NOTICE OF PROPOSED DEVELOPMENT

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

SITE: 37 Branders Road, Orielton

PROPOSED DEVELOPMENT:
THREE LOT SUBDIVISION

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 **Monday 26th May 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 **Monday 26th May 2025**

APPLICANT: **Rogerson & Birch Surveyors**

APPLICATION NO: **SA 2024 /10 1**
DATE: **09 May 2025**

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

Full description of Proposal:	*Use:* Proposed Subdivision *Development:* *Large or complex proposals should be described in a letter or planning report.*
Design and construction cost of proposal:	$ .....

Is all, or some the work already constructed:	No: ☑ Yes: ☐

Location of proposed works:	Street address: 37 Branders Road Suburb: Orielton Postcode: 7172 Certificate of Title(s) Volume: 40738 Folio: 3

Current Use of Site	Residential

Current Owner/s:	Name(s) K. T Maass

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: 28/5/24

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 _____

Signature of General Manager, Minister or Delegate:	Signature: ..... Date: .....

BUSHFIRE ASSESSMENT REPORT

Proposed Three Lot Subdivision

Address: 37 Branders Road, Orielton TAS 7172

Title Reference: C.T.40738/3

Prepared by James Rogerson, Bushfire Hazard Practitioner (BFP-161)
VERSION – 1.0
Date: 13/02/2024

Contents

Disclaimer: The information contained within this report is based on the instructions of AS 3959-2018 the standard states that *"Although this Standard is designed to improve the performance of building when subjected to bushfire attach in a designated bushfire-prone area there can be no guarantee that a building will survive a bushfire event of every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire and extreme weather conditions." (Standards Australia Limited, 2011)*

INTRODUCTION

1.1 Background

This Bushfire Assessment Report and associated Bushfire Hazard Management Plan (BHMP) has been prepared by James Rogerson of JR Bushfire Assessments (for Rogerson and Birch Surveyors) on behalf of the proponent to form part of supporting documentation for the proposed three lot subdivision of 37 Branders Road, Orielton. Under the Tasmanian Planning Scheme – Sorell (TPS) and C13.0 Bushfire-Prone Areas Code it is a requirement that a subdivision application within a bushfire-prone area must accomplish a minimum Bushfire Attack Level (BAL) rating of BAL-19 for all future dwellings on newly formed allotments. This report also includes an associated BHMP which is also a requirement under C13.0.

The proposed development is within a Bushfire-Prone Area overlay and there is bushfire-prone vegetation within 100m from the site. Therefore, this site is within a bushfire-prone area.

1.2 Scope

This Bushfire Report offers an investigation and assessment of the bushfire risk to establish the level of bushfire threat and vulnerability on the land for the purpose of subdivision. This report includes the following:

- A description of the land and adjacent land, and description of the use or development that may be at threat by a bushfire on the subject site;
- Calculates the level of a bushfire threat and offers opinions for bushfire mitigation measures that are consistent with AS3959:2018 and C13.0.
- Subdivision Proposal Plan (Appendix B)
- Bushfire Hazard Management Plan (Appendix C)
- Planning Certificate (Appendix D)

1.3 Scope of BFP Accreditation

I, James Rogerson am an accredited Bushfire Practitioner (BFP-161) to assess bushfire hazards and endorse BHMP's under the the *Chief Officers Scheme for the Accreditation of Bushfire Hazard Practitioners.* I have successfully completed the *Planning for Bushfire Prone Areas Short Course* at University of Technology Sydney.

1.4 Limitations

The site assessment has been conducted and report written on the understanding that:

- The report only deals with the potential bushfire risk, all other statutory assessments are outside the scope of this report;
- The report only classifies the size, volume and status of the vegetation at the time the site assessment was conducted;
- Impacts on future development and vegetation growth have not been considered in this report. No action or reliance is to be placed on this report, other than which it was commissioned.

1.5 Proposal

The proposal is for the subdivision of the current title C.T.40738/3 into 3 resultant titles including balance. See proposal plan (Appendix B).

2 PRE-FIELD ASSESSMENT

2.1 Site Details

Table 1

Owner Name(s)	Kathryn T. Maass
Location	37 Branders Road, Orielton TAS 7172
Title Reference	C.T.40738/3
Property ID	7606216
Municipality	Sorell
Zoning	Rural Living – Zone A
Planning Overlays	13 – Bushfire-prone Areas Code and 16 Safeguarding of Airports Code
Water Supply for Firefighting	The property is not serviced by reticulated water. Static water supply tanks will be required for all lots
Public Access	Access to the development is off Branders Road.
Fire History	No record firs on the *LIST*
Existing Development	All-weather gravel private driveways.

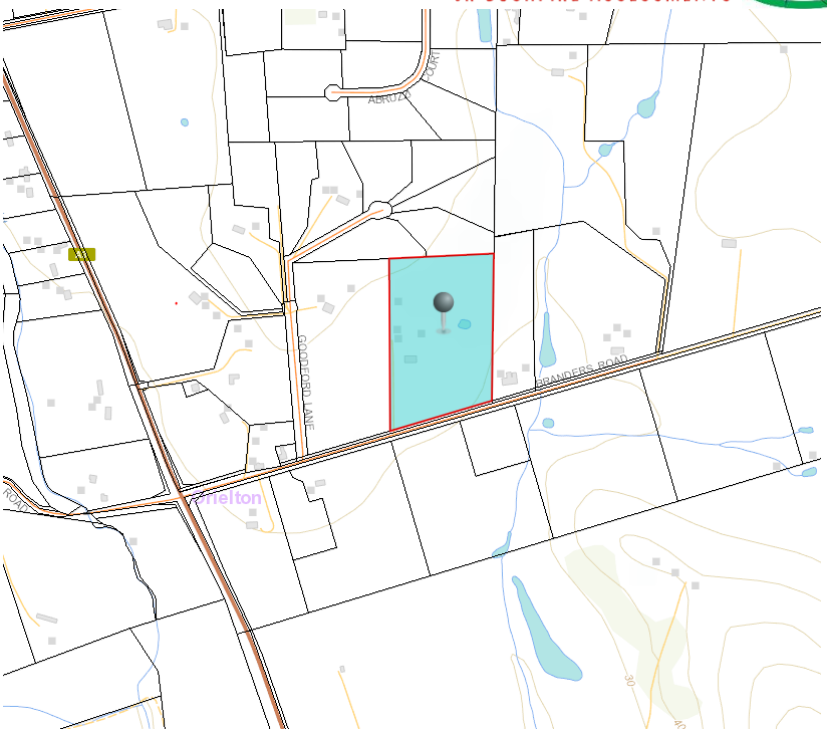


Figure 1 - Location of subject site. Source: The LIST, © State of Tasmania

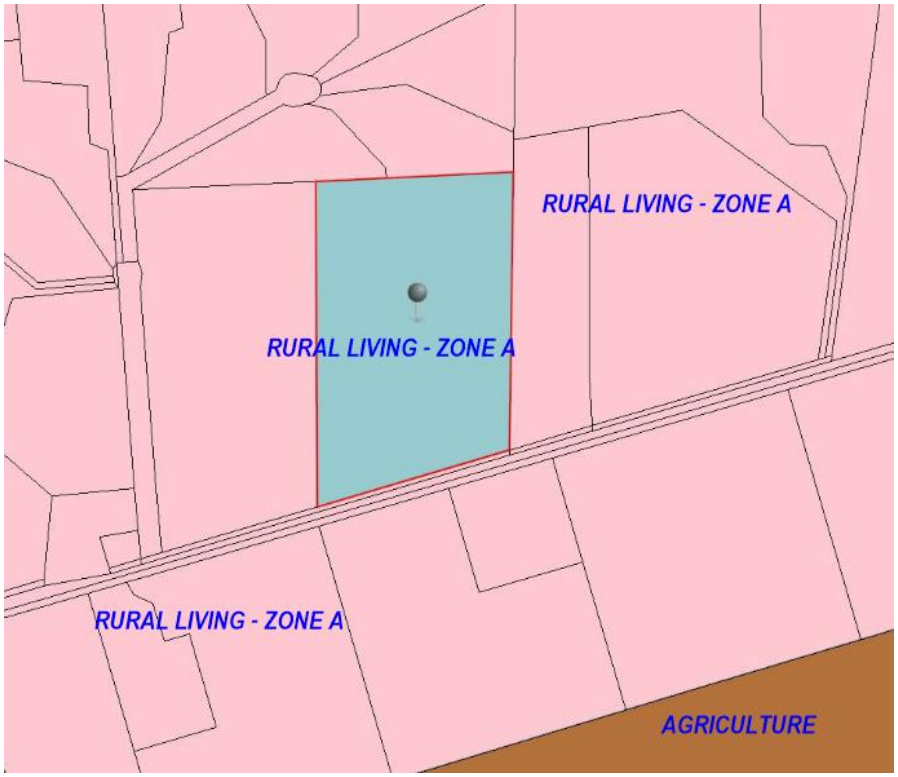


Figure 2 - Planning Scheme Zoning of site and surrounding properties. Source: The LIST, © State of Tasmania

2.2 TasVeg 4.0

There is 1 classified vegetation community on the subject site, and the same community on the surrounding land and parcels. Figure 3 below shows the classified vegetation from TASVEG4.0(Source: The LIST).

Please note that TASVEG4.0 classification does not necessarily reflect ground conditions.

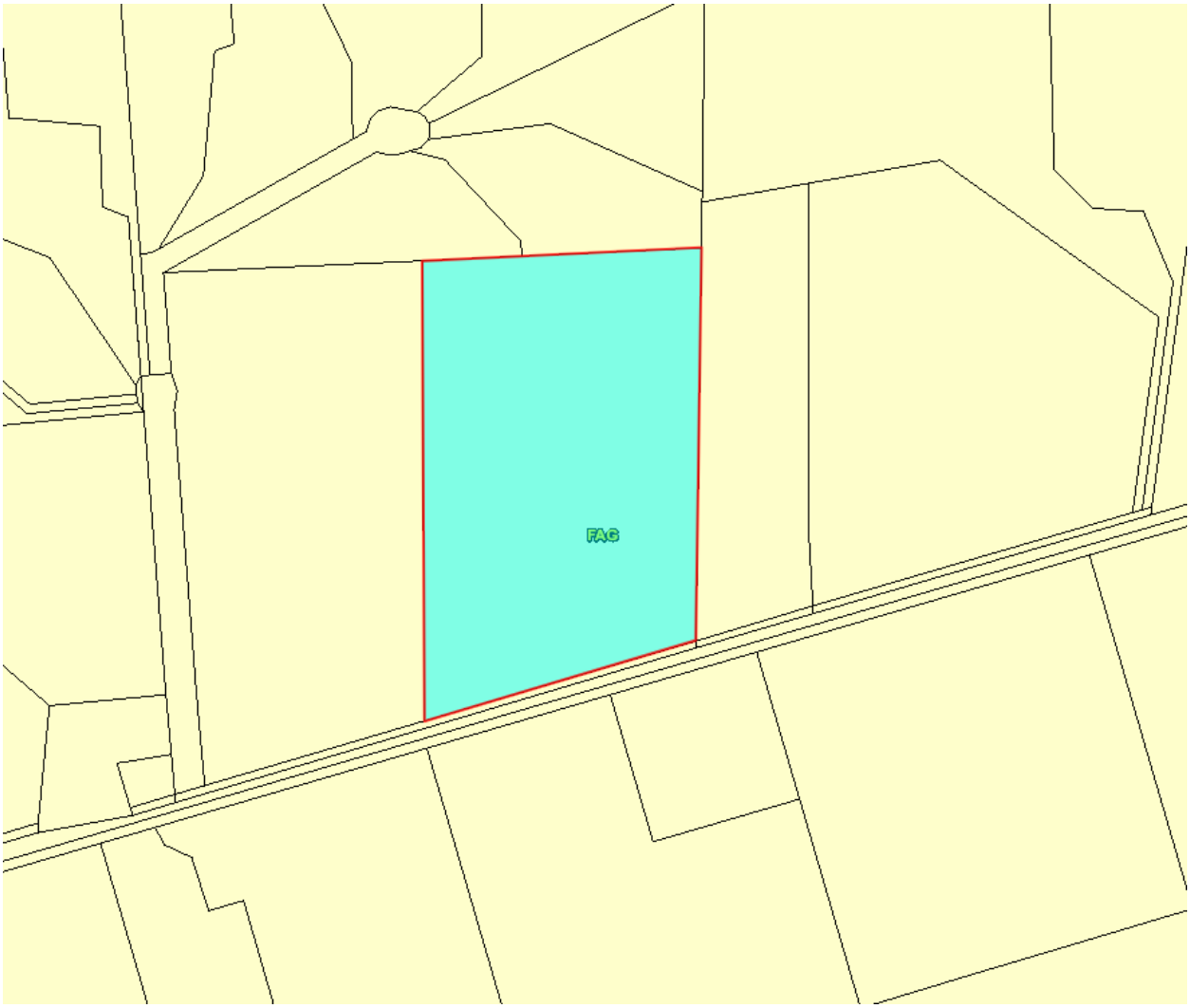


Figure 3 - TASVEG4.0 communities on subject site and surrounding land. FAG – Agricultural land,

3 SITE ASSESSMENT

The site assessment was conducted by James Rogerson (BFP-161) on the 13th of January 2024.

3.1 Bushfire Hazard Assessment

C13.0 Bushfire Prone Areas Code defines Bushfire-prone areas as follows;

> *a) Land that is within the boundary of a bushfire-prone area shown on an overlay on a planning scheme map; or*
>
> *b) Where there is no overlay on a planning scheme map, or where the land is outside the boundary of a bushfire-prone area shown on such map, land that is within 100m of an area of bushfire –prone vegetation equal or greater than 1ha.*

The subject site is within a bushfire-prone areas overlay for the TPS, and the subject site is within 100m of an area of bushfire-prone vegetation equal or greater than 1ha. Therefore, this proposed subdivision is within a bushfire-prone area as per the TPS.

For the purposes of the BAL Assessment, vegetation within 100m of the proposed subdivision site was assessed and classified in accordance with AS3959:2018 Simplified Procedure (Method 1) (relevant fire danger index: 50-which applies across Tasmania).

BUSHFIRE THREAT DIRECTION

The Bushfire threat to this development is from the **GRASSLAND FUEL** within and surrounding the property.

Prevailing Winds: The prevailing winds for this site are primarily westerly, north westerly.

3.2 Vegetation and Effective Slope

Vegetation and relevant effective slopes within 100m of the proposed subdivision have been inspected and classified in accordance with AS 3959:2018. Effective Slope refers to the slope of the land underneath the classified bushfire-prone vegetation relative to the building site and not the slope between the vegetation and the building site. The effective slope affects a fires rate of spread and flame length and is an acute aspect of bushfire behaviour.

WITHIN THE TITLE BOUNDARY (BDY) & PROPERTY DESCRIPTION

The property is a large sized, developed, Rural Living Zone A zoned property that is in the central part of the small, rural township of Orielton. The property is located 400m along Branders Road off the Tasman Highway and 170m past the intersection with Goodford Lane. The property is orientated in a north-south aspect. The terrain within the property is gentle, sloping slightly in a southeasterly aspect. The property consists of a Class 1a dwelling, in addition to various Class 10a sheds, cultivated lawns and gardens and all-weather driveways. (See Figure 4 for slopes).

The land directly surrounding the dwelling and sheds is used as private open space (POS) and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. The remainder of the property is pasture grass, appearing in an unmanaged condition due to minimal land use and is therefore classed as GROUP G GRASSLAND per Table 2.3 of AS3959:2018.

NORTH OF THE TITLE BDY

To the north of the title bdy (across slope) is various, medium sized, developed, residential, Rural Living Zone A properties, that consist of Class 1a dwellings, in addition to various Class 10a sheds, cultivated gardens, low cut lawns and non-combustible areas. The land directly surrounding the dwellings and sheds is used as POS and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. The remainder of these properties are grassed, appearing in an unmanaged condition, due to the size of the blocks and minimal land use and is therefore classed as GROUP G GRASSLAND per Table 2.3 of AS3959:2018.

EAST OF THE TITLE BDY

To the east of the property (across slope) is a medium and large sized, developed, residential, Rural Living Zone A properties, that consist of Class 1a dwellings, in addition to various Class 10a sheds, cultivated gardens, low cut lawns and non-combustible areas. The land directly surrounding the dwellings and sheds is used as POS and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. The remainder of these properties are grassed, appearing in an unmanaged condition, due to the size of the blocks and minimal land use and is therefore classed as GROUP G GRASSLAND per Table 2.3 of

SOUTH OF THE TITLE BDY

To the south of the property bdy (across slope) is various medium and large sized, developed, residential, Rural Living Zone A properties, that consist of Class 1a dwellings, in addition to various Class 10a sheds, cultivated gardens, low cut lawns and non-combustible areas. The land directly surrounding the dwellings and sheds is used as POS and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. The remainder of these properties are grassed, appearing in an unmanaged condition, due to the size of the blocks and minimal land use and is therefore classed as GROUP G GRASSLAND per Table 2.3 of

WEST OF THE TITLE BDY

To the west of the property bdy (across slope) is a large sized, developed, residential, Rural Living Zone A property, that consists of a Class 1a dwelling, in addition to various Class 10a sheds, cultivated gardens, low cut lawns and non-combustible areas. The land directly surrounding the dwellings and sheds is used as POS and is therefore classed as MANAGED LAND or LOW THREAT VEGETATION per Clause 2.2.3.2 (e)(f) of AS3959:2018. The remainder of these properties are grassed, appearing in an unmanaged condition, due to the size of the block and minimal land use and is therefore classed as GROUP G GRASSLAND per Table 2.3 of

Figure 4 below shows the relationship between the subject site and the surrounding vegetation.

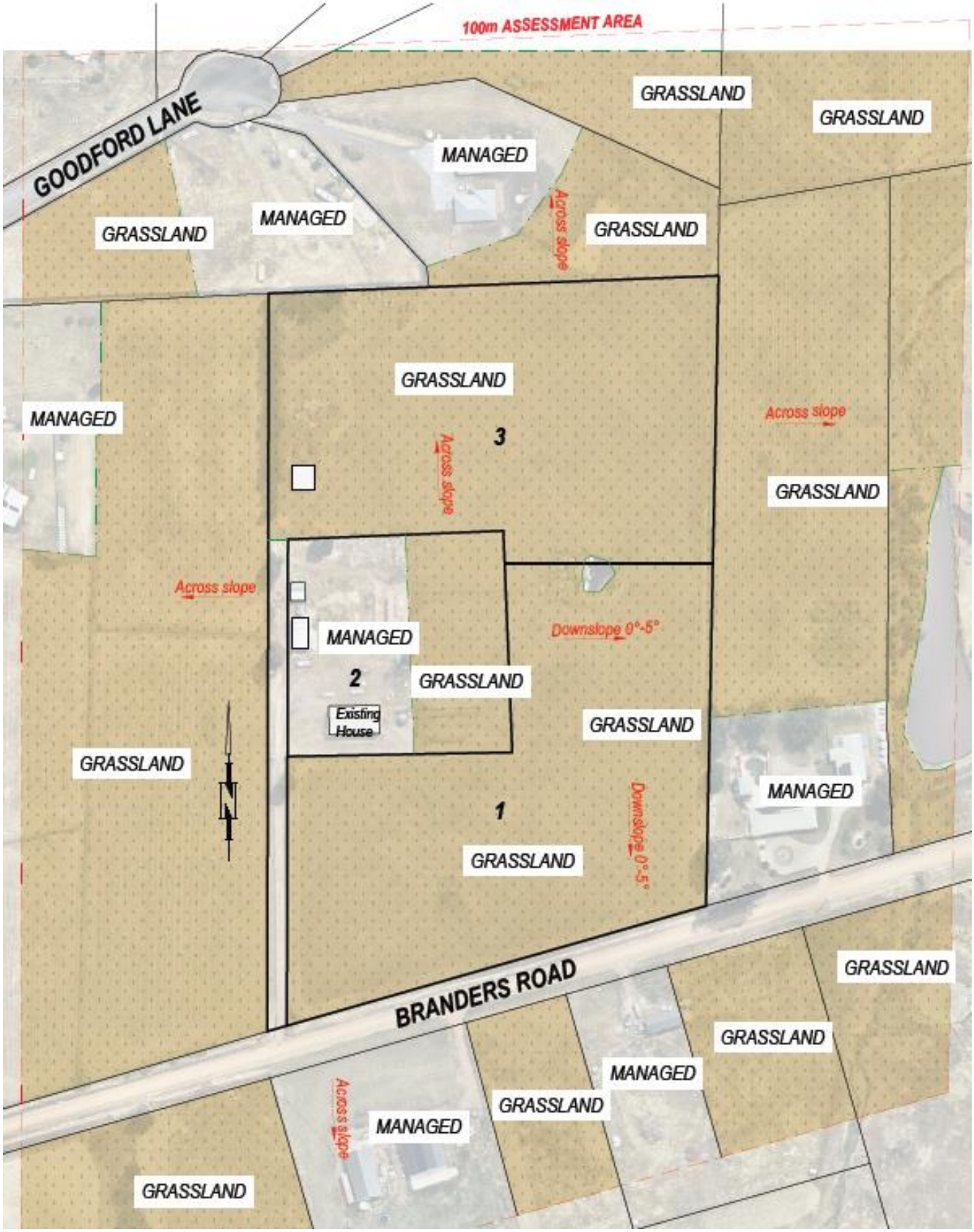


Figure 4 classified vegetation (within 100m of site) and existing separation from bushfire-prone vegetation (not to scale)

3.3 Bushfire Attack Level (BAL)

Table 2 - BAL rating for each lot and required separation distances

LOT 2 – Existing Dwelling (Existing separation)				
DIRECTION OF SLOPE	**N**	**E**	**S**	**W**
Vegetation Classification	MANAGED GRASSLAND	MANAGED GRASSLAND	MANAGED GRASSLAND	MANAGED GRASSLAND
Existing Horizontal distance to classified vegetation	69m-100m (G)	14m-100m (G)	9m-100m (G)	24m-100m (G)
Effective Slope under vegetation	Across slope	Downslope >0°-5° and Across slope	Downslope >0°-5°	Across slope
Exemption	(G) = >50m			
Current BAL value for each side of the site	BAL-LOW	BAL-19	BAL-29	BAL-12.5
Separation distances to achieve BAL-19	N/A	11m	11m	10m
Separation distances to achieve BAL-12.5	N/A	16m	16m	14m
Current BAL rating	BAL-29			

LOT 1 – VACANT (Indicative Building Area)				
DIRECTION OF SLOPE	**N**	**E**	**S**	**W**
Vegetation Classification	GRASSLAND MANAGED	GRASSLAND	GRASSLAND MANAGED	GRASSLAND
Existing Horizontal distance to classified vegetation	0m-50m (G)	0m-100m (G)	0m-36m (G)	0m-100m (G)
Effective Slope under vegetation	Across slope	Downslope >0°-5°	Downslope >0°-5°	Across slope
Exemption				
Current BAL value for each side of the site	BAL-FZ	BAL-FZ	BAL-FZ	BAL-FZ
Separation distances to achieve BAL-19	10m	11m	11m	10m
Separation distances to achieve BAL-12.5	14m	16m	16m	14m
Current BAL rating	BAL-FZ			

LOT 3 – Vacant (Indicative Building Area)				
DIRECTION OF SLOPE	**N**	**E**	**S**	**W**
Vegetation Classification	GRASSLAND MANAGED	GRASSLAND	GRASSLAND MANAGED	GRASSLAND MANAGED
Existing Horizontal distance to classified vegetation	0m-38m (G)	0m-100m (G)	0m-47m (G)	0m-29m & 35m-100m (G)
Effective Slope under vegetation	Upslope	Downslope >0°-5°	Downslope >0°-5°	Across slope
Exemption				
Current BAL value for each side of the site	BAL-FZ	BAL-FZ	BAL-FZ	BAL-FZ
Separation distances to achieve BAL-19	10m	11m	11m	10m
Separation distances to achieve BAL-12.5	14m	16m	16m	14m
Current BAL rating	**BAL-FZ**			

3.4 Definition of BAL-LOW

Bushfire Attack Level shall be classified BAL-LOW per Section 2.2.3.2 of AS3959:2018 where the vegetation is one or a combination of any of the following Exemptions:

a) Vegetation of any type that is more than 100m from the site.
b) Single areas of vegetation less than 1 hectare in area and not within 100m of other areas of vegetation being classified.
c) Multiple areas of vegetation less than 0.25 ha in area and not within 20m of the site, or each other.
d) Strips of vegetation less than 20m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20m of the site or each other, or other areas of vegetation being classified.
e) Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops.
f) Low threat vegetation, including grassland managed in a minimal fuel condition, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.

NOTE: Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100mm).

The BAL level will also be classified as BAL-LOW if Grassland fuel is >50m from the site for any effective slope per Table 2.6 of AS3959:2018.

Due to some existing developed and managed land, some separations distances are already achieved.

Where there were multiple fuel classifications and effective slopes, the predominant fuel and slope have been used in the BAL table above.

BAL ratings are as stated below:

BAL LOW	BAL 12.5	BAL 19	BAL 29	BAL 40	BAL FZ
There is insufficient risk to warrant any specific construction requirements, but there is still some risk	Ember attack and radiant heat below 12.5 kW/m²	Increasing ember attack and windborne debris, radiant heat between 12.5 kW/m² and 19 kW/m2	Increasing ember attack and windborne debris, radiant heat between 19kW/m² and 29 kW/m2	Increasing ember attack and windborne debris, radiant heat between 29 kW/m² and 40 kW/m². Exposure to flames from fire front likely	Direct Exposure to flames, radiant heat and embers from the fire front

4 BUSHFIRE PROTECTION MEASURES

4.1 Hazard Management Areas (HMA)

Hazard Management Area as described in the Code "*maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire".* Also as described from Note 1 of AS3959:2018 Clause 2.2.3.2 "*Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm)".*

Compliance to C13.6.1

The building areas within all lots require a Hazard Management Area (HMA) to be established and maintained between the bushfire vegetation and the area at a distance equal to, or greater than specified for the Bushfire Attack Level in Table 2.6 of AS3959:2018.

Due to the sizes of the lots, only the building areas are to be maintained as HMA's. Currently, the majority of the building area within Lot 2 is kept in a managed condition and must continue to do so in perpetuity. The HMA for Lot to be implemented prior to sealing of titles and prior to occupancy of future habitable dwellings for lots 1 and 3.

Requisite fuel removal is required for all lots to achieve BAL-19 compliance.

Minimum separation distances for each lot are stated below.

LOT 2 – Separation Distances (Existing Dwelling)				
Aspect	**N**	**E**	**S**	**W**
BAL-19	N/A	11m	11m	10m

LOT 1 – Separation Distances (Indicative Building Area)				
Aspect	**N**	**E**	**S**	**W**
BAL-19	10m	11m	11m	10m

LOT 3 – Separation Distances (Indicative Building Area)				
Aspect	**N**	**E**	**S**	**W**
BAL-19	10m	11m	11m	10m

The Tasmanian Fire Service provides the following advice regarding the implementation and maintenance of Hazard management areas:

- Removing of fallen limbs, sticks, leaf and bark litter
- Maintaining grass at less than a 100mm height
- Removing pine bark and other flammable mulch (especially from against buildings)
- Thinning out understory vegetation to provide horizontal separation between fuels
- Pruning low-hanging tree branches (<2m from the ground) to provide vertical separation between fuel layers
- Pruning larger trees to maintain horizontal separation between canopies
- Minimize the storage of flammable materials such as firewood
- Maintaining vegetation clearance around vehicular access and water supply points
- Use of low-flammability species for landscaping purposes where appropriate
- Clearing out any accumulated leaf and other debris from roof gutters.

Additional site-specific fuel reduction or management may be required. An effective hazard management area does not require removal of all vegetation. Rather, vegetation must be designed and maintained in a way that limits opportunity for vertical and horizontal fire spread in the vicinity of the building being protected. Retaining some established trees can even be beneficial in terms of protecting the building from wind and ember attack

4.2 Public and Fire Fighting Access

Public Access

The proposed development fronts Branders Road. Branders Road is of all-weather gravel material and is maintained by Council. Branders Road has a nominal carriageway width of 6m. No upgrades are required to the public road and the public road complies with public access road requirements.

Property Access

Current Conditions:

Lot 2 – Existing dwelling

The existing private access to the existing dwelling within Lot 2 is an all-weather gravel material driveway, which runs perpendicular off Branders Road, runs straight parallel to the west boundary, passes the dwelling on the west side and terminates past the dwelling. The total approximate length of the access is 140m for a nominal width of 3m.

Figure 5 – Existing access

Figure 6 – End of existing access

Compliance to C13.6.2

Lot 2 – Existing dwelling

Access to the existing dwelling in Lot 2 is >30m and access is required for a fire appliance. Therefore, the access requires some upgrades (width to min. 4m wide, construct turning head and hardstand) so the access will comply with Acceptable Solution A1 and Table 13.2 (B) of C13.6.2 demonstrated below in Table 3.

Noting part of the access to Lot 2 will be within a Right of Way 8m wide within Lot 3.

Upgrades to existing access (to adjacent with dwelling and passing bay), construction of hardstand and turning head for Lot 2 to be constructed prior to sealing of titles.

Lot 1

Access to the building area within Lot 1 will be >30m, but <200m and access is required for a fire appliance. Therefore, the access must comply with Acceptable Solution A1 and Table 13.2 (B) of C13.6.2 demonstrated below in Table 3. Private access for Lot 1 to be constructed prior to occupancy of a future habitable dwelling.

Lot 3

Access to the building area within Lot 3 is <200m, and access is required for a fire appliance. Therefore, the access must comply with Acceptable Solution A1 and Table 13.2 (C) of C13.6.2 demonstrated below in Table 3. Private access to Lot 3 (excluding passing bay) to be constructed prior to occupancy of a future habitable dwelling.

Table 3 - Requirements for access length greater than 30m and less than 200m per Table C13.2 (B) and (C)

Access Standards: Table C13.2 (B) (access length >30m, <200m)

a) All-weather construction;
b) Load capacity of at least 20 t, including bridges and culverts;
c) Minimum carriageway width of 4m;
d) Minimum vertical clearance of 4m;
e) Minimum horizontal clearance of 0.5m from the edge of the carriageway;
f) Cross falls less than 3 degrees (1:20 or 5%)
g) Dips less than 7 degrees (1:8 or 12.5%);
h) Curves with a minimum inner radius of 10m;
i) Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed road; and
j) Terminate with a turning area for fire appliances provided by one of the following
    i. A turning circle with a minimum outer radius of 10m; or
    ii. A property access encircling the building; or
    iii. A hammerhead 'T' or 'y' turning head 4m wide and 8m long.

Table C13.2 (C) (access length >200m)

a) All of the above; and
b) Passing bays of 2m additional carriageway width and 20m length provided every 200m

4.3 Water Supply for Fire Fighting

Current Conditions:

Site assessment confirmed the property is not serviced by reticulated water. An existing tank for domestic use only exists within the Balance.

Compliance to C13.6.3

All lots

All lots **must** be provided with a firefighting water supply that meets the requirements for Acceptable Solution A2 of section C13.6.3 and Table C13.5.

Firefighting water supply requirements for Lot 2 **must** be provided prior to sealing of titles and prior to occupancy of a future habitable dwellings for lots 1 and 3.

Static water supply requirements are outlined in Table 4 below which is per C13.6.3 and Table C13.5

Table 4 – Requirements for Static Water Supply per C13.6.3 and Table C13.5

A. Distance between building area to be protected and water supply
   a) the building area to be protected must be located within 90m of the fire fighting water point of a static water supply; and
   b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area

B. Static Water supplies
   a) may have a remotely located offtake connected to the static water supply;
   b) may be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times;
   c) must be a minimum of 10,000L per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems;
   d) must be metal, concrete or lagged by non-combustible materials if above ground; and
   e) if a tank can be located so it is shielded in all directions in compliance with section 3.5 of Australian Standard AS 3959-2009 Construction of buildings in bushfire-prone areas, the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by:
      (i) metal;
      (ii) non-combustible material; or
      (iii) fibre-cement a minimum of 6mm thickness.

C. Fittings, pipework and accessories (including stands and tank supports)
   Fittings and pipework associated with a fire fighting water point for a static water supply must:

   (a) have a minimum nominal internal diameter of 50mm;
   (b) be fitted with a valve with a minimum nominal internal diameter of 50mm;
   (c) be metal or lagged by non-combustible materials if above ground;
   (d) if buried, have a minimum depth of 300mm [S1];
   (e) provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to fire fighting equipment;
   (f) ensure the coupling is accessible and available for connection at all times;
   (g) ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length);
   (h) ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and
   (i) if a remote offtake is installed, ensure the offtake is in a position that is:
      (i) visible;
      (ii) accessible to allow connection by fire fighting equipment;
      (iii) at a working height of 450 – 600mm above ground level; and
      (iv) protected from possible damage, including damage by vehicles.

D. Signage for static water connections

The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must:

a) comply with water tank signage requirements within Australian Standard AS 2304-2011 Water storage tanks for fire protection systems; or

b) comply with the Tasmania Fire Service Water Supply Guideline published by the Tasmania Fire Service.

E. Hardstand

A hardstand area for fire appliances must be:

a) no more than 3m from the fire fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like);

b) no closer than 6m from the building area to be protected;

c) a minimum width of 3m constructed to the same standard as the carriageway; and

d) connected to the property access by a carriageway equivalent to the standard of the property access.

4.4 Construction Standards

Existing and future habitable dwellings within the specified building areas on each lot must be designed and constructed to the minimum BAL ratings specified in the BHMP (Appendix C) and to BAL construction standards in accordance with AS3959:2018 or subsequent edition as applicable at the time of building approval.

The BAL-19 building setback lines on the BHMP define the minimum setbacks for habitable buildings.

The BAL-19 building areas for lots 1 and 3 are indicative, and they can be varied in location. **However, the BAL-19 HMA setback distances must be adhered to and the HMA is fully contained with the respective lots.**

Future Class 10a buildings within 6m of a Class 1a dwelling must be constructed to the same BAL as the dwelling or provide fire separation in accordance with Clause 3.2.3 of AS3959:2018.

5 STATUTORY COMPLIANCE

The applicable bushfire requirements are specified in State Planning Provisions C13.0 – Bushfire-Prone Areas Code.

Clause	Compliance
C13.4 Use or development exempt from this code	N/A
C13.5 Use Standards	
C13.5.1 Vulnerable Uses	N/A
C13.5.2 Hazardous Uses	N/A
C13.6 Development Standards for Subdivision	
C13.6.1 Provision of Hazard Management Areas.	To comply with the Acceptable Solution A1, the proposed plan of subdivision must; • Show building areas for each lot; and • Show hazard management areas between these building areas and that of the bushfire vegetation with the separation distances required for BAL 19 in Table 2.6 of *Australian Standard AS 3959:2018 Construction of buildings in bushfire-prone areas.* The BHMP demonstrates that all lots can accommodate a BAL rating of BAL-19 with on-site vegetation managing and clearing for all lots. The HMA for Lot 2 (existing dwelling) to be implemented prior to sealing of titles and prior to occupancy of future habitable dwellings for lots 1 and 3. Subject to the compliance with the BHMP the proposal will satisfy the Acceptable Solution C13.6.1(A1)
C13.6.2 Public and firefighting access; A1	The BHMP (through reference to section 4 of this report) specifies requirements for private accesses are consistent with Table C13.2. Existing access to Lot 2 requires minor upgrades to meet the min. 4m width and construction of a turning head, in addition to a passing bay. The new or upgrades to existing the access, turning heads, hardstands and passing bay to be constructed prior to sealing to sealing of titles for Lot 2 and prior to occupancy of a future habitable dwellings for lots 1 and 3. Subject to the compliance with the BHMP the proposal satisfies the Acceptable Solution C13.6.2(A1).
C13.6.3 A2 Provision of water supply for firefighting purposes.	Static water supply is required for all lots per C13.6.3 A2. Firefighting water supply requirements for Lot 2 **must** be provided prior to sealing of titles and prior to occupancy of a future habitable dwellings for lots 1 and 3. Subject to the compliance with the BHMP the proposal satisfies the Acceptable Solution C13.6.3

6 CONCLUSION & RECOMMENDATIONS

The proposed subdivision is endorsed that each lot can meet the requirements of Tasmanian Planning Scheme – Sorell and C13.0 Bushfire-prone Areas Code for a maximum BAL rating of BAL-19. Providing compliance with measures outlined in the BHMP (Appendix C) and sections 4 & 5 of this report.

Recommendations:

- The HMA's within the subdivision be applied in accordance with section 4.1 of this report and the BHMP (Appendix C).
- Bushfire protection measures for the Balance outlined in Sections 4.1, 4.2 and 4.3 to be implemented/constructed/installed prior to sealing of titles for Lot 2, and prior to occupancy of future habitable dwellings for lots 1 and 3.
- The indicative BAL-19 building areas within lots 1 and 3 can be varied in location. **However, the BAL-19 HMA setback distances must be adhered to and the HMA is fully contained with the respective lots.**
- Sorell Council condition the planning approval on the compliance with the BHMP (as per Appendix C).

7 REFERENCES

Department of Primary Industries and Water, The LIST, viewed February 2024, www.thelist.tas.gov.au

Standards Australia, 2018, *AS 3959:2018 – Construction of buildings in bushfire-prone areas*, Standards Australia, Sydney.

Tasmanian Planning Commission, 2015, *Tasmanian Planning Scheme – Sorell* viewed February 2024, www.iplan.tas.gov.au

Building Act 2016. The State of Tasmania Department of Premier and Cabinet. https://www.legislation.tas.gov.au/view/html/inforce/current/act-2016-025

Building Regulations 2016. The State of Tasmania Department of Premier and Cabinet. https://www.legislation.tas.gov.au/view/html/inforce/current/sr-2016-110

8 APPENDIX A – SITE PHOTOS

Figure 7 – Grassland fuel within Lot 3 (view facing N, NE)

Figure 8 – Grassland fuel within (Lot 2 foreground, Lot 1 background), view facing E

Figure 9 – Grassland fuel within Lot 1, view facing S

Figure 10 – Grassland fuel west of the property, view facing W

Figure 11 – Existing managed land and dwelling within Lot 2, view facing S, SW

Figure 12 – Existing managed land and dwelling and Grassland fuel within Lot 2, view facing W

9 APPENDIX B – SUBDIVISION PROPOSAL PLAN

ROGERSON & BIRCH SURVEYORS

UNIT 1, 2 KENNEDY DRIVE
CAMBRIDGE 7170
PHONE: (03)6248 5898
EMAIL: admin@rbsurveyors.com
WEB: www.rbsurveyors.com

Sorell
Development Standards for Subdivision
11.0 Rural living

11.6.1 Lot Design

A1

(a)- Lots 1 & 3 comply - Min. 1Ha

(i)- All lots comply - Contain min. area of 10m x 15m w/ gradient < 1:5

a- All lots comply - All required setbacks

b- All lots comply - Clear of easements

(ii)- All existing buildings comply - All required setbacks

P1- Lot 2 complies - no more than 20% smaller than the applicable lot size - Min. 8000m²

A2- Lot 1 complies - Min. 40m frontage

P2- Lot 2 & 3 comply - Min 3.6m legal connection to a road

A3- All lots comply - vehicular access directly from road

11.6.2 Roads

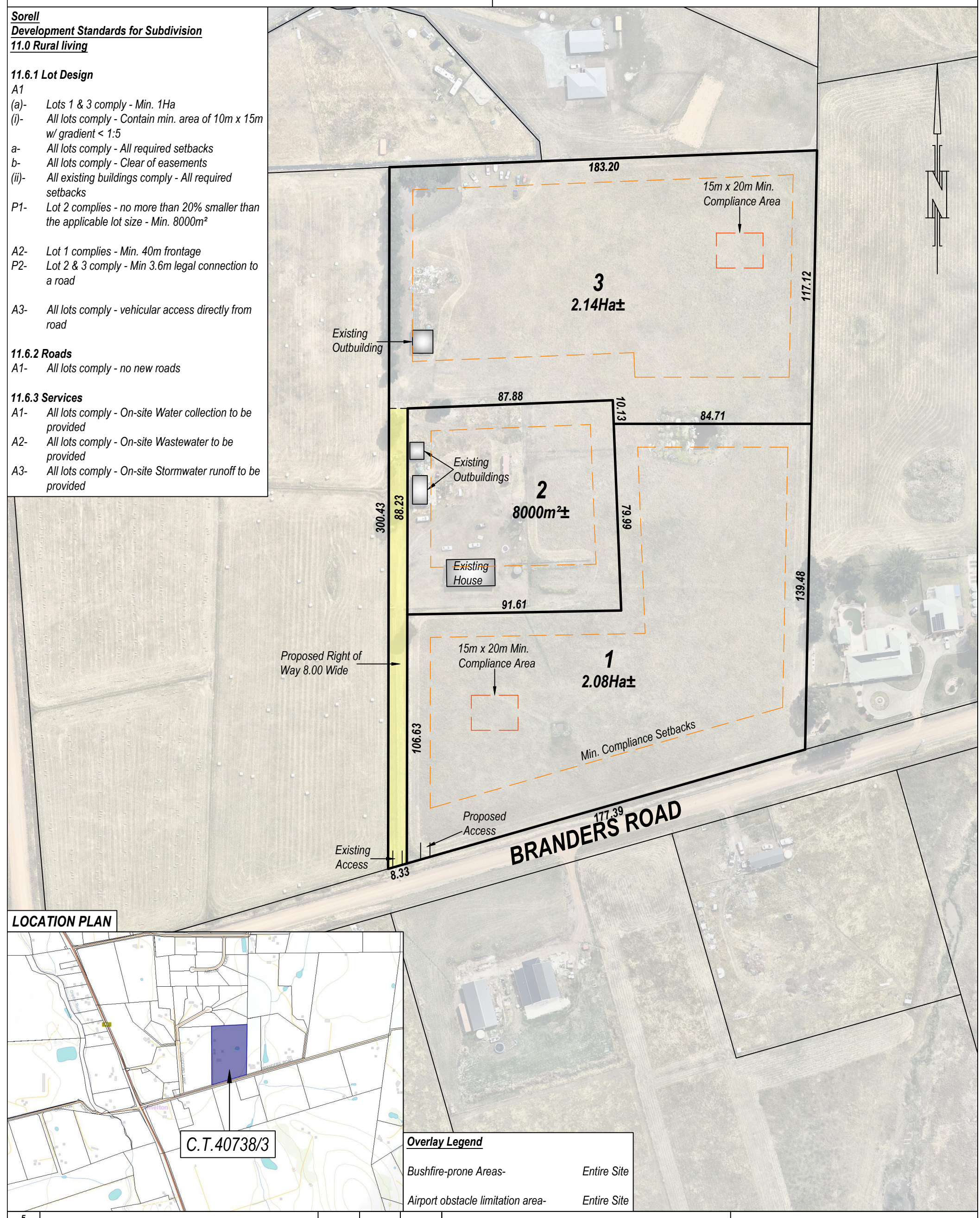
A1- All lots comply - no new roads

11.6.3 Services

A1- All lots comply - On-site Water collection to be provided

A2- All lots comply - On-site Wastewater to be provided

A3- All lots comply - On-site Stormwater runoff to be provided



LOCATION PLAN

Overlay Legend

Bushfire-prone Areas-	*Entire Site*
Airport obstacle limitation area-	*Entire Site*

REV	AMENDMENTS	DRAWN	DATE	APPR.
E				
D				
C	Update boundaries to suit Bushfire Report	LH	07/05/24	LH
B	Update boundaries per client request	LH	29/09/23	LH
A	Update boundaries per client request	LH	12/09/23	LH

OWNER: *KATHRYN THERESA MAASS*
TITLE REFERENCE: *C.T.40738/3*
LOCATION: *37 BRANDERS ROAD,* ***ORIELTON***

Proposed Subdivision

Date: *30/08/2023*
Reference: *MAASA01 15107-00*
Scale: *1:1500 (A3)*
Municipality: *SORELL*

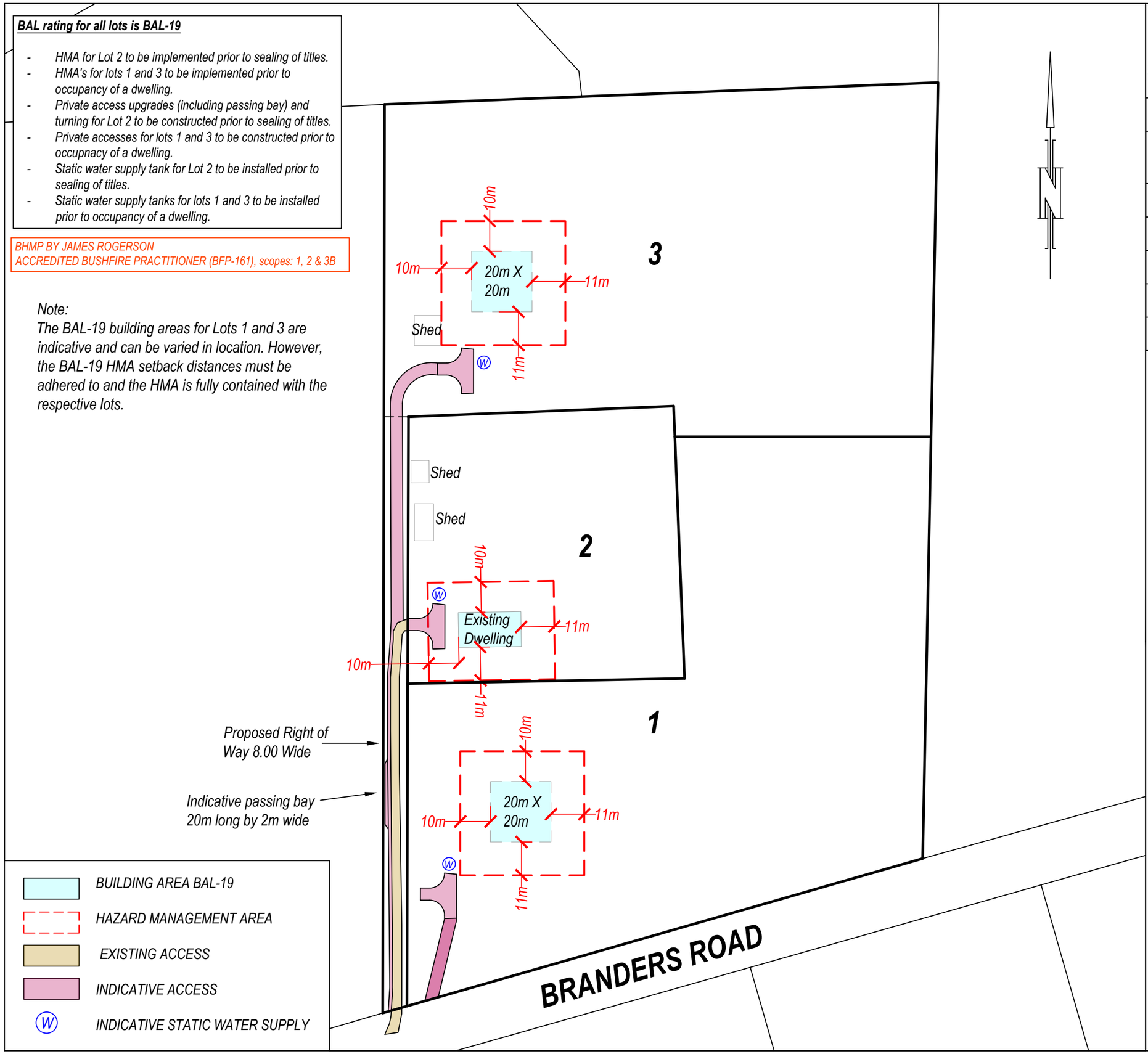
10 APPENDIX C – BUSHFIRE HAZARD MANAGEMENT PLAN

BAL rating for all lots is BAL-19

- *HMA for Lot 2 to be implemented prior to sealing of titles.*
- *HMA's for lots 1 and 3 to be implemented prior to occupancy of a dwelling.*
- *Private access upgrades (including passing bay) and turning for Lot 2 to be constructed prior to sealing of titles.*
- *Private accesses for lots 1 and 3 to be constructed prior to occupnacy of a dwelling.*
- *Static water supply tank for Lot 2 to be installed prior to sealing of titles.*
- *Static water supply tanks for lots 1 and 3 to be installed prior to occupancy of a dwelling.*

BHMP BY JAMES ROGERSON
ACCREDITED BUSHFIRE PRACTITIONER (BFP-161), scopes: 1, 2 & 3B

Note:
The BAL-19 building areas for Lots 1 and 3 are indicative and can be varied in location. However, the BAL-19 HMA setback distances must be adhered to and the HMA is fully contained with the respective lots.



ROGERSON & BIRCH SURVEYORS
UNIT 1, 2 KENNEDY DRIVE
CAMBRIDGE 7170
PHONE: (03)6248 5898
EMAIL: admin@blcsurveyors.com.au
WEB: www.rbsurveyors.com

BUSHFIRE HAZARD MANAGEMENT PLAN

LOCATION:	37 Branders Road, Orileton TAS 7172
TITLE REFERENCE:	C.T.40738/3
PROPERTY ID:	7606216
MUNICIPALITY:	Sorell
DATE:	07/05/2024 2024 (v1.0)
SCALE: 1:1250 @ A3	REFERENCE: MAASA0101

REQUIREMENTS

1. HAZARD MANAGEMENT AREAS (HMA)
   - 1.1. HMA to be established to distances indicated on this plan and as set out in Section 4.1 of the Bushfire Hazard Report.
   - 1.2. Vegetation in the HMA needs to be strategically modified and then maintained in a low fuel state to protect future dwellings from direct flame contact and intense radiant heat. An annual inspection and maintenance of the HMA should be conducted prior to the bushfire season. All grasses or pastures must be kept short (<100 mm) within the HMA. Fine fuel loads at ground level such as leaves, litter and wood piles must be minimal to reduce the quantity of wind borne sparks and embers reaching buildings; and to halt or check direct flame attack.
   - 1.3. Some trees can be retained provided there is horizontal separation between the canopies; and low branches are removed to create vertical separation between the ground and the canopy. Small clumps of established trees and/or shrubs may act to trap embers and reduce wind speeds.
   - 1.4. No trees to overhang houses to prevent branches or leaves from falling on the building.
   - 1.5. Non-combustible elements including driveways, paths and short cropped lawns are recommended within the HMA.
   - 1.6. Fine fuels (leaves bark, twigs) should be removed from the ground periodically (pre-fire season) and all grasses or pastures must be kept short (<100 mm).
2. CONSTRUCTION STANDARDS
   - 2.1. Future dwellings within the specified building areas to be designed and constructed to BAL ratings shown on this plan in accordance with AS3959:2018 at the time of building approval
   - 2.2. Future outbuildings within 6m of a class 1a dwelling must be constructed to the same BAL as the dwelling or provide fire separation in accordance with Clause 3.2.3 of AS3959:2018.
3. PUBLIC AND FIRE-FIGHTING ACCESS REQUIREMENTS
   - 3.1. Access to all lots must comply with the design and construction requirements specified in Section 4.2 of the Bush Fire Report.
4. STATIC FIRE-FIGHTING WATER SUPPLY

4.1 New habitable dwellings and existing dwellings must be supplied with a static water supply that is;
- Dedicated solely for fire fighting purposes;
- Minimum capacity of 10,000L;
- is accessible by fire fighting vehicles and within 3.0m of a hardstand area; and
- Consistent with the specifications outlined in section 4.3 of the Bushfire Report.

This plan is to be read in conjunction with the preceding *Bushfire Assessment Report "Proposed 3 Lot Subdivision 37 Branders Road, Orielton" dated 13/02/2024.*

JR BUSHFIRE ASSESSMENTS

11 APPENDIX D – PLANNING CERTIFICATE

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE[1] UNDER S51(2)(d) *LAND USE PLANNING AND APPROVALS ACT 1993*

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:	**37 Branders Road, Orielton TAS 7172**
Certificate of Title / PID:	**C.T.40738/3 / 7606216**

2. Proposed Use or Development

Description of proposed Use and Development:	**THREE LOT SUBDIVISION OF C.T.40738/3**
Applicable Planning Scheme:	**Tasmanian Planning Scheme - Sorell**

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
SUBDIVISION PROPOSAL PLAN	ROGERSON & BIRCH SURVEYORS	30/08/2023	Rev C (7/5/24)
BUSHFIRE HAZARD REPORT – 37 BRANDERS ROAD, ORIELTON	JAMES ROGERSON – JR BUSHFIRE ASSESSMENTS	13/02/2024	1.0
BUSHFIRE HAZARD MANGAEMENT PLAN– 37 BRANDERS ROAD, ORIELTON	JAMES ROGERSON – JR BUSHFIRE ASSESSMENTS	07/05/2024	1.0

[1] This document is the approved form of certification for this purpose and must not be altered from its original form.

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

☐	**E1.4 / C13.4 – Use or development exempt from this Code**	
	Compliance test	**Compliance Requirement**
☐	E1.4(a) / C13.4.1(a)	

☐	**E1.5.1 / C13.5.1 – Vulnerable Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.1 P1 / C13.5.1 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.5.1 A2 / C13.5.1 A2	
☐	E1.5.1 A3 / C13.5.1 A2	

☐	**E1.5.2 / C13.5.2 – Hazardous Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.2 P1 / C13.5.2 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.5.2 A2 / C13.5.2 A2	
☐	E1.5.2 A3 / C13.5.2 A3	

☐	**E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.1 P1 / C13.6.1 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.6.1 A1 (a) / C13.6.1 A1(a)	
☒	E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')
☐	E1.6.1 A1(c) / C13.6.1 A1(c)	

☐	**E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.2 P1 / C13.6.2 P1	
☐	E1.6.2 A1 (a) / C13.6.2 A1 (a)	
☒	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables

☐	**E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.3 A1 (a) / C13.6.3 A1 (a)	
☐	E1.6.3 A1 (b) / C13.6.3 A1 (b)	
☐	E1.6.3 A1 (c) / C13.6.3 A1 (c)	
☐	E1.6.3 A2 (a) / C13.6.3 A2 (a)	
☒	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water complies with the relevant Table.
☐	E1.6.3 A2 (c) / C13.6.3 A2 (c)	

5. Bushfire Hazard Practitioner

Name:	JAMES ROGERSON	**Phone No:**	0488372283
Postal Address:	UNIT 1-2 KENNEDY DRIVE, CAMBRIDGE PARK	**Email Address:**	JR.BUSHFIREASSESSMENTS@GMAIL.COM
Accreditation No:	BFP – 161	**Scope:**	1, 2, 3B

6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act 1979* that the proposed use and development:

☐ Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or

☒ The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed: *certifier* JRogerson

Name: JAMES ROGERSON **Date:** 7/5/24

Certificate Number: 161

(for Practitioner Use only)

SUBDIVISION WASTEWATER ASSESSMENT

37 Branders Road

Orielton

October 2024

GES

GEO-ENVIRONMENTAL

SOLUTIONS

Investigation Details

Client:	Alyce Maass
Site Address:	37 Branders Road, Orielton
Date of Inspection:	19/08/2024
Proposed Works:	Subdivision
Investigation Method:	Geoprobe 540UD - Direct Push
Inspected by:	C. Cooper

Site Details

Certificate of Title (CT):	40738/3
Title Area:	Approx. 5 ha
Planning Overlays:	Bushfire Prone Areas
	Airport Obstacle Limitation Area
Slope & Aspect:	Gentle 5% SE facing slope
Vegetation:	Mixed pasture species

Background Information

Geology Map:	MRT 1:250000
Geological Unit:	Tertiary basalt
Climate:	Annual rainfall approx. 580mm
Water Connection:	Tank
Sewer Connection:	Unserviced-On-site required
Testing and Classification:	*AS1547:2012*

Investigation

A number of bore holes were completed to identify the distribution and variation of the soil materials at the site. Tests were conducted to assess the capacity of the materials for onsite wastewater disposal according to AS1547:2012. See soil profile conditions presented below.

Soil Profile Summary

BH1 Depth (m)	BH2 Depth (m)	BH3 Depth (m)	HRZ	Description
0.00 – 0.20	0.00 – 0.20	0.00 – 0.10	A1	Dark Brown **Clayey SILT (ML)**: moist dense consistency, gradual boundary to
0.20 – 0.70	0.20 – 0.70	0.10 – 0.90	B2	Dark Brown **CLAY (CH)**: weakly developed structure, moist stiff consistency, trace GRAVELS, visible boundary to
0.70 – 0.80	0.70 – 0.80	0.90 – 1.00	BC	Light Brown Orange **Gravelly CLAY (GC)**: weakly developed structure, slightly moist stiff consistency, auger refusal.

BH4 Depth (m)	BH5 Depth (m)	BH6 Depth (m)	HRZ	Description
0.00 – 0.20	0.00 – 0.30	0.00 – 0.20	A1	Dark Brown **Clayey SILT (ML)**: moist dense consistency, visible boundary to
0.20 – 0.70	0.30 – 0.60	0.20 – 0.70	B2	Light Brown **Silty CLAY (CI)**: moderately developed structure, slightly moist stiff consistency, with GRAVELS, gradual boundary to
0.70 – 0.80	0.60 – 0.70	0.70 – 0.90	BC	Light Brown Orange **Gravelly CLAY (GC)**: weakly developed structure, slightly moist stiff consistency, auger refusal.

Site Notes

The soils on site consist of a clayey silt topsoil overlying relatively shallow clay subsoils that have developed from Tertiary basalt.

Site Summary

The current proposal is for the subdivision of the existing title (CT: 40738/3, approx. 5 ha) into 3 lots. Proposed Lots 1 and 3 will have areas of 2.08 ha and 2.14 ha respectively. Proposed Lot 2 (balance lot) will have an area of approximately 8000m^2 and contains an existing dwelling and outbuildings.

Site investigation found the soil profile on both lots to be predominantly a reactive clay. Consequently, wastewater infiltration is expected to be low, with a high CEC for nutrient absorption. The soils across the site are classified according to AS1547-2012 as **Category 5 – Light CLAY.**

Nutrient Balance and Sustainable Wastewater Application

The soils across the entire site are developed from Tertiary basalt with a high estimated Cation Exchange Capacity (CEC). Therefore, the soils have a good capacity to retain nutrients in applied wastewater. Due to the high clay content, soil permeability for accepting wastewater is low. Samples were taken at the site for assessment of dispersion. An Emerson (1968) Dispersion test was conducted to determine if these samples were dispersive. The subsoil samples taken from site showed no signs of soil dispersion.

Hydrological Balance and Wastewater Disposal

The existing dwelling on the balance lot is serviced by a primary treatment system. The system was assessed to determine the effectiveness of its operation and if its current position is consistent with the setback requirements applied to onsite wastewater systems. Modelling of wastewater application on the proposed lots was undertaken using the Trench program, long term weather average for Orielton, and the observed soil profile characteristics.

Existing dwelling (Lot 2)

Site investigations found that the wastewater system currently installed on proposed Lot 2 (for the existing dwelling) is not consistent with that shown on Council records and does not appear to be operating effectively. While this system does appear to be located within the boundaries of the proposed lot, it would not meet the current Standards or guidelines for onsite wastewater management and an upgrade is required. A full wastewater assessment and design can be found in the *On-site Wastewater Assessment – 37 Branders Road, Orielton – October 2024* document prepared by GES.

Proposed Lots 1 and 3

According to AS1547-2012 for on-site wastewater management the soil on the property is classified as a **Light CLAY (Category 5)**. Due to the limited soil depth on site, a secondary treatment system (e.g. AWTS) must be installed with treated wastewater disposed via subsurface irrigation. A Design Irrigation Rate (DIR) of 3mm/day is applicable for the soils on site.

Assuming the construction of a three-bedroom dwelling with typical domestic wastewater loading, the expected loading under AS1547-2012 is 600L/day. This is based on a tank water supply with a maximum occupancy of 5 people at 120L/person/day. Based on this loading, a secondary treatment system would require a minimum irrigation area of 200m² using a Design Irrigation Rate (DIR) of 3mm/day.

The assessment a concludes that the proposed lots would be sufficient to accommodate wastewater from future residential development provided that secondary treatment is applied. It is recommended the final decision of wastewater system approval rest with the permit authority at the time of site-specific design to ensure the most compatible environmental and economic outcomes. The land application area is to be excluded from traffic or any future building works. For each lot a 100% reserve area should be set aside for future wastewater requirements.

A number of indicative minimum boundary setbacks applicable to the development have been modelled based on the average slope of 3° utilising the Trench program and with reference to the Building Act 2016 wastewater guidelines;

- Buildings (upslope/level) – 3m
- Buildings down slope – 2.75m
- Boundaries (upslope/level) – 1.5m
- Boundaries down slope – 4.5m
- Down slope surface water – 21m

Wastewater disposal on all lots will take into account any drainage lines, water courses, and landslide hazard areas.

Conclusions

The current subdivision proposal allows for sufficient space on the proposed lots to be created for the installation and successful operation of wastewater treatment systems, with adequate setbacks in regards boundaries and sensitive features. The actual setbacks applied will require fine tuning at the special plumbing permit stage as access, parking, and building footprints are finalised in conjunction with wastewater disposal areas. Modelling at this planning stage does however suggest that sufficient room is available on the proposed lots to accommodate the required setbacks.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD

Director

GES Pty Ltd

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Assessment Report

Site assessment for wastewater system

Assessment for	Alyce Maass	Assess. Date	13-Sep-24
		Ref. No.	
Assessed site(s)	37 Branders Road, Orielton	Site(s) inspected	19-Aug-24
Local authority	Sorell	Assessed by	John Paul Cumming

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 = 600 (using the 'No. of bedrooms in a dwelling' method)
Septic tank wastewater volume (L/day) = 200
Sullage volume (L/day) = 400
Total nitrogen (kg/year) generated by wastewater = 3.2
Total phosphorus (kg/year) generated by wastewater = 1.5

Climatic assumptions for site (Evapotranspiration calculated using the crop factor method)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean rainfall (mm)	51	35	42	41	42	42	42	53	44	53	54	58
Adopted rainfall (R, mm)	51	35	42	41	42	42	42	53	44	53	54	58
Retained rain (Rr, mm)	45	32	37	37	38	38	38	47	39	48	48	52
Max. daily temp. (deg. C)												
Evapotrans (ET, mm)	130	110	91	63	42	29	32	42	63	84	105	126
Evapotr. less rain (mm)	**85**	**78**	**54**	**26**	**4**	**-8**	**-6**	**-5**	**24**	**36**	**57**	**74**

Annual evapotranspiration less retained rain (mm) = 417

Soil characterisitics

Texture = Light CLAY Category = 5 Thick. (m) = 1
Adopted permeability (m/day) = 0.12 Adopted LTAR (L/sq m/day) = 3 Min depth (m) to water = 5

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:	None
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) =	25
Width (m) =	8
Depth (m) =	0.2
Total disposal area (sq m) required =	200
comprising a Primary Area (sq m) of:	200
and a Secondary (backup) Area (sq m) of:	

Sufficient area is available on site

Comment
Using the DIR of 3mm/day, an irrigation area of 200m^2 is required for a three-bedroom house on tank water. Therefore the system should have the capacity to cope with predicted climatic and loading events.

GES Pty Ltd

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Site Capability Report

Site assessment for wastewater system

Assessment for	Alyce Maass	Assess. Date	13-Sep-24
		Ref. No.	
Assessed site(s)	37 Branders Road, Orielton	Site(s) inspected	19-Aug-24
Local authority	Sorell	Assessed by	John Paul Cumming

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		Remarks
					Trench	Amended	
	Expected design area	sq m	2,000	V. high	Low		
	Density of disposal systems	/sq km	10	High	Very low		
	Slope angle	degrees	4	V. high	Very low		
	Slope form	Straight simple		V. high	Low		
A	Surface drainage	Poor		High	High		
	Flood potential	Site floods <1:100 yrs		High	Very low		
	Heavy rain events	Infrequent		High	Moderate		
A	Aspect (Southern hemi.)	Faces SE or SW		V. high	High		
	Frequency of strong winds	Common		High	Low		
	Wastewater volume	L/day	600	High	Moderate		
	SAR of septic tank effluent		1.7	Mod.	Low		
	SAR of sullage		2.1	Mod.	Moderate		
	Soil thickness	m	1.0	V. high	Low		
A	Depth to bedrock	m	1.0	High	High		
	Surface rock outcrop	%	0	High	Very low		
	Cobbles in soil	%	0	High	Very low		
	Soil pH		6.0	High	Low		
	Soil bulk density	gm/cub. cm	1.5	High	Low		
	Soil dispersion	Emerson No.	6	V. high	Low		
	Adopted permeability	m/day	0.12	High	Very low		
A	Long Term Accept. Rate	L/day/sq m	3	High	High		

The site has the capability to accept onsite wastewater

GES Pty Ltd

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Environmental Sensitivity Report

Site assessment for wastewater system

Assessment for	Alyce Maass	Assess. Date	13-Sep-24
		Ref. No.	
Assessed site(s)	37 Branders Road, Orielton	Site(s) inspected	19-Aug-24
Local authority	Sorell	Assessed by	John Paul Cumming

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	110	High	Very low		
	Phos. adsorp. capacity	kg/cub m	0.7	Mod.	Moderate		
	Annual rainfall excess	mm	-417	High	Very low		
	Min. depth to water table	m	5	High	Very low		
	Annual nutrient load	kg	4.7	High	Very low		
	G'water environ. value	Agric non-sensit		High	Low		
	Min. separation dist. required	m	2	High	Very low		
	Risk to adjacent bores	Very low		High	Very low		
	Surf. water env. value	Agric non-sensit		High	Low		
AA	Dist. to nearest surface water	m	50	High	Very high		
AA	Dist. to nearest other feature	m	10	V. high	Very high		
	Risk of slope instability	Very low		High	Very low		
	Distance to landslip	m	500	Mod.	Very low		

Comments:
There is low risk of environmental degredation provided that secondary treatment is applied and appropriate setbacks are observed.

ROGERSON & BIRCH SURVEYORS

UNIT 1, 2 KENNEDY DRIVE
CAMBRIDGE 7170
PHONE: (03)6248 5898
EMAIL: admin@rbsurveyors.com
WEB: www.rbsurveyors.com

This plan has been prepared only for the purpose of obtaining preliminary subdivsional approval from the local authority and is subject to that approval.

All measurements and areas are subject to the final survey.

Sorell
Development Standards for Subdivision
11.0 Rural living

11.5.1 Lot Design

A1

(a)- Lots 1 & 3 comply - Min. 1Ha

(i)- All lots comply - Contain min. area of 10m x 15m w/ gradient < 1:5

a- All lots comply - All required setbacks

b- All lots comply - Clear of easements

(ii)- All existing buildings comply - All required setbacks

P1- Lot 2 complies - no more than 20% smaller than the applicable lot size - Min. 8000m²

A2- Lot 1 complies - Min. 40m frontage

P2- Lot 2 & 3 comply - Min 3.6m legal connection to a road

A3- All lots comply - vehicular access directly from road

11.5.2 Roads

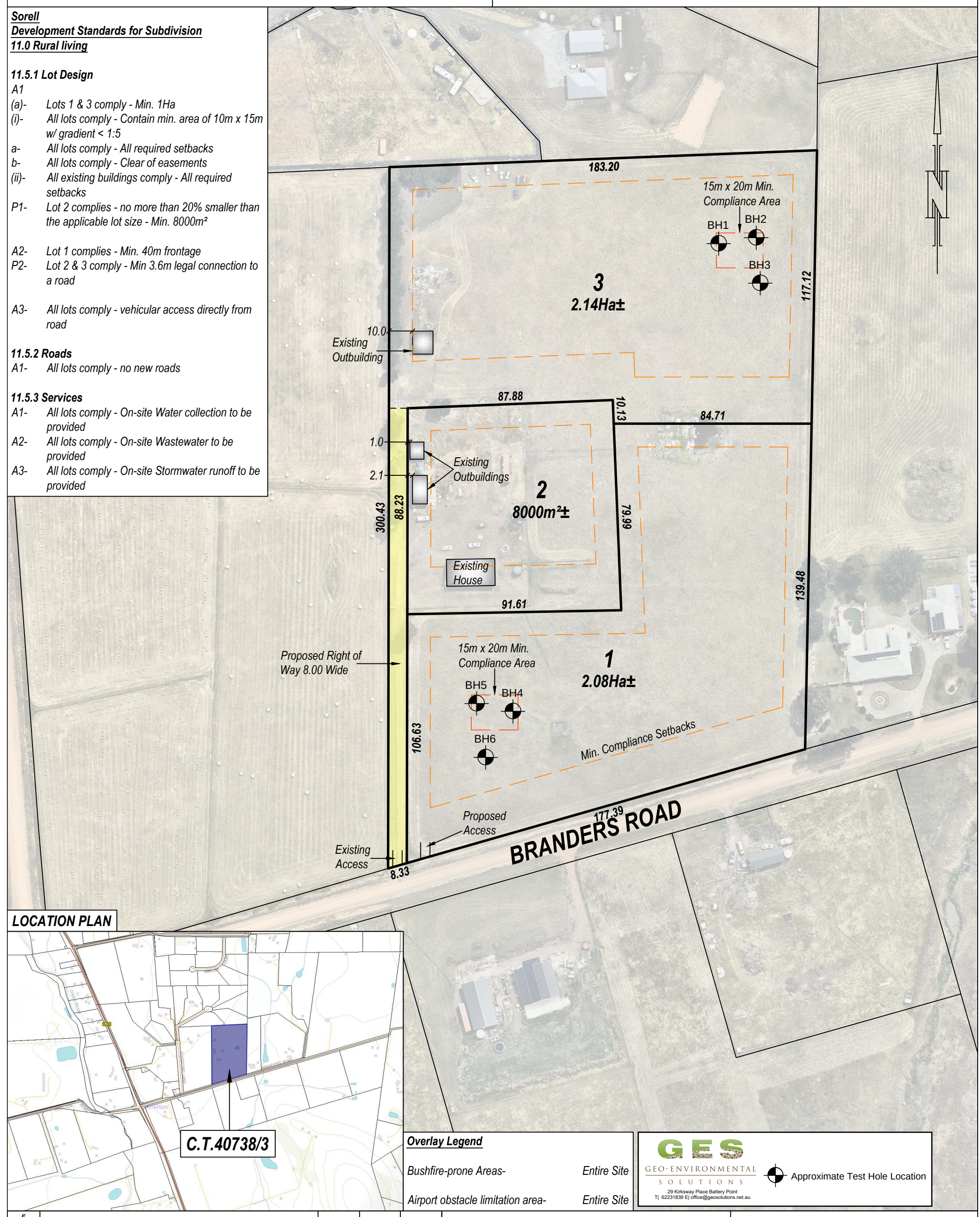
A1- All lots comply - no new roads

11.5.3 Services

A1- All lots comply - On-site Water collection to be provided

A2- All lots comply - On-site Wastewater to be provided

A3- All lots comply - On-site Stormwater runoff to be provided



LOCATION PLAN

Overlay Legend

Bushfire-prone Areas- Entire Site

Airport obstacle limitation area- Entire Site

GES GEO-ENVIRONMENTAL SOLUTIONS
29 Kirksway Place Battery Point
T| 62231839 E| office@geosolutions.net.au

Approximate Test Hole Location

REV	AMENDMENTS	DRAWN	DATE	APPR.
E				
D	Add outbuilding offsets	LH	08/08/24	LH
C	Update boundaries to suit Bushfire Report	LH	07/05/24	LH
B	Update boundaries per client request	LH	29/09/23	LH
A	Update boundaries per client request	LH	12/09/23	LH

OWNER: *KATHRYN THERESA MAASS*
TITLE REFERENCE: *C.T.40738/3*
LOCATION: *37 BRANDERS ROAD,* ***ORIELTON***

Proposed Subdivision

Date: *30/08/2023*
Reference: *MAASA01 15107-00*
Scale: *1:1500 (A3)*
Municipality: *SORELL*

DISPERSIVE SOIL ASSESSMENT

37 Branders Road

Orielton

September 2024

GES

GEO-ENVIRONMENTAL

SOLUTIONS

Investigation Details

Client:	Alyce Maass
Site Address:	37 Branders Road, Orielton
Date of Inspection:	19/08/2024
Proposed Works:	Subdivision
Investigation Method:	Geoprobe 540UD - Direct Push
Inspected by:	C. Cooper

Site Details

Certificate of Title (CT):	40738/3
Title Area:	Approx. 5 ha
Planning Overlays:	Bushfire Prone Areas
	Airport Obstacle Limitation Area
Slope & Aspect:	Gentle 5-10% SE facing slope
Vegetation:	Mixed pasture species

Background Information

Geology Map:	MRT 1:250000
Geological Unit:	Tertiary basalt
Climate:	Annual rainfall approx. 580mm
Water Connection:	Tank
Sewer Connection:	Unserviced-On-site required

Investigation

A number of test holes were completed to identify the distribution of, and variation in soil materials on the site. A number of soil samples were taken for laboratory assessment. Site and published geological information were integrated to complete a detailed soil dispersion assessment with reference to the DPIWE dispersive soil technical manual.

Soil Profile Summary

BH1 Depth (m)	Horizon	Description
0.00 – 0.20	A1	Dark Brown **Clayey SILT (ML)**: moist dense consistency, gradual boundary to
0.20 – 0.70	B2	Dark Brown **CLAY (CH)**: weakly developed structure, moist stiff consistency, trace GRAVELS, visible boundary to
0.70 – 0.80	BC	Light Brown Orange **Gravelly CLAY (GC)**: weakly developed structure, slightly moist stiff consistency, auger refusal.

BH4 Depth (m)	Horizon	Description
0.00 – 0.20	A1	Dark Brown **Clayey SILT (ML)**: moist dense consistency, gradual boundary to
0.20 – 0.70	B2	Light Brown **Silty CLAY (CI)**: moderately developed structure, slightly moist stiff consistency, with GRAVELS, gradual boundary to
0.70 – 0.80	BC	Light Brown Orange **Gravelly CLAY (GC)**: weakly developed structure, slightly moist stiff consistency, auger refusal.

Site Notes

The soils on site consist of a clayey silt topsoil overlying relatively shallow clay subsoils that have developed from Tertiary basalt. Samples were taken at the site for assessment of dispersion. An Emerson (1968) Dispersion test was conducted to determine if these samples were dispersive. The subsoil samples taken from site showed no signs of dispersion and were found to be Class 6.

Dispersive Soil Assessment

The dispersive soil assessment of the property considers the indicative proposed construction areas within each of the proposed new lots.

Potential for dispersive soils

Common soil-forming sediments within the local area are known to produce soils with an excess of sodium on the soil exchange complex, which can cause soil dispersion. Under some circumstances the presence of dispersive soils can also lead to significant erosion, and in particular tunnel and/or gully erosion. Based upon field survey of the property and the surrounding area, no tunnel or gully erosion was identified at the site. A soil sampling program was undertaken to identify the presence of dispersive soils in the proposed development areas.

Soil sampling and testing

Samples were taken at the site from BH1 and BH4 at a depth of 0.50m for assessment of dispersion. An Emerson (1968) Dispersion test was conducted to determine if these samples were dispersive. The soil samples taken from site were found to be non-dispersive (Class 6) - slaking (no dispersion in suspension).

Based upon the test results there is little risk of soil dispersion and erosion on the site, and as such no dispersive soil management recommendations have been made.

Conclusions

There is a very low risk associated with dispersive soils and potential erosion on the site. It is recommended, however, that all excavation works on site should be monitored for signs of soil dispersion and remedial action taken as required if necessary.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD

Director

Disclaimer

This Report has been prepared in accordance with the scope of services between Geo-Environmental Solutions Pty. Ltd. (GES) and the Client. To the best of GES's knowledge, the information presented herein represents the client's requirements at the time of printing of the Report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in findings differing from that discussed in this Report. In preparing this Report, GES has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organizations referenced herein. Except as otherwise stated in this Report, GES has not verified the accuracy or completeness of such data, surveys, analyses, designs, plans and other information.

The scope of this study does not allow for the review of every possible geotechnical parameter or the soil conditions over the whole area of the site. Soil and rock samples collected from the investigation area are assumed to be representative of the areas from where they were collected and not indicative of the entire site. The conclusions discussed within this report are based on observations and/or testing at these investigation points.

This report does not purport to provide legal advice. Readers of the report should engage professional legal practitioners for this purpose as required.

No responsibility is accepted for the use of any part of this report in any other context or for any other purpose by third a party.

Appendix 1 – Laboratory Test Results

Sample Submitted By: L. Ravanat

Date Submitted: 11/09/2024

Sample Identification: 37 Branders Road, Orielton

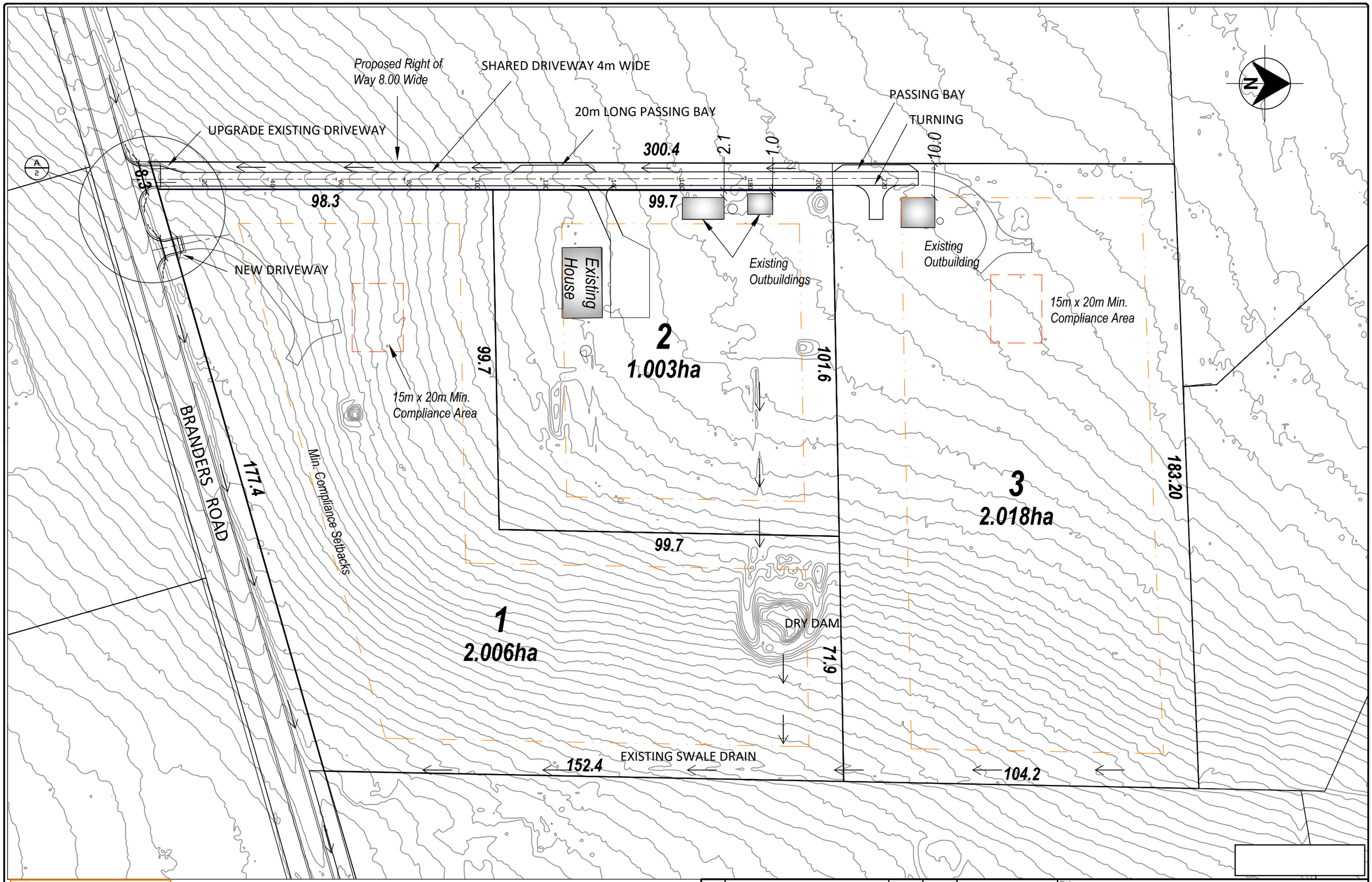
Soil to be tested: **Emerson soil dispersion test**

Result:

Sample	Texture	Emerson class	Description
BH1 – 0.50m	**Clay**	**Class 6**	**Slaking**
BH4 – 0.50m	**Clay**	**Class 6**	**Slaking**

No dispersion detected.

Sample Tested by: L. Ravanat
11/09/2024



Sorell Council

Development Application: 7.2024.10.1 - Response to Request For Information - 37 Branders Road, Orielton - P2.pdf
Plans Reference: P2
Date Received: 16/04/2025

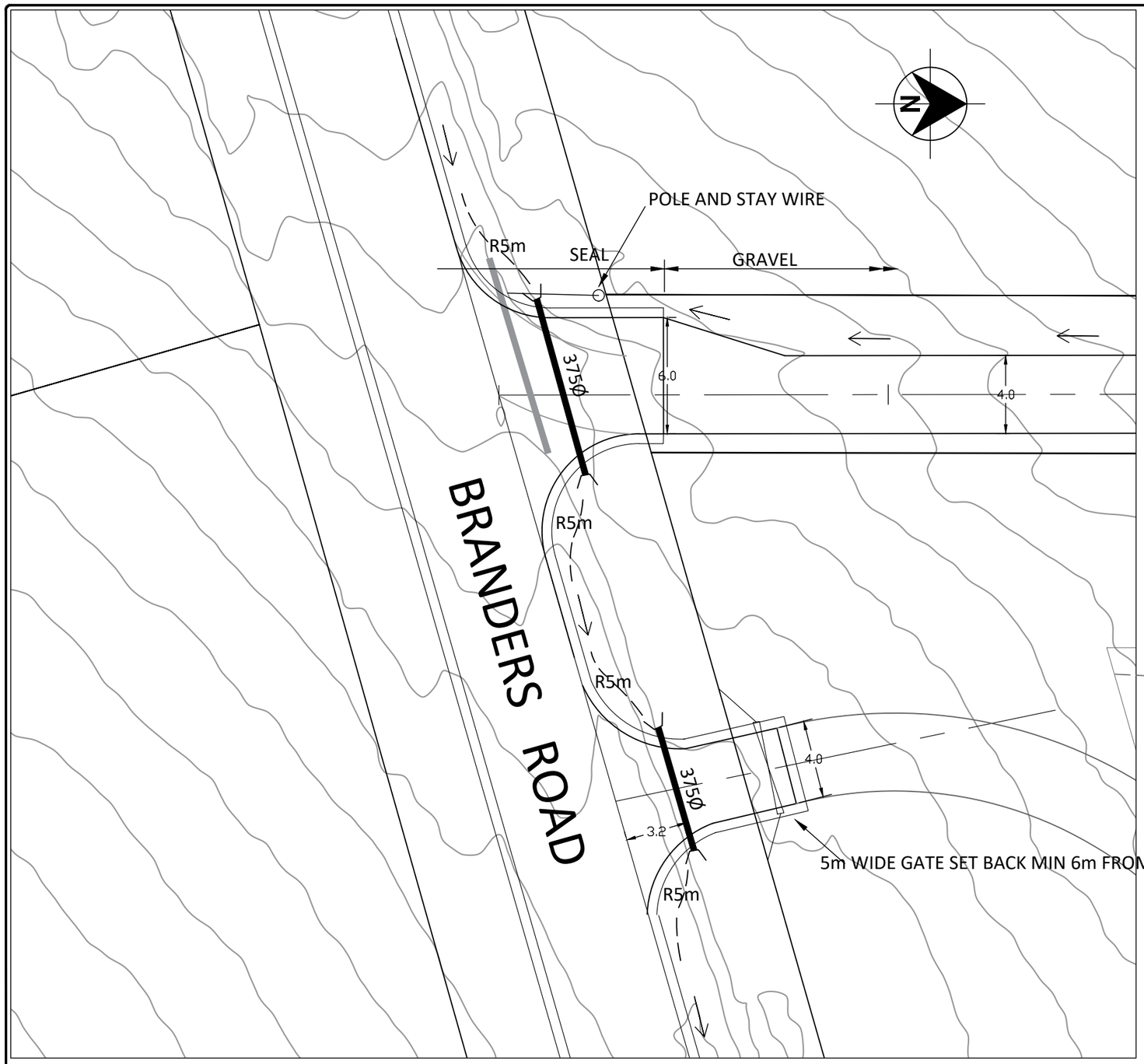
NOTE : ALL ROOF WATER IS REUSED. INFREQUENT NATURAL RUNOFF DURING WET PERIODS GENERALLY SHEET FLOWS AS THERE ARE NO NATURAL DRAINAGE LINES. SWALE DRAINS TO DIRECT RUNOFF TO A NORMALLY DRY POND WILL CONVEY FLOWS TO THE ROAD.

Rev No	Revision note	Date	Approved
A	FOR APPROVAL	APR25	HJP

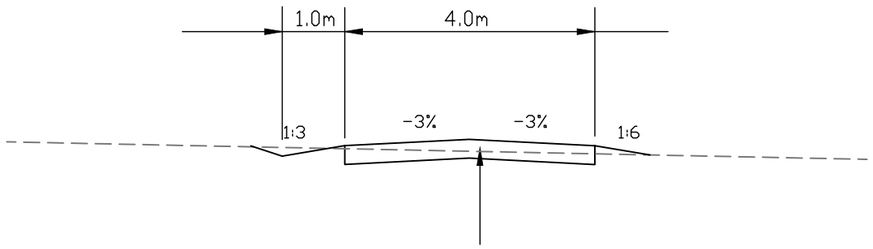
POORTENAAR CONSULTING
ABN 40 672 032 737
PH 62664708
hein@poortenaarconsulting.com

Client	KATHRYN THERESE MAAS
Project	37 BRANDERS ROAD, ORIELTON
Title	GENERAL ARRANGEMENT

Scale	Designed By:	Date		Drawing No.	Rev
1:500	H.POORTENAAR	APR25	A1	25429-01	A

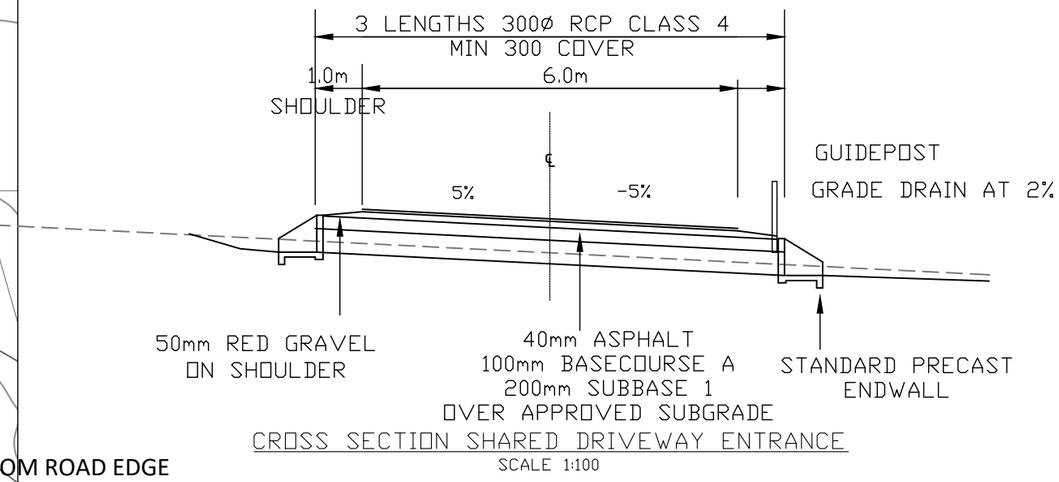


DETAIL A
1:250
01



50mm RED GRAVEL SURFACE COURSE
200mm SUBBASE 1
OVER APPROVED SUBGRADE

CROSS SECTION INTERNAL ACCESS
SCALE 1:100



CROSS SECTION SHARED DRIVEWAY ENTRANCE
SCALE 1:100

Rev No	Revision note	Date	Approved
A	FOR APPROVAL	APR25	HJP

POORTENAAR CONSULTING
ABN 40 672 032 737
PH 62664708
hein@poortenaarconsulting.com

Client: KATHRYN THERESE MAAS
Project: 37 BRANDERS ROAD, ORIELTON
Title: DETAILS

Scale	Designed By:	Date		Drawing No.	Rev
1:500	H.POORTENAAR	APR25	A1	25429-02	A

NOTES

GENERAL

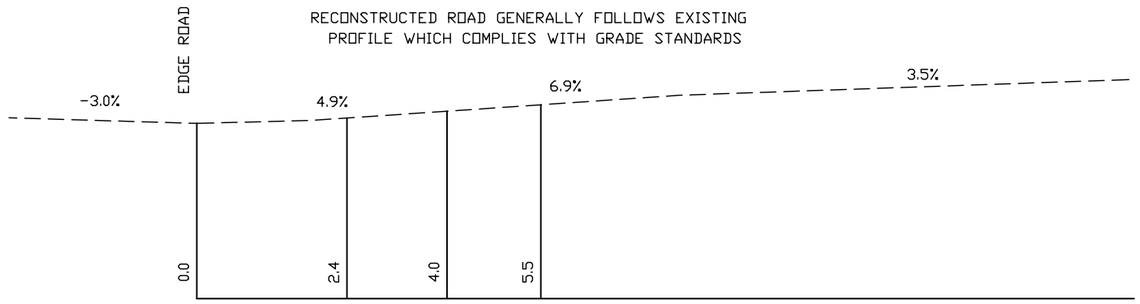
1. LOCATE ALL SERVICES PRIOR TO COMMENCEMENT.
2. ALL CONCRETE TO BE GRADE N25 UNLESS NOTED OTHERWISE

ROADS

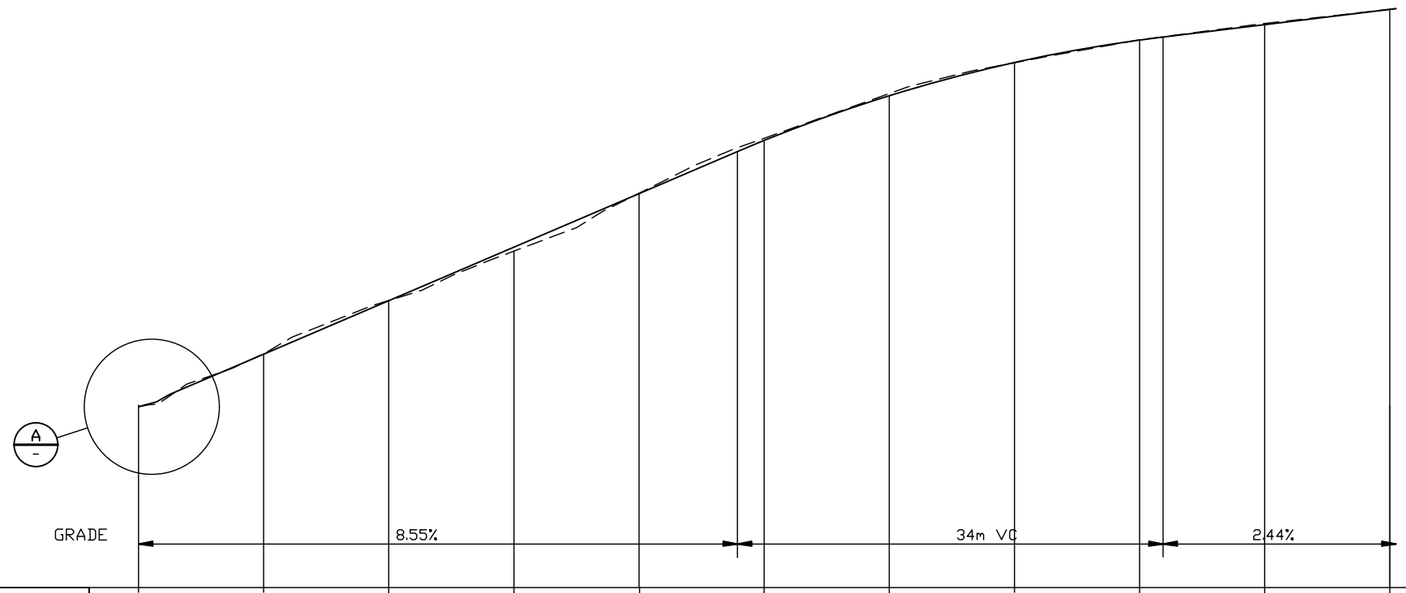
1. ALL ROAD WORKS TO BE IN ACCORDANCE WITH IPWEA TASMANIAN STANDARD DRAWINGS AND SPECIFICATIONS AND IPWEA TASMANIAN SUBDIVISION GUIDELINES. RELEVANT DRAWINGS INCLUDE:
   - TSD-R02-V3 RURAL ROADS SEALED
   - TSD-R03-V3 RURAL ROADS TYPICAL PROPERTY ACCESS
   - TSD-R04-V3 RURAL ROADS TYPICAL DRIVEWAY PROFILE
   - TSD-R12-V3 SUB SOIL DRAINS

2. ALL ROAD AND STORMWATER WORKS ARE TO BE IN ACCORDANCE WITH DSG (FORMERLY DIER) SPECIFICATIONS:
   - R21 CLEARING AND GRUBBING
   - R22 EARTHWORKS
   - R23 SUBGRADE ZONE
   - R24 GEOTEXTILES
   - R31 OPEN DRAINS AND CHANNELS
   - R32 DRAINAGE: CULVERTS, PIPELINES AND RELATED STRUCTURES
   - R33 SUBSURFACE DRAINAGE
   - R40 PAVEMENT BASE AND SUB-BASE

4. THE CONTRACTOR SHALL ARRANGE FOR A TRAFFIC MANAGEMENT PLAN (PREPARED BY A SUITABLY QUALIFIED PERSON) IN ACCORDANCE WITH AS1742.3 (2019) AND AUSTROADS GUIDE TO TEMPORARY TRAFFIC MANAGEMENT. THE TMP SHALL BE SUBMITTED TO COUNCIL FOR REVIEW PRIOR TO COMMENCING WORKS.



DETAIL A / -
1:1



DATUM RL 30.00

DESIGN LEVEL	32.91	33.71	34.57	35.44	36.29	37.14	37.86	38.37	38.74	38.99	39.23
EXISTING SURFACE LEVEL	32.91	33.71	34.57	35.36	36.29	37.18	37.89	38.37	38.74	39.00	39.23
CUT/FILL	0.00	0.00	0.00	0.08	0.00	0.04	0.03	0.00	0.00	0.01	0.00
CHAINAGE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SHARED DRIVE LONG SECTION

SCALE 1:1000 HORIZONTAL A3.
SCALE 1:200 VERTICAL A3.

Rev No	Revision note	Date	Approved
A	FOR APPROVAL	APR25	HJP

POORTENAAR CONSULTING
ABN 40 672 032 737
PH 62664708
hein@poortenaarconsulting.com

Client: KATHRYN THERESE MAAS
Project: 37 BRANDERS ROAD, ORIELTON
Title: LONG SECTIONS AND NOTES
Scale: 1:500 | Designed By: H.POORTENAAR | Date: APR25 | A1 | Drawing No.: 25429-03 | Rev: A

ROGERSON & BIRCH SURVEYORS

UNIT 1, 2 KENNEDY DRIVE
CAMBRIDGE 7170
PHONE: (03)6248 5898
EMAIL: admin@rbsurveyors.com
WEB: www.rbsurveyors.com

Sorell
Development Standards for Subdivision
11.0 Rural living (zone A)

11.5.1 Lot Design

A1

(a)- All Lots comply - Min. 1Ha

(i)- All lots comply - Contain min. area of 15m x 20m w/ gradient < 1:5

a- All lots comply - All required setbacks

b- All lots comply - Clear of easements

(ii)- All existing buildings comply - All required setbacks

A2- Lot 1 complies - Min. 40m frontage

P2- Lot 2 & 3 comply - Min 3.6m legal connection to a road

A3- All lots comply - vehicular access directly from road

11.5.2 Roads

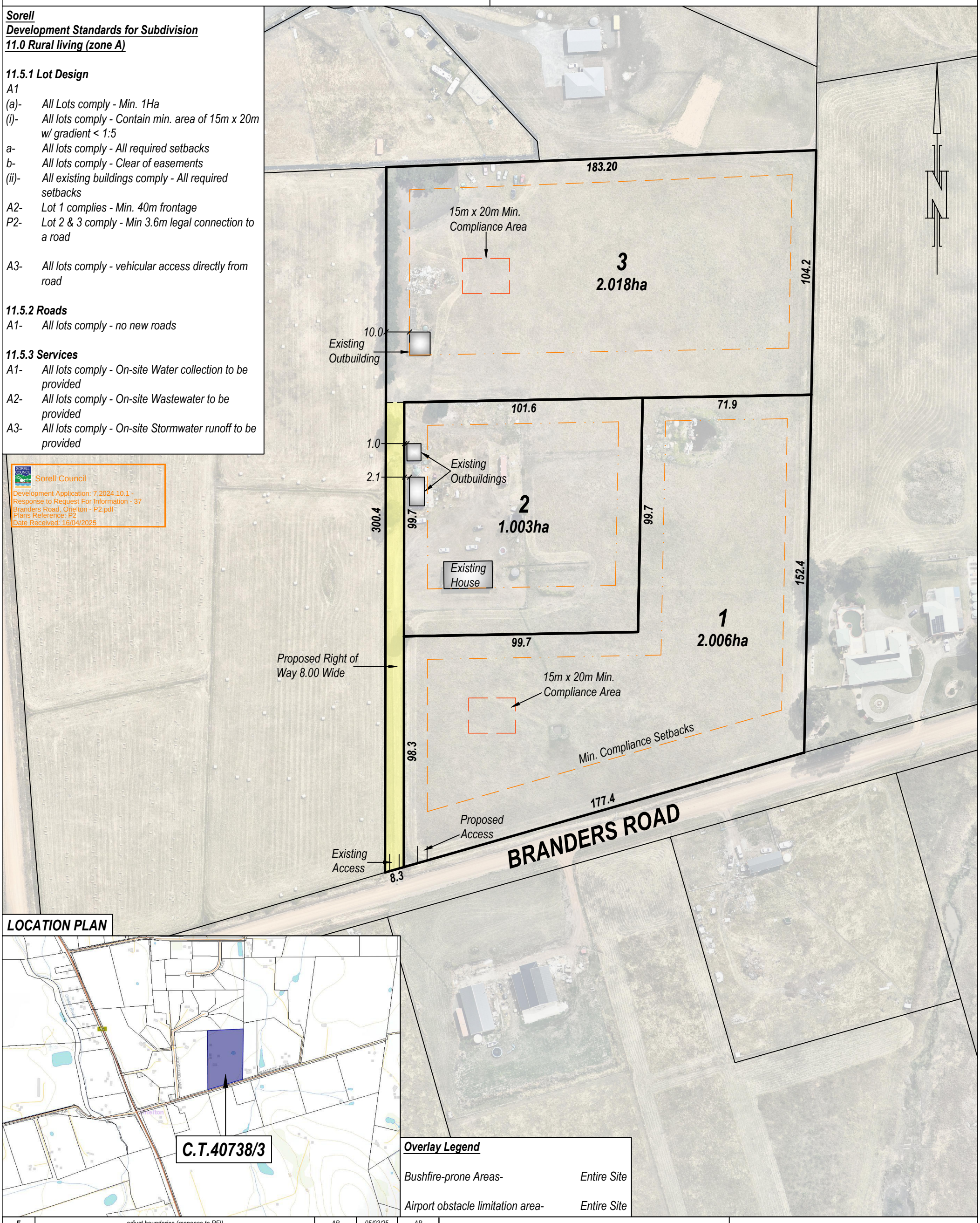
A1- All lots comply - no new roads

11.5.3 Services

A1- All lots comply - On-site Water collection to be provided

A2- All lots comply - On-site Wastewater to be provided

A3- All lots comply - On-site Stormwater runoff to be provided



LOCATION PLAN

Overlay Legend

Bushfire-prone Areas-	*Entire Site*
Airport obstacle limitation area-	*Entire Site*

REV	AMENDMENTS	DRAWN	DATE	APPR.
E	adjust boundaries (response to RFI)	AB	05/03/25	AB
D	Add outbuilding offsets	LH	08/08/24	LH
C	Update boundaries to suit Bushfire Report	LH	07/05/24	LH
B	Update boundaries per client request	LH	29/09/23	LH
A	Update boundaries per client request	LH	12/09/23	LH

OWNER: *KATHRYN THERESA MAASS*
TITLE REFERENCE: *C.T.40738/3*
LOCATION: *37 BRANDERS ROAD,* ***ORIELTON***

Proposed Subdivision

Date: 30/08/2023	*Reference:* MAASA01 15107-00
Scale: 1:1500 (A3)	*Municipality:* SORELL