Office: 9 Melbourne Street,
Postal: PO Box 6 Triabunna 7190
Phone: 6256 4777 Fax: 6256 4774
Email: admin@freycinet.tas.gov.au
Web: www.gsbc.tas.gov.au
ABN: 95 641 533 778

GLAMORGAN SPRING BAY COUNCIL

Application for Planning Approval

OFFICE USE ONLY	
DATE RECEIVED:	PID:
FEE	RECEIPT No:
DA:	PROPERTY FILE:

Advice:

Use this form for all no permit required, permitted and discretionary planning applications including subdivision, planning scheme amendment & minor amendments to permits.

For visitor accommodation in the General Residential, Low Density Residential, Rural Living, Environmental Living or Village Zone use the sharing economy form available on the Council website.

Completing this form in full will help ensure that all necessary information is provided and avoid any delay. The planning scheme provides details of what other information may be required at clause 8.1 and in each applicable Code.

Please provide the relevant details in each applicable section by providing the information or circling Yes or No as appropriate. If relevant details are provided on plans or documents please refer to the drawing number or other documents in this form.

Often, it is beneficial to provide a separate written submission explaining in general terms what is proposed and why and to justify the proposal against any applicable performance criteria.

If you have any queries with the application form or what information is required please contact the office.

Details of Applicant & Owner

Applicant:	REBECCA GREEN AND ASSOCIATES		
Contact person: (if different from applicant)	REBECCA GREEN		
Address:	PO BOX 210B	Phone	
	LAUNCESTON TAS 7250	Fax:	
Email:	admin@rgassociates.com.au	Mobile:	0402544422
Do you wish for all correspondence to be sent solely by email?		Yes ☑	No ☐

Owner: (if different from applicant)	BAYVIEW SMSF PTY LTD		
Address:	PO BOX 46	Phone:	
	SWANSEA TAS 7190	Fax:	
Email:	rogcreen@bigpond.com	Mobile:	0400 619 613

+ CROWN LAND SERVICES, DEPARTMENT OF STATE GROWTH, GPO BOX 536 HOBART

Application for Planning Approval

Details of Site and Application

Please note, if your application is discretionary the following will be placed on public exhibition.

Site Details

Address / Location of Proposal:			
13110 TASMAN HIGHWAY SWANSEA Suburb TAS Post Code 7190			
+ TASMAN HWY READ RESERVE			
Size of site	..... m^2	or	5.139 Ha
Certificate of Title(s):	115824/4		

Current use of site:	RESIDENTIAL / HIGHWAY

General Application Details

Complete for All Applications

VISITOR ACCOMMODATION
- RV (SELF CONTAINED) CAMPING
- ECO STRUCTURE VILLAS
- BAR TYPE TREATMENT IN TASMAN HWY RESERVE

☐	New Dwelling	☐	Change of use
☐	Additions / Alterations to Dwelling	☐	Intensification or modification of use
☐	New Outbuilding or Addition	☐	Subdivision or boundary adjustment
☐	New Agricultural Building	☐	Minor amendment to existing permit DA ..... / .....
☐	Commercial / Industrial Building	☐	Planning Scheme Amendment

Estimated value of works (design & construction)	$ 100,000

Describe the order and timing of any staged works:	..... or N/A

General Background Information

Please state the name of any Council officers that you have discussed this proposal with:	Officer's name : SHANE WELLS	or N/A
Is the site listed on the Tasmanian Heritage Register?	Yes ☐	No ☑
Have any potentially contaminating activities ever occurred on the site? *If yes, please provide a separate written description of those activities.*	Yes ☐	No ☑
Is the proposal consistent with any restrictive covenants or Part 5 agreements that apply to the site?	Yes ☑	No ☐

Application for Planning Approval

Does the proposal involve any of the following?		
Type of development		**Brief written description if not clearly shown on the plans:**
Partial or full demolition	☐ Yes ☑ No	
Fencing	☐ Yes ☑ No	
New or upgraded vehicle / pedestrian access	☑ Yes ☐ No	TYREBAR TREATMENT IN TASMAN HIGHWAY ROAD RESERVATION (CROWN)
New or modified water, sewer, electrical or telecommunications connection	☐ Yes ☑ No	
Retaining walls	☐ Yes ☑ No	
Cut or fill	☐ Yes ☑ No	
Signage	☑ Yes ☐ No	RV SIGNAGE - SEE PLANS
New car parking	☑ Yes ☐ No	SEE PLANS
Vegetation removal	☑ Yes ☐ No	ROAD RESERVE TO ALLOW TYPE BAR TREATMENT

Existing floor area ..... m^2	Proposed floor area ..50-65 m^2..... m^2 EACH VILLA

Number of existing car parking on site	Number of proposed car parking on site ..36..26

Describe the width & surfacing of vehicular access (existing or proposed) and how drainage/runoff is collected and discharged:	EXISTING APPROVED BY ICT/16P PROPOSED TYPE BAR TREATMENT
If vehicular access is from a road sign-posted at more than 60 km/hr, please state the sight distance in both directions:	ADV. RECEIVED BY SCOTT INGLIS or N/A

Please note, if a gravel driveway is proposed from a sealed public road please address the following clause (E6.7.6 P1):

Parking spaces and vehicle circulation roadways must not unreasonably detract from the amenity of users, adjoining occupiers or the quality of the environment through dust or mud generation or sediment transport, having regard to all of the following:

(i) the suitability of the surface treatment;
(ii) the characteristics of the use or development;
(iii) measures to mitigate mud or dust generation or sediment transport.

Will stormwater from buildings and hardstand areas be managed by: (details should be clearly shown / noted on plans)	Discharge to a main:	~~Yes~~ / Not applicable
	Discharge to kerb & gutter:	~~Yes~~ / Not applicable
	Discharge to roadside table drain:...	~~Yes~~ / Not applicable
	Discharge to natural watercourse: ..	~~Yes~~ / Not applicable
	Retained on site:	(Yes) / Not applicable

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Materials:				
External building material	Walls:	CANVAS	Roof:	CANVAS
External building colours	Walls:	CAMEL	Roof:	CAMEL
Fencing materials			Retailing wall materials	

For all outbuildings

Describe for what purpose the building is to be used:	
Describe any intended toilet, shower, cooking or heating to be installed:	
If the building is to be used wholly or partly as a domestic workshop, what type of tools and machines will be used?	

For all non-residential applications

Hours of Operation SEE MANAGEMENT PLAN						
Current hours of operation	Monday to Friday:		Saturday:		Sunday & Public holidays:	
Proposed hours of operation	Monday to Friday:		Saturday:		Sunday & Public holidays:	

Number of Employees SEE MANAGEMENT PLAN			
Current Employees Total:		Maximum at any one time:	
Proposed Employees Total:		Maximum at any one time:	

Describe any delivery of goods to and from the site, including the types of vehicles used and the estimated average weekly frequency:	SEE MANAGEMENT PLAN or N/A
Describe current traffic movements into the site, including the type & timing of heavy vehicle movements & any proposed change:	SEE MANAGEMENT PLAN or N/A
Describe any hazardous materials to be used or stored on site:	SEE MANAGEMENT PLAN or N/A
Describe the type & location of any large plant or machinery used (refrigeration, generators)	SEE MANAGEMENT PLAN or N/A
Describe any retail and/or storage of goods or equipment in outdoor areas:	SEE MANAGEMENT PLAN or N/A
Describe any external lighting proposed:	SEE MANAGEMENT PLAN or N/A

Application for Planning Approval

Personal Information Protection Statement:

The personal information that Council is collecting form you is deemed personal information for the purposes of the *Personal Information Protection Act 2004*. The intended recipients of personal information collected by Council may include its officers, agents or contractors or data service providers. The supply of the information by you is voluntary. If you cannot provide or do not wish to provide the information sought, Council may be unable to process your application. Council is collecting this personal information from you for the purposes of managing, addressing, advising upon and determining the application and other related Council matters.

Declaration:

I/we hereby apply for planning approval to carry out the use or development described in this application and the accompanying documents and declare that: -

- The information in this application is true and correct.
- In relation to this application, I/we agree to allow Council employees or consultants to enter the site in order to assess the application.
- I/we confirm that I/we are the copyright holder or have the authority to sign on behalf of any person with copyright for documents to this application and authorities Council to provide a copy of this application to any person for assessment or statutory consultation.
- I/we authorise Council to provide a copy of any documents relating to this application to any person for the purpose of assessment or public consultation and agree to arrange for the permission of the copyright owner of any part of this application to be obtained.
- I acknowledge that if the application is discretionary that the application will be exhibited in the Council offices and on the Council website.
- I/We declare that the Owner has been notified of the intention to make this application in accordance with section 52(1) of the *Land Use Planning and Approvals Act 1993*.

Signature:	RGreen	Date:	10/09/2017

If application is not the owner

If the applicant is not the owner, please list all persons who were notified of this application pursuant to section 52 of the *Land Use Planning and Approvals Act 1993*.

Name:	Method of notification:	Date of notification:
BAYVIEW SMSF PTY LTD	VERBAL	8/09/2017
DEPT STATE GROWTH	Email	10/09/2017

If application is on or affect Council or Crown owned or administered land

If land affected by this application is owned or administered by the Crown or Council then the written permission of the relevant Minister (or their delegate) and/or the General Manager must provided and that person must also sign this application form below:

I ...Andrew Hargrave..... being responsible for the administration of land at ....Tasman Highway.....declare that I have given permission for the making of this application by ...Rebecca Green & Associates..... for use and/or development involving ...an amended access to Tasman Highway from 13110 Tasman Highway, Swansea.....

Signature: ..... Date: 18 September 2017

It is the applicant's responsibility to obtain any such consent prior to lodgement. Written requests for consent of the Council must be sent to General Manager. Request for Ministerial consent should be directed to the relevant department.

CERTIFICATE OF TITLE

LAND TITLES ACT 1980

TASMANIA

TORRENS TITLE

VOLUME	FOLIO
115824	4
EDITION	DATE OF ISSUE
7	08-May-2015
Page 1	of 1

I certify that the person described in Schedule 1 is the registered proprietor of an estate in fee simple (or such other estate or interest as is set forth in that Schedule) in the land within described subject to such exceptions, encumbrances, interests and entries specified in Schedule 2 and to any additional entries in the Folio of the Register

Recorder of Titles

DESCRIPTION OF LAND

Town of SWANSEA
Lot 4 on Plan 115824
Derivation : whole of lot 4 (sec N) gtd to J P King
Prior CT 221427/1

SCHEDULE 1

E963 TRANSFER to BAYVIEW SMSF PTY LTD Registered 08-May-2015 at 12.01 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any

OWNER

FOLIO REFERENCE CT. 2758/24

GRANTEE

PLAN OF TITLE

LOCATION TOWN OF SWANSEA (SECTION N.)

FIRST SURVEY PLAN No.

COMPILED BY LTO

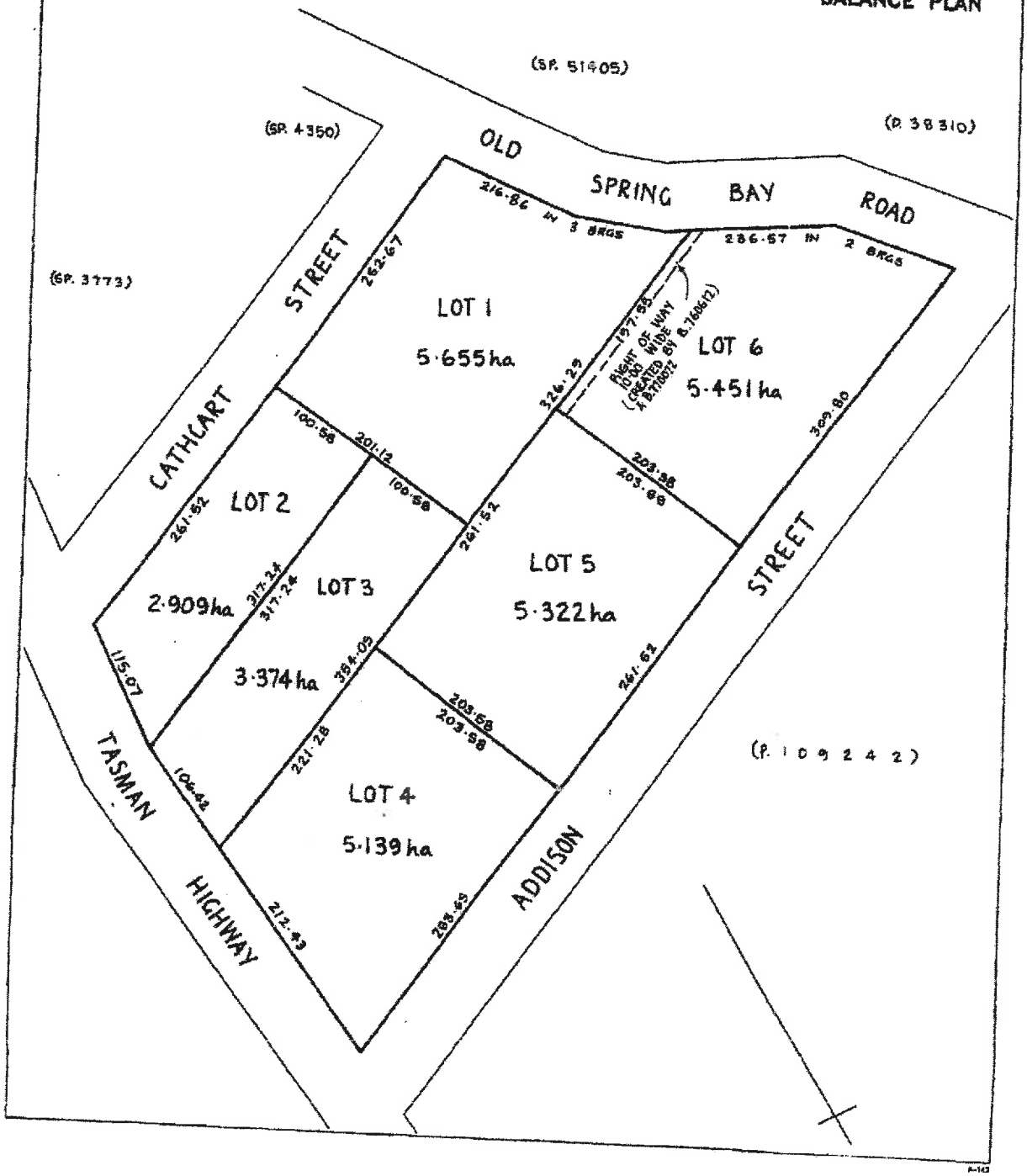
SCALE 1: 300 LENGTHS IN METRES

REGISTERED NUMBER
P115824

APPROVED 9 JAN 1995
Recorder of Titles

MAPSHEET MUNICIPAL CODE No. 16 (112)	LAST UPI No	LAST PLAN No.	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN

BALANCE PLAN



Rebecca Green
& Associates

Planning Department
Glamorgan Spring Bay Council
PO Box 6
TRIABUNNA TAS 7190

10 September 2017

Dear Shane,

RE: Development Application – Visitor Accommodation – 13110 Tasman Highway, Swansea, with BAR Type Treatment in Tasman Highway Road Reservation

This letter is prepared in support of a proposal by Bayview SMSF Pty Ltd for visitor accommodation (camping and holiday villas) at 13110 Tasman Highway, Swansea. The Department of State Growth has issued a works permit for the construction of a BAR type treatment at the existing access to the subject land. Advice has been received from Mr Scott Ingles, Department of State Growth to demonstrate that their requirements have been met and that no further Traffic Impact Assessment is required by the Department.

The subject land is located at 13100 Tasman Highway, Swansea and is within the Rural Resource zone of the Glamorgan Spring Bay Interim Planning Scheme 2015 (the Scheme). The site is a regular shaped lot, having an area of 5.139 hectares. The site is relatively flat and contains a mixture of native vegetation and pasture. DA 2016/00069 & RMPAT appeal 104/16) approved a Single Dwelling, Ancillary Dwelling and Outbuilding which included an access to Tasman Highway to the south of the subject land. It is this access that is proposed to be upgraded to include a BAR Type Treatment.

The subject land is bordered by Rural Resource zoned lots to the north, south and east. Land to the west, on the opposite side of the Tasman Highway, is within the Rural living zone. Land immediately to the south, if a Crown reserved road.

RV (recreational vehicle) parking is proposed to cater for 36 self-contained RV vehicles. Four holiday villas are proposed in the north-east corner of the site. RV Park signage is proposed to be located near the vehicular entrance. A series of gravel vehicular access roads are proposed through the RV parking area. The owner envisages that most camping sites will not require a gravel surface given the existing base. Vegetation removal is proposed, with the retention of mature trees within the site.

It is the proponents position that the proposal is <u>not</u> contrary to clause 26.3.2 P1 (d) of the planning scheme, this is further supported by way of provision of a Land Capability Assessment. This Assessment prepared by Geo-Environmental Solutions has been undertaken to address, amongst other matters P1, clause 26.3.3 Discretionary use in the Rural resource zone and 26.3.2 Visitor Accommodation of the *Glamorgan Spring Bay Interim*

Rebecca Green
& Associates

Planning Scheme 2015. The Assessment summarised the land area surveyed to be classified as substantially Class 6 for agricultural use with the remainder of the property classified as Class 5 agricultural land. Land capability mapping indicates that much of the surrounding land is classified as class 6 land, such that there is low potential for any fettering of adjacent land use. The proposal is therefore not contrary to clause 26.3.2 P1(e) of the planning scheme, in that the entire subject site is considered to be poor quality agricultural land being that the development is substantially located upon Class 6 agricultural land. The proposal is therefore not contrary to clause 26.3.2 P1(f) of the planning scheme in that is will not fetter the rural resource use of the property, as the current land use is not agricultural due to the poor quality of the land. It is concluded that the proposal has a very low potential to fetter possible agricultural land use on the subject property and adjacent properties.

The holiday villas are small, unobtrusive, canvas clad structures. Their setback of 20 metres to the side boundary will have no adverse impact on the surrounding rural landscape. It is the proponents position that the proposal is not contrary to clause 26.4.2 P2 of the planning scheme. The use is to provide an RV park within a bush setting. Some native vegetation is proposed via removal of understorey vegetation, however, as supported by Natural Values Assessment the proposed is not contrary to clause 26.4.3 P1 of the planning scheme.

The proposal seeks to rely on a number of performance criteria within the Codes of the Planning Scheme. The proposal is compliant with the applicable performance criteria and is not expected to lead to conflict or be incompatible with adjoining owners, road users, and with the adoption of a number of Management measures, as detailed within the site Management Plan, this can be assured.

The proposal is considered to be consistent with the Glamorgan Spring Bay Interim Planning Scheme 2015, and should therefore be considered for approval.

Kind Regards,

Rebecca Green

Senior Planning Consultant & Accredited Bushfire Hazard Assessor
Rebecca Green & Associates
m. 0409 284422
P.O. Box 2108, Launceston, 7250

Swansea RV Park – Management Plan

1. Check in procedure
2. Noise
3. Generator use
4. Pets
5. Rubbish / Leave On Trace
6. Smoking
7. Open fires
8. Support local business and respect the local community

Swansea RV Park – 'Check In' procedure

- Bookings are invited but not necessary
- Upon arrival, guests will be directed to locate a site suitable for their RV by 'one way' direction signs. An easily located and identifiable 'check in' booth will display check in procedure and rules of the park
- The 'check in' procedure will be a simple 'pay and display' system whereby the guest will nominate length of stay and pay into a deposit box the required fee for their nominated length of stay.
- The days and dates they have selected will be recorded onto a card and that card is to be displayed on the dashboard of their vehicle.
- Daily inspections will be conducted by management (or nominee) in the early evening to ensure all users of the RV Park have complied with the 'check in' procedure and paid for their stay.
- 'Check out' will be required by 10.30am on the day of departure

Swansea RV Park – Rule of the Park - Noise:

- *Rowdy or disruptive behaviour will not be tolerated and management reserves the right to ask anyone to leave the property if they are creating a nuisance or noise that is disruptive to other park users. Noise is to be kept to a minimum during the hours of 9.30pm and 8.30am)*

- With respect to generator usage, please refer to Rule of the Park – Generator

- These rules will be applied at the Swansea RV Park to ensure other park users and property neighbours are not inconvenienced

Swansea RV Park..... Rule of the Park - Generator use

In order to protect the health, safety and comfort of all attendees at Swansea RV Park, the following policy rules will apply to persons wishing to operate diesel, gas or petrol driven generators.

- Generators should not have a certified noise level exceeding 68 db
- Generators must only be operated between the hours of 9.00am and 4.00pm.
- Any person wishing to operate a generator must:
  - Obtain their RV Park neighbours consent before starting the generator, and must ensure that fumes / smoke will not enter any adjoining or surrounding RVs.
- Generators are not to be operated in excess of two (2) consecutive hours, and no more than four (4) hours per day.
- Any person who insists on operating a generator outside of the approved hours, without the approval of the RV Park Manager (or nominee), will be requested to leave the site.

Compliance with this Rule of the Park will be monitored daily by management (or nominee) – particularly after 4.00pm, and at the very least – during the evening inspection.

Swansea RV Park ..... Rule of the Park - Dog and Cat (Pet) control

Pet owners must not permit their pet to be, become, or create a nuisance.

A pet is a nuisance if it behaves in a manner that is injurious or dangerous to the health of any person; or if it creates a noise, by excessive barking or otherwise, that persistently occurs or continues to such an extent, that it unreasonably interferes with the peace, comfort or convenience of any person at the Swansea RV Park.

Patrons are only permitted to bring a maximum of two pets per RV to the RV Park.

Under legislation, the owner or person in charge of a dog, other than a guide dog, assistance dog or hearing dog, must ensure that the dog is wearing a collar whilst in public and be registered.

Pet owners are responsible for cleaning up and properly disposing of all their pet's droppings. If pet fouling does occur, the pet's owner must clean up after the pet.

Any suitable plastic bag can be used, or special poop-scoop bags can be purchased from pet shops, veterinary surgeries or stores.

Disposal of faeces is the pet owners' responsibility and must be taken with you when you leave the RV Park. (Refer Leave no Trace / Rubbish requirements)

At all times, all pets are to be on a lead.

A pet on a lead is said to be under effective control only if the lead is less than two metres long, and if the person is of a sufficient age and strength to control the pet.
Extendable / retractable pet leads are not permitted.

If a pet is tethered to a stationary object, it must be by a lead which is less than two metres long, and for a period not exceeding 30 minutes.
Extendable/retractable pet leads are not permitted when tethering.
Water must be provided for the pet no matter what length of time the pet is tethered.

Pets that have a tendency to snap or bite should be muzzled while not confined to the owner's RV.

Prohibited dog breeds are:

A dog of mixed breed of which one of the elements is a prohibited breed.

The following are prohibited breeds:

(a) American Pit Bull Terrier;

(b) Dogo Argentino;

(c) Fila Brasileiro;

(d) Japanese Tosa.

Guide, Assistance or Hearing dogs are exempt from this Policy.

Compliance with this Rule of the Park will be monitored daily by management (or nominee) – and at the very least – during the evening inspection.

Swansea RV Park ..... Rule of the Park – Rubbish / 'Leave No Trace'

1. **Guests of the Swansea RV Park are requested to take any rubbish they generate with them when they leave the RV Park and subsequently dispose of the rubbish in an appropriate manner.**

2. **Always leave an area cleaner than you find it.**
   While we encourage correct disposal of rubbish, it is regretful that the occasional user of the RV Park may inadvertently leave rubbish. We also find the occasional piece of rubbish that has blown in from surrounding areas and from the road. To assist management keep the RV Park clean and tidy, it's very easy to spend five or ten minutes picking up any rubbish in the RV Park. This single act will do more for your welcome than almost any other act. Please use a pair of gloves and put any rubbish into a plastic bag and place into a bin at the rubbish collection point.

3. **Always take care of the natural environment.**
   Collecting firewood is not permitted and open fires are not permitted.
   Do not cut living foliage, do not pick wild flowers and do not disturb or feed wildlife.

4. **Park your vehicle so as not to obstruct reasonable passage, exit or access to other vehicles**
   Please be courteous and do not park in a manner that impedes the movement of other vehicles.

5. **Dispose of all grey and black water in an appropriate manner.**
   (All grey and black water MUST be retained in holding tanks or suitable sealable containers at all times, unless expressly permitted to drain grey water onto the ground by RV Park Management or nominee.) A public dump point for grey and black water is located in Swansea. The location is displayed in the RV Park check in booth.

Compliance with this Rule of the Park will be monitored daily by management (or nominee) – and at the very least – during the evening inspection.

Swansea RV Park ..... Rule of the Park - Smoking Policy

Smoking within the grounds of the Swansea RV Park (in the open area) is not permitted at any time.

Guests are only permitted to smoke within the enclosed area of their Recreational vehicle.

Please respect and adhere to this policy.

Failure to do so will result in:

1. A request by management or nominee for you to 'butt out' the cigarette or cigar.
2. A request by management or nominee for you to confine smoking to within the enclosed area of your RV.
3. A request by management or nominee for you to leave the RV Park if compliance with the Smoking Policy is refused.

Compliance with this Rule of the Park will be monitored daily by management (or nominee) – and at the very least – during the evening inspection.

Swansea RV Park ..... Rule of the Park - Camp fires:

Open fires will not be permitted.

Swansea RV Park ..... Rule of the Park - Privacy and Security:

All boundaries of the property are fenced and entering into neighbouring properties is strictly prohibited.

Monitoring of the RV Park use will be regularly conducted by the RV Park owners / management.

Swansea RV Park ..... Please respect and support the local community

When you are in Swansea, please purchase fuel, food or supplies as a form of thanks to the Swansea businesses and our Swansea community.

As you travel this beautiful state and particularly the East Coast, we encourage you to show your appreciation and to patronise businesses in the area.

Your support fosters business success and that flows on to employment opportunities for the locals.

Swansea RV Park

Visitor Accommodation

~ RV (Self Contained) camping

~ Eco Structure Villas

Proposed RV Park for Swansea ..... Overview

For quite some time, Swansea businesses, Swansea tourism and the Swansea Chamber of Commerce have been advocating the need for an area to cater for the increasing number of Recreational Vehicle owners looking for an overnight stop in Swansea.

A section of our property at RA 13110, Tasman Highway has been earmarked for an RV Park development.
The property comprises 13 acres and we propose to allocate approximately 4 – 5 acres of the property for Rest Area / Self-contained camping for owners of Recreational Vehicles.

The area to be allocated will retain the existing natural light bush setting with camping sites scattered throughout the 5 acres.
The area is currently a scattering of trees and light undergrowth and regrowth.
A Natural Values report submitted with this development application provides more detail and information.

An existing track bordering the allocated area will link to another, forming a "ring road" around the designated area. Spur tracks will be created within the ring road.

Camping sites for the RV's will be designated off the ring road and off the tracks.

It is our intent to maintain the natural bushland setting, to keep established shrubs and only clear the untidy understory and gorse bushes for vehicular access to parking bays and for the parking bays.
The camping sites will be located without the removal of mature trees.
Dead limbs and undergrowth will be removed for safety and Bushfire Management.
The initial clearing and subsequent maintenance will also be consistent with the Bushfire Hazard Management plan.
Self-contained RV camping in the natural beauty of bushland settings and National Parks is a preferred option among RV owners.
It is our intent to duplicate this experience in the Swansea RV Park.

The RV Park will not be the typical caravan park ..... we will not provide amenities and we will not provide powered sites.

Entry to the RV Park will be restricted to RV's that are self-contained.

A designated area for Recreational Vehicles in Swansea is sadly lacking and with the national trend towards RV travellers looking for Rest Areas and camping areas that are not concentrated Caravan and Cabin parks – the proposal will meet the needs of the ever increasing RV use on Tasmania's East Coast.

A recent study conducted by Colmar Brunton for the Campervan and Motorhome Club of Australia indicated that for 67% of CMCA members, a caravan park is not their first or second accommodation preference (out of six options) and for 23% of members, a caravan park is the least preferred accommodation option.
The research determined that 90% of the approximately 35,000 CMCA member vehicles are self contained.
This research confirms that the self-contained RV Park proposed for Swansea meets the lifestyle preference and capabilities of a significant majority of RV travellers.

It was also determined in the Colmar Brunton research, that long haul RV travellers spend approximately $130 per day (at 2 people per vehicle) and the majority of that daily spend is in regional Australia.

Swansea is currently not catering for the RV traveller demand.

Current sales trends indicate that the number of registered RVs will be well over 700,000 by the end of 2020.
This highlights the need for a significant increase in specialist accommodation / camping options to meet the requirements of this fast growing segment of the market .....
ie: the self contained RV

The proposed RV Park will be a step in the right direction as an accommodation / camping option in Swansea and there will be an increased likelihood of RV travellers stopping in Swansea as opposed to bypassing it and camping elsewhere.

With this application are copies of letters of support signed by members of the Swansea business community.

Stage 2 of Development ... Visitor Accommodation

A secondary stage of development on this property will be the addition of 4 accommodation "villas" located on the northern slopes of the property and set amidst the existing natural vegetation.

The exact size of the "villas" is typically of 60 – 80 m2 under the roof.

The design of these "villas" will be as per the Eco Structure Luxury tent that is used in environmentally sensitive tourist locations including the Karajini Eco Retreat and Eco Beach Retreat in Northern West Australia and the Sangoma Retreat in the NSW Blue Mountains

Images are attached with this application.

A number of different floor plans are available but it is proposed that the Deluxe 4M Eco Tent with ensuite will be the preferred accommodation "villa".
(see floor plan provided)

Swansea RV Park

Visitor Accommodation

~ RV (Self Contained) camping

~ Eco Structure Villas

Infrastructure and Services:

The intent of the RV Park development is predominantly for owners of Self Contained RVs to enjoy peaceful free camping in a natural environment - not to camp amongst a multitude of others in a purpose built caravan and cabin park and camping ground.

In a State wide Directions Paper (May 2012) – "a review of Council Recreational Vehicle Overnight camping", the definition of camping refers to "sleeping in or utilising a vehicles facilities overnight". The paper regularly spoke of *overnight camping, RV camping facilities, provision of low cost camping services* and *operating camping sites*

Among the many requirements for a Caravan park development, a caravan park is to provide –
Powered Sites
Toilet and Shower facilities etc.

This is not our intention, it has never been our intention and we suspect there is confusion amongst the community as to the specific intent of the RV Park development.

Consistent with the definition of RV Camping as determined by the State Government and the Local Government Association of Tasmania, the intent of the Swansea RV Park is to provide recreational vehicle camping as defined in the Overnight Camping State wide Directions Paper.

The development is for RV (Self Contained) free camping in a natural environment.

Users of the RV Park are to be self-contained and provide their own facilities.
Our intent is clear and the RV Park will not be available to campers not able to provide toilets and amenities on-board.

To support our claims that the RV Traveller prefers the concept of the Swansea RV Park development, the Campervan & Motorhome Club of Australia (CMCA) commissioned a survey of its members this year to determine preferred forms of accommodation sites.
For 67% of total CMCA members, a caravan park is not among their first three preferences for accommodation.
36% prefer a public free camping area without facilities, 13% prefer a public low-cost camping area with limited facilities and 23% prefer a bush camp.

Almost one in four CMCA members only consider a caravan park if all other options are unavailable. (Colmar Brunton 2016)

We are proposing RV (Self Contained) camping - not a Caravan Park development.

Number of Sites:

The RV Park will be designed for 36 sites.

Road Access:

A detailed design for road works on the highway reserve has been prepared for the access to the RV Park. These drawings are submitted with the application.
The road works have the consent of the Crown and a permit has been issued by the Dept. of State Growth.
The consent and permit documentation is submitted with this application

Environmental Impact Study and Biodiversity Code:

The area designated for the RV Park has a 'Native Habitat' overlay along the Western boundary and extending east for approx. 90 metres.

The Native Habitat overlay relates to the known occurrence of Warty Paperbark in the area.

It is also known that Oyster Bay Pines exist on the property as well as White Gums.
These will not be endangered.
It is our intention to protect those species.

It is our intention to retain all the established / mature trees in the Native Habitat overlay area - - including the variety of Eucalypts.

With respect to Warty Paperbark and the possibility that this species or any other endangered species may be identified on our property, a vegetation and fauna survey has been commissioned with a view to responsible management should they be evident.

The report is provided as a separate document to the application.

Bushfire Management Plan:

The Bushfire Management Plan has been prepared by accredited and qualified personnel.
The report is provided as a separate document to the application

As part of the overall requirement of The Bushfire Management Plan, the report clearly describes vegetation on the property by way of and within:

Site description
Section 3 – Vegetation
Bushfire Attack Level (BAL)
Satellite image
Numerous ground level images

Camp fires:

Open fires will not be permitted.

Agricultural assessment:

To support the development application, a Land Capability report has been commissioned to establish the impact of the development to neighbouring properties and to confirm the proposal does not fetter the rural resource use of the property to be developed.
The proposed RV Park will have no impact whatsoever on the agricultural potential of adjacent properties and is located on the poorer agricultural land of the subject property.

Site Management:

Site Management is to be conducted by the property owners.
A Management Plan is submitted with the application as a separate document.

Vehicle noise:

Any vehicle travelling along the Tasman Highway at 80kph generates more road noise than a vehicle slowing down and approaching the RV park access for entry at minimal speed (and minimal noise).
Vehicle movement on site will be at a minimal speed and at a minimal noise level.
Vehicle movement into and out of the neighbouring property is not heard on the area planned for development so we suspect the same will apply to vehicles moving within the RV Park.

Privacy and Security:

Monitoring of the RV Park use will be conducted by the RV Park owners who will be living adjacent to the RV Park area.

All boundaries of the property are fenced (which provide a physical restriction and will deter traversing into neighbouring properties) and "No entry - private property" signs will be erected in areas that may be an issue.
The boundary to the north of the designated RV Park area is fenced, is dense bush and rugged and certainly not conducive to entering beyond.

A handout of "Rules of the RV Park" given to each RV Park user will clearly advise of park boundaries and 'No Entry' areas.

Rubbish:

The Campervan and Motor home Club of Aust. (CMCA) have pioneered a "Leave no Trace" program and the nature of this program will be adopted at the RV Park.

The Leave no Trace program encourages participants to take rubbish with them.
In effect, 'Take your rubbish with you' rules will apply.

Notwithstanding, a suitably located rubbish collection point will be available for guests of the RV Park to appropriately dispose of rubbish.
Monitoring of rubbish will be conducted by the RV Park owners who will be living adjacent to the RV Park area.

Noise:

The matter of excessive noise will be addressed in the "Rules of the RV Park" and because the owners will be living adjacent to the RV Park, excessive noise will be monitored and addressed.

The CMCA and its members also apply strict policy to matters regarding noise when their members visit RV Parks, and it's not uncommon for parks around Australia to apply noise restrictions.

(eg: Rowdy or disruptive behaviour will not be tolerated and management reserves the right to ask anyone to leave the property if they are creating a nuisance or noise that is disruptive to other park users. Noise is to be kept to a minimum during the hours of 9.30pm and 8.30am)

With respect to generator usage, the CMCA and parks around Australia apply rules with respect to generator use.
These rules will be applied at the Swansea RV Park to ensure other park users and property neighbours are not inconvenienced

Pets:

The admittance of pets (namely cats and dogs) will be permitted but with strict control ....
ie: pets are to be on a short lead.
This generalised policy applies to many RV Parks around Australia.

The CMCA apply a strict Dog Control Policy to its members and that policy content will be administered at the RV Park.

Handicapped Access:

We trust any RV Park traveller that may be handicapped (in any way), will no doubt be aware of their disability and also be aware of limited available facilities at RV Parks around Australia as they tour. Should an RV (handicapped) user determine we don't provide facilities, it is their choice whether to stay or not.
In relation to the Eco Structure villas, as required Accessible (Disabled) Car Parking and Access to Premises, - Buildings, will comply with AS 2890.6 and AS 1428.

Need for RV Park and benefit for Swansea:

It's a benefit to the Swansea business community that RV travellers have an opportunity to stop and stay in Swansea as opposed to driving through.
The letters of support from members of the Swansea Business Community are indicative of them seeing the benefits of the development.
With increased business comes stable or increased employment for Swansea residents.

The camping industry is the fastest growing domestic tourism sector in Australia contributing total overnight expenditure of $5.4 billion in 2013. (ABS)

Touring RV travellers (those travelling for more than three weeks) spend between $500 to $900 per week and approximately $15k to $20k over the course of their travels, making them the largest spending domestic tourists in Australia. (TRA, Balfour Consulting 2010)
RV travellers comprise up to 70% of the tourism market in some regional LGAs
RV travellers deliver economic benefit directly into the community through purchases from local businesses as if they were living at home.

It was also determined in the Colmar Brunton research, that long haul RV travellers spend approximately $130 per day (at 2 people per vehicle) and the majority of that daily spend is in regional Australia.

Swansea is currently not catering for the RV traveller demand.

Proximity to facilities and services:

"RV Friendly towns" must meet the following criteria:

Provision of longer term parking within 5 – 10 km of the town centre
Provision of short term parking within 2.5 km of the town centre
Parking within close proximity to the general shopping area

The last of these criteria suggests it is unlikely the RV traveller has a preference to walk to access services and facilities. They want to park in close proximity.
RV Travellers will typically ensure they have sufficient essentials on board before setting up camp.

They will visit a shop, supermarket or facility in advance and only revisit those facilities due to unforeseen circumstance or when on the move again.

The preference of RV travellers is not to be close to built up areas. They prefer the peace and quiet. The free camping intent and the natural state of the RV Park development is a preferred option to RV Park travellers as opposed to a dedicated Caravan Park close to a built up area.

'Environmental nuisance' and impact on public amenities:

Any suggestion of environmental nuisance – *"to go behind a tree or against a fence"...* is not the intent of the Park and it will be a strict rule of the RV Park that such behaviour is not permitted. Behaviour of that nature is in fact an offence by law, and any RV Park user in breach of that rule / law will be evicted from the Park.
Providing an RV Park for self-contained RV users will have minimal impact on Swansea's public amenities. They will have their own facilities on board.

Camping Site surface treatment:

Consistent with camping sites in National Parks (and to maintain the natural woodland setting), we prefer the camping sites to retain the current natural surface look.

Much of the ground surface has considerable rock which helps maintain a solid surface.

If and as required, should any parking bay surface require a more substantial surface, then a layer of 40mm crushed rock and / or compacted gravel will be applied to the area designated for the vehicle parking bay.

The areas immediately adjacent to the actual RV parking area will be natural or sown with a suitable grass.

Signage:

For identification of the RV Park and for safety at the entrance driveway, it's proposed to install advanced site use location signs north and south of the RV Park entrance, signing at the driveway and provision of a concealed entrance sign in advance of the driveway for southbound traffic.

Signage at the entrance will consist of one sign on each side of the entrance.
Each sign will be of 800mm x 250mm.
An example of the sign design and colours is included with the application.

Visitor Accommodation .... Performance Criteria:

P1 (a)

The RV Park will not adversely impact residential amenity and privacy of adjoining properties.

To the south of the subject property, an undeveloped Reserved Road of 21 metres width lies between the southern boundary of RA 13110 and RA 13054.
RA 13054 is a large rural property with a single residence situated at the southern extremity.
The proposed RV Park development will not impact on the privacy of that property.

To the north of the subject property, the residence sits approximately 170 metres from the proposed RV Park entrance and approximately 130 metres from the nearest proposed RV parking bay.
Between the RV Park and the residence on this property, the bush is dense and a rural fence runs along the full length of the boundary - thereby providing a physical and natural restriction on the movement of visitors.
The residence on this adjoining property is not visible from the RV Park area.

To support the Management Plan guidelines with respect to noise generation, the occasional use of a generator on the property has been tested with respect to noise emission.
The test conducted (using a 3Kva generator located within the RV park boundary and a commercial grade noise detection meter) determined the operating noise of the generator could not be heard at the northern boundary of the property.
The proposed RV Park development will not impact on the privacy of this property.

To the east of RA 13110, the residence on that property is also screened from view.
It sits approximately 170 metres from the nearest boundary of the RV Park area.
The proposed RV Park development will not impact on the privacy of this property.

P1 (b)

Consistent with parking requirements for Overnight camping areas, 1 car parking space will be allocated within the area set aside for each of the 36 nominated RV camping sites.
The space requirement for each staff member is not applicable to this development as the site managers will have their own parking facilities.
For the Eco Structure villas, 1 parking space will be allocated to each of the 4 villas and another 2 will be provided for ancillary use.

Much of the ground surface within the RV Park area has considerable rock which helps maintain a solid surface.
If and as required, should any parking bay surface require a more substantial surface, then a layer of 40mm crushed rock and / or compacted gravel will be applied to the area designated for the vehicle parking bay.
During the winter months of particularly inclement weather, the RV Park will be closed.
Notwithstanding and taking into account heavy rainfalls during the RV Park opening months, the parking spaces will be appropriately developed to maximise water drainage.

P1 (c)

Only 36 sites are proposed for the RV Park.
The total area set aside for the RV Park comprises approximately 20,000 square metres.
This represents an average of 555 square metres per site.
The proposed Eco structure villas will be set amongst the established trees of the designated area.
The very nature and design of these structures ensure they do not adversely impact on a natural setting.
Eco structure villas are specifically designed for native habitat and environmentally sensitive areas.

P1 (d)

The proposed development will not adversely impact on the efficiency of the local road network or disadvantage owners of adjoining properties.
The Department of State Growth have issued a permit to access the property from the highway and the Crown have consented to the road works required.

P1 (e)

RA 13110 is not considered large enough, or of suitable quality, for agricultural purpose.
The RV Park development is located on the western and least desirable section of the property.
The most desirable area on RA 13110 is the cleared flat grazing paddock area located to the east.
This area of land is only used for horse grazing.
The Land Capability report submitted with the application provides evidence to this effect.

P1 (f)

The proposed RV Park on RA 13110 Tasman Highway, Swansea, will not fetter existing or potential rural resource use of the property or adjoining land.

The adjoining properties immediately to the east and north of RA 13110 are both residential properties within the Rural Resource zone.

With respect to the property adjoining RA 13110 to the south, this property (RA 13054) has recently been considered and approved for subdivision – refer SA13005 presented to GSBC agenda on 23rd April, 2014.

The Agricultural report accompanying the development proposal (prepared by Macquarie Franklin Agricultural Consultants) classified the subject site as non-valuable agricultural land and further it deemed its' agricultural viability as uneconomic and high risk.

The Land Capability report submitted with the application provides evidence that the RV Park development will not fetter existing or potential rural resource use of the subject property or adjoining land.

Proposed RV Park for Swansea

For quite some time, Swansea businesses, Swansea tourism and the Swansea Chamber of Commerce have been advocating the need for an area to cater for the increasing number of Recreational Vehicle owners looking for an overnight stop in Swansea.

Recently, Louise Luck and Ron Coenen purchased a sizeable block of land on the southern Swansea town boundary.
The property comprises 13 acres.

Ron & Louise have contacted council with a proposal to allocate approximately 4 – 5 acres of the property for Rest Area / Self-contained camping for owners of Recreational Vehicles. The area to be allocated will retain the existing natural light bush setting.

A designated area for Recreational Vehicles in Swansea is sadly lacking and with the national trend towards RV owners looking for Rest Areas that are not concentrated Caravan and Cabin parks – the proposal will meet the needs of the ever increasing RV use on Tasmania's East Coast.

A formal planning application has been pending the new planning scheme being introduced by council and it's understood from discussions with council representatives, the new zoning will facilitate the proposal.
More recent communication has indicated a planning application can now be submitted.

Within a few weeks, the planning application will be completed and submitted to council and it's hoped all will be approved with time to prepare for this coming tourist season.

If you wish to support this application and have your support acknowledged and submitted with the application to council, please sign below and return to :
roncoenen@bigpond.com

I/ We ..... Judy & Bob Mees .....

Of ..... Swansea .....

Wholeheartedly support this proposal and can see the benefits for the Swansea community, the Swansea businesses and Swansea tourism.

Signed ..... Signed .....

Date ..... 8/9/13 .....

Proposed RV Park for Swansea

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roncoenen@bigpond.com

I/ We ..... Tim & Lavinda Bond.

Of ..... Back Mill Tavern & Bakery

Wholeheartedly support this proposal and can see the benefits for the Swansea community, the Swansea businesses and Swansea tourism.

Signed ..... Signed .....

Date ..... 13/9/15 .....

Proposed RV Park for Swansea

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If you wish to support this application and have your support acknowledged and submitted with the application to council, please sign below and return to :
roncoenen@bigpond.com

I / We ..... Jacqui & Col BARNEY .....

Of ..... 15 Wellington St Swansea .....

Wholeheartedly support this proposal and can see the benefits for the Swansea community, the Swansea businesses and Swansea tourism.

Signed ..... Signed .....

Date ..... 21/9/15 .....

Proposed RV Park for Swansea

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If you wish to support this application and have your support acknowledged and submitted with the application to council, please sign below and return to :
roncoenen@bigpond.com

I / We Viv Lewis

Of Bear Cottage Crafts, 18A Franklin St, Swansea TAS 7190

Wholeheartedly support this proposal and can see the benefits for the Swansea community, the Swansea businesses and Swansea tourism.

Signed ..... Signed .....

Date 13/9/15

Proposed RV Park for Swansea

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If you wish to support this application and have your support acknowledged and submitted with the application to council, please sign below and return to :
roncoenen@bigpond.com

I / We .....Diane Bricknell

Of .....364 Dolphin Sands Road Swansea.

Wholeheartedly support this proposal and can see the benefits for the Swansea community, the Swansea businesses and Swansea tourism.

Signed ..... Diane ..... Signed .....

Date .....7th Sept 2015....

Proposed RV Park for Swansea

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If you wish to support this application and have your support acknowledged and submitted with the application to council, please sign below and return to :
roncoenen@bigpond.com

I / We ....Bob & Karen Rodgers....

Of ....FREYCINET WATERS, SWANSEA....

Wholeheartedly support this proposal and can see the benefits for the Swansea community, the Swansea businesses and Swansea tourism.

Signed .... Signed ....

Date ....7/7/15....

Proposed RV Park for Swansea

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roncoenen@bigpond.com

I / We ..... MORRIS' STORE .....

Of ..... SWANSEA .....

Wholeheartedly support this proposal and can see the benefits for the Swansea community, the Swansea businesses and Swansea tourism.

Signed ..... Signed .....

Date 07-09-15

Proposed RV Park for Swansea

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If you wish to support this application and have your support acknowledged and submitted with the application to council, please sign below and return to : roncoenen@bigpond.com

I / We JOHN + MAUREEN SKINNER

Of 19 MARIA ST SWANSEA 7190

Wholeheartedly support this proposal and can see the benefits for the Swansea community, the Swansea businesses and Swansea tourism.

Department of State Growth
STATE ROADS

Enquiries Ella Rushforth
Ph 61663443
Email ella.rushforth@stategrowth.tas.gov.au Web www.stategrowth.tas.gov.au
Your Ref Our Ref 052821/93

Tasmanian Government

Rebecca Green and Associates

By email:
To: admin@rgassociates.com.au
Cc: admin@freycinet.tas.gov.au

Dear Madam

Landowner Consent
13110 Tasman Highway, Swansea – Proposed Visitor Accommodation (RV Camping and Eco Villas) Development Application

I, Andrew Hargrave, Manager Asset Management, State Roads, the Department of State Growth, having been duly delegated by the Minister under Section 52 (1F) of the *Land Use Planning and Approvals Act 1993* (the Act), and in accordance with the provisions of Section 52 (1B) (b) of the Act, hereby give my permission to the making of the application, insofar as it affects the State road network and any Crown land under the jurisdiction of this Department.

The consent given by this letter **is for the making of the application** only and is specifically with reference to the following document which demonstrates the works to the State Road (the full proposal, emailed 10 September 2017, has also been reviewed):

	Title	Reference number	Dated
1.	Department of State Growth, Lot 4 Tasman Hwy, Swansea, Proposed Property Access (JMG)	Job No. J172176CL	Signed 3/5/2017

The proposed development is adjacent to the Tasman Highway and involves Department of State Growth administered Crown land in that it includes works in the road reserve to upgrade the existing access. The Department reserves the right to make a representation to Glamorgan Spring Bay Council in relation to any aspect of the proposed development relating to its road network and/or property.

It is the applicant's responsibility to ensure that they have obtained all Department of State Growth consents required under the *Roads and Jetties Act 1935.* For further information please contact permits@stategrowth.tas.gov.au.

Please contact the officer indicated at the top of this letter if you have any further queries.

Yours sincerely

Andrew Hargrave
Manager Asset Management

18 September 2017

Department of State Growth

10 Murray Street, Hobart TAS 7000 Australia
GPO Box 536, Hobart TAS 7001 Australia
Ph: (03) 6166 3321
Email: scott.ingles@stategrowth.tas.gov.au Web: www.stategrowth.tas.gov.au

Tasmanian Government

Mr & Mrs Coenen
PO Box 46
SWANSEA TAS 7190

Dear Mr & Mrs Coenen

Access Works Permit SA35-16 – RA13110, Lot 4 Tasman Highway, Swansea

This permit is issued in accordance with the provisions of the *Roads and Jetties Act 1935*, Section 16. The permit authorises the permit holder and their contractor, or agent, to carry out the works described, subject to the conditions specified.

Permit Holder:	**Bayview SMSF Pty Ltd**	Contact Name & Number:	**Ron Coenen – 0400 019 613**

Please note that this permit only gives you authority to undertake works in the State road reservation. It does not indicate the Department's support or otherwise for your intended use of the access. The Department reserves the right to make representation to the Glamorgan Spring Bay Council about any proposed future development of the land, including recommending additional conditions in relation to the access arrangements.

Please also note that Section 16AA of the *Roads and Jetties Act 1935* provides that, once this access has been constructed, the property owner becomes responsible for the maintenance and repair of the whole of the access from their property to the State road pavement.

You must give us fourteen (14) days notice before starting any work in the State road reservation. **This permit is not valid until this notification is received by us.** You also need to advise us when you have finished work in the State road reservation. The forms to use to notify us are also enclosed.

Please read the permit carefully and note:

- **Failure to comply with all the conditions could result in you being liable for a fine and/or the cost of rectification works.**
- **Once you have started work you will be deemed to have accepted all the permit conditions.**

Road name / location description:	**RA13110, Lot 4 Tasman Highway, Swansea**				
Road No.:	**A0113**	Link / Chainage:	**33/3.92**	Category:	**3**

DESCRIPTION OF WORKS: Amend an existing access

A SPECIAL CONDITIONS OF PERMIT

1. This permit does not indicate that the proposed access will meet current National sight distance guidelines in every respect.
2. The sight lines to and from the access are to be maintained at all times. The permit holder is responsible for monitoring the sight lines and for notifying the Contact Officer if further vegetation management within the State road reservation is required.
3. The access will require a BAR (Basic Right Turn) facility as per the requirements of Austroads Road Design Guide Part 4 – UnSignalised and Signalised intersections.
4. Removal of the large gumtree on the western roadside is required or a safety barrier is to be installed to protect errant vehicles.
5. Access to the property to be sealed at a minimum of 6.0m wide to allow two way access.
6. W5-26 (Watch for Entering Traffic) sign with a W8-5 (250m) plate to be installed 250m south of access to face north bound traffic.

    a. Signs must be manufactured in accordance with the Department's standard specification numbered 860, which is available on our website in the roads specifications section: http://www.transport.tas.gov.au/road/specifications.

    b. Signs must be manufactured and installed in accordance with the Department's standard specification numbered 714 which is available on our website in the roads specifications section: http://www.transport.tas.gov.au/road/contractor/specifications

    c. A list of suitably pre-qualified contractors (Department's *Prequalified Contractors for Civil Works Contracts*) is also available on our website: http://www.transport.tas.gov.au/road/contractor/contract_tenders

7. The existing B2 (double barrier) line marking will need to be altered to permit full turning movements at the new access (the current line marking prohibits right turns in and out of the access). The B2 barrier is to be altered to accommodate a 3 metre break at the access. The works are to be undertaken by a contractor who is pre-qualified with the Department. A list of suitably pre-qualified contractors (Department's *Prequalified Contractors for Civil Works Contracts*) is also available on our website: http://www.transport.tas.gov.au/road/contractor/contract_tenders

B GENERAL CONDITIONS

1. Scope of works:

This permit is valid for works as described above and as shown in your application. A new permit will be required if the nature, scope or location of works changes – in this event, please speak to the Contact Officer (see 13).

2. Validity period:

This permit is valid for a period of twelve (12) months from the date of issue. If works have not started within this period, a permit extension or a new permit will be required – in this event, please speak to the Contact Officer (see 13).

3. Notification of works:

The permit holder is responsible for notifying the Department in writing fourteen (14) days before commencing any work in the State road reservation. This permit is not valid until such notice of commencement has been received by the Department.

The permit holder is responsible for notifying the Department in writing within fourteen (14) days of completing work in the State road reservation.

4. Costs:

The permit holder is responsible for all costs for the works, including any alterations required by the Department, or repair of any damage to road pavement, shoulder, verge, drainage or other structures caused by the works, or in the carrying out of the works.

5. Construction standards:

a. The access must be sealed from the edge of the sealed road pavement to the boundary of the State road reservation.

b. Construction must be to the minimum standard specified by the Department's standard drawing for geometric requirements: Access gravel shoulder (without kerb) (copy enclosed).

6. Services:

The permit holder is responsible for locating all services prior to starting works and will be liable for any costs, claims, proceedings and demands in the event of damage to any services as a result of these works.

7. Other approvals:

The permit holder is responsible for obtaining any other required approvals from other relevant authorities, including any environmental permits or clearances that may be required under any applicable legislation or State policy. The permit holder is liable for any compliance failure.

8. Traffic management:

The permit holder is responsible for ensuring adequate and appropriate traffic management at the work site. Traffic management plans must comply with all relevant standards, specifications and codes of practice and all traffic control must be performed by appropriately accredited traffic control personnel. All works within the road reservation must also comply with all relevant Work Health and Safety legislation. If you have any queries, please speak to the Contact Officer (see 13).

9. Management of worksite:

a. The permit holder is responsible for maintaining the worksite during works, especially for ensuring that the carriageway is kept clean and tidy and free of debris. The permit holder is responsible for any claims from the public arising from debris from the works tracked over the State road pavement.

b. The permit holder is responsible for ensuring that the area is left in a neat and tidy condition at the completion of works, with any spoil or excess materials to be removed from the site.

10. Inspection of works:

a. The Department reserves the right to inspect the worksite at any time during construction to ensure compliance with these conditions. The permit holder will be responsible for the costs for any changes required to bring the works into compliance with these conditions.

b. The Department will conduct a completion inspection to ensure that the works comply with these conditions. The permit holder will be responsible for the cost of any required changes or repairs identified during final inspection.

11. Indemnification:

The permit holder will save and keep indemnified the Crown in the right of the State of Tasmania against all or any costs, claims, proceedings and demands whatsoever and by whomsoever arising out of or in respect of the works undertaken in the State road reservation.

12. Acceptance of conditions:

Commencement of work is deemed acceptance of these conditions. Failure to comply with all these conditions may result in the permit holder being liable for a fine and/or the cost of rectification works.

13. Contact officers:

If you have any questions about your permit conditions or would like to clarify what a condition means, please contact the Department's Traffic Engineering Officer, Scott Ingles phone: 6166 3321.

If you have questions in relation to the construction of the access, please contact the Network Supervisor, Mitch Williamson phone: 0437 919 881 before commencing works.

Yours sincerely

Peter Hubble
Manager Traffic Engineering

Delegate of
Minister for Infrastructure
Hon M.T. (Rene) Hidding MP

16 November 2016

cc: General Manager, Glamorgan Spring Bay Council

STORMWATER REPORT

13110 Tasman Highway

Swansea

October 2016

Updated April 2017

GES

GEO-ENVIRONMENTAL

SOLUTIONS

Geo-Environmental Solutions P/L 86 Queen Street Sandy Bay 7005. Ph 6223 1839 Fax 6223 4539

Introduction

Client:	Ron Coenen and Louise Luck
Date of inspection:	26/6/2015
Location:	13110 Tasman Highway, Swansea (CT 115824/4)
Land description:	Approx 5.139 Ha residential lot
Building type:	Proposed new residence and RV Park
Investigation:	Geo-Probe 540UD
Inspected by:	A. Plummer

Background information

Map:	Mineral Resources Tasmania, SE Tasmania Sheet 1: 250 000
Rock type:	Jurassic Dolerite
Soil depth:	0.25 – 0.70 m
Landslide zoning:	None known
Local meteorology:	Annual rainfall approx 629 mm
Local services:	Mains water and onsite waste water

Site conditions

Slope and aspect:	Gentle 1 – 3% to moderate 16 – 18% slope to the East
Site drainage:	Surface drainage is good, and subsoil drainage moderate
Vegetation:	Mixed natives
Weather conditions:	Fine, approx 14mm rainfall received in preceding 7 days.
Ground surface:	Moist surface conditions

Investigation

A number of auger holes were completed and existing cuttings were examined to identify the distribution of, and variation in soil materials on the site. Representative descriptions from the approximate locations indicated on the site plan were chosen for testing and classification according to AS 3500.3-2003 (see profile summaries).

Profile summaries

Hole 1 Depth (m)	Hole 2 Depth (m)	Horizon	Description
0 – 0.20	0 – 0.10	A1	Strong Brown **Clayey SAND (SC),** massive, moist medium dense consistency, ~ 30% gravels, common rocks, gradual boundary to
	0.10 – 0.60	B2	Dark Olive Brown **CLAY (CH),** strong polyhedral structure, moist stiff consistency, high plasticity, ~ 10% gravels increasing with depth, gradual boundary to
0.20 – 0.25	0.60 – 0.70	BC	Yellowish Brown and Grey **Sandy GRAVELS (GW),** dry hard consistency, refusal on bedrock

Hole 3 Depth (m)	Horizon	Description
0 – 0.10	A1	Strong Brown **Clayey SAND (SC),** massive, moist medium dense consistency, ~ 30% gravels, common rocks, gradual boundary to
0.10 – 0.60	B2	Dark Olive Brown **CLAY (CH),** strong polyhedral structure, moist stiff consistency, high plasticity, ~ 10% gravels increasing with depth, gradual boundary to
0.60 – 0.90	BC	Yellowish Brown and Grey **Sandy GRAVELS (GW),** dry hard consistency, refusal on bedrock

Soil profile notes

The soils consist of stony clays and gravels over weathered dolerite. The clay fraction will experience a high degree of movement with fluctuations in soil moisture and it is recommended that foundations be placed onto bedrock.

Stormwater Calculations

Stormwater runoff from impervious surfaces on site (new roof area) is calculated according to the rational method taken from *Australian Rainfall and Runoff (ARR).*

Where the flowrate Q = 0.000278CIA

C = Runoff coefficient (taken as 0.90 for roof and 0.75 for gravel)

I = Intensity of rainfall

A = Catchment area

All 1:20yr scenarios (5 minutes to 72 hours) have been calculated in the attached spread sheet.

For proposed residence with roof area of approximately 120m²

The required stormwater trench area from the stormwater worksheet attached is 10.45m². Therefore a design of one 9m long by 1.2m wide by 0.45m deep absorption trench is recommended to accommodate stormwater overflow from the proposed roof area.

For proposed villas each with roof area of approximately 32m²

As the proposed villas will not have any guttering or downpipes, it is assumed that the water will flow evenly off the roof area, from the perimeter with a total length of 24m. The stormwater flow from an equivalent roof area would require an absorption trench with area of 2.1m². Therefore, using the perimeter of 24m the width of required absorption under the dripline will need to be approx. 100mm (making 2.4m² total absorption area). It is recommended that this area within the dripline of the roof have scour protection to prevent surface erosion through the application of either mulch or gravel.

For proposed road network

The development will have an internal road network consisting of a 4m wide gravel driveway that will provide access to the RV parking areas. The slope angle within much of the area is slight (1 – 2 degrees) making the collection of stormwater into absorption trenches unfeasible. Instead, it is recommended that the road be constructed with cross-fall (approx. 2 degrees) that directs surface water into an alongside grassed swale drain as per the attached design. Modelling of the required area of drain shows that 0.42m2 of absorption is required per metre of roadway length (i.e. 4.2m² of absorption required for every 40m² of road). Therefore proposed swale drain design has the capacity to retain the expected stormwater flow as it has an absorption area of approximately 1m² per 1m length of roadway.

It is also recommended that regular inspection and maintenance is conducted to ensure the stormwater system is operating without obstruction.

Please contact me if you have any further questions.

Dr John Paul Cumming PhD CPSS
Director

Stormwater calculations – Proposed Residence

1:20 ARI

Storm Duration	Duration (sec)	Intensity mm/hr	Volume							ROOF AREA				
			50	75	100	125	135	150	175	200	225	250	260	120
5 minute	300	99.6	373.80	560.70	747.60	934.50	1009.26	1121.40	1308.30	1495.20	1682.09	1868.99	1943.75	897.12
6 minute	360	92.7	417.48	626.23	834.97	1043.71	1127.21	1252.45	1461.19	1669.93	1878.68	2087.42	2170.92	1001.96
10 minute	600	72.3	542.68	814.03	1085.37	1356.71	1465.25	1628.05	1899.39	2170.74	2442.08	2713.42	2821.96	1302.44
20 minute	1200	48.1	722.08	1083.12	1444.15	1805.19	1949.61	2166.23	2527.27	2888.31	3249.35	3610.39	3754.80	1732.99
30 minute	1800	37.1	835.42	1253.1[illegible]	1670.84	2088.54	2255.63	2506.25	2923.96	3341.67	3759.38	4177.09	4344.17	2005.00
1 hour	3600	23.8	1071.86	1607.79	2143.71	2679.64	2894.01	3215.57	3751.50	4287.43	4823.36	5359.28	5573.66	2572.46
2 hour	7200	15.5	1396.12	2094.17	2792.23	3490.29	3769.51	4188.35	4886.41	5584.46	6282.52	6980.58	7259.80	3350.68
3 hour	10800	12.2	1648.32	2472.48	3296.64	4120.79	4450.46	4944.95	5769.11	6593.27	7417.43	8241.59	8571.25	3955.96
6 hour	21600	8.14	2199.56	3299.34	4399.12	5498.90	5938.81	6598.67	7698.45	8798.23	9898.01	10997.79	11437.70	5278.94
12 hour	43200	5.38	2907.52	4361.29	5815.05	7268.81	7850.32	8722.57	10176.33	11630.10	13083.86	14537.62	15119.13	6978.06
24 hour	86400	3.43	3707.36	5561.05	7414.75	9268.41	10009.88	11122.09	12975.77	14829.45	16683.24	18536.82	19278.25	8897.67
48 hour	172800	2.09	4518.01	6777.02	9036.02	11295.03	12198.63	13554.03	15813.04	18072.05	20331.05	22590.06	23493.66	10843.23
72 hour	259200	1.54	4993.59	7490.39	9987.18	12483.98				9974.37	22471.16	24967.96	25966.68	11984.62

		Duration (sec)	Infiltration (L/m2)	Chosen storm volume L		Trench infiltration in L (volume -		based upon standard trench [illegible] with 40% voids)							
				120m2 roof	500L - 2.1 m2	725L - 3.125 m2	1000L - 4.	500L - 6.25 m2	2000L - 8.35 m2	2500L- 10.45 m2	3000L- 12.5 m2	3500L - 14.6 m2	4000L - 16.67 m2	4500L- 18.75 m2	5000L - 20.85 m2
		300	2.55	897.1	5.4	8.0		15.9	21.3	26.6	31.9	37.2	42.5	47.8	53.2
Ksat (mm/hr)	30.6	360	3.06	1002.0	6.4	9.6		19.1	25.6	32.0	38.2	44.7	51.0	57.4	63.8
Ksat (mm/sec)	0.00850	600	5.10	1302.4	10.7	15.9	21.4	31.9	42.6	53.3	63.7	74.5	85.0	95.6	106.3
		1200	10.20	1733.0	21.4	31.9	42.8	63.7	85.2	106.6	127.5	148.9	170.0	191.2	212.7
		1800	15.30	2005.0	32.1	47.8	64.3	95.6	127.8	159.9	191.[illegible]	223.4	255.0	286.9	319.0
		3600	30.60	2572.5	64.3	95.6	128.5	191.2	255.5	319.8	382.5	446.8	510.0	573.7	638.0
		7200	61.20	3350.7	128.5	191.2	257.0	382.5	511.0	639.5	765.0	893.5	1020.0	1147.5	1276.0
		10800	91.80	3956.0	192.8	286.9	385.6	573.7	766.5	959.3	1147.5	1340.3	1530.0	1721.2	1914.0
		21600	183.60	5278.9	385.6	573.7	771.1	1147.5	1533.1	1918.6	2295.0	2680.6	3060.0	3442.5	3828.1
		43200	367.20	6978.1	771.1	1147.5	1542.2	2295.0	3066.1	3837.2	4590.0	5361.1	6120.0	6885.0	7656.1
		86400	734.40	8897.7	1542.2	2295.0	3084.5	4590.0	6132.2	7674.5	9180.0	10722.2	12240.0	13770.0	15312.2
		172800	1468.80	10843.2	3084.5	4590.0	6169.0	9180.0	12264.5	15349.0	18360.0	21444.5	24480.0	27540.0	30624.5
		259200	2203.20	11984.6	4626.7	6885.0	9253.4	13770.0	18396.7	23023.4	27540.0	32166.7	36720.0	41310.0	45936.7
	Minimum tr 5 minute event			adjusted based upon infiltration and storm duration											
	Maximum tr 72 hour event														

Stormwater calculations – Proposed Villa:

1-20 ARI

Storm Duration	Duration (sec)	Intensity mm/hr	Volume	ROOF AREA										
				50	75	100	125	135	150	175	200	225	250	260	32
5 minute	300	99.6	373.80	560.70	747.60	934.50	1009.26	1121.40	1308.30	1495.20	1682.09	1868.99	1943.75	239.23	
6 minute	360	92.7	417.48	626.23	834.97	1043.71	1127.21	1252.45	1461.19	1669.93	1878.68	2087.42	2170.92	267.19	
10 minute	600	72.3	542.68	814.01	1085.37	1356.71	1465.25	1628.05	1899.39	2170.74	2442.08	2713.42	2821.96	347.31	
20 minute	1200	48.1	722.08	1083.12	1444.15	1805.19	1949.81	2166.23	2527.27	2888.31	3249.35	3610.39	3754.80	462.13	
30 minute	1800	37.3	835.42	1253.13	1670.84	2088.54	2255.63	2506.25	2923.96	3341.67	3759.38	4177.09	4344.17	534.67	
1 hour	3600	23.8	1071.86	1607.79	2143.71	2679.64	2894.01	3215.57	3751.50	4287.43	4823.36	5359.29	5573.66	685.99	
2 hour	7200	15.5	1396.12	2094.17	2792.23	3490.29	3769.51	4188.35	4886.41	5584.46	6282.52	6980.58	7259.80	893.51	
3 hour	10800	12.7	1648.32	2472.48	3296.64	4120.79	4450.46	4944.95	5769.11	6593.27	7417.43	8241.59	8571.25	1054.92	
6 hour	21600	8.14	2199.50	3299.34	4399.12	5498.90	5938.81	6598.67	7698.45	8798.23	9898.01	10997.79	11437.70	1407.72	
12 hour	43200	5.38	2907.57	4361.29	5815.05	7268.81	7850.32	8722.57	10176.33	11630.10	13083.86	14537.62	15119.13	1860.82	
24 hour	86400	3.43	3707.36	5561.05	7414.73	9268.41	10009.88	11122.09	12975.77	14829.45	16683.14	18536.82	19278.29	2372.71	
48 hour	172800	2.09	4518.01	6777.01	9036.01	11295.01	12198.63	13554.00	15813.04	18072.05	20331.05	22590.06	23493.68	2891.53	
72 hour	259200	1.54	4993.59	7490.39	9987.18	12483.98	13482.70	14980.78	17477.57	19974.37	22471.16	24967.96	25966.68	3195.90	

	Duration	Infiltration	Chosen storm volume L		Trench infiltration in L (volume -area shown - based upon standard trench 0.6m x 0.6m with 40% voids)									
	(sec)	(L/m2)	32m2 roof	500L - 2.1 m2	725L - 3.125 m2	1000L - 4.2 m2	1500L - 6.25 m2	2000L - 8.35 m2	2500L- 10.45 m2	3000L - 12.5 m2	3500L - 14.6 m2	4000L - 16.67 m2	4500L- 18.75 m2	5000L - 20.85 m2
Ksat (mm/hr)	30.6	300	2.55	239.2	5.4	8.0	10.7	15.9	21.3	26.6	31.9	37.2	42.5	47.8	53.2
Ksat (mm/sec)	0.00850	600	5.10	347.3	10.7	15.9	21.4	31.9	42.6	53.2	63.7	74.5	85.0	95.6	106.3
		1200	10.20	462.1	21.4	31.9	42.8	63.7	85.2	106.6	127.5	148.9	170.0	191.2	212.7
		1800	15.30	534.7	32.1	47.8	64.3	95.6	127.8	159.9	191.2	223.4	255.0	286.9	319.0
		3600	30.60	686.0	64.3	95.6	128.5	191.2	255.5	319.8	382.5	446.8	510.0	573.7	638.0
		7200	61.20	893.5	128.5	191.2	257.0	382.5	511.0	639.5	765.0	893.5	1020.0	1147.5	1276.0
		10800	91.80	1054.9	192.8	286.9	385.6	573.7	766.5	959.3	1147.5	1340.3	1530.0	1721.2	1914.0
		21600	183.60	1407.7	385.6	573.7	771.1	1147.5	1533.1	1918.6	2295.0	2680.6	3060.0	3442.5	3828.1
		43200	367.20	1860.8	771.1	1147.5	1542.2	2295.0	3066.1	3837.2	4590.0	5361.1	6120.0	6885.0	7656.1
		86400	734.40	2372.7	1542.2	2295.0	3084.5	4590.0	6132.2	7674.5	9180.0	10722.3	12240.0	13770.0	15312.2
		172800	1468.80	2891.5	3084.5	4590.0	6169.0	9180.0	12264.5	15349.0	18360.0	21444.5	24480.0	27540.0	30624.5
		259200	2203.20	3195.9	4626.7	6885.0	9253.4	13770.0	18396.7	23023.4	27540.0	32166.7	36720.0	41310.0	45936.7

Minimum to 5 minute event
Maximum to 72 hour event

adjusted based upon infiltration and storm duration

Stormwater calculations – Gravel driveway (per 10m length):

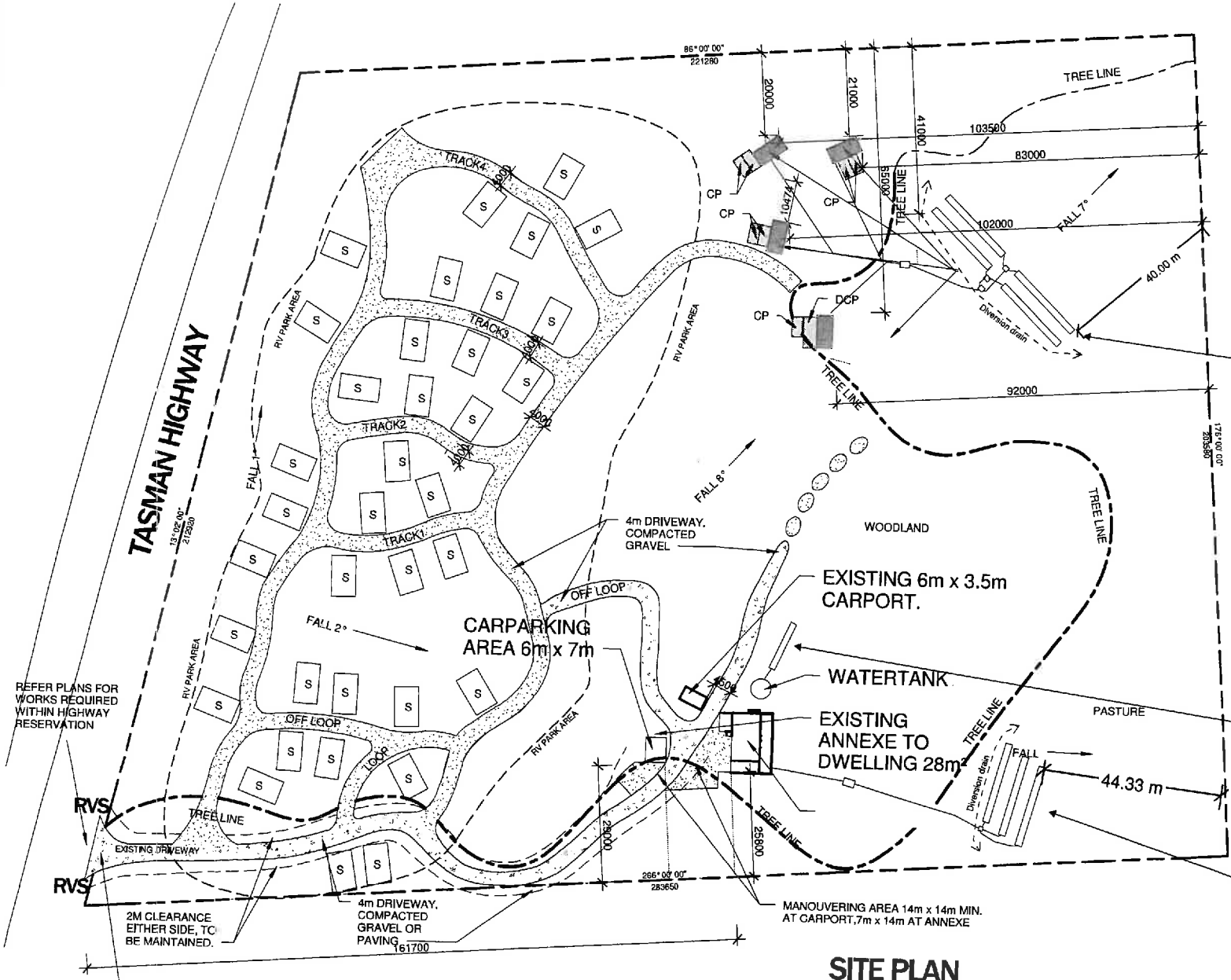
1:20 ARI	1:20 ARI								GRAVEL AREA			
Storm Duration	Duration (sec)	Intensity mm/hr	Volume									
			50	100	125	150	175	200	225	250	275	40
5 minute	300	99.60	311.50	623.00	778.75	934.50	1090.25	1246.00	1401.75	1557.50	1713.24	249.1992
6 minute	360	92.70	347.90	695.81	869.76	1043.71	1217.66	1391.61	1565.56	1739.52	1913.47	278.32248
10 minute	600	72.30	452.24	904.47	1130.59	1356.71	1582.83	1808.95	2035.06	2261.18	2487.30	361.7892
20 minute	1200	48.10	601.73	1203.46	1504.33	1805.19	2106.06	2406.92	2707.79	3008.66	3309.52	481.3848
30 minute	1800	37.10	696.18	1392.36	1740.45	2088.54	2436.64	2784.73	3132.82	3480.91	3829.00	556.9452
1 hour	3600	23.80	893.21	1786.43	2233.04	2679.64	3126.25	3572.86	4019.46	4466.07	4912.68	714.5712
2 hour	7200	15.50	1163.43	2326.86	2908.56	3490.29	4072.01	4653.72	5235.44	5817.15	6398.87	930.744
3 hour	10800	12.20	1373.60	2747.20	3434.00	4120.79	4807.59	5494.39	6181.19	6867.99	7554.79	1098.8784
6 hour	21600	8.14	1832.97	3665.93	4582.41	5498.90	6415.38	7331.86	8248.34	9164.83	10081.31	1466.37216
12 hour	43200	5.38	2422.94	4845.87	6057.34	7268.81	8480.28	9691.75	10903.22	12114.68	13326.15	1938.34944
24 hour	86400	3.43	3089.47	6178.94	7723.67	9268.41	10813.14	12357.88	13902.61	15447.35	16992.08	2471.57568
48 hour	172800	2.09	3765.01	7530.02	9412.52	11295.03	13177.53	15060.04	16942.54	18825.05	20707.55	3012.00768
72 hour	259200	1.54	4161.33	8322.65	10403.32	12483.98	14564.64	16645.31	18725.97	20806.63	22887.30	3329.06112

		Duration (sec)	Infiltration (L/m2)	Chosen storm volume L		Trench infiltration in L (volume -area shown - based upon standard trench 0.6m x 0.6m with 40% voids)						
				40m2 gravel	500L - 2.1 m2	725L - 3.125 m2	1000L - 4.2 m2	1500L - 6.25 m2	2000L - 8.35 m2	2500L- 10.45 m2	3000L- 12.5 m2	3500L - 14.6 m2
		300	2.60	249.2	5.5	8.1	10.9	16.3	21.7	27.2	32.6	38.0
Ksat (mm/hr)	31.25	360	3.13	278.3	6.6	9.8	13.1	19.5	26.1	32.7	39.1	45.6
Ksat (mm/sec)	0.00868	600	5.21	361.8	10.9	16.3	21.9	32.6	43.5	54.4	65.1	76.0
		1200	10.42	481.4	21.9	32.6	43.8	65.1	87.0	108.9	130.2	152.1
		1800	15.63	556.9	32.8	48.8	65.6	97.7	130.5	163.3	195.3	228.1
		3600	31.25	714.6	65.6	97.7	131.3	195.3	260.9	326.6	390.6	456.3
		7200	62.50	930.7	131.3	195.3	262.5	390.6	521.9	653.1	781.3	912.5
		10800	93.75	1098.9	196.9	293.0	393.8	585.9	782.8	979.7	1171.9	1368.8
		21600	187.50	1466.4	393.8	585.9	787.5	1171.9	1565.6	1959.4	2343.8	2737.5
		43200	375.00	1938.3	787.5	1171.9	1575.0	2343.8	3131.3	3918.8	4687.5	5475.0
		86400	750.00	2471.6	1575.0	2343.8	3150.0	4687.5	6262.5	7837.5	9375.0	10950.0
		172800	1500.00	3012.0	3150.0	4687.5	6300.0	9375.0	12525.0	15675.0	18750.0	21900.0
		259200	2250.00	3329.1	4725.0	7031.3	9450.0	14062.5	18787.5	23512.5	28125.0	32850.0
				adjusted based upon infiltration and storm duration								
	Minimum trenc	5 minute event		500L		2.1m2 trench						
	Maximum trenc	72 hour event		1000L		4.2m2 trench						

E7.7.1 Stormwater Drainage and Disposal

Acceptable Solution	Performance Criteria	Comments
A1 Stormwater from new impervious surfaces must be disposed of by gravity to public stormwater infrastructure.	**P1** Stormwater from new impervious surfaces must be managed by any of the following: a) disposed of on-site with soakage devices having regard to the suitability of the site, the system design and water sensitive urban design principles b) collected for re-use on the site; c) disposed of to public stormwater infrastructure via a pump system which is designed, maintained and managed to minimise the risk of failure to the satisfaction of the Council	No public stormwater infrastructure is available. Stormwater retention will comply with P1(a)
A2 A stormwater system for a new development must incorporate water sensitive urban design principles [R1] for the treatment and disposal of stormwater if any of the following apply: a) the size of new impervious area is more than 600 m^2 b) new car parking is provided for more than 6 cars; c) A subdivision is for more than 5 lots	**P2** A stormwater system for a new development must incorporate a stormwater drainage system of a size and design sufficient to achieve the stormwater quality and quantity targets in accordance with the State Stormwater Strategy 2010, as detailed in Table E7.1 unless it is not feasible to do so.	The size and design of stormwater retention system is in accordance with the State Stormwater Strategy 2010

A3 A minor stormwater drainage system must be designed to comply with all of the following: a) be able to accommodate a storm with an ARI of 20 years in the case of non-industrial zoned land and an ARI of 50 years in the case of industrial zoned land, when the land serviced by the system is fully developed; b) stormwater runoff will be no greater than pre-existing runoff or any increase can be accommodated within existing or upgraded public stormwater infrastructure	**P3** No Performance Criteria.	Stormwater retention has been sized to accommodate a storm with an ARI of 20 years
A4 A major stormwater drainage system must be designed to accommodate a storm with an ARI of 100 years.	**P4** No Performance Criteria.	N/A



SITE PLAN
SCALE 1:1000

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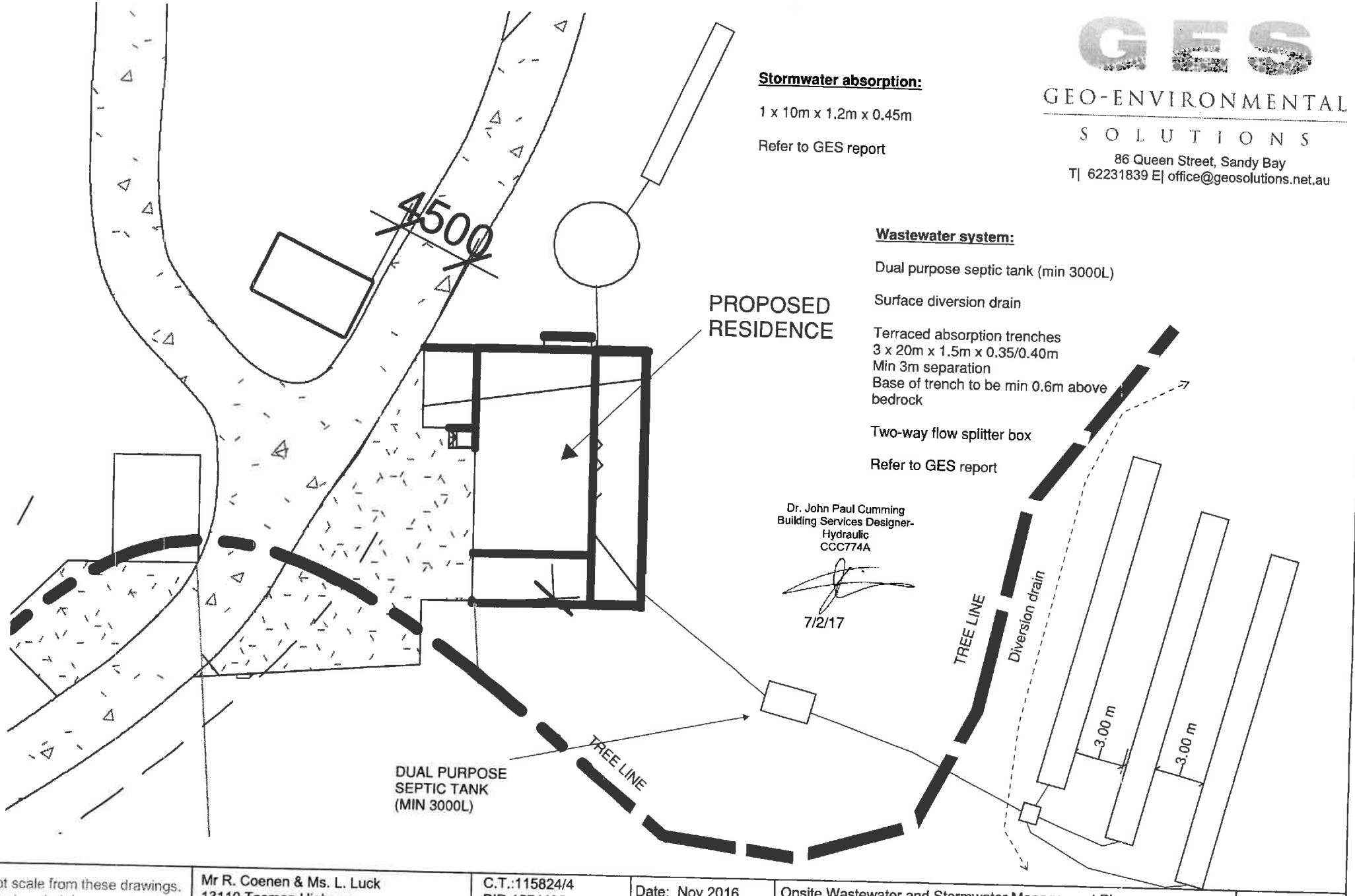
Do not scale from these drawings. Dimensions to take precedence over scale.	Mr R. Coenen & Ms. L. Luck 13110 Tasman Highway SWANSEA 7190	C.T.:115824/4 PID:1574129	Date: Nov 2016 Updated: 7/2/17 Updated: 27/03/17 Updated:20/04/17	Onsite Wastewater and Stormwater Management Plan 13110 Tasman Highway, Swansea	Sheet 1 of 3 Drawn by SR



Stormwater absorption:

1 x 10m x 1.2m x 0.45m

Refer to GES report

Wastewater system:

Dual purpose septic tank (min 3000L)

Surface diversion drain

Terraced absorption trenches
3 x 20m x 1.5m x 0.35/0.40m
Min 3m separation
Base of trench to be min 0.6m above bedrock

Two-way flow splitter box

Refer to GES report

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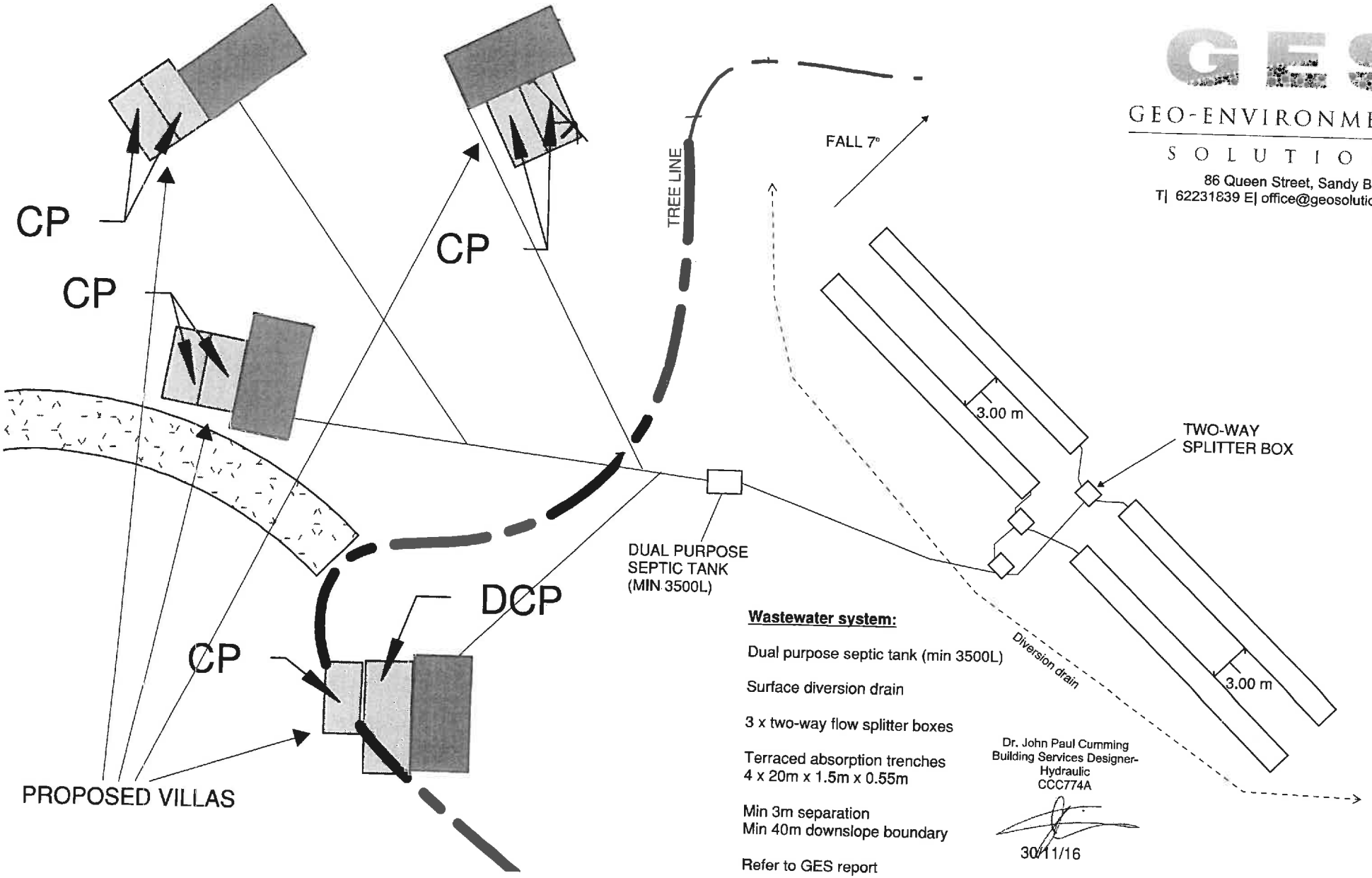

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Wastewater system:

Dual purpose septic tank (min 3500L)

Surface diversion drain

3 x two-way flow splitter boxes

Terraced absorption trenches
4 x 20m x 1.5m x 0.55m

Min 3m separation
Min 40m downslope boundary

Refer to GES report

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Do not scale from these drawings. Dimensions to take precedence over scale.	Mr R. Coenen & Ms. L. Luck 13110 Tasman Highway SWANSEA 7190	C.T.:115824/4 PID:1574129	Date: Nov 2016	Onsite Wastewater and Stormwater Management Plan Proposed Villa Detail 13110 Tasman Highway, Swansea	Sheet 3 of 3 Drawn by SR

Design notes:

1. Absorption trench dimensions of up to 20m long by 0.50m deep by 1.2 m wide – total storage volume calculated at average 35% porosity.
2. Base of trenches to be excavated level and smearing and compaction avoided.
3. 90-100mm slotted pipe should be placed in the top 100mm of the 20mm aggregate
4. Geotextile or filter cloth to be placed over the pipe to prevent clogging of the pipes and aggregate
5. Construction on slopes up to 20% to allow trench depth range 600mm upslope edge to 400mm on down slope edge.
6. All works on site to comply with AS3500 and Tasmanian Plumbing code.

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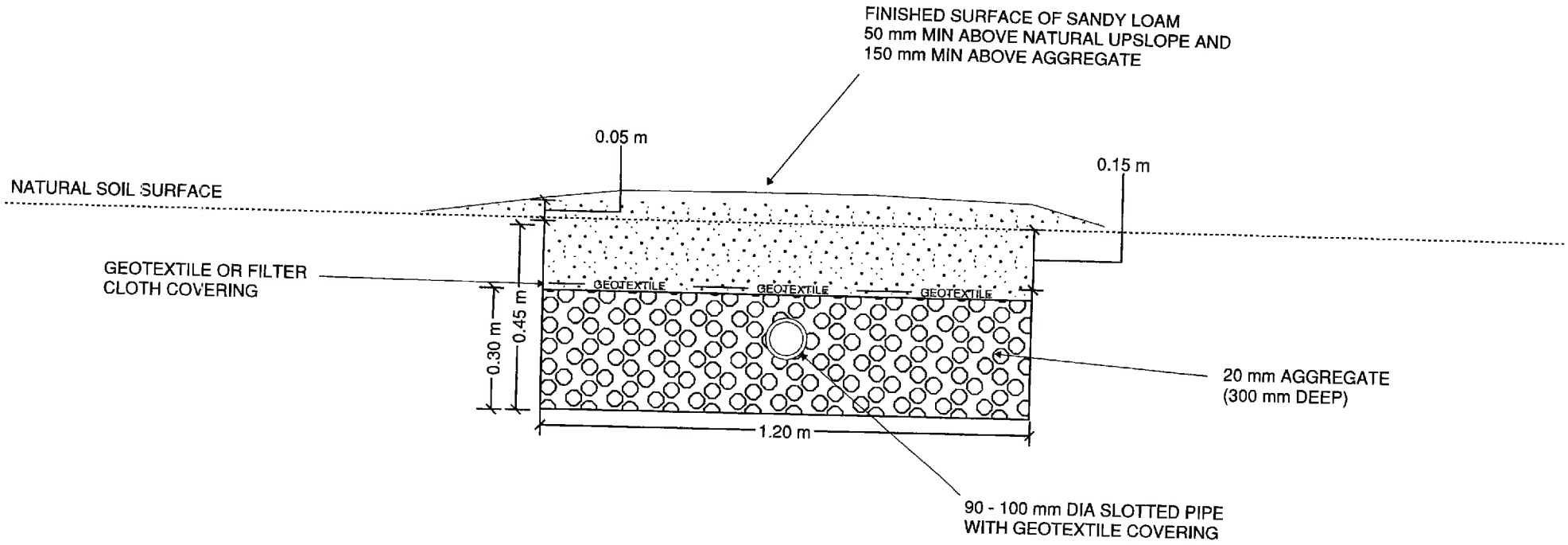

Do not scale from these drawings. Dimensions to take precedence over scale.	Geo-Environmental Solutions		Date: Nov 2016	Terraced Stormwater Trench Detail	Sheet 1 of 1

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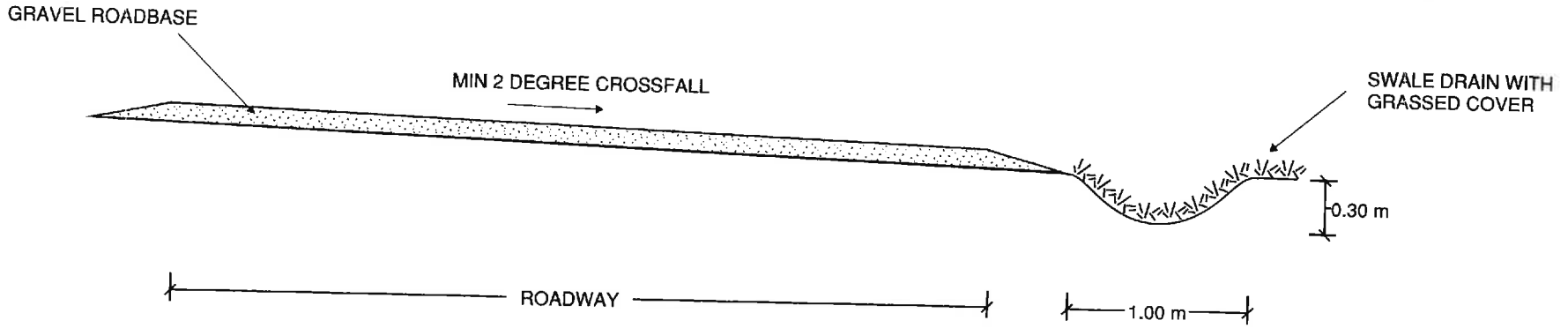
TYPICAL GRASSED SWALE DRAIN CROSS-SECTION

GRAVEL ROAD TO BE CONSTRUCTED WITH CROSS-FALL (MIN 2 DEGREE)

SWALE DRAIN TO BE MIN 1M WIDE BY MIN 0.3M DEEP

GRASS COVER TO BE MAINTAINED TO SLOW WATER FLOW AND MINIMSE EROSION



Do not scale from these drawings. Dimensions to take precedence over scale.	Geo-Environmental Solutions		Date: Nov 2016	Grassed swale drain typical cross-section	Sheet 1 of 1 Drawn by SR

GEO-ENVIRONMENTAL ASSESSMENT

Lot 4 Tasman Highway (CT 115824/4)

Swansea

July 2015

Updated February 2017

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Geo-Environmental Solutions P/L 86 Queen Street Sandy Bay 7005. Ph 6223 1639 Fax 6223 4539

Introduction

Client:	Ron Coenen and Louise Luck
Date of inspection:	26/6/2015
Location:	Lot 4 Tasman Highway, Swansea
Land description:	Approx 5.139 Ha residential lot
Building type:	Proposed new dwelling
Investigation:	Geo-Probe 540ud
Inspected by:	A. Plummer

Background information

Map:	Mineral Resources Tasmania, SE Tasmania Sheet 1: 250 000
Rock type:	Jurassic Dolerite
Soil depth:	0.25 – 0.70 m
Landslide zoning:	None known
Local meteorology:	Annual rainfall approx 629 mm
Local services:	Mains water and onsite waste water required

Site conditions

Slope and aspect:	Gentle 1 – 3% to moderate 16 – 18% slope to the East
Site drainage:	Surface drainage is good, and subsoil drainage moderate
Vegetation:	Mixed natives
Weather conditions:	Fine, approx 14mm rainfall received in preceding 7 days.
Ground surface:	Moist surface conditions

Investigation

A number of auger holes were completed to identify the distribution of, and variation in soil materials on the site. Two representative auger holes drilled at the approximate locations indicated in figure 1 were chosen for testing and classification according to AS2870-2011 and AS1547-2012 (see profile summary).

Profile summary

Hole 1 Depth (m)	Hole 2 Depth (m)	Horizon	Description
0 – 0.20	0 – 0.10	A1	Strong Brown **Clayey SAND (SC),** massive, moist medium dense consistency, ~ 30% gravels, common rocks, gradual boundary to
	0.10 – 0.60	B2	Dark Olive Brown **CLAY (CH),** strong polyhedral structure, moist stiff consistency, high plasticity, ~ 10% gravels increasing with depth, gradual boundary to
0.20 – 0.25	0.60 – 0.70	BC	Yellowish Brown and Grey **Sandy GRAVELS (GW),** dry hard consistency, refusal on bedrock

Soil profile notes

The soils are shallow stony clays and gravels over weathered dolerite. The clay fraction will experience a moderate degree of movement with fluctuations in soil moisture and it is recommended that foundations be placed onto bedrock.

Site Classification

According to AS2870-2011 (construction) the natural soil is classified as **Class M,** that is moderately reactive clay.

Wind Classification

The AS 4055-2012 *Wind load for Housing* classification of the site is:

Region:	**A**
Terrain category:	**TC2.5**
Shielding Classification:	**NS**
Topographic Classification:	**T1**
Wind Classification:	**N2**
Design Wind Gust Speed ($V_{h,u}$)	**40 m/sec**

Wastewater recommendations

According to AS1547-2012 for on-site wastewater management the soil on the property is classified as **clay loam (category 4).** The presence of gravels/rocks in the well-structured subsoil improves permeability. Therefore, based upon a water deficit of 463 mm/yr calculated from the water balance model in Trench, a moderate DLR of 10L/m^2/day or a DIR of 3.5mm/day has been adopted (refer to attached report).

Due to the shallow stony soils, if a septic tank is the preferred option then modified raised beds may be installed.

The proposal is to construct a two bedroom dwelling with additional one bedroom annex with a total waste water loading according to AS1547-2012 of 900L/day (6 persons @ 150L/day – mains water). Based upon a DLR of 10L/m^2/day for a septic system, with a minimum 3000L septic tank, an absorption area of 90m^2 is required. This may be installed as three 20m x 1.5m x 0.35/0.40m modified terraced trenches, with either a soil batter or retaining walls required. The trenches should be located across the contour on site and a three-way flow splitter box must be installed to evenly divert flows between each trench (Please refer to attached designs). A 100% Reserve area must also be set aside for future wastewater requirements.

Alternatively, a packaged treatment system with a waste water loading according to AS1547-2012 of 900L/day and a DIR of 3.5mm/m^2/day then an irrigation area of 260m^2 is required. This may be installed as surface irrigation onto landscaped garden beds.

Compliance with *Building Act 2016 Guidelines for On-site Wastewater Disposal Compliance* is outlined in the attached table.

Construction recommendations

The natural soil is classified as **Class M**, which is a moderately reactive clay site. All earthworks on site must comply with AS3798-2007. Consideration should also be given to drainage and sediment control on site during and after construction.

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

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD
Environmental and Engineering Soil Scientist

GES

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 Ron Coenen and Louise Luck

Assessed site(s) Lot 4 Tasman Highway, Swansea

Local authority Glamorgan Spring Bay

Assess. Date 7-Feb-17

Ref. No.

Site(s) inspected 26-Jun-15

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 = 900 (using the 'No. of bedrooms in a dwelling' method)

Septic tank wastewater volume (L/day) = 300

Sullage volume (L/day) = 600

Total nitrogen (kg/year) generated by wastewater = 4.8

Total phosphorus (kg/year) generated by wastewater = 2.2

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)	41	36	36	47	44	48	48	47	49	55	47	49
Adopted rainfall (R, mm)	41	36	36	45	36	29	46	47	40	48	44	56
Retained rain (Rr, mm)	33	29	29	36	29	23	37	38	32	38	35	45
Max. daily temp. (deg. C)												
Evapotrans (ET, mm)	130	110	91	63	42	29	32	42	63	84	105	126
Evapotr. less rain (mm)	97	81	62	27	13	6	-5	4	31	46	70	81

Annual evapotranspiration less retained rain (mm) = 514

Soil characterisitics

Texture = CLAY LOAM

Adopted permeability (m/day) = 0.5

Category = 4 Thick. (m) = 0.7

Adopted LTAR (L/sq m/day) = 10 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 dual purpose septic tank(s)

The preferred method of on-site secondary treatment: In-ground

The preferred type of in-ground secondary treatment: Trench(es)

The preferred type of above-ground secondary treatment: None

Site modifications or specific designs: Are needed

Suggested dimensions for on-site secondary treatment system

Total length (m) = 60

Width (m) = 1.5

Depth (m) = 0.5

Total disposal area (sq m) required = 90

comprising a Primary Area (sq m) of: 90

and a Secondary (backup) Area (sq m) of:

Sufficient area is available on site

To enter comments, click on the line below 'Comments'. (This yellow -shaded box and the buttons on this page will not be printed.)

Comments

Calculated DLR for the soil for wastewater is 10 L per day, with a required absorption area of 90 sq m required for a septic tank. Alternatively, with a DIR of 3.5mm/sq m/day, an AWTS will require 260 sq m of irrigation.

GES

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 Ron Coenen and Louise Luck

Assessed site(s) Lot 4 Tasman Highway, Swansea

Local authority Glamorgan Spring Bay

Assess. Date 7-Feb-17

Ref. No.

Site(s) inspected 26-Jun-15

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 Trench	Limitation Amended	Remarks
	Expected design area	sq m	1,000	V. high	Moderate		
	Density of disposal systems	/sq km	5	High	Very low		
	Slope angle	degrees	9	V. high	Moderate		
	Slope form	Convex spreading		V. high	Very low		
	Surface drainage	Mod. good		High	Low		
	Flood potential	Site floods <1:100 yrs		High	Very low		
	Heavy rain events	Infrequent		High	Moderate		
	Aspect (Southern hemi.)	Faces E or W		V. high	Moderate		
	Frequency of strong winds	Common		High	Low		
A	Wastewater volume	L/day	900	High	High		
	SAR of septic tank effluent		1.7	Mod.	Low		
	SAR of sullage		2.1	Mod.	Moderate		
	Soil thickness	m	0.7	V. high	Low		
AA	Depth to bedrock	m	0.7	High	Very high		
	Surface rock outcrop	%	0	High	Very low		
	Cobbles in soil	%	10	High	Low		
	Soil pH		6.0	High	Low		
	Soil bulk density	gm/cub. cm	1.5	High	Low		
	Soil dispersion	Emerson No.	8	V. high	Very low		
	Adopted permeability	m/day	0.5	High	Moderate		
	Long Term Accept. Rate	L/day/sq m	10	High	Low	Moderate	

To enter comments, click on the line below 'Comments'. (This yellow-shaded box and the buttons on this page will not be printed.)

The soils on site have good structure and a moderate CEC to retain nutrients on site. The site should easily accept the wastewater loading calculated.

GES

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 Ron Coenen and Louise Luck

Assessed site(s) Lot 4 Tasman Highway, Swansea

Local authority Glamorgan Spring Bay

Assess. Date 7-Feb-17

Ref. No.

Site(s) inspected 26-Jun-15

Assessed by John Paul Cumming

This report summarises data relating to the environmental sensitivity of the assessed site(s) in relation to applied wastewater. Physica 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	105	High	Very low		
	Phos. adsorp. capacity	kg/cub m	0.7	Mod.	Moderate		
	Annual rainfall excess	mm	-514	High	Very low		
	Min. depth to water table	m	5	High	Very low		
	Annual nutrient load	kg	7.0	High	Low		
	G'water environ. value	Agric non-sensit		High	Low		
	Min. separation dist. required	m	10	High	Low		
	Risk to adjacent bores	Very low		High	Very low		
A	Surf. water env. value	Recreational		High	High		
	Dist. to nearest surface water	m	700	High	Very low		
	Dist. to nearest other feature	m	50	V. high	Moderate		
	Risk of slope instability	Low		High	Low		
	Distance to landslip	m	5000	Mod.	Very low		

To enter comments, click on the line below 'Comments'. (This yellow-shaded box and the buttons on this page will not be printed.)

The soils have a high CEC for absorption of nutrients and have good capacity to accept wastewater flows.

Demonstration of wastewater system compliance to *Building Act 2016 Guidelines for On-site Wastewater Disposal*

Acceptable Solutions	**Performance Criteria**	**Compliance**
A1 Horizontal separation distance from 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 downslope building; (iii) If secondary treated effluent and subsurface application, no less than 2m plus 0.25m for every degree of average gradient from a downslope building.	P1 a) The land application area is located so that the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.	Complies with A1 (b) (i) Land application area will be located downslope of proposed building with minimum separation distance of 3m.
A2 Horizontal separation distance from downslope 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 every degree of average gradient to downslope 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.	P2 Horizontal separation distance from downslope surface water to a land application area must comply with all of the following: a) Setbacks must be consistent with AS/NZS 1547 Appendix R; b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Complies with A2 (a) Land application area located > 100m from downslope surface water

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 from 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/NZS 1547 has been completed that demonstrates that the risk is acceptable.	Complies with A3 (a) Land application area located no less than 40m from downslope boundary Complies with A2 (b) (i) Land application area will be located with a minimum separation distance of 1.5m from an upslope or level property boundary Complies with A2 (b) (ii) Land application area will be located with a minimum separation distance of 15m of downslope property boundary (14m required)
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 (b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable	Complies with A4 No bore or well identified within 50m

A5 Vertical separation distance between 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	Complies with A5 (a)
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) 0.5m if secondary treated effluent	P6 Vertical setback must be consistent with AS/NZS1547 Appendix R.	Complies with A6 (a)
A7 nil	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	Complies

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AS1547:2012 – Loading Certificate – Septic System Design

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

Site Address: Lot 4 Tasman Highway, Swansea

System Capacity: 6 persons @ 150L/person/day

Summary of Design Criteria

DLR: 10L/m^2/day.

Absorption area: 90m^2

Reserve area location /use: Not assigned – more than 100% available

Water saving features fitted: Standard fixtures

Allowable variation from design flows: 1 event @ 200% daily loading per quarter

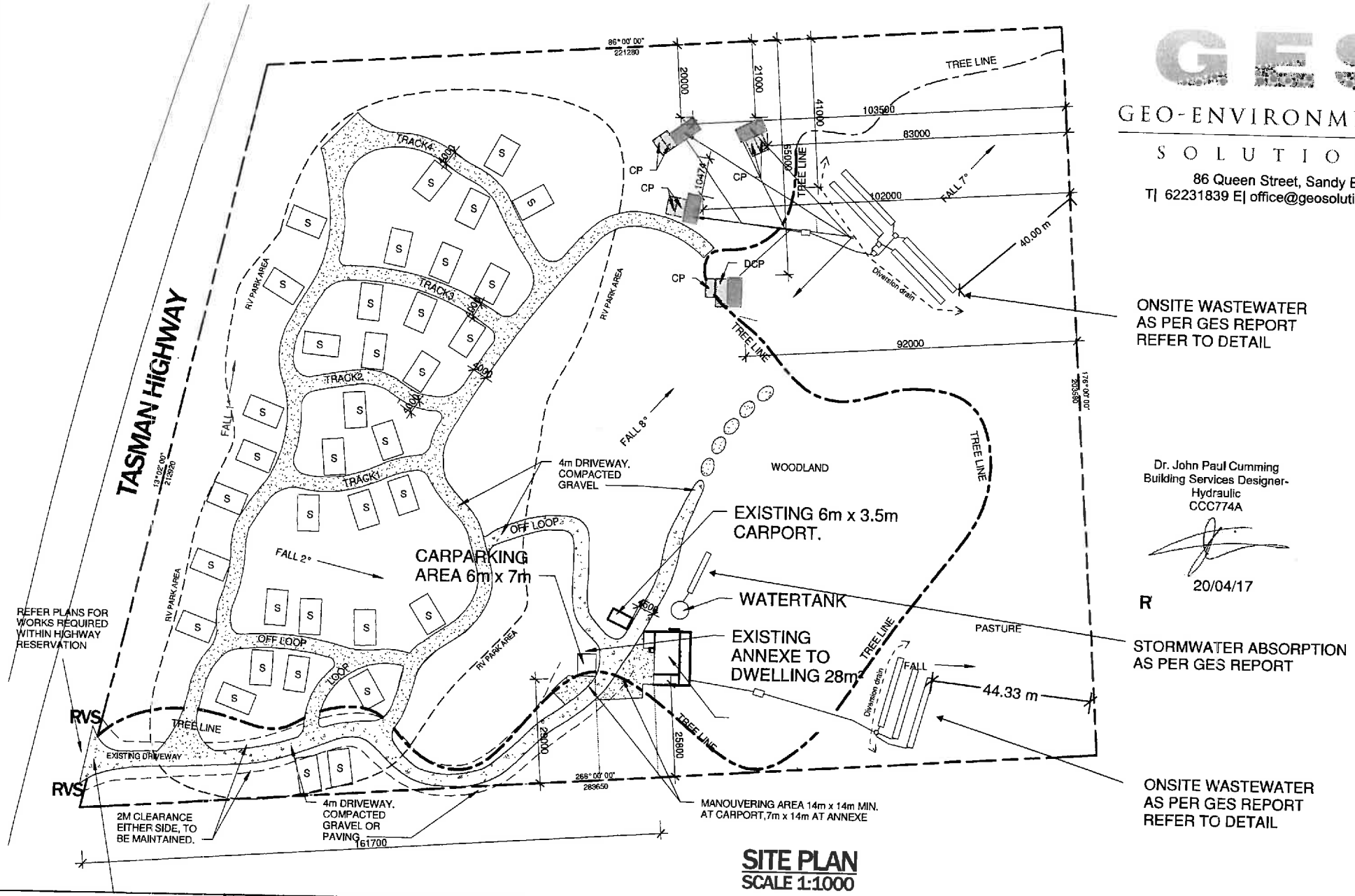
Typical loading change consequences: Expected to be minimal due to capacity of system and site area (provided loading changes within 25% of design)

Overloading consequences: Continued overloading may cause hydraulic failure of the absorption area and require upgrading/extension of the area. Risk considered acceptable due to visible signs of overloading and owner monitoring.

Underloading consequences: Lower than expected flows will have minimal consequences on system operation unless the house has long periods of non occupation. Under such circumstances additional maintenance of the system may be required. Risk considered acceptable.

Lack of maintenance / monitoring consequences: Issues of underloading/overloading and condition of the absorption area require monitoring and maintenance, if not completed system failure may result in unacceptable health and environmental risks. Septic tank de-sludging must also be monitored to prevent excessive sludge and scum accumulation. Monitoring and regulation by the property owner required to ensure compliance.

Other operational considerations: Owners/occupiers must be aware of the operational requirements and limitations of the system, including the following; the absorption area must not be subject to traffic by vehicles or heavy stock and should be fenced if required. The absorption area must be kept with adequate grass cover to assist in evapotranspiration of treated effluent in the absorption trenches. The septic tank must be desludged at least every 3 years, and any other infrastructure such as septic tank outlet filters must also be cleaned regularly (approx. every 6 months depending upon usage). Foreign materials such as rubbish and solid waste must be kept out of the system.



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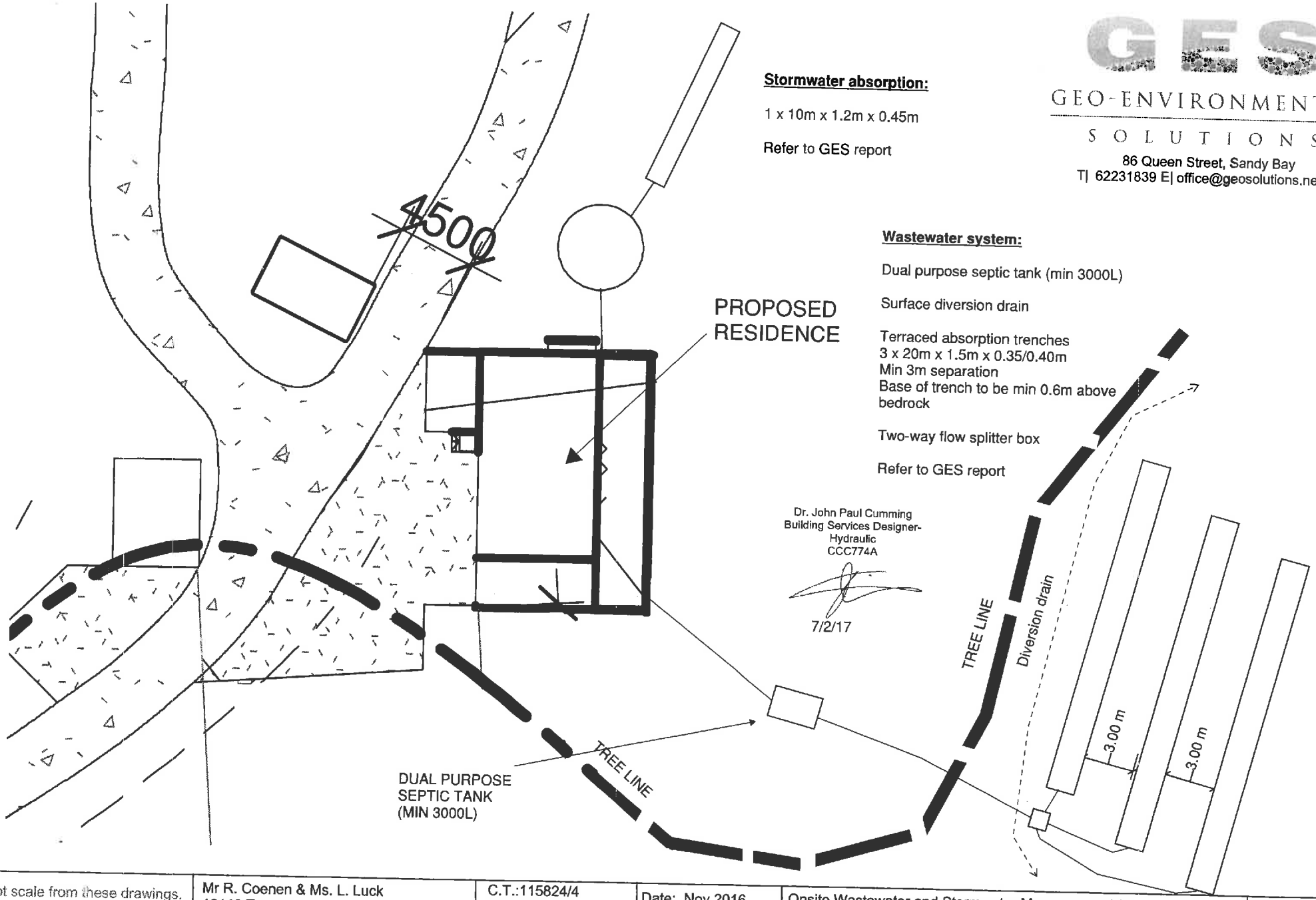

Stormwater absorption:

1 x 10m x 1.2m x 0.45m

Refer to GES report

Wastewater system:

Dual purpose septic tank (min 3000L)

Surface diversion drain

Terraced absorption trenches
3 x 20m x 1.5m x 0.35/0.40m
Min 3m separation
Base of trench to be min 0.6m above bedrock

Two-way flow splitter box

Refer to GES report

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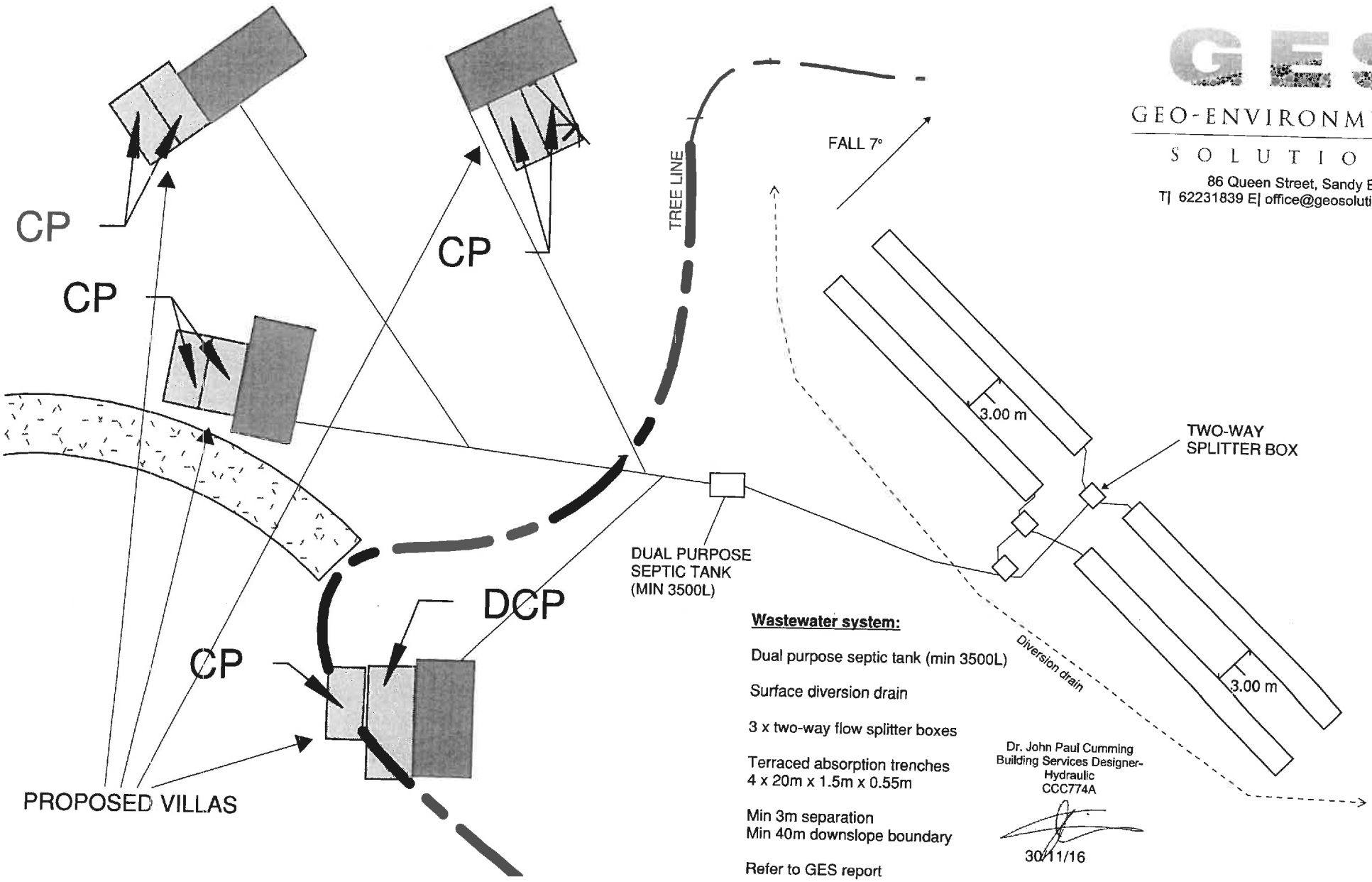

Wastewater system:

Dual purpose septic tank (min 3500L)

Surface diversion drain

3 x two-way flow splitter boxes

Terraced absorption trenches
4 x 20m x 1.5m x 0.55m

Min 3m separation
Min 40m downslope boundary

Refer to GES report

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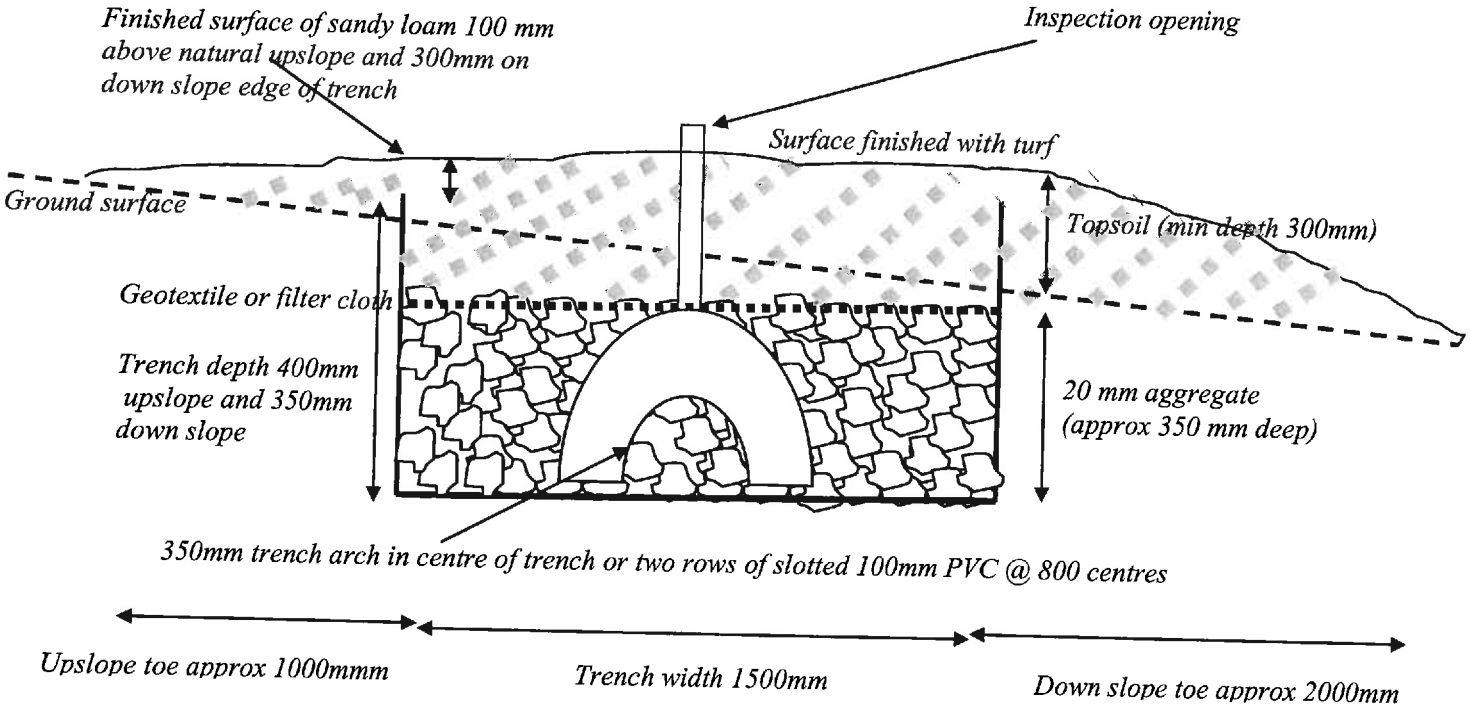
Figure 1 – Terraced Modified Absorption Trench



Design notes:

1. Absorption trench up to 25m long by 0.35-0.40m deep by 1.5m wide.
2. Base of trenches to be excavated level and smearing and compaction avoided.
3. 350mm arch should be placed in centre of trench **or** slotted 100mm PVC pipe @ 800mm centres and covered with aggregate (PVC in top 100mm of aggregate).
4. Geotextile or filter cloth to be placed over the distribution arch/PVC pipes to prevent clogging of the pipes and aggregate – in sand (category 1 soils) the sides of the trench over the aggregate should also be covered.
5. Construction on slopes up to 10% to allow trench depth range approx 400mm upslope edge to 350mm on down slope edge.
6. On slopes up to10% the sandy loam cover should be at least 100mm above natural with a toes no less than 2000mm in length to avoid surface water accumulation (up slope ag drain also recommended to divert surface water flows).
7. All works on site to comply with AS3500 and Tasmanian Plumbing code.

GES
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SOLUTIONS
86 Queen Street, Sandy Bay
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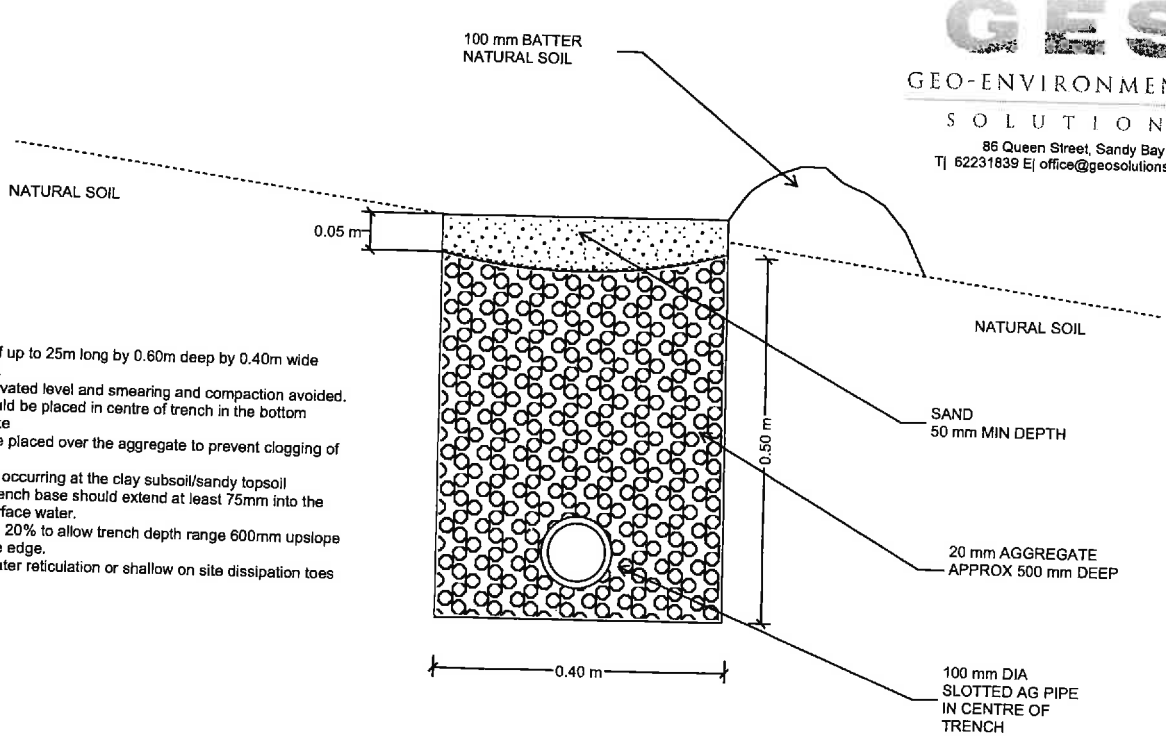


Design notes:

1.Cut-off trench dimensions of up to 25m long by 0.60m deep by 0.40m wide (depths and widths minimum).
2.Base of trenches to be excavated level and smearing and compaction avoided.
3.100mm slotted ag-pipe should be placed in centre of trench in the bottom 100mm of the 20mm aggregate
4.Geotextile or filter cloth to be placed over the aggregate to prevent clogging of the pipes and aggregate
5.If shallow subsurface flow is occurring at the clay subsoil/sandy topsoil boundary (duplex soils), the trench base should extend at least 75mm into the subsoil clay to capture sub-surface water.
6.Construction on slopes up to 20% to allow trench depth range 600mm upslope edge to 400mm on down slope edge.
7.Trench discharge to stormwater reticulation or shallow on site dissipation toes across the contour.

Do not scale from these drawings. Dimensions to take precedence over scale.	Geo-Environmental Solutions		Date: 18/10/2016	Cut-Off Drain Detail	Sheet 1 of 1

GES

GEO-ENVIRONMENTAL

SOLUTIONS

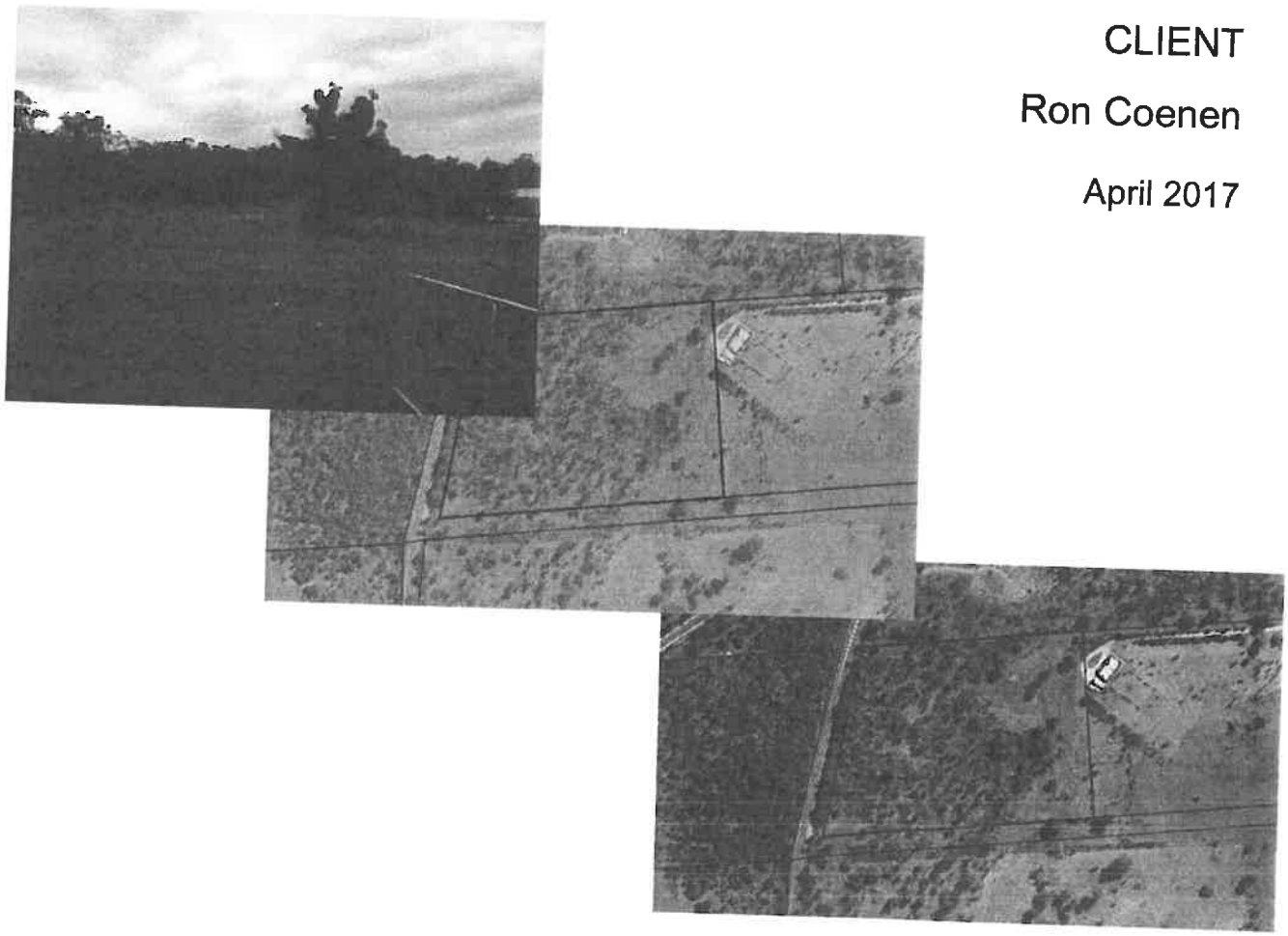
LAND CAPABILITY ASSESSMENT

13110 Tasman highway, Swansea

CLIENT

Ron Coenen

April 2017



Geo-Environmental Solutions P/L 86 Queen Street Sandy Bay 7005. Ph 6223 1839 Fax 6223 4539

1 Founding statement

This assessment report is one of many completed by John Paul Cumming of Geo-Environmental Solutions P/L (GES). John Paul holds a first class honours degree in Agricultural Science (major in soil science) and a PhD in environmental soil chemistry from the University of Tasmania. John Paul has participated in a number of academic and research projects pertaining to soil and environmental management. John Paul has current status as a Stage 2 Certified Professional Soil Scientist from the Australian Society of Soil Science Inc.

John Paul is a graduate member of the Australian Institute of company directors, and a director of Geo-Environmental Solutions P/L (GES). In his role at GES John Paul has completed numerous land capability assessments for Federal, State and Local Government agencies. In addition, over the past twelve years John Paul has completed over 8000 site and soil classifications for residential developments according to AS2870-2011 and AS/NZS1547-2012.

2 Introduction

The proposed site is located Tasman Highway in the locality of Swansea. The total current land area is approximately 5 ha (CT115824/4) and it is proposed to develop a caravan and RV park on the site (please refer to figure 1– site plan).

The land surveyed is a mixture of moderately sloping rural land with an easterly aspect, covered with a mix native bush species and native pasture. The site has no drainage lines, creeks or water storage dams. The site has a good access to the Tasman Highway, and is an un-serviced area.

In its present form the property has native bush mixed with cleared areas that may have been used for low density grazing in the past, however at the time of survey the property was free from stock. It is recommended that a land capability assessment be used as a scientific tool to aid land use planning, rather than the historical straight lines of titles on the landscape. It is thus the scope of this report to consider the capability of the land to support agricultural production or alternative land uses. It is not the aim of this report to address complex planning issues, but rather to use a scientific framework to classify the biophysical features of the land in the context of possible land use.

3 Planning context

The land area proposed for boundary adjustment falls within Rural Resource Zone as defined by the Glamorgan Spring Bay Interim Planning scheme of 2015.

Rural zone

Whilst the study area appears to fall within the rural resource zone, the somewhat poor soil quality, often shallow, stony soils, and climate limit the economic and environmental sustainability of the land for agricultural production. Further, it is likely that any further land clearing and intensive agricultural activity on much of the land would result in land degradation due to poor soil structural properties.

4 Legislative context

The State Policy on the Protection of Agricultural Land 2009 has two objectives:

To enable the sustainable development of agriculture by minimising:

(a) Conflict with or interference from other land uses; and
(b) Non-agricultural use or development on agricultural land that precludes the return of that land to agricultural use

One of the essential aims of the policy is to protect prime agricultural land (Class 1-3) for future use without conflict with competing and neighbouring land uses. It is also a key aim of the policy to allow greater certainty in planning decisions involving agricultural land by utilising established principles of land capability assessment to classify land.

Therefore, central to good environmental planning should be the recognition of different land capability classes when assigning development standards to preserve any productive land contained on the property for agriculture. In addition, land capability planning should also aim to preserve land based upon environmental values such as remnant bush on areas of steeper slopes where agricultural or residential development would be difficult. This approach would be consistent with both the objectives of the State policy on the protection of agricultural land and principles environmental planning.

The protection of agricultural land policy goes on to list a number of principles that are designed to guide outcomes of the policy. In particular, the policy aims to protect prime agricultural land, which as defined as *land classified as or capable of being classified as class 1, 2 or 3 land using the class definitions and methodology from the land capability handbook (Noble 1992).*

It is clear from the land capability assessment undertaken in section 6 and the prior 1:100 000 scale mapping of Musk & De Rose (2000) that the land examined herein is not prime agricultural land. In fact, when assessed according to the guidelines of Grose (1999) the land is predominantly class 6 land which is marginal agricultural land only suitable for limited grazing with moderate to severe limitations. A very small strip of land on the western boundary of the property is mapped as class 5, however based upon field survey this land is also class 6 like the majority of the property. A small strip of land on the flatter area of the property on the eastern boundary is also mapped as class 4 land.

The Glamorgan Spring Bay Interim Planning Scheme 2015 has certain stipulations when considering the subdivision of land that is zoned Rural.

26.3.3 Discretionary use in the Rural resource zone

Objective: To ensure that discretionary non-agricultural uses do not unreasonably confine or restrain the agricultural use of agricultural land.

There is no acceptable solution such that all applications must satisfy performance criteria P1.

Discretionary non-agricultural use must not conflict with or fetter agricultural use on the site or adjoining land having regard to all of the following:

(a) the characteristics of the proposed non-agricultural use;

(b) the characteristics of the existing or likely agricultural use;

(c) setback to site boundaries and separation distance between the proposed non-agricultural use and existing or likely agricultural use;

(d) any characteristics of the site and adjoining land that would buffer the proposed non-agricultural use from the adverse impacts on amenity from existing or likely agricultural use.

The proposal is for a visitor accommodation development of accommodation cabins and RV parking sites. The development plans indicate a number of scattered sites throughout the vegetation on the site. The current land use is not agricultural due to the poor quality of the land, therefore the proposed development will not fetter existing agricultural use on the site. The existing land use on adjacent properties to the north, east, and west appears to be residential, with dwellings on the majority of the adjacent small titles. Therefore, it is highly unlikely that any significant agricultural land use is occurring or will occur on the class 5 & 6 land to the north, west, or east of the site due to the small title sizes and existing capital investment in housing. The only land of possible significance for agriculture is the larger tile to the south of the property which is afforded a 20m buffer by a roadway from the subject site. It is concluded that the proposal has a very low potential to fetter possible agricultural land use on the subject property and adjacent properties.

5 Site information

Site information pertaining to the capability of the land to support economically and environmentally sustainable agricultural production without causing environmental harm was collected from desktop and field survey.

Geology

The study area falls within the Reconnaissance Soil Map Series of Tasmania 1:100 000 mapping sheet for Buckland, which indicates the area is underlain by Jurassic Dolerite.

Field inspection revealed that Dolerite is the dominant rock type, with typically shallow and stony soils across most of the site, and slightly deeper profiles in the lower lying areas.

Soil distribution

The soils found on the property show a close correlation with underlying geological material, and are therefore classified according to geological association (eg duplex soils on dolerite). The major soil types examined on the property described have been

integrated into the land capability framework which classifies land according to its ability to support agricultural production without environmental harm. The soils on dolerite are characterised by shallow duplex profiles overlying rock, with a significant content of stones and shallow topsoils. The soils on dolerite are likely to be unsuitable for conventional cropping, but would be suitable for perennial horticulture such as viticulture if irrigation resources and infrastructure would be available.

Climate summary

The property has an approximate 30 year average rainfall of 600 mm and as such falls within a low rainfall district as classified by the Department of Primary Industries Water and Environment (2003). Climate averages for Swansea Weather Station can be found in appendix 3.

Long term climate averages indicate that greater than 20 days per annum have a minimum temperature below 2° C, thereby greatly limiting the range of potential crops that may be grown in the winter months. In addition, the low rainfall (approximately 600 mm/year) excludes intensive cropping activities unless reliable reticulated irrigation water was available. At the time of inspection no significant water storage was available on the property, and there is no irrigation scheme or district within the vicinity of the property. Therefore, any future conversion to irrigated production would require significant capital investment in water storage.

Based upon the poor soil quality, pasture growth at the site is likely to be poor and dominated by native species with low dry matter production. Therefore, the climate averages and soil investigation suggest that agricultural activity on the property is likely to be very limited.

6 Agricultural Land Capability Assessment

Agricultural Land Capability assessment has been developed in Tasmania by the Department of Primary Industries Water and Environment according to the guidelines described in Grose (1999). The system uses a rating system of 7 classes to classify land according to the ability of the land to sustain a range of agricultural uses without land degradation. Agricultural land capability is generally based upon the permanent biophysical features of the land such as geology, soils, slope, climate, erosion hazard etc and does not include economic or social factors.

The agricultural land capability system in Tasmania utilizes a hierarchical framework of 7 classes which describe the degree of limitation from little to no limitations in class 1, to extreme limitations in class 7. Subclasses then describe the dominant limitation(s) within the class, i.e. erosion, wetness, soils, and climate.

Land classified as class 1-4 is generally suitable for cropping activities subject to the limitations of each class, class 5 & 6 land is generally suitable only for grazing with careful management, and class 7 land is unsuitable for agricultural use (Noble 1992). According to the State Policy on the Protection of Agricultural Land 2000 land classified as class 1, 2 and 3 is defined as prime agricultural land.

Agricultural Land Capability Summary

The land contained within the study area was the subject of a site specific land capability assessment according to the methodology of the land capability handbook of Grose (1999). Reference was also paid to the published 1:100 000 land capability series for the Buckland Sheet (Lynch, Grose & Kidd 2002) which indicated predominantly 6 land (see appendix 4).

In depth field survey was also undertaken to classify soil types on the property, geology, slope angle, topography and microclimate. In addition, reference was made to published climate averages available (appendix 3) to evaluate possible agriculture production scenarios.

The land area surveyed is classified as substantially **Class 6** for agricultural use.

Class 6 is defined as "*Land marginally suitable for grazing because of severe limitations. This land has low productivity, high risk of erosion, low natural fertility, or other limitations that severely restrict agricultural use*".

Much of the land not cleared features shallow rocky soils on moderate slopes, (figure 6.1). Therefore, the agricultural capability of the land is low and is limited by; shallow soil depth, moderate slopes, and poor soil conditions. The low inherent land quality combined with local climatic conditions imposes severe limitations to agricultural production on the land i.e. Class 6 agricultural land capability.

Figure 6.1 – Class 6 land limited by high stone content and poor soil quality.

Land capability mapping indicates that much of the surrounding land is classified as class 6 land, such that there is a low potential for any fettering of adjacent land use. The remainder of the property is classified as Class 5 agricultural land.

Class 5 is defined as "*Land with slight to moderate limitations for pastoral use. This land is unsuitable for cropping, although some areas on easier slopes may be cultivated for pasture establishment or renewal. The effects of limitations on the grazing potential may be reduced by applying appropriate soil conservation measures and land management practices*".

The areas surveyed would be suitable for low density stocking, consistent with land use in the local area and the apparent land use history of the property. The main limitation to agriculture on the class 5 land is the shallow stony nature of the soils, and poor subsoil drainage (see profile description in appendix 1). The heavy clay subsoils impart imperfect drainage, with poor surface structural properties for cultivation and plant growth.

Figure 6.2 – Class 5 land on lower elevations limited by soil quality, climate, and adjacent dwelling which currently fetters any agricultural use

7 Conclusions

- The property is classified as predominantly class 5 and class 6 land for agricultural use.
- Therefore, none of the land examined is prime agricultural land as defined under the State Protection of Agricultural land Policy.
- Therefore, the agricultural land examined is generally low quality agricultural land suitable for grazing with specific management of the landscape restraints identified
- The surrounding land is also classified as predominantly class 6 land such that there is a low likelihood of any fettering of adjacent agricultural activities
- The class 4 land to the south is separated by a 20m roadway and vegetation such that the potential for fettering of agricultural use on that land is low
- The existing land tiles to the North, west and east are all relatively small titles currently used for rural residential development, therefore there is very low potential for agricultural use on the current property or those surrounding properties
- Therefore, the current proposal would not be in contravention of the State Protection of Agricultural land Policy
- Therefore, compliance with the development standards of the planning scheme is achievable due to the poor quality of the land and the lack of any likely impact upon agricultural production
- Likewise, detailed management prescriptions for the land are not required as aprt of the proposal due to the poor quality of the land and lack of an identifiable significant agricultural use

In conclusion, it is my opinion that the land examined does not constitute prime or significant agricultural land and the current proposal would not be in contravention of the State Protection of Agricultural land Policy or the Glamorgan Spring Bay Interim Planning Scheme 2015.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD
Environmental and Engineering Soil Scientist

8 References

Grose C (1999). Land Capability Survey Handbook. Department of Primary Industries, Water and Environment, Tasmania

Isbell. R.F. (1996). The Australian Soil Classification. CSIRO Publishing.

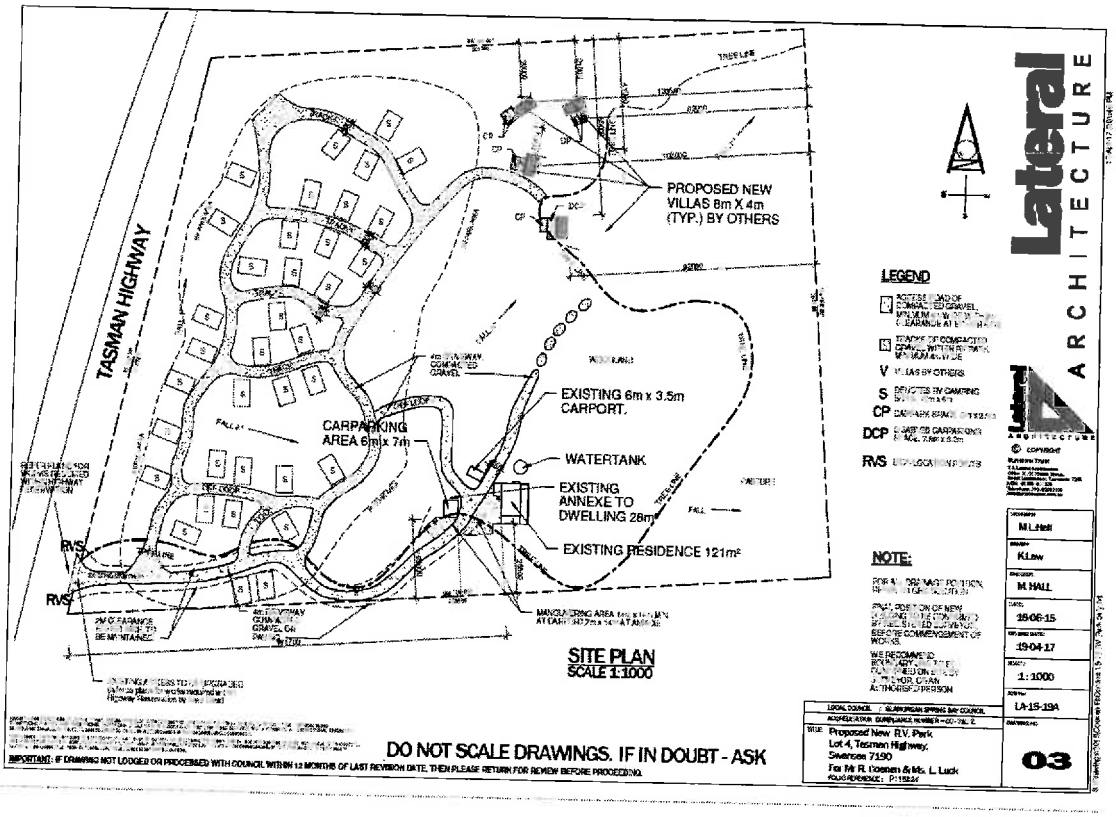
Lynch M, Kidd. D and Grose C. (2002). Land Capability survey of Little Swanport. Department of Primary Industries, Water and Environment, Tasmania

Appendix 1 – Typical Soil Profile Descriptions

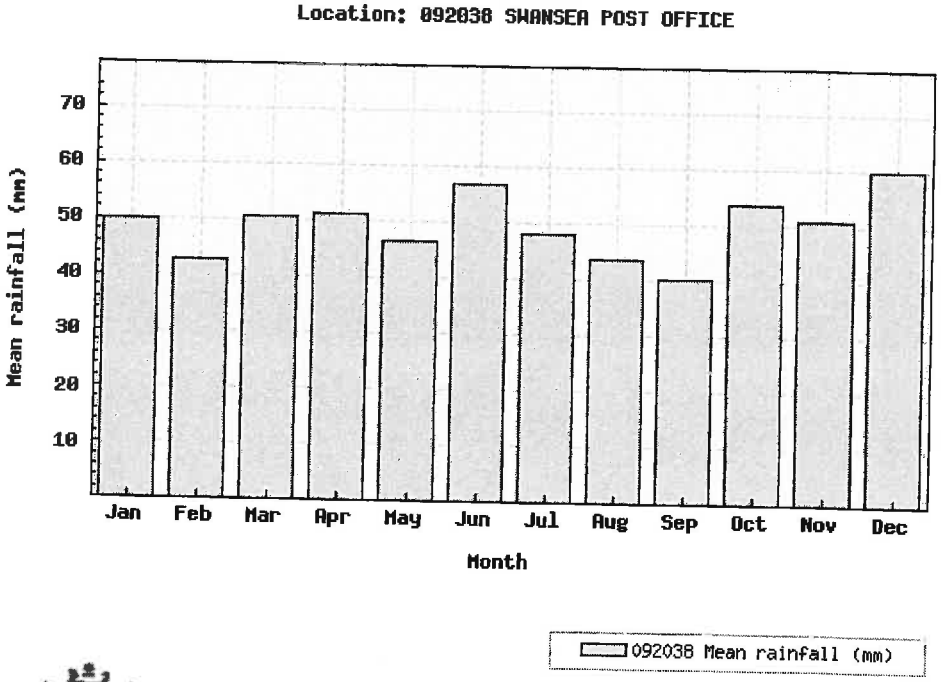
Bore hole 1- Duplex soil on dolerite (hole 1 class 6 land & hole 2 class 5 land)

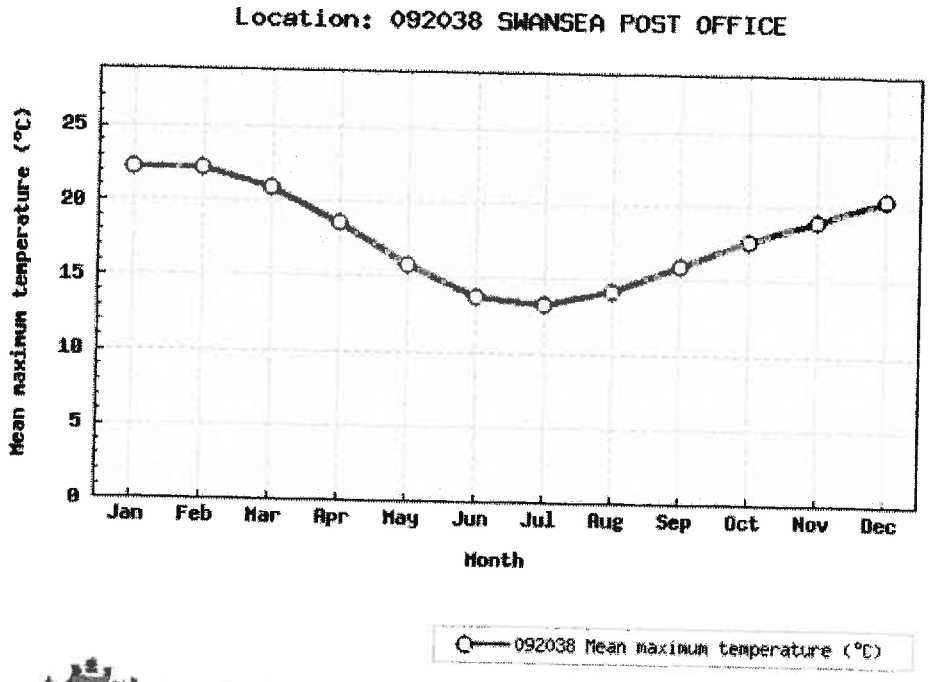
Hole 1 Depth (m)	Hole 2 Depth (m)	Horizon	Description
0 – 0.20	0 – 0.10	A1	Strong Brown **Clayey SAND (SC),** massive, moist medium dense consistency, ~ 30% gravels, common rocks, gradual boundary to
	0.10 – 0.60	B2	Dark Olive Brown **CLAY (CH),** strong polyhedral structure, moist stiff consistency, high plasticity, ~ 10% gravels increasing with depth, gradual boundary to
0.20 – 0.25	0.60 – 0.70	BC	Yellowish Brown and Grey **Sandy GRAVELS (GW),** dry hard consistency, refusal on bedrock

Appendix 2 – Site Plan

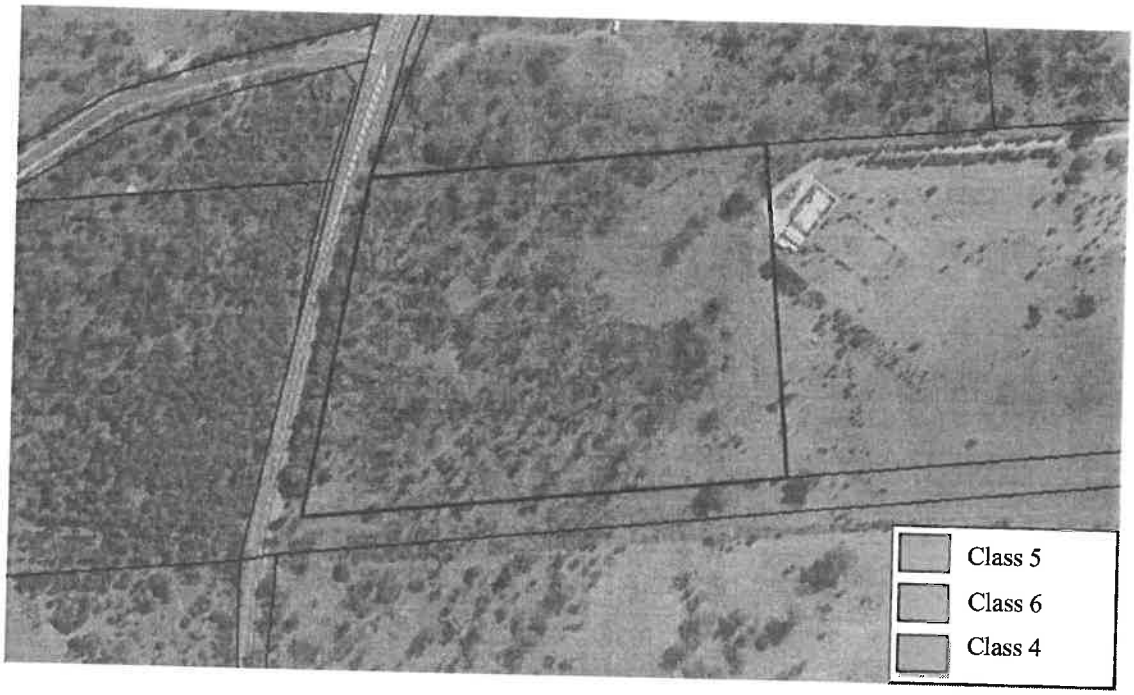


Appendix 3 – Climate data (Bureau of meteorology Swansea Weather Station)





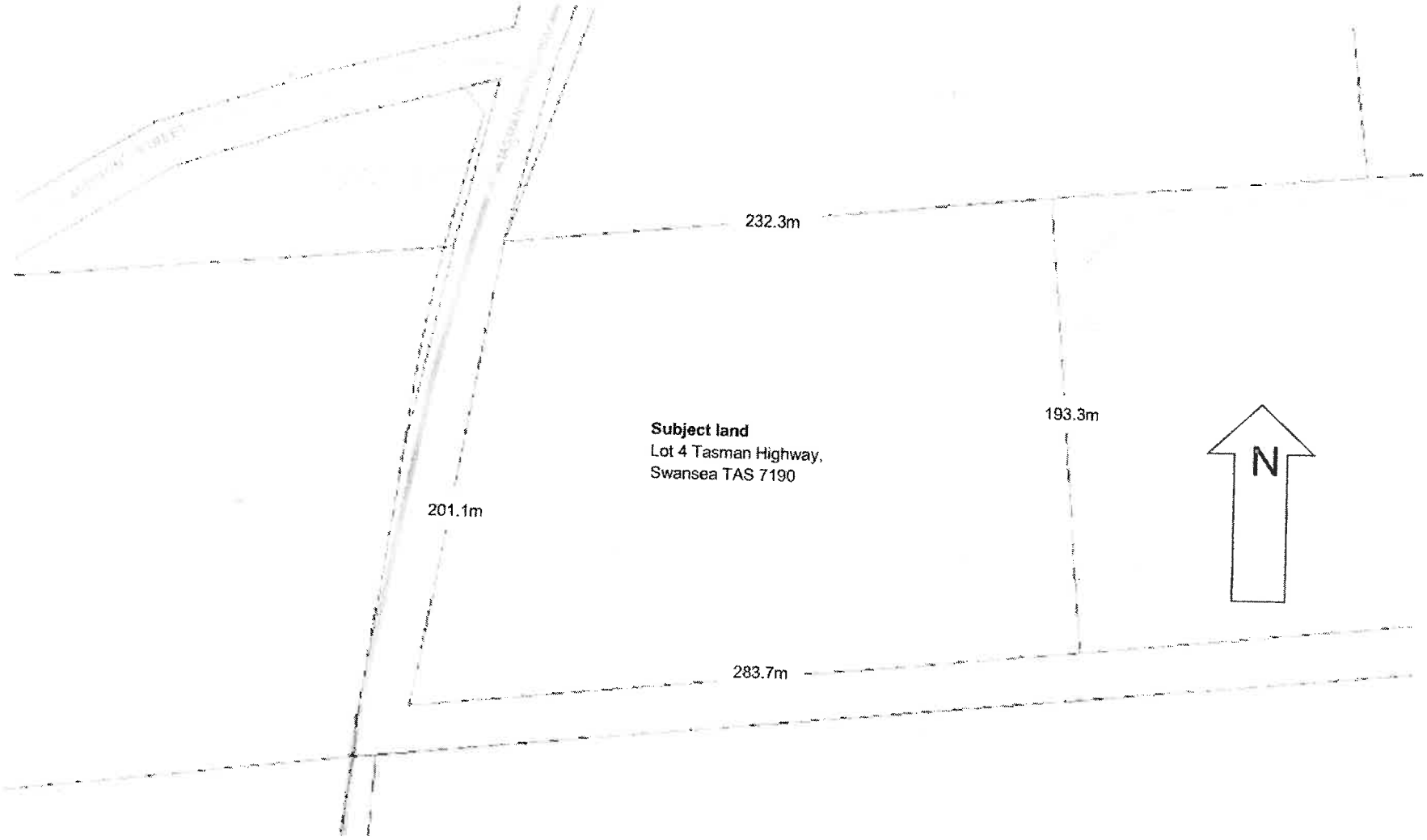
Appendix 4 – Agricultural Land Capability Mapping



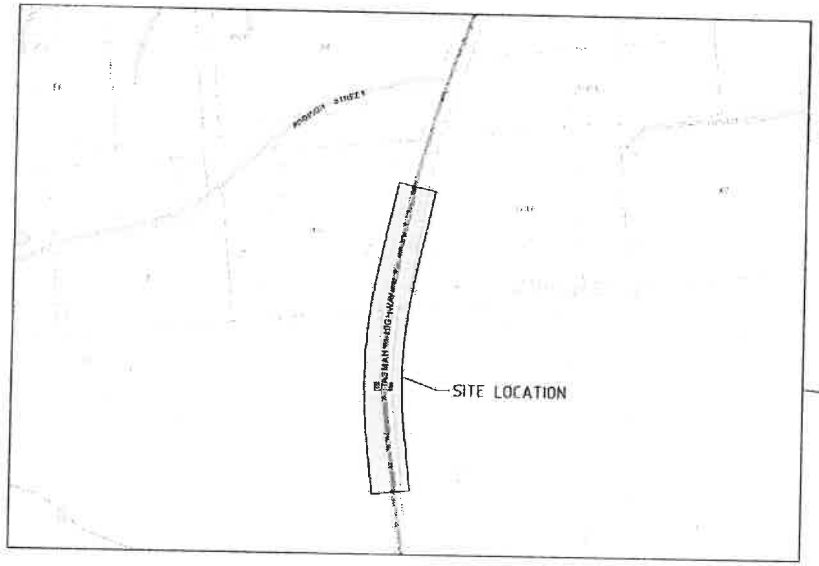
ONTO IT SOLUTIONS

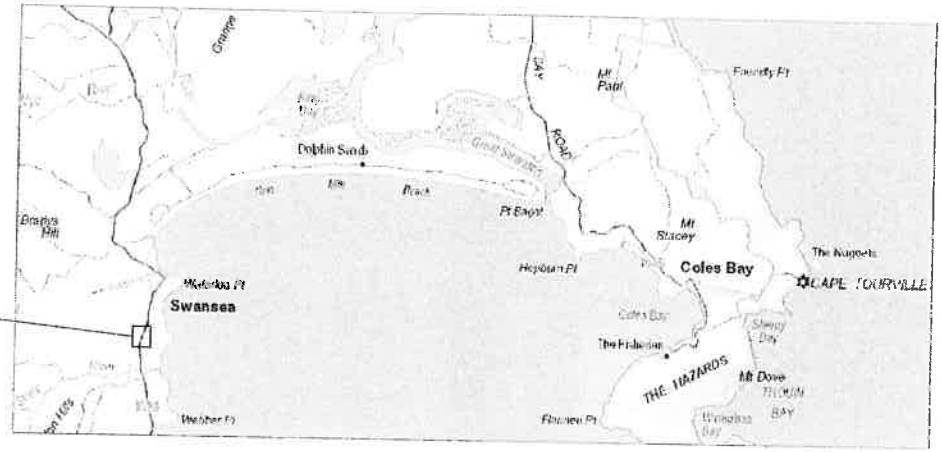
LOCATION PLAN
RA 13110 TASMAN HIGHWAY
SWANSEA.

Fig 1 Cadastre with findings



DEPARTMENT OF STATE GOWTH
LOT 4 TASMAN HWY, SWANSEA
PROPOSED PROPERTY ACCESS
JOB No. J172176CL





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ENGINEERS AND PLANNERS

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GENERAL

WORK HEALTH & SAFETY NOTICE:
JMG HAVE CONSIDERED THE HAZARDS AND RISKS ASSOCIATED WITH THE CONSTRUCTION, OPERATION, MAINTENANCE AND EVENTUAL DEMOLITION OF THIS PROJECT. THERE ARE A NUMBER OF HAZARDS AND HENCE RISKS WHICH ARE NOT UNIQUE TO THIS PROJECT WHICH NEED TO BE MANAGED DURING THESE PHASES. JMG REMIND CONSTRUCTORS, OPERATORS, MAINTAINERS AND DEMOLISHERS OF THEIR RESPONSIBILITIES UNDER WORK HEALTH & SAFETY ACTS AND REGULATIONS. THE FOLLOWING RISKS HAVE BEEN IDENTIFIED WHICH ARE UNIQUE TO THIS PROJECT: NIL. SIGNIFICANT RISKS INCLUDE WORKING IN VICINITY OF OVERHEAD POWER.

UNLESS SPECIFIED OTHERWISE BY DOCUMENTATION SPECIFIC TO THIS PROJECT ALL DIMENSIONS, MATERIALS, WORKMANSHIP ETC SHALL COMPLY WITH DSG STANDARD CONTRACT DOCUMENTS AND SPECIFICATIONS CURRENT AT THE TIME OF TENDERING AND IPWEA STANDARD DRAWINGS ISSUED NOVEMBER 2013.

ONLY THOSE SERVICES CONSPICUOUS DURING FIELD SURVEYS HAVE BEEN PLOTTED. THE LOCATION OF THESE SERVICES IS APPROXIMATE ONLY AND NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN. THE CONTRACTOR SHALL CONFIRM ON SITE PRIOR TO THE START OF WORKS THE LOCATION OF ALL SERVICES WITH THE RELEVANT AUTHORITY.

PRIOR TO THE COMMENCEMENT OF SITE WORKS THE CONTRACTOR SHALL PREPARE, SUBMIT AND GAIN APPROVAL FROM THE RELEVANT COUNCIL FOR A SOIL AND WATER AND CONSTRUCTION MANAGEMENT PLAN FOR THE CONSTRUCTION WORKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL REQUIRED PROTECTION MEASURES FOR THE DURATION OF THE CONTRACT AND UNTIL NEW VEGETATION IS FULLY ESTABLISHED.

PRIOR TO THE COMMENCEMENT OF WORKS ON ANY TASWATER INFRASTRUCTURE THE CONTRACTOR SHALL SUBMIT, TO TASWATER, AND RECEIVE A PERMIT TO CONSTRUCT TASWATER INFRASTRUCTURE.

WHERE REQUIRED BY COUNCIL AND/OR TASWATER THE CONTRACTOR SHALL PREPARE IN ELECTRONIC (.DWG) FORMAT "AS CONSTRUCTED" DRAWINGS TO THE SATISFACTION OF COUNCIL MUNICIPAL ENGINEER AND TASWATER SHOWING THE AS INSTALLED LOCATION OF ALL ABOVE AND BELOW GROUND WORKS, THE SUPERINTENDENT, WILL IF REQUESTED, PROVIDE A SET OF UNTITLED DRAWINGS IN ELECTRONIC (.DWG) FORMAT FOR USE IN PREPARING THE 'AS CONSTRUCTED' DRAWINGS. CONFIRMATION OF APPROVAL, FROM THE RELEVANT AUTHORITY, OF THE THE COMPLETED DRAWINGS SHALL BE SUBMITTED TO THE SUPERINTENDENT PRIOR TO THE ISSUING OF THE CERTIFICATE OF PRACTICAL COMPLETION.

ALL PIPEWORK (WATER, SEWER AND STORMWATER) PROFILE LEVELS ARE TO THE PIPE INVERT LEVEL. ALLOW ADDITIONAL TRENCHING DEPTH FOR BEDDING AND PIPEWALL THICKNESS AS INDICATED ON THE TYPICAL DETAILS.

PROPRIETARY PRODUCTS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE CONDITIONS OF THE PLANNING PERMIT, A COPY OF WHICH MUST BE KEPT ON SITE.

EARTHWORKS

DEMOLISH AND REMOVE ALL VEGETATION, TREES, ROCKS ETC. AS NOTED AND REQUIRED FOR THE CONSTRUCTION OF THE NOMINATED WORKS.

FOLLOWING DEMOLITION AND REMOVAL OF VEGETATION AND TREES AND STRIPPING OF THE SITE TO THE REQUIRED FORMATION LEVELS, GRADE SUB-GRADE TO A SMOOTH PROFILE AND CONSOLIDATE TO 98% MAXIMUM DRY DENSITY(AS 1289.5) PROOF ROLL IN THE PRESENCE OF THE CONSULTING ENGINEER USING A SINGLE AXLE RIGID TRUCK WITH A FULL LEGAL LIMIT LOAD, REMOVE ANY UNSUITABLE SOFT, WET OR HEAVING MATERIAL AS DIRECTED BY THE SUPERINTENDENT AND REPLACE WITH COMPACTED SELECT FILL IN LAYERS NOT EXCEEDING 200mm LOOSE TO ACHIEVE 98% STANDARD COMPACTION (AS1289.5). STRIPPED TOPSOIL SHALL BE STOCKPILED ON-SITE FOR RESPREADING ON BATTERS AND DISTURBED AREAS, ALL EXCESS EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF SITE UNLESS APPROVED OTHERWISE BY THE SUPERINTENDENT.

ANY SITE OR IMPORTED FILL MATERIAL FOR UNDER ROADWAYS SHALL BE WELL GRADED AND HAVE A MINIMUM CBR VALUE OF 6% AND SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD COMPACTION TO AS1289 IN LAYERS NOT EXCEEDING 200mm LOOSE THICKNESS.

WHERE EMBANKMENT FILLS EXCEED 400mm IN HEIGHT ABOVE STRIPPED SURFACE LEVEL THE CONTRACTOR SHALL PROVIDE COMPACTION TEST RESULTS FOR THE PLACED MATERIAL AT A RATE OF AT LEAST 1 PER 500M2 OR A MINIMUM OF 2 PER LAYER WHICHEVER IS THE GREATER UNLESS APPROVED OTHERWISE BY THE SUPERINTENDENT.

WHERE EMBANKMENTS ARE TO BE CONSTRUCTED ON NATURAL GROUND WITH SLOPES EXCEEDING 3 HORIZONTAL TO 1 VERTICAL (3:1) THE FOUNDATION SHALL BE CUT INTO HORIZONTAL BENCHES TO DSG SPECIFICATION R22.5.1 PRIOR TO THE COMMENCEMENT OF EMBANKMENT CONSTRUCTION.

DURING FORMATION WORKS THE CONTRACTOR SHALL ENSURE THAT ADEQUATE STEPS ARE TAKEN TO PROTECT THE SUBGRADE FROM WET WEATHER PRIOR TO THE PLACEMENT OF THE SUB-BASE. NO CLAIM WILL BE CONSIDERED AS A RESULT OF THE CONTRACTORS FAILURE TO PROTECT THE WORKS.

ROADWORKS

WHERE NEW WORKS ABUT EXISTING SAWCUT ALL INTERFACES TO NEAT STRAIGHT LINES AND RECTANGULAR SHAPES AND MAKE GOOD TO MATCH.

BACKFILL ALL TRENCHES AND EXCAVATIONS WITHIN VEHICLE PAVEMENTS FULL DEPTH WITH 20mm FINE CRUSHED ROCK CONSOLIDATED IN MAXIMUM 150 LAYERS TO 98% MODIFIED COMPACTION.

SUBMIT TO THE CONSULTING ENGINEER PRIOR TO THEIR USE MATERIAL PROPERTIES AND SOURCE FOR ALL ROAD MAKING MATERIALS. UNLESS NOTED OTHERWISE PAVEMENT MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF DSG SPECIFICATION R40 FOR BASE CLASS A AND SUB-BASE 1 MATERIALS.

EACH COMPLETED PAVEMENT LAYER SHALL BE COMPACTED TO A MINIMUM DDR OF 96% FOR SUB-BASE AND 98% FOR BASE COURSE AND PROOF ROLLED IN THE PRESENCE OF THE SUPERINTENDENT USING A SINGLE AXLE RIGID TRUCK WITH A FULL LEGAL LIMIT LOAD.

CONSTRUCT PAVEMENT BETWEEN NOMINATED LEVELS TO SMOOTH GRADES AND TRANSITION TO DRAIN TO PITS, KERB AND GUTTER, V-DRAINS ETC.

HOTMIX AND PAVED SURFACES SHALL HAVE A BITUMEN EMULSION PRIME COAT APPLIED TO THE CLEAN SWEPT SURFACE OF THE BASE COURSE.

CONCRETE COMPRESSIVE STRENGTH SHALL BE :
PAVEMENTS AND GRATED TRENCH - N32
PITS, & MINOR WORKS - N25

WORKMANSHIP, MATERIALS AND DESIGN SHALL BE IN ACCORDANCE WITH AS3600 AND THE ASSOCIATED CODES LISTED THEREIN AND THE SPECIFICATION.

GRADE AND ROLL MINIMUM 100 TOPSOIL TO ALL GRASSED AREAS AND PLANTERS. WHERE NECESSARY TO RAISE LEVELS, PLACE AND CONSOLIDATE GENERAL FILL FROM SITE BENEATH TOPSOIL. HYDROMULCH AND SEED DISTURBED AREAS WITH TYPE A SEED MIX TO DSG SPECIFICATION R70.

REV	DATE	REMARK
A	01.05.17	CONSTRUCTION ISSUE

FOR CONSTRUCTION

Accepted G.BRAYFORD (Discipline Head)	Date	SCALES @ A3	DESIGNED BY	DRAWN BY	
Accepted R.BRAYFORD (Team Leader)	Date	1:1000	J.BALDOCK	J.BALDOCK	
Approved R.BESSELL (Group Manager)	Date	DO NOT SCALE.	PLOT DATE	03/05/2017	

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Incorporating Dale P Luck & Associates
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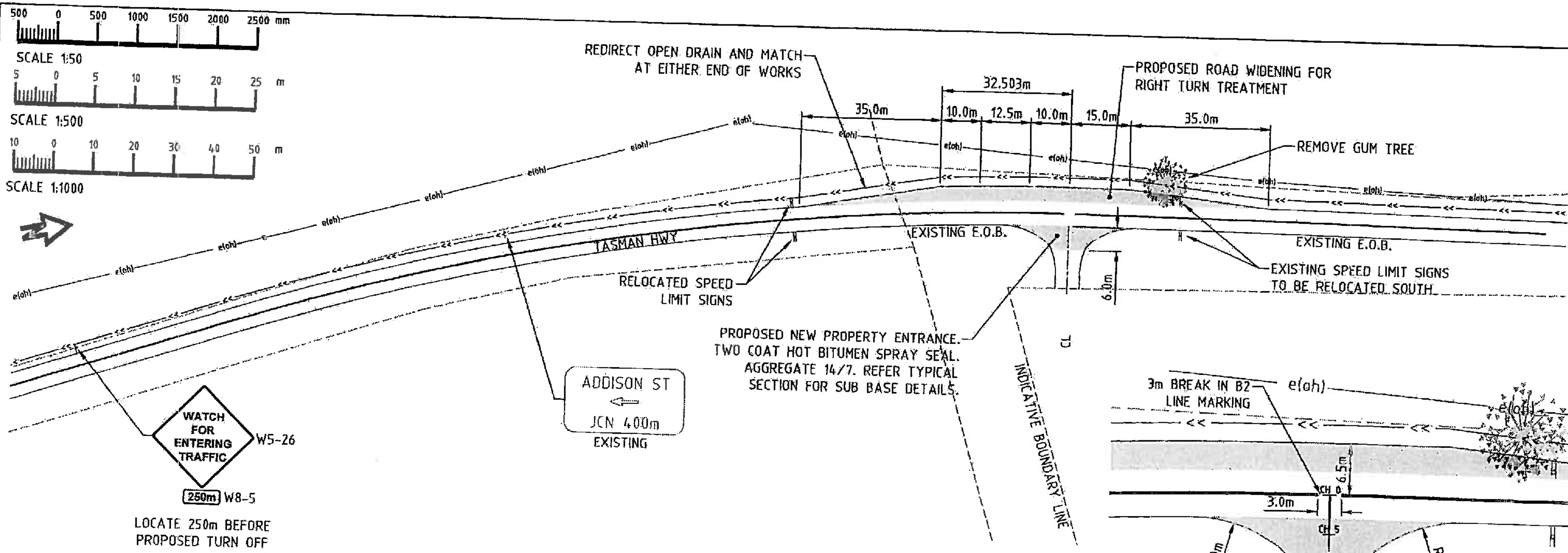
www.jmg.net.au infohbt@jmg.net.au infolst@jmg.net.au

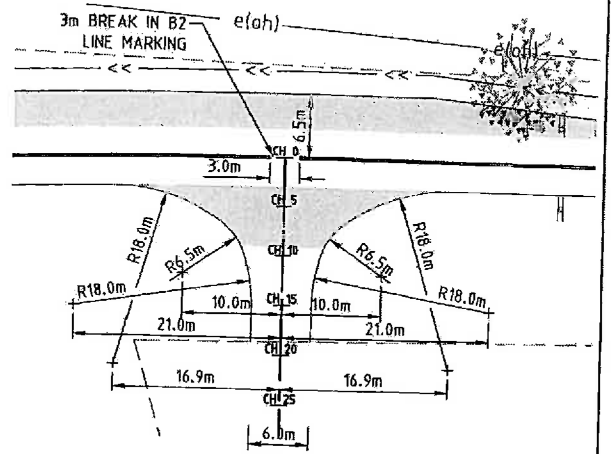
PROJECT: LOT 4, 13110 TASMAN HIGHWAY, SWANSEA

TITLE: PROPERTY ACCESS PLAN & CROSS SECTION NOTES

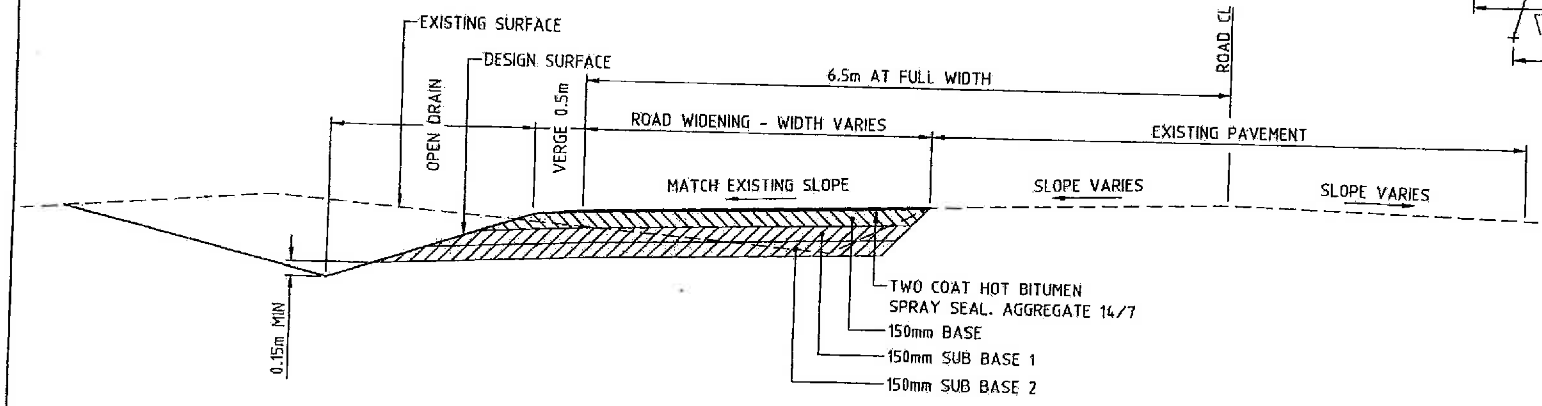
PROJECT NO. J172176CL
DWG NO. C01 REVISION A
PLOT DETAILS J172176CL - C01.DWG



PLAN - PROPOSED NEW PROPERTY ACCESS
SCALE 1:1000



KERB RETURN SETOUT
SCALE 1:500



TYPICAL CROSS SECTON
SCALE 1:50

www.dialbeforeyoudig.com.au DIAL 1100 BEFORE YOU DIG

THIS IS A COLOR A3 DRAWING AND MUST BE REPRODUCED IN COLOR AT ALL TIMES

FOR CONSTRUCTION

REV	DATE	REMARK
A	01.05.17	CONSTRUCTION ISSUE

Accepted G.DRAYFORD (Discipline Lead)	Date	SCALES @ A3	DESIGNED BY J.BALDOCK	DRAWN BY J.BALDOCK
Accepted G.DRAYFORD (Team Leader)	Date	1:1000	PLOT DATE	03/05/2017
Approved R.BESSELL (Group Manager)	Date	DO NOT SCALE		

JMG Engineers & Planners

Johnstone McGee & Gandy Pty. Ltd. Incorporating Dale P Luck & Associates
ACN 009 547 139 ABN 76 473 834 852
117 Harrington Street, Hobart, Tas (03) 6231 2555
49-51 Elizabeth Street, Launceston, Tas (03) 6334 5548
www.jmg.net.au infohbt@jmg.net.au infolst@jmg.net.au

PROJECT: LOT 4 13110 TASMAN HIGHWAY SWANSEA

TITLE: PROPERTY ACCESS PLAN & CROSS SECTION

PROJECT NO. J172176CL
DWG NO. C02
REVISION A
PLOT DETAILS J172176CL - C01.DWG

Bushfire Attack Level Assessment, and Bushfire Hazard Management Plan

For Louise Luck and Ron Coenen

C/- Wayne Edser

75 Old Berries Road,

Margate TAS 7054

Designer - Wayne Edser

75 Old Berries Road,

Margate TAS 7054

Prepared by Chris Draffin

Consultant - 0nto It Solutions

PO box 107 St Helens TAS 7216

Subject Property

Lot 4 Tasman Highway

Swansea TAS 7190

PID 1574129

Vol 115724 Fol 4

Our ref 15071

Table of Contents

Version 2 – 15 September 2016 – Map updated P5

Version 3 – 23 April 2017 Map updated P5

Executive Summary

This report provides an assessment for the purposes of constructing a recreational vehicle (RV) park at Lot 4 Tasman Highway, Swansea TAS 7190 in accordance with the relevant bushfire planning requirements, legislation and guidelines.

The Bushfire Attack Level assessment for the RV park is BAL FZ based on the pasture on the proposed development site.

The Bushfire Hazard Management Plan spelling out access and egress requirements and an evacuation plan are included (Attachment 1).

1. Introduction

1.1 Background

This Bushfire Attack Level Assessment report has been prepared by Onto It Solutions at the request of Louise Luck and Ron Coenen (the proponents).

The report provides an assessment for the purposes of constructing a recreational vehicle (RV) park at Lot 4 Tasman Highway, Swansea TAS 7190 (the subject land) in accordance with the relevant bushfire planning requirements, legislation and guidelines.

The assessment will provide the guidelines for providing access and egress and an evacuation plan for visitors to the RV facility.

The subject land and environs were inspected on 21 September 2015.

1.2 The Subject Land and Environs

The subject land is located on the eastern side of the Tasman Highway and the entrance lies 260m south of the Addison Street turnoff to Kate's Berry Farm. The site is 2.8 km by road from the Swansea Post Office.

The subject land is part of an existing subdivision. The block is 5.139ha and is an irregular shape with the western boundary along the Tasman Highway and the southern boundary along an unmade Addison Street road reserve. There is currently a proposal to construct a dwelling located 150m from the Highway entrance and 26m from the southern boundary.

In the eastern side, there is a cleared area under pasture and there is a cleared strip along the southern boundary. The remainder is principally woodland covered. The western half of the block slopes gently downward towards the northeast. Immediately to the east of the proposed house site, the land drops markedly downward (17°) for a short distance before levelling out towards the eastern boundary.

There are currently unformed tracks crossing the property and a newly cleared track connection the proposed house site to the clearing in the northeast.

The study area for this report includes the subject land and an area that extends for 120 metres from the proposed RV park site and this area falls within the subject land in all directions except the west.

1.3 The Proposal Assessed within this Report

The proposal is to construct RV park with RV sites on the subject land. This development is aimed at providing a minimalist service with the intended users being completely self-contained. The plan includes parking bays intended for overnight stays. The RVs will require self-contained facilities including bathroom, toilet and cooking facilities. There will be no powered sites.

1.4 Compliance with Planning Directive

The proposed development complies with E1.0 Bushfire-Prone Areas Code Glamorgan Spring Bay Interim Planning Scheme 2015. The details are mapped in the Table 1.

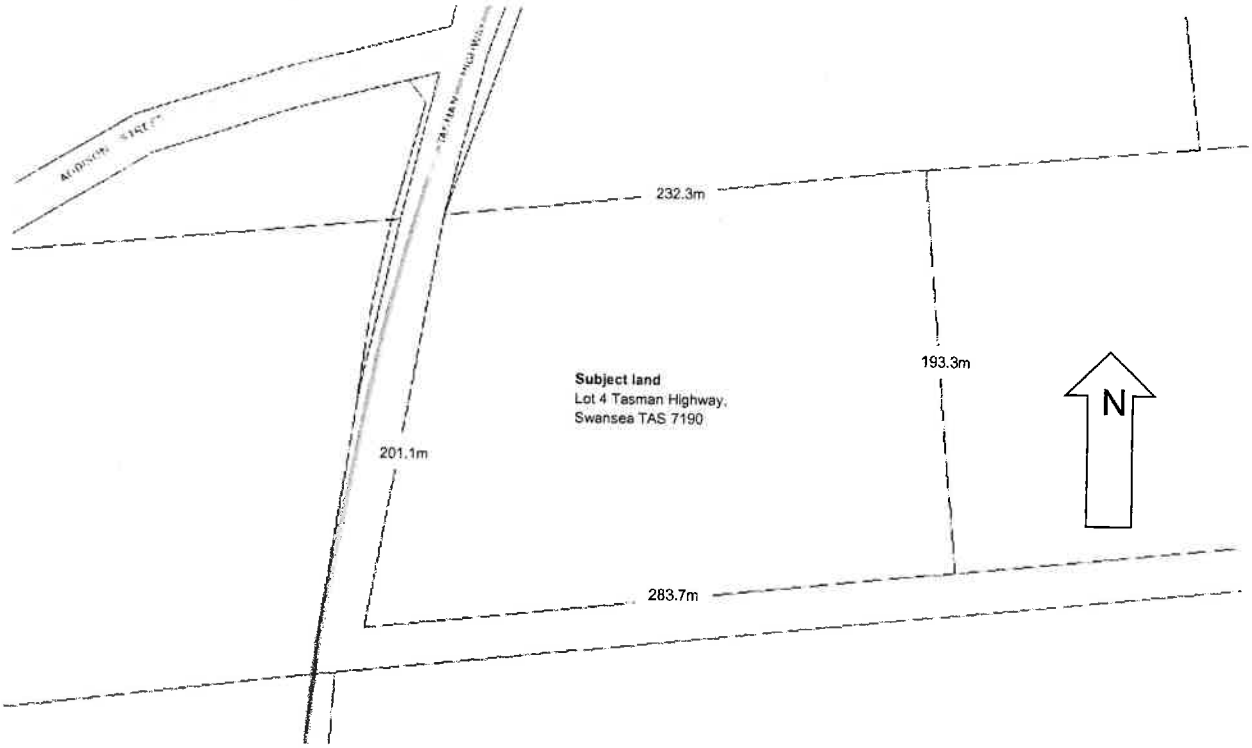
Table 1 Bushfire-Prone Areas Code Glamorgan Sprig Bay Interim Planning Scheme 2015

PD5 Provision	Applicability	Response
E.1.4 Exemptions	No	N/A
E1.5 Vulnerable and Hazardous Use	Yes	Vulnerable uses must demonstrate bushfire protection measures, addressing the characteristic, nature and scale of the vulnerable use, the characteristics of its occupants and the bushfire-prone vegetation, which are incorporated into a bushfire hazard management plan, certified by an accredited person or the TFS, that any risks associated with the use are tolerable, and that the plan provides for: - emergency evacuation plans including designated emergency meeting points, which provide protection to fire fighters and evacuees; and - information to staff, occupants and visitors on bushfire safety and evacuation procedures.
E1.6 Development Standards	No	

1.5 Consultation with Other Experts

No other experts have been consulted for this report.

Fig 1 Cadastre with findings



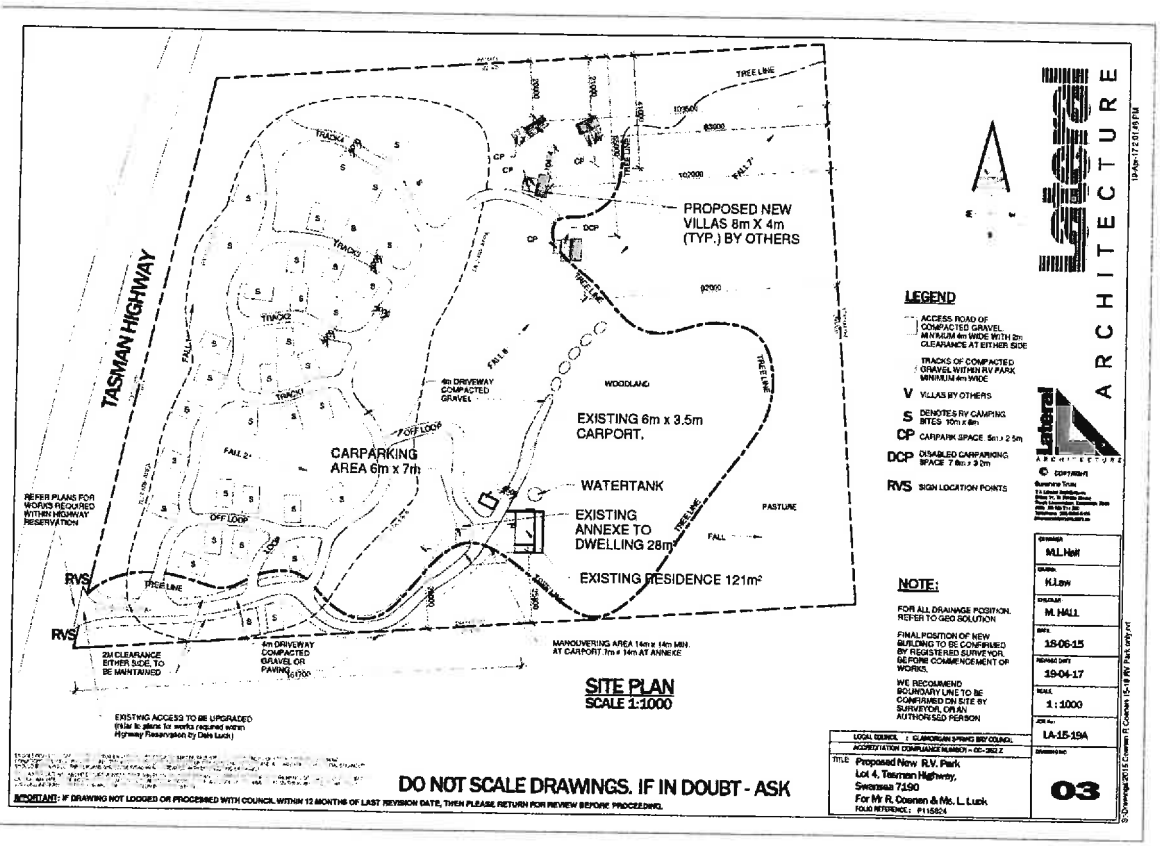
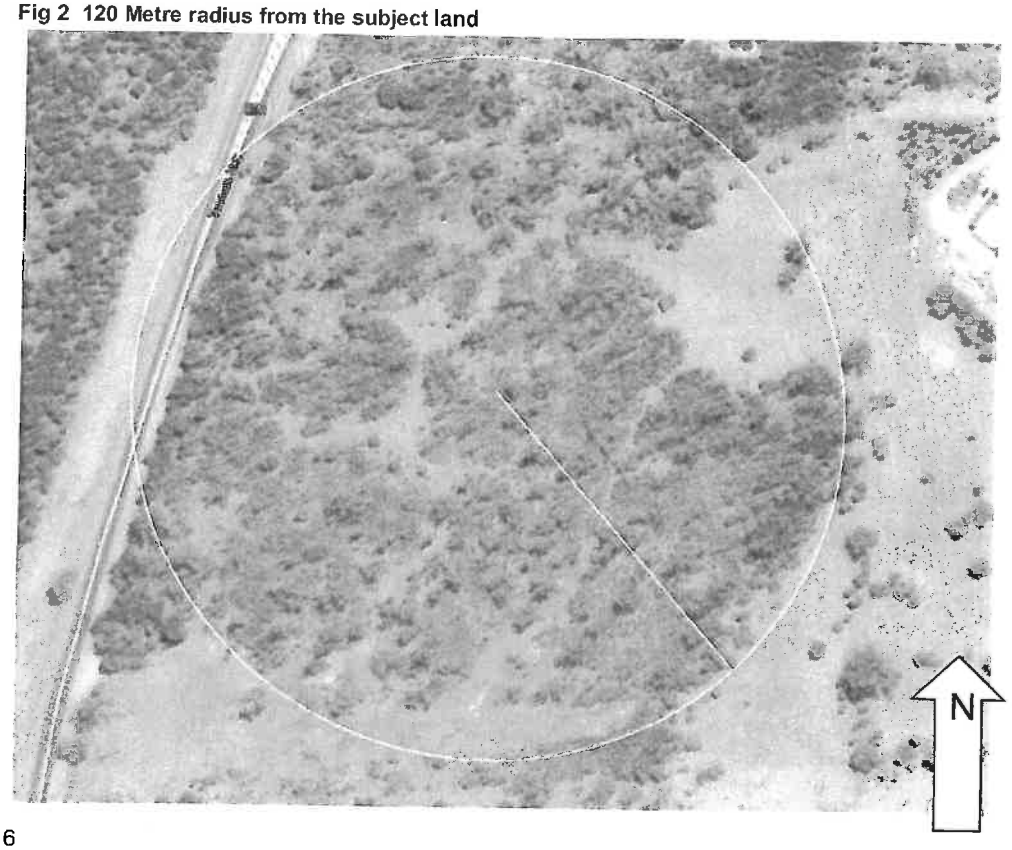

TASMAN HIGHWAY
PROPOSED NEW VILLAS 8m X 4m (TYP.) BY OTHERS
EXISTING 6m x 3.5m CARPORT.
CARPARKING AREA 6m x 7m
WATERTANK
EXISTING ANNEXE TO DWELLING 28m²
EXISTING RESIDENCE 121m²
WOODLAND
PASTURE
TREE LINE
4m DRIVEWAY COMPACTED GRAVEL
RVS
REFER PLANS FOR WORKS REQUIRED WITHIN HIGHWAY RESERVATION
2M CLEARANCE EITHER SIDE, TO BE MAINTAINED
4m DRIVEWAY COMPACTED GRAVEL OR PAVING
MANOUVERING AREA 14m x 14m MIN. AT CARPORT 7m x 14m AT ANNEXE
EXISTING ACCESS TO BE UPGRADED (Refer to plans for works required within Highway Reservation by Dale Luck)
SITE PLAN
SCALE 1:1000
LEGEND
ACCESS ROAD OF COMPACTED GRAVEL, MINIMUM 4m WIDE WITH 2m CLEARANCE AT EITHER SIDE
TRACKS OF COMPACTED GRAVEL WITHIN RV PARK MINIMUM 4m WIDE
V VILLAS BY OTHERS
S DENOTES RV CAMPING SITES 10m x 8m
CP CARPARK SPACE 5m x 2.5m
DCP DISABLED CARPARKING SPACE 7.6m x 3.2m
RVS SIGN LOCATION POINTS
NOTE:
FOR ALL DRAINAGE POSITION, REFER TO GEO SOLUTION
FINAL POSITION OF NEW BUILDING TO BE CONFIRMED BY REGISTERED SURVEYOR, BEFORE COMMENCEMENT OF WORKS.
WE RECOMMEND BOUNDARY LINE TO BE CONFIRMED ON SITE BY SURVEYOR, OR AN AUTHORISED PERSON
DO NOT SCALE DRAWINGS. IF IN DOUBT - ASK
IMPORTANT: IF DRAWING NOT LODGED OR PROCEEDED WITH COUNCIL WITHIN 12 MONTHS OF LAST REVISION DATE, THEN PLEASE RETURN FOR REVIEW BEFORE PROCEEDING.
ARCHITECTURE
M.L.Hall
K.Law
M. HALL
18-06-15
19-04-17
1 : 1000
LA-15-19A
Proposed New R.V. Park
Lot 4, Tasman Highway,
Swansea 7190
For Mr R. Coenen & Ms. L. Luck
03

Fig 2 120 Metre radius from the subject land



2 Bush Fire Attack Level (BAL)

2.1: Relevant fire danger index

The Fire Danger Index for Tasmania - FDI 50

2.2: Assess the vegetation within 100m in all directions *(tick relevant group)*

The bush throughout the site is mixed species including Oyster Bay pine, allocasuarina, acacias and scattered eucalypts with a grassy understory. This extends beyond the boundary of the proposed RV park area in all directions.

The bushfire risk for this site is high and cannot be mitigated unless widespread clearing and close management is undertaken. The individual parking bays would all be rated as Flame Zone if site by site Bushfire Attack Level assessments were undertaken.

3 Strategy for Bushfire Protection

This proposed development is not intended to provide any shelter in times of bushfire so the emergency management strategy is to ensure that the visitors evacuate. However, to ensure that evacuation can be carried out effectively, some steps will be need to under taken and these are spelled out in the Bushfire Hazard Management Plan.

It will be critical to the safety of visitors using the site that they do not stay during bushfire threat. Consequently, their safety will be contingent on ensuring they are advised when to go and where to go. This includes closing the park between 10am and 6pm on Total Bushfire Ban days

Date of assessment: .....23 September 2015

Assessors name: .....Chris Draffin...

Assessors Registration Number ...BFP 114

Assessors contact number:..0418833881

Work: ...03 63763794. **Mob:** ...0418833881..

Statement:

I have taken all reasonable steps to ensure that the information provided in this assessment is accurate and reflects the conditions on and around the site and allotment on the date of this assessment.

Signed: ... ..Date: 23 September 2015.....

ATTACHMENTS:

Bushfire Hazard Management Plan (Attachment 1)

Visitor Evacuation Plan, Lot Tasman Highway, Swansea (Attachment 2)

Certificate of Compliance (Attachment3)

Photographs: (Attachment 4)

Attachment 1 Bushfire Hazard Management Plan

This plan is intended to maximise the safety of those staying at at this site. A number of aspects have been considered.

The notes below should be read in conjunction with the Plan on the following page.

Evacuation

A safe area with facilities for visitors is the Swansea township 2.8 km to the north.

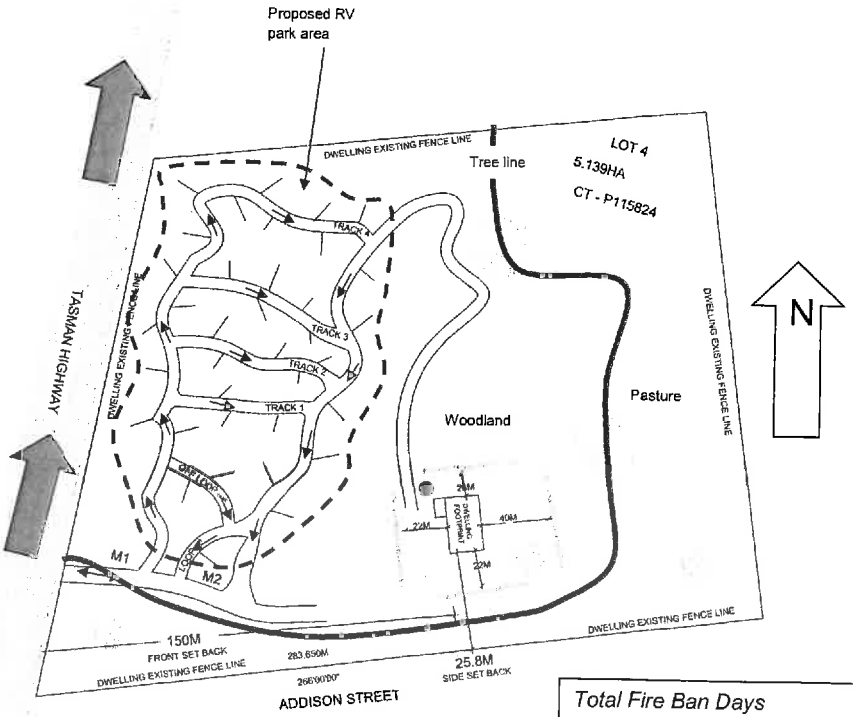
Access and Egress

Access and egress can be gained through the proposed driveway to the new dwelling development. The driveways around the RV park must be compacted gravel or other hard medium, at least 4m wide and provide 2m of clearance each side. The driveways must be one-way to prevent the need for passing. Culverts and bridges must be designed for a minimum 20 tonne capacity.

Total Fire Ban Days

On Total Fire Ban Days, the RV park will be closed between the hours of 10am and 6pm.

Bushfire Hazard Management Plan



Evacuation
To Swansea
2.8km

Total Fire Ban Days

On Total Fire Ban Days, the RV park will be closed between the hours of 10am and 6pm.

Bushfire Evacuation Plan for Visitors.

Lot 4 Tasman Highway, Swansea TAS 7190

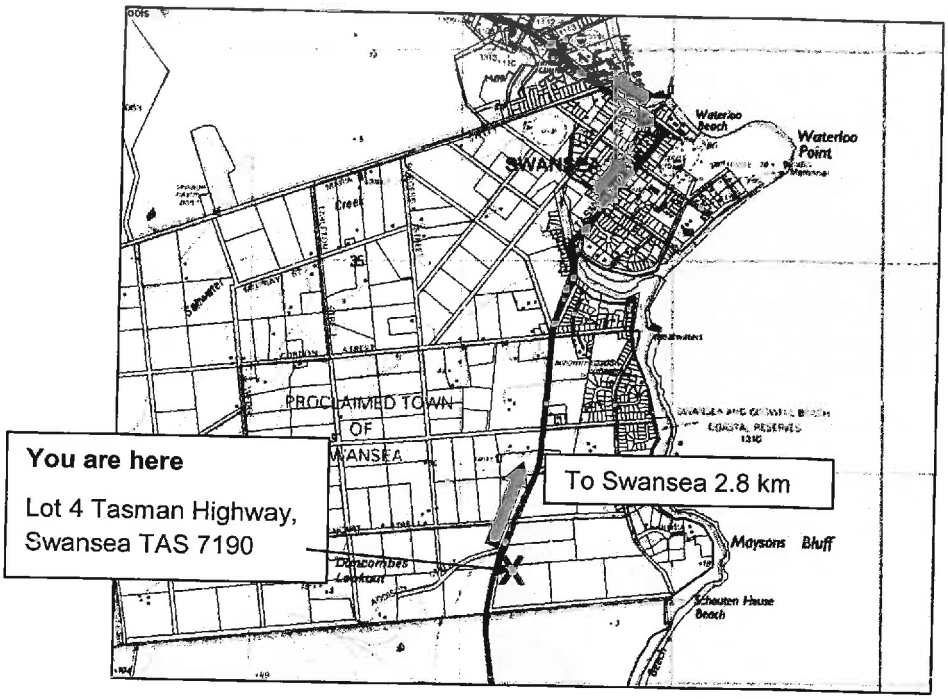
Bushfires are **dangerous.** All visitors staying in this area need to be prepared to evacuate the area in times of bushfire threat.

To know when to act;

1. **Keep informed**. There are a number of ways to keep informed.
   ABC Radio - Monitor 106.1 FM
   Tasmania Fire Service
   Phone 1800 000 699
   Web site www.fire.tas.gov.au
   www.facebook.com/TasmaniaFireService
   www.twitter.com/TasFireService (@TasFireService)
   www.fire.tas.gov.au RSS Feeds

2. **Know where to go**. Choose where to go when you are advised to leave. A safe place is the best choice. Leave early to avoid being cut off by the bushfire. The business centre of Swansea is the nearest safe place that also has facilities to cater for people.

   See map below.



3. **Leave**. When you have been advised to evacuate. You will also be advised where to go. This may be by radio, internet, the police or emergency services personnel. Follow the directions.

Attachment 3: Certificate of Compliance

to the Bushfire-prone Area Code under Planning Directive No 5

Code E1 – Bushfire-prone Areas Code

Certificate under s51(2)(d) *Land Use Planning and Approvals Act 1993*

Office Use
Date Received
Permit Application No
PID

1. Land to which certificate applies[1]	
Name of planning scheme or instrument:...Glamorgan Spring Bay Interim Planning Scheme 2015.	

Use or Development Site Street Address	**Certificate of Title / PID**
Lot 4 Tasman Highway, Swansea TAS 7190	PID 1574129 Vol 115824 Fol 4
Land that is not the Use or Development Site relied upon for bushfire hazard management or protection **Street Address** **Nil**	**Certificate of Title / PID**

2. **Proposed Use or Development** *(provide a description in the space below)*	
Construction of an Recreational Vehicle park.	

√ Vulnerable Use

☐ Hazardous Use

☐ Subdivision

☐ New Habitable Building on a lot on a plan of subdivision approved in accordance with Bushfire-prone Areas Code.

☐ New habitable Building on a lot on a pre-existing plan of subdivision)

☐ Extension to an existing habitable building

☐ Habitable Building for a Vulnerable Use

[1] If the certificate relates to bushfire management or protection measures that rely on land that is not in the same lot as the site for the use or development described, the details of all of the applicable land must be provided.

3. Documents relied upon[2]

	Document or certificate description:
❑	***Description of Use or Development[3] (Proposal or Land Use Permit Application)*** ***Documents, Plans and/or Specifications*** *Title: Planning Application design drawings* *Author: Wayne Edser* *Date:* 19 June 2015
❑	***Bushfire Report[4]*** *Title: Bushfire Attack Level Assessment* *Author: Chris Draffin* *Date:* 23 September 2015
❑	***Bushfire Hazard Management Plan[5]*** *Title: Bushfire Hazard Management Plan* *Author: Chris Draffin* *Date:* 23 September 2015
❑	***Other documents*** *Title:* *Author:* *Date:*

[2] List each document that is provided or relied upon to describe the use or development, or to assess and manage risk from bushfire, including its title, author, date, and version.

[3] Identify the use or development to which the certificate applies by reference to the documents, plans, and specifications to be provided with the permit application to describe the form and location of the proposed use or development. For habitable buildings, a reference to a nominated plan indicating location within the site and the form of development is required.

[4] If there is more than one Bushfire Report, each document must be identified by reference to its title, author, date and version.

[5] If there is more than one Bushfire Hazard Management Plan, each document must be identified by reference to its title, author, date and version

4. Nature of Certificate[6]

	Applicable Standard	Assessment Criteria	Compliance Test: Certificate of Insufficient Increase in Risk		Compliance Test: Certified Bushfire Hazard Management Plan		Reference to applicable Bushfire Risk Assessment or Bushfire Hazard Management Plan[7]
☐	**E1.4 – Use or development exempt from this code**						
	E1.4. (identify which exemption applies)		No specific measures required because the use or development is consistent with the objective for each of the applicable standards identified in this Certificate	☐	Not Applicable		
☐	**E1.5.1 - *Vulnerable Use***						
	E1.5.1.1 – location on bushfire-prone land	A2	Not Applicable		Tolerable level of risk and provision for evacuation	√	Bushfire Attack Level Assessment and Bushfire Hazard Management Plan for Lot 4 Tasman Highway, Swansea TAS 7190 – C.Draffin 23/9/15
☐	**E1.5.2 - *Hazardous Use***						
	E1.5.2.1 – location on bushfire-prone land	A2	Not Applicable		Tolerable level of risk from exposure to dangerous substances, ignition potential, and contribution to intensify fire	☐	

[6] The certificate must indicate by placing a √ in the corresponding ☐ for each applicable standard and the corresponding compliance test within each standard that is relied upon to demonstrate compliance to Code E1

[7] Identify the Bushfire Risk Assessment report or Bushfire Hazard Management Plan that is relied upon to satisfy the compliance test

❑	***E1.6.1 - Subdivision***						
	E1.6.1.1 - Hazard Management Area	A1	No specific measure for hazard management	❑	Provision for hazard management areas in accordance with BAL 19 Table 2.4.4 AS3959	❑	
	E1.6.1.2 - Public Access	A1	No specific public access measure for fire fighting	❑	Layout of roads and access is consistent with objective	❑	
	E1.6.1.3 - Water Supply	A1 Reticulated water supply	No specific water supply for fire fighting	❑	Not Applicable		
		A2 Non-reticulated water supply	No specific water supply measure for fire fighting	❑	Water supply is consistent with objective	❑	

❑	***E1.6.2 - Habitable Building on lot on a plan of subdivision approved in accordance with Code***						
	E1.6.2.1 - Hazard Management Area	A1	No specific measure for hazard management	❑	Provision for hazard management areas in accordance with BAL 19 Table 2.4.4 AS3959 and managed consistent with objective	❑	
	E1.6.2.2 -- Private Access	A1	No specific private access for fire fighting	❑	Private access is consistent with objective	❑	
		A2	Not Applicable		Private access to static water supply is consistent with objective	❑	
	E1.6.2.3 - Water Supply	A1	No specific water supply measure for fire fighting	❑	Water supply is consistent with objective	❑	

Yes	**E1.6.3 - *Habitable Building* (pre-existing lot)**						
	E1.6.3.1 - Hazard Management Area	A1	No specific measure for hazard management	❑	Provision for hazard management is consistent with objective; or Provision for hazard management areas in accordance with BAL 29 Table 2.4.4 AS3959 and managed consistent with objective	❑ ❑	
	E1.6.3.2 - Private Access	A1	No specific private access measure for fire fighting	❑	Private access is consistent with objective	❑	
		A2	Not applicable	❑	Private access to static water supply is consistent with objective	❑	
	E1.6.3.3 - Water Supply	A1	No specific water supply measure for fire fighting	❑	Water supply is consistent with objective	❑	

❑	**E1.6.4 - *Extension to Habitable Building***						
	E1.6.4.1 – hazard management	A1	No specific hazard management measure	❑	Provision for hazard management is consistent with objective; or Provision for hazard management areas in accordance with BAL 12.5 Table 2.4.4 AS3959 and managed consistent with objective	❑ ❑ ❑	

☐	**E1.6.5 – *Habitable Building for Vulnerable Use***					
	E1.6.5.1 – hazard management	A1	No specific measure for hazard management	☐	Bushfire hazard management consistent with objective; or Provision for hazard management areas in accordance with BAL 12.5 Table 2.4.4 AS3959 and managed consistent with objective	☐

5. Bushfire Hazard Practitioner – Accredited Person

Name	Chris Draffin	Phone No:	0418 833 881
Address:	PO Box 107, St Helens TAS 7216	Fax No:	
		Email address:	chris.draffin@ontoit.net.au
Fire Service Act 1979 Accreditation No:	BFP-114	Scope:	1,2,3A

6. Certification

I, Chris Draffin certify that in accordance with the authority given under the Part 4A of the Fire Service Act 1979 –

The use or development described in this certificate is exempt from application of Code E1 – Bushfire-Prone Areas in accordance with Clause E1.4(a) because there is an insufficient increase in risk to warrant specific measures for bushfire hazard management and/or bushfire protection in order to be consistent with the objective for all of the applicable standards identified in Section 4 of this Certificate.	❑

or

There is an insufficient increase in risk to warrant specific measures for bushfire hazard management and/or bushfire protection in order for the use or development described to be consistent with the objective for each of the applicable standards identified in Section 4 of this Certificate.	❑

and/or

The Bushfire Hazard Management Plan/s identified in Section 4 of this certificate is/are in accordance with the Chief Officer's requirements and can deliver an outcome for the use or development described that is consistent with the objective and the relevant compliance test for each of the applicable standards identified in Section 4 of this Certificate	√

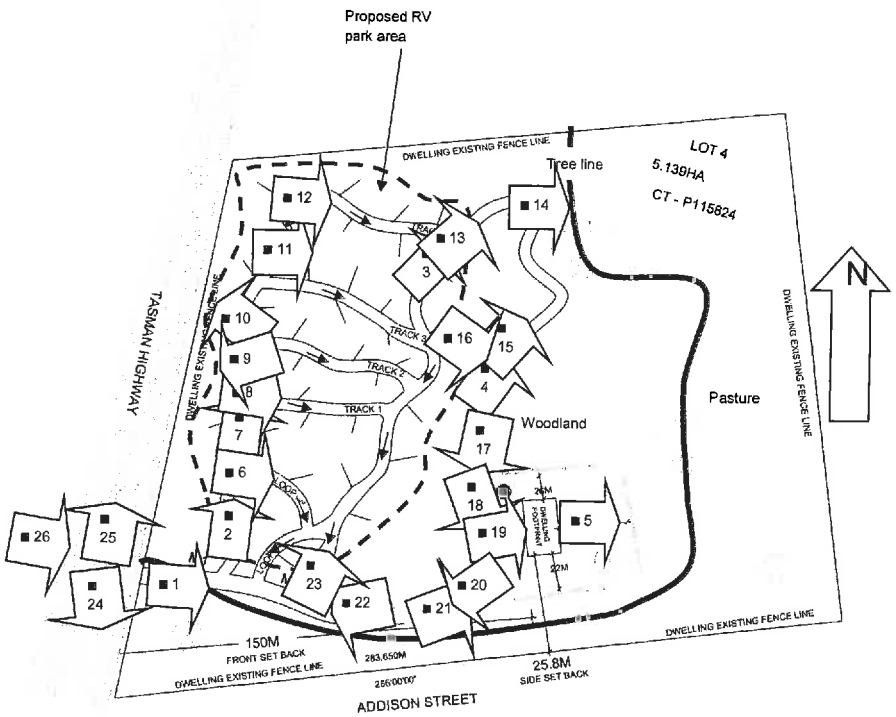
Signed

Date
23 September 2015

Attachment 4 Photographs

1

Shows the approximate position and direction from where the photo was taken,



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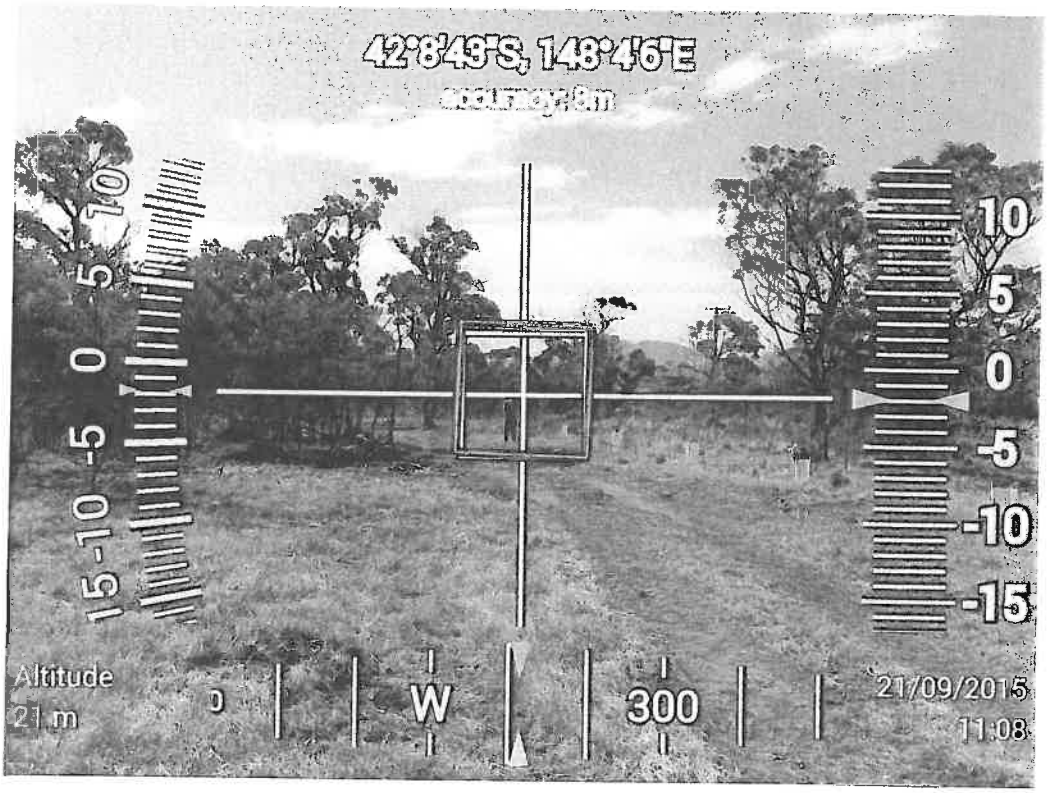
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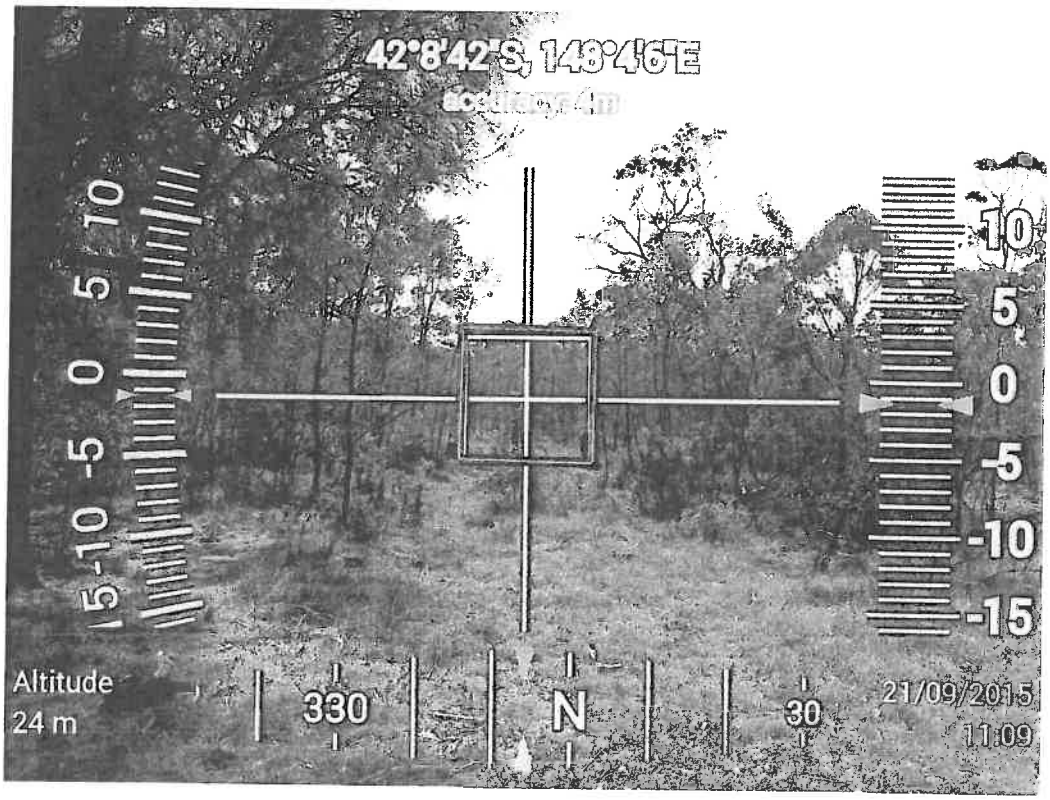
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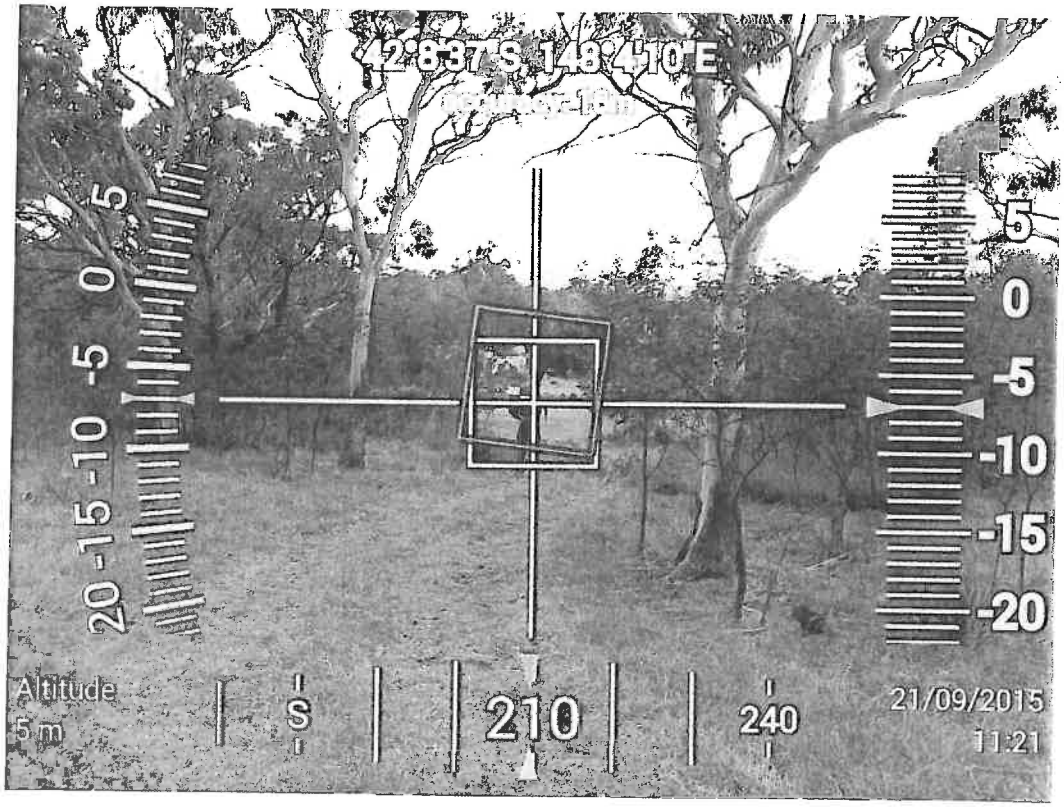
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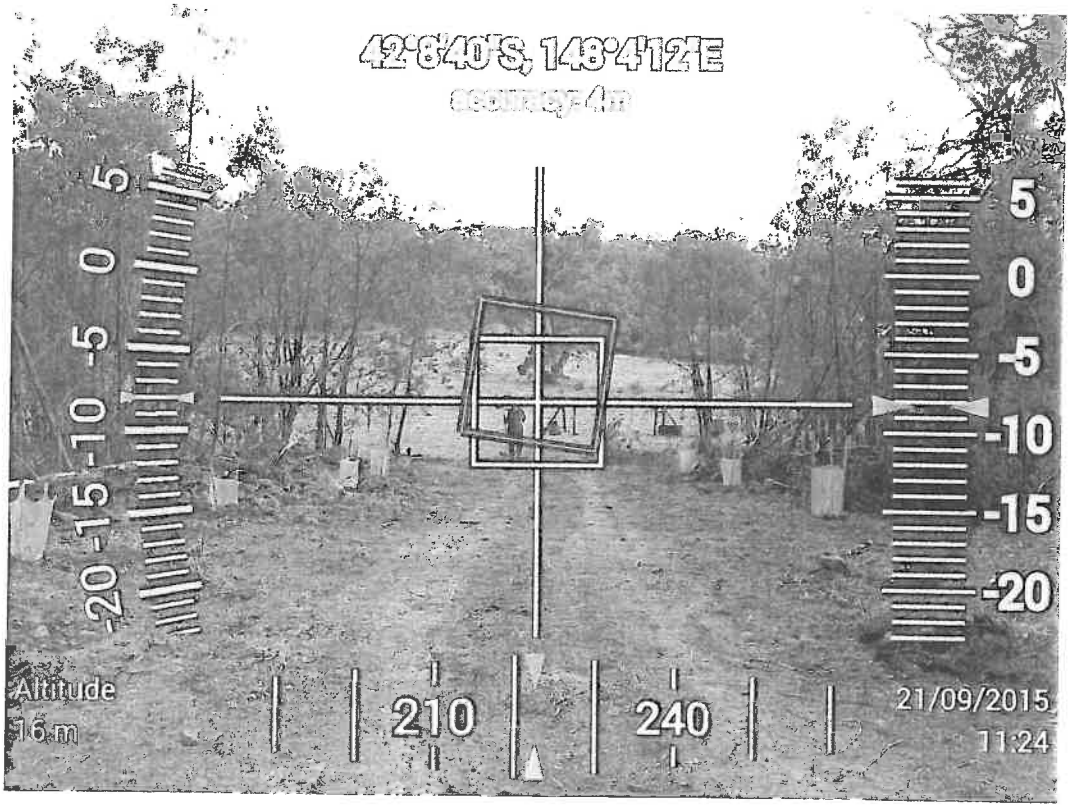
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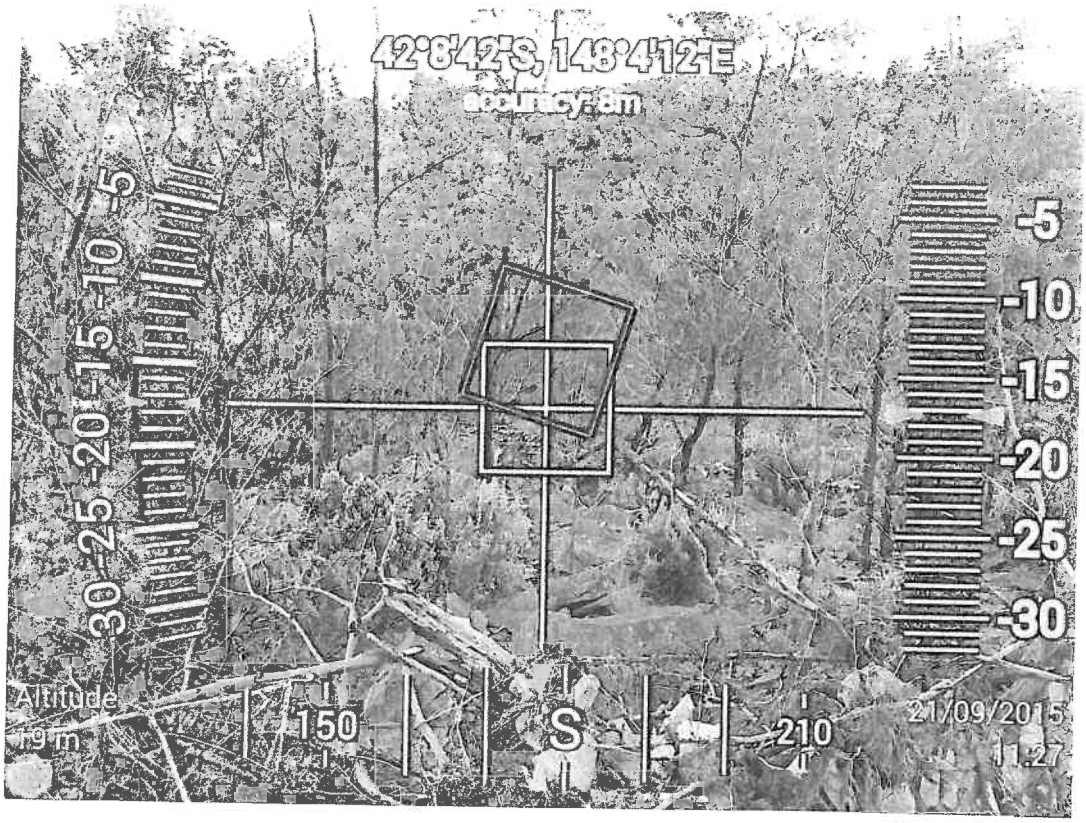
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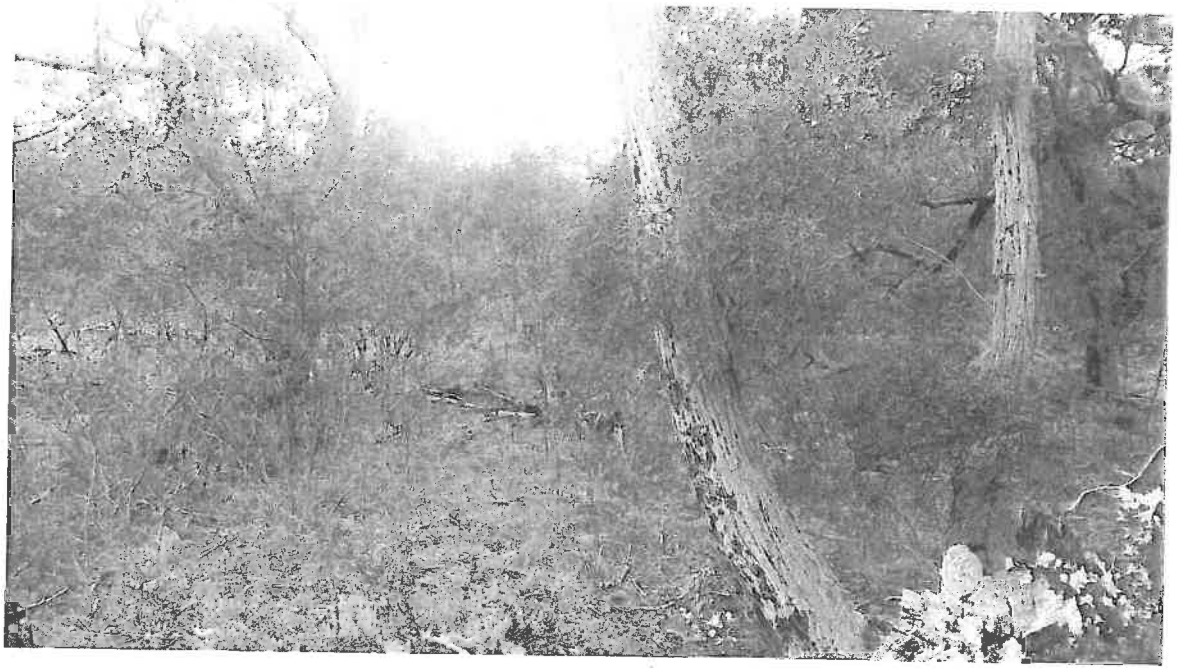

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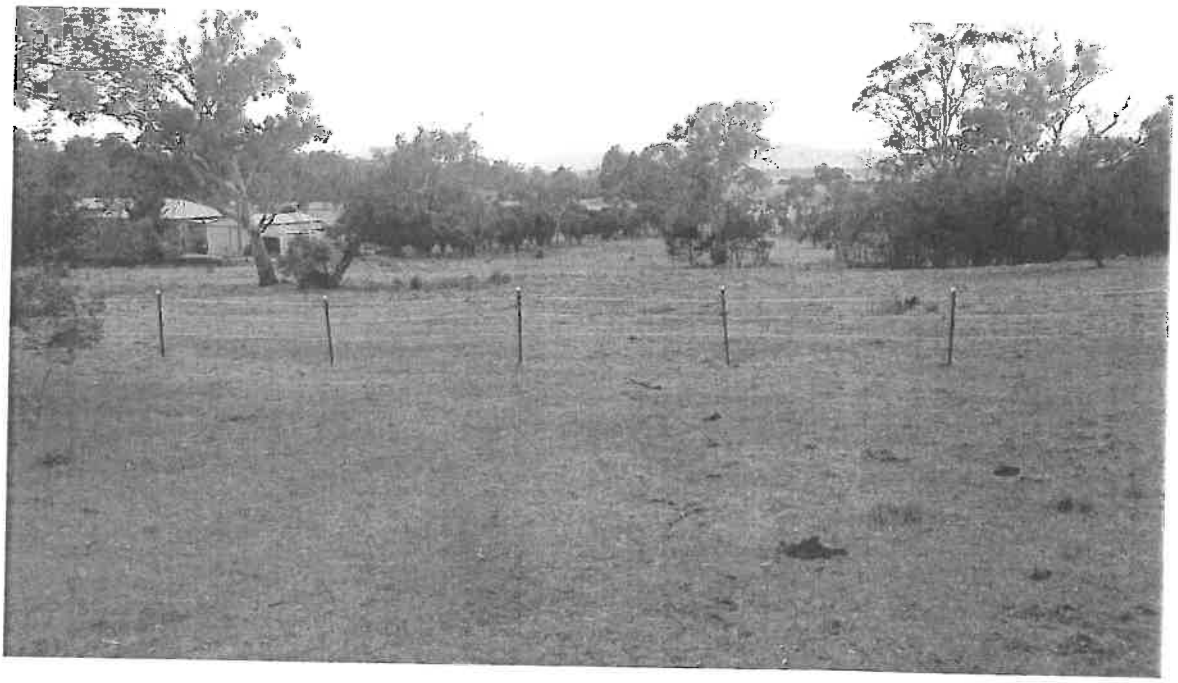

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26.

northbarker
ECOSYSTEM SERVICES

Lot 4 Tasman Highway, Swansea

NATURAL VALUES ASSESSMENT

21st April 2017

For Louise Luck & Ron Coenen (COE001)

Andrew North anorth@northbarker.com.au **Philip Barker** pbarker@northbarker.com.au
163 Campbell Street Hobart TAS 7000 Telephone 03. 6231 9788 Facsimile 03. 6231 9877

Summary

The proponent is proposing to build a Visitor Accommodation and RV Parkon on Lot 4 Tasman Highway, Swansea. This report details the flora and fauna habitat of the property and provides information to assist with the planning assessment by Glamorgan Spring Bay Council.

Vegetation

The site was found to contain the following native vegetation unit:

- Dry *Eucalyptus viminalis* forest and woodland (DVG)

This unit does not correspond to any communities listed as threatened under the Tasmanian *Nature Conservation Act 2002* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). DVG corresponds to a ***low priority biodiversity value*** under the *Glamorgan Spring Bay Interim Planning Scheme 2015*. The community is well reserved at the State, bioregional and Council level.

Threatened Flora

No threatened flora species were recorded on site. Potential habitat for the TSPA endangered *Hyalosperma demissum* moss sunray was recorded which is known to occur close by.

Weeds

The property contains one declared weed species (gorse) for which Glamorgan Spring Bay is considered to be a zone B location under the Tasmanian *Weed Management Act 1999*. Containment of these species should be met with construction hygiene and vehicle wash-down.

Threatened Fauna

No key habitat for threatened fauna was recorded however the site may be used by the EPBCA listed eastern barred bandicoot ad a variety of other species from time to time for foraging.

The proposal is not considered likely to result in a significant impact upon either of these species in relation to EPBCA impact criteria and contingent upon the recommendations provided.

Biodiversity Code E10

To meet the relevant performance criteria of the Biodiversity Code E10, the proponent must design the proposal with the intent of minimising impact upon potential *Hyalosperma demissum* habitat, which represents a ***moderate priority biodiversity value*** under the *Glamorgan Spring Bay Interim Planning Scheme 2015*. It is understood these rock plate locations will be avoided by the proposal.

It is also understood that the intent is to retain the majority of small to mid-sized white gums **(low *priority biodiversity value*** under the *Glamorgan Spring Bay Interim Planning Scheme 2015)*. The property has been historically cut over removing most mature trees.

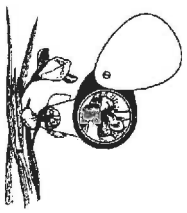
Contributors

Project Management: Dave Sayers

Field Assessment (date): Dave Sayers (01/08/2016)

Report: Dave Sayers

Mapping: Dave Sayers



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1. Introduction and Methods

1.1. Background

The proponent is proposing to build a Visitor Accommodation and RV Park on Lot 4 Tasman Highway, Swansea. This report details the flora and fauna habitat of the property and provides information to assist with the planning assessment by Glamorgan Spring Bay Council.

1.2. Study Area and Methods

1.2.1. Study Area

Lot 4 Tasman Highway, Swansea (CT 115824/4; PID 1574129), is a vacant 5 ha block with 200 m frontage to Tasman Highway (Figure 1). It is located in the Tasmanian South East bioregion[1]. Figure 2 shows the proposal.

The property is currently zoned Rural Resource (zone 26) under the *Glamorgan Spring Bay Interim Planning Scheme 2015*. The western part of the property is also located within the Biodiversity Protection Area, which makes the proposal subject to the provisions within the Biodiversity Code (E10).

The western portion of the property is covered with native vegetation while the eastern is pasture. The immediate surrounds of the property are occupied by rural density residential development, some of which contains native vegetation.

The land has a general easterly aspect ranging between 10 and 330m asl. Site geology is derived from tholeiitic dolerite with locally developed granophyre.

1.2.2. Field Survey

This assessment has been undertaken in accordance with the *Guidelines for Natural Values Assessment – Terrestrial Development Proposals*[2]. Fieldwork was undertaken by one observer on foot on the 01/6/2016. Vegetation was mapped at the community level in accordance with TASVEG 3.0 units[3]. At the species level vegetation was recorded in accordance with the most recent census of Tasmanian flora[4] using an area search technique based on the Timed Meander Search Procedure[5]. Fauna habitat values were documented concurrently, with particular emphasis on species listed as threatened (Appendix A and B) at the State and/or national level under the Tasmanian *Threatened Species Protection Act 1995* (TSPA) and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA).

[1] Commonwealth of Australia 2012
[2] Natural and Cultural Heritage Division 2015
[3] Kitchener and Harris 2013; DPIPWE 2013
[4] de Salas and Baker 2015
[5] Goff *et al.* 1982

1.2.3. Limitations

There may be some seasonal or discreet species that have been overlooked. To compensate for this, field data are supplemented with observations from the Tasmanian Natural Values Atlas[6] (NVA).

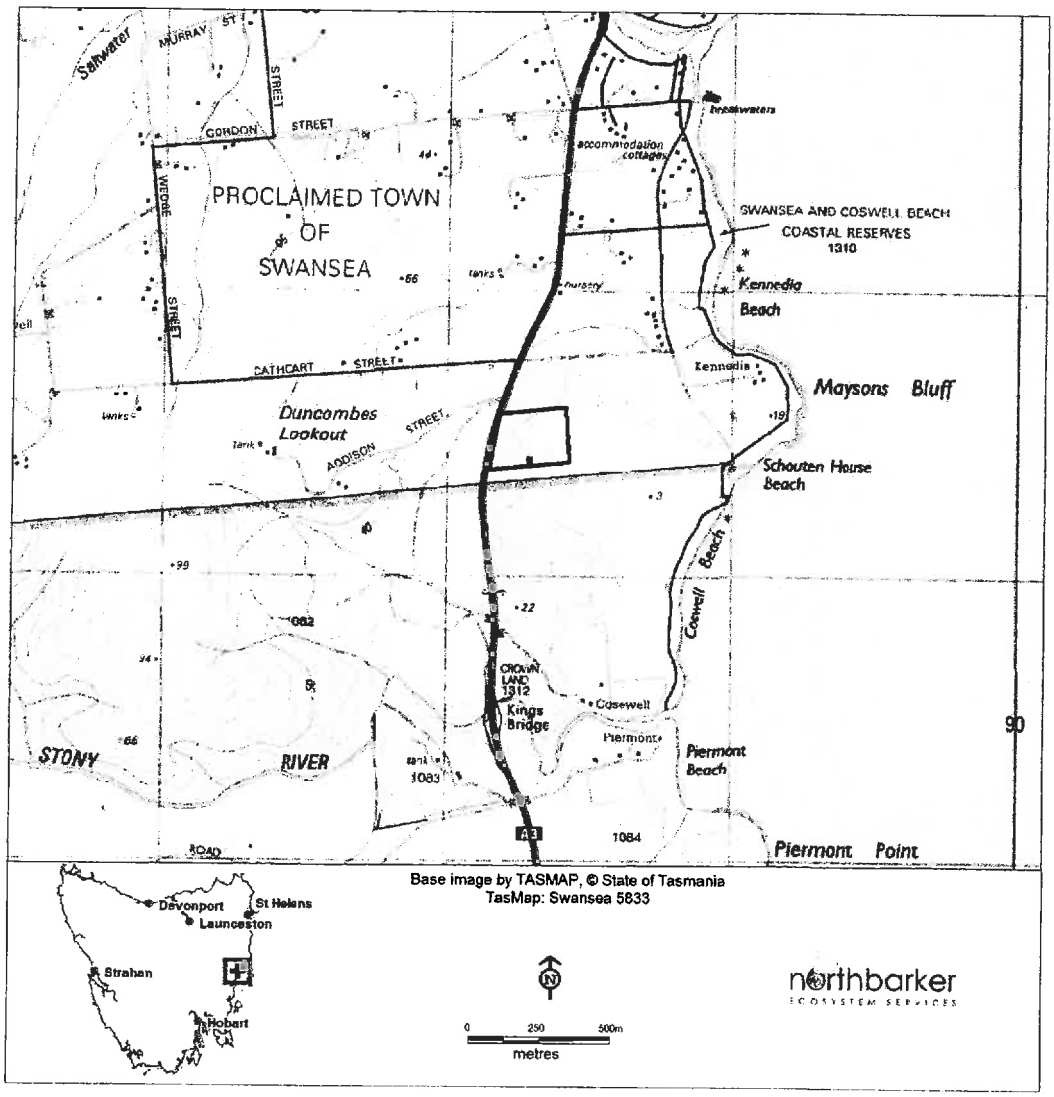

Figure 1: Location of property

[6] nvr_5_25-May-2016

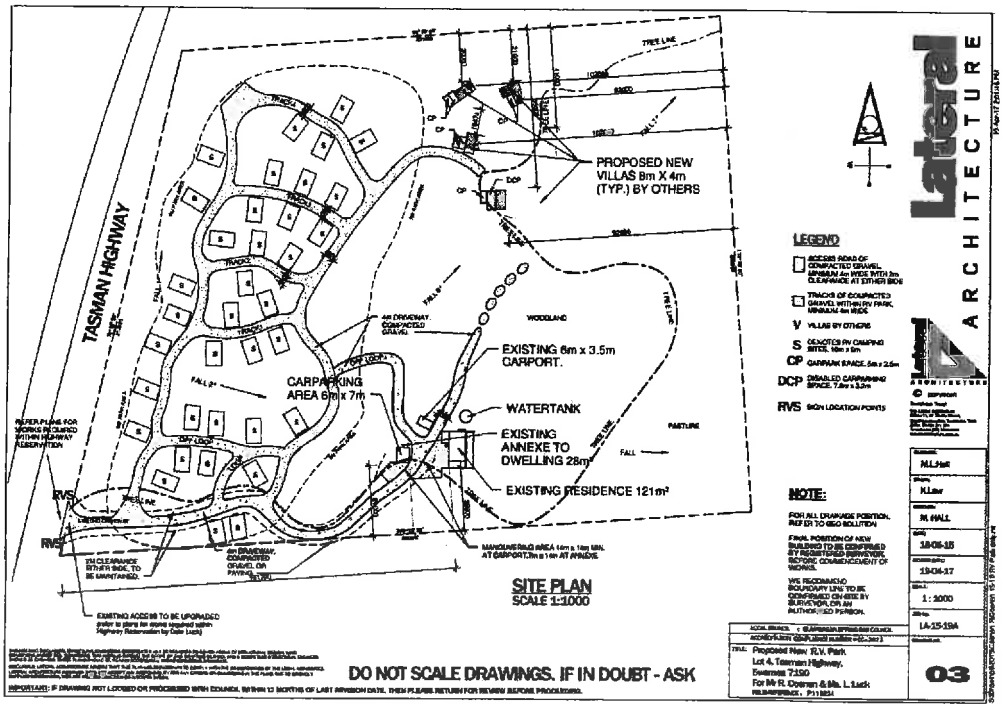

Figure 2 – updated Proposed layout

2. Results - Biological Values

2.1. Vegetation – Classification and Composition

Previous mapping held within the TASVEG (v3.0) database[7] indicates that the property and surrounding areas have been mapped as agricultural land (FAG) and dry *Eucalyptus viminalis* grassy forest and woodland (DVG). The field survey confirmed this mapping.

Neither community is listed as threatened under the Tasmanian *Nature Conservation Act 1995* or Federal *Environmental Protection and Biodiversity Conservation Act 1999*.

Dry *Eucalyptus viminalis* grassy forest and woodland (DVG)

The eucalypt canopy has been heavily cut out in the past with trees showing a woodland cover and generally <15m in height. Many areas are dominated by wattle regrowth. *Eucalyptus viminalis* dominates with *E. pulchella and Callitris rhomboidea* also present in small numbers. The boundaries of the communities are shown in Figure 2.

The tall or low shrub species include peach berry *Lissanthe strigosa*, creeping bossiaea *Bossiaea prostrata*, native cranberry *Astroloma humifusum*, drooping sheoak *Allocasuarina verticillata*, silver wattle *Acacia dealbata*, broadleaf hopbush *Dodonaea viscosa subsp. spatulata* and in rocky dolerite outcrops the buttonleaf everlastingbush *Ozothamnus scutellifolius* was frequent.

The ground layer was dominated by grasses including slender wallabygrass *Rytidosperma penicillata* and other *Rytidosperma* species, spear grasses *Austrostipa* species, velvet tussockgrass *Poa rodwayi*, coastal tussockgrass *Poa poiformis*, and kangaroo grass *Themeda triandra*, the latter being dominant. Other less frequent graminoids include sagg *Lomandra longifolia*, narrow swordsedge *Lepidosperma gunnii*, and variable sword sedge *Lepidosperma laterale*.

Table 1: DVG (*Eucalyptus viminalis* forest and woodland) – species composition

Grid Reference:	588279E, 5333550N
Accuracy:	GPS (within 10 metres)
Recorder:	Dave Sayers
Date of Survey:	1 Jun 2016
Trees:	*Bursaria spinosa subsp. spinosa, Callitris rhomboidea, Eucalyptus pulchella, Eucalyptus viminalis subsp. viminalis*
Tall Shrubs:	*Acacia mearnsii, Acacia verticillata, Allocasuarina littoralis, Allocasuarina verticillata, Dodonaea viscosa subsp. spatulata, Exocarpos cupressiformis*
Shrubs:	*Acacia genistifolia, Bossiaea prostrata, Pomaderris elliptica*
Low Shrubs:	*Aotus ericoides, Lissanthe strigosa subsp. subulata, Pimelea humilis*
Herbs:	*Acaena echinata, Clematis gentianoides, Cynoglossum suaveolens, Dichondra repens, Gonocarpus tetragynus, Goodenia lanata, Leptorhynchos squamatus subsp. squamatus, Oxalis perennans, Pelargonium australe, Solenogyne gunnii, Wahlenbergia sp.*
Graminoids:	*Lepidosperma gunnii, Lepidosperma inops, Lepidosperma laterale, Lomandra*

[7] DPIPWE 2013

	longifolia
Grasses:	*Deyeuxia sp., Ehrharta stipoides, Poa rodwayi, Rytidosperma caespitosum, Themeda triandra*
Climbers:	*Cassytha sp.*
Weeds:	*Avena sp., Centaurium erythraea, Cirsium vulgare, Hypochaeris glabra, Lysimachia arvensis, Malva sp., Ulex europaeus*

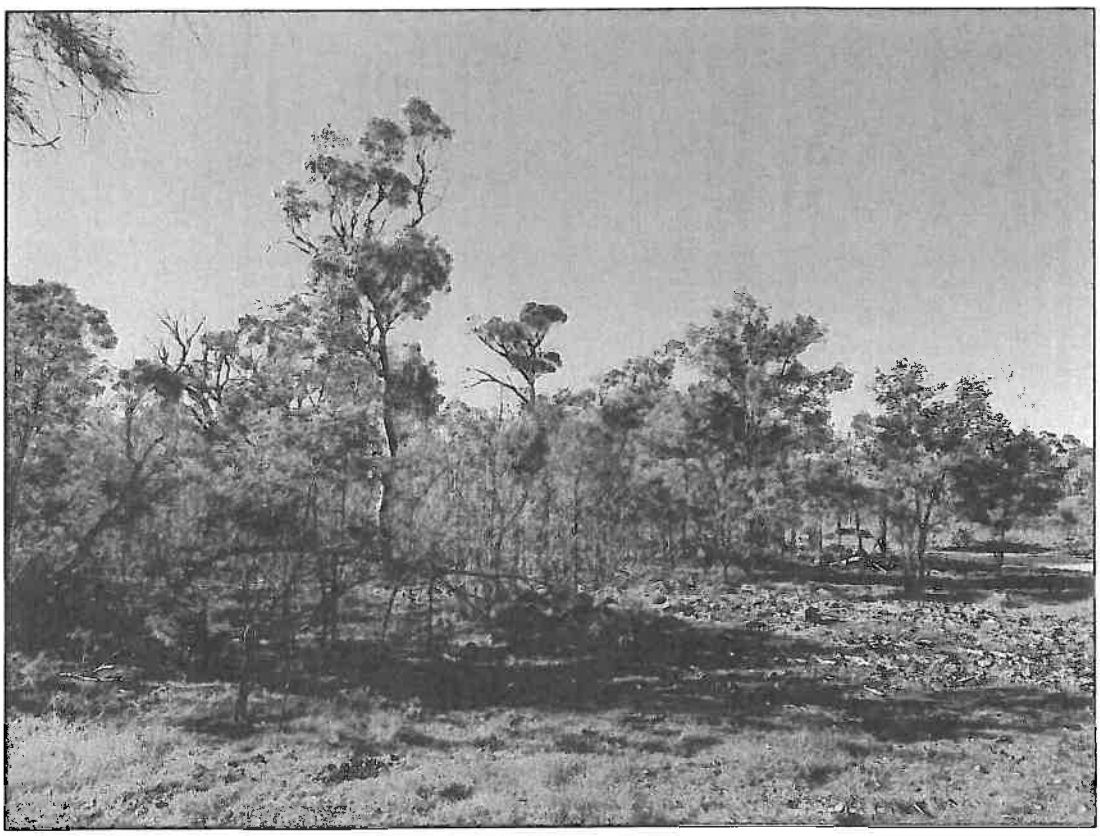

Plate 1 - DVG on site

Figure 3 - Vegetation, Threatened flora habitat and weeds.

2.2. Plant Species of Conservation Significance

In total, 45 species of vascular plants were recorded during our field survey within the native bushland (Appendix B). No threatened species were observed however potential habitat for the moss sunray is present (survey occurred outside suitable observation period).

Previous surveys within 5 km of the study area have identified a number of species of threatened flora variously listed under the EPBCA or the TSPA[8]. These species are listed in Table 2 with a description of their preferred habitat and an assessment of the likelihood of the being overlooked or seasonally absent during our survey. Only one of these species (or any other plausible threatened flora[9]) is considered likely to have been overlooked or seasonally absent on site.

Table 2: Flora species of conservation significance known within a 5 km radius of the study area

Species	Status[10] TSPA / EPBCA	Potential to occur	Observations and preferred habitat[11]
Known from within 500 m			
Hyalosperma demissum moss sunray	Endangered / -	Moderate	Occurs in shallow, stony soils (dry dolerite ridges) and rock plates in the eastern half of the State. Some suitable habitat is present (Figure 3). Best time to observe is Spring therefore potential habitat has been mapped.
Melaleuca pustulata warty paperbark	Rare / -	Low to moderate	Found in a range of habitats including dry open woodland, grassland and scrub, riparian zones and stable dunes in sparse coastal shrubbery. It is restricted to the central East Coast. Numerous plants occur within the surrounding area however was not recorded onsite.
Rytidosperma induta tall wallabygrass	Rare/ -	Low to moderate	Occurs in dry forest. There is one record from an unknown collector within 500m to the south. A conspicuous tall species that is unlikely to have been overlooked, although habitat is suitable.
Known from within 5 km			
Austrostipa scabra subsp. falcata rough speargrass	Rare / -		Occurs in dry, open habitats on fertile soils along the East Coast and the south and central Midlands. This species has also been recorded from grassy remnants, roadside banks and coastal vegetation. Numerous records along the coastal sand dune where one location was confirmed. Identification ideally requires fertile awn and survey did not coincide with the

[8] Natural Values Report: nvr_5_25-May-2016
[9] EPBCA Protected Matters database search PMST_4R6VTR
[10] Tasmanian *Threatened Species Protection Act 1995*, Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.
[11] Lazarus *et al.* 2003; Jones *et al.* 1999

Species	Status[10] TSPA / EPBCA	Potential to occur	Observations and preferred habitat[11]
			flowering period of this species. May be present however the site is not significant for this species.
Calocephalus lacteus milky beautyheads	Rare /	Very Low	Open grassland situations. One record with low accuracy (5km). Limited habitat present but no plants recorded and not easily overlooked.
Calystegia soldanella sea bindweed	Rare / -	None	Recorded from coastal sands in north-east of the State. It has also been found growing in granite soils and grazed coastal grasslands. Present to the east on the coastal dunes but no habitat present onsite
Cryptandra amara pretty pearlflower	Endangered / -	Very Low	Found in grazed paddocks on dolerite, rocky dry sclerophyll forests, remnant heathy woodlands on roadsides, dry north-facing dolerite outcrops and riverine rock plates. Suitable habitat but only one record within 5km dated 1600 with low accuracy.
Damasonium minus starfruit	Rare / -	None	Swampy habitat and farm dams and prefers slow flowing or stationary water. No suitable habitat.
Eucalyptus barberi barber's gum	Rare / -	None	Found around eastern Tasmania on the edges of dolerite rock plates in dry sclerophyll forest and scrub. Marginal suitable habitat but not recorded. 1 record within 5 km dated 1900.
Haloragis heterophylla variable raspwort	Rare / -	Low	Known from *Themeda* and *Poa* grassland, and woodland in the Midlands, north, south-east and on the East Coast. Some suitable habitat present but not recorded.
Lasiopetalum micranthum Tasmanian velvetbush	Rare / -	None	Occurs on shallow, dry dolerite soils in dry sclerophyll forest. Known from Meredith River 4.5 km north west but not recorded onsite.
Lobelia pratioides poison lobelia	Vulnerable / -	None	Found on the edges of rivers and in wet places within grassland and grassy woodland in the Midlands, north and east of the State. No suitable habitat.
Ozothamnus lycopodioides clubmoss everlastingbush	Rare / -	Low	Found in dry sclerophyll forest near the East Coast and on rocky dolerite slopes along the Prosser River. This species is commonly found on a dolerite substrate. Closest known record is 1 km to the north west. Suitable habitat present but not recorded within impact areas.
Phyllangium divergens Wiry mitrewort	Vulnerable / -	None	Inhabits open habitat on periodically wet, sandy and clayey soils, often overlying rock. No suitable habitat.
Scaevola aemula fairy fanflower	Endangered / -	Very Low	Found on the East Coast between the Prosser River in the south and the Apsley River in the north. Occurs in dry woodland/forest dominated by *Allocasuarina verticillata/Eucalyptus*

Species	Status[10] TSPA / EPBCA	Potential to occur	Observations and preferred habitat[11]
			amygdalina with *Callitris rhomboidea* also usually present. On dolerite substrates on well-exposed slopes with high rock cover. Marginal habitat present and not observed. Only 1 record within 5km with low accuracy (10 km) dated 1892.
Stenanthemum pimeleoides propeller plant	Vulnerable / VULNERABLE	Very Low	Occurs in dry sclerophyll forest with an open heathy or shrubby understory. Three records with very poor accuracy within 5km. Marginal habitat present and not observed.
Stenopetalum lineare narrow threadpetal	Endangered / -	Low	Only known from 6 sites including Kelvedon Beach to the north where it occurs on sand dunes.
Vittadinia burbidgeae smooth new-holland daisy	Rare / -	Low	A low herb of dry grassy sites and shallow soils and rock plates. A reliable record 1 km north along the Tasman Hwy. Suitable habitat onsite but not recorded.
Vittadinia cuneata var. cuneata fuzzy new-holland daisy	Rare / -	Low	Occurs in low rainfall areas on both fertile and infertile soils mainly in dry forests. Only 1 known record with poor accuracy (1.5km dated 1881). Some suitable habitat present.
Vittadinia gracilis woolly new-holland daisy	Rare / -	Low	A low herb of dry grassy sites and shallow soils and rock plates. Only 1 known record with poor accuracy (1km dated 1600 from an unknown observer). Some suitable habitat present.

***Hyalosperma demissum* moss sunray (TSPA endangered)**

This annual herb grows on rock pavements or shallow sandy soils generally on dolerite. This species is known to occur 200m north along Cathcart St on dolerite rock plates similar to patches present within the study area. Surveys for this species should be completed during peak flowering which is late October or early November. Due to the species ephemeral nature, it could not be observed at the timing of this survey however patches of suitable habitat have been mapped in Figure 3.

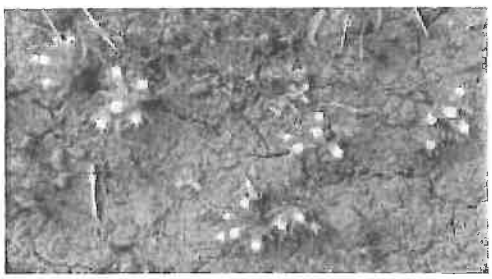

Plate 2 - moss sunray (not taken onsite)

2.3. Introduced Plants

A total of 7 introduced species were observed within the study area. One of the observed species, gorse *Ulex europaeus* is a declared weed under the Tasmanian *Weed Management Act 1999* (Figure 3). The number of introduced species would have been much higher if the pasture species were included.

Plate 3: Gorse is a declared weed and is present in large numbers closer to the Tasman Highway

2.4. Fauna Species of Conservation Significance

In addition, a variety of threatened and/ or migratory fauna are known from the local area (5 km radius) or have the potential to occur there based on habitat mapping; Table 3 provides a description of the preferred habitat of these species and an assessment of the likelihood of their occurrence on site. Note that a 5 km radius around a coastal area captures marine, as well as terrestrial habitats; this is consequently reflected in the presence of marine species within lists of potentially occurring species based on habitat mapping. For the sake of simplicity in the present study, entirely marine species that will not conceivably be impacted upon by actions under the present proposal have been excluded from Table 3, including whales, sharks, pelagic birds, *etc*.

Table 3: Fauna species of conservation significance previously recorded within a 5 km radius of the study area, or with the potential to do so based on habitat mapping[12]

Species	Status TSPA/ EPBCA	Likelihood of occurrence	Observations and preferred habitat[13]
BIRDS			
Accipiter novaehollandiae grey goshawk	Endangered/ -	None	Typically inhabits large tracts of wet forest and requires old trees for nesting. No suitable nesting habitat present.
Aquila audax subsp. *fleayi* wedge-tailed eagle	Endangered/ ENDANGERED	Foraging: Low Nesting: None	Requires large sheltered trees for nesting and is highly sensitive to disturbance during the breeding season. No suitable nesting habitat present on site. Habitat suitable for occasional foraging only.
Haliaeetus leucogaster white-bellied sea-eagle	Vulnerable/ (Migratory)	Foraging: Low Nesting: None	Occurs in coastal habitats and large inland waterways. Habitat and location suitable for occasional foraging only.
Lathamus discolor swift parrot	Endangered/ ENDANGERED	Very Low	For nesting this species requires tree hollows adjacent to food plants, which are blue gums (*E. globulus*) and black gums (*E. ovata*). The present site is within its core breeding and foraging range however suitable foraging habitat is not present on site.
Pardalotus quadragintus forty-spotted pardalote	Endangered/ ENDANGERED	Very low	Not known from within 5 km with closest known population on Maria Island. Suitable habitat present on site in the form of dry grassy forest containing mature white gum (*E. viminalis*).
Sterna nereis subsp. *nereis* fairy tern	Vulnerable/ VULNERABLE	None	Inhabits sandy coastal and estuarine environments preferring to nest on sheltered sandy beaches. No habitat will be impacted
Tyto novaehollandiae masked owl	Endangered/ -	Low	Requires a mosaic of forest and open areas for foraging and large old-growth hollow-bearing trees for nesting. Suitable habitat trees were observed on site but no evidence of masked owl usage was recorded. No known records within 5 km since mid-1990's though this may be more reflective of a lack of targeted survey.
MAMMALS			
Dasyurus maculatus spotted-tailed quoll	Rare/ VULNERABLE	None	Potentially present based on habitat mapping only. Known from coastal environments, but more frequently associated with wetter and denser habitats than those found on site.
Perameles gunnii eastern barred bandicoot	- / VULNERABLE	Low to moderate	This species favours a mosaic of open grassy areas for foraging and dense vegetation for shelter and nesting. Site is suitable for both foraging and nesting but not recorded since the early 1990's within 5km.

[12] Natural Values Report: nvr_3_14-Jan-2016
[13] Bryant & Jackson 1999; Daniels, 2011; Daniels and Kirkpatrick, 2012

Species	Status TSPA/ EPBCA	Likelihood of occurrence	Observations and preferred habitat[13]
Sarcophilus harrisii Tasmanian devil	Endangered/ ENDANGERED	Low	Numerous records, especially in the form of roadkill. No denning structures or evidence of devils was recorded within the study area.
REPTILES			
Pseudemoia pagenstecheri tussock skink	Vulnerable/ -	Very Low	Occurs in *Poa* tussock grassland and *Themeda* grassland without trees. Marginal habitat present.
AMPHIBIANS			
Litoria raniformis green and gold frog	Vulnerable/ VULNERABLE	Very Low	Occurs in well vegetated wetlands. No known records within 5 km and very marginal habitat present near the coastal foreshore. Survey occurred outside peak time for audible identification.
INVERTEBRATES			
Theclinesthes serpentata chequered blue butterfly	Rare/ -	None	Known only from saltmarshes. No suitable habitat present.
Antipodia chaostola chaostola skipper	Endangered/ ENDANGERED	None	Larvae of this species are reliant on the sedge *Gahnia radula*, which was not observed within the study area.

Eastern barred bandicoot, *Perameles gunnii* (EPBCA: Vulnerable)

Eastern barred bandicoots are listed as 'vulnerable' nationally under the EPBC Act. However, they are not presently listed under the Tasmanian *Threatened Species Protection Act*. The basis of this difference is the catastrophic effect the European red fox (*Vulpes vulpes*) had on many species of small mammal on mainland Australia. Although eastern barred bandicoots have not historically had to deal with fox predation in Tasmania, they have undergone a large range shift in association with habitat alteration[14]. As part of this shift they have colonised areas of pasture and areas now occupied by rural-residential development. In some cases, low-density developments, such as the proposal for the present site, can support higher numbers of eastern barred bandicoots than bushland[15]. The most detrimental impact that rural residential development has on eastern barred bandicoots is the introduction of additional causes of mortality, particularly domestic cats and dogs[16]. However, it appears that the high reproductive rate of the eastern barred bandicoot enables them to survive in areas with these additional sources of mortality[17].

The grassy and shrubby parts of the present site provide suitable foraging and/or sheltering habitat for eastern barred bandicoots.

[14] Hocking, 1990
[15] Daniels, 2011
[16] Daniels, 2011
[17] Daniels and Kirkpatrick, 2012

3. Impact Assessment

The impact of the proposal will result in some minor modifications and clearance of a portion of the *Eucalyptus viminalis* forest (DVG) although the majority of the area to be impacted is already substantially modified. This is a widespread vegetation community that is not listed as threatened community and as such constitutes a low priority biodiversity value under the Biodiversity Code of the *Glamorgan Spring Bay Interim Planning Scheme 2015*. There are 101,800 ha of DVG remaining in Tasmania with 16% under reserves and 2,900 ha within Glamorgan Spring Bay of which 22% is reserved.

No *Eucalyptus viminalis* are planned to be removed however no specimens are of the age and form to maintain nesting or breeding hollows for a variety of threatened fauna.

No threatened flora or fauna have been recorded onsite, however given the timing of the survey was outside the period to observe the State endangered *Hyalosperma demissum* moss sunray, potential habitat was recorded. These rock plate locations are shown in Figure 4 with one RV Park area in close proximity as well as a road. Only a survey in late October or early November can determine whether this species is present or not.

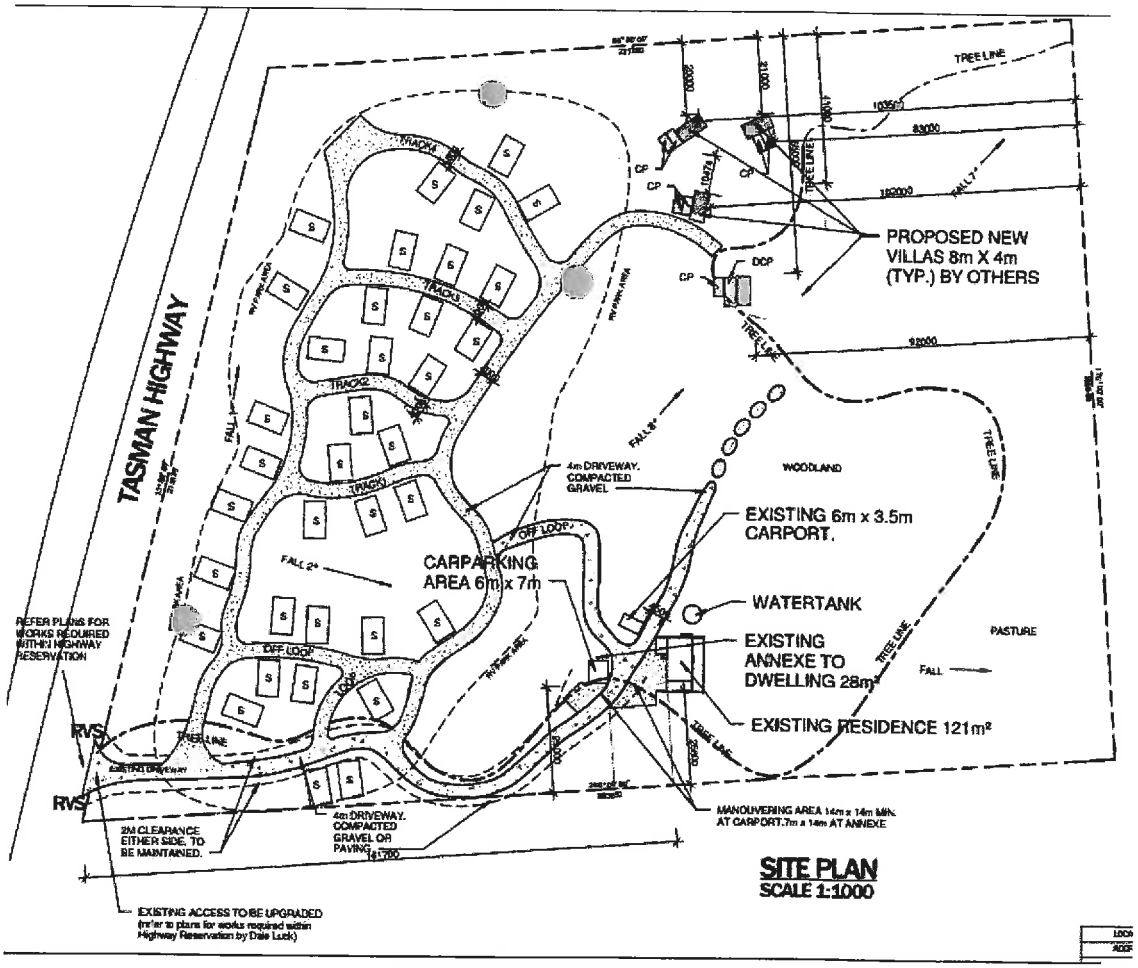

Figure 4 - Threatened flora habitat with proposed access roads

4. Legislative Requirements

4.1. Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

The EPBCA is structured for self-assessment; the proponent must indicate whether or not the project is considered a 'controlled action', which, if confirmed, would require approval from the Commonwealth Minister.

The probability of any EPBCA listed flora species occurring within the study area is considered very low. The eastern barred bandicoot has a moderate likelihood of utilising the property. However, the natural values assessment has indicated that the proposal is unlikely to cause a measurable decline to the species and will not breach the significant impact criteria under the EPBCA.

Consequently, referral to the Minister is not considered to be necessary for this proposal.

4.2. Tasmanian *Threatened Species Protection Act 1995*

No known locations of species protected under this Act will be impacted. Similarly, no known nest sites will be impacted. Some potential habitat for the endangered moss sunray *Hyalosperma demissum* has been recorded. Avoiding impact in these locations is the simplest method otherwise a late September to early October survey would be required to determine presence/absence.

4.3. Tasmanian *Weed Management Act 1999*

Glamorgan/Spring Bay is a zone B municipality for the declared weed gorse. According to the provisions of the *Weed Management Act 1999*, zone B municipalities are those in which control and prevention of spread are the principle aims. The management measures required within zone B areas are: containment within municipal boundaries, protection of specified areas within municipal boundaries, and prevention of spread to zone A municipalities. Specified areas include: a) any zone B property sharing a border with a zone A municipality; b) any property within zone B that is free from the respective weed; c) any group of properties within zone B for which the owners have developed and are implementing a local integrated Weed Management Plan for the relevant species; and d) any property within zone B where the respective weed species may impact negatively upon any community or flora or fauna species listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and/or the Tasmanian *Threatened Species Protection Act 1995*.

4.4. *Land Use Planning and Approvals Act 1993* (LUPAA)

LUPAA states that 'in determining an application for a permit, a planning authority must (amongst other things) seek out the objectives set out in Schedule 1[18].

Schedule 1 includes 'The objectives of the Resource Management and Planning System of Tasmania' which are (amongst other things):

'To promote sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity'.

Sustainable development includes 'avoiding, remedying or mitigating any adverse effects of activities on the environment'[19].

Regulation to fulfil these requirements will be administered through the *Glamorgan Spring Bay Interim Planning Scheme 2015* and through not breaching the other Acts mentioned.

[18] Section 51(2)(b) – Part 4 Enforcement of Planning Control – Division 2 Development Control (*LUPPA 1993*)
[19] page 56 – *LUPPA 1993*

4.5. Glamorgan Spring Bay Interim Planning Scheme 2015

4.5.1. Biodiversity Code E10

As the property occurs within the Biodiversity Protection Area the proposal must meet provisions of Biodiversity Code E10, which applies to development involving clearance and conversion or disturbance of native vegetation. The proposal does not meet any of the criteria providing exemption from this code.

The general purpose of the provisions of the E10 are:

(a) minimise loss of identified threatened native vegetation communities and threatened flora species;

(b) conserve identified threatened fauna species by minimising clearance of important habitat and managing environmental impact; and

(c) minimise loss of other biodiversity values that are recognised as locally significant by the Planning Authority.

Specifically the proposal must meet the standards relating to **building and works (E10.7.1)**, to ensure that:

(a) works associated with the development for building and works resulting in clearance and conversion or disturbance within a Biodiversity Protection Area does not result in unnecessary or unacceptable loss of priority biodiversity values;

The application will not meet the acceptable solutions therefore; clearance and conversion or disturbance must comply with the following Performance Criteria:

(a) If low priority biodiversity values: (This applies to all except the threatened flora habitat location for *Hyalosperma demissum*).

  (i) development is designed and located to minimise impacts, having regard to constraints such as topography or land hazard and the particular requirements of the development;

  (ii) impacts resulting from bushfire hazard management measures are minimised as far as reasonably practicable through siting and fire-resistant design of habitable buildings;

(b) If moderate priority biodiversity values (applies to areas of habitat for *Hyalosperma demissum*;

  (i) development is designed and located to minimise impacts, having regard to constraints such as topography or land hazard and the particular requirements of the development;

  (ii) impacts resulting from bushfire hazard management measures are minimised as far as reasonably practicable through siting and fire-resistant design of habitable buildings;

  (iii) remaining moderate priority biodiversity values on the site are retained and improved through implementation of current best practice mitigation strategies and ongoing management measures designed to protect the integrity of these values;

  (iv) residual adverse impacts on moderate priority biodiversity values not able to be avoided or satisfactorily mitigated are offset in accordance with the *Guidelines for the Use of Biodiversity Offsets in the Local Planning Approval Process, Southern Tasmanian Councils Authority 2013* and any relevant Council policy.

No High priority biodiversity values are present therefore this part of the code does not apply.

(c) no works, other than boundary fencing works, are within the Biodiversity Protection Area;

(d) the building area, bushfire hazard management area, services and vehicular access driveway are outside the Biodiversity Protection Area.

For subdivision proposal, the proposal must also meet the standards relating to **subdivision (E10.8.1)**, to ensure that:

(a) works associated with subdivision resulting in clearance and conversion or disturbance will not have an unnecessary or unacceptable impact on priority biodiversity values; and

(b) future development likely to be facilitated by subdivision is unlikely to lead to an unnecessary or unacceptable impact on priority biodiversity values.

The current proposal does not comply with any of the acceptable solution criteria, it must therefore meet the "Performance Criteria" P1 for the clearance an7d conversion or disturbance of low and moderate priority biodiversity values[20]. These criteria (i, ii, iii) are listed below, with explanations to how each criterion is met in italics:

(i) subdivision works are designed and located to minimise impacts, having regard to constraints such as topography or land hazard and the particular requirements of the subdivision.

(ii) impacts resulting from future bushfire hazard management measures are minimised as far as reasonably practicable through appropriate siting of any building area

(iii) moderate priority biodiversity values outside the area impacted by subdivision works, the building area and the area likely impacted by future bushfire hazard management measures are retained and protected by appropriate mechanisms on the land title.

Under acceptable solution A2, the proposal must also not be prohibited by the respective zone standards.

Our assessment focused solely on the area covered by the Biodiversity Code and the proposal therefore no subdivision assessment has been undertaken.

[20] The moderate priority biodiversity values relating to swift parrot supersedes the low priority biodiversity values relating to general vegetation and all other fauna habitat.

5. General Recommendations for Best Practice

5.1. General

- During installation of services, access ways, *etc.*, ensure moderate priority biodiversity values (habitat for *Hyalosperma demissum*) in close proximity to works areas are adequately flagged and that construction workers are aware of their locations, in order to avoid inadvertent and unnecessary impact beyond the works footprint. This includes locations for stockpiling materials, which should be excluded from areas of native vegetation where possible.
- Replace any excavated topsoil as close to practicable from where it was removed.

5.2. Threatened Fauna

- Avoid any non-essential removal of individuals of *Eucalyptus viminalis* white gum.
- Avoid unnecessary removal of any semi-mature or mature eucalypt trees or stags that may provide potentially future nesting habitat for hollow-dependent species.

5.3. Weeds

- The containment principles of the Tasmanian *Weed Management Act 1999* should be sufficiently met with best practice construction hygiene that prevents the transport of contaminated material from beyond the study area, such as vehicle wash-down on entry and exit. A level of primary control may also facilitate this.

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Appendix A – Priority Biodiversity Values

Priority biodiversity values extracted from Table E10.1 *Glamorgan Spring Bay Interim Planning Scheme 2015*

High Priority Biodiversity Values	Moderate Priority Biodiversity Values	Low Priority Biodiversity Values
Native vegetation communities listed as threatened under the Nature Conservation Act 2002 (Tas)	Other habitat for threatened species listed under the Threatened Species Protection Act 1995 or the Environment Protection and Biodiversity Conservation Act 1999. **Habitat recorded for the State endangered Hyalosperma demissum**	Other native vegetation communities **All other areas covered by DVG**
Important habitat for threatened species listed under the Threatened Species Protection Act 1995 or the Environment Protection and Biodiversity Conservation Act 1999.		

Appendix B - Vascular Plant Species List

Status codes:

ORIGIN	NATIONAL SCHEDULE	STATE SCHEDULE
i - introduced	EPBC Act 1999	TSP Act 1995
d - declared weed WM Act	CR - critically endangered	e - endangered
en - endemic to Tasmania	EN - endangered	v - vulnerable
t - within Australia, occurs only in Tas.	VU - vulnerable	r - rare

Field centroid – E588279, N5333550; Observations: 01/06/2016, Dave Sayers

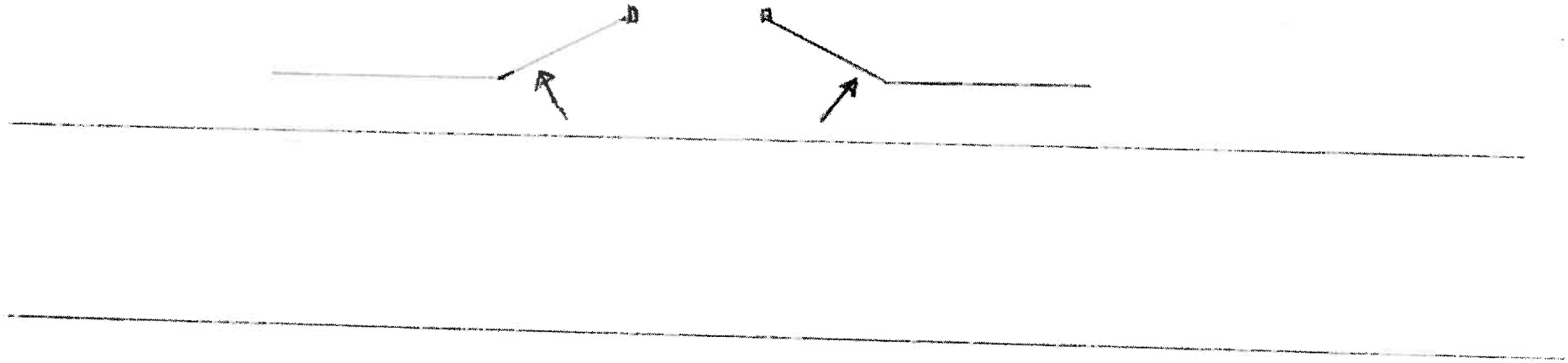
Name	Common name	Status
DICOTYLEDONAE		
ASTERACEAE		
Cirsium vulgare	spear thistle	i
Hypochaeris glabra	smooth catsear	i
Leptorhynchos squamatus subsp. squamatus	scaly buttons	
Solenogyne gunnii	hairy flat-herb	
BORAGINACEAE		
Cynoglossum suaveolens	sweet houndstongue	
CAMPANULACEAE		
Wahlenbergia sp.	bluebell	
CASUARINACEAE		
Allocasuarina littoralis	black sheoak	
Allocasuarina verticillata	drooping sheoak	
CONVOLVULACEAE		
Dichondra repens	kidneyweed	
EPACRIDACEAE		
Lissanthe strigosa subsp. subulata	peachberry heath	
FABACEAE		
Aotus ericoides	golden pea	
Bossiaea prostrata	creeping bossiaea	
Ulex europaeus	gorse	d
GENTIANACEAE		
Centaurium erythraea	common centaury	i
GERANIACEAE		
Pelargonium australe	southern storksbill	
GOODENIACEAE		
Goodenia lanata	trailing native-primrose	
HALORAGACEAE		
Gonocarpus tetragynus	common raspwort	

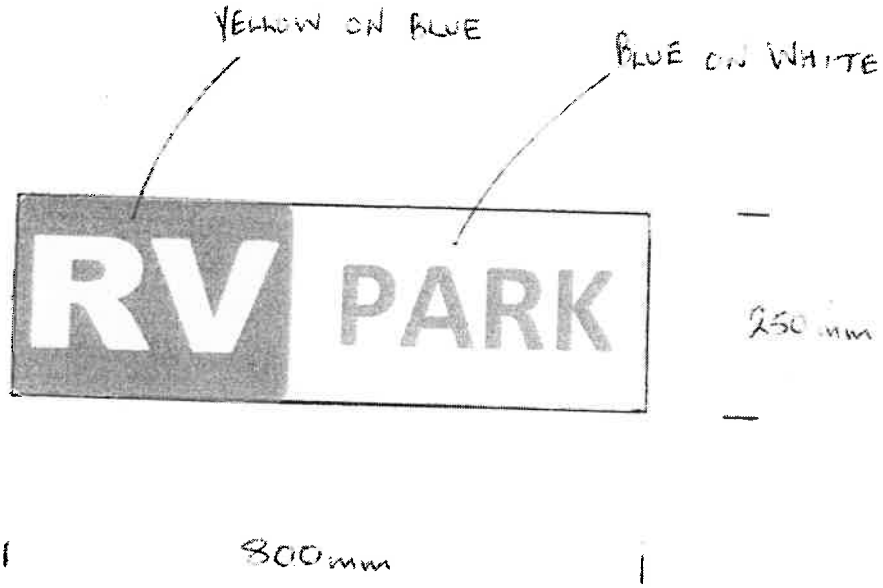
LAURACEAE		
Cassytha sp.	dodder-laurel	
MALVACEAE		
Malva sp.	mallow	i
MIMOSACEAE		
Acacia genistifolia	spreading wattle	
Acacia mearnsii	black wattle	
Acacia verticillata	prickly mimosa	
MYRTACEAE		
Eucalyptus pulchella	white peppermint	en
Eucalyptus viminalis subsp. viminalis	white gum	
OXALIDACEAE		
Oxalis perennans	grassland woodsorrel	
PITTOSPORACEAE		
Bursaria spinosa subsp. spinosa	prickly box	
PRIMULACEAE		
Lysimachia arvensis	scarlet pimpernel	i
RANUNCULACEAE		
Clematis gentianoides	ground clematis	en
RHAMNACEAE		
Pomaderris elliptica	yellow dogwood	
ROSACEAE		
Acaena echinata	spiny sheeps burr	
SANTALACEAE		
Exocarpos cupressiformis	common native-cherry	
SAPINDACEAE		
Dodonaea viscosa subsp. spatulata	broadleaf hopbush	
THYMELAEACEAE		
Pimelea humilis	dwarf riceflower	
GYMNOSPERMAE		
CUPRESSACEAE		
Callitris rhomboidea	oyster bay pine	
MONOCOTYLEDONAE		
CYPERACEAE		
Lepidosperma gunnii	narrow swordsedge	
Lepidosperma inops	fan sedge	en
Lepidosperma laterale	variable swordsedge	

POACEAE		
Avena sp.	oat	i
Deyeuxia sp.	bent grass	
Ehrharta stipoides	weeping grass	
Poa rodwayi	velvet tussockgrass	
Rytidosperma caespitosum	common wallabygrass	
Rytidosperma penicillatum	slender wallabygrass	
Themeda triandra	kangaroo grass	
XANTHORRHOEACEAE		
Lomandra longifolia	sagg	

K T H TASMAN HIGHWAY

RV PARK & SIGN LOCATION

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BLUE ON WHITE
RV
PARK
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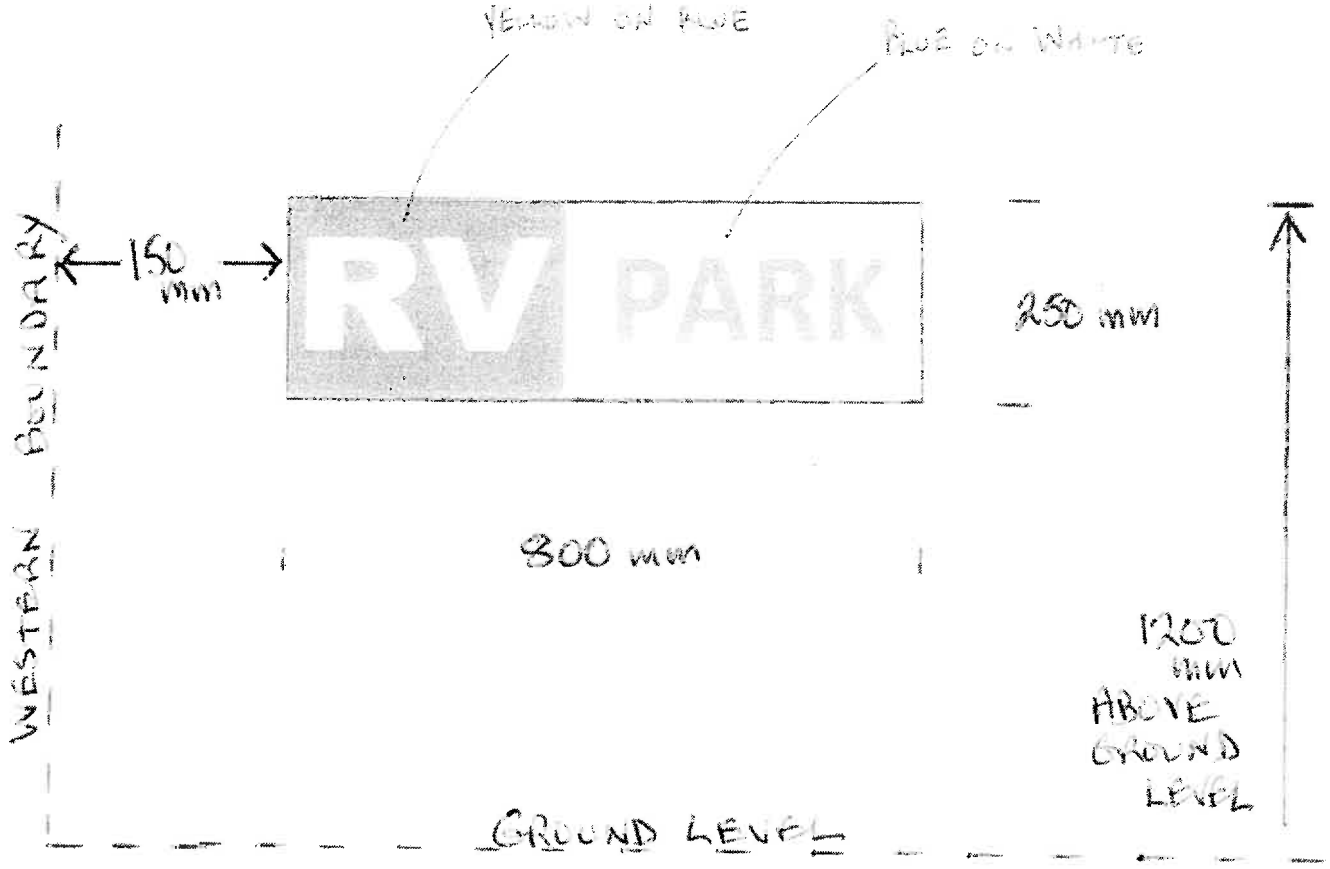
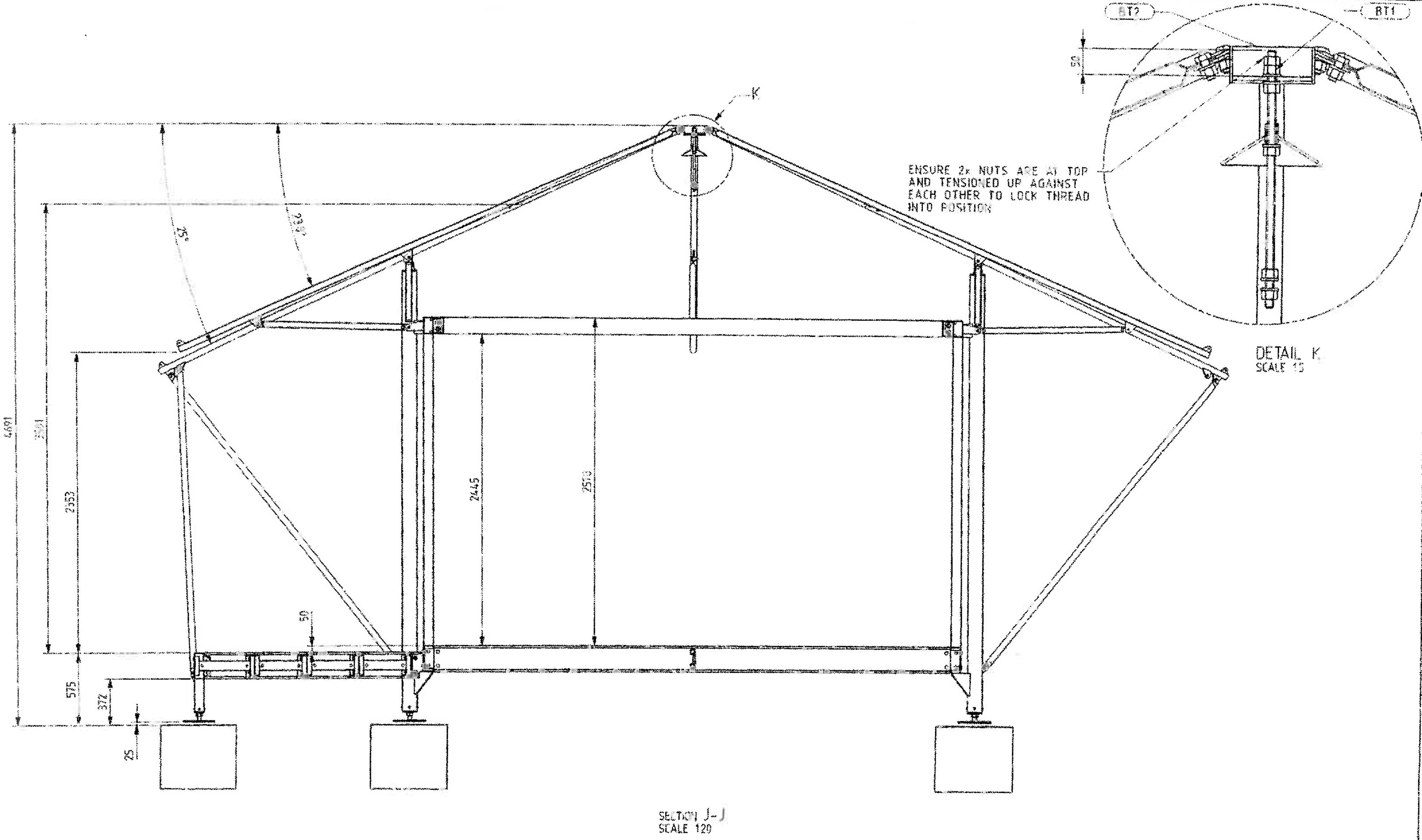
800mm


YELLOW ON BLUE
BLUE ON WHITE
RV PARK
150 mm
250 mm
300 mm
WESTERN BOUNDARY
1200 mm ABOVE GROUND LEVEL
GROUND LEVEL



TREATMENT: HOT DIP GALV

REV	DESCRIPTION	BY	DATE
3	ALL INTERNAL JOISTS CHANGED TO 220x115 - JBA	SC	26NOV09

ECO STRUCTURES AUST. Pty Ltd

DRAWN	SC
CHECKED	SC
MATERIAL	SEE TABLE
SCALE	AS SHOWN
SIZE	A2

TENT 4.2x4.2m

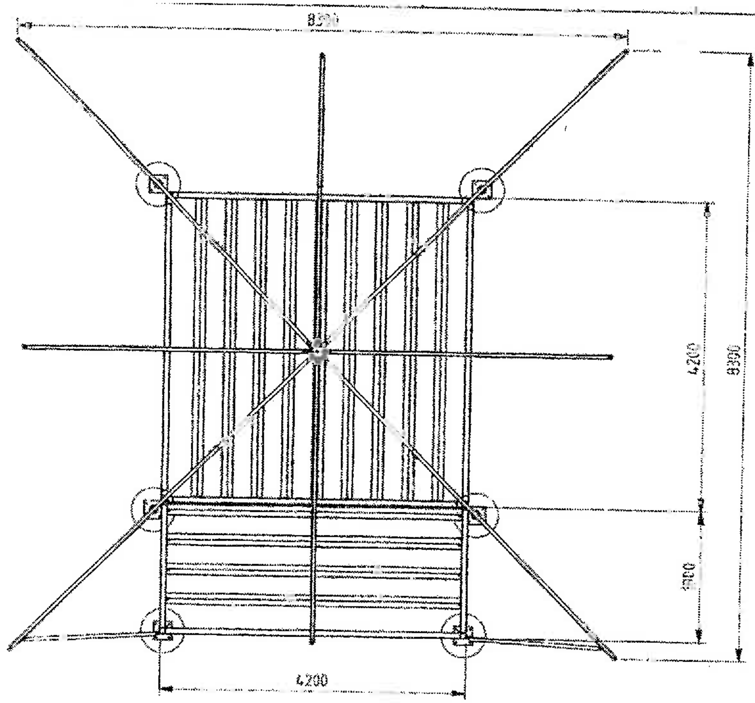
SECTION VIEW

M1031-A6

A6

7 of 8

REV 5



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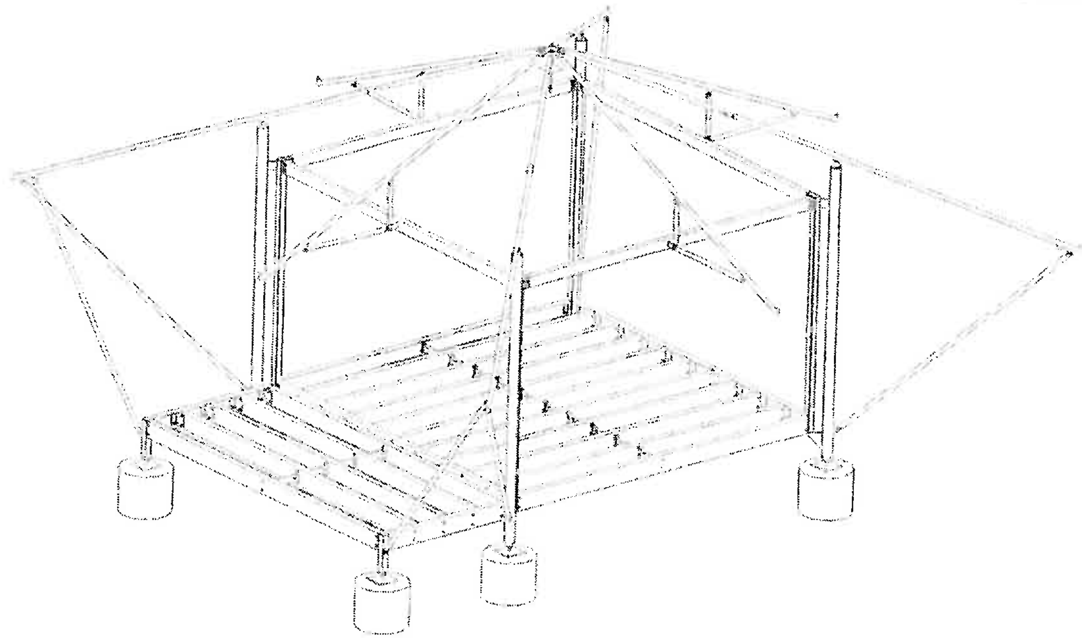
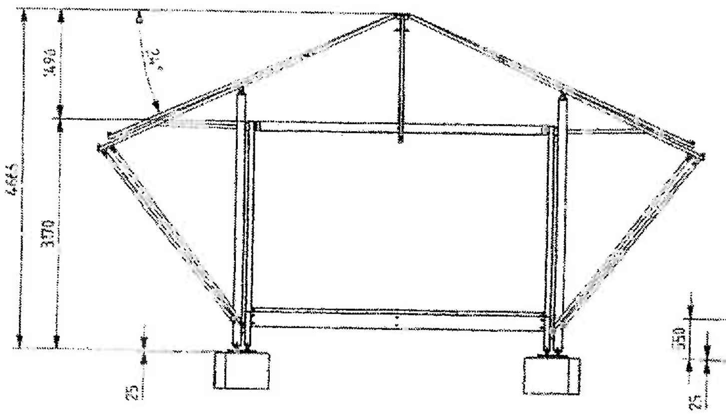
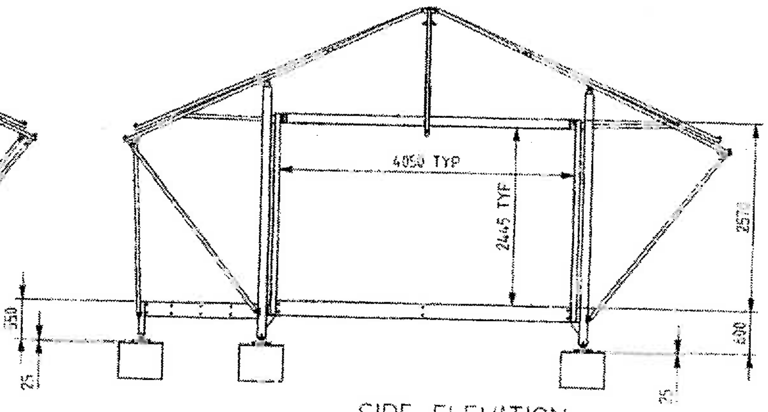
SCALE 1:50



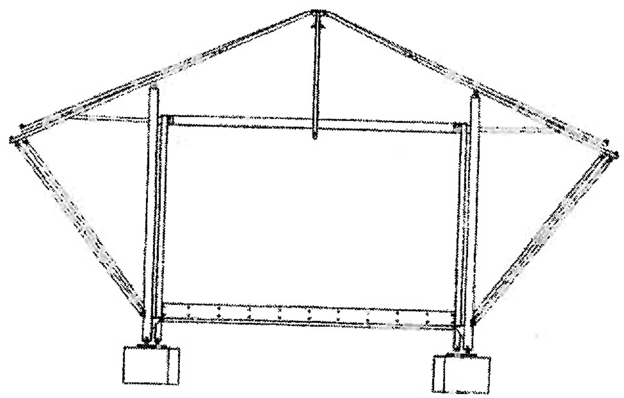
ISOMETRIC VIEW



FRONT ELEVATION
SCALE 1:50



SIDE ELEVATION
SCALE 1:50



REAR ELEVATION
SCALE 1:50

TREATMENT HOT DIP GALV.

REV	DESCRIPTION	BY	DATE
4	RAFTERS SPLIT, SP, R9 & K10	SC	18SEP13
2	ALL INTERNAL JOISTS CHANGED TO 22055 - J3A	SC	26NOV09

ECO STRUCTURES AUST. Pty Ltd

DRAWN	SC
CHECKED	SC
MATERIAL	SEE TABLE
SCALE	AS SHOWN
SHEET SIZE	A2

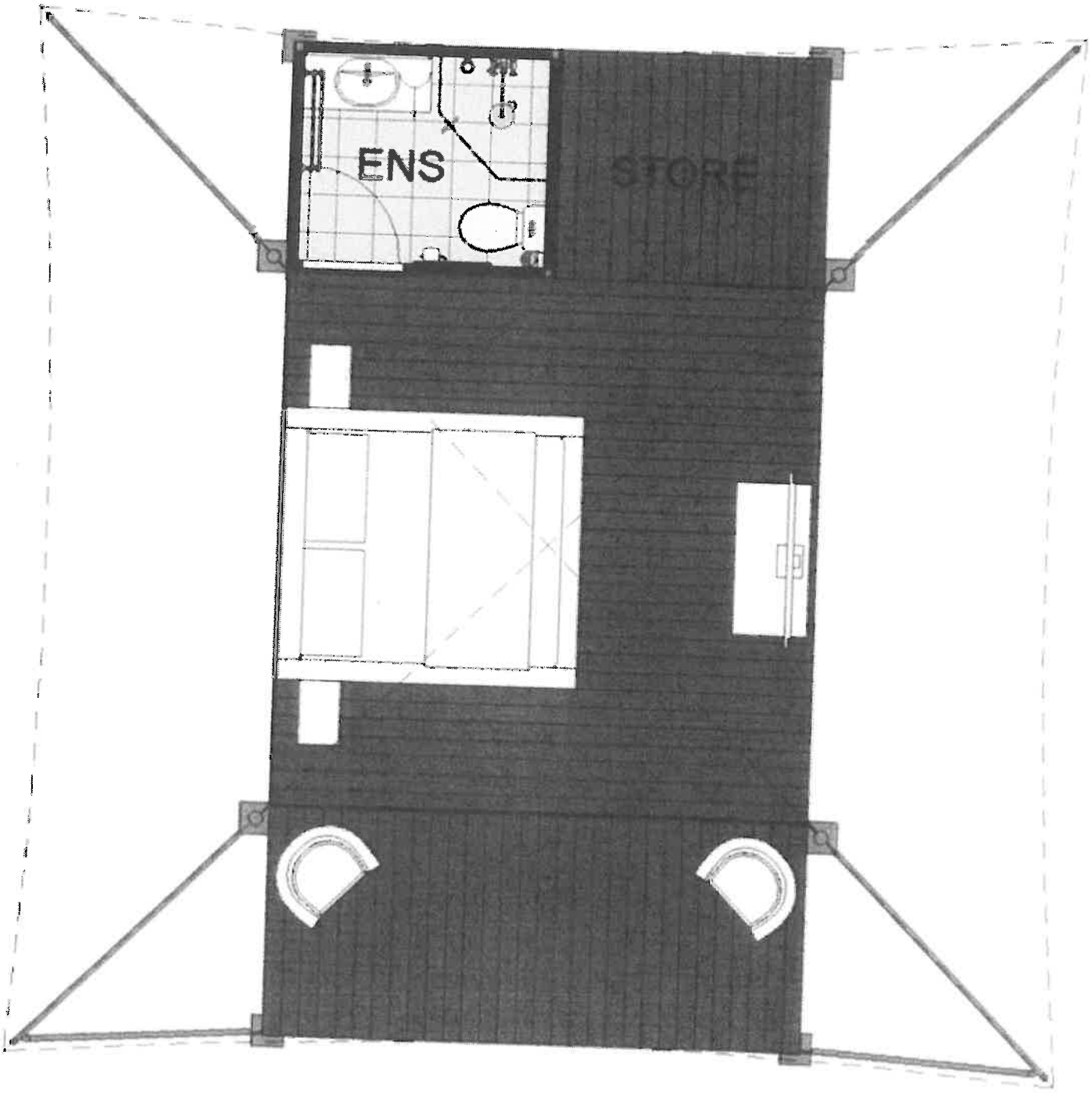
PROJECT: TENT 4.2x4.2m

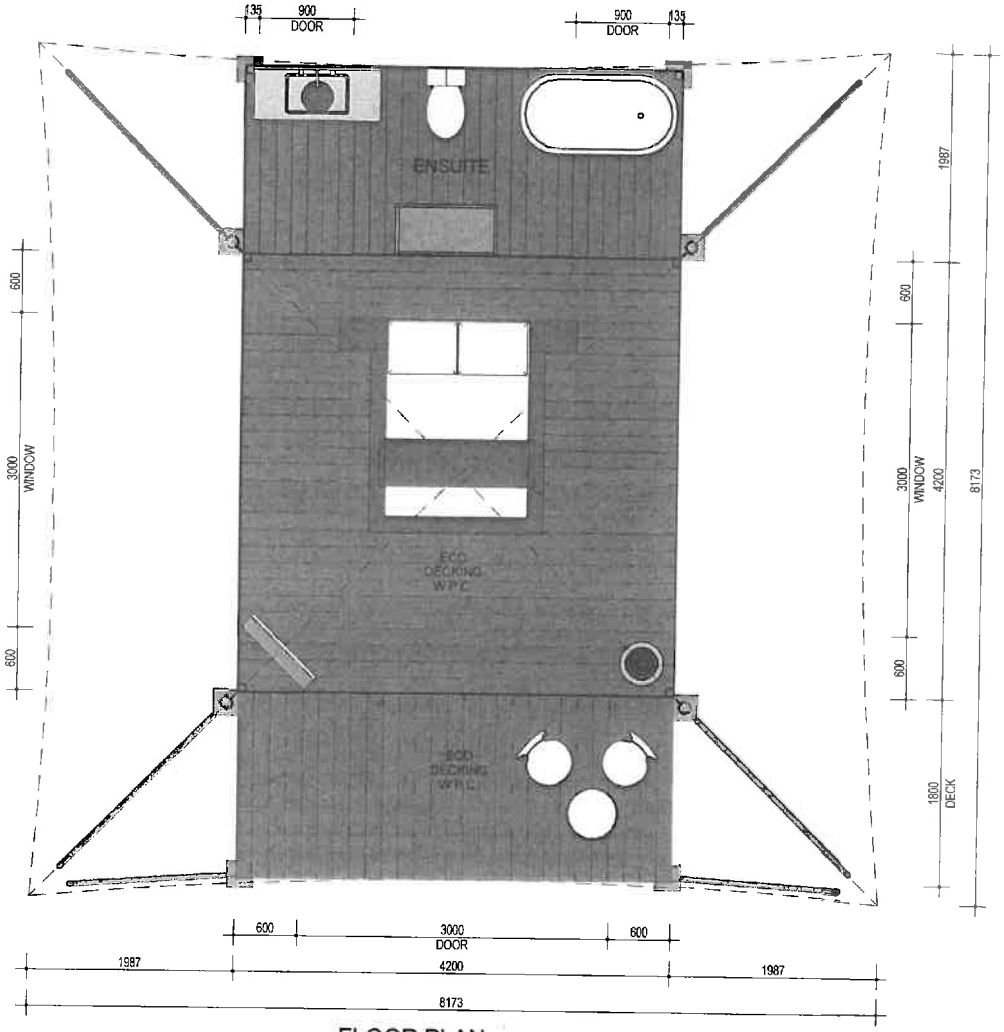
TITLE: ELEVATIONS

M1031-A6

A6

8 8 5


ENS
STORE



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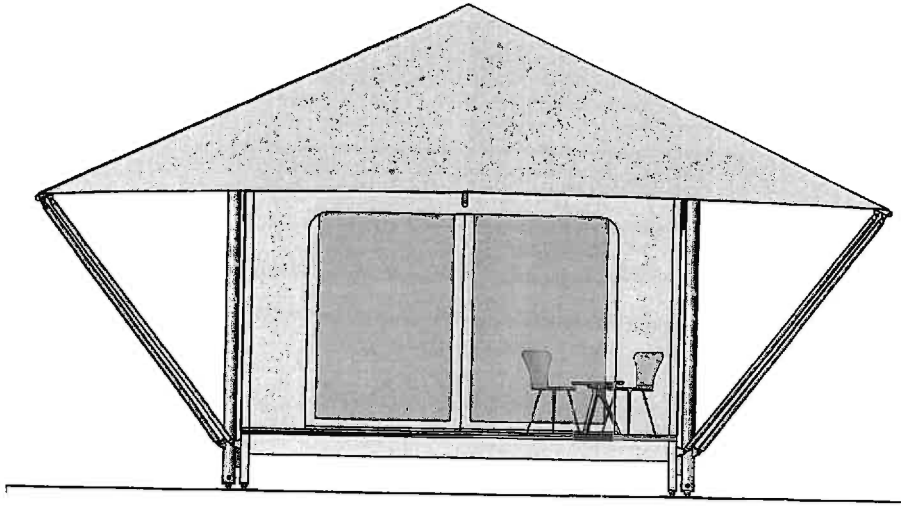

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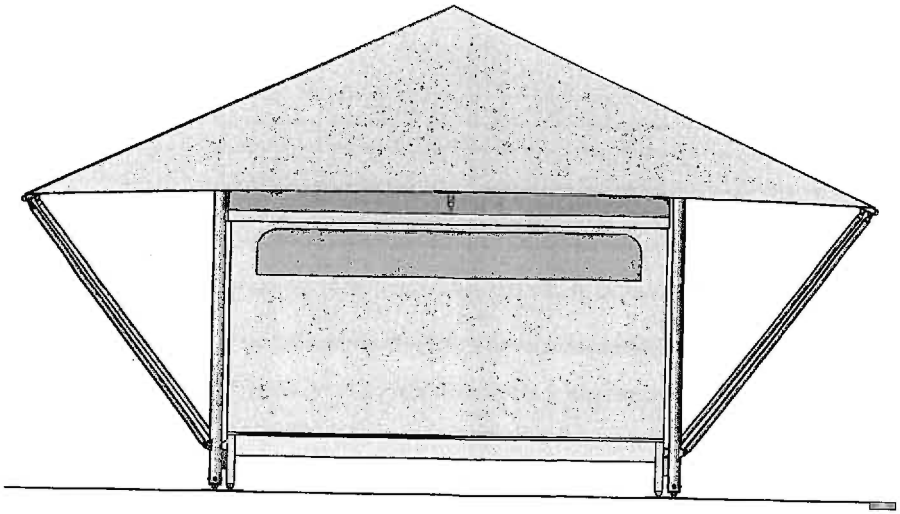


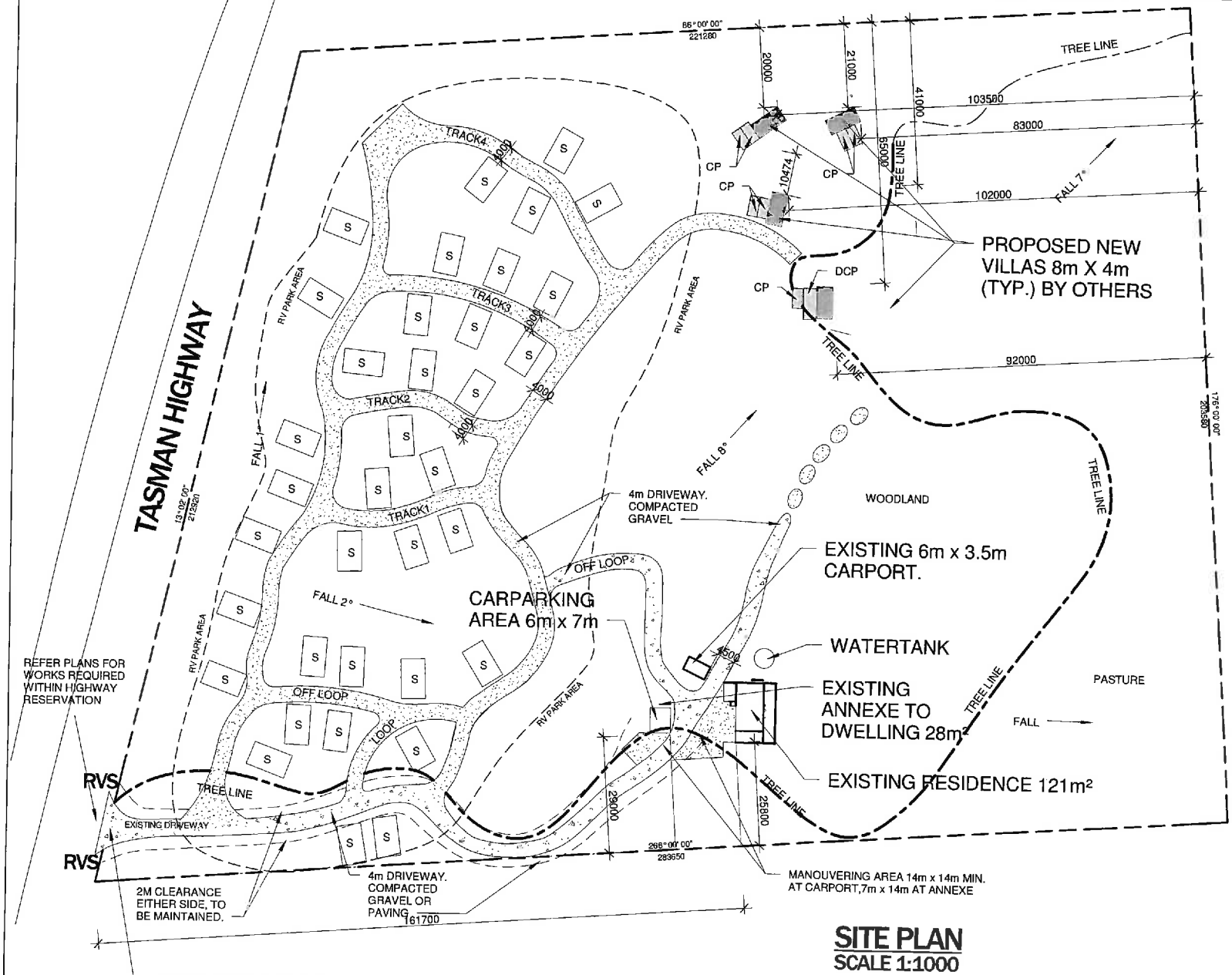
REAR ELEVATION
1 : 50

ECO STRUCTURES
AUSTRALIA
249 Marine Terrace, Fremantle Western Australia 6160
W www.ecostructures.com.au
T +61 8 9185 8007

ECO TENTS DESIGN:
4.2m X 4.2m DELUXE WITH 4.2m ENSUITE

DRAWING NO. **D4.2-1**

DATE
28/08/2013 5:41:04 PM



SITE PLAN
SCALE 1:1000

LEGEND

- ACCESS ROAD OF COMPACTED GRAVEL, MINIMUM 4m WIDE WITH 2m CLEARANCE AT EITHER SIDE
- TRACKS OF COMPACTED GRAVEL WITHIN RV PARK, MINIMUM 4m WIDE
- **V** VILLAS BY OTHERS
- **S** DENOTES RV CAMPING SITES. 10m x 6m
- **CP** CARPARK SPACE. 5m x 2.5m
- **DCP** DISABLED CARPARKING SPACE. 7.8m x 3.2m
- **RVS** SIGN LOCATION POINTS

NOTE:

FOR ALL DRAINAGE POSITION, REFER TO GEO SOLUTION

FINAL POSITION OF NEW BUILDING TO BE CONFIRMED BY REGISTERED SURVEYOR, BEFORE COMMENCEMENT OF WORKS.

WE RECOMMEND BOUNDARY LINE TO BE CONFIRMED ON SITE BY SURVEYOR, OR AN AUTHORISED PERSON.

Lateral ARCHITECTURE

Sunshine Trust
T/A Lateral Architecture
Office 11, 31 Thistle Street,
South Launceston, Tasmania. 7248
ABN: 63 939 511 226
Telephone: (03) 6326 6100
lateralarchitecture.com.au

DESIGNER:	M.L.Hall
DRAWN:	K.Law
CHECKER:	M. HALL
DATE:	18-06-15
REVISED DATE:	19-04-17
SCALE:	1 : 1000
JOB No:	LA-15-19A
DRAWING NO.	03

LOCAL COUNCIL : GLAMORGAN SPRING BAY COUNCIL

ACCREDITATION COMPLIANCE NUMBER = CC - 282 Z

TITLE: Proposed New R.V. Park
Lot 4, Tasman Highway,
Swansea 7190
For Mr R. Coenen & Ms. L. Luck
FOLIO REFERENCE : P115824

DO NOT SCALE DRAWINGS. IF IN DOUBT - ASK

IMPORTANT: IF DRAWING NOT LODGED OR PROCESSED WITH COUNCIL WITHIN 12 MONTHS OF LAST REVISION DATE, THEN PLEASE RETURN FOR REVIEW BEFORE PROCEEDING.

19-Apr-17 2:01:46 PM

C:\Drawings\2015\Coenen R\Coenen 15-19 RV Park only.rvt