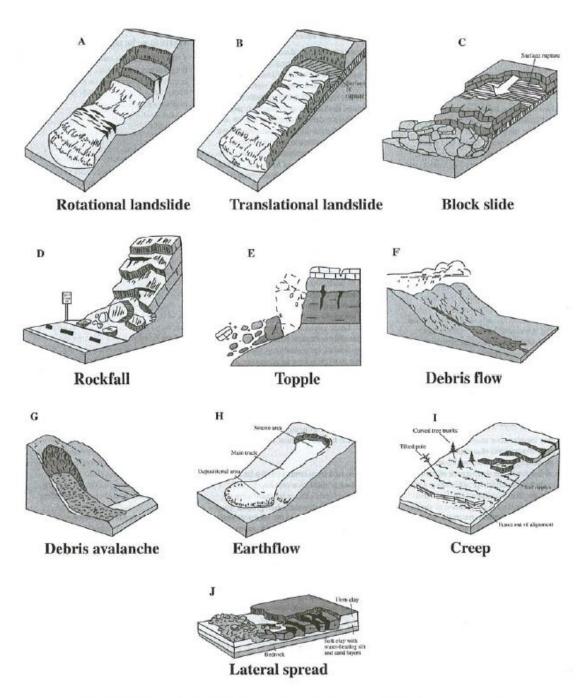


Figure B1: These schematics illustrate the major types of landslide movement. (From US Geological Survey Fact Sheet 2004-3072, July 2004, with kind permission for reproduction.)

88

Appendix 5 Site Photos











Submission to Planning Authority Notice

Council Planning Permit No.	DA 2022 / 00001			Cou	ncil notice date	10/03/2022
TasWater details						
TasWater Reference No.	TWDA 2022/00055-BTN			Date	e of response	03/05/2022
TasWater Contact	Elio Ross Phon		Phone No.	046	67 874 330	
Response issued to						
Council name	BRIGHTON COUNCIL					
Contact details	development@brighton.tas.gov.au					
Development details						
Address	20 BARTON CRES, BRIDGEWATER			Property ID (PID)		5026410
Description of development	Residential Assisted Care Facility					
Schedule of drawings/documents						
Prepared by		Drawing/document No.			Revision No.	Date of Issue
IDW		Project: 2124				
		Sheets: DA02, DA04,		С	22/04/2022	
		DA03			С	20/04/2022
		DA06			А	22/04/2022
Conditions						

Conditions

Pursuant to the *Water and Sewerage Industry Act* 2008 (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:

CONNECTIONS, METERING & BACKFLOW

- 1. A suitably sized water supply with metered connections and sewerage system and connections to the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit.
- 2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost.
- 3. Prior to commencing construction of the use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater.

56W CONSENT

4. Prior to the issue of the Certificate for Certifiable Work (Building) and/or (Plumbing) by TasWater the applicant or landowner as the case may be must make application to TasWater pursuant to section 56W of the Water and Sewerage Industry Act 2008 for its consent in respect of that part of the development which is built within a TasWater easement or over or within two metres of TasWater infrastructure.

DEVELOPMENT ASSESSMENT FEES

5. The applicant or landowner as the case may be, must pay a development assessment fee of \$219.04, to TasWater, as approved by the Economic Regulator and the fee will be indexed, until the date paid to TasWater.

The payment is required within 30 days of the issue of an invoice by TasWater.



Advice

General

For information on TasWater development standards, please visit <u>https://www.taswater.com.au/building-and-development/technical-standards</u>

For application forms please visit <u>https://www.taswater.com.au/building-and-development/development-application-form</u>

Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

- (a) A permit is required to work within TasWater's easements or in the vicinity of its infrastructure. Further information can be obtained from TasWater
- (b) TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit <u>www.taswater.com.au/Development/Service-location</u> for a list of companies
- (c) TasWater will locate residential water stop taps free of charge
- (d) Sewer drainage plans or Inspection Openings (IO) for residential properties are available from your local council.

56W Consent

The plans submitted with the application for the Certificate for Certifiable Work (Building) and/or (Plumbing) will need to show footings of proposed buildings located over or within 2.0m from TasWater pipes and will need to be designed by a suitably qualified person to adequately protect the integrity of TasWater's infrastructure, and to TasWater's satisfaction, be in accordance with AS3500 Part 2.2 Section 3.8 to ensure that no loads are transferred to TasWater's pipes. These plans will need to also include a cross sectional view through the footings which clearly shows;

- (a) Existing pipe depth and proposed finished surface levels over the pipe;
- (b) The line of influence from the base of the footing must pass below the invert of the pipe and be clear of the pipe trench and;
- (c) A note on the plan indicating how the pipe location and depth were ascertained.
- (d) The location of the property service connection and sewer inspection opening (IO).

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by

Jason Taylor Development Assessment Manager

TasWater Contact Details				
Phone	ne 13 6992		development@taswater.com.au	
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au	

From:	Judi Davis <judi@idwarchitecture.com.au></judi@idwarchitecture.com.au>
	-
Sent:	Friday, 27 May 2022 9:44 AM
То:	Development
Cc:	Andrew Williamson
Subject:	20 Barton Crescent, Bridgewater

To Andres Perez-Roca,

In response to your comment on our proposed 1:8 gradient access kerb ramp from the carpark, I would like to provide the following supportive information and design reasons:

With the front retaining wall moved closer to the Units, to achieve the required clearance distance from the existing Taswater main and being mindful of the height of the street frontage retaining wall and the inability to move the Units further to the rear of the property as we have addressed in previous responses, this has meant we could not provide a 1:14 ramp but can provide an acceptable solution in accordance with AS 1428.1 by providing a short 1:8 kerb ramp from the carpark for a maximum distance of 1520mm in length.

Kind regards,

Judi Davis

IDW Architecture + Interiors p 03 6234 5644 f 03 6234 5844 Studio 4 / 147 Liverpool Street Hobart Tasmania 7000

From:	Grundy, Keira <keira.grundy@stategrowth.tas.gov.au></keira.grundy@stategrowth.tas.gov.au>
Sent:	Monday, 16 May 2022 3:05 PM
То:	Brian White
Subject:	RZ2022-001 -DA20220-023 State Growth Representation

Hi Brian,

I refer to the draft planning scheme amendment and combined permit (RZ2022-001 and DA2002-032).

State Growth provided Crown Consent to this application with very specific conditions. Of note, was condition 3 (as extracted below):

3. Consent is provided to install the signs at the specific locations shown on the design drawings supporting the application. Council is to provide specific GPS coordinates for inclusion within the license agreement. No consent is provided to install the signs at other locations within the two titles, or at any other location within the Utilities Zone within the Brighton local government area.

At present, the SSQ and map reads with some ambiguity and could allow for the placement of one (1) pole/poly sign type at any location on each lot (CT156374/1, CT152012/1). The proposed maps show the entirety of these lots highlighted.

Conditions from State Growth were specific and requested that Council should provide GPS coordinates for inclusion within an SSQ. State Growth request that the SSQ and map be amended to include GPS coordinates for the two signs within CT156374/1 and CT152012/1.

While State Growth acknowledge the approval of planning permit DA2002-032, which includes plans detailing the location of the two signs on CT156374/1 and CT152012/1, State Growth is concerned that with the passing of time, the site specific restriction of the DA could become lost, and permit replacement signage in an unsuitable and unsafe location.

Kind regards,

Keira Grundy | Environment and Planning Approvals Officer Environment & Development Approvals State Roads | Department of State Growth Level 2, 4 Salamanca Place, Hobart TAS 7000 | GPO Box 536, Hobart TAS 7001 Phone: (03) 6166 3382 Email: <u>keira.grundy@stategrowth.tas.gov.au</u> www.stategrowth.tas.gov.au

INTEGRITY

DEPARTMENT OF STATE GROWTH COURAGE TO MAKE A DIFFERENCE THROUGH:



RESPECT

Reference Number	Site reference	Folio of the Register	Description (modification, substitution or addition)	Relevant Clause in State Planning Provisions
BRI-21.1	Midlands Highway, Bridgewater	156374/1	An additional Applicable Zone for one (1) Pole/Pylon Sign Type within the following GPS coordinates*: North: 5269240 East: 519425 South: 5269230 West: 519415 *GPS coordinates are in MGA Zone 55 (GDA94)	Signs Code – clause C1.6 Sign Standards (M-Q)
BRI-21.2	Midlands Highway, Bridgewater	152012/1	An additional Applicable Zone for one (1) Pole/Pylon Sign Type within the following GPS coordinates*: North: 5269970 East: 519410 South: 5269960 West: 519400 *GPS coordinates are in MGA Zone 55 (GDA94)	Signs Code – clause C1.6 Sign Standards (M-Q)

BRI-Site-Specific Qualifications

