NOTICE OF PROPOSED DEVELOPMENT

Notice is hereby given that an application has been made for planning approval for the following development:

SITE: 8 Boathouse Rise, Lewisham

PROPOSED DEVELOPMENT:

CHANGE OF USE (OUTBUILDING TO DWELLING) RETROSPECTIVE & NEW ADDITIONS

The relevant plans and documents can be inspected at the Council Offices at 47 Cole Street, Sorell during normal office hours, or the plans may be viewed on Council's website at www.sorell.tas.gov.au until **Tuesday 25th March 2025.**

Any person may make representation in relation to the proposal by letter or electronic mail (sorell.council@sorell.tas.gov.au) addressed to the General Manager. Representations must be received no later than **Tuesday 25th March 2025.**

APPLICANT: **Jarome Kelly**

APPLICATION NO: **DA 2025 /1 1**
DATE: **7 March 2025**

Part B: Please note that Part B of this form is publicly exhibited.

Full description of Proposal:	*Use: Change of Use to Dwelling, Shed is already completed, works will include a small extension and internal changes* *Development:* *Large or complex proposals should be described in a letter or planning report.*
Design and construction cost of proposal:	$ .....25000.....
Is all, or some the work already constructed:	No: ☒ Yes: ☐
Location of proposed works:	Street address: .....8 Boathouse Rise ..... Suburb: ...Lewisham..... Postcode: 7173..... Certificate of Title(s) Volume: .....171235..... Folio: .....2.....
Current Use of Site	.....Shed (Temporary Occupancy).....

Current Owner/s:	Name(s).....Jarome Kelly.....	
Is the Property on the Tasmanian Heritage Register?	No: ☒ Yes: ☐	*If yes, please provide written advice from Heritage Tasmania*
Is the proposal to be carried out in more than one stage?	No: ☒ Yes: ☐	*If yes, please clearly describe in plans*
Have any potentially contaminating uses been undertaken on the site?	No: ☒ Yes: ☐	*If yes, please complete the Additional Information for Non-Residential Use*
Is any vegetation proposed to be removed?	No: ☒ Yes: ☐	*If yes, please ensure plans clearly show area to be impacted*
Does the proposal involve land administered or owned by either the Crown or Council?	No: ☒ Yes: ☐	*If yes, please complete the Council or Crown land section on page 3*
If a new or upgraded vehicular crossing is required from Council to the front boundary please complete the Vehicular Crossing (and Associated Works) application form https://www.sorell.tas.gov.au/services/engineering/		

Part B continued: Please note that Part B of this form is publicly exhibited

Declarations and acknowledgements
▲ I/we confirm that the application does not contradict any easement, covenant or restriction specified in the Certificate of Title, Schedule of Easements or Part 5 Agreement for the land. ▲ I/we consent to Council employees or consultants entering the site and have arranged permission and/or access for Council's representatives to enter the land at any time during normal business hours. ▲ I/we authorise the provision of a copy of any documents relating to this application to any person for the purposes of assessment or public consultation and have permission of the copyright owner for such copies. ▲ I/we declare that, in accordance with s52(1) of the *Land Use Planning and Approvals Act 1993*, that I have notified the owner(s) of the intention to make this application. ▲ I/we declare that the information in this application is true and correct. *Details of how the Council manages personal information and how you can request access or corrections to it is outlined in Council's Privacy Policy available on the Council website.*
• I/we acknowledge that the documentation submitted in support of my application will become a public record held by Council and may be reproduced by Council in both electronic and hard copy format in order to facilitate the assessment process, for display purposes during public exhibition, and to fulfil its statutory obligations. I further acknowledge that following determination of my application, Council will store documentation relating to my application in electronic format only.
• Where the General Manager's consent is also required under s.14 of the *Urban Drainage Act 2013*, by making this application I/we also apply for that consent.

Applicant Signature:	Signature: ..... Date: .....06/03/2025...

Crown or General Manager Land Owner Consent
If the land that is the subject of this application is owned or administered by either the Crown or Sorell Council, the consent of the relevant Minister or the Council General Manager whichever is applicable, must be included here. This consent should be completed and signed by either the General Manager, the Minister, or a delegate (as specified in s52 (1D-1G) of the *Land Use Planning and Approvals Act 1993*). Please note: • If General Manager consent if required, please first complete the General Manager consent application form available on our website www.sorell.tas.gov.au • If the application involves Crown land you will also need a letter of consent. • Any consent is for the purposes of making this application only and is not consent to undertaken work or take any other action with respect to the proposed use or development.
I _____ being responsible for the administration of land at _____ declare that I have given permission for the making of this application for _____

CHRIS L. POTTER
M.I.E. AUST., C P Eng.
CONSULTING ENGINEER

9 Warwick Street
Hobart, Tas. 7000

Phone (03) 6231 4143
Mobile 0407 794 292

AS2870 SITE CLASSIFICATION
AND
AS4055 WIND CLASSIFICATION

FILE NAME: KELLJ1701 **REPORT DATE: 6th DECEMBER 2017**

LOCATION OF SITE: 8 BOATHOUSE RISE LEWISHAM 7173

CLIENT: JAROME KELLY

PURPOSE OF INVESTIGATION

To carry out an investigation of foundation material, and to classify the site in accordance with AS2870 and AS4055

SITE DESCRIPTION

The site exists as a vacant lot situated in developing rural – residential surrounds. The land has an overall gentle slope angle of 5-6 degrees facing west. Ground cover is thick short grass. Some fill exists near the centre and towards the rear of the lot.

GEOLOGY

The Department of Infrastructure, Energy and Resources has mapped the area as Jurassic dolerite.

SUBSURFACE PROFILE

0-100	Brown – grey loamy SAND, moist.
100-300	Brown loamy SAND, moist.
300-800	Grey mottled orange sandy CLAY, firm, moist, high plasticity.
800-950	Brown – yellow sandy CLAY, soft, moist, moderate plasticity.
950+	Auger refusal

All testholes revealed a duplex soil with sandy soil overlying clay subsoil at depths between 300 to 500mm. Fill consists of sand, clay and gravel and has a maximum depth of approximately 400mm. A modified Emerson crumb test revealed the clay subsoil to be dispersive between 550 – 950mm depth.

AS2870 SITE CLASSIFICATION

The site is classified as a 'P'

Due to the presence of fill and dispersive clay subsoil.

The natural soil is classified as 'H1' reactivity.

FOOTING RECOMMENDATION

All footings to be designed to AS2870 and engineers detail. All footings to be bedded / piered to competent natural material.

SITE STABILITY

Dispersive clay soils may require special construction and management techniques. These are not detailed in his report as it lies outside the scope of AS2870.

AS4055 WIND CLASSIFICATION

Wind Region:	**A**
Terrain Category:	**1**
Shielding:	**NS**
Topography:	**T1**
Wind Classification:	**N3**

Design Wind Gust Speed, V_u: **50m/s**

It should be noted that this is an ultimate stress design wind speed, and as such should not be used for permissible stress design.

FOUNDATION STRENGTH

The foundation strengths were found to be adequate for construction. Suitable foundation material was found at a depth of competent natural material.

GENERAL RECOMMENDATIONS

THE FOUNDATION DEPTHS quoted in this report are measured from the natural surface level, and may vary if site levelling works are carried out.

TO MINIMISE THE EFFECTS ON FOOTINGS from soil moisture variations, it is recommended that the builder compact soil without rubble or organic matter around the footings and ensure that the foundation moisture is kept even, both prior to and after construction.

TO REDUCE EFFECTS OF CLAY SWELLING it is recommended that the concrete is not allowed to splay out near the surface and thus create a ledge under which the swelling clay can exert upward pressure. If necessary, smooth sheet formwork should be used.

GOOD DRAINAGE is an important part of any footing design. The ground around the footings should be graded away at approximately 1:20 to prevent ponding of water against the building (even during construction). This slope should be achieved by excavation and not by placing loosely compacted fill around the footings.

WHERE SHALLOW ROCK OR FLOATER outcrops less than 1 metre long prevent the construction of the minimum specified concrete depth for strip or beam footings below ground, this depth may be reduced by 1/3 provided the steel content is tripled over the outcrop + 1/2 metre each side of the outcrop, alternatively the concrete depth and structural stiffness may be maintained by forming a step-up above ground. If massive rock is encountered it must be removed by ripping or blasting, and an additional layer of steel be placed in the top of the footing extending 1/2 metre either side of the outcrop.

FOOTINGS WHICH ARE CLOSE TO AN EASEMENT should be deepened so that they are founded below a line projected up at 40^{o} to the horizontal from the nearest base of the easement excavations. Deep concrete piers or timber piles may be used.

IMPORTANT NOTES

Limits of investigation:

1. The recommendations made in this report are based on the assumption that the test results are representative of the overall sub-surface conditions. However, it should be noted that actual conditions in some parts of the building site may differ from those found in our test holes. If excavations reveal soil conditions different from those shown in the attached Calculation Sheet, further consultation and advice is required.

2. The recommendations in this report are based on :
(a) The information gained from site investigation.
(b) The building type and site treatment indicated by the client prior to testing. Should the client or his agent have omitted to supply the correct relevant information, or make significant changes

to the building type and/or building site after testing, then no responsibility is taken for any consequences of these changes.

3. Soil layer variations are common; therefore footings should be taken to the recommended foundation material which is located under 'Foundation Strength' earlier in this report. In all cases the foundation soil should have a similar strength and consistency to that recommended but need not be of the same type.

4. Any sketches in this report should be considered as only approximate schematic evidence of the work carried out, therefore any dimensions or slope information should not be used for any other purpose unless otherwise stated.

General Building Recommendations :

5. Good site drainage is an important part of construction and maintenance. Soil drains should be constructed well before footing construction. The roof water should be diverted away from the footing as soon as the roof is constructed by using temporary pipes if necessary.

6. On 'M','H' or 'E' sites brittle tiles should not be laid directly on floors. An appropriate sheeting material and rubber based adhesive or grout should be used.

7. Shrinkage cracking can be expected in concrete floors in the first 6 months. This type of cracking does not require any special attention unless there is some vertical movement or if the crack width exceeds 3mm.

8. Avoid excavations close to footings. Those footings founded on sandy soils can experience settlements while those founded on clayey soils can also move due to the shrinking and swelling caused by moisture changes.

OWNER'S RESPONSIBILITY

IT IS THE OWNER'S RESPONSIBILITY :

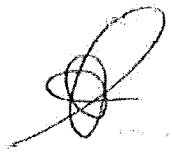
(i) Not to plant or allow the growth of trees or dense shrubs too close to the footings.
(ii) Not to excessively water the soil near the footings or allow it to dry excessively.
(iii) To maintain good site drainage and not to allow plumbing leaks or water ponding around the building.
(iv) To follow all post construction recommendations.
(v) Not to pave, alter any part of the structure, carry out any excavations or landscaping which alters the site drainage (resulting in water not being diverted away from footings) and the foundation conditions.

ADVICE

- It is recommended that the client obtain and read the CSIRO BTF 18 information sheet "Foundation Maintenance and Footing Performance: A Homeowner's Guide" which can be provided by the CSIRO on request.

CHRIS L. POTTER
M.I.E. AUST., C P Eng.
CONSULTING ENGINEER

Signed



Chris L Potter
M.I.E. AUST CP Eng.

NOTE : Should other footing configuration or structural advice be required, please contact our office.

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form 55

To: JAROME KELLY *Owner /Agent*

tasbuild19@gmail.com *Address*

Suburb/postcode

Qualified person details:

Qualified person: CHRIS L POTTER

Address: 9 WARWICK STREET

HOBART 7000

Phone No: 03 6231 4143

Fax No: 03 6234 3360

Licence No: CC 2679 R

Email address: chris@chrispotterengineering.com

Qualifications and Insurance details: Licensed as an Engineer – Civil
Insured under Chris L Potter Consulting Engineer

(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 AS2870

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

Details of work:

Address: 8 BOATHOUSE RISE

LEWISHAM 7173

Lot No: 2

Certificate of title No: 171235

The assessable item related to this certificate: NEW BUILDING

(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 – AS2870

(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 item, 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:	AS2870 Site Classification and AS4055 Wind Classification dated 6th December 2017
Relevant calculations:	
References:	AS2870 – 2011, AS4055 - 2012

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

Foundation and wind classification

Scope and/or Limitations

Footings to be inspected by engineer prior to pour.

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:	CHRIS L POTTER	KELLJ1701	6/12/2017

Unit 2, 1 Liverpool St
Hobart, Tas. 7000

P 03 6146 0334
E info@hed-consulting.com.au

BUSHFIRE HAZARD ASSESSMENT REPORT

EXISTING BUILDING (CHANGE OF CLASS - FROM CLASS 10a TO CLASS 1a)

JAROME KELLY

8 BOATHOUSE RISE
LEWISHAM 7173

22 SEPTEMBER 2023

VERSION 1.0

EXECUTIVE SUMMARY

The subject land is located at 8 Boathouse Rise, Lewisham (C.T. 171235/2). The development proposal includes a change of class from a Class 10a to Class 1a building. The site and proposed development are assessed to comply with the requirements of AS3959-2018 *Construction of Buildings in bushfire-prone areas,* Tasmanian Planning Scheme (Sorell Local Provisions Schedule), Director's Determination – Bushfire Hazard Areas V1.1, Building Regulation 2016.

The site is assessed at BAL – LOW of AS3959-2018. There is insufficient risk to warrant specific bushfire construction requirements. This assessment is based on the presence of low threat vegetation and non – vegetated areas[1].

LIMITATIONS

This report is based on findings concluded from a desktop and field investigation of the subject property. Classification of vegetation has been based on the site inspection does not account for any further modification to the existing vegetation (planting, clearing etc.)

The assessment is based on information provided at the time of the report. If the location of the proposed development differs from the location shown in the Bushfire Hazard Assessment Report and Bushfire Hazard Management Plan the author must be contacted otherwise both the report and plan is void.

The BAL assessment is based on the Fire Danger Index (FDI) of 50. The FDI will exceed 50 when the Fire Danger Rating is Extreme or Catastrophic.

The forward of AS3959 – 2018, *Construction of buildings in bushfire prone areas* states that "It should be borne in mind that the measures contained in this standard cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire, and extreme weather conditions."

Due to the unpredictable nature and behaviour of fire, compliance with AS359-2018 does not guarantee a dwelling will survive a bushfire event.

[1] Clause 2.2.3.2 of AS3959-2018

CONTENTS PAGE

1.0 INTRODUCTION

1.1 SCOPE

To determine a Bushfire Attack Level in accordance with *AS3959 – 2018 Construction of buildings in bushfire-prone areas* and assess the site against the *Director's Determination – Bushfire Hazard Areas V1.1*

1.2 PROPOSAL

Existing building – from Class 10a to Class 1a.

1.3 GENERAL INFORMATION

SITE ADDRESS

8 Boathouse Rise, Lewisham

OWNER

Jarome Kelly

TITLE REFERENCE

C.T. 171235/2

PROPERTY ID NUMBER

3436790

PROPERTY SIZE

1990m^2

PROPOSED DEVELOPMENT AREA

100m^2

MUNICPALITY

Sorell Council

ZONING

Low Density Residential, Sorell Local Provisions Schedule, Tasmanian Planning Scheme.

2.0 SITE DESCRIPTION

2.1 LOCALITY

The subject land is located at 8 Boathouse Rise, Lewisham. The lot is situated on the lower slopes of Boathouse Hill. Aerial photography shows the site is surrounded by established by low density residential development with maintained lawns and gardens.

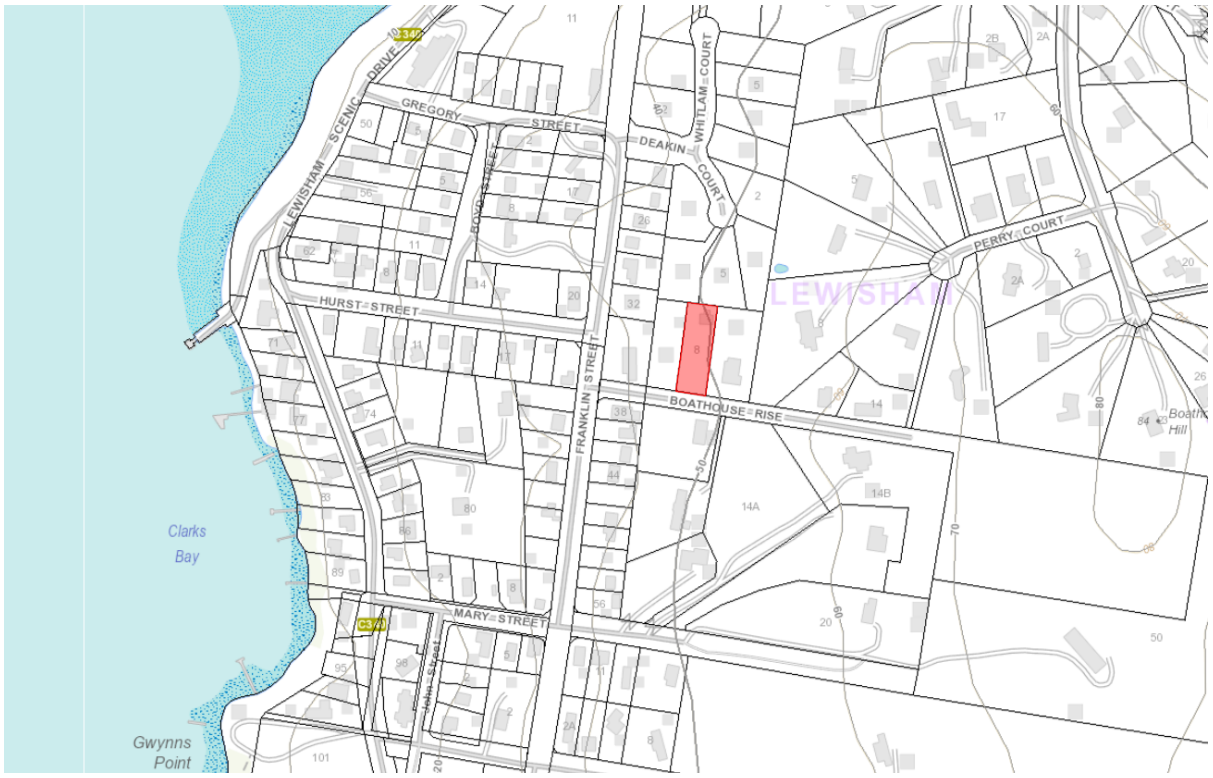


Figure 1: Locality map of the area with subject lot shown – red fill. Source: Land Information System Tasmania, http://www.thelist.tas.gov.au.

The property is accessed from Boathouse Rise which is a dual lane, gravel and maintained road.

2.1.2 FIRE HISTORY

Recent bushfires within 1km of the site is shown below.

Ignition date	Type	Fire name or Planned burn name	Location to site	Approximate size
22/2/2022	Bushfire	Lewisham Scenic Drive	290m	8.13 Ha
1/2/2018	Bushfire	Lewisham Scenic Drive	720m	1.68 Ha

2.1.2 PLANNING – ZONING & TENURE

The lot is zoned as Low Density Residential and is privately owned. Zoning and tenure of surrounding lots is shown below (within 100m from property boundaries).

Direction	Zoning	Tenure
North	Low Density Residential	Private Freehold
East	Low Density Residential	Private Freehold
South	Open Space & Rural Living	Private Freehold & Local Government Act Reserve
West	Low Density Residential	Private Freehold

2.1.3 PLANNING – OVERLAYS

Overlay	Distance from site	Development Response
Bushfire-prone areas	0m	The Bushfire Hazard Assesment Report (BHAR) and Bushfire Hazard Management Plan (BHMP) satisfy the requirements of this code.
Airport obstacle limitation area	0m	The site is assessed as BAL – LOW thus no bushfire hazard requirements.
Flood-prone areas	32m	The site is assessed as BAL – LOW thus no bushfire hazard requirements.

2.1.4 PLANNING – THREATENED FLORA AND FAUNA

A threatened flora and fauna search[2] revealed no threatened flora and fauna on the subject lot.

[2] Threatened species search using Land Information Systems Tasmania. This is not a complete search and other information may be available from other agencies.

2.2 TOPOGRAPHY & VEGETATION

Direction	Distance from site	Average slope angle	Upslope / Down slope
North	0-100m	2°	Down slope
East	0-100m	0° / Upslope	Upslope
South	0-100m	2°	Down slope
West	0-100m	8°	Down slope

Figure 2: Aerial photo of the area with approximate location of buildings shown. The yellow solid line is 100m from edge of the proposed development. Exclusions shown. Source: Land Information System Tasmania, http://www.thelist.tas.gov.au.

TAS Veg 4.0 communities within 100m of the site are shown in the figure below.

Direction	Distance from site	TAS Veg Live Description
North	0m	FUR – Urban Areas
East	0m	FUR – Urban Areas
South	0m	FUR – Urban Areas
West	0m	FUR – Urban Areas

Vegetation types shown below.

Direction	Existing Vegetation Description
North	0-100m+: Maintained residential gardens and grass is maintained in 'minimal fuel condition' and roadways. **Exclusion: Low threat vegetation and non – vegetated areas as per clause 2.2.3.2 (e) & (f) of AS3959:2018.**
East	0-100m+: Maintained residential gardens and grass is maintained in 'minimal fuel condition' and roadways. **Exclusion: Low threat vegetation and non – vegetated areas as per clause 2.2.3.2 (e) & (f) of AS3959:2018.**
South	0-100m+: Maintained residential gardens and grass is maintained in 'minimal fuel condition' and roadways. **Exclusion: Low threat vegetation and non – vegetated areas as per clause 2.2.3.2 (e) & (f) of AS3959:2018.**
West	0-100m+: Maintained residential gardens and grass is maintained in 'minimal fuel condition' and roadways. **Exclusion: Low threat vegetation and non – vegetated areas as per clause 2.2.3.2 (e) & (f) of AS3959:2018.**

3.0 BUSHFIRE SITE ASSESSMENT

3.1 BUSHFIRE ATTACK LEVEL ASSESSMENT

Proposed development: Existing building (change of class from 10a to 1a)

	North	East	South	West
Vegetation classification as per AS3959:2018	NA	NA	NA	NA
Exclusions (where applicable from clause 2.2.3.2 of AS3959 - 2018)	(e) & (f)	(e) & (f)	(e) & (f)	(e) & (f)
Distance to classified vegetation (m) from proposed / existing edge of building.	>100	>100	>100	>100
Classified vegetation	NA	NA	NA	NA
Effective slope under classified vegetation	NA	NA	NA	NA
Bushfire Attack Level	**LOW**	**LOW**	**LOW**	**LOW**

The site is assessed as BAL – LOW.

The assessment is based on a Fire Danger Index (FDI) of 50. The FDI will exceed 50 when the Fire Danger Rating is Extreme or Catastrophic.

3.2 EXISTING BUSHFIRE HAZARD ASSESSMENT

3.2.1 CONSTRUCTION

The existing dwelling is single storey, clad frame with a metal roof.

3.2.2 PROPERTY ACCESS

There is an existing gravel driveway that provides access to the existing building and parking area in front of the building.

3.2.3 WATER SUPPLY FOR FIRE FIGHTING PURPOSES

The site has a tank supply only. Two poly tanks were observed on the lot with approximately 40,000 litres total.

3.2.4 HAZARD MANAGEMENT AREA

The site is surrounded residential development and managed land with maintained gardens and lawn in 'minimal fuel condition'.

3.2.5 EMERGENCY PLAN

No emergency plan exists for the subject lot.

4.0 BUSHFIRE HAZARD MANAGEMENT REQUIREMENTS

The following bushfire hazard management requirements deemed to comply with the DtS provisions of Determination.

4.1 Design and construction

4.1.1 Deemed-to-Satisfy Provisions

(1) Building work in a bushfire-prone area must be designed and constructed in accordance with either:

(a) AS3959 or
(b) *Nash Standard – Steel Framed Construction in Bushfire Area*;

as appropriate for a BAL determined for that site using Table 2.6 of AS 3959.

(2) Subclause (1)(a) is only applicable to the following:

(a) a Class 1, 2 or 3 building; or
(b) a Class 10a building or deck associated with a Class 1, 2 or 3 building

(3) Subclause (1)(b) is applicable to the following:

(a) a Class 1 building; or
(b) a Class 10a building or deck associated with a Class 1 building

(4) Despite subclause (1) above, permissible variations from requirements specified in 1(a) and 1(b) are as specified in Table 1

(5) Despite subclauses (1) and (4), performance requirements for buildings subject to BAL 40 or BAL Flame Zone (BAL-FZ) are not satisfied by compliance with subclauses (1) or (4) above.

4.1.2 Proposed Development Solutions

The site is assessed as BAL – LOW thus the above DtS requirements do not apply as per Division 1, clause 1.3(7) of the Determination.

There is insufficient risk from bushfire to warrant any specific bushfire protection measures. See section 4 of AS3959:2018 for more information.

4.2 Property Access

4.2.1 Deemed-to-Satisfy Provisions

(1) A new building in a bushfire-prone area must be provided with property access to the building area and the fire fighting water point, accessible by a carriageway, designed and constructed as specified in subclause (4) below.

(2) For an addition or alteration to an existing building in a bushfire-prone area, if there is no property access available property access must be provided to the building area and the firefighting water point accessible by a carriageway as specified in subclause (4).

(3) An addition or alteration to an existing building in a bushfire-prone area must not restrict any existing property access to the building area or to the water supply for firefighting.

(4) Vehicular access from a public road to a building must:

(a) comply with the the property access requirements described in Table 2;

(b) Include access from a public road to within 90 metres of the furthest part of the building measured as a hose lay; and

(c) Include access to the hardstand area for the firefighting water point

4.2.2 Proposed Development Solutions

The site is assessed as BAL – LOW thus the above DtS requirements do not apply as per Division 1, clause 1.3(7) of the Determination.

4.3 Water Supply for Fire Fighting

4.3.1 Deemed-to-Satisfy Provisions

(1) A new building in a bushfire-prone area, must be provided with a water supply dedicated for firefighting purposes which complies with the requirements specified in Table 3A or Table 3B. as specified in subsections (4) and (5) below.

(2) For an addition or alteration to an existing building in a bushfire-prone area, if there is no water supply for firefighting available the building must be provided with a water supply dedicated for fire fighting purposes which complies with the requirements specified in Table 3A or Table 3B.

4.3.2 Proposed Development Solutions

The site is assessed as BAL – LOW thus the above DtS requirements do not apply as per Division 1, clause 1.3(7) of the Determination.

4.4 Hazard Management Areas

4.4.1 Deemed-to-Satisfy Provisions

(1) A new building, and an existing building in the case of an addition or alteration to a building, in a bushfire – prone area must be provided with a hazard management area.

(2) The hazard management area must comply with Table 4.

(3) The hazard management area for a particular BAL must have the minimum dimensions required for the separation distances specified for that BAL in Table 6 of AS3959.

(4) The hazard management area must be established and maintained such that fuels are reduced sufficiently, and other hazards are removed such that the fuels and other hazards do not significantly contribute to the bushfire attack.

4.4.2 Proposed Development Solutions

The site is assessed as BAL – LOW thus the above DtS requirements do not apply as per Division 1, clause 1.3(7) of the Determination.

4.5 Emergency Plan

4.5.1 Deemed-to-Satisfy Provisions

(1) A bushfire emergency plan must be prepared for:

(a) a new building;

(b) an existing building in the case of an addition or alteration to a building;

(c) an existing building in the case of a change of building class;

(d) a building associated with the use, handling, generation, or storage of a hazardous chemical or explosive;

in a bushfire-prone area.

(2) A bushfire emergency plan must comply with the requirements specified in Table 5.

4.5.2 Proposed Development Solutions

The site is assessed as BAL – LOW. Emergency plan is not required for a new Class 1a building as per clause 2.2(3) of the Determination.

It is recommended that the owner read the resources provided by Tas Fire Service. These can be found on the Tas Fire Website[3]

[3] http://fire.tas.gov.au/Show?pageId=colbushfirePrepareActSurvive

5.0 CONCLUSIONS AND RECOMMENDATIONS

A bushfire hazard assessment report has been completed for the proposed development at 8 Boathouse Rise, Lewisham. The proposed development includes the change of class of the existing building from a Class 10a to Class 1a building.

The site is within a Bushfire-prone areas overlay. The bushfire attack level has been assessed as BAL LOW.

There is insufficient risk from bushfire to warrant any specific bushfire protection measures.

6.0 REFERENCES

AS3959 – 2018 - Construction of Buildings in Bushfire Prone Areas

Director's Determination – Bushfire Hazard Areas V1.1

Bushfire Information Publications - Tasmania Fire Service.

Building regulations 2016

The LIST - Department of Primary Industries Parks Water & Environment

Tasmanian Planning Scheme (Sorell Local Provisions Schedule)

7.0 APPENDIX

7.1 FIELD PHOTOS

Photo 1: Field photo taken facing north from the proposed building area. Exclusion: Low threat vegetation as per clause 2.2.3.2(f) of AS3959:2018.

Photo 2: Field photo taken facing east from the proposed building area. Exclusion: Low threat vegetation as per clause 2.2.3.2(f) of AS3959:2018.

Photo 3: Field photo taken facing south from the proposed development area. Exclusion: Low threat vegetation.

Photo 4: Field photo taken facing south - west from the proposed development area. Exclusion: Low threat vegetation.

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: JAROME KELLY *Owner /Agent*

tasbuild19@gmail.com *Address*

Suburb/postcode

Qualified person details:

Qualified person: JOE HEPPER

Address: UNIT 2, 1 LIVERPOOL STREET

HOBART 7000

Phone No: 03 6146 0334

Fax No:

Licence No: BFP - 148

Email address: joe@hed-consulting.com.au

Qualifications and Insurance details: Accredited to report on bushfire hazards under Part IVA of the *Fire Services Act 1979.*
About Underwriting, AHWB Pty Ltd t/as HED Consulting, Policy Number: ENG 20 000459

(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: 8 BOATHOUSE RISE

LEWISHAM 7173

Lot No: 2

Certificate of title No: 171235

The assessable item related to this certificate: Assessment of the Bushfire Attack Level (BAL) and Bushfire Hazard Management Plan

(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

(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 item, 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 22 September 2023
Relevant calculations:	
References:	AS3959 – 2018 Construction of buildings in bushfire prone areas Director's Determination – Bushfire Hazard Areas V1.1 Guidelines for Development in Bushfire Prone Areas of Tasmania, Tasmanian Fire Service, 2005 Tasmanian Planning Scheme, Sorell Local Provisions Schedule Building Regulations 2016

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

Bushfire Hazard Assessment Report dated 22 September 2023, version 1.0.

Building to comply with BAL – LOW. There is insufficient risk from bushfire to warrant any specific bushfire protection measures.

Scope and/or Limitations

The provisions in the Bushfire Hazard Assessment Report are based on present conditions at the time of inspection. Vegetation growth (natural and manmade) or any other future changes on the existing property and adjacent properties have not been considered.

The assessment is based on information provided at the time of the report. If the location of the proposed development differs from the location shown in the Bushfire Hazard Assessment Report the report is void.

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:	JOE HEPPER	H2719	22/9/2023

CHRIS L. POTTER
M.I.E. AUST., C P Eng.
CONSULTING ENGINEER

9 Warwick Street
Hobart, Tas. 7000

Phone (03) 6231 4143
Mobile 0407 794 292

AS1547 ON-SITE DOMESTIC WASTEWATER MANAGEMENT

Site and soil evaluation and wastewater system design

FILENAME:	**KELLJ1701**
CLIENT:	**JAROME KELLY**
POSTAL ADDRESS:	**tasbuilt19@gmail.com**
SITE ADDRESS:	**8 BOATHOUSE RISE LEWISHAM 7173**
COUNCIL:	**SORELL COUNCIL**

DATE: 18th DECEMBER 2018

SITE DESCRIPTION

The site is situated in developing rural – residential surrounds. The land has an overall gentle slope angle of 5-6 degrees facing towards the west. Ground cover is grass and lot is devoid of trees apart from along the northern site boundary. The site has a tank water supply and no off-site sewage service. Proposed development includes the construction of a four bedroom dwelling and a shed.

Figure 1: Field photo of 8 Boathouse Rise, Lewisham. Source: Land System Information Tasmania, http://www.thelist.tas.gov.au.

GEOLOGY

Jurassic dolerite.

SOIL PROFILE

A number of test holes were conducted on the site. The following profile is typical of the test holes conducted at or near the proposed land application area.

Depth (mm)	Soil Description	Soil Category
0-150	Brown – grey loamy SAND, moist.	**2**
150-400	Brown loamy SAND, moist.	**2**
400-800	Grey mottled orange light CLAY, some sand, firm, moist.	**5**
800-1000	Brown – yellow sandy CLAY, soft, moist.	**5**
1000+	Auger refusal	

The assessment is based on a category 5 (light clays). In accordance to AS1547:2012, a long-term acceptance rate (LTAR) of 8 L/sq. m/day was adopted for this site.

WASTEWATER LOAD & TOTAL WETTED AREA REQUIRED

The wastewater load is calculated from AS1547:2012.

Number of bedroom(s): 4

Number of people: 6[1]

Individual wastewater load: 120L/day (tank water supply)

Total wastewater load: 720L/day

Design loading rate: 8mm/day

Total irrigation area required: **90m^2** (see 'Trench3.0' reports)

The 'total wetted area' will be able to handle a daily wastewater load of up to 720 litres. This area was calculated using the water balance 'Trench3.0' program. The wastewater volume is based on figures sourced from Appendix H of AS1547:2012.

RECOMMENDED WASTEWATER SYSTEM

SITE LIMITATIONS & RISKS

The attached 'Trench3.0'program site capability and environment sensitivity reports detail a number of factors and risks associated with wastewater disposal. Alerts will be flagged when the some factors are considered to be 'high risk'. These factors need to be addressed and decreased to a tolerable risk by

[1] Table 1 of Director's Guidelines for On-site Wastewater Management Systems, Building Act 2016, 20 November 2017.

implementing design risk reduction measures. These measures are detailed in the text box of both reports and may be expanded upon further in this report.

The main limitation on the site includes clay subsoil. The site is not suitable for a standard septic tank and absorption trenches. The site is suitable for an AWTS and bottomless sand filter and apron.

PROPOSED WASTEWATER SYSTEM

The new system (bottomless sand filter and disposal area) will treat all wastewater from the proposed four – bedroom dwelling.

All wastewater shall be gravity – fed into an Econocycle. The secondary treated wastewater shall then be pumped to the bottomless sand filter.

The minimum area and length of the sand filter is based on $50L/m^2/day$.

Minimum wetted area (A) of sand filter is: $A = V$ (daily volume) / $50L/m^2/day$

$A = 720 / 50L/m^2/day$

$A = 14.4m^2$

The minimum length (L) of the filter is: $L = V / 50L/m/day$

$L = 720 / 50L/m/day$

$L = 14.4m$

The filter shall have a length of 14.4m and a width of 1m to equal an area of $14.4m^2$. Please see attached documents for further details on the construction requirements for this bed. A further $75.6m^2$ of area (apron) will be designated downslope of each sand filter to absorb the treated wastewater. This area requires additional natural sandy loam to achieve a good topsoil depth for absorption. Please see attached diagrams for further information. A minimum area of $90m^2$ shall also be reserved as a secondary disposal area. Both disposal areas should be protected from vehicular and regular foot traffic. Vegetation should be planted in the topsoil of the sand filter and the area immediately downslope from the bed.

The bottomless sand filter and apron is to be installed in accordance to the attached document: Cromer, W. C. (2013). Bottomless sand filters: Notes for designers, installers and regulators July 2013. Land application systems for domestic wastewater management. Unpublished report by William C Cromer Pty Ltd, 1 December 2013.

DESIGNER INSPECTION

SYSTEM MUST BE INSPECTED BY DESIGNER.

PLEASE CALL THE OFFICE ON ***(03) 6231 4143*** AFTER THE SEPTIC TANK HAS BEEN INSTALLED AND THE SAND FILTER HAS BEEN CONSTRUCTED WITH PIPEWORK LAID.

SYSTEM MUST BE INSPECTED **BEFORE** THE TOPSOIL IS LAID OVER THE GRAVEL AND PIPEWORK IN THE SAND FILTER.

DESIGNER OPERATION & MAINTENANCE GUIDELINES

The regular operation and maintenance is essential for the long term viability of any onsite wastewater system. The design of this system can cope with average domestic wastewater produced from a single four – bedroom residential dwelling. Any variation in the composition of the wastewater such as commercial or industrial activities would require consultation of the designer. Any additions to the proposed development may require further investigation and advice.

Operation and maintenance guideline are provided below. It should be noted that each type of wastewater system has different maintenance requirements. This is not a complete list and information must also be sought from manufacturers' of the specific equipment installed and the permit authority.

Septic tank

- Kitchen waste such as grease and fats shall be removed before washing
- Install sink waste plugs to keep out possible solids entering the system
- Do not install a garbage grinder
- Do not put hygiene products into the system
- Use bio-degradable soaps and low – phosphorus cleaning products
- Do not put powerful bleachers, chemicals and paint into the system
- Try to space out water use as much as possible to avoid peaks loading
- The tank must be protected from all vehicle traffic
- The tank must be de-sludged every three to five years

Land application area (Bottomless Sand Filter & Apron)

- Vegetation must be planted in the topsoil of the filter and the apron
- Access to the land application area shall be discouraged. This area is not to be used as a play area for children
- No vehicle or foot traffic (paths) is allowed on the disposal area
- The reserve area must not be built upon and access is also discouraged

Chris L Potter Consulting Engineer

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Assessment Report

Onsite Wastewater Management Assessement

Assessment for	JAROME KELLY	Assess. Date	18-Dec-18
	tasbuild19@gmail.com	Ref. No.	KELLJ1701
Assessed site(s)	8 BOATHOUSE RISE LEWISHAM 7173	Site(s) inspected	4-Dec-17
Local authority	Sorell Council	Assessed by	J Hepper C L Potter

This report summarises wastewater volumes, climatic inputs for the site, soil characteristics and sustem sizing and design issues. Site Capability and Environmental sensitivity issues are reported separately, where 'Alert' columns flag factors with high (A) or very high (AA) limitations which probably require special consideration for system design(s). Blank spaces on this page indicate data have not been entered into TRENCH.

Wastewater Characteristics

Wastewater volume (L/day) used for this assessment = 720 (using a method independent of the no. of bedrooms)

Septic tank wastewater volume (L/day) = 240

Sullage volume (L/day) = 480

Total nitrogen (kg/year) generated by wastewater = 10.5

Total phosphorus (kg/year) generated by wastewater = 3.5

Climatic assumptions for site (Evapotranspiration estimated using mean max. daily temperatures)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean rainfall (mm)	41	39	38	43	42	37	46	47	43	48	48	52
Adopted rainfall (R, mm)	45	42	41	47	46	40	50	51	47	52	52	57
Retained rain (Rr, mm)	41	38	37	42	41	36	45	46	42	47	47	51
Max. daily temp. (deg. C)	22	22	20	18	15	13	12	13	15	17	19	20
Evapotrans (ET, mm)	82	69	62	53	43	47	45	48	54	63	68	74
Evapotr. less rain (mm)	**41**	**31**	**25**	**11**	**2**	**11**	**0**	**2**	**12**	**16**	**22**	**23**

Annual evapotranspiration less retained rain (mm) = 196

Soil characterisitics

Texture = Light clay Category = 5 Thick. (m) = 0.9

Adopted permeability (m/day) = 0.1 Adopted LTAR (L/sq m/day) = 8 Min depth (m) to water = 2

Proposed disposal and treatment methods

Proportion of wastewater to be retained on site:	All wastewater will be disposed of on the site
The preferred method of on-site primary treatment:	In a package treatment plant
The preferred method of on-site secondary treatment:	In-ground
The preferred type of in-ground secondary treatment:	Sand filter(s)
The preferred type of above-ground secondary treatment:	None
Site modifications or specific designs:	Not needed

Suggested dimensions for on-site secondary treatment system

Total length (m) =	14
Width (m) =	6.25
Depth (m) =	0.3
Total disposal area (sq m) required =	180
comprising a Primary Area (sq m) of:	90
and a Secondary (backup) Area (sq m) of:	90

Sufficient area is available on site

Comments

A four bedroom / six people dwelling requires a minimum total wetted area of 90m^2.

Chris L Potter Consulting Engineer

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Site Capability Report

Onsite Wastewater Management Assessement

Assessment for	JAROME KELLY	Assess. Date	18-Dec-18
	tasbuild19@gmail.com	Ref. No.	KELLJ1701
Assessed site(s)	8 BOATHOUSE RISE LEWISHAM 7173	Site(s) inspected	4-Dec-17
Local authority	Sorell Council	Assessed by	J Hepper C L Potter

This report summarises data relating to the physical capability of the assessed site(s) to accept wastewater. Environmental sensitivity and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) site limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation Trench	Limitation Amended	Remarks
	Expected design area	sq m	2,000	High	Low		
	Density of disposal systems	/sq km	60	High	Very high	Moderate	Other factors lessen impact
	Slope angle	degrees	5	V. high	Very low		
	Slope form	Straight simple		V. high	Low		
	Surface drainage	Imperfect		Mod.	Moderate		
	Flood potential	Site floods <1:100 yrs		High	Very low		
	Heavy rain events	Infrequent		Mod.	Moderate		
	Aspect (Southern hemi.)	Faces E or W		V. high	Moderate		
	Frequency of strong winds	Common		High	Low		
	Wastewater volume	L/day	720	High	Moderate		
	SAR of septic tank effluent		1.6	Mod.	Low		
	SAR of sullage		2.8	High	Moderate		
	Soil thickness	m	0.9	High	Low		
	Depth to bedrock	m	1.0	V. high	High	Moderate	Other factors lessen impact
	Surface rock outcrop	%	0	High	Very low		
	Cobbles in soil	%	0	High	Very low		
	Soil pH		6.0	Mod.	Low		
	Soil bulk density	gm/cub. cm	1.6	Mod.	Moderate		
	Soil dispersion	Emerson No.	8	Mod.	Very low		
	Adopted permeability	m/day	0.1	Mod.	Very low		
	Long Term Accept. Rate	L/day/sq m	8	Mod.	Moderate		

Comments

All wastewater to be treated within the site boundaries. Depth to bedrock limitation is overcome by utilising an AWTS and bottomless sand filter.

Chris L Potter Consulting Engineer

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Environmental Sensitivity Report

Onsite Wastewater Management Assessement

Assessment for	JAROME KELLY	Assess. Date	18-Dec-18
	tasbuild19@gmail.com	Ref. No.	KELLJ1701
Assessed site(s)	8 BOATHOUSE RISE LEWISHAM 7173	Site(s) inspected	4-Dec-17
Local authority	Sorell Council	Assessed by	J Hepper C L Potter

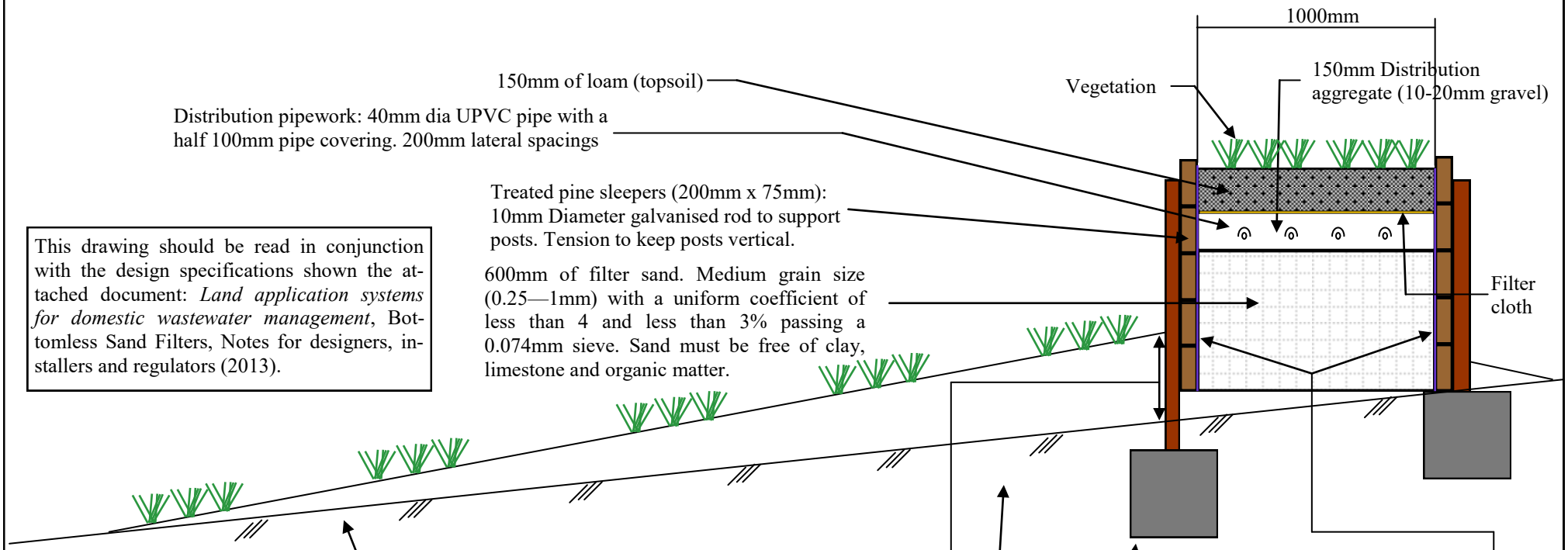
This report summarises data relating to the environmental sensitivity of the assessed site(s) in relation to applied wastewater. Physical capability and system design issues are reported separately. The 'Alert' column flags factors with high (A) or very high (AA) limitations which probably require special consideration in site acceptability or for system design(s). Blank spaces indicate data have not been entered into TRENCH.

Alert	Factor	Units	Value	Confid level	Limitation Trench	Limitation Amended	Remarks
	Cation exchange capacity	mmol/100g	60	Mod.	Moderate		
	Phos. adsorp. capacity	kg/cub m	0.6	Mod.	Moderate		
	Annual rainfall excess	mm	-196	High	Very low		
	Min. depth to water table	m	2	Mod.	Low		
	Annual nutrient load	kg	14.0	High	Moderate		
	G'water environ. value	Agric sensit/dom irrig		Mod.	Moderate		
	Min. separation dist. required	m	2	High	Very low		
	Risk to adjacent bores	Very low		Mod.	Very low		
	Surf. water env. value	Agric sensit/dom drink		Mod.	Moderate		
	Dist. to nearest surface water	m	375	High	Low		
	Dist. to nearest other feature	m	6	High	Very high	Moderate	Other factors lessen impact
	Risk of slope instability	Low		High	Low		
	Distance to landslip	m	200	Guess	Low		

Comments

All wastewater to be treated within the site boundaries.

BOTTOMLESS SAND FILTER (CROSS - SECTION)



This drawing should be read in conjunction with the design specifications shown the attached document: *Land application systems for domestic wastewater management*, Bottomless Sand Filters, Notes for designers, installers and regulators (2013).

Double lined plastic liner to be installed on the inside of the sleepers. Care to be taken when placing soil into be to avoid stretching the liner. Gap to be left on downslope and sides height of apron area.

Distribution pipework: Each lateral pipe to have 5mm dia perforations drilled on top of pipe only at 350mm spacings. Each lateral shall also have a 5mm perforation drilled at base of pipe at each end (to allow the pipework to drain between pump cycles).

CHRIS L. POTTER

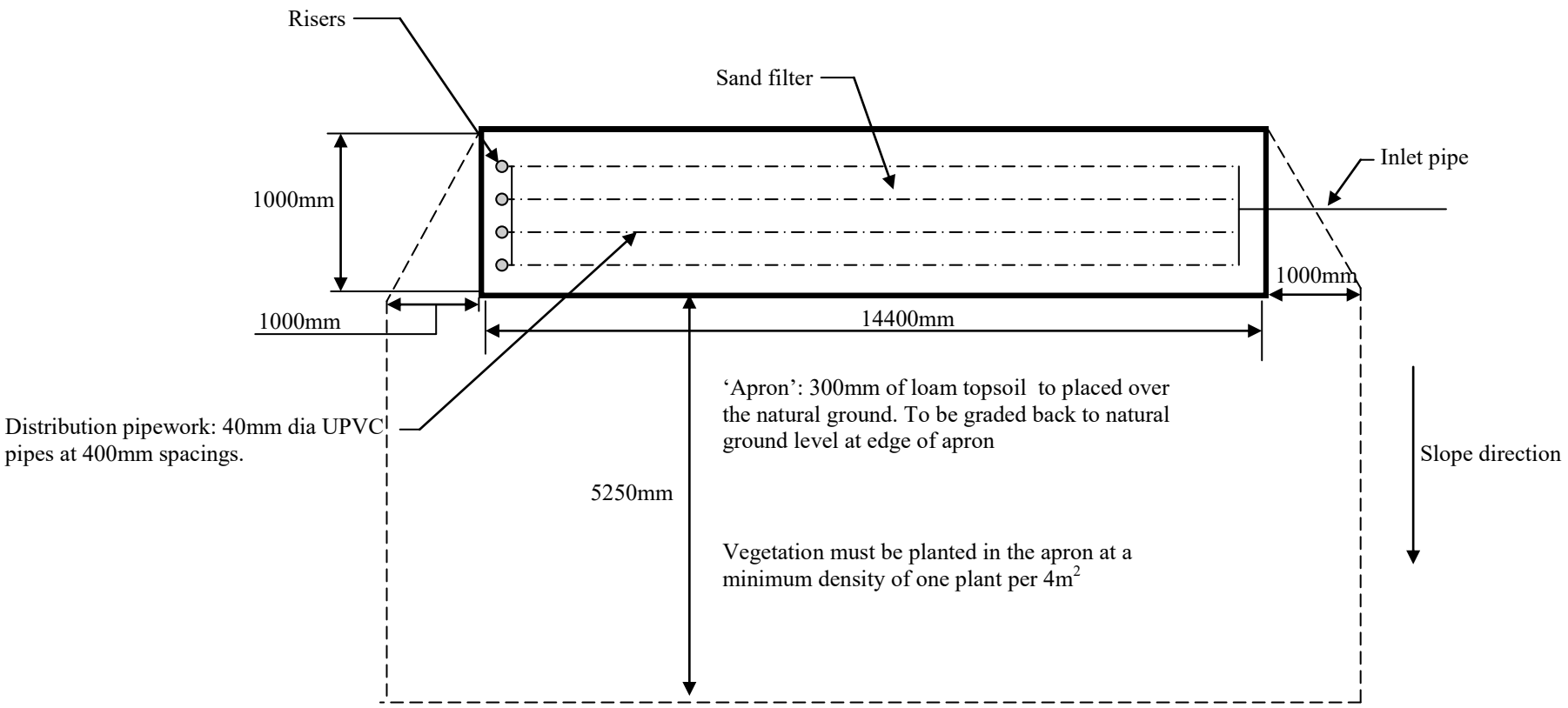
M.I.E. Aust. C.P.Eng.

Consulting Engineer

9 Warwick Street Ph (03) 62 314 143
Hobart TAS 7000 Fx (03) 62 343 360

CLIENT	FILENAME	DRAWN	COMMENTS
JAROME KELLY	KELLJ1701	J H	ALL DIMENSIONS ARE IN MM
SITE ADDRESS	DATE	SCALE	APPROVED
8 BOATHOUSE RISE LEWISHAM 7173	18/12/2018	1:25 @ A4	ENGINEER

SAND FILTER DESIGN PLAN VIEW



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CLIENT	FILENAME	DRAWN	COMMENTS
JAROME KELLY	KELLJ1701	J H	
SITE ADDRESS	DATE	SCALE	APPROVED
8 BOATHOUSE RISE LEWISHAM 7173	18/12/2018	NTS	ENGINEER

LIST OF PLANTS SUITABLE FOR WET SOILS

For information only. Please consult with your local plant nursery before finalising the plant choices to suit your locality and site conditions.

TREES	
Angophora costata	Leptospermum laevigazum "Coast Tree"
Banksia integrifolia	Leptospermum petersonii
Callistermon salignus "White Bottlebrush"	Melaleuca armillaris – Sandy Soil
Callistermon viminalis "Red Bottlebrush"	"Bracelet Honey Myrtle"
Casuarina glauca	Melaleuca quinquenervia – Sandy Soil
Casuarina stricta "Drooping She Oak"	"Broad Paperbark"
Eucalyptus robusta "Swamp Mahogany"	Melaleuca styphelioides – Clay Soil
Eucalyptus botryoides	Melaleuca linariifolia – Clay Soil
Hakea saligna	Nyssa sylvatica
Eucalyptus Regnans – Swamp Gum	Eucalyptus ovata – Blackgum
Photinea x fraseri "Robusta"	E. Obliqua – Stringybark
Hakea salicifolia	Eucalyptus globulus – Bluegum
Tristaniopsis laurina "Kanuka"	
GROUND COVER	
Acanthus mollis	Liriope muscari
Coprosma x kirkii	Ophiopogon
Grevillea poorinda "Royal Mantle"	
SHRUBS	
Abelia x grandiflora	Euphorbia pulcherriona
Acacia longifolia "Sallow Wattle"	Hebe speciosa "Veronica"
Callistemon citrinus	Jasminum nesnyi
Cassia bicapsularis	Jasminum polyanthum
Ceratostigma	Jasminum officinale "Grandiflorum"
Chaenomeles lagenaris	Lantana camara (cultivars only)
Leptospermum flavescens	Nerium oleander
Plumbago auriculata	Correa alba
Pyracantha fortuneana	Cuphea ignea
Thunbergia alata	Euonymus japanicus
Westringia fruticosa	Euphorbia millii
CLIMBERS	
Bougainvillea	Kennedia "Dusky Coral Pea"
Hardenbergia "Purple Coral Sea"	Lonicera japonica "Japanese Honeysuckle"
Hibbertia scandens "Snake Vine"	Pandorea jasminoides
PERENNIALS	
Agapanthus praecox	Gazania x hybrida
Aster novi-belgii	Salvia x superba
Canna x generalis	Stokesia laevis
Cyrhsanthemum maximum	Viola hederacea

BOATHO

25.80m
(279° 24' 00")

SITE BOUNDARY

76.86m
(8° 04' 00")

MIN 6.5M SETBACK TO DOWNSLOPE SITE BOUNDARY

SECONDARY DISPOSAL AREA (90M²)

BOTTOMLESS SAND FILTER & APRON (90M²)

ECONOCYCLE

HOUSE POSITION
(FUTURE - PROPOSAL)

EXISTING POWER BOX

MIN 2M

MIN 2M

GATE

DEMARCATION LINE
(CUT = RL = 99.600)

DRIVEWAY
(GRAVEL FINISH)

77.72m
(8° 11' 20")

SITE BOUNDARY

SITE BOUNDARY

SITE BOUNDARY

25.97m
(97° 30' 00")

HOBBY WORKSHOP

WATER STORAGE TANK

CAR / BOAT STORAGE

STORE ROOM

WATER STORAGE TANK

DRIVEWAY SURFACE WATER RUNOFF SHALL NOT BE DIRECTED TOWARDS THE IRRIGATION AREA AND INTO DRAIN ON UPSLOPE SIDE

DATUM (ASSUMED) RL = 100.000

- TEST HOLE LOCALI-

N

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Consulting Engineer

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CLIENT	FILENAME	DRAWN	COMMENTS
JAROME KELLY	KELLJ1701	J H	V1.1
SITE ADDRESS	DATE	SCALE	APPROVED
8 BOATHOUSE RISE LEWISHAM 7173 PID:3436790 CT: 171235/2	18/12/2018	1:200 @ A3	ENGINEER

WASTEWATER DESIGN COMPLIANCE TO DIRECTOR'S GUIDELINES FOR ON-SITE WASTEWATER MANAGEMENT SYSTEMS

7. Standards for Wastewater Land Application Areas

7.1 Objective – PCA FP1.5 (a)-(c)

Acceptable Solutions	**Performance Criteria**	**Development Response to Achieve Compliance**
A1 Horizontal separation distance for a building to a land application area must comply with one of the following: (a) be no less than 6m; (b) be no less than: (i) 3m from an upslope boundary or level building: (ii) if primary treated effluent to be no less than 4m plus 1m for every degree of average gradient from a down slope building; (iii) if secondary treated effluent and subsurface application, no less than 2m plus 0.25m for every degree of average gradient from a down slope building	**P1** The land application area is located so that the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.	Proposed wastewater design complies with A1(i) & (iii).
A2 Horizontal separation distance from down slope surface water to a land application area must comply with (a) or (b) (a) be no less than 100m; or (b) be no less than the following: (i) if primary treated effluent 15m plus 7m for	**P2** Horizontal separation distance from down slope surface water to a land application area must comply with all of the following: (a) setbacks must be consistent with AS/NZS1547 Appendix R; (b) a risk assessment in accordance with Appendix	Proposed wastewater design complies with A2 (a).

every degree of average gradient to down slope surface water; or (ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to down slope surface water.	A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	
A3 Horizontal separation distance from a property boundary to a land application area must comply with either of the following: (a) be no less than 40m form a property boundary; or (b) be no less than: (i) 1.5m from an upslope or level property boundary; and (ii) if primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or (iii) if secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.	**P3** Horizontal separation distance from a property boundary to a land application area must comply with all of the following: (a) setback must be consistent with AS/NZS 1547 Appendix R; and (b) a risk assessment in accordance with Appendix A of AS/NZS1547 has been completed that demonstrates that the risk is acceptable	Proposed wastewater design complies with A3 (b)(i)&(iii).
A4 Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must be no less than 50m and not be within the zone of influence of the bore whether up or down gradient.	**P4** Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must comply with all of the following: (a) setback must be consistent with AS/NZS 1547 Appendix R; and	Proposed wastewater design complies with A4.

	(b) a risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable.	
A5 Vertical separation distance between the groundwater and a land application area must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.6m if secondary treated effluent	**P5** Vertical separation distance between groundwater and a land application area must comply with the following: (a) setback must be consistent with AS/NZS 1547 Appendix R; and (b) a risk assessment completed in accordance with Appendix A of AS/NZS 1547 that demonstrates that the risk is acceptable.	Proposed wastewater design complies with A5.
A6 Vertical separation distance between a limiting layer and a land application area must be no less than: (a) 1.5m if primary treated effluent; or (b) 0.6m if secondary treated effluent	**P6** Vertical setback must be consistent with AS/NZS 1547 Appendix R.	Proposed wastewater design complies with A6.
A7 None.	**P7** A wastewater treatment unit must be located a sufficient distance from buildings or neighbouring properties so that emissions (odour, noise or aerosols) from the unit do not create an environmental nuisance to the residents of those properties *Note: Part 6 of the Building Act 2016 specifies requirements for protection work which apply to plumbing work including a wastewater treatment unit.*	Proposed wastewater design complies with P7.

HORIZONTAL AND VERTICAL SETBACK DISTANCES ASSESSMENT

ADAPTED FROM TABLE R1 OF AS1547:2012 - THIS TABLE TO BE USED IN CONJUNCTION WITH TABLE R2

Site feature	Setback distance range (m)	Site constraint items of specific concern (See table R2)	Site specific assessment	Minimum setback distance required
	Horizontal setback distance (m)			
Property boundary	1.5 - 50	A, D, J	6m	6m
Buildings / houses	2 - 6	A, D, J	>6m	2m
Surface water	15 - 100	A, B, D, E, F, G, J	375m	25m
Bore, well	15 - 50	A, C, H, J	>50m	25m
Recreational areas (Children's play areas, swimming pools etc.)	3 - 15	A, E, J	>15m	5m
In-ground water tank	4 - 15	A, E, J	>15m	5m
Retaining wall and Embankments, escarpments, cuttings	3.0m or 45^{o} angle from toe of wall (whichever is greatest)	D, G, H	>3m	3m
	Vertical setback distance (m)			
Groundwater	0.6 – 1.5	A, C, F, H, I, J	>1m	1m
Hardpan or bedrock	0.5 – 1.5	A, C, J	1m	0.5m

SITE CONSTRAINT SCALE FOR DEVELOPMENT OF SETBACK DISTANCES

ADAPTED FROM TABLE R2 OF AS1547:2012 - THIS TABLE TO BE USED IN CONJUNCTION WITH TABLE R1

Item	Site/system feature	Constraint scale Lower ◄——► Higher Examples of constraint factors		Sensitive features	Site specific assessment	Constraint assessment
A	Microbial quality of effluent	Effluent quality consistently producing ≤ 10 cfu/100 mL *E. Coli* (secondary treated effluent with disinfection	Effluent quality consistently producing ≥ 10^6 cfu/100 mL *E. Coli* (for example, primary treated effluent)	Groundwater and surface pollution hazard, public health hazard	Secondary treated effluent	Low
B	Surface water	Category 1 to 3 soils, no surface water down gradient within >100m, low rainfall area	Category 4 to 6 soils, permanent surface water <50m down gradient, high rainfall area, high resource/environmental value	Surface water pollution hazard for low permeable soils, low lying and poorly draining areas	Category 2 soils, no surface water within 100m, not high rainfall area	Low
C	Groundwater	Category 5 and 6 soils, low resource /environmental value	Category 1 and 2 soils, gravel aquifers, high resource/environmental value	Groundwater pollution hazard	Category 2 subsoils, not high resource / environmental value	Low
D	Slope	0 – 6% (surface effluent application) 0 – 10% (subsurface effluent application)	>10% (surface effluent application) >30% (subsurface effluent application)	Off – site export of effluent, erosion	10% slope and subsurface application	Low

Item	Site/system feature	Constraint scale Lower ⟷ Higher Examples of constraint factors		Sensitive features	Site specific assessment	Constraint assessment
E	Position of land application area in landscape	Downgradient of surface water, property boundary, recreational area	Upgradient of surface water, property boundary, recreational area	Surface water pollution hazard, off – site export of effluent	Upslope surface property boundary	**Medium**
F	Drainage	Category 1 and 2 soils, gentle sloping area	Category 6 soils, sites with visible seepage, moisture tolerant vegetation, low lying area	Groundwater pollution hazard	Category 2 soils, moderate sloping land	Low
G	Flood potential	Above 1 in 20 year flood contour	Below 1 in 20 year flood contour	Off – site export of effluent, system failure, mechanical faults	Above 1 in 20 year flood contour	Low
H	Geology and soils	Category 3 and 4 soils, low porous regolith, deep, uniform soils	Category 1 and 6 soils, fractured rock, gravel aquifers, highly porous regolith	Groundwater pollution hazard for porous regolith and permeable soils	Category 2 soils, low – moderate permeable soils	Low
I	Landform	Hill crests, convex side slopes and plains	Drainage plains and incise channels	Groundwater pollution hazard, resurfacing hazard	Moderate slope near hill crest.	Low
J	Application method	Drip irrigation or subsurface application of effluent	Surface/above ground application of effluent	Off – site export of effluent, surface water pollution	Subsurface application of effluent	Low

Note: Constraint assessment of Medium and High are discussed in the attached risk assessment.

RISK ASSESSMENT (IN ACCORDANCE TO APPENDIX A OF AS1547 : 2012)

CLIENT: JAROME KELLY

SITE ADDRESS: 8 BOATHOUSE RISE LEWISHAM 7173

PROPOSED TYPE OF WASTEWATER SYSTEM: AWTS & BOTTOMLESS SAND FILTER

Cause	Likelihood	Consequence	Risk	Factors that increase likelihood	Design risk reduction measures
Wastewater system hydraulic failure	Possible	Medium	Moderate	• Excess solids discharged • Inadequate hydraulic design of treatment plant of land application system	A high level alarm shall be installed to alert any pump failure. The installation of water saving fixtures in the dwelling is recommended. Food waste disposal units should not be installed. The land application area has been designed for a wastewater load of 720L/day (6 people).
Biological failure from power outage causing cessation of pumps and aerators	Possible	Minor	Moderate	• Remote or poorly serviced power areas • Faulty wiring	The AWTS shall have a minimum 24-hour storage capacity. High level alarm to be wired into dwelling and to alert of pump failure. Emergency numbers shall be readily displayed.
Wastewater biological failure from washout of bacteria	Unlikely	Medium	Low	• Inadequate septic tank capacity • Hydraulic overload	AWTS has sufficient capacity to cope with shock loads.
Soil system failure in dispersive soils	Unlikely	Medium	Low	• Clay	Wastewater to be discharged into sandy soil not subsoil clays.
Marginal soil conditions (Constraint Assessment E)	Possible	Major	High	• Poor draining medium to heavy clays • Inadequate topsoil • Inadequate vegetation • South facing, poor exposure to sunlight • Non – conservative design loading rate for soil type	Wastewater to be secondary treated and discharged into the topsoil Vegetation shall be planted in the raised bed and surrounding area to enhance evapo – transpiration Apron area shall create an adequate depth of topsoil.

Limited available area (Constraint Assessment E)	Unlikely	Medium	Low	• Small lot size • Steep slopes		Large lot size with a gentle slope.
High rainfall or torrential downpours	Possible	Minor	Moderate	• Inappropriate type of land application system • Stormwater ingress / ponding • Poor draining soils • Inadequate topsoil and assimilation capacity •		Additional topsoil will improve drainage. Design based on rainfall data.
Salinisation	Unlikely	Medium	Low	• High groundwater table		No groundwater was intercepted in any test hole.
Highly permeable soils or soils with preferential pathways	Possible	Medium	Moderate	• High groundwater table • Permeable gravel soils • Fissures in clay soils • Inadequate design of land application system		Wastewater to be secondary treated and planting of vegetation will promote evapo – transpiration instead of absorption into the subsoil.

AS1547:2012 LOADING CERTIFICATE

This loading certificate has been completed in accordance to clause 7.4.2 (d) of AS1547:2012.

Site Address: 8 Boathouse Rise, Lewisham 7173.

System capacity: Individual person wastewater daily flow of 120 litres.

6 people = 6 x 120 = 720 litres per day.

Design Criteria Summary: Soil category: Loamy sands (Category 2).

Effluent quality: Secondary treated (Bottomless Sand Filter).

Land application system: Sand filter and apron.

Reserve area: A reserve area of 90m^2 has been designated on the attached site plan. This area cannot be built upon. This includes buildings, driveways, paths, decks etc. In the event of additional loading or unforeseen failure of the proposed land application area, this reserve area can be utilised for wastewater disposal.

Water efficient fittings: The design does not allow for water saving fixtures. However it is recommended that these fixtures are installed. This includes a maximum 6 / 3L toilets, 9L/min shower heads, aerator faucets and water conserving dishwashers and washing machines.

Variation from design flows: The design can accommodate variation in flows (peaks and troughs) for a normal use of a domestic household.

Consequences of changing wastewater characteristics:

The wastewater system will be able to cope with normal domestic household wastewater. However additional organic loading from sink garbage grinders should be avoided. In addition the use of detergents and disinfectants should be considered ‘septic safe’ and only be used to the dilution levels. Bio-degradable soaps and low – phosphorus products should be used when available. This will avoid killing the bacteria and microorganisms that help achieve an appropriate level of treatment in the wastewater system.

Consequences of overloading the system:

The system is designed for a load produced by 6 people only. Additional loading may result in failure of the system i.e. blockage of pipes, mechanical failure, flooding of system, surface runoff from land application area, surface pooling of effluent. These failures may cause a public health and / or environmental nuisance.

Consequences of under loading the system:

If the system receives no or very little load over an extended period of time the microorganisms in the AWTS will die and effluent may not be treated to an acceptable level. Vegetation growing on the land application area may also dieback.

Consequences of lack of operation, maintenance, and monitoring attention:

All wastewater systems require maintenance and monitoring to keep the system working effectively over a period of time. This includes maintenance by a service agent / installer every three months.

The lack of maintenance and monitoring on any land application area may cause public health and environmental nuisances such as, sewage odour, increase the likelihood of spreading infectious diseases, polluting surface and ground waters.

Other relevant considerations:

The land application area shall be fenced if livestock have access to the area.

No vehicle access over the package treatment plant or the land application area.

Pedestrian access shall also be discouraged i.e. no paths over the area. The land application area is not a play area for children.

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: JAROME KELLY *Owner name*

tasbuild9@gmail.com *Address*

Suburb/postcode

Designer details:

Name:	CHRIS POTTER	Category:	DESIGNER / ENG.
Business name:	Chris Potter Consulting Engineer	Phone No:	03 6231 4143
Business address:	9 WARWICK STREET		
	HOBART 7000	Fax No:	03 6234 3360
Licence No:	CC 2679 R	Email address:	chris@chrispotterengineering.com

Details of the proposed work:

Owner/Applicant	JAROME KELLY	Designer's project reference No.	KELLJ1701
Address:	8 BOATHOUSE RISE	Lot No:	2
	LEWISHAM 7173		

Type of work: Building work ☐ Plumbing work X *(X all applicable)*

Description of work:

On-site wastewater management system

(new building / alteration / addition / repair / removal / re-erection water / sewerage / stormwater / on-site wastewater management system / backflow prevention / other)

Description of the Design Work (Scope, limitations or exclusions): *(X all applicable certificates)*

Certificate Type:	**Certificate**	**Responsible Practitioner**
	☐ Building design	Architect or Building Designer
	☐ Structural design	Engineer or Civil Designer
	☐ Fire Safety design	Fire Engineer
	☐ Civil design	Civil Engineer or Civil Designer
	☐ Hydraulic design	Building Services Designer
	☐ Fire service design	Building Services Designer
	☐ Electrical design	Building Services Designer
	☐ Mechanical design	Building Service Designer
	X Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	☐ Other (specify)	

Deemed-to-Satisfy: ☐ Performance Solution: X (*X the appropriate box*)

Other details: Bottomless sand filter and apron.

Design documents provided:

The following documents are provided with this Certificate –

Document description:

Drawing numbers:	Prepared by: W. C. Cromer	Date: 1/12/2013
Schedules:	Prepared by: Chris L Potter	Date: 18/12/2018
Specifications:	Prepared by: Chris L Potter	Date: 18/12/2018
Computations:	Prepared by:	Date:
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by: Chris L Potter	Date: 18/12/2018

Standards, codes or guidelines relied on in design process:

AS1547 : 2012

Cromer, W. C. (2013). Bottomless sand filters: Notes for designers, installers and regulators July 2013. Land application systems for domestic wastewater management. Unpublished report by William C Cromer Pty Ltd, 1 December 2013.

Director's Guidelines for On-site Wastewater Management Systems, Building Act 2016, 20 November 2017.

Any other relevant documentation:

Attribution as designer:

I, CHRIS POTTER, am responsible for the design of that part of the work as described in this certificate;

The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the *Building Act 2016* and sufficient detail for the builder or plumber to carry out the work in accordance with the documents and the Act;

This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code.

	Name: (print)	*Signed*	*Date*
Designer:	CHRIS POTTER		18/12/2018
Licence No:	CC 2679 R		

Assessment of Certifiable Works: (TasWater)

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

If you cannot check ALL of these boxes, LEAVE THIS SECTION BLANK.

TasWater must then be contacted to determine if the proposed works are Certifiable Works.

I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

- [X] The works will not increase the demand for water supplied by TasWater
- [X] The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure
- [X] The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- [X] The works will not damage or interfere with TasWater's works
- [X] The works will not adversely affect TasWater's operations
- [X] The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- [X] I have checked the LISTMap to confirm the location of TasWater infrastructure
- [X] If the property is connected to TasWater's water system, a water meter is in place, or has been applied for to TasWater.

Certification:

I Chris L Potter being responsible for the proposed work, am satisfied that the works described above are not Certifiable Works, as defined within the *Water and Sewerage Industry Act 2008,* that I have answered the above questions with all due diligence and have read and understood the Guidelines for TasWater CCW Assessments.

Note: the Guidelines for TasWater Certification of Certifiable Works Assessments are available at: www.taswater.com.au

	Name: (print)	*Signed*	*Date*
Designer:	CHRIS POTTER		18/12/2018

DESIGN & DRAFTING
ARCHITECTURAL DESIGN & DRAFTING SERVICE

BUILDING DESIGNER = GAVIN HENDERSON (TAS. ACCREDITATION = CC 303E)
No.10 LUCAS ST, KINGSTON, TASMANIA, 7050.
MOBILE = 0488 915 222
E-MAIL = gav.h@bigpond.com

building designers association of tasmania

BUILDING DESIGNERS AUSTRALIA TAS

COLOUR SCHEDULE (OWNER TO CHECK / COMPLETE)

FOR
JAROME KELLY
AT
No. 8 BOATHOUSE RISE, LEWISHAM, TASMANIA.

BUILDING ELEMENT (EXTERNAL ONLY):

- ROOFING = COLORBOND SURFMIST
- BARGE FLASHING = COLORBOND SURFMIST
- GUTTER = COLORBOND MONUMENT
- DOWNPIPE = MATCH NEARBY WALL
- AL. SLIDING DOOR = GLOSS WHITE
- AL. SLIDING WINDOW = GLOSS WHITE
- ROLLER DOOR = COLORBOND MONUMENT
- WALL CLADDING = COLORBOND SHALE GREY
- WALL CORNER FLASHING = COLORBOND SHALE GREY

Sorell Council
Development Application: Planning Application 8 Boathouse Rise, Lewisham.pdf

Plans Reference:P1
Date Received:2/01/2025

6.5 NATIONWIDE HOUSE ENERGY RATING SCHEME
132.7 MJ/m²
www.nathers.gov.au

0008982175 02 Oct 2023
Assessor Steve Watson
Accreditation No. 60733
Address
8 Boathouse Rise, Lewisham, Tas, 7173
hstar.com.au

ABSA Australian Building Sustainability Association
Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 31/03/2023-31/03/2024
Assessor Name Stephen Watson
Assessor Number 60733
Assessor Signature
This Accredited Assessor is qualified to use NatHERS Accredited Software and has agreed to follow the ABSA Code of Practice

DESIGN & DRAFTING
BUILDING DESIGN & DRAFTING SERVICE

BUILDING DESIGNER = GAVIN HENDERSON (TAS. ACCREDITATION = CC 303E)
No.10 LUCAS ST, KINGSTON, TASMANIA, 7050.
MOBILE = 0488 915 222
E-MAIL = gav.h@bigpond.com

building designers association of tasmania

BUILDING DESIGNERS AUSTRALIA TAS

PROPOSED CHANGE OF USE
SHED TO DWELLING.

FOR
JAROME KELLY
AT
No. 8 BOATHOUSE RISE, LEWISHAM, TASMANIA.

DRAWING SET CONTENTS:

- FORM 35 BY BUILDING DESIGNER (G. Henderson).
- SITE CLASSIFICATION REPORT (Joe Hepper / C. Potter).
- BUSHFIRE HAZARD ASSESSMENT REPORT (HED Consulting - Joe Hepper).
- BUILDING ENERGY ASSESSOR'S REPORT & CERTIFICATION (Steve Watson).
- STRUCTURAL ENGINEERING SPECIFICATIONS & CERTIFICATE (FORM-35 & 55) (Noe Escobar).
- COLOUR SCHEDULE *(CLIENT TO CHECK & COMPLETE)*.
- SAFETY REPORT (G. Henderson).
- PROJECT SPECIFICATIONS (G. Henderson).

SHEET 1 = SITE PLAN (EXISTING) - 1:200.
SHEET 2 = DWELLING FLOOR PLANS (EXISTING - AS FOUND & MODIFIED).
SHEET 3 = DWELLING FLOOR PLAN (MODIFIED).
SHEET 4 = DWELLING ELEVATIONS (EXISTING - AS FOUND & MODIFIED).
SHEET 5 = DWELLING ELEVATIONS (EXISTING - AS FOUND & MODIFIED).
SHEET 6 = SECTION - 1 & DETAILS.
SHEET 7 = CONCRETE SLAB LAYOUT, DETAILS & PIERS (EXISTING & NEW).
SHEET 8 = ROOF TRUSS "INDICATIVE" LAYOUT & DETAILS.
SHEET 9 = BRACING LAYOUT/SPEC. & TIE-DOWN SCHEDULE.
SHEET 10 = PLUMBING & ROOF DRAINAGE LAYOUT & DETAILS (GROUND LEVEL).
SHEET 11 = ELECTRICAL / LIGHTING LAYOUT & DETAILS.
SHEET 12 = DOOR SCHEDULE.
SHEET 13 = WINDOW / GLAZING SCHEDULE.
SHEET 14 = WET AREAS & EXTERNAL WATERPROOFING NOTES.
SHEET 15 = WATERPROOFING OF DOMESTIC WET AREAS.

SITE INFORMATION

- LAND TITLE REFERENCE = Vol/Folio - 171235/2
- PID No. = 3436790
- WIND CLASSIFICATION = N3
- SITE CLASSIFICATION = CLASS P (REFER TO REPORT = DISPERSIVE SOILS).
- CLIMATE ZONE = 7 (www.abcb.gov.au map)
- BAL LEVEL = LOW
- ALPINE AREA = N/A
- AREAS = INFORMATION PROVIDED ON SITE & FLOOR PLANS.
- PLANNING ZONE = LOW DENSITY RESIDENTIAL
- PLANNING CODES OVERLAY = FLOOD-PRONE AREAS, AIRPORT OBSTACLE LIMITATION AREA, BUSH-FIRE PRONE AREAS.

EXISTING INSULATION NOTES:

- THE FOLLOWING INFORMATION IS SUPPLIED BY THE CLIENT JAROME KELLY (PROPERTY OWNER) WHO BUILT THE STRUCTURE BACK IN 2018. THIS INFORMATION HAS BEEN USED IN THE PREPARATION OF THE ENERGY RATING ASSESSMENT FOR THIS NEW BUILDING.

- R2.5 bulk insulation + a non-reflective vapour permeable membrane to the existing FC clad exterior walls.
- R2.5 bulk insulation to all interior walls.
- R2.5 bulk insulation to the 3.7m high internal walls that adjoin the storage.
- R3.5 bulk insulation to all ceilings + R1.3 - 50mm reflective roof blanket.
- Storage above - R3.5 bulk insulation to the internal floor.
- Storage above - R1.3 - 50mm roof blanket.
- Light coloured FC clad walls.
- Light coloured roof sheet.
- Wood heater flue in the living.
- R2.5 bulk insulation to the internal wall/roof space above the dining room. (Bulk head walls that adjoin the roof space over the living area & bedrooms).

National Construction Code 2022
The National Construction Code (NCC) 2022 has now been finalised. The NCC will be published on 1 October 2022 with a commencement date of 1 May 2023.
Tasmania will transition to livable (accessible) housing provisions from 1 October 2024. The new condensation mitigation provisions will be adopted in line with the Australian Building Codes Board transitional period on 1 October 2023. Consideration of the 7-star Nationwide House Energy Rating Scheme (NatHERS) energy efficiency rating provisions will be deferred until the next iteration of the NCC in 2025.
A reminder that a provision of the NCC does not apply to work if the certificate of likely compliance was issued in respect of the work before the provision was adopted, or the building surveyor, or relevant permit authority certifies (in writing) that substantial progress has been made in the design of the work.
Additionally, the Tasmanian Government has entered into a research partnership with the University of Tasmania to commence further research into condensation. The research will aim to develop new standards for different construction typologies to help minimise the effects of condensation.

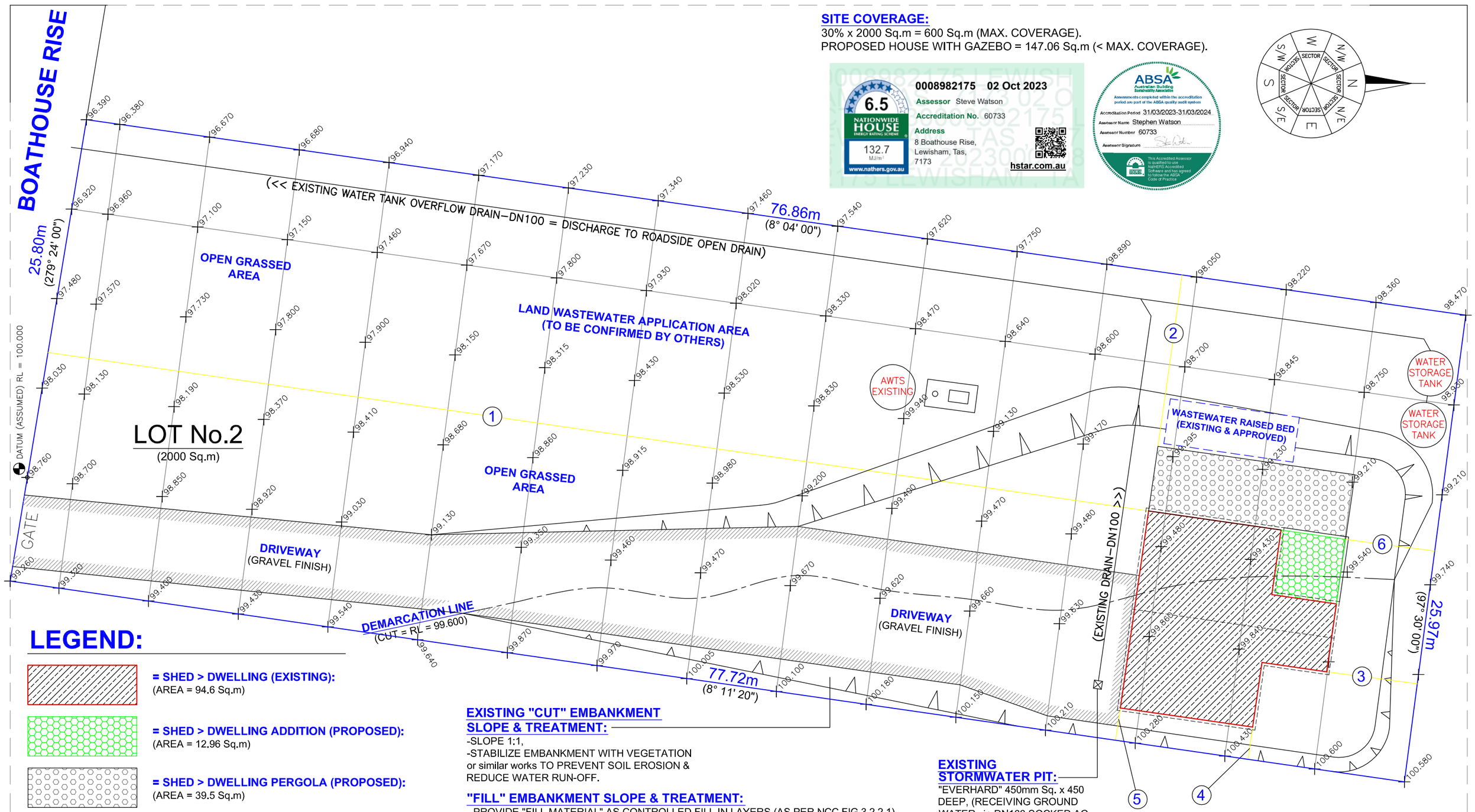
SITE COVERAGE:

30% x 2000 Sq.m = 600 Sq.m (MAX. COVERAGE).
PROPOSED HOUSE WITH GAZEBO = 147.06 Sq.m (< MAX. COVERAGE).

6.5 NATIONWIDE HOUSE ENERGY RATING SCHEME 132.7 MJ/m² www.nathers.gov.au

0008982175 02 Oct 2023
Assessor Steve Watson
Accreditation No. 60733
Address
8 Boathouse Rise,
Lewisham, Tas,
7173
hstar.com.au

ABSA Australian Building Sustainability Association
Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 31/03/2023-31/03/2024
Assessor Name Stephen Watson
Assessor Number 60733
Assessor Signature
This Accredited Assessor is qualified to use NATHERS Accredited Software and has agreed to follow the ABSA Code of Practice



LEGEND:

= SHED > DWELLING (EXISTING):
(AREA = 94.6 Sq.m)

= SHED > DWELLING ADDITION (PROPOSED):
(AREA = 12.96 Sq.m)

= SHED > DWELLING PERGOLA (PROPOSED):
(AREA = 39.5 Sq.m)

DATUM POINT:

= 100.000 - DRIVEWAY ENTRY CIRCULAR TIMBER POST (TOP) - (PINK SPRAY MARK).

SITE DESCRIPTION:

THE SITE EXISTS AS A LOT SITUATED IN DEVELOPING LOW-DENSITY RESIDENTIAL SURROUNDS.
THE LAND HAS A GENTLE SLOPE OF 1-3 DEGREES FACING WEST. THE GROUND COVER IS SHORT MOWED GRASS.

EXISTING "CUT" EMBANKMENT SLOPE & TREATMENT:

-SLOPE 1:1,
-STABILIZE EMBANKMENT WITH VEGETATION or similar works TO PREVENT SOIL EROSION & REDUCE WATER RUN-OFF.

"FILL" EMBANKMENT SLOPE & TREATMENT:

- PROVIDE "FILL MATERIAL" AS CONTROLLED FILL IN LAYERS (AS PER NCC FIG.3.2.2.1),
- SLOPE 1:2,
- STABILIZE EMBANKMENT WITH VEGETATION or similar works TO PREVENT SOIL EROSION & REDUCE WATER RUN-OFF.

EXISTING STORMWATER PIT:

"EVERHARD" 450mm Sq. x 450 DEEP, (RECEIVING GROUND WATER via DN100 SOCKED AG PIPE FROM BASE OF CUT).
(Information provided by property owner).

Sorell Council
Development Application: Planning Application 8 Boathouse Rise, Lewisham.pdf
Plans Reference:P1
Date Received:2/01/2025

SETBACK DIMENSIONS:

- MEASUREMENT 1 = 61.350 m
- MEASUREMENT 2 = 9.550 m
- MEASUREMENT 3 = 5.050 m
- MEASUREMENT 4 = 1.800 m
- MEASUREMENT 5 = 1.800 m
- MEASUREMENT 6 = 4.950 m
- (MEASUREMENT IS FROM PROPERTY BOUNDARY TO BUILDING WALL - U.N.O).

TITLE: PROPOSED SHED TO DWELLING (CHANGE OF USE) & ADDITION FOR JAROME KELLY AT No. 8 BOATHOUSE RISE, LEWISHAM, TASMANIA.

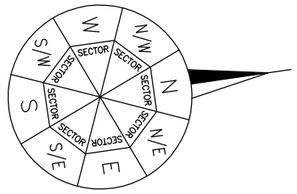
GH DESIGN & DRAFTING
BUILDING DESIGNER = GAVIN HENDERSON (CC 303E)
No.10 LUCAS ST, KINGSTON, TASMANIA, 7050.
MOBILE = 0488 915 222
E–MAIL = gav.h@bigpond.com

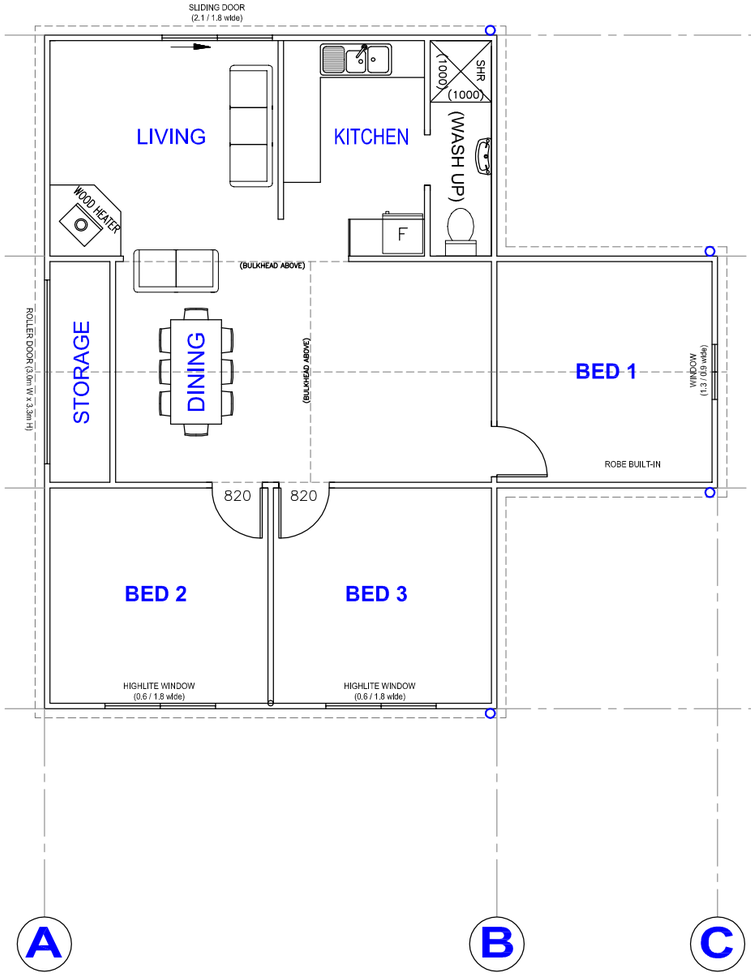
SUBJECT: SITE PLAN.

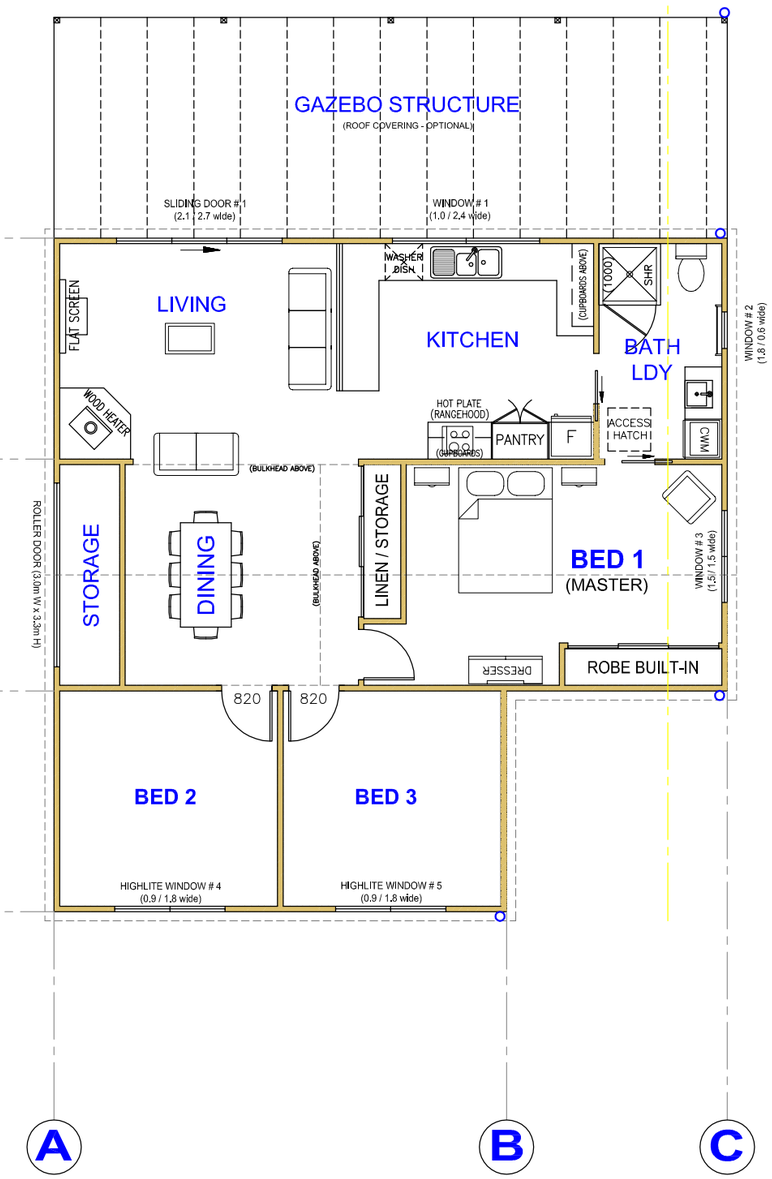
SCALE	DATE	DRAWN BY	REVISIONS:
A3 SHEET = 1:200	JULY 2023	GBH	

ENGINEERING APPROVAL (STAMP / SIGNATURE)

SHEET No. 01







1 2 3 4 — A B C

FLOOR PLAN
(AS FOUND)

DATE = 18/5/2023
AREA = 94.6 Sq.m
(AREAS ARE MEASURED TO SLAB EDGE).

FLOOR PLAN
(MODIFIED)

DATE = 18/5/2023
AREA = 107.6 Sq.m
(AREAS ARE MEASURED TO SLAB EDGE).

Sorell Council

Development Application: Planning Application 8 Boathouse Rise, Lewisham.pdf

Plans Reference:P1
Date Received:2/01/2025

TITLE: PROPOSED SHED TO DWELLING (CHANGE OF USE) & ADDITION FOR JAROME KELLY AT No. 8 BOATHOUSE RISE, LEWISHAM, TASMANIA.

GH DESIGN & DRAFTING
BUILDING DESIGNER = GAVIN HENDERSON (CC 303E)
No.10 LUCAS ST, KINGSTON, TASMANIA, 7050.
MOBILE = 0488 915 222
E-MAIL = gav.h@bigpond.com

SUBJECT: DWELLING FLOOR PLANS (EXISTING - AS FOUND & MODIFIED).

SCALE	DATE	DRAWN BY	REVISIONS:
A3 SHEET = 1:100	JULY 2023	GBH	

ENGINEERING APPROVAL (STAMP / SIGNATURE)

SHEET No. 02

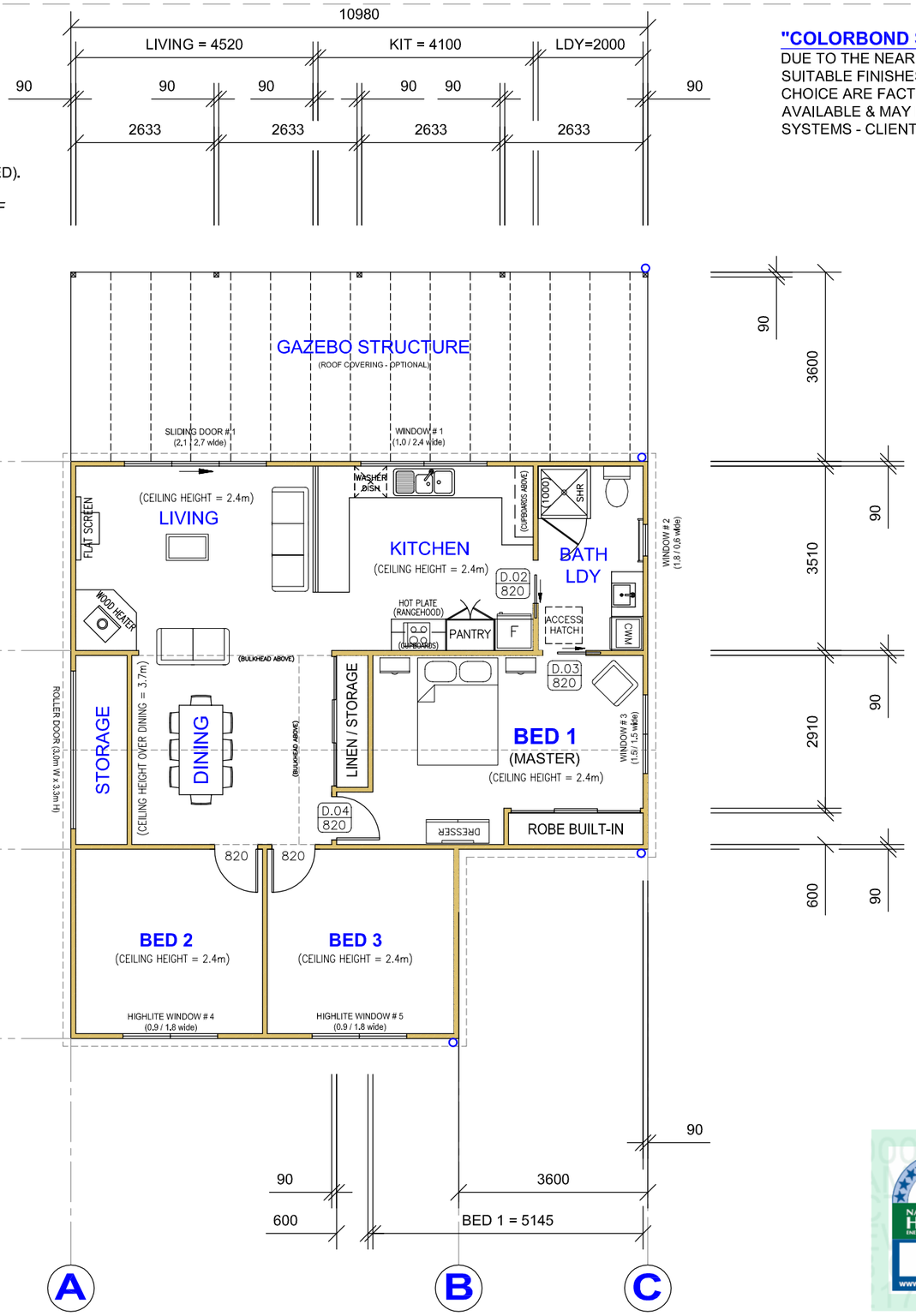
NCC - NATURAL LIGHT & VENTILATION:

Part 10.5.1 - NATURAL LIGHT = Min 10 % OF HABITABLE ROOM FLOOR AREA.
ROOM NAME / FLOOR AREA / GLAZING AREA REQUIRED & PROVIDED:
BED 1 = 17.38 Sq.m / 1.738 Sq.m / 2.25 Sq.m
BED 2 = 12.47 Sq.m / 1.247 Sq.m / 1.62 Sq.m
BED 3 = 12.47 Sq.m / 1.247 Sq.m / 1.62 Sq.m
LIVING DINING KITCHEN = 44.6 Sq.m / 4.46 Sq.m / 8.07 Sq.m

Part 10.6.2 - VENTILATION = Min 5 % OF FLOOR AREA (ROOM REQUIRED TO BE VENTILATED).
NOTE: AN EXHAUST FAN MAY BE USED FOR A SANITARY COMPARTMENT, LDY OR BATHROOM PROVIDED CONTAMINATED AIR DISCHARGES DIRECTLY TO THE OUTSIDE OF THE BUILDING BY WAY OF DUCTS.
ROOM NAME / FLOOR AREA / OPENING AREA REQUIRED & PROVIDED:
BED 1 = 17.38 Sq.m / 0.869 Sq.m / 1.125 Sq.m
BED 2 = 12.47 Sq.m / 0.623 Sq.m / 0.81 Sq.m
BED 3 = 12.47 Sq.m / 0.623 Sq.m / 0.81 Sq.m
LIVING DINING KITCHEN = 44.6 Sq.m / 2.23 Sq.m / 3.09 Sq.m

FLOOR FINISH SCHEDULE: *(OWNER TO SELECT ALL FINISHES)*

- KITCHEN = TILE,
- LIVING / DINING = DOMESTIC MEDIUM DUTY CARPET (MIN.),
- BED 1, 2 & 3 = DOMESTIC MEDIUM DUTY CARPET (MIN.),
- BATHROOM / LDY = TILE,



"COLORBOND STEEL" NOTE:

DUE TO THE NEARBY COASTAL CONDITIONS, THE MANUFACTURER HAS MORE SUITABLE FINISHES TO THESE CONDITIONS, HOWEVER AVAILABILITY & LIMITED CHOICE ARE FACTORS TO BE CONSIDERED. PRODUCTS LISTED ARE READILY AVAILABLE & MAY NOT BE THE BEST PERFORMING. (BUILDER TO PRICE BOTH SYSTEMS - CLIENT TO CHOOSE & UPGRADE).

DIMENSION NOTES:

-DIMENSIONS ON THIS SHEET DO NOT INCLUDE INTERNAL LININGS & EXTERNAL BATTENS/CLADDINGS.
-BUILDER TO CONFIRM ALL DIMENSIONS ON-SITE PRIOR TO COMMENCING WORK.

NEW WORK - INSULATION NOTES:

- NEW INTERNAL WALLS = R 2.5 BULK INSULATION BATTS.
- NEW EXTERNAL WALLS = R 2.5 BULK INSULATION BATTS.
- NEW ROOFING = ANTI-CON 60 ROOFING BLANKET BENEATH ROOF SHEET.
- NEW CEILING = R 2.5 BULK INSULATION BATT - 70mm THK (600mm WIDE) TO CEILING POSITION (LOW END ONLY) AND CONTINUE WITH LARGER SPECIFIED BULK BATT (R 6.0) FOR CEILING REMAINDER.

(ALL EXISTING INSULATION REMAINS IN PLACE UNLESS DISTURBED OR DAMAGED DURING CONSTRUCTION, ANY INSULATION DISTURBED OR DAMAGED WILL BE REPLACED WITH LIKE).

DRAWING NOTES:

- WIND CLASSIFICATION = N3.
- SOIL CLASSIFICATION = CLASS P, (REFER TO SOIL TEST REPORT).
- BUILDER TO CONFIRM ALL DIMENSIONS ON-SITE PRIOR TO COMMENCING WORK.
- ALL WORK TO COMPLY WITH RELEVANT BCA & NCC REQUIREMENTS.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH ASSOCIATED SPECIFICATION SECTIONS & SCHEDULES.
- SELECT, STORE, HANDLE & INSTALL PROPRIETARY PRODUCTS OR SYSTEMS IN ACCORDANCE WITH CURRENT PUBLISHED RECOMMENDATIONS OF THE MANUFACTURER OR SUPPLIER.

Sorell Council
Development Application: Planning Application 8 Boathouse Rise, Lewisham.pdf

Plans Reference:P1
Date Received:2/01/2025

6.5 NATIONWIDE HOUSE ENERGY RATING SCHEME
132.7 MJ/m²
www.nathers.gov.au
0008982175 02 Oct 2023
Assessor Steve Watson
Accreditation No. 60733
Address
8 Boathouse Rise, Lewisham, Tas, 7173
hstar.com.au

ABSA Australian Building Sustainability Association
Assessments completed within the accreditation period are part of the ABSA quality audit system
Accreditation Period 31/03/2023-31/03/2024
Assessor Name Stephen Watson
Assessor Number 60733
Assessor Signature
This Accredited Assessor is qualified to use NatHERS-Accredited Software and has agreed to follow the ABSA Code of Practice

TITLE: PROPOSED SHED TO DWELLING (CHANGE OF USE) & ADDITION FOR JAROME KELLY AT No. 8 BOATHOUSE RISE, LEWISHAM, TASMANIA.

GH DESIGN & DRAFTING
BUILDING DESIGNER = GAVIN HENDERSON (CC 303E)
No.10 LUCAS ST, KINGSTON, TASMANIA, 7050.
MOBILE = 0488 915 222
E-MAIL = gav.h@bigpond.com

SUBJECT: DWELLING FLOOR PLAN (MODIFIED).

SCALE	DATE	DRAWN BY	REVISIONS:
A3 SHEET = 1:100	JULY 2023	GBH	

ENGINEERING APPROVAL (STAMP / SIGNATURE)

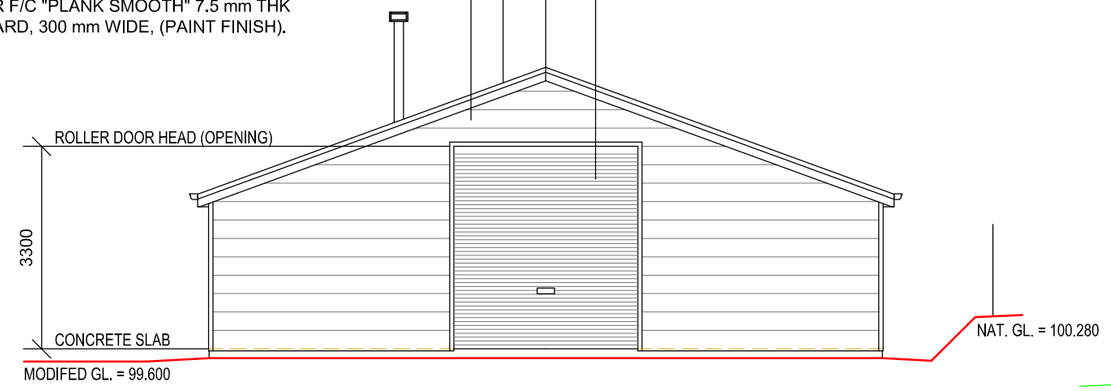
SHEET No. 03

GARAGE DOOR:
B&D FIRMADOOR SERIES 2 - LIGHT INDUSTRIAL,
COLORBOND ROLLER DOOR (AUTOMATIC).

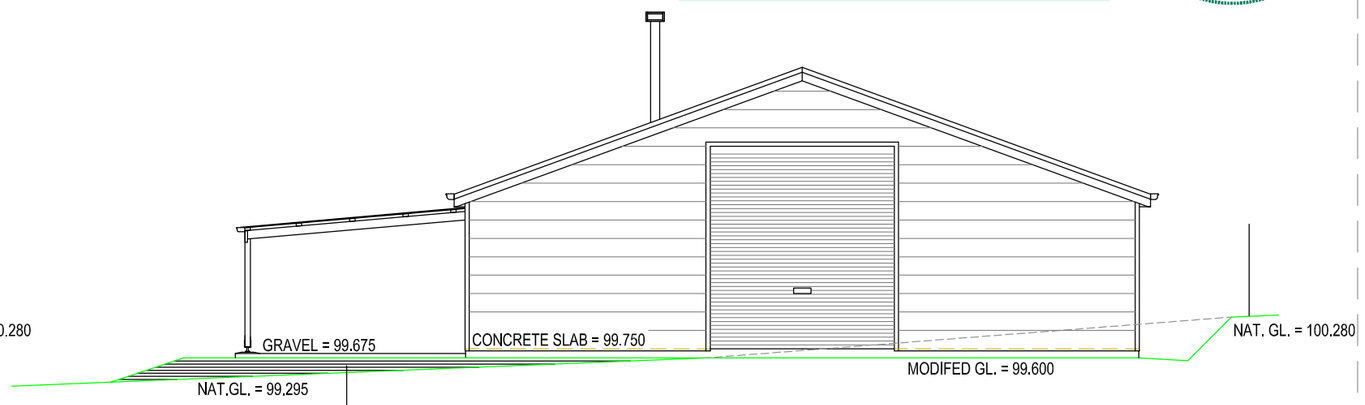
BARGE/RIDGE CAP/VALLEY TRAY FLASHING:
COLORBOND STEEL (0.55 BMT).

ROOFING:
COLORBOND CORRUGATED (0.42 BMT).

WALL CLADDING:
CSR F/C "PLANK SMOOTH" 7.5 mm THK
BOARD, 300 mm WIDE, (PAINT FINISH).

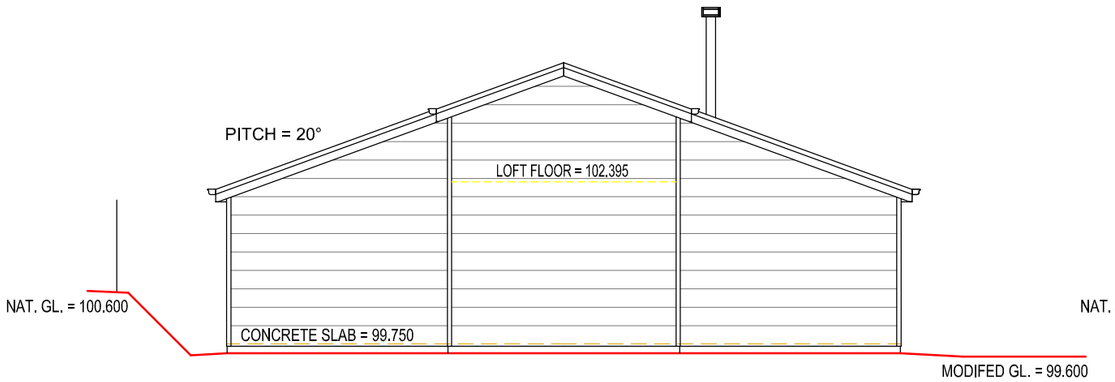


SOUTH ELEVATION
(EXISTING - MAY 2023)

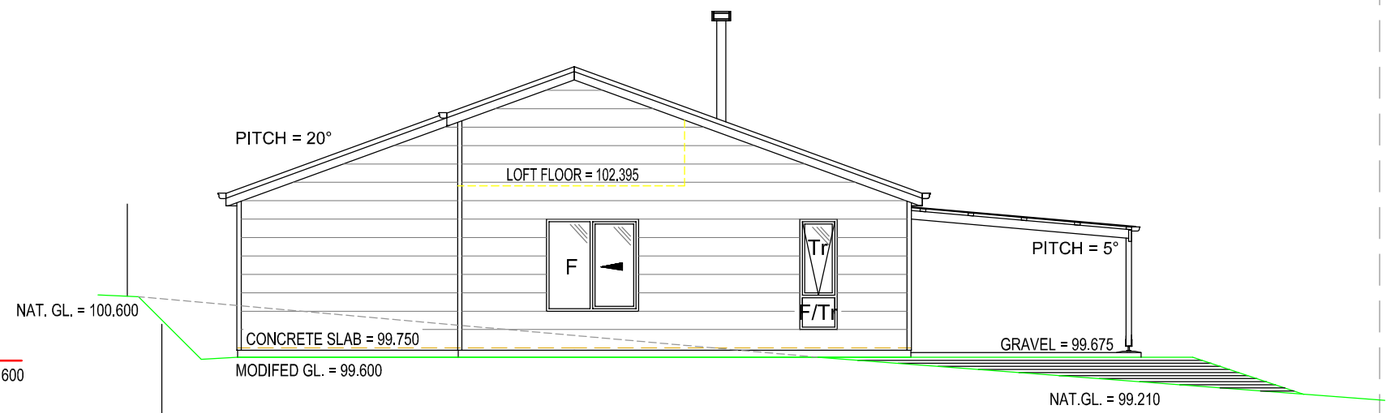


SOUTH ELEVATION
(MODIFIED - JULY 2023)

"FILL" EMBANKMENT SLOPE & TREATMENT:
- PROVIDE "FILL MATERIAL" AS CONTROLLED FILL IN LAYERS (AS PER NCC FIG.3.2.2.1),
- SLOPE 1:2,
- STABILIZE EMBANKMENT WITH VEGETATION or similar works TO PREVENT SOIL EROSION & REDUCE WATER RUN-OFF.



NORTH ELEVATION
(EXISTING - MAY 2023)



NORTH ELEVATION
(MODIFIED - JULY 2023)

EXISTING "CUT" EMBANKMENT SLOPE & TREATMENT:
-SLOPE 1:1,
-STABILIZE EMBANKMENT WITH VEGETATION or similar works TO PREVENT SOIL EROSION & REDUCE WATER RUN-OFF.

Sorell Council
Development Application: Planning Application 8 Boathouse Rise, Lewisham.pdf
Plans Reference:P1
Date Received:2/01/2025

6.5 NATIONWIDE HOUSE ENERGY RATING SCHEME 132.7 MJ/m² www.nathers.gov.au
0008982175 02 Oct 2023
Assessor Steve Watson
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Address 8 Boathouse Rise, Lewisham, Tas, 7173
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ABSA Australian Building Sustainability Association
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Accreditation Period 31/03/2023-31/03/2024
Assessor Name Stephen Watson
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Assessor Signature
This Accredited Assessor is qualified to use NatHERS Accredited Software and has agreed to follow the ABSA Code of Practice

TITLE: PROPOSED SHED TO DWELLING (CHANGE OF USE) & ADDITION FOR JAROME KELLY AT No. 8 BOATHOUSE RISE, LEWISHAM, TASMANIA.

GH DESIGN & DRAFTING
BUILDING DESIGNER = GAVIN HENDERSON (CC 303E)
No.10 LUCAS ST, KINGSTON, TASMANIA, 7050.
MOBILE = 0488 915 222
E-MAIL = gav.h@bigpond.com

SUBJECT: DWELLING ELEVATIONS (EXISTING - AS FOUND & MODIFIED).

SCALE	DATE	DRAWN BY	REVISIONS:
A3 SHEET = 1:100	JULY 2023	GBH	

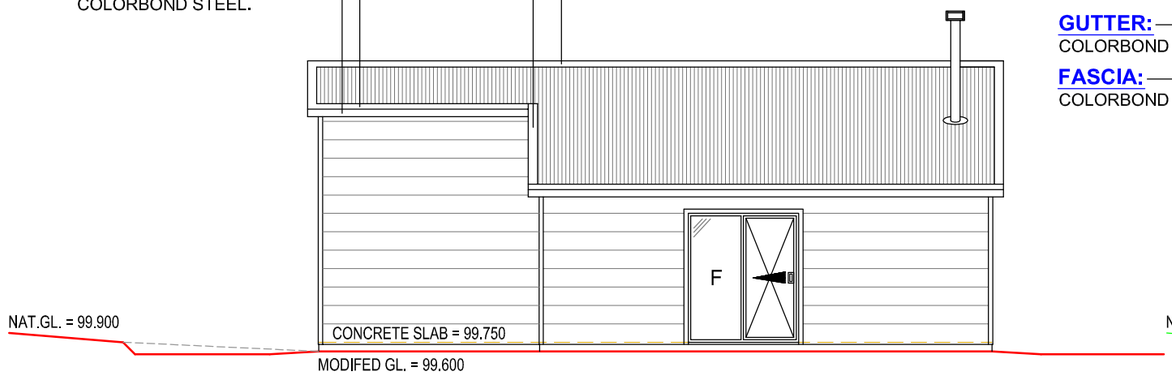
ENGINEERING APPROVAL (STAMP / SIGNATURE)

SHEET No. 04

BARGE/RIDGE CAP FLASHING:
COLORBOND STEEL (0.55 BMT).

GUTTER:
COLORBOND QUAD.

FASCIA:
COLORBOND STEEL.



WEST ELEVATION

(EXISTING - MAY 2023)

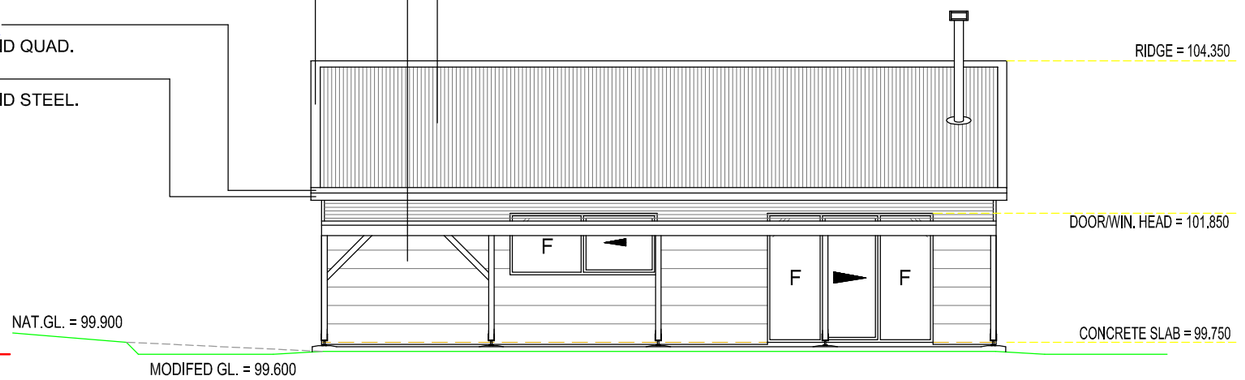
ROOFING:
COLORBOND CORRUGATED (0.42 BMT).

WALL CLADDING:
CSR F/C "PLANK SMOOTH" 7.5 mm THK BOARD, 300 mm WIDE, (PAINT FINISH).

BARGE/RIDGE CAP FLASHING:
COLORBOND STEEL (0.55 BMT).

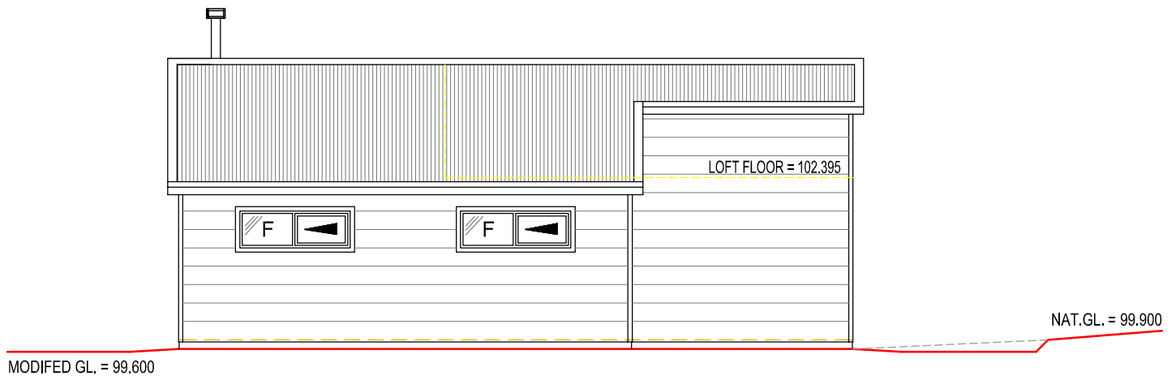
GUTTER:
COLORBOND QUAD.

FASCIA:
COLORBOND STEEL.



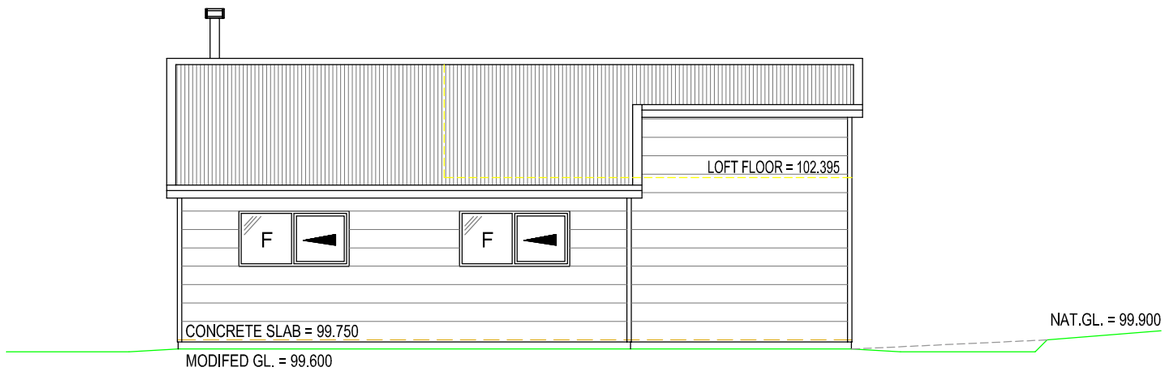
WEST ELEVATION

(MODIFIED - JULY 2023)



EAST ELEVATION

(EXISTING - MAY 2023)



EAST ELEVATION

(MODIFIED - JULY 2023)

TITLE: PROPOSED SHED TO DWELLING (CHANGE OF USE) & ADDITION FOR JAROME KELLY AT No. 8 BOATHOUSE RISE, LEWISHAM, TASMANIA.

GH DESIGN & DRAFTING
BUILDING DESIGNER = GAVIN HENDERSON (CC 303E)
No.10 LUCAS ST, KINGSTON, TASMANIA, 7050.
MOBILE = 0488 915 222
E-MAIL = gav.h@bigpond.com

SUBJECT: DWELLING ELEVATIONS (EXISTING - AS FOUND & MODIFIED).

SCALE	DATE	DRAWN BY	REVISIONS:
A3 SHEET = 1:100	JULY 2023	GBH	

ENGINEERING APPROVAL (STAMP / SIGNATURE)

SHEET No. 05

LEGEND

SEWAGE DRAIN:
= DWV UPVC PIPE, CLASS SN6 @ MIN. 1.65%
(TO AS/NZS 1260:2009).

STORMWATER DRAIN:
= DN 100 UPVC PIPE, CLASS SN4 @ MIN. 1%
(TO AS/NZS 1254:2010).

GROUNDWATER DRAIN:
(DN90 AG PIPE).

B = BASIN
Bth = BATH
SHR = SHOWER
CWM = CLOTHES WASHING MACHINE-DOMESTIC
DWM = DISH WASHING MACHINE-DOMESTIC
S = SINK
Tr. = TROUGH
WC = WATER CLOSET PAN
FWG = FLOOR WASTE GULLY
IO = INSPECTION OPENNING

DWELLING FIXTURE UNIT RATING:
ENSUITE = Basin=1, SHR=2, WC=4,
BATHROOM = WC=4, Basin=1, SHR=2,
POWDER ROOM = WC=4, Basin=2,
KITCHEN = Sink=3,
LDY = Tr=5,
TOTAL = 28 UNITS.

INSPECTION OPENINGS (IO):
PROVIDE AS PER CURRENT AS/NZS 3500.5 AND LOCAL AUTHORITY.

OVERFLOW RELIEF GULLY (ORG):
TOP OF ORG MUST BE MIN. 150 mm BELOW LOWEST SANITARY FIXTURE.

SERVICES:
A heated water supply system must be designed and installed in accordance with Part B2 of NCC Volume Three — Plumbing Code of Australia

Thermal insulation for central heating water piping and heating and cooling ductwork must—
(a) be protected against the effects of weather and sunlight;
and (b) be able to withstand the temperatures within the piping or ductwork;
and (c) use thermal insulation material in accordance with AS/NZS 4859.1.

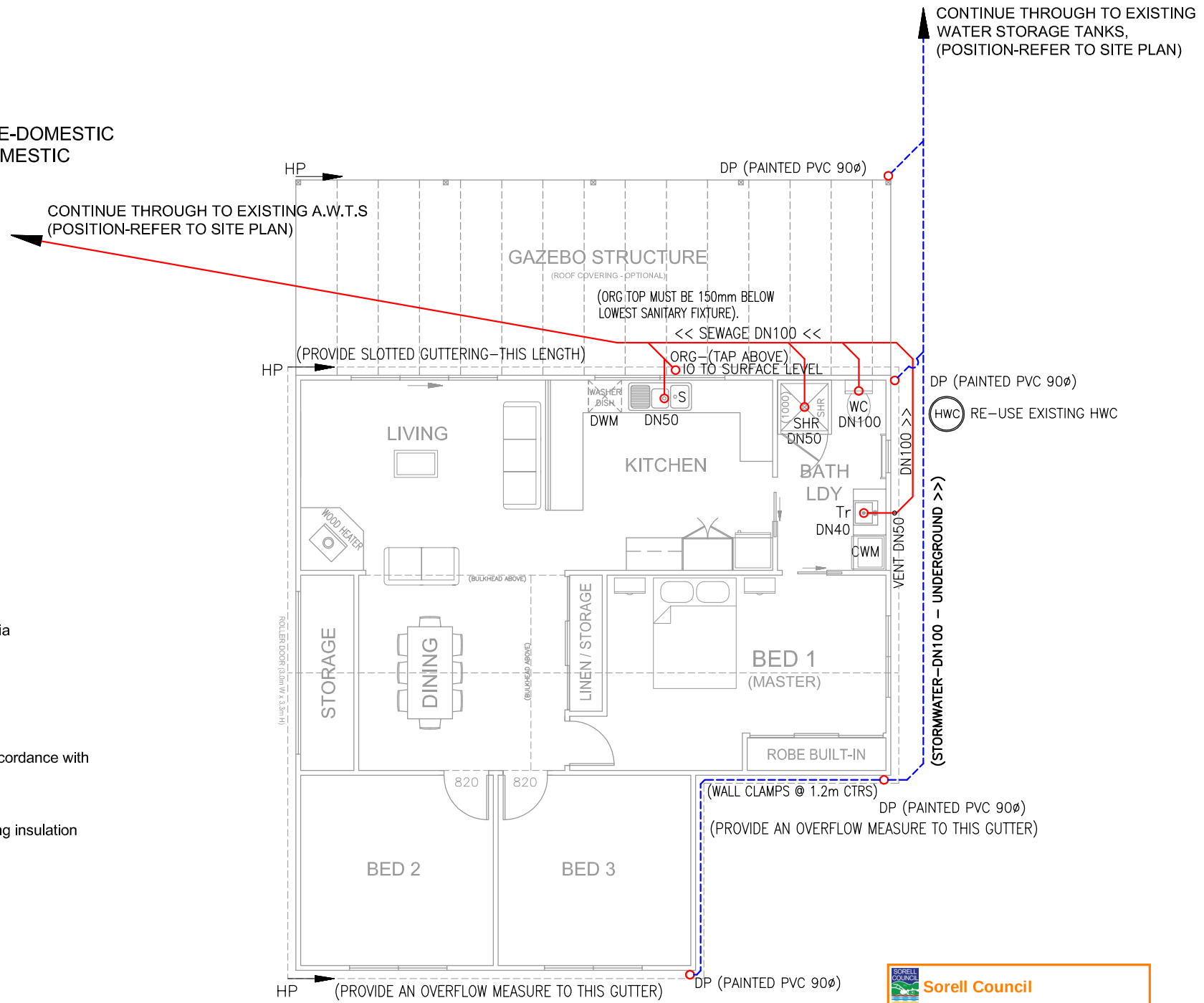
Central heating water piping that is not within a conditioned space must be thermally insulated to achieve the minimum material R-Value in accordance with Table 3.12.5.1.

1. Internal piping
(a) All flow and return piping that is— (i) within an unventilated wall space; or (ii) within an internal floor between storeys; or (iii) between ceiling insulation and a ceiling.
(b) All heated water piping encased within a concrete floor slab (except that which is part of a floor heating system).
Minimum material R-Value for climate zone 7 = 0.4 - 9mm of closed cell polymer insulation.

2. Piping located within a ventilated wall space, an enclosed building subfloor or a roof space
(a) All flow and return piping.
(b) Cold water supply piping — within 500 mm of the connection to the central water heating system.
(c) Relief valve piping — within 500 mm of the connection to the central water heating system
Minimum material R-Value for climate zone 7 = 0.9 - 19mm of closed cell polymer insulation.

3. Piping located outside the building or in an unenclosed building subfloor or roof space
(a) All flow and return piping.
(b) Cold water supply piping — within 500 mm of the connection to the central water heating system.
(c) Relief valve piping — within 500 mm of the connection to the central water heating system
Minimum material R-Value for climate zone 7 = 1.3 - 25mm of closed cell polymer insulation.

Note: Piping within a timber member, such as that passing through a wall stud, is considered to have sufficient insulation for the purposes of Table 3.12.5.1.



Sorell Council
Development Application: Planning Application 8 Boathouse Rise, Lewisham.pdf
Plans Reference:P1
Date Received:2/01/2025

CONSTRUCTION NOTES:
- PLUMBING & DRAINAGE TO COMPLY WITH CURRENT AS/NZS 3500.5
- PLUMBER TO DESIGN & INSTALL "HOT & COLD" WATER SERVICES/SUPPLY.
- ALL WORK TO COMPLY WITH RELEVANT NCC REQUIREMENTS & IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENTS.
- THIS DRAWING MUST BE READ IN CONJUNCTION WITH ASSOCIATED SPECIFICATION SECTIONS & SCHEDULES.
- ON-SITE DOMESTIC-WASTEWATER MANAGEMENT TO COMPLY WITH CURRENT AS/NZS 1547.
- ALL PLUMBING WORK IN THE CONSTRUCTION/INSTALLATION OF THE ON-SITE DISPOSAL SYSTEM MUST BE AUTHORISED FOR USE IN ACCORDANCE WITH THE TASMANIAN PLUMBING CODE.
- THERE ARE A FEW RAINWATER GUTTER OVERFLOW MEASURE LISTED IN THE SPECIFICATION - ONE (or more) MUST BE UTILISED WITH THIS DESIGN (U.N.O).
- SELECT, STORE, HANDLE & INSTALL PROPRIETARY PRODUCTS OR SYSTEMS IN ACCORDANCE WITH CURRENT PUBLISHED RECOMMENDATIONS OF THE MANUFACTURER OR SUPPLIER.

TITLE:PROPOSED SHED TO DWELLING (CHANGE OF USE) & ADDITION FOR JAROME KELLY AT No. 8 BOATHOUSE RISE, LEWISHAM, TASMANIA.

GH DESIGN & DRAFTING
BUILDING DESIGNER = GAVIN HENDERSON (CC 303E)
No.10 LUCAS ST, KINGSTON, TASMANIA, 7050.
MOBILE = 0488 915 222
E–MAIL = gav.h@bigpond.com

SUBJECT: PLUMBING & ROOF DRAINAGE LAYOUT & DETAILS.

SCALE	DATE	DRAWN BY	REVISIONS:
A3 SHEET = 1:100	JULY 2023	GBH	

ENGINEERING APPROVAL (STAMP / SIGNATURE)

SHEET No. 10