

NOTICE OF PROPOSED DEVELOPMENT

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

SITE:

35 CONNELLYS MARSH ROAD, CONNELLYS MARSH

PROPOSED DEVELOPMENT:

DWELLING

The relevant plans and documents can be inspected at the Council Offices at 47 Cole Street, Sorell during normal office hours, or the plans may be viewed on Council's website at www.sorell.tas.gov.au until **Monday 14th September 2026**.

Any person may make representation in relation to the proposal by letter or electronic mail (sorell.council@sorell.tas.gov.au) addressed to the Chief Executive Officer. Representations must be received no later than **Monday 14th September 2026**.

APPLICATION NO: 5.2026-261.1
DATE: 28 August 2026



Annotations
 Polygon1

Roads
 DSG Roads
 Council Roads

Property
 Property
 Titles

Transport
Capital Works 2026
 Footpath
 Recon
 Reseal
 Resheet
Roads



Disclaimer

Any information extracted from this document (from the face of the document or by scale) should be verified on site. Council takes no responsibility for the accuracy of any information contained or presented in the document. While every care has been taken to ensure the accuracy of this information, Council makes no representations or warranties about the accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and liability.

50 m



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

Full description of Proposal:	Use: Dwelling
	Development: Residential
	<i>Large or complex proposals should be described in a letter or planning report.</i>
Design and construction cost of proposal:	\$ 495,500

Is all, or some the work already constructed:	No: ☒ Yes: ☐
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Location of proposed works:	Street address: 35 Connellys Marsh Road
	Suburb: Connellys Marsh Postcode: 7173
	Certificate of Title(s) Volume: Folio:

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

 Sorell Council Development Application: 5.2026.261.1 - Development Application - 35 Connellys Marsh Road, Connelly's Marsh - P1 .pdf Plans Reference: P1 Date Received: 31/07/2026
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Declarations and acknowledgements	
- I/we confirm that the application does not contradict any easement, covenant or restriction specified in the Certificate of Title, Schedule of Easements or Part 5 Agreement for the land. - I/we consent to Council employees or consultants entering the site and have arranged permission and/or access for Council's representatives to enter the land at any time during normal business hours. - I/we authorise the provision of a copy of any documents relating to this application to any person for the purposes of assessment or public consultation and have permission of the copyright owner for such copies. - I/we declare that, in accordance with s52(1) of the <i>Land Use Planning and Approvals Act 1993</i>, that I have notified the owner(s) of the intention to make this application. - I/we declare that the information in this application is true and correct. <i>Details of how the Council manages personal information and how you can request access or corrections to it is outlined in Council's Privacy Policy available on the Council website.</i>	
I/we acknowledge that the documentation submitted in support of my application will become a public record held by Council and may be reproduced by Council in both electronic and hard copy format in order to facilitate the assessment process, for display purposes during public exhibition, and to fulfil its statutory obligations. I further acknowledge that following determination of my application, Council will store documentation relating to my application in electronic format only.	
Where the General Manager's consent is also required under s.14 of the <i>Urban Drainage Act 2013</i>, by making this application I/we also apply for that consent.	
Applicant Signature:	Will Ockenden Signature: Date: 31/07/2026

Crown or General Manager Land Owner Consent	
If the land that is the subject of this application is owned or administered by either the Crown or Sorell Council, the consent of the relevant Minister or the Council General Manager whichever is applicable, must be included here. This consent should be completed and signed by either the General Manager, the Minister, or a delegate (as specified in s52 (1D-1G) of the <i>Land Use Planning and Approvals Act 1993</i>). Please note: - If General Manager consent is required, please first complete the General Manager consent application form available on our website www.sorell.tas.gov.au - If the application involves Crown land you will also need a letter of consent. - Any consent is for the purposes of making this application only and is not consent to undertaken work or take any other action with respect to the proposed use or development.	
I _____ being responsible for the administration of land at _____ declare that I have given permission for the making of this application for _____	
Signature of General Manager, Minister or Delegate:	Sorell Council Development Application: 5.2026.261.1 - Development Application - 35 Connellys Marsh Road, Connellys Marsh - P1 .pdf Plans Reference: P1 Date Received: 31/07/2026 Signature: Date:

SEARCH OF TORRENS TITLE

VOLUME 81354	FOLIO 3
EDITION 3	DATE OF ISSUE 13-Nov-2024

SEARCH DATE : 30-July-2026

SEARCH TIME : 10.13 am

DESCRIPTION OF LAND

Parish of CARLTON, Land District of PEMBROKE
Lot 3 on Diagram [81354](#) (formerly being 395-29D)
Derivation : Part of Lot 31478 Gtd. to D.G. Doddridge
Prior CT [2902/18](#)

SCHEDULE 1

[B425960](#) TRANSFER to ANGELA JANE OCKENDEN

SCHEDULE 2

Reservations and conditions in the Crown Grant if any
[A124000](#) FENCING CONDITION in Transfer

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations



Re: Planning application – new dwelling at 35 Connellys Marsh Road, Connellys Marsh

Dear Sorell Council Planning Team,

I am pleased to lodge this application for a new single-storey dwelling at 35 Connellys Marsh Road, together with associated decks, on-site parking, water tanks, wastewater and stormwater infrastructure, landscaping and bushfire-management measures.

The home is arranged as two low, linked pavilions. The main pavilion contains the kitchen, dining and living areas, opening onto north- and south-facing decks. A central entry connects to the bedroom wing, containing two bedrooms, a bathroom and storage. A short walkway deck leads to a second pavilion containing two further bedrooms and a bathroom.

The result is a four-bedroom, single-storey home that reads as a series of modest connected forms rather than one large building.

Vehicle access is provided from Connellys Marsh Road using the existing crossing. The driveway leads to an on-site parking and turning area west of the dwelling. The driveway and parking areas will be formed in compacted crushed granite, providing a stable and identifiable all-weather surface suitable for the low level of traffic associated with one dwelling. The gentle site gradient and adjoining permeable and landscaped areas will allow runoff to be managed within the property without concentrating water, sediment or dust onto Connellys Marsh Road or adjoining land. This response is addressed in further detail against C2.6.1 P1 in the accompanying Planning Compliance Matrix.

The site and its context

Connellys Marsh is a small coastal locality within the Sorell municipality. Its character is informal and low-key, with detached dwellings set among coastal vegetation and open views towards the water.

The subject site is narrow and elongated, with a width of approximately 15m, and falls gently towards the coast. The site is affected by servicing requirements and environmental constraints, including on-site wastewater and stormwater management, bushfire protection and mapped coastal and natural-asset overlays.

These conditions substantially influence where the dwelling and its supporting infrastructure can be located. A significant part of the site is required for the wastewater land-application and reserve areas, water tanks, vehicle access, parking, bushfire hazard management and firefighting arrangements. Once these requirements are accommodated, the practical development area is limited.

The design responds by keeping the dwelling single storey and dividing it into smaller linked forms that follow the site's topography. Its low roofline, stepped floor levels and restrained material palette reduce its apparent scale and allow it to settle into the coastal landscape.

The accompanying overlay plan identifies the relationship between the proposed development and the applicable planning overlays. The wastewater and stormwater infrastructure is located outside the waterway and coastal protection area, and no development is proposed within the mapped coastal erosion hazard area. The limited intersection with the waterway and coastal protection area is discussed below and assessed fully in the Planning Compliance Matrix.

What the proposal seeks to achieve

The proposal seeks to provide a durable, low-maintenance coastal home that responds directly to the conditions of the site. The principal design objectives are to:

- maintain a low, single-storey profile that limits the visual effect on adjoining properties and the foreshore;
- orient living spaces towards northern sunlight and the water outlook while providing sheltered outdoor areas;
- use robust, low-reflectivity materials suited to an exposed coastal environment;
- manage bushfire risk within the property;
- retain existing vegetation and landform where practicable;
- minimise excavation, filling and unnecessary site disturbance; and
- provide properly designed on-site water, wastewater and stormwater systems.

Design approach and boundary setbacks

The dwelling is broken into two linked pavilions to reduce its apparent bulk and respond to the slope. The low roof form and stepped floor levels allow the building to follow the existing ground without requiring a large, elevated building platform.

The approximately 15m width of the site, together with the wastewater, access, water-storage and bushfire requirements, necessitates reduced side setbacks. The established development pattern also includes buildings relatively close to boundaries: the dwelling at 37 Connellys Marsh Road is approximately 2.9m from the relevant boundary, while at 33 Connellys Marsh Road the shed is approximately 1.3m and the dwelling approximately 3.5m from the boundary.

Within this context, the proposed side setbacks of approximately 1.1m to the north-east and 1.5m to the south-west are considered appropriate. The proposed dwelling is single storey, while both adjoining dwellings are two storeys. Its low roof, stepped form, boundary screening and absence of an upper level limit overlooking, shadow and visual bulk. Practical separation is also retained for construction and maintenance.

These factors provide a reasonable basis for concluding that the reduced setbacks will not cause an unreasonable loss of privacy, sunlight or residential amenity. The complete assessment against clause 10.4.3 P2 is provided in the accompanying Planning Compliance Matrix.

Materials and landscaping

The material palette is deliberately restrained. Pale, low-sheen profiled metal cladding is combined with vertical timber battens and boards intended to weather naturally, timber decks, concrete and timber-lined soffits. These are durable coastal materials with limited reflectivity, helping the building recede into its surroundings.

Landscaping will use suitable native and low-flammability species. Existing vegetation will be retained where compatible with the bushfire requirements, providing amenity and helping to soften views of the dwelling. Crushed-granite surfaces and stepped and curved decks have been selected to work with the existing ground and minimise extensive cut and fill.

Bushfire response

The site is bushfire-prone, and bushfire risk has informed the siting and servicing of the dwelling. The drawings identify the required hazard management areas, non-combustible areas adjoining the building, firefighting water supply, hardstand and property-access arrangements.

The application is accompanied by a Bushfire Hazard Report and Hazard Management Plan prepared by an accredited bushfire practitioner. The architectural drawings are to be read in conjunction with that report, which contains the detailed vegetation-management, access, water-supply and construction requirements.

Waterway and coastal protection area

The intersection between the proposed development and the mapped waterway and coastal protection area is limited to approximately 5m², comprising approximately 4.8m² of deck and 0.2m² of the dwelling. This occurs at the outer edge of the mapped overlay, with the balance of the dwelling, decks and associated infrastructure located outside it.

The affected part of the site is approximately 14m above sea level and is outside the spatial extent of tidal waters and separated from the active foreshore. The proposal will not interfere with tidal movement, wave action, sand movement or other active coastal processes and will not create a need for coastal protection works.

No work is proposed within the foreshore, a streambank, streambed or wetland. The development does not involve reclamation, dredging, coastal protection works or a new stormwater point discharge to the coast or a watercourse. No native riparian or littoral vegetation is proposed to be removed within the affected area.

The stepped design minimises excavation and filling, and construction disturbance within the overlay will be confined to the minimum area necessary, with appropriate erosion and sediment controls used during construction. These measures provide a reasonable basis for concluding that the limited encroachment will avoid or minimise effects on erosion, runoff, vegetation and natural coastal processes. A complete response to C7.6.1 P1.1 is provided in the Planning Compliance Matrix.

Effects on adjoining land

The proposal has been designed to keep its effects on adjoining properties low.

The single-storey form prevents upper-level overlooking. Windows, decks, screening and landscaping have been arranged to limit direct views towards neighbouring private areas. The low roofline and divided pavilion form also reduce the visual bulk of the dwelling when viewed from adjoining land.

The adjoining dwellings are both two storeys, while the proposed dwelling remains single storey. Its height, roof form and stepped floor levels limit overshadowing and maintain reasonable access to sunlight on adjoining properties. Retained and proposed vegetation will further soften views of the building without relying on landscaping as the sole means of protecting privacy.

Parking, vehicle movements, wastewater and stormwater are contained within the site. The proposal will not direct wastewater or concentrated stormwater onto adjoining properties.

Wastewater management

The establishment of a new dwelling constitutes a change to and intensification of Residential use and therefore relies on SOR-S2.6.1 P1. The proposal also relies on the site-specific pathway under SOR-S2.7.1 P1.

The accompanying GES Geo-Environmental Report demonstrates that the site contains sufficient suitable land for the proposed wastewater system. The design includes secondary treatment through an AWTS, a dedicated subsurface land-application area, a complete reserve area and the drainage, dosing, alarm, servicing and maintenance measures specified by GES.

GES has assessed the site's soil and groundwater conditions, wastewater loading, absorption capacity, available land, separation distances and potential effects on adjoining properties and receiving waters. The wastewater treatment system and the operational and reserve land-application areas are located outside the waterway and coastal protection area.

GES concludes that the system can operate with a low residual environmental and public-health risk when installed and maintained in accordance with its specifications. The full responses to SOR-S2.6.1 P1 and SOR-S2.7.1 P1 are provided in the Planning Compliance Matrix, with the detailed technical assessment contained in the GES Geo-Environmental Report.

Stormwater management

A gravity connection to a public stormwater system is not available. The proposal therefore relies on SOR-S2.7.2 P1 and provides a site-specific on-site stormwater solution designed by GES.

Roof water will be captured in the proposed rainwater tanks, with detention and subsurface absorption provided in accordance with the GES Stormwater Assessment. GES has considered the site's topography, soil and infiltration conditions, proposed impervious surfaces, groundwater conditions and relevant site constraints.

The system is designed to manage runoff within the property without increasing flows onto adjoining land or creating a new point discharge to the coastal or waterway environment. The stormwater infrastructure is located outside the waterway and coastal protection area and will be inspected and maintained in accordance with the GES requirements.

The complete response to SOR-S2.7.2 P1 is provided in the Planning Compliance Matrix, with calculations, specifications and maintenance requirements contained in the GES Stormwater Assessment.

Other services

Domestic water will be provided through the rainwater tanks shown on the architectural drawings. A separate firefighting water supply is provided in accordance with the Bushfire Hazard Report. Electricity will be connected through arrangements with TasNetworks.

Conclusion

The proposal provides a modest, single-storey coastal dwelling designed in direct response to the site's shape, topography, servicing requirements and environmental constraints.

Its divided pavilion form, low roofline, stepped floor levels, recessive materials and landscaping limit its effects on adjoining properties and the coastal setting. Wastewater, stormwater, water supply, vehicle access and bushfire protection are managed within the site and supported by specialist reports.

The limited departures from the applicable Acceptable Solutions are addressed through the relevant Performance Criteria. The accompanying Planning Compliance Matrix provides the complete clause-by-clause assessment, with the technical evidence contained in the GES and bushfire reports.

On this basis, the proposal satisfies the relevant requirements of the Tasmanian Planning Scheme and represents an appropriate residential outcome for the site.

If any further information is required, please do not hesitate to contact me.

Yours sincerely,

Will Ockenden

Planning compliance matrix – 35 Connellys Marsh Road, Connellys Marsh

This indicates a development standard does not meet an Acceptable Solution. Performance Responses are in the next column.

Acceptable Solution and completed items				
Clause	Development Standard	Acceptable Solution (A)	Complies?	Performance Response Required
Tasmanian Planning Scheme				
Table 6.2	Use classification	<i>Not an Acceptable Solution test. The proposal must be categorised under the use classes in Table 6.2.</i>	The proposal is correctly classified as Residential because it comprises one dwelling and its associated outbuildings and works on land in the Low Density Residential Zone.	N/A
7.9	Demolition	<i>Not an Acceptable Solution test, however demolition is permitted unless another provision prohibits it or the Local Historic Heritage Code applies.</i>	Yes, complies . Demolition is limited to minor existing structures, including the temporary timber platform and a small shed. No heritage listing or heritage overlay applies	N/A
10.3.1	Discretionary uses	<i>Not applicable unless a use listed as Discretionary in the zone Use Table is proposed.</i>	Not applicable . The application is for one dwelling and introduces no discretionary or separate non-residential use, commercial operating hours, deliveries or commercial vehicles.	N/A
10.4.1	Multiple-dwelling density	<i>Not an Acceptable Solution test. Not applicable to a proposal for one dwelling.</i>	Not applicable . Only one dwelling is proposed; the standard regulates proposals for two or more dwellings.	N/A
10.4.2 A1	Building height	A dwelling must have a building height not more than 8.5m.	Yes, complies . The dwelling is single storey and approximately 5.1m high above corresponding ground level, materially below the 8.5m limit.	None required
10.4.3 A1	Front setback	Dwellings, excluding protrusions that extend not more than 0.9m into the frontage setback, must have a setback from a frontage not less than 8m.	Yes, complies . The dwelling is positioned toward the eastern end of the elongated lot and is well over 8m from Connellys Marsh Road. The intervening western portion accommodates access, parking, wastewater and water infrastructure.	None required

10.4.3 A2	Side and rear setbacks	Dwellings, excluding outbuildings with a building height of not more than 2.4m and protrusions that extend not more than 0.9m horizontally from the building, must have a setback from side and rear boundaries of not less than 5m.	No - does not meet acceptable solution. The plans show setbacks below 5m, including approximately 1.1m to the northern boundary, approximately 1.0–1.5m to the southern boundary and approximately 4.3m to the eastern/rear boundary.	P2 response: The subject site is narrow and elongated, with a width of approximately 15m, and is constrained by its foreshore setting, environmental overlays, wastewater requirements and the need to retain workable access and water infrastructure. The established pattern of development also includes reduced boundary setbacks: the dwelling at 37 Connelly's Marsh Road is approximately 2.9m from the relevant boundary, while at 33 Connelly's Marsh Road the shed is approximately 1.3m and the dwelling approximately 3.5m from the boundary. Within this context, the proposed side setbacks of 1.1m to the north-east and 1.5m to the south-west are considered appropriate. The dwelling is single storey, whereas both adjoining dwellings are two storeys, and incorporates a low sloped roof and stepped floor levels. These features reduce the height, bulk and scale of the building and allow it to respond to the site's topography without creating an unnecessarily elevated or visually dominant form. Having regard to the site's constrained width, the setbacks of surrounding development, the single-storey building form, boundary screening and the location of adjoining buildings, the reduced setbacks do not cause an unreasonable loss of privacy, sunlight or residential amenity. The setbacks also retain practical separation from the boundaries for construction and maintenance while accommodating the wider access, servicing and bushfire-design requirements of the site. Accordingly, the proposed siting demonstrates an response to the site and its established development context and satisfies Performance Criterion P2.
10.4.4 A1	Site coverage	Dwellings must have a site coverage of not more than 30%	Yes, complies. Proposed ground floor area is coverage is 11% of the site. Including decks it's 17%	N/A
10.4.5	Frontage fences	No Acceptable Solution assessment is required where no relevant frontage fence or wall is proposed.	Not applicable. No new frontage fence or wall is proposed. The aluminium batten screens are internal to the site and well removed from the road frontage. The existing fence frontage will remain	N/A
10.5	Non-dwelling development	Not applicable where no building associated with a separate non-dwelling use is proposed.	Not applicable. The tanks, decks, wastewater infrastructure, paths and parking are ancillary to the dwelling.	N/A
10.6	Subdivision	Not applicable where no subdivision or boundary adjustment is proposed.	Not applicable. The application does not include subdivision or a boundary adjustment.	N/A
C2.5.1	Car-parking numbers	Table C2.1 requires for Residential use outside the General Residential Zone, provide one space per bedroom or two spaces per three bedrooms.	Yes, complies. The four-bedroom dwelling requires three spaces when the applicable rate is rounded up. Parks 1, 2 and 3 are shown on the plans.	N/A



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C2.6.1 A1	Construction of parking and access areas	All parking, access ways, manoeuvring and circulation spaces must: (a) be constructed with a durable all weather pavement; (b) be drained to the public stormwater system, or contain stormwater on the site; and (c) excluding all uses in the Rural Zone, Agriculture Zone, Landscape Conservation Zone, Environmental Management Zone, Recreation Zone and Open Space Zone, be surfaced by a spray seal, asphalt, concrete, pavers or equivalent material to restrict abrasion from traffic and minimise entry of water to the pavement.	No - does not meet acceptable solution . The plans nominate compacted crushed granite toppings rather than one of the expressly listed sealed surfaces.	P1 response: The driveway, manoeuvring and parking areas will be formed using compacted crushed-granite surfacing, providing a stable and identifiable all-weather surface appropriate for the low frequency of vehicle movements associated with one dwelling. The site has a gentle gradient, and surface runoff will disperse across adjoining permeable ground and landscaped areas rather than being concentrated onto Connellys Marsh Road or adjoining properties. The compacted granular surface and low-intensity residential use will minimise dust, erosion and the movement of sediment. The proposed construction is therefore suitable for the site and will provide safe and functional access and parking in all weather.
C2.6.3 A1	Number of vehicle accesses	Provide no more than one access per frontage or the existing number, whichever is greater.	Yes, complies . One existing driveway and vehicle crossing serve the site's single frontage. No additional access is proposed.	N/A
Natural Assets and Hazard Code Overlays				



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C7.6.1 A1	Buildings and works in a Waterway and Coastal Protection Area	Buildings and works within a waterway and coastal protection area must: (a) be within a building area on a sealed plan approved under this planning scheme; (b) in relation to a Class 4 watercourse, be for a crossing or bridge not more than 5m in width; or (c) if within the spatial extent of tidal waters, be an extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway that is not more than 20% of the area of the facility existing at the effective date.	No - does not meet acceptable solution. The architectural overlay plan identifies approximately 4.8m ² of proposed deck and 0.2m ² of the dwelling within the outer edge of the mapped waterway and coastal protection area. The affected works are not within a building area on an approved sealed plan, are not a Class 4 watercourse crossing or bridge, and are not an extension to an existing marine facility within tidal waters. A1 is therefore not met and the proposal relies on P1.1.	P1 response: The encroachment into the waterway and coastal protection area is limited to approximately 5m², comprising 4.8m² of deck and 0.2m² of the dwelling. It is confined to the outer edge of the mapped overlay, with the balance of the dwelling, decks and associated infrastructure located outside it. The affected part of the site is situated at approximately 14m above sea level. It is therefore substantially elevated above the foreshore and outside the spatial extent of tidal waters. The proposal will not interfere with tidal movement, wave action, sand movement or other active coastal processes, and will not create a requirement for future coastal protection works. No works are proposed within a streambank, streambed, wetland or the foreshore itself. The proposal does not involve reclamation, coastal protection works, obstruction of natural drainage or interference with aquatic habitat or fish passage. No new stormwater point discharge to the coast, a watercourse, wetland or lake is proposed. The dwelling uses stepped floor levels to respond to the site's contours and minimise excavation and filling. The limited deck encroachment does not require a substantial building platform or alteration of the site's natural drainage. Construction disturbance within the overlay will be confined to the minimum area necessary, with appropriate erosion and sediment controls employed during construction. No native riparian or littoral vegetation is proposed to be removed within the affected area. Having regard to the very limited extent of the encroachment, its elevation at approximately 14m above sea level, its separation from tidal waters and the foreshore, the absence of vegetation clearance or point-source stormwater discharge, and the site-responsive design of the building, the proposal will avoid or minimise adverse impacts from erosion, sedimentation, runoff and disturbance of natural coastal processes. It will not cause an unnecessary or unacceptable impact on natural assets and therefore satisfies C7.6.1 P1.1.
C7.6.1 A2	Buildings and works in a Waterway and Coastal Protection Area	Buildings and works within a future coastal refugia area must be located within a building area on a sealed plan approved under this planning scheme	Not applicable. The architectural overlay plan confirms that the proposed development is not within a future coastal refugia area. Accordingly, C7.6.1 A2 and P2.1–P2.2 do not apply.	
C7.6.1 A3	Buildings and works in a Waterway and Coastal Protection Area	Development within a waterway and coastal protection area or a future coastal refugia area must not involve a new stormwater point discharge into a watercourse, wetland or lake.	Yes, complies. Stormwater is detained and absorbed onsite in accordance with the GES stormwater design. No new stormwater point discharge into a watercourse, wetland or lake is proposed.	

C7.6.1 A4	Buildings and works in a Waterway and Coastal Protection Area	Dredging or reclamation must not occur within a waterway and coastal protection area or a future coastal refugia area.	Yes, complies . The proposal does not involve dredging or reclamation within the waterway and coastal protection area.	
C7.6.1 A5	Buildings and works in a Waterway and Coastal Protection Area	Coastal protection works or watercourse erosion or inundation protection works must not occur within a waterway and coastal protection area or a future coastal refugia area.	Yes, complies . No coastal protection works or watercourse erosion or inundation protection works are proposed	
C7.6.2	Priority vegetation	Clearance of native vegetation within a priority vegetation area must be within a building area on a sealed plan approved under this planning scheme.	Not applicable . Under C7.2.1(c)(xii), the priority-vegetation-area component of the Natural Assets Code applies in the Low Density Residential Zone only where an application is for subdivision. No subdivision is proposed. However, no native vegetation is proposed to be cleared within the approximately 5m ² portion of the development affected by the waterway and coastal protection area. C7.6.1 is separately assessed above.	N/A
C10.2	Application of the Coastal Erosion Hazard Code	<i>Not an Acceptable Solution test.</i> The code applies to use and development within a coastal erosion hazard area.	Yes, complies. The coastal/foreshore portion of the property contains a coastal erosion hazard overlay, however no part of the proposed development is situated on the overlay. The application will provide maps showing the overlay and the proposed development	N/A
C11.2	Application of the Coastal Inundation Hazard Code	<i>Not an Acceptable Solution test.</i> The code applies to use and development within a coastal inundation hazard area.	Yes, complies. The coastal/foreshore portion of the property contains a coastal inundation hazard area overlay, however no part of the proposed development is situated on the overlay. The application will provide maps showing the overlay and the proposed development	N/A



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C13	Bushfire-Prone Areas Code	<i>Not an Acceptable Solution test.</i> The code applies to use and development within a bushfire-prone area.	Not applicable. The planning-scheme code applies to subdivision and to vulnerable or hazardous uses within a bushfire-prone area. The proposal is for an ordinary single dwelling and does not involve subdivision or a vulnerable or hazardous use. C13 is therefore not applicable to the planning assessment. The land is nevertheless within a mapped bushfire-prone area and the dwelling is subject to the separate regulatory requirements for Bushfire Hazard Areas. The accompanying certified Bushfire Hazard Report and Bushfire Hazard Management Plan establish the BAL-29 construction requirement, hazard-management area, 10,000L static firefighting supply, hardstand and associated access arrangements. The architectural drawings are to be read in conjunction with those certified documents.	N/A
Sorell Local Provisions Schedule				
SOR-S2.6.1 A1	Residential use and on-site wastewater management	No change, expansion or intensification of residential or business use on the site.	No - does not meet acceptable solution. The proposed dwelling constitutes a change to and intensification of Residential use on the site. The proposal therefore relies on P1.	The proposal is supported by the GES Geo-Environmental Report, which provides a site-specific assessment and design for the treatment and on-site application of wastewater. The design includes secondary treatment through an AWTS, a dedicated subsurface land-application area, a complete reserve area and appropriate drainage, monitoring and maintenance measures. GES has assessed the available land, soil and groundwater conditions, wastewater loading, separation from buildings, property boundaries and surface water, and the risks associated with the proposed system. Its assessment concludes that the system can operate with a low residual environmental and public-health risk when installed and maintained in accordance with the report. Having regard to the extent and nature of the land available and the site-specific separation distances assessed by GES, the proposed residential use will not cause an adverse environmental impact or an impact on public health. Accordingly, SOR-S2.6.1 P1 is satisfied. Refer to the accompanying GES Geo-Environmental Report for the detailed site investigation, wastewater design, setback assessment, risk assessment and management requirements.

SOR-S2.7.1 A1	On-site wastewater	Development must: (a) not cover more than 20% of the site; (b) not be located on land shown on an overlay map in the relevant Local Provisions Schedule, as within: (i) a flood-prone hazard area; (ii) a landslip hazard area; (iii) a coastal erosion hazard area; (iv) a waterway and coastal protection area; or (v) a coastal inundation hazard area; (c) be located on a site with a soil depth of at least 1.5m; (d) be located on a site where the average gradient of the land does not exceed 10%; and (e) in the case of a dwelling, provide 65m² of land for wastewater land application area per bedroom which is located at least 1.5m from an upslope or side slope boundary and 5m from a downslope boundary.	No - does not meet acceptable solution. A1(b)(iv) is not met because approximately 4.8m² of deck and 0.2m² of the dwelling are located within the mapped waterway and coastal protection area. A1(e) is not met because a four-bedroom dwelling would require 260m² of wastewater land-application area. The specialist design instead provides a 30m² operational absorption bed and a separate 30m² reserve area. The proposal therefore relies on P1.	The GES Geo-Environmental Report provides written advice from a suitably qualified wastewater practitioner that the site contains sufficient suitable land for the proposed on-site wastewater system. The assessment considers the site's topography, soil and groundwater conditions, wastewater loading, absorption capacity, available land, site constraints and potential effects on adjoining properties and receiving waters. The proposed system includes secondary treatment through an AWTS, a dedicated subsurface absorption bed, a complete reserve area and the drainage, dosing, alarm, servicing and maintenance measures specified by GES. The site layout retains the operational and reserve wastewater areas clear of buildings, parking, driveways and other permanent development. The wastewater treatment system and both the operational and reserve land-application areas are located outside the waterway and coastal protection area. The approximately 5m² overlay intersection is confined to part of the dwelling and deck and does not reduce the wastewater system's operational or replacement capacity or involve wastewater discharge within the overlay. Having regard to the site's topography, soil absorption capacity, size and shape, development coverage, available operational and reserve areas and the written advice of GES, sufficient suitable land is available for on-site wastewater management without adversely affecting public health, groundwater, surface or coastal waters, adjoining properties or the locality. Accordingly, SOR-S2.7.1 P1 is satisfied. Refer to the accompanying GES Geo-Environmental Report for the detailed calculations, system specifications, site assessment and management requirements.
SOR-S2.7.1 A2	Encroachment on an existing wastewater land- application	An outbuilding, driveway, parking area, addition or alteration must not encroach on an existing land-application area.	Yes, complies. The land is vacant and no existing operational land-application area has been identified. The proposed primary and reserve areas are clear of the dwelling, tanks, driveway and formal parking spaces.	N/A

SOR-S2.7.2	On-site stormwater management	Development must be capable of connecting by gravity to a public stormwater system.	No - does not meet acceptable solution. There is no public stormwater system.	GES confirms that no public stormwater connection is available to the property, so the development cannot connect by gravity to a public stormwater system. The proposal therefore relies on P1 and provides a site-specific detention and absorption system. The GES Stormwater Assessment identifies deep sandy soils over clayey subsoils, an estimated permeability of 0.5–1.5m/day, no evidence of a water table, no dispersive soils and a low risk of slope instability. The system has been designed using Bureau of Meteorology rainfall data and ARR2019 methodology, with the objective of ensuring that post-development discharge does not exceed the pre-development rate for the assessed minor and major events. It incorporates at least 2,000L of detention within the rainwater tanks and a 9m² soakage trench measuring 4.5m by 2m by 1m deep, fitted with DN100 slotted pipe and aggregate. GES concludes that the design complies with its performance-solution check. Subject to construction and ongoing inspection and maintenance in accordance with the report, the site can adequately manage stormwater under SOR-S2.7.2 P1. Refer to the GES Stormwater Assessment for more information
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Sorell Council

Development Application: 5.2026.261.1 -
Development Application - 35 Connellys Marsh
Road, Connelly's Marsh - P1 .pdf

Plans Reference: P1
Date Received: 31/07/2026

GEO-ENVIRONMENTAL ASSESSMENT

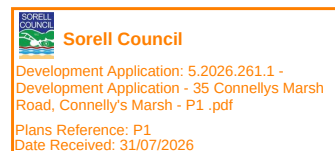
35 Connellys Marsh Road

Connellys Marsh

July 2026



GEO-ENVIRONMENTAL
SOLUTIONS



Disclaimer: The author does not warrant the information contained in this document is free from errors or omissions. The author shall not in any way be liable for any loss, damage or injury suffered by the User consequent upon, or incidental to, the existence of errors in the information.

Investigation Details

Client:	Will Ockenden
Site Address:	35 Connellys Marsh Road, Connellys Marsh
Date of Inspection:	05/06/2026
Proposed Works:	New house
Investigation Method:	Geoprobe 540UD - Direct Push
Inspected by:	C. Cooper

Site Details

Certificate of Title (CT):	81354/3
Title Area:	Approx. 1434 m ²
Applicable Planning Overlays:	Bushfire-prone areas
Slope & Aspect:	3-4° SE facing slope
Vegetation:	Mixed

Background Information

Geology Map:	MRT 250 000
Geological Unit:	Triassic sandstone
Climate:	Annual rainfall 550mm
Water Connection:	Tank
Sewer Connection:	Unserviced-On-site required
Testing and Classification:	AS2870:2011, AS1726:2017, AS1547:2012 & AS4055:2021

Investigation

A number of bore holes were completed to identify the distribution and variation of the soil materials at the site, bore hole locations are indicated on the site plan. See soil profile conditions presented below. Tests were conducted across the site to obtain bearing capacities of the material at the time of this investigation.

Soil Profile Summary

BH 1 Depth (m)	USCS	Description
0.00-0.10	SP	Silty SAND: medium-grained, grey-brown, moist, medium dense
0.10-1.70	CI	Sandy CLAY: medium plasticity, pale grey mottled brown, slightly moist, stiff
1.70-2.00	CL	Sandy CLAY: low plasticity, orange-brown mottled grey, slightly moist, very stiff
2.00-2.70	CI	Sandy CLAY: medium to high plasticity, pale grey mottled brown, slightly moist, stiff, refusal on assumed rock.

BH 2 Depth (m)	BH 3 Depth (m)	USCS	Description
0.00-0.50	0.00-0.60	SP	Silty SAND: medium-grained, grey-brown, moist, medium dense
0.50-0.80	0.60-1.00	SP	Silty SAND: medium-grained, grey-brown, moist, medium dense
0.80-1.40	1.00-1.20	SP	Silty SAND: medium-grained, pale grey, moist, medium dense
	1.20-1.60	CI	Sandy CLAY: medium plasticity, pale grey mottled brown, slightly moist, stiff
1.40-1.70	1.60-1.80	SC	Clayey SAND: medium-grained, pale orange, slightly moist, very dense
1.70-2.0+	1.80-2.0+	CI	Sandy CLAY: medium to high plasticity, pale grey mottled brown, slightly moist, stiff, no refusal.

Site Notes

The soil on site consists of deep sands underlain by clayey subsoils developing over Triassic sandstone.

Site Classification

The site has been assessed and classified in accordance with AS2870:2011 “*Residential Slabs and Footings*”.

The site has been classified as:

Class H-1

y_s range: **40-60mm**

Notes: The subsurface profile is assessed as highly reactive, indicating a high potential for characteristic surface movement and an associated capacity for significant shrink–swell behaviour under seasonal moisture fluctuations.

Wind Loading Classification

According to “AS4055:2021 - *Wind Loads for Housing*” the house site is classified below:

Wind Classification:	N3
Region:	A
Terrain Category:	1.0
Shielding Classification:	NS
Topographic Classification:	T1
Wind Classification:	N3
Design Wind Gust Speed – m/s ($V_{h,u}$):	50

Wastewater Classification & Recommendations

According to AS1547-2012 (on-site waste-water management) the natural soil is classified as **LOAM (Category 3)**. Any onsite wastewater application will need to be contained within the higher level of the property due to the proposed configuration of the site, soil conditions and proximity to surface water. Secondary treatment of wastewater is required, and it is proposed to install a package treatment system (e.g. AWTs) with treated wastewater applied to an absorption bed. A Design Loading Rate (DLR) of 25L/m²/day has been assigned for secondary treated wastewater.

The proposed development has a calculated maximum wastewater output of 720L/day. This is based on a tank water supply and a maximum occupancy of 6 people (120L/person/day). Using the DLR of 25L/m²/day, an absorption area of at least 30m² will be required. It is proposed to install this as one 6m x 5m x 0.4m absorption bed as per the attached design.

A cut-off drain will be required upslope of the application area to divert any surface water flows. A 100% reserve area will also need to be set aside and kept free from development for any future wastewater requirements.

The following setback distances are consistent with the Director's Guidelines for On-Site Wastewater Management Systems:

Upslope or level buildings:	3m
Downslope buildings:	3m
Upslope or level boundaries:	1.5m
Downslope boundary:	3m
Downslope surface water:	23m

Further information is included in the attached table and associated risk assessment.

Construction Notes & Recommendations

The site has been classified as **Class H-1** - Highly reactive clay or silt site, which may experience significant ground movement from moisture changes.

Foundation Considerations:

It is recommended that all footing loads are transferred into the natural material where allowable bearing capacities of >100kPa can be obtained, this can be achieved either directly or via piers or piles, to minimise the potential for significant foundation movement.

All earthworks on site must comply with AS3798:2007, and I further recommend that consideration be given to drainage and sediment control on site during and after construction. Care should also be taken to ensure there is adequate drainage in the construction area to avoid the potential for weak bearing and foundation settlement associated with excessive soil moisture.

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



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

Director

Explanatory Notes

1 Scope of Works

The methods of description and classification of soils used in this report are based largely on Australian Standard 1726 – Geotechnical Site Investigations (AS1726:2017), with reference to Australian Standard 1289 – Methods for testing soils for engineering purposes (AS1289), for eventual Site Classification according to Australian Standard 2870 (AS2870:2011) – Residential Slabs and Footings and Australian Standard 1547 (AS1547:2012) On-site domestic wastewater management.

1.1 Site Classification AS2870:2011

Site classification with reference to the above Australian Standards are based on site reactivity.

Class	Foundation Conditions	Characteristic Surface Movement
A	Most sand and rock sites with little or no ground movement from moisture changes.	0mm
S	Slightly reactive clay sites, which may experience only slight ground movement from moisture changes.	0 – 20mm
M	Moderately reactive clay or silt sites, which may experience moderate ground movement from moisture changes.	20 – 40mm
H-1	Highly reactive clay sites, which may experience high ground movement from moisture changes.	40 – 60mm
H-2	Highly reactive clay sites, which may experience very high ground movement from moisture changes.	60 – 75mm
E	Extremely reactive sites, which may experience extreme ground movement from moisture changes.	>75mm

*Note: Soils where foundation performance may be significantly affected by factors other than reactive soil movement are classified as **Class P**.*

A site is classified as **Class P** when:

- The bearing capacity of the soil profile in the foundation zone is generally less than 100kpa
- If excessive foundation settlement may occur due to loading on the foundation.
- The site contains uncontrolled fill greater than 0.8m in depth for sandy sites and 0.4m in depth for other soil materials.
- The site is subject to mine subsistence, landslip, collapse activity or coastal erosion.
- The site is underlain by highly dispersive soils with significant potential for erosion
- If the site is subject to abnormal moisture conditions which can affect foundation performance

1.2 Soil Characterisation

This information explains the terms of phrase used within the soil description area of the report.

It includes terminology for cohesive and non-cohesive soils and includes information on how the Unified Soil Classification Scheme (USCS) codes are determined.

NON COHSIVE – SAND & GRAVEL		
Consistency Description	Field Test	Dynamic Cone Penetrometer blows/100 mm
Very loose (VL)	Easily penetrated with 13 mm reinforcing rod pushed by hand.	0 - 1
Loose (L)	Easily penetrated with 13 mm reinforcing rod pushed by hand. Can be excavated with a spade; 50 mm wooden peg can be easily driven.	1 - 3
Medium dense (MD)	Penetrated 300 mm with 13 mm reinforcing rod driven with 2 kg hammer, - hard shovelling.	3 - 8
Dense (D)	Penetrated 300 mm with 13 mm reinforcing rod driven with 2 kg hammer, requires pick for excavation: 50 mm wooden peg hard to drive.	8 - 15
Very dense (VD)	Penetrated only 25 - 50 mm with 13 mm reinforcing rod driven with 2 kg hammer.	>15

COHESIVE - SILT & CLAY		
Consistency Description	Field Test	Indicative undrained shear strength kPa
Very soft	Easily penetrated >40 mm by thumb. Exudes between thumb and fingers when squeezed in hand.	<12
Soft	Easily penetrated 10 mm by thumb. Moulded by light finger pressure	>12 and <25
Firm	Impression by thumb with moderate effort. Moulded by strong finger pressure	>25 and <50
Stiff	Slight impression by thumb cannot be moulded with finger.	>50 and <100
Very Stiff	Very tough. Readily indented by thumbnail.	>100 and <200
Hard	Brittle. Indented with difficulty by thumbnail.	>200

1.3 USCS Material Descriptions

Soils for engineering purposes are the unconsolidated materials above bedrock, they can be residual, alluvial, colluvial or aeolian in origin.

Major Divisions		Particle size mm	USCS Group Symbol	Typical Names	Laboratory Classification				
COARSE GRAINED SOILS (more than half of material less than 63 mm is larger than 0.075 mm)	BOULDERS	200			% < 0.075 mm (2)	Plasticity of fine fraction	$C_u = \frac{D_{60}}{D_{10}}$	$C_c = \frac{(D_{30})^3}{(D_{10})(D_{60})}$	NOTES
	COBBLES	63							
	GRAVELS (more than half of coarse fraction is larger than 2.36 mm)	coarse 20	GW	Well graded gravels and gravel-sand mixtures, little or no fines	0-5	—	>4	Between 1 and 3	(1) Identify fines by the method given for fine-grained soils.
		medium 6	GP	Poorly graded gravels and gravel-sand mixtures, little or no fines, uniform gravels	0-5	—	Fails to comply with above		
		fine 2.36	GM	Silty gravels, gravel-sand-silt mixtures (1)	12-50	Below 'A' line or PI<4	—	—	
			GC	Clayey gravels, gravel-sand-clay mixtures (1)	12-50	Above 'A' line and PI>7	—	—	(2) Borderline classifications occur when the percentage of fines (fraction smaller than 0.075 mm size) is greater than 5% and less than 12%. Borderline classifications require the use of SP-SM, GW-GC.
	SANDS (more than half of coarse fraction is smaller than 2.36 mm)	coarse 0.6	SW	Well graded sands and gravelly sands, little or no fines	0-5	—	>6	Between 1 and 3	
		medium 0.2	SP	Poorly graded sands and gravelly sands, little or no fines	0-5	—	Fails to comply with above		
		fine 0.075	SM	Silty sands, sand silt mixtures (1)	12-50	Below 'A' line or PI<4	—	—	
			SC	Clayey sands, sand-clay mixtures (1)	12-50	Above 'A' line and PI>7	—	—	
FINE GRAINED SOILS (more than half of material less than 63 mm is smaller than 0.075 mm)	SILTS & CLAYS (Liquid Limit ≤50%)	ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Plasticity Chart For classification of fine grained soils and fine fraction of coarse grained soils. Use the gradation curve of material passing 63 mm for classification of fractions according to the criteria given in 'Major Divisions'					
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays						
		OL	Organic silts and clays of low plasticity						
	SILTS & CLAYS (Liquid Limit >50%)	MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts						
		CH	Inorganic clays of high plasticity, fat clays						
		OH	Organic silts and clays of high plasticity						
	HIGHLY ORGANIC SOILS	PT	Peat and other highly organic soils						

Grain size analysis is performed by two processes depending on particle size. Sand silt and clay particles are assessed using a standardised hydrometer test, and coarse sand and larger is assessed through sieving by USCS certified sieves. For more detail see the following section.

Soil Classification	Particle Size
Clay	Less than 0.002mm
Silt	0.002 – 0.06mm
Fine/Medium Sand	0.06 – 2.0mm
Coarse Sand	2.0mm – 4.75mm
Gravel	4.75mm – 60.00mm

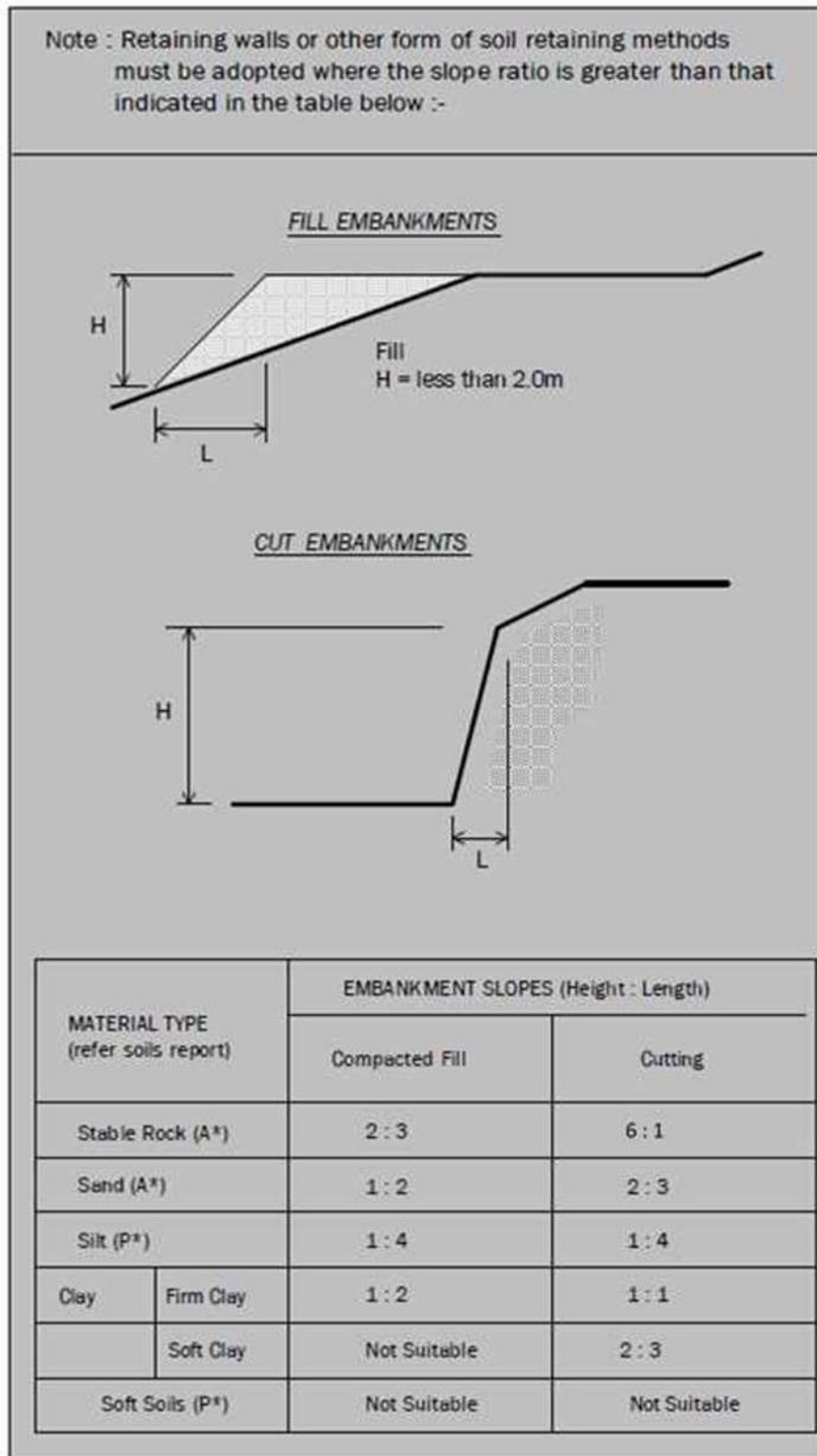
1.4 Bearing Capacities and DCP testing.

DCP and PSP weighted penetrometer tests – Dynamic Cone Penetrometer (DCP) and Perth Sand Penetrometer (PSP) tests are carried out by driving a rod into the ground with a falling weight hammer and measuring the blows for successive 100mm increments of penetration. Normally, there is a depth limitation of 1.2m but this may be extended in certain conditions by the use of extension rods. The methods for the two tests are quite similar.

- Dynamic Cone Penetrometer – a 16mm rod with a 20mm diameter cone end is driven with a 9kg hammer dropping 510mm (AS 1289, Test 6.3.2).
- Perth Sand Penetrometer – a 16mm diameter flat-ended rod is driven with a 9kg hammer, dropping 600mm (AS 1289 Test 6.3.3). This test was developed for testing the density of sands and is mainly used in granular soils and filling.

Site Anomalies – During construction GES will need to be notified of any major variation to the foundation conditions as predicted in this report.

1.5 Batter Angles for Embankments (Guide Only)



Glossary of Terms

Bearing Capacity – Maximum bearing pressure that can be sustained by the foundation from the proposed footing system under service loads which should avoid failure or excessive settlement.

Clay – (Mineral particles less than 0.002mm in diameter). Fine grained cohesive soil with plastic properties when wet. Also includes sandy clays, silty clays, and gravelly clays.

Dynamic Cone Penetrometer (DCP) – Field equipment used to determine underlying soil strength and therefore bearing capacity (kPa) by measuring the penetration of the device into the soil after each hammer blow.

Dispersive soil – A soil that has the ability to pass rapidly into suspension in water.

Footing – Construction which transfers the load from the building to the foundation.

Foundation – Ground which supports the building

Landslip – Foundation condition on a sloping site where downhill foundation movement or failure is a design consideration.

Qualified Engineer – A professional engineer with academic qualifications in geotechnical or structural engineering who also has extensive experience in the design of the footing systems for houses or similar structures.

Reactive Site – Site consisting of clay soil which swells on wetting and shrinks on drying by an amount that can damage buildings on light strip footings or unstiffened slabs. Includes sites classified as S, M, H-1, H-2 & E in accordance with AS2870-2011.

Sand – (Mineral particles greater than 0.02mm in diameter). Granular non-cohesive, non-plastic soil that may contain fines including silt or clay up to 15%.

Services – Means all underground services to the site including but not limited to power, telephone, sewerage, water & storm water.

Silt – (Mineral particles 0.002 – 0.02mm in diameter). Fine grained non-cohesive soil, non-plastic when wet. Often confers a silky smoothness of field texture, regularly includes clay and sand to form clayey silts, sandy silts and gravelly silts.

Site – The site title, as denoted by address, lot number, or Certificate of Title (CT) number, or Property Identification Number (PID).

Surface Movement (Ys) – Design movement (mm) at the surface of a reactive site caused by moisture changes.

Disclaimer

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

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

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

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

GES

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

Assessment Report

Site assessment for on-site waste water disposal

Assessment for Will Ockenden

Assess. Date

8-Jul-26

Ref. No.

Assessed site(s) 35 Connellys Marsh Road, Connellys Marsh

Site(s) inspected

5-Jun-26

Local authority Sorell

Assessed by

John Paul Cumming

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

Wastewater Characteristics

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

Septic tank wastewater volume (L/day) = 240

Sullage volume (L/day) = 480

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

Total phosphorus (kg/year) generated by wastewater = 1.8

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)	49	31	41	38	56	57	37	51	43	59	46	40
Adopted rainfall (R, mm)	49	31	41	38	56	57	37	51	43	59	46	40
Retained rain (Rr, mm)	44	28	37	34	51	51	33	46	39	53	42	36
Max. daily temp. (deg. C)												
Evapotrans (ET, mm)	130	110	91	63	42	29	32	42	63	84	105	126
Evapotr. less rain (mm)	86	82	54	29	-9	-22	-2	-4	24	31	63	90

Annual evapotranspiration less retained rain (mm) = 424

Soil characteristics

Texture = LOAM

Category = 3

Thick. (m) = 1.2

Adopted permeability (m/day) = 1.5

Adopted LTAR (L/sq m/day) = 25

Min depth (m) to water = 5

Proposed disposal and treatment methods

Proportion of wastewater to be retained on site:

All wastewater will be disposed of on the site

The preferred method of on-site primary treatment:

In a package treatment plant

The preferred method of on-site secondary treatment:

In-ground

The preferred type of in-ground secondary treatment:

Evapotranspiration bed(s)

The preferred type of above-ground secondary treatment:

None

Site modifications or specific designs:

Not needed

Suggested dimensions for on-site secondary treatment system

Total length (m) = 6

Width (m) = 5

Depth (m) = 0.4

Total disposal area (sq m) required = 30

comprising a Primary Area (sq m) of: 30

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

Sufficient area is available on site

Comments

Using a DLR of 25L/m²/day for the sandy soils on site, a minimum absorption area of 30m² is required for secondary treated effluent. Therefore the system should have the capacity to cope with predicted climatic and loading events.

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 on-site waste water disposal

Assessment for Will Ockenden

Assess. Date

8-Jul-26

Ref. No.

Assessed site(s) 35 Connellys Marsh Road, Connellys Marsh

Site(s) inspected

5-Jun-26

Local authority Sorell

Assessed by John Paul Cumming

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

Alert	Factor	Units	Value	Confid level	Limitation		Remarks
					Trench	Amended	
	Expected design area	sq m	500	V. high	High	Moderate	Other factors lessen impact
	Density of disposal systems	/sq km	10	Mod.	Very low		
	Slope angle	degrees	4	High	Very low		
	Slope form	Straight simple		High	Low		
	Surface drainage	Mod. good		High	Low		
	Flood potential	Site floods <1:100 yrs		High	Very low		
	Heavy rain events	Infrequent		High	Moderate		
A	Aspect (Southern hemi.)	Faces SE or SW		V. high	High		
	Frequency of strong winds	Common		High	Low		
	Wastewater volume	L/day	720	High	Moderate		
	SAR of septic tank effluent		1.7	High	Low		
	SAR of sullage		2.6	High	Moderate		
	Soil thickness	m	1.2	V. high	Very low		
	Depth to bedrock	m	3.0	V. high	Very low		
	Surface rock outcrop	%	0	V. high	Very low		
	Cobbles in soil	%	0	V. high	Very low		
	Soil pH		5.5	High	Low		
	Soil bulk density	gm/cub. cm	1.4	High	Very low		
	Soil dispersion	Emerson No.	8	V. high	Very low		
A	Adopted permeability	m/day	1.5	Mod.	High		
	Long Term Accept. Rate	L/day/sq m	25	High	Moderate		

Comments

The constraint factors of the site can be managed by use of secondary treatment of wastewater.

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 on-site waste water disposal

Assessment for Will Ockenden

Assess. Date 8-Jul-26

Ref. No.

Assessed site(s) 35 Connellys Marsh Road, Connellys Marsh

Site(s) inspected 5-Jun-26

Local authority Sorell

Assessed by John Paul Cumming

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

Alert	Factor	Units	Value	Confid level	Limitation		Remarks
					Trench	Amended	
A	Cation exchange capacity	mmol/100g	30	High	High		
A	Phos. adsorp. capacity	kg/cub m	0.3	High	High		
	Annual rainfall excess	mm	-424	High	Very low		
	Min. depth to water table	m	5	High	Very low		
	Annual nutrient load	kg	3.9	High	Very low		
	G'water environ. value	Agric non-sensit		V. high	Low		
	Min. separation dist. required	m	2	High	Very low		
	Risk to adjacent bores	Very low		V. high	Very low		
A	Surf. water env. value	Recreational		V. high	High		
	Dist. to nearest surface water	m	70	V. high	High	Moderate	Other factors lessen impact
	Dist. to nearest other feature	m	3	V. high	Very high	Moderate	Other factors lessen impact
	Risk of slope instability	Very low		V. high	Very low		
	Distance to landslip	m	1000	V. high	Very low		

Comments

Secondary treatment is required to manage the risks associated with disposal of wastewater on this site.

Demonstration of wastewater system being consistent with *Building Act 2016 Guidelines for On-site Wastewater*

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; or b) be no less than: (i) 3m from an upslope building 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 (i) the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.; and (ii) is setback a sufficient distance from a downslope excavation around or under a building to prevent inadequately treated wastewater seeping out of that excavation	Consistent with A1 (b) (i) Land application area will be located with a minimum separation distance of 3m from an upslope or level building. Consistent with A1 (b) (iii) Land application area will be located with a minimum separation distance of 3m of downslope building.
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.	Consistent with A2 (b) (ii) Land application area will be located with a minimum separation distance of 23m of downslope surface water.  Sorell Council Development Application: 5.2026.261.1 - Development Application - 35 Connellys Marsh Road, Connelly's Marsh - P1 .pdf Plans Reference: P1 Date Received: 31/07/2026

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.	Consistent with P3 Land application area will be located with a minimum separation distance of 1.5m from an upslope or level property boundary and 3m from a downslope property boundary – see attached risk assessment.
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	No bore or well identified within 50m  Sorell Council Development Application: 5.2026.261.1 - Development Application - 35 Connellys Marsh Road, Connellys Marsh - P1 .pdf Plans Reference: P1 Date Received: 31/07/2026

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	No groundwater encountered.
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.	Consistent with A6 (b)
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	Consistent with P7.  Sorell Council Development Application: 5.2026.261.1 - Development Application - 35 Connelys Marsh Road, Connely's Marsh - P1 .pdf Plans Reference: P1 Date Received: 31/07/2026

Risk Assessment Summary

The proposal meets the Acceptable Solutions outlined under the Directors Guidelines for Onsite Wastewater Management for all criteria except for distance to the downslope boundary. The following assessment is therefore required to demonstrate that the proposed setback distance is of acceptable risk. As the proposal is to install a secondary treatment system with subsurface application, there is low risk associated with wastewater disposal on the site.

A Qualitative risk analysis was undertaken based on the likelihood and consequences of the proposed issue(s) using the matrix below:

Qualitative Risk Matrix

Likelihood of the Consequence	Maximum Reasonable Consequence				
	(1) Insignificant	(2) Minor	(3) Moderate	(4) Major	(5) Catastrophic
(A) Almost certain	11 High	16 High	20 Extreme	23 Extreme	25 Extreme
(B) Likely	7 Moderate	12 High	17 High	21 Extreme	24 Extreme
(C) Occasionally	4 Low	8 Moderate	13 High	18 Extreme	22 Extreme
(D) Unlikely	2 Low	5 Low	9 Moderate	14 High	19 Extreme
(E) Rare	1 Low	3 Low	6 Moderate	10 High	15 High

Source: AS/NZS 4360:2004 Risk Management

Consequence Index

Severity Level	Natural Environment	Legal/Government	Heritage	Community / Reputation/Media
(1) Insignificant	Limited damage to minimal area of low significance.	Low-level legal issue. On the spot fine. Technical non-compliance prosecution unlikely. Ongoing scrutiny/attention from regulator.	Low-level repairable damage to commonplace structures.	Low level social impacts. Public concern restricted to local complaints. Could not cause injury or disease to people.
(2) Minor	Minor effects on biological or physical environment. Minor short-medium term damage to small area of limited significance.	Minor legal issues, non-compliances and breaches of regulation. Minor prosecution or litigation possible. Significant hardship from regulator.	Minor damage to items of low cultural or heritage significance. Mostly repairable. Minor infringement of cultural heritage values.	Minor medium-term social impacts on local population. Could cause first aid injury to people. Minor, adverse local public or media attention and complaints.
(3) Moderate	Moderate effects on biological or physical environment (air, water) but not affecting ecosystem function. Moderate short-medium term widespread impacts (e.g. significant spills).	Serious breach of regulation with investigation or report to authority with prosecution or moderate fine possible. Significant difficulties in gaining future approvals.	Substantial damage to items of moderate cultural or heritage significance. Infringement of cultural heritage/ scared locations.	Ongoing social issues. Could cause injury to people, which requires medical treatment. Attention from regional media and/or heightened concern by local community. Criticism by Non-Government Organisations (NGO). Environmental credentials moderately affected.

Severity Level	Natural Environment	Legal/Government	Heritage	Community / Reputation/Media
(4) Major	Serious environmental effects with some impairment of ecosystem function. Relatively widespread medium-long term impacts.	Major breach of regulation with potential major fine and/or investigation and prosecution by authority. Major litigation. Future project approval seriously affected.	Major permanent damage to items of high cultural or heritage significance. Significant infringement and disregard of cultural heritage values.	On-going serious social issues. Could cause serious injury or disease to people. Significant adverse national media/public or NGO attention. Environment/management credentials significantly tarnished.
(5) Catastrophic	Very serious environmental effects with impairment of ecosystem function. Long term, widespread effects on significant environment (e.g. national park).	Investigation by authority with significant prosecution and fines. Very serious litigation, including class actions. Licence to operate threatened.	Total destruction of items of high cultural or heritage significance. Highly offensive infringements of cultural heritage.	Very serious widespread social impacts with potential to significantly affect the well being of the local community. Could kill or permanently disable people. Serious public or media outcry (international coverage). Damaging NGO campaign. Reputation severely tarnished. Share price may be affected.



Sorell Council

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Likelihood Index

Level	Descriptor	Description	Guideline
A	Almost Certain	Consequence is expected to occur in most circumstances.	Occurs more than once per month.
B	Likely	Consequence will probably occur in most circumstances.	Occurs once every 1 month – 1 year.
C	Occasionally	Consequence should occur at some time.	Occurs once every 1 year - 10 years.
D	Unlikely	Consequence could occur at some time.	Occurs once every 10 years – 100 years.
E	Rare	Consequence may only occur in exceptional circumstances.	Occurs less than once every 100 years.

Source: AS/NZS 4360:2004 Risk Management

Issue	Potential impacts	Comment	Likelihood	Consequence	Risk Rating	Risk Reduction measure (RRM) / factors	Rating after adoption of RRM
Setback from downslope boundary	Off-site seepage of treated effluent	The main hazard identified is potential discharge of treated effluent outside of the title boundary The site has moderately permeable soil within application area which has a predominantly vertical wetting front, reduced prospect of lateral flows	D	2	L	Secondary treatment of effluent through AWTS prior to land application Subsurface wastewater application Treated effluent will be dosed through the absorption bed via a pump to allow optimum use of land application area Application bed will be lined with an impermeable liner to ensure vertical movement of effluent through soil profile AWTS unit fitted with alarm to alert failure/overloading AWTS unit will have regular servicing to monitor performance	L

AS1547:2012 – Loading Certificate – AWTs Design

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

Site Address: 35 Connellys Marsh Road, Connellys Marsh

System Capacity: 6 persons @ 120L/person/day

Summary of Design Criteria

DLR: 25L/m²/day.

Absorption area: 30m²

Reserve area location /use: Assigned

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 use of AWTs and large land area

Overloading consequences: Continued overloading may cause hydraulic failure of the absorption area and require upgrading/extension of the area. Risk considered acceptable due to monitoring through quarterly maintenance reports.

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. Long term under loading of the system may also result in vegetation die off in the absorption area and additional watering may be required. Risk considered acceptable due to monitoring through quarterly maintenance reports.

Lack of maintenance / monitoring consequences: Issues of underloading/overloading and condition of the irrigation area require monitoring and maintenance, if not completed system failure may result in unacceptable health and environmental risks. Monitoring and regulation by the permit authority required to ensure compliance.

Other considerations: Owners/occupiers must be made aware of the operational requirements and limitations of the system by the installer/maintenance contractor.

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: Owner name
 Address
 Suburb/postcode

Designer details:

Name: Category:
 Business name: Phone No:
 Business address:
 Fax No:
 Licence No: Email address:

Details of the proposed work:

Owner/Applicant: Designer's project reference No:
 Address: Lot No:

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

Description of work:

On-site wastewater management system - design

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

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

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

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

Other details:

AWTS with modified absorption bed.

 **Sorell Council**
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Design documents provided:

The following documents are provided with this Certificate –
 Document description:

Drawing numbers:	Prepared by: Geo-Environmental Solutions	Date: Jul-26
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: Geo-Environmental Solutions	Date: Jul-26
Computations:	Prepared by:	Date:
Performance solution proposals:	Prepared by:	Date:
Test reports:	Prepared by: Geo-Environmental Solutions	Date: Jul-26

Standards, codes or guidelines relied on in design process:	
AS1547:2012 On-site domestic wastewater management.	
AS3500 (Parts 0-5)-2013 Plumbing and drainage set.	

Any other relevant documentation:	
Geo-Environmental Assessment - 35 Connellys Marsh Road Connelleys Marsh - Jul-26	
Geo-Environmental Assessment - 35 Connellys Marsh Road Connelleys Marsh - Jul-26	

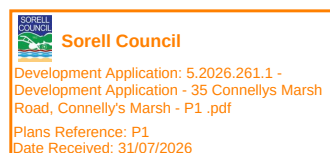
Attribution as designer:	
--------------------------	--

I John-Paul Cumming, am responsible for the design of that part of the work as described in this certificate;

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

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

	Name: (print)	Signed	Date
Designer:	John-Paul Cumming		08/07/2026
Licence No:	CC774A		



Assessment of Certifiable Works: (TasWater)

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

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

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

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

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

Certification:

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

Note: the Guidelines for TasWater Certification of Certifiable Works Assessments are available at:

www.taswater.com.au

	Name: (print)	Signed	Date
Designer:	John-Paul Cumming		08/07/2026



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CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: Will Ockenden

Owner /Agent

Address

Suburb/postcode

Qualified person details:

Qualified person: John-Paul Cumming

Address: 29 Kirksway Place

Phone No: 03 6223 1839

Battery Point

7004

Fax No:

Licence No: AO999

Email address: jcumming@geosolutions.net.au

Qualifications and Insurance details: Certified Professional Soil Scientist (CPSS stage 2)

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

Speciality area of expertise: AS2870-2011 Foundation Classification

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

Details of work:

Address: 35 Connellys Marsh Road

Lot No:

Connellys Marsh

7173

Certificate of title No: 81354/3

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

(description of the assessable item being certified)
Assessable item includes –
- a material;
- a design
- a form of construction
- a document
- testing of a component, building system or plumbing system
- an inspection, or assessment, performed

Certificate details:

Certificate type: Foundation Classification

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

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

building work, plumbing work or plumbing installation or demolition work ☒
or

a building, temporary structure or plumbing installation: ☐



In issuing this certificate the following matters are relevant –

Documents:	The attached soil report for the address detailed above in 'details of work'
Relevant calculations:	Reference the above report.
References:	AS2870:2011 residential slabs and footings AS1726:2017 Geotechnical site investigations CSIRO Building technology file – 18.

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

Site Classification consistent with AS2870-2011.

Scope and/or Limitations

The classification applies to the site as inspected and does not account for future alteration to foundation conditions as a result of earth works, drainage condition changes or variations in site maintenance.

I, John-Paul Cumming certify the matters described in this certificate.

Qualified person:

Signed:

Certificate No:

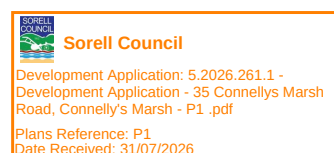
Date:

J13198

08/07/2026



A handwritten signature in black ink, appearing to be 'John Paul Cumming', written over a light grey background.





Wastewater system:

AWTS Unit with venting according to NCC Vol 3 Tas C2D6

Surface diversion drain

Absorption bed (30m²)
1 x 6m x 5m x 0.4m

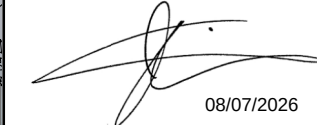
100% reserve area

Min 3m from buildings
Min 1.5m from upslope or level boundaries
Min 3m from downslope boundary
Min 23m from downslope surface water

Refer to GES report

Dr. John Paul Cumming
Building Services Designer-
Hydraulic
CCC774A

GES
GEO-ENVIRONMENTAL
SOLUTIONS
29 Kirksway Place Battery Point
TJ 6223 1839 E| office@geosolutions.net.au


08/07/2026

 Approximate Test Hole Location

1 PROPOSED SITE PLAN
A100 SCALE 1:200 @ A3



SAY ARCHITECTURE

studio@sayarchitecture.com.au

+61 423 354 009

abn 91 677 836 190 acn 677 836 190

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THE DRAWING IS TO BE READ IN CONJUNCTION WITH RELEVANT SECONDARY CONSULTANTS DRAWINGS, DETAILS & SPECIFICATIONS.

THE CONTRACTOR SHALL VERIFY ALL DIMENSION ON SITE PRIOR TO COMMENCING ANY SHOP DRAWINGS. FIGURED DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED. SCALED DIMENSIONS MUST BE VERIFIED ON SITE.



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Plans Reference: P1
Date Received: 31/07/2026

DRAWING: PROPOSED SITE PLAN

PROJECT NAME:
CONNELLYS MARSH

CLIENT: LUCY OCKENDEN + ANDY PHILPOTT
ADDRESS: 35 CONNELLYS MARSH ROAD, CONNELLYS MARSH, TAS

DRAWN BY: EE SCALE: 1:200 @ A3

CHECKED BY: -

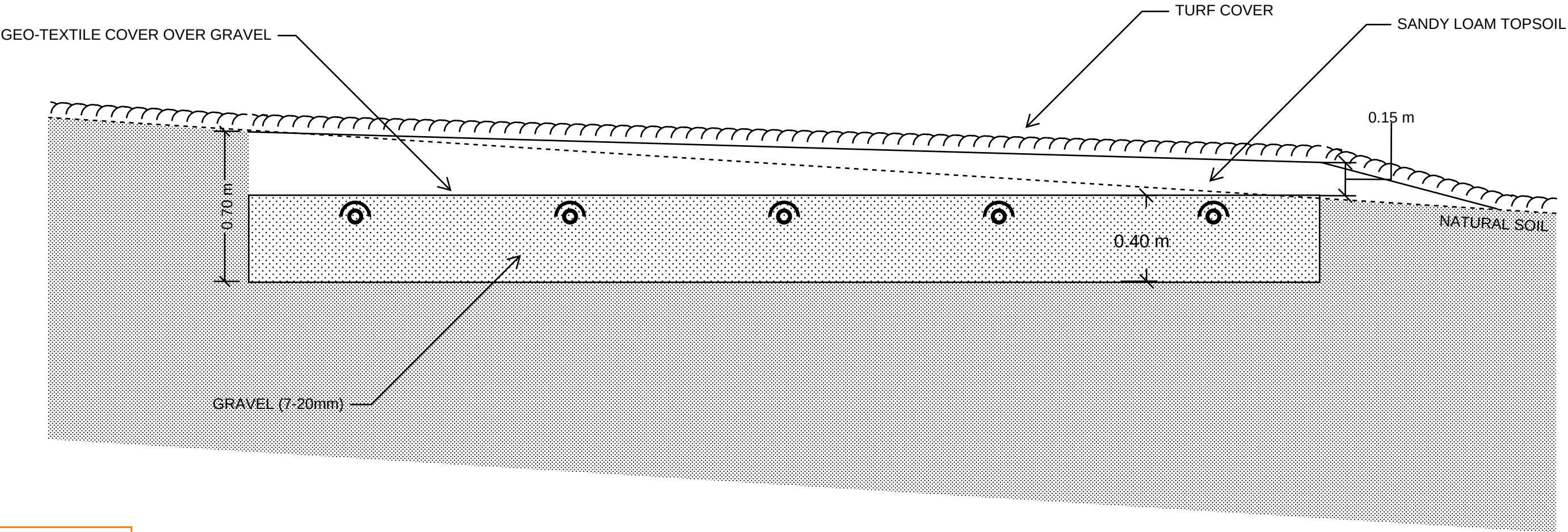
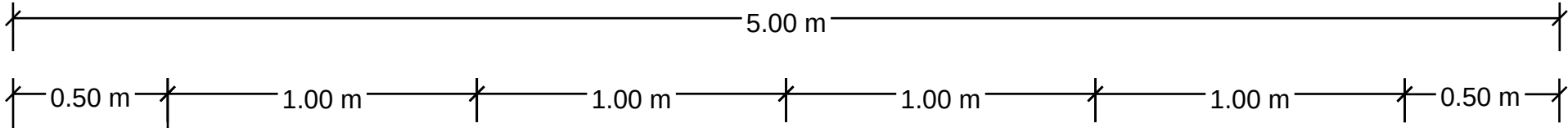
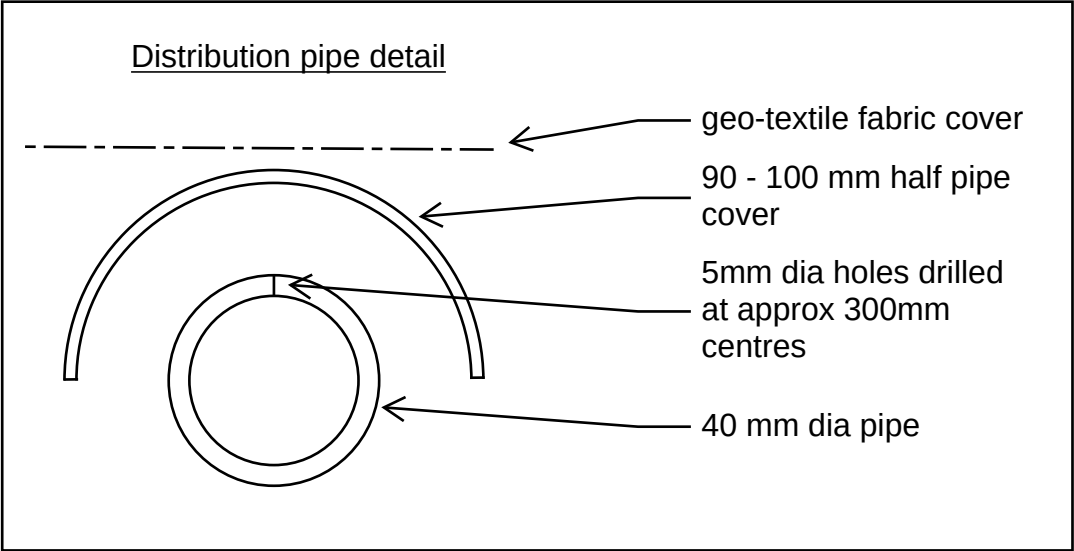
ISSUE DATE: 02.04.2026

PROJECT STAGE: CONCEPT

DRAWING NO: REVISION:

A100

-



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Design notes:

- 1.Absorption bed dimensions of up to 15m long by 0.6m deep by 5.0m wide.
- 2. Base of bed to be excavated level max 700mm into natural soils and smearing and compaction avoided.
- 3. Bed to be filled with 7-20mm aggregate and drilled 40mm distribution pipes packed into upper 100mm.
- 4. 40mm distribution pipes drilled with sufficient 5mm holes in the top of the pipe (approx spacing 300mm) to distribute the effluent and half circle 90-100mm UPVC pipe, un-perforated, laid over each 40mm perforated lateral to direct water jet downwards.
- 5. One 5 mm hole at centre of invert of each pipe to allow for drainage between pump cycles.
- 6. Geotextile or filter cloth to be placed over the distribution pipes to prevent clogging of the pipes and aggregate - the sides of the bed should also be lined.
- 7. Final finished surface with sandy loam to be a minimum of 150 mm above aggregate with turf cover or mulched with appropriate vegetation (eg native grasses and small shrubs at 1 plant per 1 m2)
- 8. The turf or vegetation is an essential component of the system and must be maintained with regular mowing and or trimming as appropriate
- 9. The distribution pipe grid must be absolutely level to allow even distribution of effluent around the absorption area – it is recommended that the level be verified by running water into the system before backfilling and commissioning the trench
- 10. All works on site to comply with AS3500 and Tasmanian Plumbing code.

The pump must be capable of delivering the total flow rate required for all laterals whilst providing a 1.5m residual head (ie squirt height) at the highest orifice (with no more than 15% variation in squirt height across the whole bed).

For beds with individual laterals, no more than 15m long, it is acceptable to adopt a flow rate of 4-5L/min/lineal metre. Total dynamic head (including friction loss) will need to be determined on a site-specific basis.

Individual flush points must be installed for each lateral. This may be a screw cap fitting on a 90 degree elbow level with the bed surface or a pressure controlled flush valve inside an irrigation control box.

G

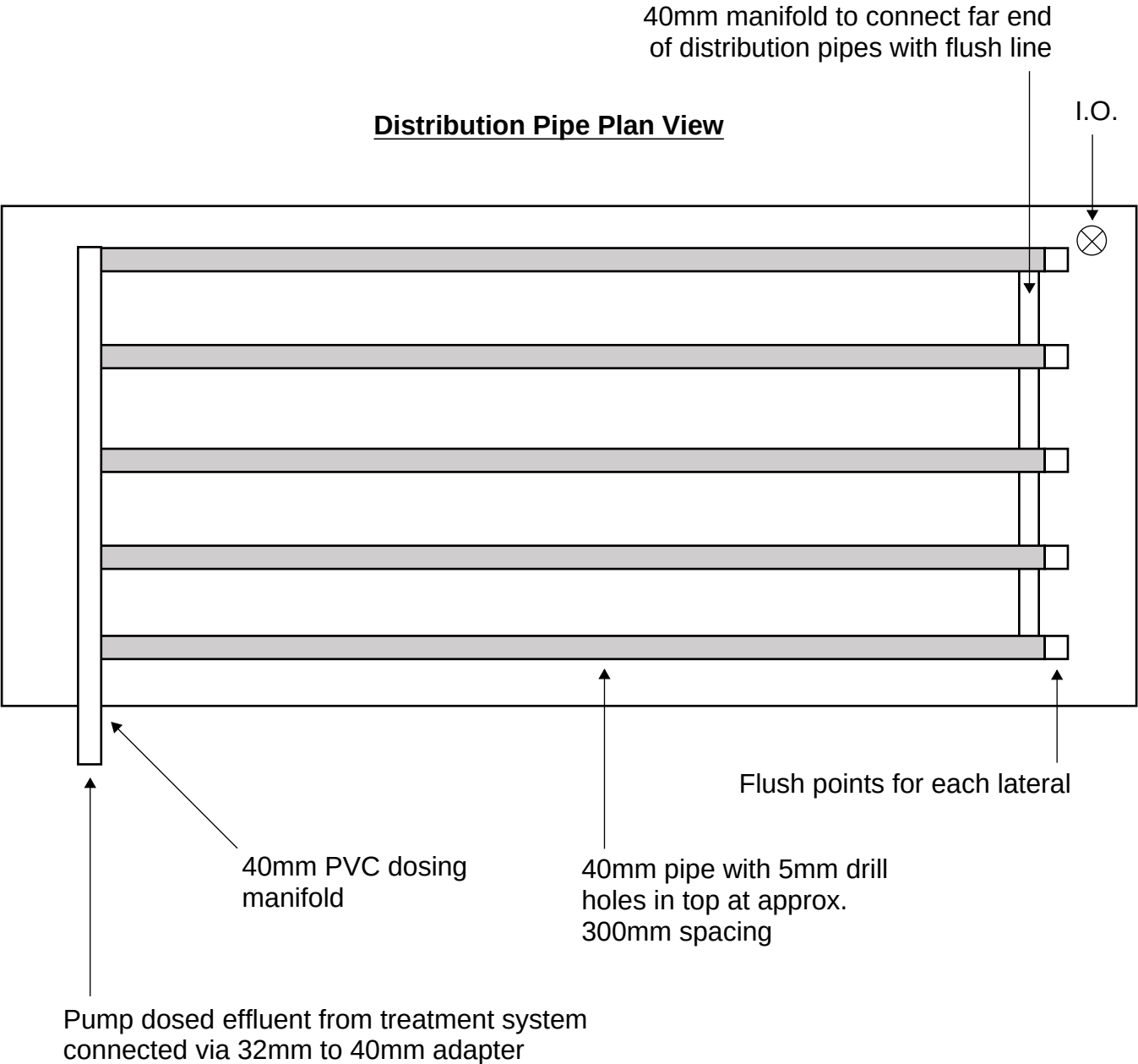
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Do not scale from these drawings.
Dimensions to take precedence
over scale.

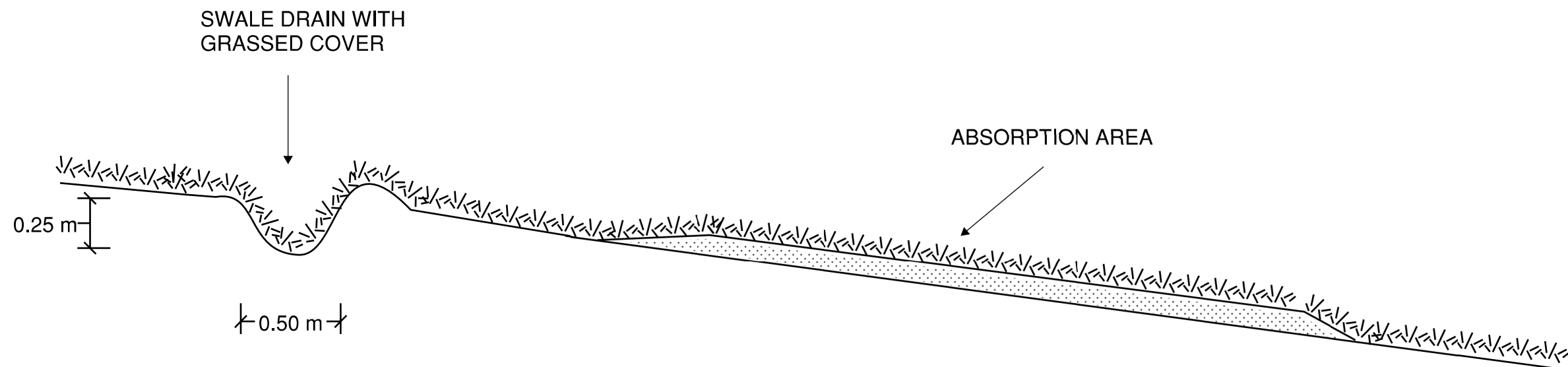
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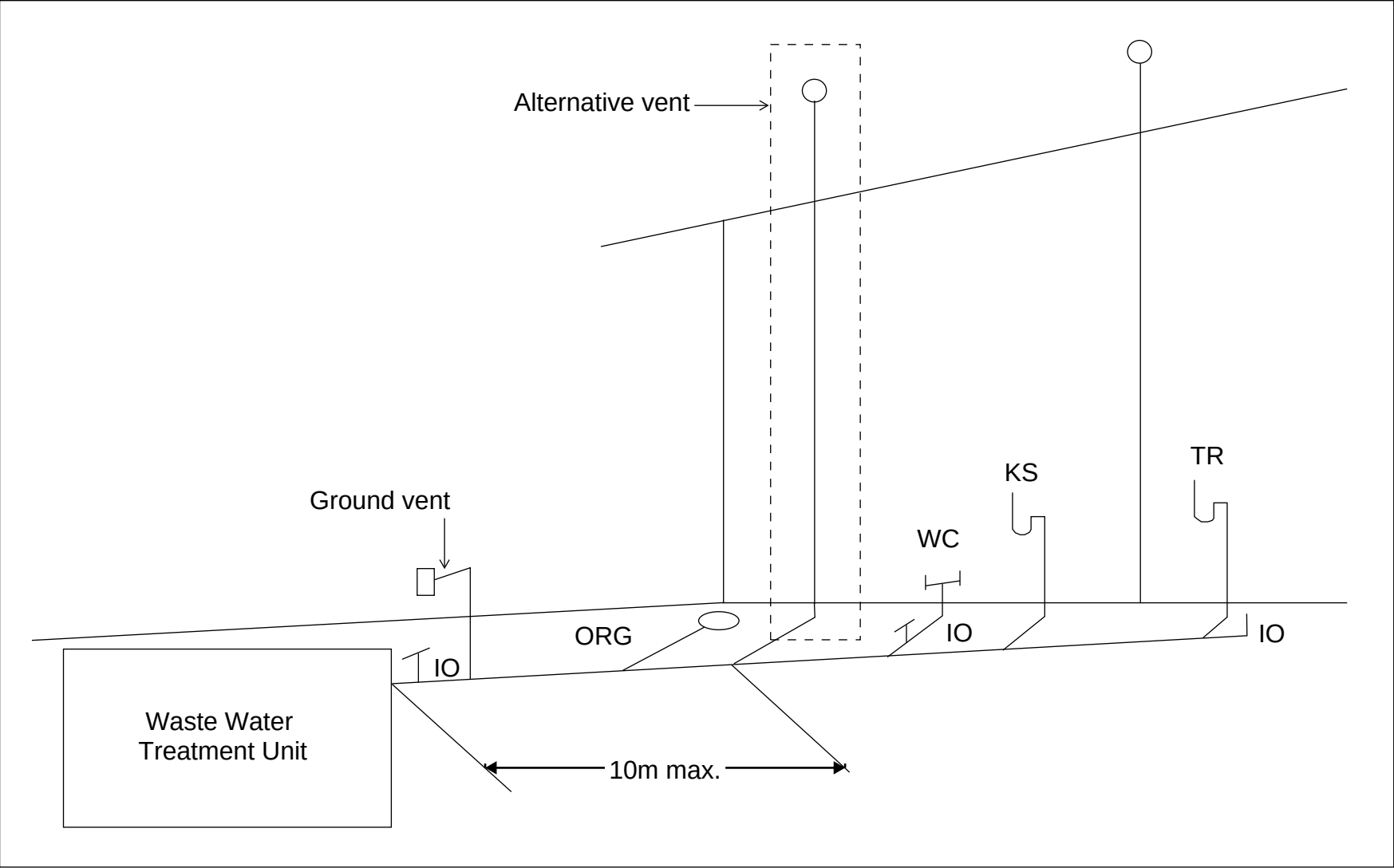
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TYPICAL GRASSED SWALE DRAIN CROSS-SECTION

SWALE DRAIN TO BE MIN 0.5M WIDE BY MIN 0.25M DEEP

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





Tas Figure C2D6 Alternative Venting Arrangements

Vents must terminate in accordance with AS/NZS 3500.2

Alternative venting to be used by extending a vent to terminate as if an upstream vent, with the vent connection between the last sanitary fixture or sanitary appliance and the on-site wastewater management system. Use of a ground vent in not recommended

Inspection openings must be located at the inlet to an on-site wastewater management system treatment unit and the point of connection to the land application system and must terminate as close as practicable to the underside of an approved inspection opening cover installed at the finished surface level

Access openings providing access for desludging or maintenance of on-site wastewater management system treatment unites must terminate at or above finished surface level

STORMWATER ASSESSMENT

35 Connellys Marsh Road

Connellys Marsh

July 2026



GEO-ENVIRONMENTAL
SOLUTIONS



Disclaimer: The author does not warrant the information contained in this document is free from errors or omissions. The author shall not in any way be liable for any loss, damage or injury suffered by the User consequent upon, or incidental to, the existence of errors in the information.

Investigation Details

Client:	Will Ockenden
Site Address:	35 Connellys Marsh Road, Connellys Marsh
Date of Inspection:	05/06/2026
Proposed Works:	New house
Investigation Method:	Geoprobe 540UD - Direct Push
Inspected by:	C. Cooper

Site Details

Certificate of Title (CT):	81354/3
Title Area:	Approx. 1434 m ²
Applicable Planning Overlays:	Bushfire-prone areas
Slope & Aspect:	3-4° SE facing slope
Vegetation:	Mixed

Background Information

Geology Map:	MRT 250 000
Geological Unit:	Triassic sandstone
Climate:	Annual rainfall 550mm
Water Connection:	Tank
Sewer Connection:	Unserviced-On-site required
Testing and Classification:	Onsite stormwater retention

Investigation

A number of bore holes were completed to identify the distribution and variation of the soil materials at the site, bore hole locations are indicated on the site plan. See soil profile conditions presented below.

Soil Profile Summary

BH 1 Depth (m)	USCS	Description
0.00-0.10	SP	Silty SAND: medium-grained, grey-brown, moist, medium dense
0.10-1.70	CI	Sandy CLAY: medium plasticity, pale grey mottled brown, slightly moist, stiff
1.70-2.00	CL	Sandy CLAY: low plasticity, orange-brown mottled grey, slightly moist, very stiff
2.00-2.70	CI	Sandy CLAY: medium to high plasticity, pale grey mottled brown, slightly moist, stiff, refusal on assumed rock.

BH 2 Depth (m)	BH 3 Depth (m)	USCS	Description
0.00-0.50	0.00-0.60	SP	Silty SAND: medium-grained, grey-brown, moist, medium dense
0.50-0.80	0.60-1.00	SP	Silty SAND: medium-grained, grey-brown, moist, medium dense
0.80-1.40	1.00-1.20	SP	Silty SAND: medium-grained, pale grey, moist, medium dense
	1.20-1.60	CI	Sandy CLAY: medium plasticity, pale grey mottled brown, slightly moist, stiff
1.40-1.70	1.60-1.80	SC	Clayey SAND: medium-grained, pale orange, slightly moist, very dense
1.70-2.0+	1.80-2.0+	CI	Sandy CLAY: medium to high plasticity, pale grey mottled brown, slightly moist, stiff, no refusal.

Soil conditions

The soil on site consists of deep sands underlain by clayey subsoils developing over Triassic sandstone. The site has an estimated permeability in the order of 0.5-1.5m/day.

GES have identified the following at the site:

- The area proposed for construction presents a low risk to slope stability and landslip.
- There are no known proposals for cuts or changes of grade which may impact on any proposed onsite stormwater absorption.
- No soil dispersion was identified.
- No evidence of a water table was observed at the time of the investigation.
- There is a low risk of the natural soils being impacted by contamination.
- Bedrock was encountered in BH1 at a depth of 2.70m.

Soil Dispersion

The soils on site were not identified as dispersive.

Existing Conditions and Assumptions

The site covers an area of approximately 1434m² with a proposed roof area of approx. 155m² and timber decking with an area of approx. 70m². There is no public stormwater connection available to the property, therefore it is proposed that a new stormwater absorption trench is to be installed.

The stormwater management report is prepared in accordance with the design criteria listed below:

- The stormwater drainage system is designed using Bureau of Meteorology (BOM) published rainfall Intensity Frequency Duration (IFD) data as a minor / major system to accommodate the 5% AEP / 20 min storm events.
- The flow rate of stormwater leaving the site shall be designed so that it does not exceed the pre-developed flow rate for both the minor and major rain events.
- The total site discharges are modelled as described in *Storm Drainage Design in Small Urban Catchments*, a handbook for Australian practice by *Australian Rainfall and Runoff (ARR2019)*, Book 9 – Runoff in Urban Areas.

Detention Calculations

Detention calculations area provided in Appendix A.

Summary and Conclusions

- Detention design to be adopted as per design and documentation.
- The designed solution complies with the performance solution design check carried out.
- The 9m² base (4.5m x 2m), 1m deep soakage trench is designed over a 20-minute storm duration for proposed development.
- Any rainwater tank(s) to be installed on the site should incorporate a detention volume of 2,000L for stormwater purposes.
- DN100 slotted PVC pipe with geotextile covering on top of aggregate to be installed within the soakage trench.

It is also recommended that regular inspection and maintenance is conducted to ensure the stormwater system is operating without obstruction. A schematic of recommended checks is attached.

GES Stormwater Maintenance Plan Checklist

Indicative frequency	Inspection and criteria	Maintenance activities (where required)
Annual	Check whether any tree branches overhang the roof or are likely to grow to overhang the roof	If safe and where permitted, consider pruning back any overhanging branches
	Check that access covers to storage tanks are closed	Secure any open access covers to prevent risk of entry
	Check that screens on inlets, overflows and other openings do not have holes and are securely fastened	Repair any defective screens to keep out mosquitoes
	Inspect tank water for presence of rats, birds, frogs, lizards or other vermin or insects	Remove any infestations, identify point of entry and close vermin and insect-proof mesh
	Inspect tank water for presence of mosquito larvae (inspect more frequently in sub-tropical and tropical northern Australia, based on local requirements)	Identify point of entry and close with insect-proof mesh with holes no greater than 1.6 mm in diameter
	Inspect gutters for leaf accumulation and ponding	Clean leaves from gutters-remove more regularly if required. If water is ponding, repair gutter to ensure water flows to downpipe
	Check signage at external roof water taps and that any removable handle taps are being properly used	Replace or repair the missing or damaged signage and fittings
	Check plumbing and pump connections are watertight/without leakage	Repair any leaks as necessary
	Check suction strainers, in-line strainers and pump location for debris	Clean suction strainers, in-line strainers or debris from pump location
	Check pump installation is adequate for reliable ongoing operation	Modify and repair as required
	Check first flush diverter, if present	Clean first flush diverter, repair and replace if necessary
	Check health of absorption trench area and surrounding grass or plants	Investigate any adverse impacts observed that might be due to irrigation
	Check condition of roof and coatings	Investigate and resolve any apparent changes to roof condition, such as loss of material coatings

Triennial	Drain, clean out and check the condition of the tank walls and roof to ensure no holes have arisen due to tank deterioration	Repair any tank defects
	Check sediment levels in the tank	Organise a suitable contractor to remove accumulated sediment if levels are approaching those that may block tank outlets
	Undertake a systematic review of operational control of risks to the system	Identify the reason for any problems during inspections and take actions to prevent failures occurring in future
After 20 years and then every 5 years	Monitor the effectiveness of the stormwater absorption area to assess for any clogging due to algal growth, or blocking due to tree roots/grass growth/trench failure.	Clean or replace clogged equipment
Ongoing	Inspect and follow up on any complaints or concerns raised that could indicate problems with the system	Repair or replace any problems that are notified

APPENDIX A: STORMWATER DETENTION CALCULATIONS

STORAGE TRENCH							
Hydrology							
Total Catchment Area		225	m ²				
Runoff Coefficient		0.844					
Annual Recurrence Interval (ARI)		20	yr				
Ground Conditions							
Hydraulic conductivity (K)		0.800	m/day				
		0.560	mm/min				
Adjusted Rate (15% clogging factor)		0.476	mm/min				
Trench Design							
Length		4.5	m				
Width		2	m				
Depth		1	m				
Infiltration Area		9	m ²				
Porosity		0.35	%				
Trench Storage		3.2	m ³				
		3150	L				
Detention tank data				Final Check			
Tank Storage		2	m ³	Criteria	Requirement	Design	Check
Tank Underflow		0.868	L/s	Total Detention needed	2780	5150	OK
Tank Underflow		52.08	L/min	Trench Capacity underflow for 5% AEP 20-minute storm	2845	3150	OK
Total Available storage		5.2	m ³				
		5150	L				

STORM CHECK					
Storm Duration	Intensity	Inflow Volume	Outflow Volume	Required Storage	Emptying time
	(mm/hr)	(m ³)	(L)	(L)	(hr)
1 min	145	459	4	455	1.77
2 min	114	722	9	713	2.77
3 min	103	978	13	965	3.75
4 min	95.1	1204	17	1187	4.62
5 min	88.8	1405	21	1384	5.38
10 min	67.1	2124	43	2081	8.10
15 min	54.5	2587	64	2523	9.82
20 min	46.3	2931	86	2845	11.07
25 min	40.6	3212	107	3105	12.08
30 min	36.3	3447	129	3318	12.91
45 min	28.3	4031	193	3838	14.93
1 hour	23.7	4501	257	4244	16.51
1.5 hour	18.7	5327	386	4941	19.22
2 hour	15.9	6039	514	5525	21.49
3 hour	12.9	7349	771	6578	25.59
4.5 hour	10.6	9058	1157	7902	30.74
6 hour	9.24	10528	1542	8986	34.96
9 hour	7.67	13109	2313	10795	42.00
12 hour	6.71	15291	3084	12206	47.49
18 hour	5.48	18732	4627	14105	54.87
24 hour	4.68	21330	6169	15161	58.98
30 hour	4.09	23301	7711	15590	60.65
36 hour	3.63	24816	9253	15563	60.55
48 hour	2.96	26981	12338	14643	56.97
72 hour	2.13	29123	18507	10616	41.30
			Full volume	3150	60.65
Notes:					
Inflow volume calculated using Equation 10.1 (WSUD Guidelines: Chapter 10)					
Outflow volume calculated using Equation 10.2 (WSUD Guidelines: Chapter 10)					
Required storage and emptying time is left blank when outflow volume exceeds inflow volume					

Location

Label: 35 Connellys Marsh Road, Connellys Marsh
Easting: 558506
Northing: 5251508
Zone: 55
Latitude: Nearest grid cell: 42.8875 (S)
Longitude: Nearest grid cell: 147.7125 (E)



IFD Design Rainfall Intensity (mm/h)

Issued: 01 July 2026

Rainfall intensity for Durations, Exceedance per Year (EY), and Annual Exceedance Probabilities (AEP).
[FAQ for New ARR probability terminology](#)

Table

Chart

Unit:

Duration	Annual Exceedance Probability (AEP)						
	63.2%	50%#	20%*	10%	5%	2%	1%
1 min	66.7	74.9	103	123	145	176	201
2 min	56.2	62.6	83.5	98.4	114	132	146
3 min	50.1	55.9	75.0	88.7	103	120	134
4 min	45.4	50.8	68.7	81.7	95.1	113	127
5 min	41.7	46.8	63.6	76.0	88.8	106	121
10 min	30.5	34.3	47.3	56.9	67.1	82.2	94.8
15 min	24.7	27.8	38.3	46.2	54.5	66.9	77.3
20 min	21.1	23.7	32.6	39.3	46.3	56.7	65.4
25 min	18.6	20.9	28.7	34.5	40.6	49.5	56.8
30 min	16.8	18.9	25.8	30.9	36.3	44.1	50.4
45 min	13.4	15.0	20.4	24.3	28.3	33.9	38.4
1 hour	11.4	12.8	17.3	20.5	23.7	28.1	31.7
1.5 hour	9.22	10.3	13.8	16.2	18.7	21.9	24.4
2 hour	7.95	8.89	11.9	13.9	15.9	18.5	20.5
3 hour	6.49	7.27	9.69	11.3	12.9	14.9	16.4
4.5 hour	5.32	5.98	8.00	9.31	10.6	12.2	13.4
6 hour	4.62	5.21	7.00	8.15	9.24	10.7	11.7
9 hour	3.76	4.27	5.79	6.76	7.67	8.93	9.87
12 hour	3.23	3.68	5.03	5.90	6.71	7.86	8.73
18 hour	2.56	2.93	4.06	4.79	5.48	6.49	7.26
24 hour	2.13	2.45	3.43	4.07	4.68	5.58	6.27
30 hour	1.84	2.11	2.97	3.54	4.09	4.90	5.53
36 hour	1.61	1.86	2.62	3.13	3.63	4.36	4.94
48 hour	1.30	1.50	2.12	2.54	2.96	3.57	4.05
72 hour	0.934	1.08	1.52	1.83	2.13	2.57	2.92
96 hour	0.731	0.840	1.18	1.42	1.65	1.98	2.26
120 hour	0.604	0.692	0.968	1.15	1.33	1.60	1.82
144 hour	0.517	0.592	0.821	0.972	1.12	1.34	1.52
168 hour	0.456	0.521	0.716	0.842	0.959	1.15	1.31

Location: Connellys Marsh, TAS
Site: 225m² with tc = 20 and tcs = 15 mins.
PSD: AEP of 5%, Underground rectangular tank PSD = 0.87L/s
Storage: AEP of 5%, Underground rectangular tank volume = 2.78m³

Design Criteria (Custom AEP IFD data used)

Location = Connellys Marsh, TAS
Method = E (A)RI 2001,A(E)P 2019

PSD annual exceedance probability (APE) = 5 %
Storage annual exceedance probability (APE) = 5 %

Storage method = U (A)bove,(P)ipe,(U)nderground,(C)ustom

Site Geometry

Site area (As) = 225 m² = 0.0225 Ha
Pre-development coefficient (Cp) = 0.30
Post development coefficient (Cw) = 0.84

Total catchment (tc) = 20 minutes
Upstream catchment to site (tcs) = 15 minutes

Coefficient Calculations

Pre-development				Post development			
Zone	Area (m ²)	C	Area * C	Zone	Area (m ²)	C	Area * C
Concrete	0	0.90	0	Concrete	0	0.90	0
Roof	0	1.00	0	Roof	155	1.00	155
Gravel	0	0.50	0	Gravel	70	0.50	35
Garden	225	0.30	68	Garden	0	0.30	0
Total	225	m²	68	Total	225	m²	190
Cp = ΣArea*C/Total = 0.300				Cw = ΣArea*C/Total = 0.844			

Permissible Site Discharge (PSD) (AEP of 5%)

PSD Intensity (I) = 46.3 mm/hr For catchment tc = 20 mins.
Pre-development (Qp = Cp*I*As/0.36) = 0.87 L/s
Peak post development (Qa = 2*Cw*I*As/0.36) = 4.89 L/s =(0.106 x I) Eq. 2.24

Storage method = U (A)bove,(P)ipe,(U)nderground,(C)ustom
Permissible site discharge (Qu = PSD) = 0.868 L/s

Above ground - Eq 3.8

$$0 = \text{PSD}^2 - 2*Q_a/t_c*(0.667*t_c*Q_p/Q_a + 0.75*t_c + 0.25*t_{cs})*\text{PSD} + 2*Q_a*Q_p$$

Taking x as = PSD and solving

$$a = 1.0 \quad b = -10.3 \quad c = 8.5$$

$$\text{PSD} = \frac{-b \pm \sqrt{b^2 - 4ac}}{(2a)}$$

$$\text{PSD} = 0.901 \text{ L/s}$$

Below ground pipe - Eq 3.3

$$Q_p = \text{PSD}*[1.6*t_{cs}/\{t_c*(1-2*\text{PSD}/(3*Q_a))\} - 0.6*t_{cs}^{2.67}/\{t_c*(1-2*\text{PSD}/(3*Q_a))\}^{2.67}]$$

$$= 0.87$$

$$\text{PSD} = 0.893 \text{ L/s}$$

Below ground rectangular tank - Eq 3.4

$$t = t_{cs}/(t_c*(1-2*\text{PSD}/(3*Q_a))) = 0.851$$

$$Q_p = \text{PSD}*[0.005 - 0.455*t + 5.228*t^2 - 1.045*t^3 - 7.199*t^4 + 4.519*t^5]$$

$$= 0.87$$

$$\text{PSD} = 0.868 \text{ L/s}$$

Design Storage Capacity (AEP of 5%)

$$\begin{aligned} \text{Above ground (Vs)} &= [0.5*Q_a*td - [(0.875*PSD*td)(1-0.917*PSD/Q_a) + (0.427*td*PSD^2/Q_a)]] * 60/10^3 \text{ m}^3 & \text{Eq 4.23} \\ \text{Below ground pipe (Vs)} &= [(0.5*Q_a - 0.637*PSD + 0.089*PSD^2/Q_a)*td] * 60/10^3 \text{ m}^3 & \text{Eq 4.8} \\ \text{Below ground rect. tank (Vs)} &= [(0.5*Q_a - 0.572*PSD + 0.048*PSD^2/Q_a)*td] * 60/10^3 \text{ m}^3 & \text{Eq 4.13} \end{aligned}$$

td (mins)	I (mm/hr)	Qa (L/s)	Above Vs (m³)	Pipe Vs (m³)	B/G Vs (m³)
5	88.8	9.4			1.26
21	45.0	4.8			2.38
29	37.1	3.9			2.56
37	31.9	3.4			2.66
45	28.3	3.0			2.72
52	25.9	2.7			2.75
60	23.7	2.5			2.77
68	22.0	2.3			2.78
76	20.6	2.2			2.77
84	19.5	2.1			2.76

Table 1 - Storage as function of time for AEP of 5%

Type	td (mins)	I (mm/hr)	Qa (L/s)	Vs (m³)
Above Pipe				
B/ground	67.3	22.2	2.3	2.78

Table 2 - Storage requirements for AEP of 5%

Frequency of operation of Above Ground storage

$$\begin{aligned} Q_{p2} &= 0.75 \text{ CI 2.4.5.1} \\ Q_{p2} = Q_{p2} * Q_{p1} \text{ (where } Q_{p1} = PSD) &= 0.68 \text{ L/s at which time above ground storage occurs} \\ I = 360 * Q_{p2} / (2 * C_w * A_s * 10^3) &= 6.4 \text{ mm/h} & \text{Eq 4.24} \end{aligned}$$

Period of Storage

Time to Fill:

$$\begin{aligned} \text{Above ground (tf)} &= td * (1 - 0.92 * PSD / Q_a) & \text{Eq 4.27} \\ \text{Below ground pipe (tf)} &= td * (1 - 2 * PSD / (3 * Q_a)) & \text{Eq 3.2} \\ \text{Below ground rect. tank (tf)} &= td * (1 - 2 * PSD / (3 * Q_a)) & \text{Eq 3.2} \end{aligned}$$

Time to empty:

$$\begin{aligned} \text{Above ground (te)} &= (Vs + 0.33 * PSD^2 * td / Q_a * 60 / 10^3) * (1.14 / PSD) * (10^3 / 60) & \text{Eq 4.28} \\ \text{Below ground pipe (te)} &= 1.464 / PSD * (Vs + 0.333 * PSD^2 * td / Q_a * 60 / 10^3) * (10^3 / 60) & \text{Eq 4.32} \\ \text{Below ground rect. tank (te)} &= 2.653 / PSD * (Vs + 0.333 * PSD^2 * td / Q_a * 60 / 10^3) * (10^3 / 60) & \text{Eq 4.36} \end{aligned}$$

$$\text{Storage period (Ps = tf + te)} \quad \text{Eq 4.26}$$

Type	td (mins)	Qa (L/s)	Vs (L/s)	tf (mins)	te (mins)	Ps (mins)
Above Pipe						
B/ground	67.3	2.3	2.8	50.6	163.6	214.2

Table 3 - Period of Storage requirements for AEP of 5%

Orifice

$$\begin{aligned} \text{Permissible site discharge (Qu=PSD)} &= 0.87 \text{ L/s (Underground storage)} \\ \text{Orifice coefficient (CD)} &= 0.61 \text{ For sharp circular orifice} \\ \text{Gravitational acceration (g)} &= 9.81 \text{ m/s}^2 \\ \text{Maximum storage depth above orifice (H)} &= 200 \text{ mm} \\ \text{Orifice flow (Q)} &= CD * A_o * \sqrt{2 * g * H} \\ \text{Therefore:} \\ \text{Orifice area (A_o)} &= 718 \text{ mm}^2 \\ \text{Orifice diameter (D = } \sqrt{4 * A_o / \pi} \text{)} &= 30.2 \text{ mm} \end{aligned}$$

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

To: Will Ockenden

Owner name

Address

Suburb/postcode

Form **35**

Designer details:

Name: Vinamra Gupta

Category: Civil Engineer

Business name: Geo-Environmental Solutions

Phone No: 03 6223 1839

Business address: 29 Kirksway Place

Battery Point

7004

Fax No: N/A

Licence No: 685982720

Email address: office@geosolutions.net.au

Details of the proposed work:

Owner/Applicant: Will Ockenden

Designer's project reference No: J13198

Address: 35 Connellys Marsh Road

Lot No: 81354/3

Connellys Marsh

7173

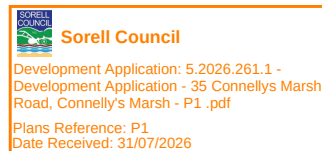
Type of work:

Building work ☐

Plumbing work ☒ (X all applicable)

Description of work:

On-Site stormwater system - design



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

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

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

Deemed-to-Satisfy: ☐

Performance Solution: ☒ (X the appropriate box)

Other details:

Stormwater assessment

Design documents provided:

The following documents are provided with this Certificate –

Document description:

Drawing numbers:	Prepared by: Geo-Environmental Solutions	Date: Jul-26
Schedules:	Prepared by:	Date:
Specifications:	Prepared by: Geo-Environmental Solutions	Date: Jul-26
Computations:	Prepared by:	Date:
Performance solution proposals: Onsite stormwater retention	Prepared by: Geo-Environmental Solutions	Date: Jul-26
Test reports:	Prepared by: Geo-Environmental Solutions	Date: Jul-26

Standards, codes or guidelines relied on in design process:

AS3500 (Parts 0-5)-2013 Plumbing and drainage set.



Any other relevant documentation:

Stormwater Assessment - 35 Connellys Marsh Road Connellys Marsh - Jul-26

Attribution as designer:

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

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

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

	<i>Name: (print)</i>	<i>Signed</i>	<i>Date</i>
Designer:	Vinamra Gupta		08/07/2026
Licence No:	685982720		

Assessment of Certifiable Works: (TasWater)

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

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

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

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

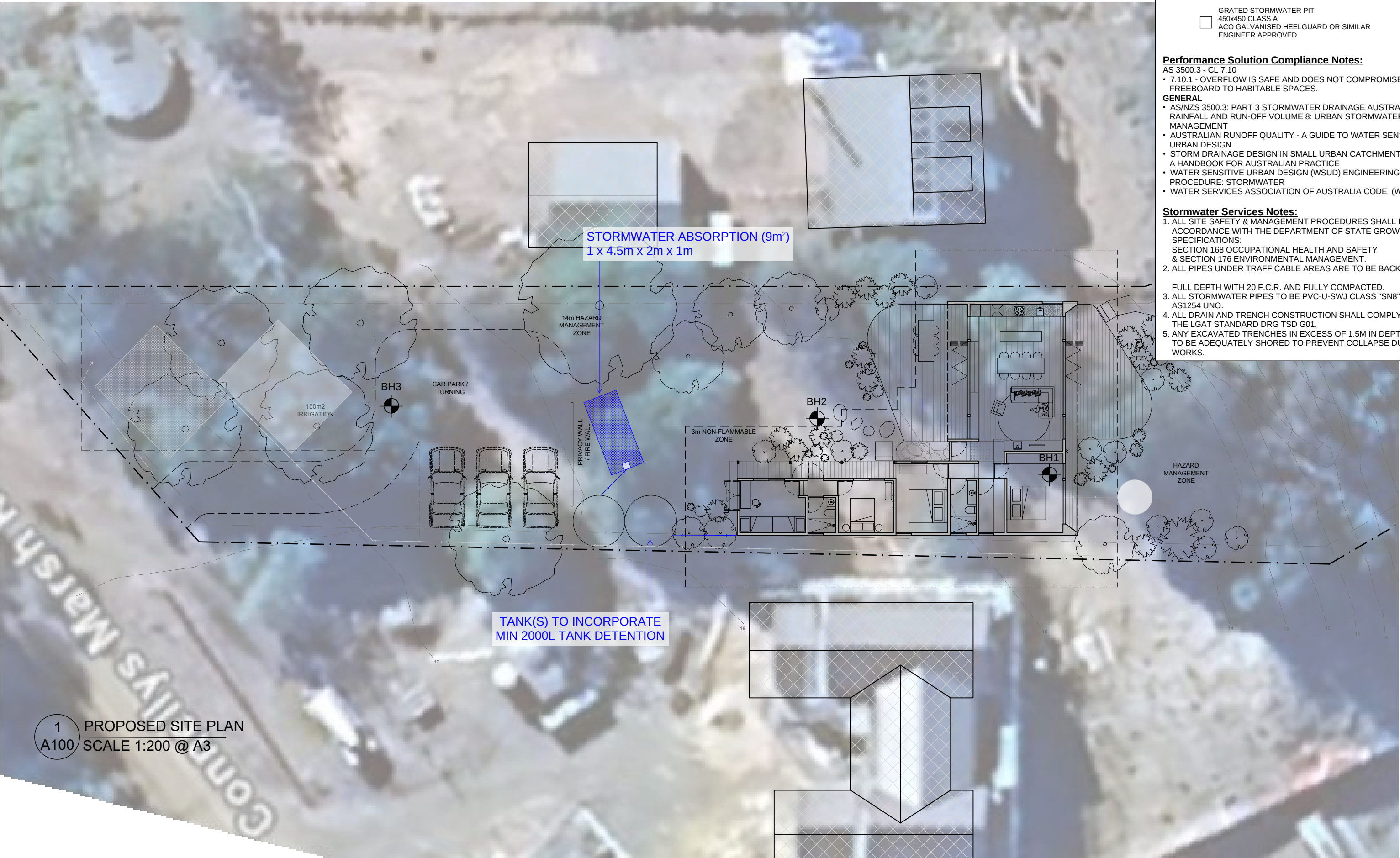
- ☒ The works will not increase the demand for water supplied by TasWater
- ☒ The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure
- ☒ The works will not require a new connection, or a modification to an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

Certification:

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

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

	<i>Name: (print)</i>	<i>Signed</i>	<i>Date</i>
Designer:	Vinamra Gupta		08/07/2026



New Services

STORMWATER PIPE
WITH FLOW DIRECTION

GRADED STORMWATER PIT
450x450 CLASS A
ACO GALVANISED HEELGUARD OR SIMILAR
ENGINEER APPROVED

Performance Solution Compliance Notes:
AS 3500.3 - CL 7.10

- 7.10.1 - OVERFLOW IS SAFE AND DOES NOT COMPROMISE FREEBOARD TO HABITABLE SPACES.

GENERAL

- AS/NZS 3500.3: PART 3 STORMWATER DRAINAGE AUSTRALIAN RAINFALL AND RUN-OFF VOLUME 8: URBAN STORMWATER MANAGEMENT
- AUSTRALIAN RUNOFF QUALITY - A GUIDE TO WATER SENSITIVE URBAN DESIGN
- STORM DRAINAGE DESIGN IN SMALL URBAN CATCHMENTS: A HANDBOOK FOR AUSTRALIAN PRACTICE
- WATER SENSITIVE URBAN DESIGN (WSUD) ENGINEERING PROCEDURE: STORMWATER
- WATER SERVICES ASSOCIATION OF AUSTRALIA CODE (WSAA)

Stormwater Services Notes:

- ALL SITE SAFETY & MANAGEMENT PROCEDURES SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF STATE GROWTH SPECIFICATIONS:
SECTION 168 OCCUPATIONAL HEALTH AND SAFETY & SECTION 176 ENVIRONMENTAL MANAGEMENT.
- ALL PIPES UNDER TRAFFICABLE AREAS ARE TO BE BACKFILLED FULL DEPTH WITH 20 F.C.R. AND FULLY COMPACTED.
- ALL STORMWATER PIPES TO BE PVC-U-SWJ CLASS "SN8" TO AS1254 UNO.
- ALL DRAIN AND TRENCH CONSTRUCTION SHALL COMPLY WITH THE LGAT STANDARD DRG TSD G01.
- ANY EXCAVATED TRENCHES IN EXCESS OF 1.5M IN DEPTH ARE TO BE ADEQUATELY SHORED TO PREVENT COLLAPSE DURING WORKS.

1 PROPOSED SITE PLAN
A100 SCALE 1:200 @ A3



SAY ARCHITECTURE
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+61 423 354 009
abn 91 677 836 190 acn 677 836 190

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THE DRAWING IS TO BE READ IN CONJUNCTION WITH RELEVANT SECONDARY CONSULTANTS DRAWINGS, DETAILS & SPECIFICATIONS.

THE CONTRACTOR SHALL VERIFY ALL DIMENSION ON SITE PRIOR TO COMMENCING ANY SHOP DRAWINGS. FIGURED DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED. SCALED DIMENSIONS MUST BE VERIFIED ON SITE.



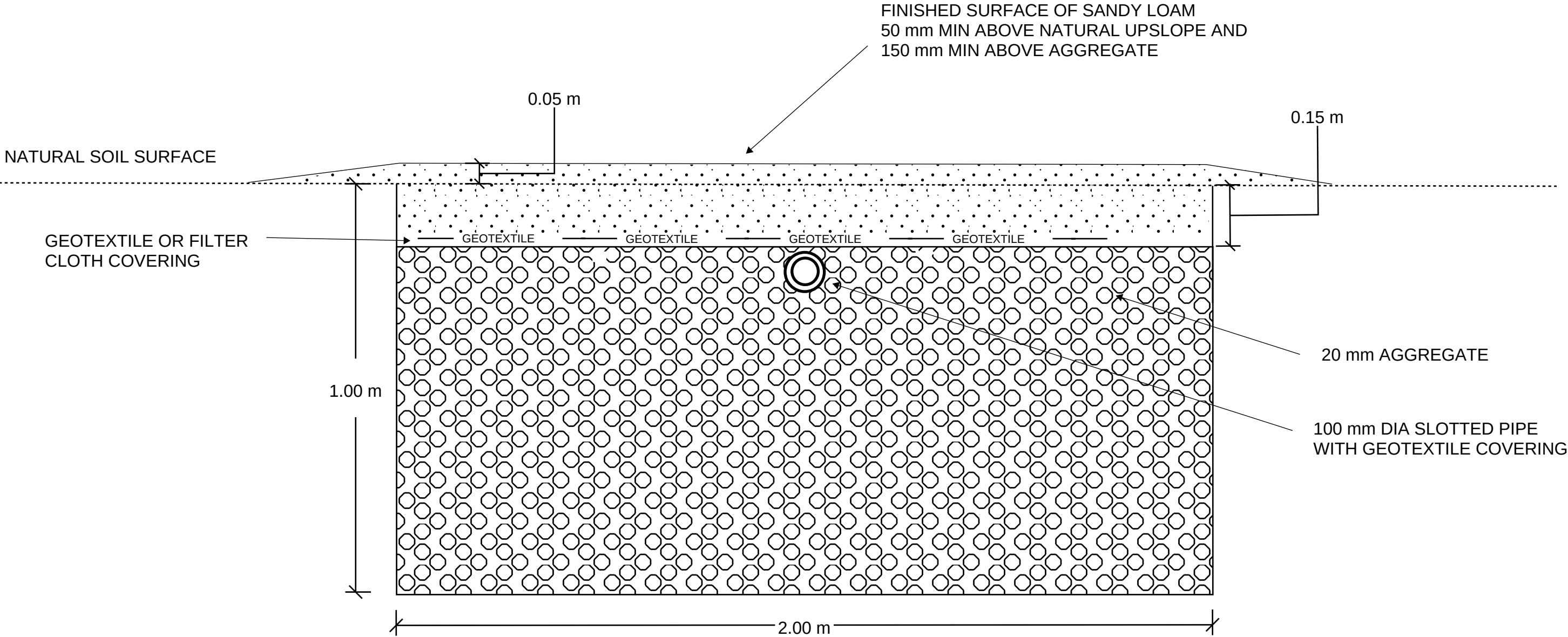
DRAWING:
PROPOSED SITE PLAN
PROJECT NAME:
CONNELLYS MARSH

CLIENT: LUCY OCKENDEN + ANDY PHILPOTT
ADDRESS: 35 CONNELLYS MARSH ROAD, CONNELLYS MARSH, TAS

DRAWN BY: EE SCALE: 1:200 @ A3
CHECKED BY: -
ISSUE DATE: 02.04.2026
PROJECT STAGE: CONCEPT
DRAWING NO: REVISION:
A100 -

Design notes:

- 1.Absorption bed dimensions of up to 21m long by 1m deep by 2m wide
– total storage volume calculated at average 35% porosity.
- 2.Base of bed 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.All works on site to comply with AS3500 and Tasmanian Plumbing code.



Do not scale from these drawings.
Dimensions to take precedence
over scale.

Geo-Environmental Solutions
Stormwater trench

Stormwater Absorption Detail



Proposed Residential Development – 35 Connellys Marsh Road, Connellys Marsh

Bushfire Hazard Report

Applicant: W. Ockenden



August 2026 J13198v3.0

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Attachment 1 – Bushfire Hazard Management Plan

Attachment 2 - Certificate of Others (Form 55)

Disclaimer

The measures contained in Australian Standard 3959-2018 cannot guarantee that a building will survive a bushfire event on every occasion. This is due to the unpredictable nature and behaviour of fire and extreme weather conditions.

Geo Environmental Solutions (GES) has taken reasonable steps to ensure that the information contained within this report is accurate and reflects the conditions on and around the lot at the time of assessment. The assessment has been based on the information provided by you or your designer.

Authorship

Prepared and certified by Alice Higgins FPO (planning), Bushfire Practitioner (BFP165 Scope 1, 2, 3A, 3B, 3C), Geo Environmental Solutions.

Base data for mapping: LISTmap, aerial photography, and Google Earth.

On site Photography: Geo Environmental Solutions.



1.0 Purpose

This bushfire hazard report for 35 Connellys Marsh Road, Connellys Marsh has been developed in support of a building application in a bushfire-prone area. It will demonstrate compliance with the Building Regulations 2016, Director’s Determination – Bushfire Hazard Areas, version 1.2, 16th July 2024, and AS 3959-2018. A Certificate of Others (Form 55) and a certified Bushfire Hazard Management Plan (BHMP) indicating the management and protection measures to be implemented in a form approved by the Chief Fire Officer of the Tasmania Fire Service, are attached.

2.0 Summary

Site details and compliance

Title reference (CT)	81354/3
PID	5963404
Address	35 Connellys Marsh Road, Connellys Marsh
Applicant	W. Ockenden
Municipality	Sorell
Planning Scheme	Tasmanian Planning Scheme - Sorell
Zoning	Low Density Residential
Land size	~0.1434 ha
Class of Building/s	Class 1a habitable building
Bushfire Attack Level	BAL-29
Certificate of Others (Form 55)	Complete and attached
Bushfire Hazard Management Plan	Certified and attached

Development of a new Class 1a habitable building at 35 Connellys Marsh Road, Connellys Marsh requires demonstrated compliance with the Building Regulations 2016, Director’s Determination – Bushfire Hazard Areas, version 1.2, 16th July 2024, and AS 3959-2018. The site is within a bushfire-prone area as defined under the Tasmanian Planning Scheme – Sorell. The Bushfire Attack Level has been determined as ‘BAL-29’ as defined in AS 3959 - 2018. Provisions for construction standards, hazard management areas (HMA), property access and water supplies for firefighting will be required as detailed in this report and on the BHMP.



3.0 Introduction

This bushfire hazard report has been completed to form part of the supporting documentation for a building permit application for the proposed development. The proposed development site has been identified as being in a bushfire-prone area. A site-specific Bushfire Attack Level (BAL) assessment and BHMP has been provided to ensure compliance with AS 3959 – 2018 Construction of Buildings in Bushfire-Prone Areas, National Construction Code, and the Director’s Determination – Bushfire Hazard Areas, version 1.2, 16th July 2024. Additional guidance for planning and building in bushfire-prone areas is available on the Tasmania Fire Service website.

4.0 Proposal

The proposal is for the construction of a new Class 1a habitable building in the central part of the title at 35 Connellys Marsh Road, Connellys Marsh. This assessment is based on plans provided by the client (Appendix B).

5.0 Bushfire Attack Level (BAL) Assessment

5.1 Methods

The bushfire attack level has been determined through the application of section 2 of AS 3959-2018 ‘Simplified Procedure’. Vegetation has been classified using a combination of onsite observations and remotely sensed data to ensure consistency with Table 2.3 of AS 3959-2018. Slope and distances have been determined by field measurements and analysis of aerial/satellite imagery, photography, and GIS layers from various sources. Where appropriate vegetation has been classified as low threat. The fire danger index (FDI) of 50 applies across Tasmania.



5.2 Site Description

The proposal is located at 35 Connellys Marsh Road, Connellys Marsh, in the municipality of Sorell and is zoned Low Density Residential under the Tasmanian Planning Scheme - Sorell. Access to the lot will be by an existing crossover from Connellys Marsh Road, a council-maintained gravel road. The lot is ~0.1434 ha, is rectangular in shape and is located approximately 0.345 km west of the intersection of Fulham Road and Connellys Marsh Road (Figure 1). The site is not within an area serviced by a reticulated water supply.

The subject property is located on the fringe of residential and rural land. Adjacent properties to the east and west are zoned Low Density Residential and are a mix of developed and undeveloped allotments. Immediately to the north is Connellys Marsh Road. Beyond Connellys Marsh Road to the north and the residential allotments to the west are large rural allotments supporting large-scale grassland with remnant patches of woodland vegetation. South of the subject property is Connellys Bay. The lot has moderate slopes with a southerly aspect with an altitude of approximately 12 metres above sea level and is likely to affect fire behaviour.

5.3. Bushfire Attack Level Assessment

The vegetation classification system as defined in AS 3959-2018 Table 2.3 and Figure 2.3 (A to H) has been used to determine vegetation types within 140 metres of the site (Table 1). Vegetation surrounding the lot was assessed (Table 1) and described as 'grassland' and 'shrubland' or excluded from the assessment as 'low threat vegetation' within the defined Hazard Management Area, existing roads, and existing buildings with managed gardens. The classified vegetation with the greatest potential impact on the site is the shrubland on downslopes occurring to the east of the site and the large-scale grassland vegetation to the northwest of the site (Figure 2).

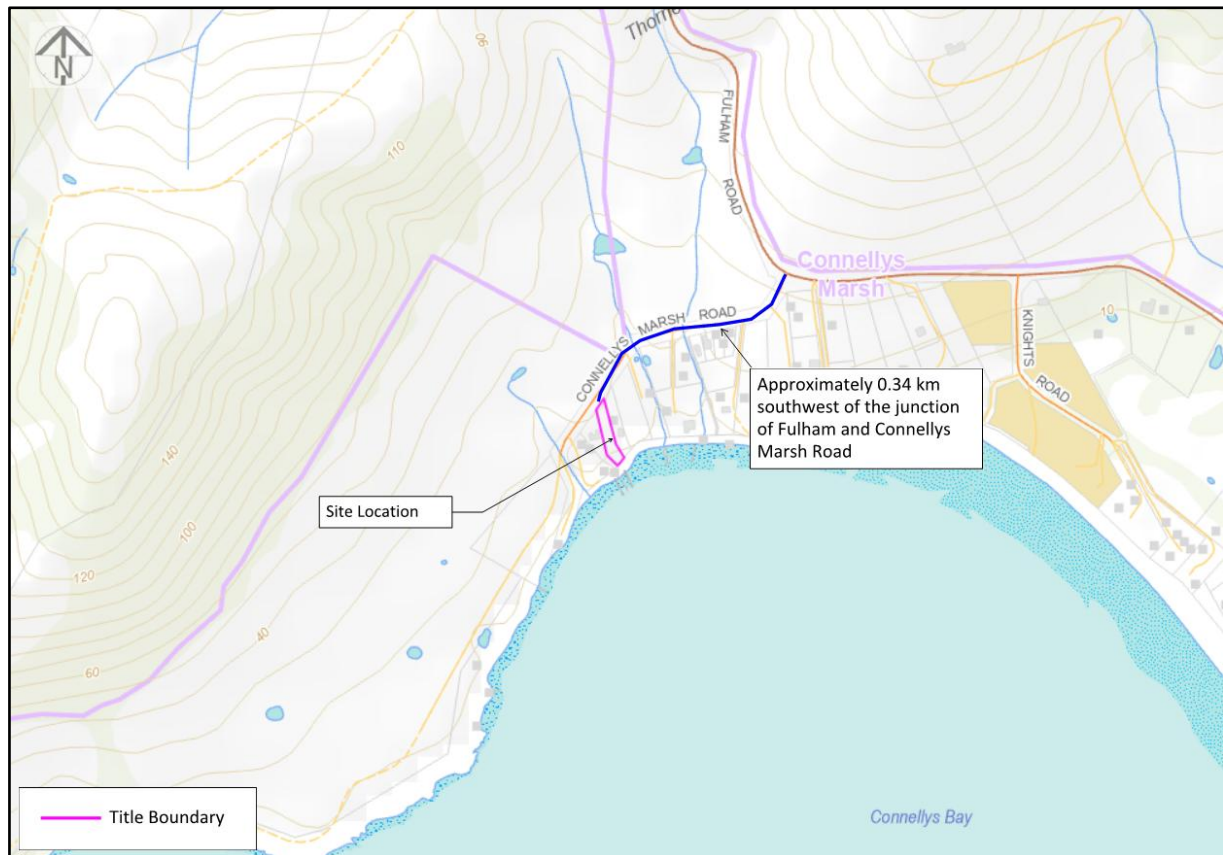


Figure 1. Site location outlined in pink (Image source: LISTmap 2026).

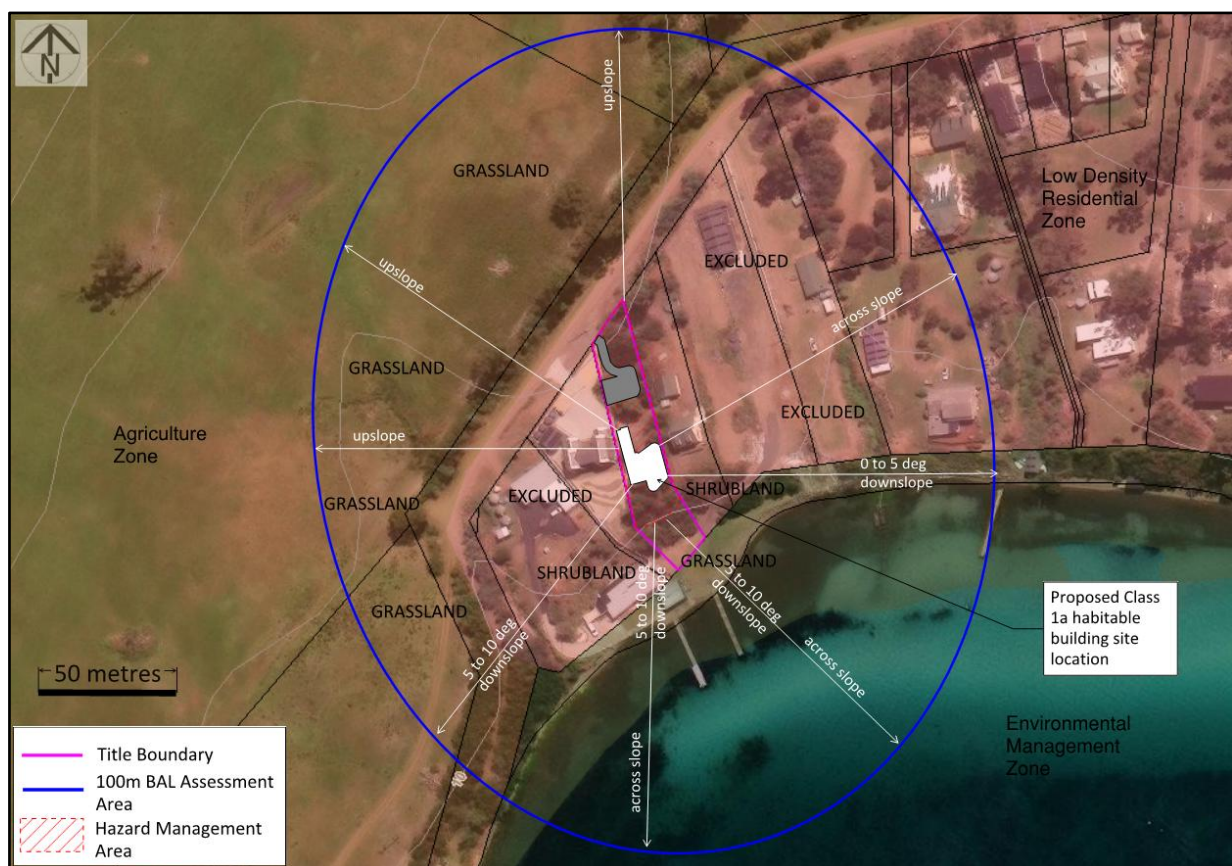


Figure 2. Shows the location of the site (outlined in pink) in the context of the adjacent lands, zoning, classified vegetation, and slopes (Image source: LISTmap 2026).



Table 1. Bushfire Attack Level (BAL) Assessment for the proposed Class 1a habitable building

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard Management Area Width	Bushfire Attack Level
North	Exclusion 2.2.3.2 (e, f)^	upslope	0 to 40 metres	Title Boundary	BAL-29
	Grassland^	upslope	40 to >100 metres		
	--	--	--		
	--	--	--		
North-east	Exclusion 2.2.3.2 (e, f)^	flat 0°	0 to >100 metres	Title Boundary	BAL-LOW
	--	--	--		
	--	--	--		
	--	--	--		
East	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 10 metres	Title Boundary	BAL-29
	Shrubland^	>0 to 5° downslope	10 to 45 metres		
	Grassland^	>0 to 5° downslope	45 to 63 metres		
	Shrubland^	>0 to 5° downslope	63 to >100 metres		
South-east	Exclusion 2.2.3.2 (e, f)^	>15° to 20° downslope	0 to 8 metres	8 metres	BAL-29
	Shrubland^	>15° to 20° downslope	8 to 15 metres		
	Grassland^	>5° to 10° downslope	15 to 40 metres		
	Exclusion 2.2.3.2 (e, f)^	flat 0°	40 to >100 metres		
South	Exclusion 2.2.3.2 (e, f)^	>15° to 20° downslope	0 to 8 metres	8 metres	BAL-29
	Shrubland^	>15° to 20° downslope	8 to 16 metres		
	Grassland^	>5° to 10° downslope	16 to 31 metres		
	Exclusion 2.2.3.2 (e, f)^	flat 0°	31 to >100 metres		
South-west	Exclusion 2.2.3.2 (e, f)^	>5° to 10° downslope	0 to 11 metres	11 metres	BAL-29
	Shrubland^	>5° to 10° downslope	11 to 30 metres		
	Exclusion 2.2.3.2 (e, f)^	flat 0°	30 to >100 metres		
	--	--	--		
West	Exclusion 2.2.3.2 (e, f)^	upslope	0 to 52 metres	Title Boundary	BAL-LOW
	Grassland^	upslope	52 to 100 metres		
	--	--	--		
	--	--	--		
North-west	Exclusion 2.2.3.2 (e, f)^	upslope	0 to 37 metres	Title Boundary	BAL-29
	Grassland^	upslope	37 to >100 metres		
	--	--	--		
	--	--	--		

^ Vegetation classification as per AS 3959-2018, Table 2.3 and Figures 2.4(A) to 2.4 (H).

^^ Exclusions as per AS 3959-2018, section 2.2.3.2, (a) to (f).



6.0 Results

The Bushfire Attack Level for the proposed Class 1a habitable building has been determined as BAL-29. There is an increased risk of ember attack, burning debris ignited by windborne embers and a likelihood of exposure to an increased level of radiant heat consistent with BAL-29. The construction elements are expected to be exposed to a heat flux not greater than 29 kW/m².

- The northern azimuth requires a minimum separation distance from the bushfire-prone vegetation of 6 metres to achieve a BAL-29. This will be contained inside the title boundary.
- The south-eastern azimuth requires a minimum separation distance from the bushfire-prone vegetation of 8 metres to achieve a BAL-29. This will be contained inside the title boundary.
- The southern azimuth requires a minimum separation distance from the bushfire-prone vegetation of 8 metres to achieve a BAL-29. This will be contained inside the title boundary.
- The north-western azimuth requires a minimum separation distance from the bushfire-prone vegetation of 6 metres to achieve a BAL-29. This will be contained inside the title boundary.
- The eastern azimuth requires a minimum separation distance from the bushfire-prone vegetation of 10 metres to achieve a BAL-29. This will be a combination of approximately 1 metre inside the title boundary and approximately 9 metres on the adjoining excluded land (existing residential development and managed gardens).
- The south-western azimuth requires a minimum separation distance from the bushfire-prone vegetation of 11 metres to achieve a BAL-29. This will be a combination of approximately 1 metre inside the title boundary and approximately 10 metres on the adjoining excluded land (existing residential development and managed gardens).

Note: The area of vegetation to the southeast is narrow in nature and occurs parallel to the site, it has been assumed that any fire activity within this area of vegetation is most likely to travel parallel to the site. Any fire activity that travels towards the site is unlikely to have sufficient depth and fuels to reach its full potential resulting in reduced radiant heat impact of the proposed development.

Reliance on off-site excluded land is based on its current zoning and use. Should vegetation or land use change, compliance with BAL-29 may no longer be achieved and a new assessment may be required.



6.1 Construction Requirements

The proposed Class 1a habitable building must be designed and constructed to BAL-29 standards in accordance with Sections 3 and 7 of AS 3959-2018.

6.2 Property Access Requirements

Property access is less than 30 metres long for a fire appliance to access a firefighting water point. In this circumstance there are no specific design or construction requirements for property access in accordance with Table 2 Element A of the Director's Determination - Bushfire Hazard Areas, version 1.2, 16th July 2024.



6.3 Water Supplies for Firefighting Requirements

An adequate, accessible, and reliable water supply for firefighting purposes must be supplied for the protection of life and property from the risks associated with bushfire. The site is not serviced by a reticulated water supply, therefore, a static water supply and associated infrastructure for firefighting is required in accordance with Clause 2.3.3 and Table 3B of the Director's Determination – Bushfire Hazard Areas, v1.2, 16th July 2024 as shown below:

A. Distance between building to be protected and water supply

The following requirements apply:

- a) The building area to be protected must be located within 90 metres of the firefighting water point of a static water supply, and
- b) The distance must be measured as a hose lay, between the firefighting water point and the furthest part of the building.

B. Static Water Supplies

A static water supply:

- a) May have a remotely located off-take connected to the static water supply,
- b) May be a supply for combined use (firefighting and other uses) but the specified minimum quantity of firefighting water must always be available,
- c) Must be a minimum of 10,000 litres per building including associated Class 10 building or deck to be protected. This volume of water must not be used for any other purpose including firefighting sprinkler or spray systems,
- d) Must be metal, concrete or lagged by non-combustible materials if above-ground, and
- e) If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959:2018, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by:
 - i. metal, or
 - ii. non-combustible material, or
 - iii. fibre-cement a minimum of 6 mm thickness.

C. Fittings, pipework and accessories (including stands and tank supports)

Fittings and pipework associated with a firefighting water point for a static water supply must:

- a) Have a minimum nominal internal diameter of 50 mm,
- b) Be fitted with a valve with a minimum nominal internal diameter of 50 mm,
- c) Be metal or lagged by non-combustible materials if above-ground,
- d) Where buried, have a minimum depth of 300 mm,



- e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to firefighting equipment,
- f) Ensure the coupling is always accessible and available for connection,
- g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length),
- h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table, and
- i) Where a remote off-take is installed, ensure the off-take is in a position that is:
 - i. “Visible”,
 - ii. “Accessible” to allow connection by firefighting equipment,
 - iii. At a working height of 450 – 600 mm above-ground level, and
 - iv. Protected from possible damage, including damage by vehicles.

D. Signage for static water connections

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

- a) Comply with water tank signage requirements within AS 2304, or
- b) Comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service.

E. Hardstand

A hardstand area for fire appliances must be provided:

- a) No more than three metres from the firefighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like),
- b) No closer than six metres from the building to be protected,
- c) With a minimum width of three metres and a minimum length of six metres constructed to the same standard as the carriageway, and
- d) Connected to the property access by a carriageway equivalent to the standard of the property access.

Note: The BHMP demonstrates an indicative firefighting water tank and hardstand provisions which comply with the Director’s Determination.

The building surveyor will ensure that the final design and installation of static water supply for firefighting is compliant prior to completion of building works.



6.4 Hazard Management Area Requirements

The Bushfire Attack Level for this site is BAL-29. Table 1 above shows the separation distances (hazard management area width) for each azimuth of the site that will result in a bushfire attack level of BAL-29.

A HMA must be established and maintained by the landowner for the life of the development and is shown on the BHMP. Guidance for the establishment and maintenance of the HMA is given below and on the BHMP.

A HMA is the area, between a habitable building or building area and the bushfire-prone vegetation. The purpose of the HMA is to reduce radiant heat exposure, ember attack and direct flame contact, and provide safer conditions for firefighting. The HMA is to be maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire. This can be achieved through but is not limited to the following strategies.

- a) Remove fallen limbs, sticks, leaf and bark litter,
- b) Maintaining grass at less than 100 mm height,
- c) Avoid or minimise the use of flammable mulches (especially against buildings),
- d) Thin out under-story vegetation to provide horizontal separation between fuels,
- e) Prune low-hanging tree branches (<2 metres from the ground) to provide vertical separation between fuel layers,
- f) Remove and/or prune larger trees to maintain a 6-metre horizontal separation between canopies,
- g) Minimise the storage of flammable materials such as firewood,
- h) Maintaining vegetation clearance around vehicular access,
- i) Use low-flammability plant species for landscaping purposes where possible, and
- j) Clear out any accumulated leaf and other debris from roof gutters and other debris accumulation points.

HMA Maintenance

The established HMA must be maintained in a minimal fuel state for bushfire protection mechanisms to be effective. The need to maintain an effective HMA into the future must be considered when planting gardens and landscaping. Annual inspection and maintenance of the HMA should be conducted prior to the bushfire season. It is particularly important that any flammable fine fuels at ground level such as leaves, litter and wood piles are suitably managed. Any additional fire protection measures implemented by the owners such as fire pumps and sprinkler systems must be tested regularly to ensure functionality.



7.0 Compliance

Table 2. Compliance with the Director's Determination - Bushfire Hazard Areas, version 1.2, 16th July 2024.

Requirements	Compliance
2.3.1 Design & Construction Requirements	Clause 2.3.1 requires buildings to be constructed in accordance with AS 3959-2018 or NASH standard – Steel Framed Construction in Bushfire Areas consistent with the BAL determined for the site. The BHMP specifies construction to BAL-29 standards of AS 3959-2018. If the proposed Class 1a habitable building is designed and constructed in accordance with the above construction standards, the development will comply with clause 2.3.1
2.3.2 Property Access	Clause 2.3.2 requires property access to be designed and constructed to comply with Table 2 of the determination and is applicable from the public roadway to within (at minimum) 90 metres of the furthest part of the building/s and includes access to a hardstand for the firefighting water point. In this circumstance there is no requirement for minimum design and construction standards for property access as property access is less than 30 metres long for a fire appliance to access a firefighting water connection point. No further requirements to achieve compliance with clause 2.3.2
2.3.3 Water Supply for Firefighting	Clause 2.3.3 requires that a new building constructed in a bushfire-prone area is provided with a dedicated firefighting water supply in accordance with Tables 3A or 3B. Static water supplies consistent with Table 3B have been specified in this report and are required for compliance on the BHMP. If the requirements of section 6.3 of this report are implemented the proposal will comply with clause 2.3.3
2.3.4 Hazard Management Areas	Clause 2.3.4 requires that new buildings in bushfire-prone areas are provided with an HMA which is compliant with Table 4. The HMA must have the minimum separation distances required for the BAL determined for the site and, have an HMA established which reduces fuels and other hazards so that fuels and other hazards do not significantly contribute to the bushfire attack. HMA's are shown on the BHMP and are specified to widths required to achieve BAL-29 for the proposed Class 1a habitable building. This report and the BHMP specify requirements for hazard management areas. If the HMA's are established in accordance with the BHMP the proposal will comply with clause 2.3.4 <i>Note: Where adjoining land has been classified as low-threat vegetation to the east and west, compliance is dependent on the ongoing condition of adjoining land being maintained as low threat or managed land. Any changes to vegetation, land use, or management regimes may affect the BAL determination and may require reassessment.</i>
2.3.5 Emergency Plan	The proposal is for the construction of a new Class 1a habitable building and therefore in this circumstance Emergency Plans are not required for compliance.
3. Bushfire Hazard Management Plan and Certificate	A bushfire hazard management plan has been prepared for work for which this division applies and has been certified in accordance with the Chief Officer's requirements by an accredited person. Form 55 is attached.



8.0 Guidance

The defensible space (HMA) around a building is critical for providing occupants and/or firefighters with safe access to the building in order that firefighting activities may be undertaken. The larger the defensible space, the safer it will be for those defending the structure. Some desirable characteristics of a hazard management area are:

- The area directly adjacent to the building has a significant amount of flammable material removed such that there is little to no material available to burn around the building,
- Includes non-flammable areas such as paths, driveways, managed lawns,
- Establishment of orchards, vegetable gardens, dams or wastewater effluent disposal areas on the fire prone side of the building,
- Creating wind breaks and radiation shields such as non-combustible fences and low flammability hedges, and
- It is not necessary to remove all vegetation from the defensible space; trees can provide protection from wind borne embers and radiant heat in some circumstances.

9.0 Further Information

For further information on preparing yourself and your property for bushfires visit the Tasmania Fire Service website at www.fire.tas.gov.au or phone 1800 000 699 for resources on:

- Preparing a bushfire survival plan,
- Preparing yourself and your home for a bushfire,
- Guidelines for development in bushfire-prone areas in Tasmania,
- Fire resisting plants for the urban fringe and rural areas,
- Using fire outdoors,
- Fire permits,
- Total fire bans, and
- Bushfires burning in Tasmania.



10.0 Glossary

AS – Australian Standard

BAL – Bushfire Attack Level – A means of measuring the severity of a building’s potential exposure to ember attack, radiant heat, and direct flame contact, using increments of radiant heat expressed in kilowatts per metre squared, and the basis for establishing the requirements for construction to improve protection of building elements from attack by bushfire (AS 3959-2018).

BFP – Bushfire Practitioner – An accredited practitioner recognised by Tasmania Fire Service.

BHMP – Bushfire Hazard Management Plan – A plan for an individual habitable building or subdivision identifying separation distances required between a habitable building(s) and bushfire-prone vegetation based on the BAL for the site. The BHMP also indicates requirements for construction, property access and firefighting water.

Bushfire-prone area:

- (a) land shown on an overlay map in the relevant Local Provisions Schedule, as within a bushfire-prone area; or
- (b) where there is no overlay map in the relevant Local Provisions Schedule, land that is within 100 m of an area of bushfire-prone vegetation equal to or greater than 1 ha.

Class 1a building – A single habitable building, being a detached house, or one of a group of attached habitable buildings being a townhouse, row house or the like (NCC 2022).

deg – degrees

FDI – fire danger index – Relates to the chance of a fire starting, its rate of spread, its intensity, and the difficulty of its suppression, according to various combinations of air temperature, relative humidity, wind speed and both the long- and short-term drought effects (AS 3959-2018).

ha – hectares

HMA – Hazard Management Area – The area, between a habitable building or building area and the bushfire-prone vegetation, which provides access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire.

km - kilometres

m – metres

mm – millimetres

NASH – National Association of Steel Framed Housing

t – tonnes



11.0 References

Australian Building Codes Board, National Construction Code, Building Code of Australia, Australian Building Codes Board, Canberra.

Building Act 2016. The State of Tasmania Department of Premier and Cabinet.

Building Regulations 2016. The State of Tasmania Department of Premier and Cabinet.

Director's Determination – Bushfire Hazard Areas, version 1.2 16th July 2024. Director of Building Control.

LISTmap 2026. Land Information System Tasmania, Tasmania Government.

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

Tasmania Fire Service 2020, Building for Bushfire – Planning and Building in Bushfire-Prone Areas for Owners and Builders. Tasmania Fire Service, Tasmania.

Tasmanian Planning Scheme – Sorell, Tasmanian Planning Commission, Tasmanian Planning Commission, Hobart.



12.0 Limitations Statement

This Bushfire Hazard Report has been prepared in accordance with the scope of services between Geo-Environmental Solutions (GES) and the applicant named in section 2. To the best of GES's knowledge, the information presented herein represents the Client's requirements at the time of printing of the Report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in findings differing from those described in this Report. In preparing this Report, GES has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations referenced herein. Except as otherwise stated in this Report, GES has not verified the accuracy or completeness of such data, surveys, analyses, designs, plans and other information.

The scope of this study does not allow for the review of every possible bushfire hazard condition and does not provide a guarantee that no loss of property or life will occur because of bushfire. As stated in AS 3959-2018 "It should be borne in mind that the measures contained in this Standard cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire, and extreme weather conditions". In addition, no responsibility is taken for any loss which is a result of actions contrary to AS 3959-2018 or the Tasmanian Planning Scheme Bushfire Code. This report does not purport to provide legal advice. Readers of the report should engage professional legal practitioners for this purpose as required. No responsibility is accepted for use of any part of this report in any other context or for any other purpose by third parties.



Appendix A – Site Photos



Figure 3. Northern azimuth from the site of the proposed development looking at grassland upslope.



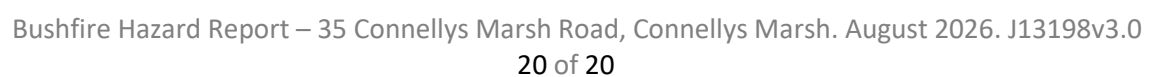
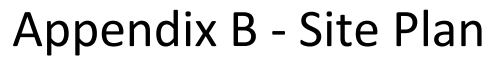
Figure 4. Eastern and south-eastern azimuths from the site of the proposed development looking at shrubland 0 to 5 degrees downslope.

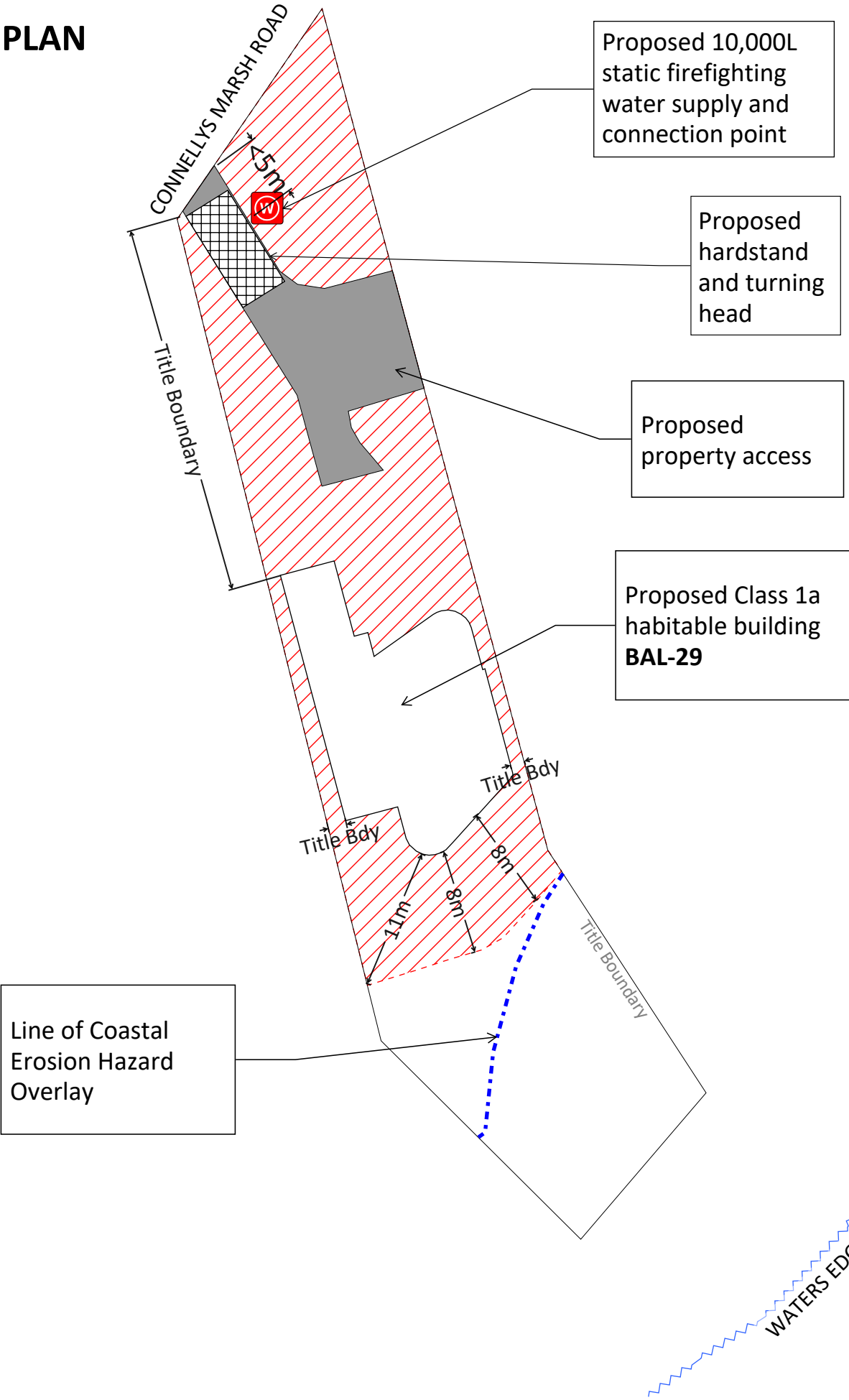


Figure 5. Southern azimuth from the site of the proposed development looking at shrubland 15 to 20 degrees downslope.



Figure 6. Western azimuth from the site of the proposed development looking at excluded land upslope.





LEGEND	
	Proposed Class 1a Habitable Building
	Proposed Property Access
	Hazard Management Area
	Proposed Hardstand and Turning Head
	Proposed Static Firefighting Water Supply and Connection Point
	Waters Edge

Building Specifications to
BAL-29 for the proposed Class
1a habitable building of AS
3959-2018

The BAL assessment relies on part of adjoining land to the east and west being classified as low threat vegetation under AS 3959-2018. Should the use or vegetation characteristics of adjoining land change, reassessment of the BAL may be required

Do not scale from these drawings. Dimensions to take precedence over scale. Written specifications to take precedence over diagrammatic representations.

Client Name and Address:
Will Ockenden
[Redacted Address]

C.T.: 81354/3
PID: 5963404
Area: 0.1434 ha

The Bushfire Hazard Management Plan is to be printed at A3 in colour and read in conjunction with the Bushfire Hazard Report for the proposed Class 1a habitable building at 35 Connellys Marsh Road, Connellys Marsh (GES, 18th August 2026, J13198v3.0)

Certification No. J13198
Alice Higgins
Acc. No. BFP-165
Scope 1, 2, 3A, 3B, 3C.

Sheet 1 of 2
Prepared by:
Alice Higgins



Design and Specification Requirements

Requirements for Construction

The proposed Class 1a habitable building must be designed and constructed to BAL-29 standards in accordance with Sections 3 and 7 of AS 3959-2018.

Requirements for Property Access

Property access is less than 30 metres long for a fire appliance to access a firefighting water point. In this circumstance there are no specific design or construction requirements for property access in accordance with Table 2 Element A of the Director's Determination - Bushfire Hazard Areas, version 1.2, 16th July 2024.

Requirements for Static Water Supply for Firefighting

The site is not serviced by a reticulated water supply, therefore a dedicated, static firefighting water supply will be provided in accordance with the following;

Static water supplies and associated infrastructure for firefighting purposes will be provided in accordance with Table 3B of the Director's Determination - Bushfire Hazard Areas, version 1.2, 16th July 2024

A Distance between building area to be protected and water supply
The following requirements apply:
(a) The building area to be protected must be located within 90 metres of the firefighting water point of a static water supply, and
(b) The distance must be measured as a hose lay, between the firefighting water point and the furthest part of the building area.

B) Static Water Supplies
A static water supply:
(a) May have a remotely located off-take connected to the static water supply,
(b) May be a supply for combined use (firefighting and other uses) but the specified minimum quantity of firefighting water must be available at all times,
(c) Must be a minimum of 10,000 litres per building including associated Class 10 Building or deck to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems,
(d) Must be metal, concrete or lagged by non-combustible materials if above ground, and
(e) If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2018, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by:
(i) metal,
(ii) non-combustible material, or
(iii) fibre-cement a minimum of 6 mm thickness.

Requirements for Static Water Supply for Firefighting

C) Fittings and pipework associated with a firefighting water point for a static water supply must:
(a) Have a minimum nominal internal diameter of 50 mm,
(b) Be fitted with a valve with a minimum nominal internal diameter of 50 mm,
(c) Be metal or lagged by non-combustible materials if above ground,
(d) Where buried, have a minimum depth of 300 mm (compliant with AS/NZS 3500.1-2003 Clause 5.23),
(e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to firefighting equipment,
(f) Ensure the coupling is accessible and available for connection at all times,
(g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length),
(h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table, and
(i) Where a remote off-take is installed, ensure the off-take is in a position that is:
(i) Visible,
(ii) Accessible to allow connection by fire fighting equipment,
(iii) At a working height of 450 – 600 mm above ground level, and
(iv) Protected from possible damage, including damage by vehicles.

D) Signage for static water connections
The firefighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must:
(a) Comply with water tank signage requirements within AS2304, or
(b) Comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service.

E) Hardstand
A hardstand area for fire appliances must be provided:
(a) No more than three metres from the firefighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like),
(b) No closer than six metres from the building to be protected,
(c) With a minimum width of three metres and a minimum length of six metres constructed to the same standard as the carriageway, and
(d) Connected to the property access by a carriageway equivalent to the standard of the property access.

Requirements for Hazard Management Area

A hazard management area is required to be established and maintained by the landowner for the life of the building and is shown on this BHMP. All dimensions shown on the BHMP are minimum distances required or exceed the minimum distances required. Guidance for the establishment and maintenance of the hazard management area is also provided.
A hazard management area is the area, between a habitable building or building area and the bushfire-prone vegetation. The purpose of the HMA is to reduce radiant heat exposure, ember attack and direct flame contact, and provide safer conditions for firefighting where possible.
The hazard management area is to be maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire. This can be achieved through, but is not limited to the following actions;

- a) Remove fallen limbs, sticks, leaf and bark litter,
- b) Maintain grass at less than 100 mm height,
- c) Remove pine bark and other flammable mulch (especially from against buildings),
- d) Thin out under-story vegetation to provide horizontal separation between fuels,
- e) Prune low-hanging tree branches (<2 m from the ground) to provide vertical separation between fuel layers,
- f) Prune larger trees to maintain a 6 metre horizontal separation between canopies,
- g) Minimise the storage of flammable materials such as firewood, rubbish heaps and stored fuel away from habitable buildings,
- h) Maintain vegetation clearance around vehicular access and water supply points;
- i) Use low-flammability species for landscaping purposes where appropriate;
- j) Clear out any accumulated leaf and other debris from roof gutters and other accumulation points.

It is not necessary to remove all vegetation from the hazard management area, trees may provide protection from wind borne embers and radiant heat under some circumstances.

**CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE
ITEM****Section 321**To:

Owner /Agent

Address

Suburb/postcode

Form **55****Qualified person details:**Qualified person: Address: Phone No:

Fax No:

Licence No: Email address: Qualifications and
Insurance details:

Accredited to report on bushfire hazards under Part IVA of the Fire Service Act. BFP-165 scope 1, 2, 3A, 3B, and 3C. Pantheon Insurance PI policy No. 17080170

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

Speciality area of
expertise:

Analysis of bushfire hazard risk in a bushfire-prone area

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

Details of work:Address: Lot No: Certificate of title No: The assessable
item related to
this certificate:

Construction of a Class 1a habitable building in a bushfire-prone area.

(description of the assessable item being certified)

Assessable item includes –

- a material;
- a design
- a form of construction
- a document
- testing of a component, building system or plumbing system
- an inspection, or assessment, performed

Certificate details:

Certificate type:

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

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

☒ building work, plumbing work or plumbing installation or demolition work

Attachment 2

OR

☐ a building, temporary structure or plumbing installation

In issuing this certificate the following matters are relevant –

Documents:

- Bushfire Hazard Report for 35 Connellys Marsh Road, Connellys Marsh. 18th August 2026, J13198v3.0.
- Bushfire Hazard Management Plan for 35 Connellys Marsh Road, Connellys Marsh. 18th August 2026, J13198v3.0.

Relevant

The Bushfire Attack Level has been assessed as per AS 3959-2018 for the proposed Class 1a habitable building identified on the BHMP

References:

- AS 3959-2018 Construction of Buildings in Bushfire-prone Areas
- Building Regulations 2016
- National Construction Code (NCC) – Vol. 2
- Director's Determination - Bushfire Hazard Areas, v1.2, 16th July 2024

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

Bushfire Attack Level Assessment in accordance with AS 3959-2018 and determination of required bushfire mitigation measures as required by the relevant Director's Determination as cited in the Bushfire Hazard Report and on the BHMP. Design and construction for the proposed Class 1a habitable building must be to a minimum standard of **BAL-29** (sections 3 and 7 of AS 3959-2018).

Scope and/or Limitations

Scope: The bushfire hazard assessment was undertaken at the site to determine whether there is sufficient risk to the proposed Class 1a habitable building from bushfire to warrant specific bushfire hazard management measures.

Limitations:

The assessment relates to bushfire hazard only.

The assessor has 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.

The report only identifies the size, volume, and status of vegetation at the time the site assessment was undertaken. The impacts of future development and vegetation growth have not been considered.

No liability will be accepted by the assessor for actions undertaken by the owners or others that compromise the effectiveness of the measures outlined in this assessment.

The effectiveness of the bushfire safety measures outlined in the assessment are reliant on their implementation and ongoing maintenance.

I certify the matters described in this certificate.

Qualified person:

Signed:

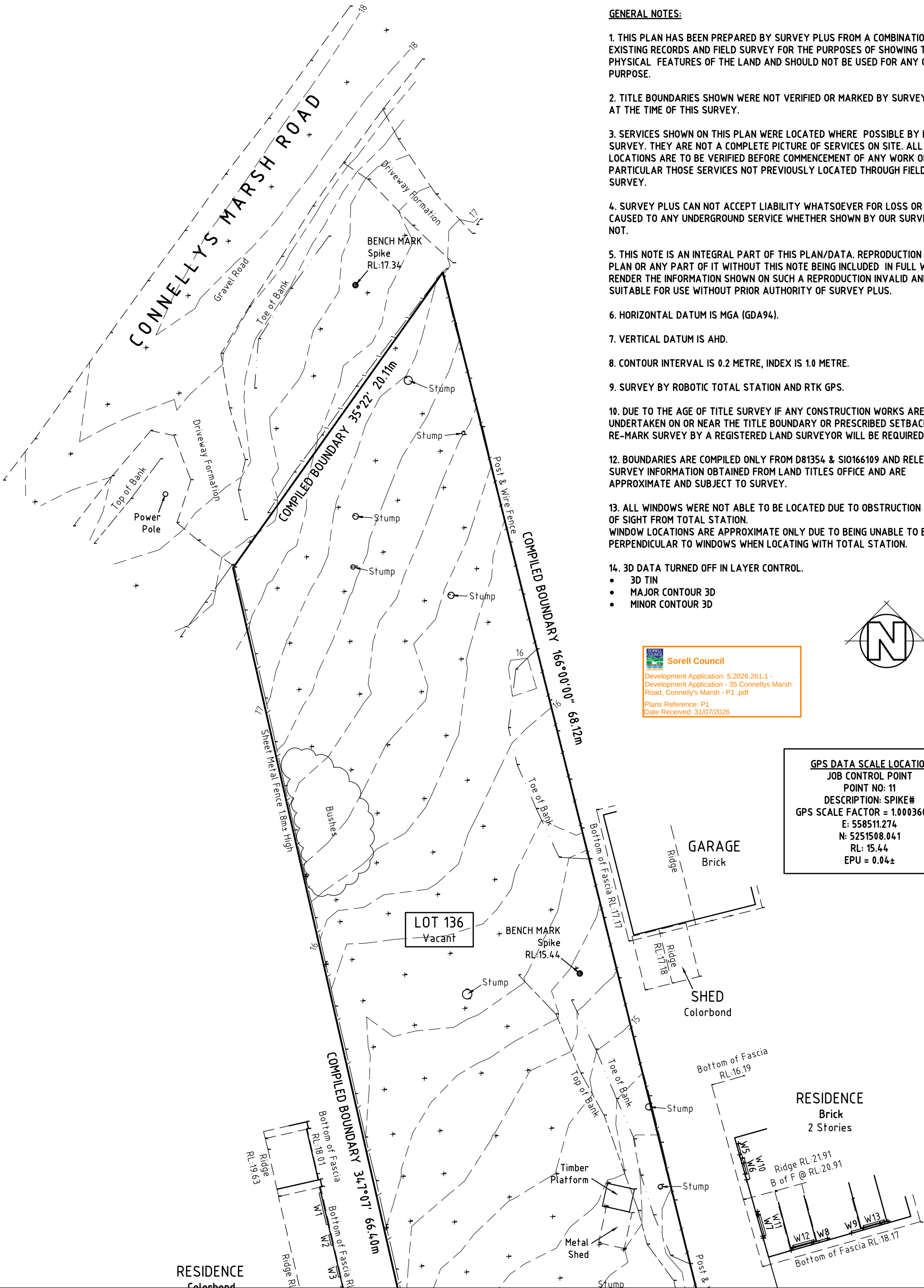


Certificate No:

J13198

Date:

18/08/2026



GENERAL NOTES:

1. THIS PLAN HAS BEEN PREPARED BY SURVEY PLUS FROM A COMBINATION OF EXISTING RECORDS AND FIELD SURVEY FOR THE PURPOSES OF SHOWING THE PHYSICAL FEATURES OF THE LAND AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE.
2. TITLE BOUNDARIES SHOWN WERE NOT VERIFIED OR MARKED BY SURVEY PLUS AT THE TIME OF THIS SURVEY.
3. SERVICES SHOWN ON THIS PLAN WERE LOCATED WHERE POSSIBLE BY FIELD SURVEY. THEY ARE NOT A COMPLETE PICTURE OF SERVICES ON SITE. ALL SERVICE LOCATIONS ARE TO BE VERIFIED BEFORE COMMENCEMENT OF ANY WORK ON SITE, IN PARTICULAR THOSE SERVICES NOT PREVIOUSLY LOCATED THROUGH FIELD SURVEY.
4. SURVEY PLUS CAN NOT ACCEPT LIABILITY WHATSOEVER FOR LOSS OR DAMAGE CAUSED TO ANY UNDERGROUND SERVICE WHETHER SHOWN BY OUR SURVEY OR NOT.
5. THIS NOTE IS AN INTEGRAL PART OF THIS PLAN/DATA. REPRODUCTION OF THIS PLAN OR ANY PART OF IT WITHOUT THIS NOTE BEING INCLUDED IN FULL WILL RENDER THE INFORMATION SHOWN ON SUCH A REPRODUCTION INVALID AND NOT SUITABLE FOR USE WITHOUT PRIOR AUTHORITY OF SURVEY PLUS.
6. HORIZONTAL DATUM IS MGA (GDA94).
7. VERTICAL DATUM IS AHD.
8. CONTOUR INTERVAL IS 0.2 METRE, INDEX IS 1.0 METRE.
9. SURVEY BY ROBOTIC TOTAL STATION AND RTK GPS.
10. DUE TO THE AGE OF TITLE SURVEY IF ANY CONSTRUCTION WORKS ARE TO BE UNDERTAKEN ON OR NEAR THE TITLE BOUNDARY OR PRESCRIBED SETBACKS A RE-MARK SURVEY BY A REGISTERED LAND SURVEYOR WILL BE REQUIRED.
12. BOUNDARIES ARE COMPILED ONLY FROM D81354 & SIO166109 AND RELEVANT SURVEY INFORMATION OBTAINED FROM LAND TITLES OFFICE AND ARE APPROXIMATE AND SUBJECT TO SURVEY.
13. ALL WINDOWS WERE NOT ABLE TO BE LOCATED DUE TO OBSTRUCTION OF LINE OF SIGHT FROM TOTAL STATION. WINDOW LOCATIONS ARE APPROXIMATE ONLY DUE TO BEING UNABLE TO BE PERPENDICULAR TO WINDOWS WHEN LOCATING WITH TOTAL STATION.
14. 3D DATA TURNED OFF IN LAYER CONTROL.
 - 3D TIN
 - MAJOR CONTOUR 3D
 - MINOR CONTOUR 3D

Sorell Council
Development Application: 5.2026.261.1 -
Development Application - 35 Connellys Marsh
Road, Connellys Marsh - P1 .pdf
Plans Reference: P1
Date Received: 31/07/2026



GPS DATA SCALE LOCATION
JOB CONTROL POINT
POINT NO: 11
DESCRIPTION: SPIKE#
GPS SCALE FACTOR = 1.000360445
E: 558511.274
N: 5251508.041
RL: 15.44
EPU = 0.04±



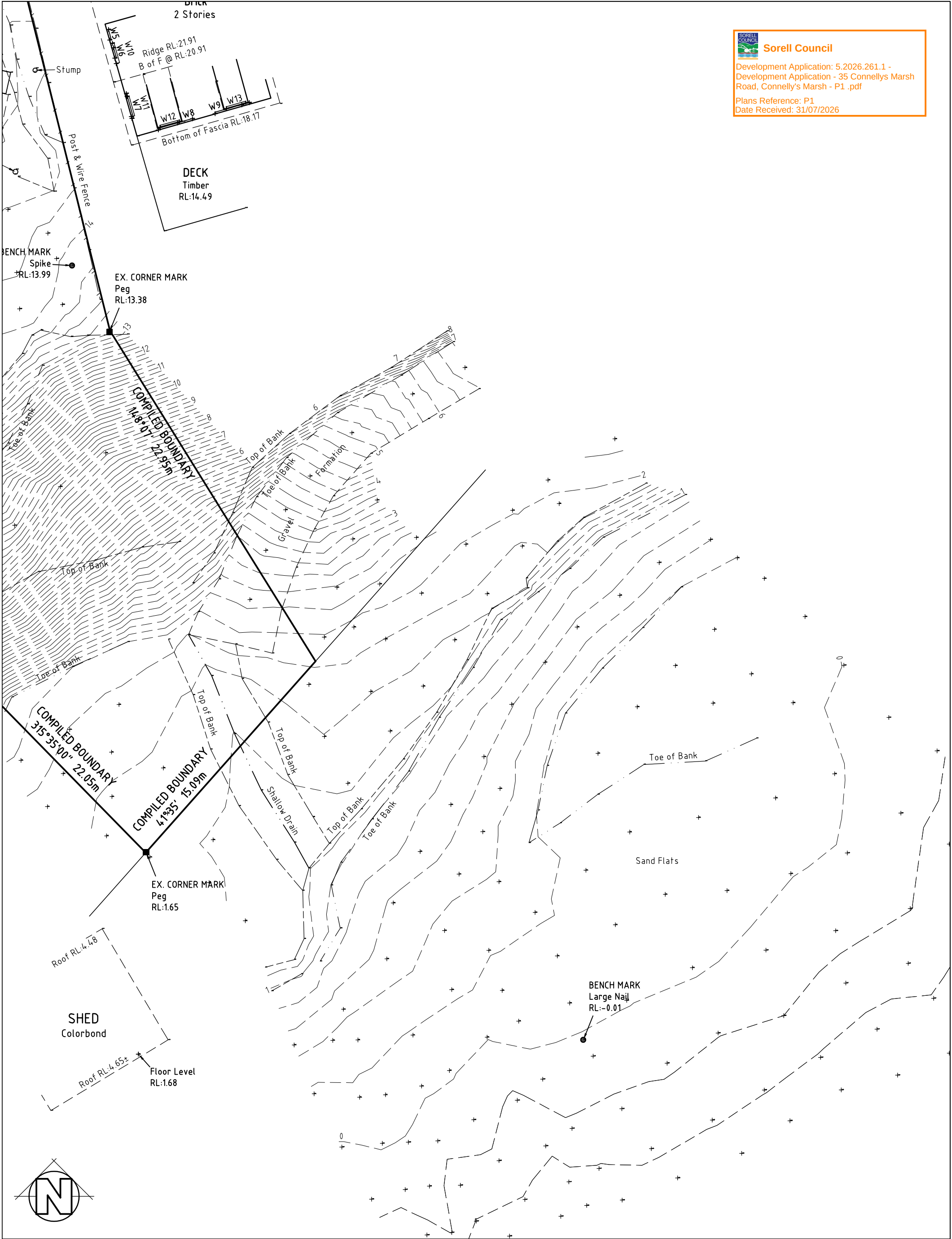
Address: 8 Amy Street, Moonah,
Tasmania, 7009
Phone: 6273 9831
Fax: 6273 8316
Email: admin@surveyplustas.com.au
Mail: PO Box 299, Moonah, Tas, 7009

Project:
**DETAIL, CONTOUR &
FEATURE SURVEY
35 CONNELLYS MARSH
ROAD, CONNELLYS
MARCH**

Drawing:
PART SITE PLAN

C.T. 81354/3

Drafted by: JLD
Date: 25-06-2026
Project/Drawing No: SP262373-01
Approved By: JLD
Scale: 1:200@A3
Revision: A



**Sorell Council**

Development Application: 5.2026.261.1 -
Development Application - 35 Connellys Marsh
Road, Connelly's Marsh - P1 .pdf

Plans Reference: P1
Date Received: 31/07/2026

 Address: 8 Amy Street, Moonah, Tasmania, 7009 Phone: 6273 9831 Fax: 6273 8316 Email: admin@surveyplustas.com.au Mail: PO Box 299, Moonah, Tas, 7009	Project: DETAIL, CONTOUR & FEATURE SURVEY 35 CONNELLYS MARSH ROAD, CONNELLYS MARCH	Drawing: PART SITE PLAN C.T. 81354/3	Drafted by: JLD Date: 25-06-2026 Project/Drawing No: SP262373-03 Approved By: JLD Scale: 1:200@A3 Revision: A
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28 Suncrest Avenue
Lenah Valley, TAS 7008
mark@ecotas.com.au
www.ecotas.com.au
0407 008 685
ABN 83 464 107 291

ATTENTION: Will Ockenden



21 August 2026

Dear Will

**RE: 35 Connellys Marsh Road, Connellys Marsh
Proposed Development/Use – Single Residential Dwelling
DA 5.2026.261.1**

Preamble

I refer to engagement to assess the natural values of 35 Connellys Marsh Road, Connellys Marsh, specifically to address matters raised in correspondence from Sorell Council dated 12 Aug. 2026 in relation to the application now known as DA 5.2026.261.1, which noted:

Planning:

2. Given the hazard management area appears to be across the entire site, and within the waterway and coastal protection overlay and the proximity to tidal waters, a Natural Values Report prepared by a suitably qualified person is required to adequately address clause C7.6.1 P1.1 and P1.2 and provide recommendations to ensure that the impact on the waterway and coastal areas is minimised

The following statement is intended to address this item.

Site details

Address: 35 Connellys Marsh Road, Connellys Marsh (Figures 1-3)

PID: 5963404; C.T.: 81354/3; LPI: JNJ58

Zone: Low Density Residential (Figure 4)

Overlays (relevant to the present assessment): Priority Vegetation Area (Natural Assets Code) – whole of title (Figure 5a) & Waterway and Coastal Protection Area (Natural Assets Code) – based on high water mark (Figure 5b)

Area: computed area = 1,448.91 m², measured area 1,449 m² i.e. 0.145 ha

Topography: sloping land with generally southeasterly aspect with elevation ca. 10-25 m a.s.l.

Refer also to Figures 6-8 for more details.





Figure 1. General location of subject title

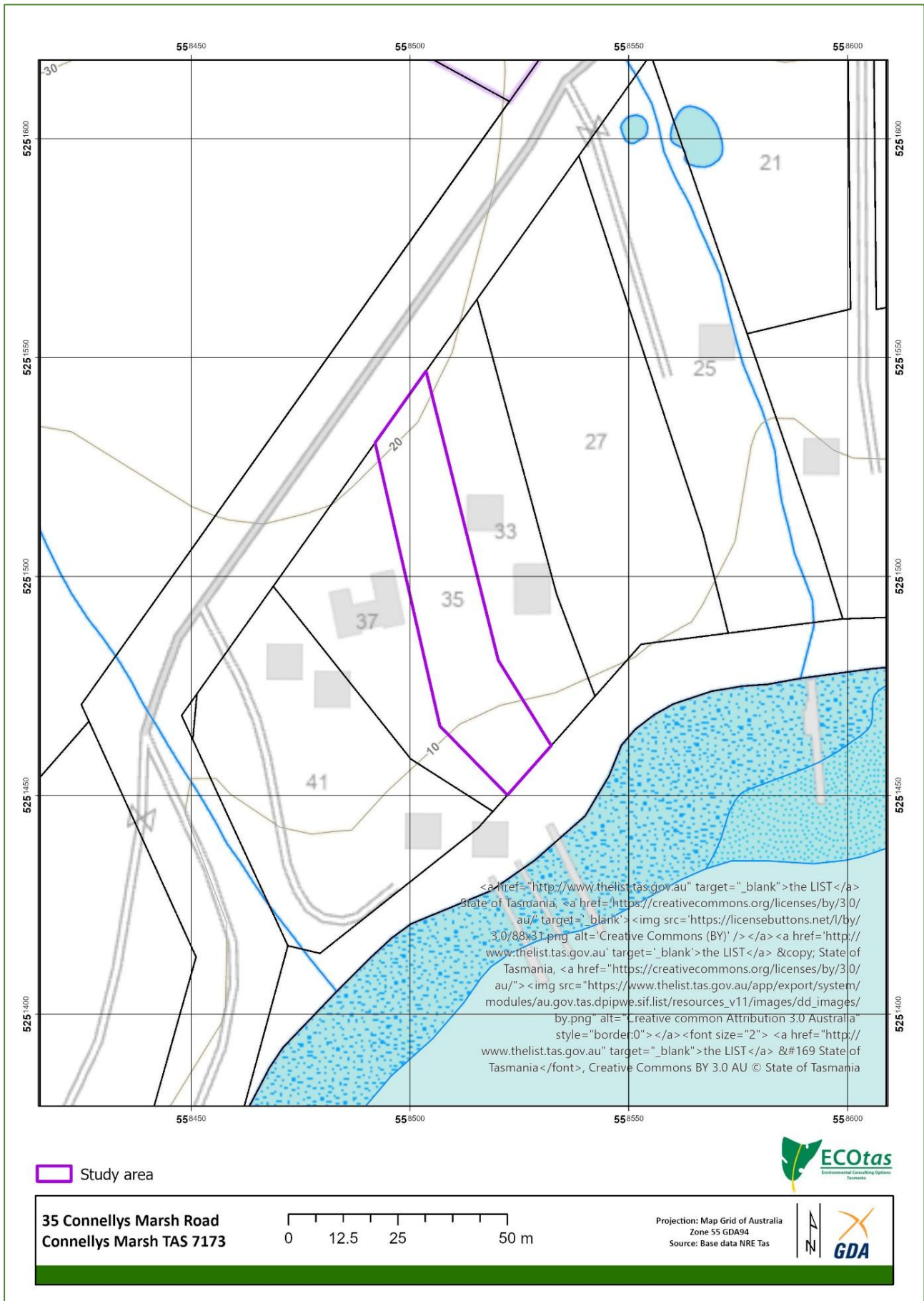


Figure 2. Detailed location of subject title showing cadastral and topographic features

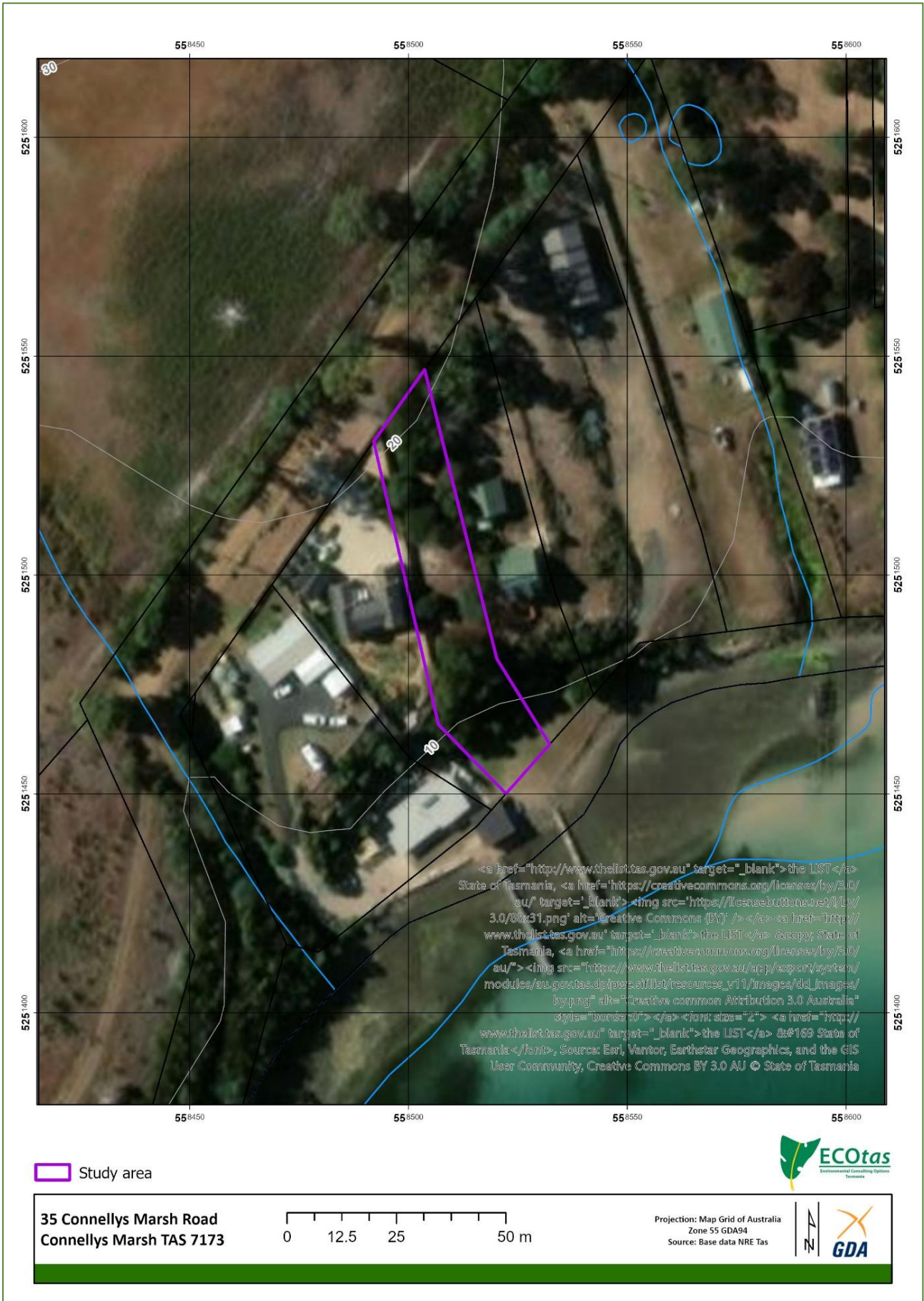


Figure 3. Detailed location of subject title showing cadastral, topographic features and recent aerial imagery

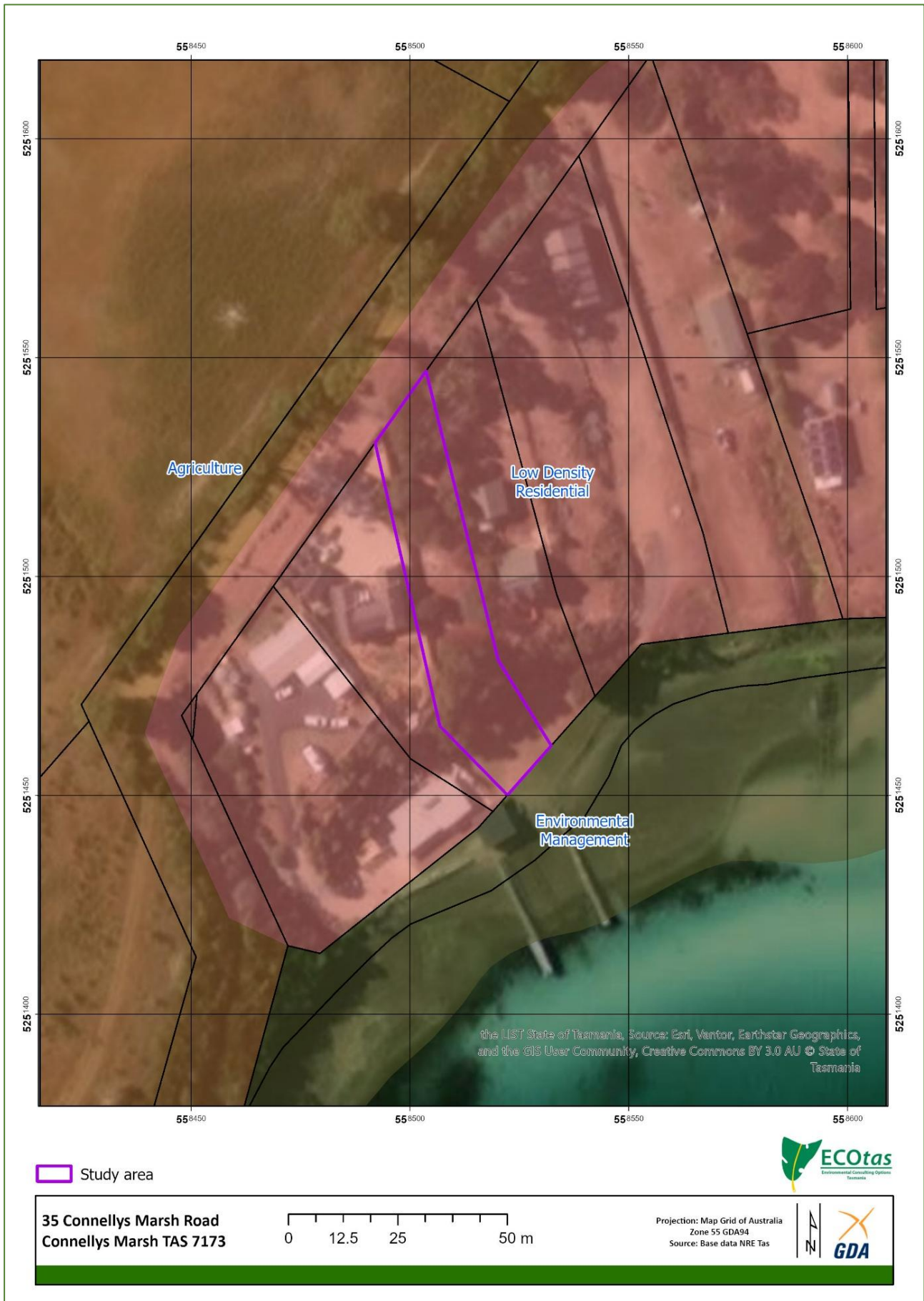


Figure 4. Zoning of subject title pursuant to *Tasmanian Planning Scheme – Sorell Local Provisions Schedule*



Figure 5a. Extent of Priority Vegetation Area (Natural Assets Code) overlay within subject title and surrounds pursuant to *Tasmanian Interim Planning Scheme – Sorell*

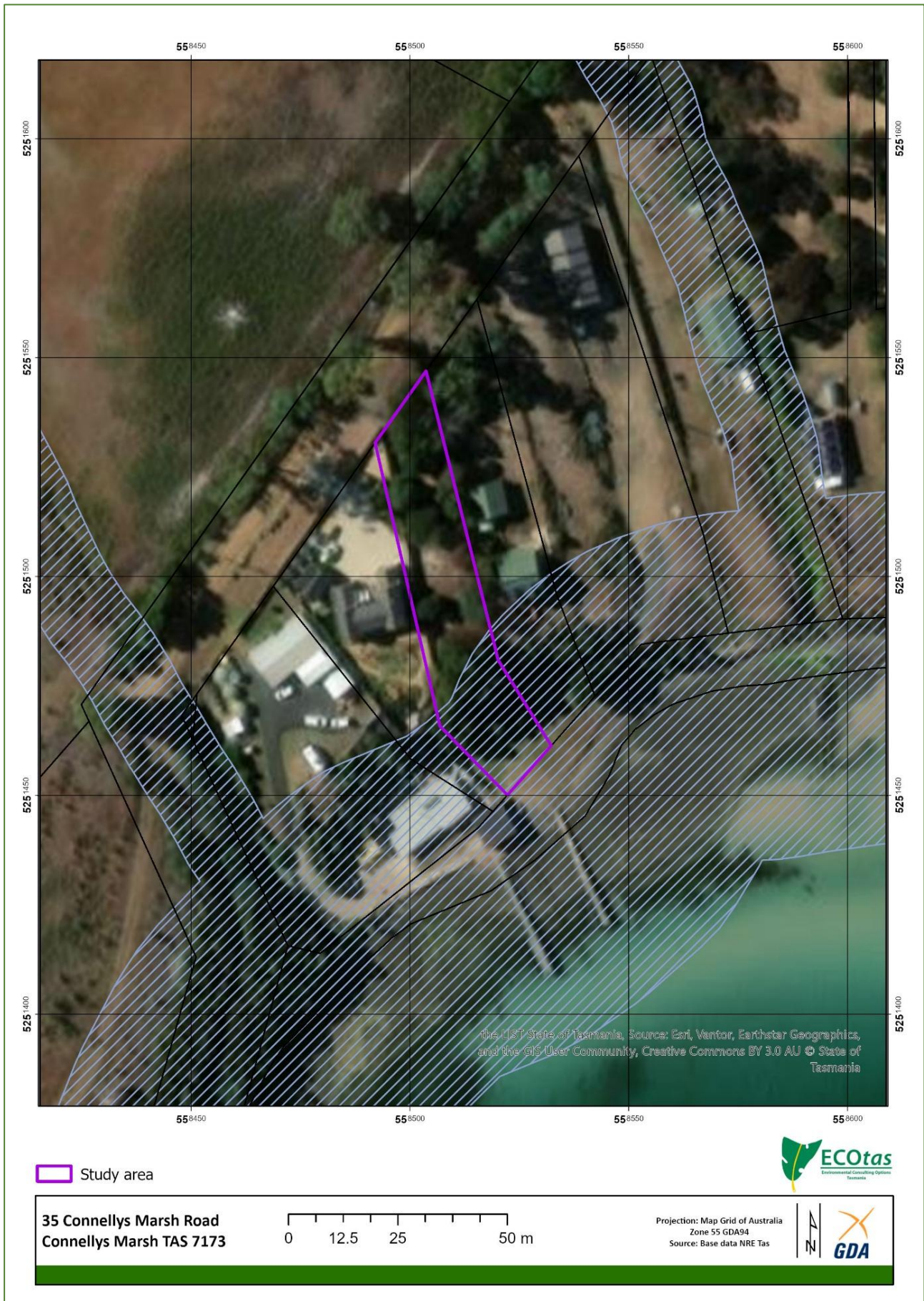


Figure 5b. Extent of Waterway and Coastal Protection Area (Natural Assets Code) overlay within subject title and surrounds pursuant to *Tasmanian Interim Planning Scheme – Sorell*



Figure 6. Mature habitat modelling for subject title and surrounds (i.e. no mature habitat is modelled as being present, consistent with the site's land use history and context)

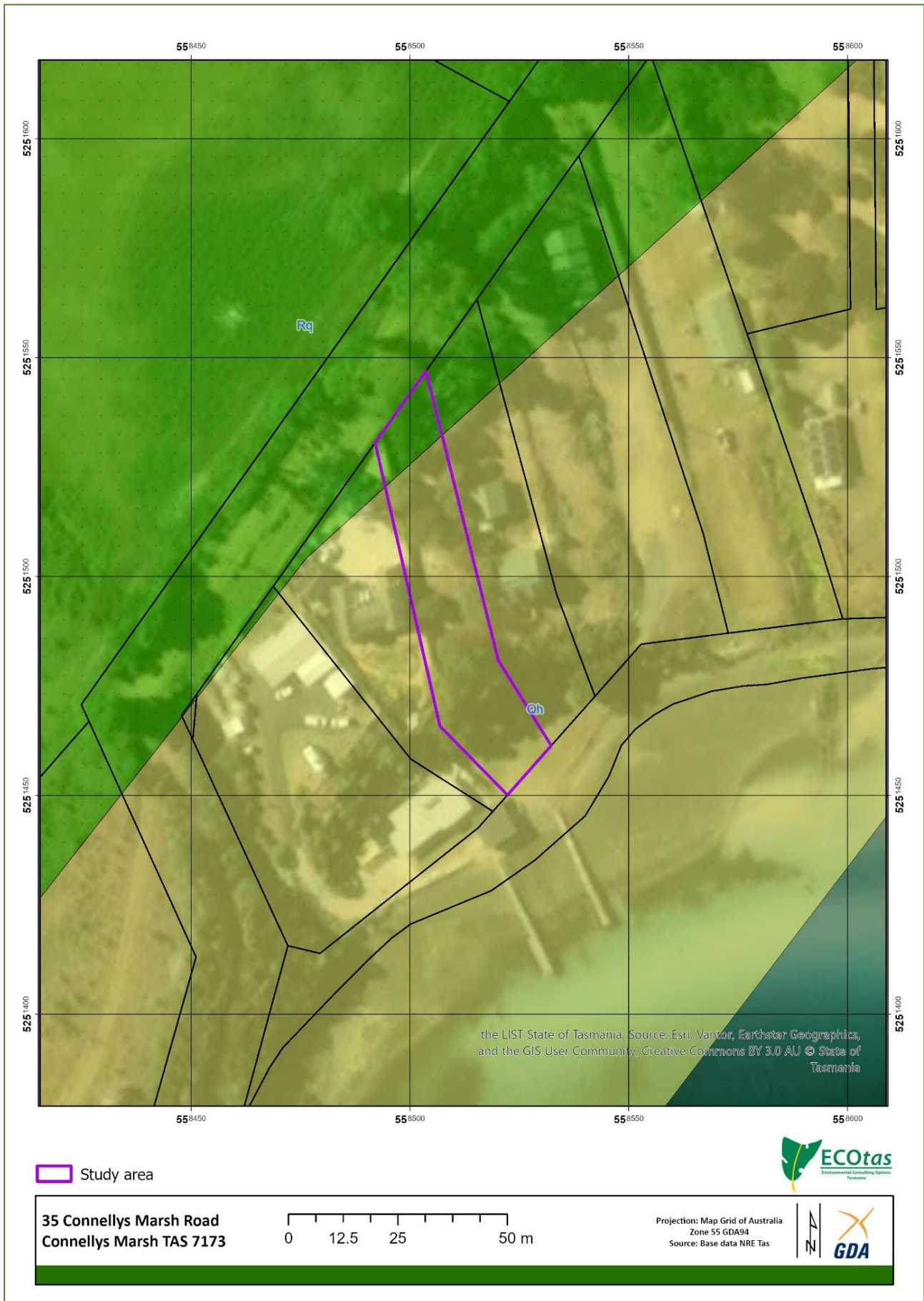


Figure 7. Geology (1:250,000 scale) mapping for subject title and surrounds (i.e. site is effectively on Recent sands)

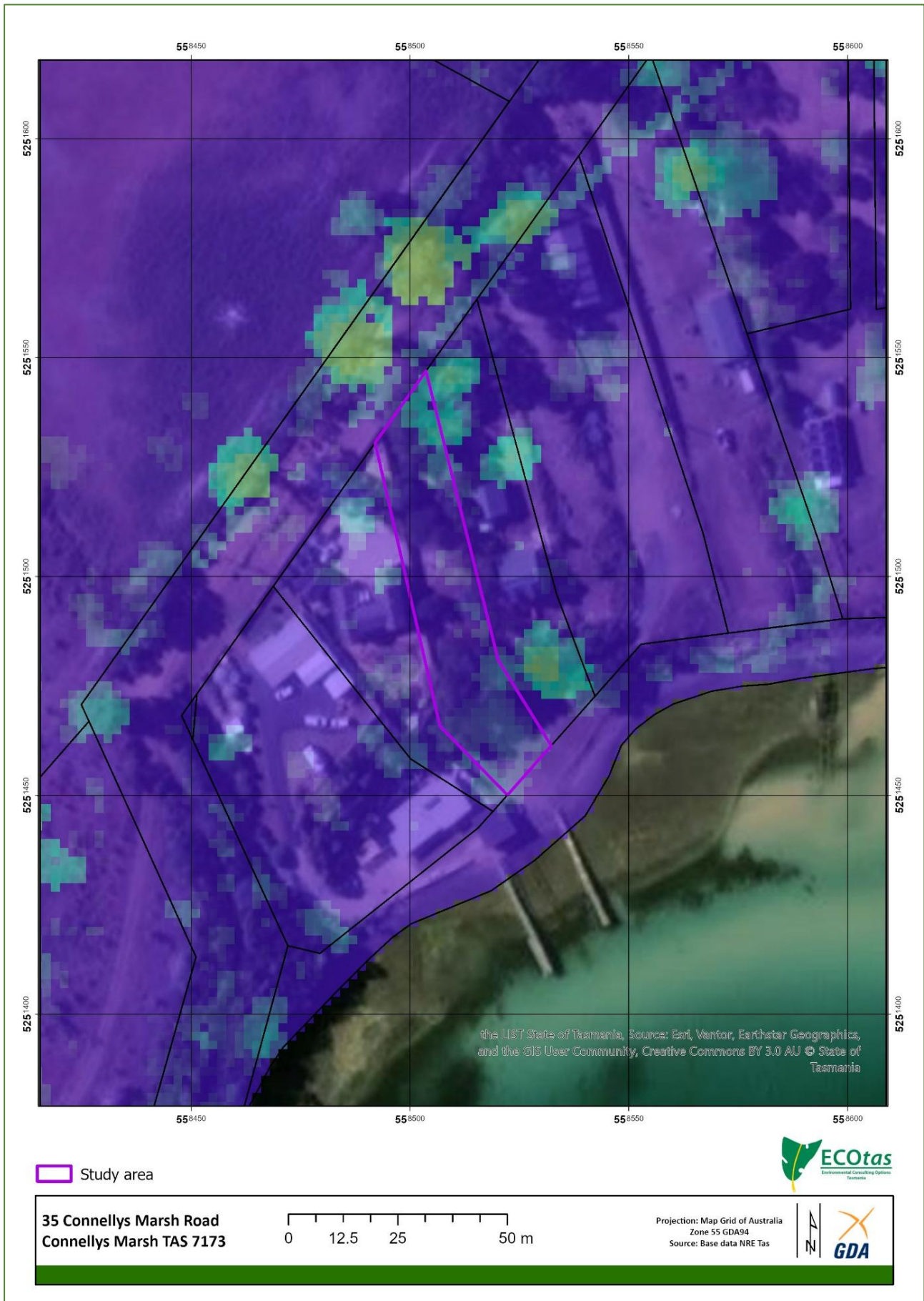


Figure 8. Tree canopy modelling for subject title and surrounds showing absence of taller native vegetation canopy with only a band of “scrub” in the southeast

Proposal

The proposal is for a single residential dwelling with a BAL-29 hazard management area (Figure 9).

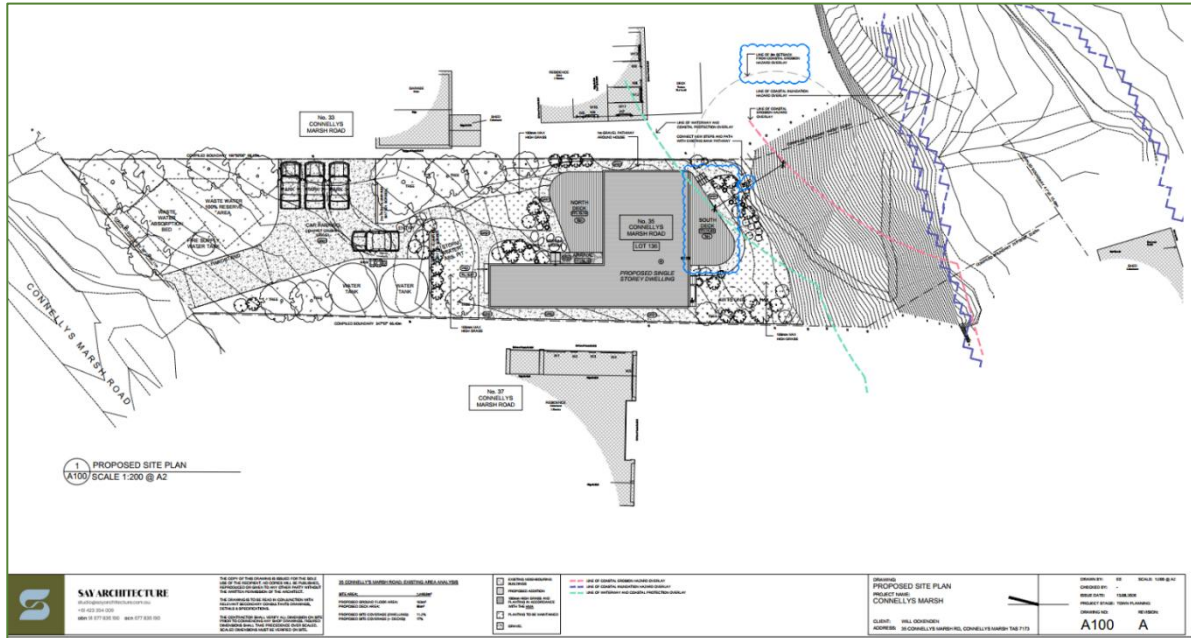


Figure 9a. Proposed land use, included for indicative purposes only [source: Say Architecture via client]

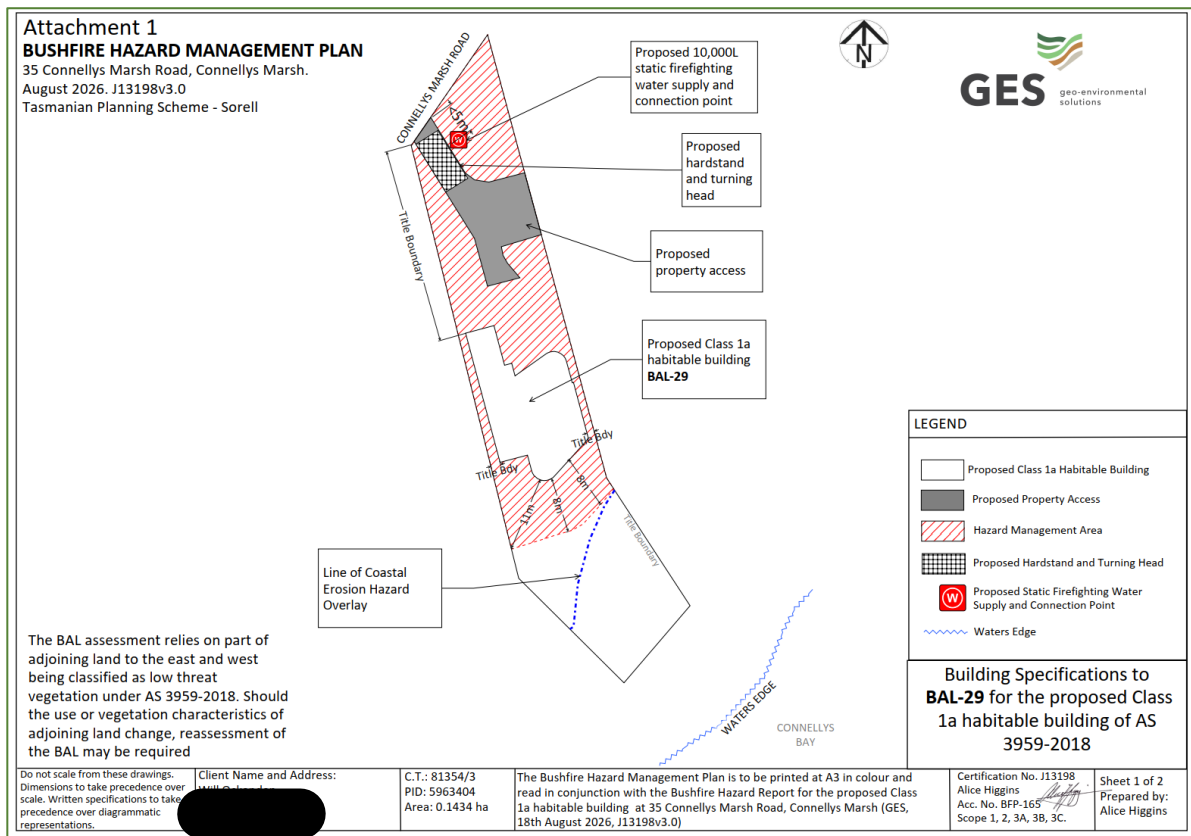


Figure 9b. Proposed bushfire hazard management area for development, included for indicative purposes only [source: GES via client]

Assessment

LISTmap was examined to determine existing vegetation mapping and known sites for threatened flora and fauna. Database reports were produced under DNRET's *Natural Values Atlas* (DNRET 2026), the Forest Practices Authority's *Biodiversity Values Database* (FPA 2026) and the Commonwealth *Protected Matters Report* (CofA 2026) to support the assessment process (all appended for reference).

Findings

Vegetation types

TASVEG 3.0, 4.0, 5.0 & LIVE map the title as follows (Figure 10):

- urban areas (TASVEG code: FUR)

FUR is mapped across the entirety of the subject title as well as the surrounding residentially-occupied titles.

Most of the site is classifiable as FUR but the steeper slope in the southeast supports regrowth scrub that has self-established after disturbance. This is marginally classifiable as *Bursaria* – *Acacia* woodland and scrub (TASVEG code: NBA), although it also has affinities to coastal scrub (TASVEG code: SSC) due to the sandy substrate and context: whether it is coded as SSC or NBA is of no consequence in terms of its conservation priority. Furthermore, given the context of the title being in an urban setting surrounded by privately residentially-occupied titles of a similar size, the original vegetation classification under TASVEG (i.e. FUR) is not inappropriate (and the whole block, once developed further, will be mappable as FUR rather than FUR with a narrow band of NBA/SSC. On this basis, a revised vegetation map is not provided.



Plates 1-4. Views of “scrub” on slope within Waterway and Coastal Protection Area



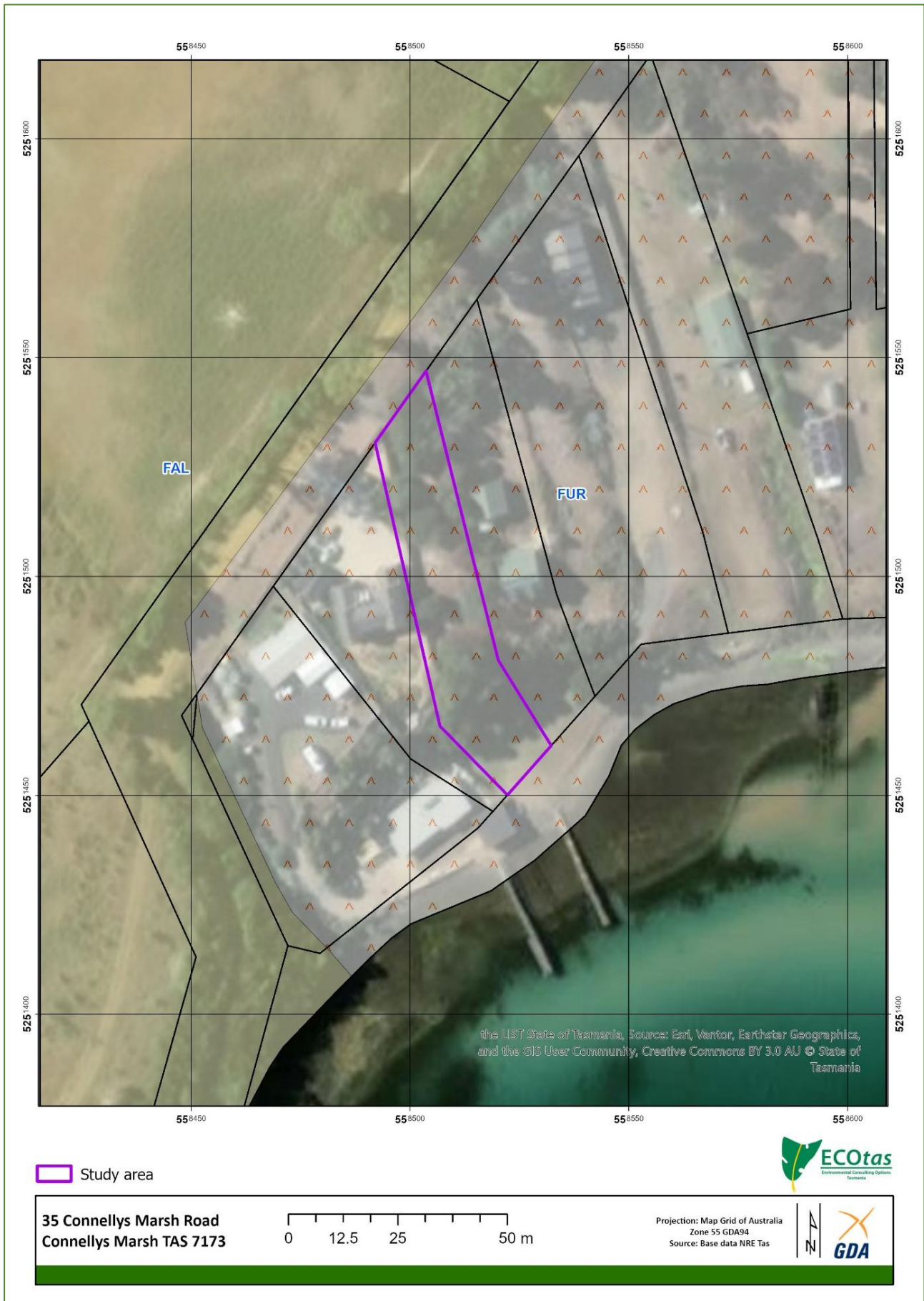


Figure 10. Existing TASVEG 3.0 & 4.0, 5.0 and Live vegetation mapping for subject title and surrounds (refer to text for codes)



Figure 11. Distribution of threatened flora within vicinity of title (overview)





Figure 12. Distribution of threatened fauna within vicinity of title (overview)

Threatened flora

Database information indicates that the subject title does not support known populations of flora listed as threatened on either the Tasmanian *Threatened Species Protection Act 1995* or the Commonwealth *Environment Protection and Biodiversity Protection Act 1999* (Figure 11).

Threatened fauna

Database information indicates that the subject title does not support known populations of fauna listed as threatened on either the Tasmanian *Threatened Species Protection Act 1995* or the Commonwealth *Environment Protection and Biodiversity Protection Act 1999* (Figure 12).

Consideration of planning scheme requirements

Correspondence from Sorell Council dated 12 Aug. 2026 in relation to the application now known as DA 5.2026.261.1 requested further information addressing the Natural Assets Code. It is presumed that this is in relation only to the Waterway and Coastal Protection Area overlay because the title is zoned as Low Density Residential such that the Natural Assets Code cannot have application in relation to the Priority Vegetation Area overlay (see C7.2.1 below).

The Purpose of the Natural Assets Code is stated as:

C7.0 Natural Assets Code

C7.1 Code Purpose

The purpose of the Natural Assets Code is:

- C7.1.1 To minimise impacts on water quality, natural assets including native riparian vegetation, river condition and the natural ecological function of watercourses, wetlands and lakes.
- C7.1.2 To minimise impacts on coastal and foreshore assets, native littoral vegetation, natural coastal processes and the natural ecological function of the coast.
- C7.1.3 To protect vulnerable coastal areas to enable natural processes to continue to occur, including the landward transgression of sand dunes, wetlands, saltmarshes and other sensitive coastal habitats due to sea-level rise.
- C7.1.4 To minimise impacts on identified priority vegetation.
- C7.1.5 To manage impacts on threatened fauna species by minimising clearance of significant habitat.

RESPONSE: In this case, the application of the Waterway and Coastal Protection Area overlay is based on the high water mark such that the relevant purpose statements are C7.1.2 & C7.1.3.

The Code has the following application:

C7.2 Application of this Code

C7.2.1 This code applies to development on land within the following areas:

- (a) a waterway and coastal protection area;
- (b) a future coastal refugia area; and
- (c) a priority vegetation area only if within the following zones:
 - (xii) General Residential Zone or Low Density Residential Zone, only if an application for subdivision.

C7.2.2 This code does not apply to use.



RESPONSE: C7.2.1(a) is applicable but C7.2.1(b) is not (the Future Coastal Refugia Area overlay does not extend to the title) nor is C7.2.1(c) because the proposal is not an application for subdivision.

The Development Standards for Buildings and Works (C7.6) and specifically those for Buildings and Works within a Waterway and Coastal Protection Area or Future Coastal Refugia Area (last not relevant) are stated below:

- C7.6 Development Standards for Buildings and Works
- C7.6.1 Buildings and works within a waterway and coastal protection area or a future coastal refugia area
- Objective: That buildings and works within a waterway and coastal protection area or future coastal refugia area will not have an unnecessary or unacceptable impact on natural assets.

RESPONSE: While there will be works (some form of hazard management) within the overlay it is very difficult to anticipate a scenario in which such works would “have an unnecessary or unacceptable impact on natural assets” given the modified status of most of the title (effectively existing cleared land) and the extent of the slope-based scrub below what will be the lower limit of the hazard management area, providing a wide buffer of vegetation above the broader coastal flat. That is, the intent of the objective statement should not be compromised.

The Acceptable Solution A1 of C7.6.1 is stated as:

- A1
- Buildings and works within a waterway and coastal protection area must:
 - (a) be within a building area on a sealed plan approved under this planning scheme;
 - (b) in relation to a Class 4 watercourse, be for a crossing or bridge not more than 5 m in width; or
 - (c) if within the spatial extent of tidal waters, be an extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway that is not more than 20% of the area of the facility existing at the effective date.

RESPONSE: These provisions are either not met or are not applicable, noting that A1(a) refers to “this planning scheme” and so it is presumed any approval of the now older subdivision and obviously any subsequent development under the previous scheme is no longer applicable.

The title is one of several small titles released on what was largely previously cleared land, wholly approved by Sorell Council for the primary purpose of residential development, with roads and services all already established prior to the current owner acquiring the title. This part of Connellys Marsh is fully developed and furnished with all relevant services. It is a reasonable assumption that the approval of the subdivision took due account of the potential direct and/or indirect immediate and/or future impacts on the adjacent natural values subject to the Waterway and Coastal Protection Area overlay.

The Performance Criteria P1.1 of C7.6.1 is stated as:

- P1.1
- Buildings and works within a waterway and coastal protection area must avoid or minimise adverse impacts on natural assets, having regard to:

RESPONSE: Under the Code, “natural assets” are taken to mean “biodiversity, environmental flows, natural stream bank and stream bed condition, riparian vegetation, littoral vegetation, water quality, wetlands, river condition and waterway and/or coastal values” i.e. they have broad definition and potential application. In this case the highly modified status of most of the title is reiterated.



As a starting point, the opening phrase of P1.1 refers to "...must avoid or minimise adverse impacts on natural assets...". The use of the term "minimise" contemplates a level of acceptable impact, although this is not defined anywhere. On the basis that the lot is small and clearly intended for residential development (through the zoning), combined with the absence of key "natural assets" per se within the title (mainly cleared land with a band of non-threatened vegetation that does not support populations of threatened flora nor significant potential habitat of threatened fauna), the project achieves the objective to "minimise adverse impacts" as far as practicable.

With respect to the phrase "...having regard to...", this is considered in the manner referred to in *S and S McElwaine and A Hamilton v West Tamar Council and Growth Developments Pty Ltd [2021] TASCAT 4 (17 November 2021)*, where TASCAT stated: "the requirement to 'have regard to' does not elevate P2.1(a) to (f) to mandatory requirements that the proposal must satisfy. The tribunal need only consider those subparagraphs in ascertaining whether the proposal complies with clause E8.6.1 P2.1".

Below the sub-criteria of P1.1 are addressed in turn.

- (a) impacts caused by erosion, siltation, sedimentation and runoff;

RESPONSE: This provision is either not applicable or met by default because there should be limited impacts caused by erosion, siltation, sedimentation and runoff into the adjacent Crown land (noting P1.1 requires impacts to be "avoided **or** minimised"). It is challenging to anticipate that construction works within the part of the title not subject to the Waterway and Coastal Protection Area will cause any such impact because this will be wholly in the cleared part of the title. Hazard management within the part of the title not subject to the Waterway and Coastal Protection Area, which includes the band of self-regenerated "scrub", will simply marginally extend the area of modified land but noting that this is not anticipated to cause erosion, siltation, sedimentation and runoff into the adjacent Crown land.

- (b) impacts on riparian or littoral vegetation;

RESPONSE: Not applicable because there is no proposal to impact on littoral vegetation with all works intended to be wholly within the existing title, with any "littoral vegetation" wholly within the adjacent Crown land by virtue of the topography.

- (c) maintaining natural streambank and streambed condition, where it exists;

RESPONSE: Not applicable (site does not support any watercourses).

- (d) impacts on in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation;

RESPONSE: Not applicable (site does not support any watercourses).

- (e) the need to avoid significantly impeding natural flow and drainage;

RESPONSE: Not applicable (site does not support any watercourses).

- (f) the need to maintain fish passage, where known to exist;

RESPONSE: Not applicable (site does not support any watercourses).

- (g) the need to avoid land filling of wetlands;

RESPONSE: Not applicable (no wetlands present).



- (h) the need to group new facilities with existing facilities, where reasonably practical;

RESPONSE: This provision does not appear to be applicable.

- (i) minimising cut and fill;

RESPONSE: This provision should be satisfied as there will be limited cut and fill that will materially impact on "natural values" within the part of the title subject to the Waterway and Coastal Protection Area.

- (j) building design that responds to the particular size, shape, contours or slope of the land;

RESPONSE: This provision should be satisfied based on the site plans provided, noting this is an approved subdivision that permitted a small title immediately adjacent to the coastal fringe, with no limited practical options to position a dwelling, associated residential elements (such as parking areas, access and services) and hazard management.

- (k) minimising impacts on coastal processes, including sand movement and wave action;

RESPONSE: Provided works (including hazard management) are restricted to the title itself, there should be no impact on coastal processes because the site is well above any notional high water mark and set well back from this mark.

- (l) minimising the need for future works for the protection of natural assets, infrastructure and property;

RESPONSE: This provision has little practical application to a small title where works will be wholly contained within the title.

- (m) the environmental best practice guidelines in the *Wetlands and Waterways Works Manual*; and

RESPONSE: Not applicable (there will be no works that will manifestly impact on wetlands or waterways).

- (n) the guidelines in the *Tasmanian Coastal Works Manual*.

RESPONSE: This manual will have little direct application to the present scenario provided that works are wholly restricted to the title itself.

Based on the above review of P1.1 of C7.6.1, the proposal will fully satisfy all relevant provisions without the need for specific mitigation conditions.

Note that this statement does not constitute legal advice, and provides an interpretation of the provisions of the *Tasmanian Planning Scheme – Sorell Local Provisions Schedule*, which may not represent the views of Sorell Council. It is recommended that formal advice be sought from the relevant agency prior to acting on any aspect of this report.



Please do not hesitate to contact me further if additional information is required.

Kind regards



Mark Wapstra
Senior Scientist/Manager

References

- CofA (Commonwealth Australia) (2026). *Protected Matters Report* for a polygon defining the title, dated 19 Aug. 2026. [appended]
- DPIPWE (Department of Primary Industries, Parks, Water & Environment) (2015, updated by NRE Tas 2021). *Guidelines for Natural Values Surveys - Terrestrial Development Proposals*. Department of Primary Industries, Parks, Water & Environment, Hobart.
- DNRET (Department of Natural Resources and Environment Tasmania) (2023). *Natural Values Atlas Report ECOtas_35ConnellysMarshRoad* for a polygon defining the title area (centred on 558510mE 5251495mN), buffered by 5 km, dated 19 Aug. 2026. [appended]
- FPA (Forest Practices Authority) (2023). *Biodiversity Values Database* report, specifically the species' information for grid reference centroid 558510mE 5251495mN (nominally the centroid of the *Natural Values Atlas* report), buffered by 2 km and 5 km for records of threatened flora and fauna, respectively, hyperlinked species' profiles and predicted range boundary maps, dated 19 Aug. 2026. [appended]
- Kitchener, A. & Harris, S. (2013+, updated Nov. 2025). *From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation. Edition 2*. Department of Primary Industries, Parks, Water & Environment, Hobart. [for classification and nomenclature of vegetation mapping units]



35 CONNELLYS MARSH ROAD
CONNELLYS MARSH

DRAWING LIST

PAGE	DRAWING TITLE	SCALE	REV	ISSUE
A001	EXISTING + DEMO SITE PLAN	1:200	-	TOWN PLANNING
A100	PROPOSED SITE PLAN	1:200	A	TOWN PLANNING
A101	PROPOSED GROUND FLOOR PLAN	1:100	A	TOWN PLANNING
A102	PROPOSED ROOF PLAN	1:100	A	TOWN PLANNING
A103	PROPOSED STORMWATER + ENVIRON. PLAN	1:100	-	TOWN PLANNING
A104	PROPOSED FIRE PLAN	1:100	A	TOWN PLANNING
A200	PROPOSED ELEVATIONS + MATERIALS	1:100	A	TOWN PLANNING
A201	PROPOSED ELEVATIONS	1:100	A	TOWN PLANNING



SOUTH-EAST 3D VIEW FROM OCEAN SIDE



NORTH 3D VIEW FROM STREET SIDE

1 3D VISUALS
A000 NTS @ A2



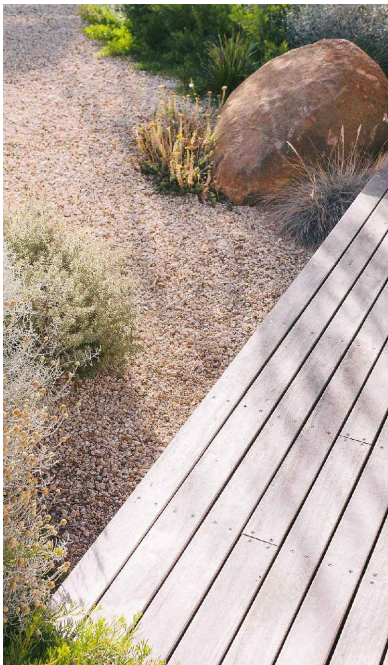
2 AERIAL SITE VIEW
A000 NTS @ A2



PITCHED ROOF LINE: ZINCALUME CUSTOM ORB



GRAVEL PATHWAYS AND FIRE-CONSCIOUS PLANTING



TIMBER DECK WITH GRAVEL PATHS



ZINCALUME CUSTOM ORB SOFTENED WITH TIMBER



GRAVEL PATHWAYS; LOW NATIVE PLANTING



GRAVEL PATHWAYS SOFTENED WITH PAVERS



ZINCALUME CUSTOM ORB AND GRAVEL FIRE BREAK

3 MATERIAL REFERENCES
A000 REFERENCE IMAGES



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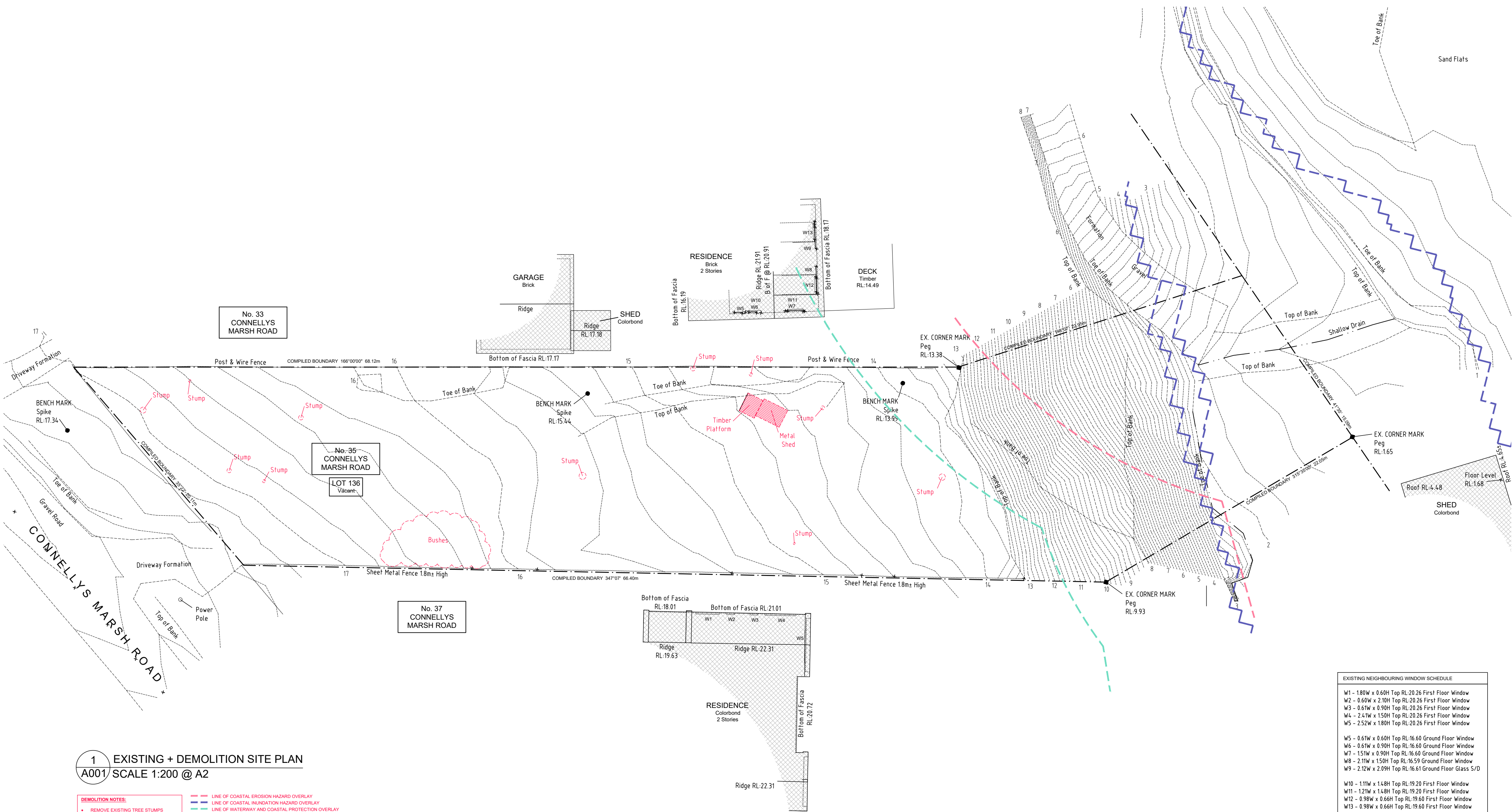
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DRAWING:
COVER, SITE + DESIGN CONTEXT
PROJECT NAME:
CONNELLYS MARSH

CLIENT: WILL OCKENDEN
ADDRESS: 35 CONNELLYS MARSH RD, CONNELLYS MARSH TAS 7173

DRAWN BY: EE SCALE: NTS
CHECKED BY: -
ISSUE DATE: 21.08.2026
PROJECT STAGE: TOWN PLANNING
DRAWING NO: A000
REVISION: A



EXISTING NEIGHBOURING WINDOW SCHEDULE	
W1 - 1.80W x 0.60H	Top RL:20.26 First Floor Window
W2 - 0.60W x 2.10H	Top RL:20.26 First Floor Window
W3 - 0.61W x 0.90H	Top RL:20.26 First Floor Window
W4 - 2.41W x 1.50H	Top RL:20.26 First Floor Window
W5 - 2.52W x 1.80H	Top RL:20.26 First Floor Window
W5 - 0.61W x 0.60H	Top RL:16.60 Ground Floor Window
W6 - 0.61W x 0.90H	Top RL:16.60 Ground Floor Window
W7 - 1.51W x 0.90H	Top RL:16.60 Ground Floor Window
W8 - 2.11W x 1.50H	Top RL:16.59 Ground Floor Window
W9 - 2.12W x 2.09H	Top RL:16.61 Ground Floor Glass S/D
W10 - 1.11W x 1.48H	Top RL:19.20 First Floor Window
W11 - 1.21W x 1.48H	Top RL:19.20 First Floor Window
W12 - 0.98W x 0.66H	Top RL:19.60 First Floor Window
W13 - 0.98W x 0.66H	Top RL:19.60 First Floor Window

1 EXISTING + DEMOLITION SITE PLAN
A001 SCALE 1:200 @ A2

- DEMOLITION NOTES:**
- REMOVE EXISTING TREE STUMPS
 - REMOVE EXISTING TIMBER PLATFORM AND SHED STRUCTURES
- LINE OF COASTAL EROSION HAZARD OVERLAY
— LINE OF COASTAL INUNDATION HAZARD OVERLAY
— LINE OF WATERWAY AND COASTAL PROTECTION OVERLAY

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35 CONNELLYS MARSH ROAD: EXISTING AREA ANALYSIS

SITE AREA: 1,448.9m²

LAND SURVEY

FEATURE SURVEY PREPARED BY SURVEY PLUS - LICENSED LAND SURVEYORS. 8 ARMY STREET, MOONAH, TASMANIA 7008. LEVELS SHOWN ARE TO AUSTRALIAN HEIGHT DATUM. SURVEY DATE 28.08.2026.

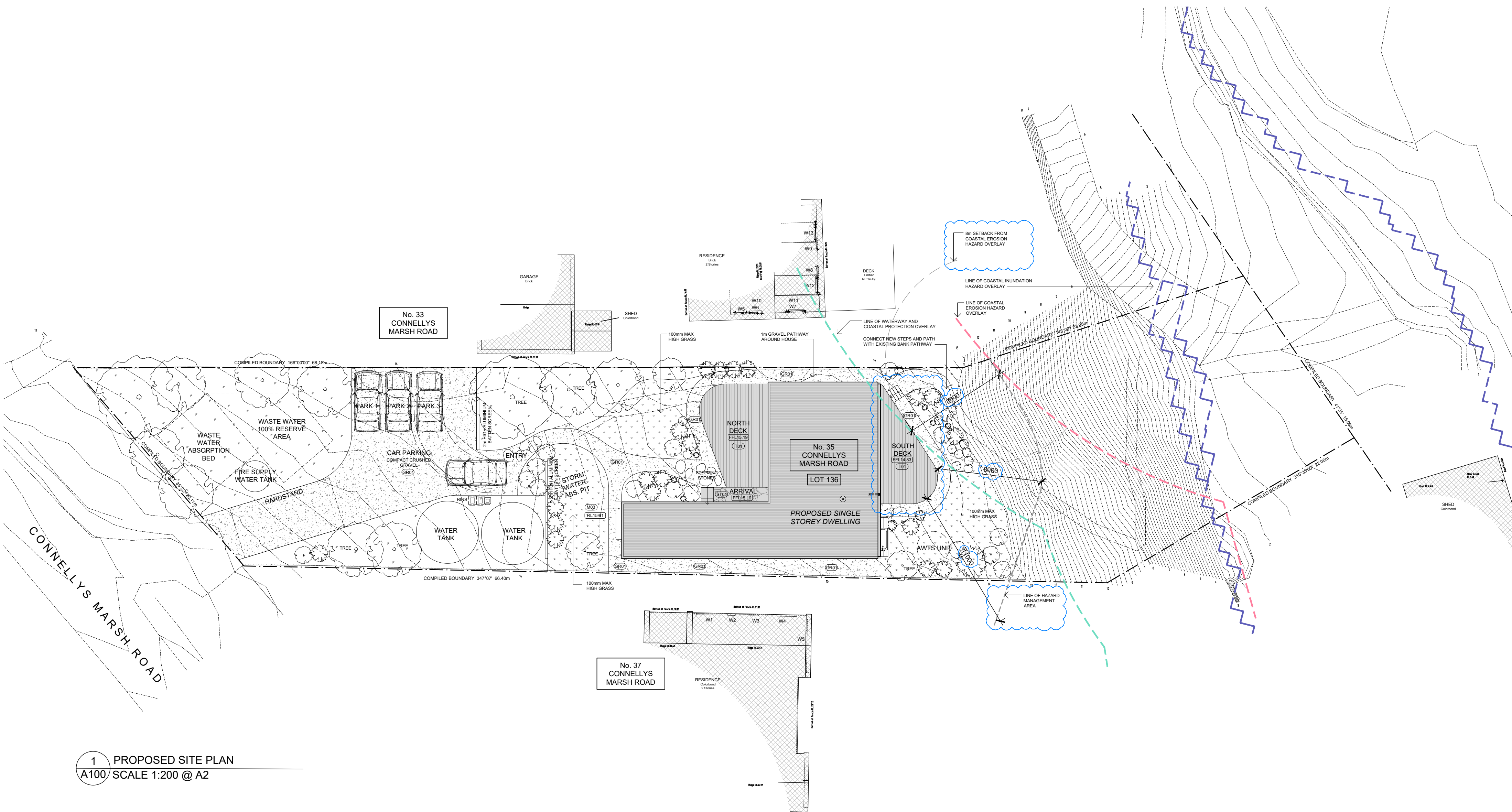
JOB REF: SP262373

DRAWING:
EXISTING + DEMOLITION SITE PLAN
PROJECT NAME:
CONNELLYS MARSH

CLIENT: WILL OCKENDEN
ADDRESS: 35 CONNELLYS MARSH RD, CONNELLYS MARSH TAS 7173

DRAWN BY: EE SCALE: 1:200 @ A2
CHECKED BY: -
ISSUE DATE: 21.08.2026
PROJECT STAGE: TOWN PLANNING
DRAWING NO: REVISION:

A001 -



1 PROPOSED SITE PLAN
A100 SCALE 1:200 @ A2



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35 CONNELLY'S MARSH ROAD: EXISTING AREA ANALYSIS

SITE AREA:	1,448.9m ²
PROPOSED GROUND FLOOR AREA:	163m ²
PROPOSED DECK AREA:	86m ²
PROPOSED SITE COVERAGE (DWELLING):	11.2%
PROPOSED SITE COVERAGE (+ DECKS):	17%

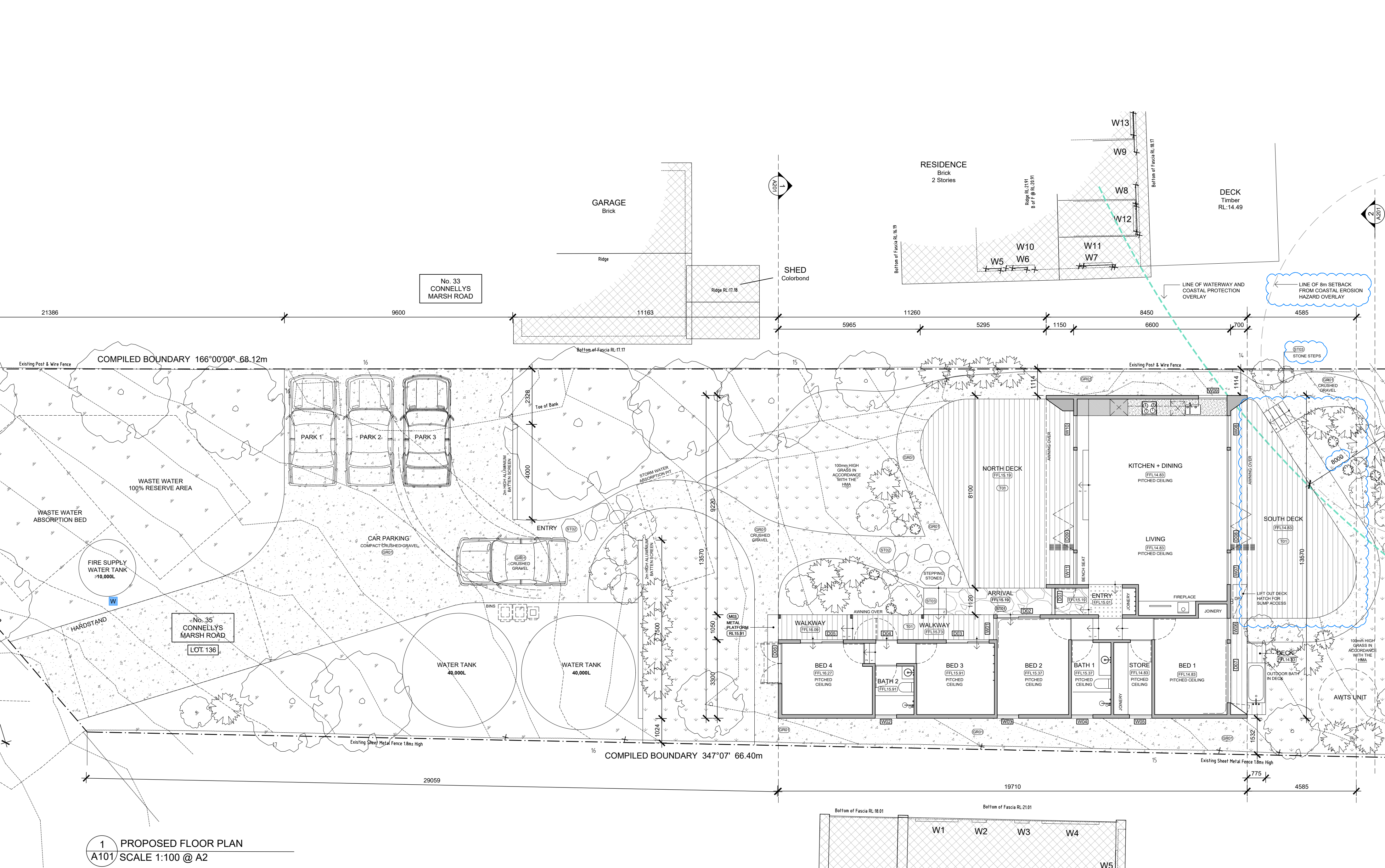
	EXISTING NEIGHBOURING BUILDINGS
	PROPOSED ADDITION
	100mm HIGH GRASS AND PLANTING IN ACCORDANCE WITH THE HMA
	PLANTING TO BE MAINTAINED
	GRAVEL

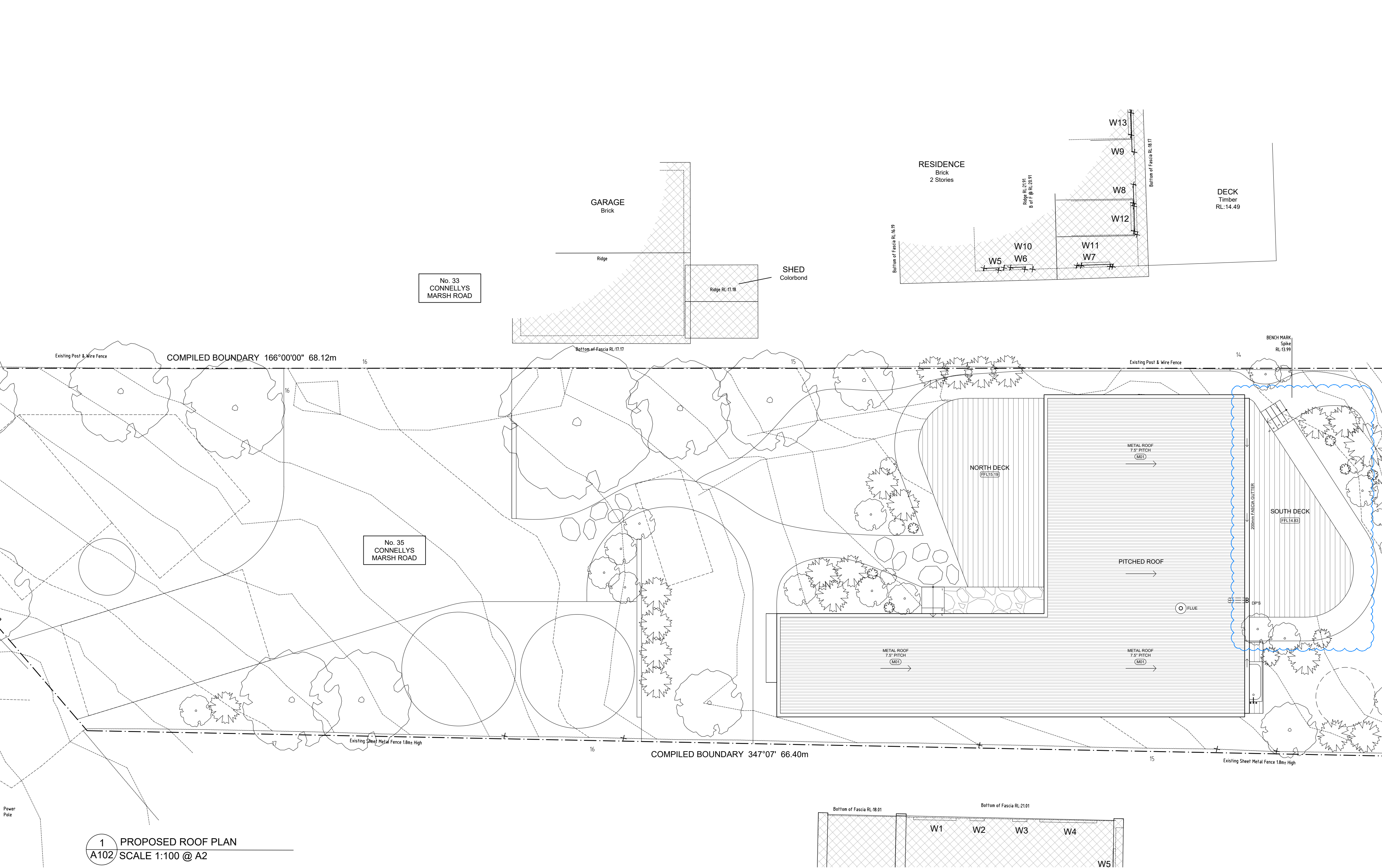
	LINE OF COASTAL EROSION HAZARD OVERLAY
	LINE OF COASTAL INUNDATION HAZARD OVERLAY
	LINE OF WATERWAY AND COASTAL PROTECTION OVERLAY

DRAWING:
PROPOSED SITE PLAN
PROJECT NAME:
CONNELLYS MARSH

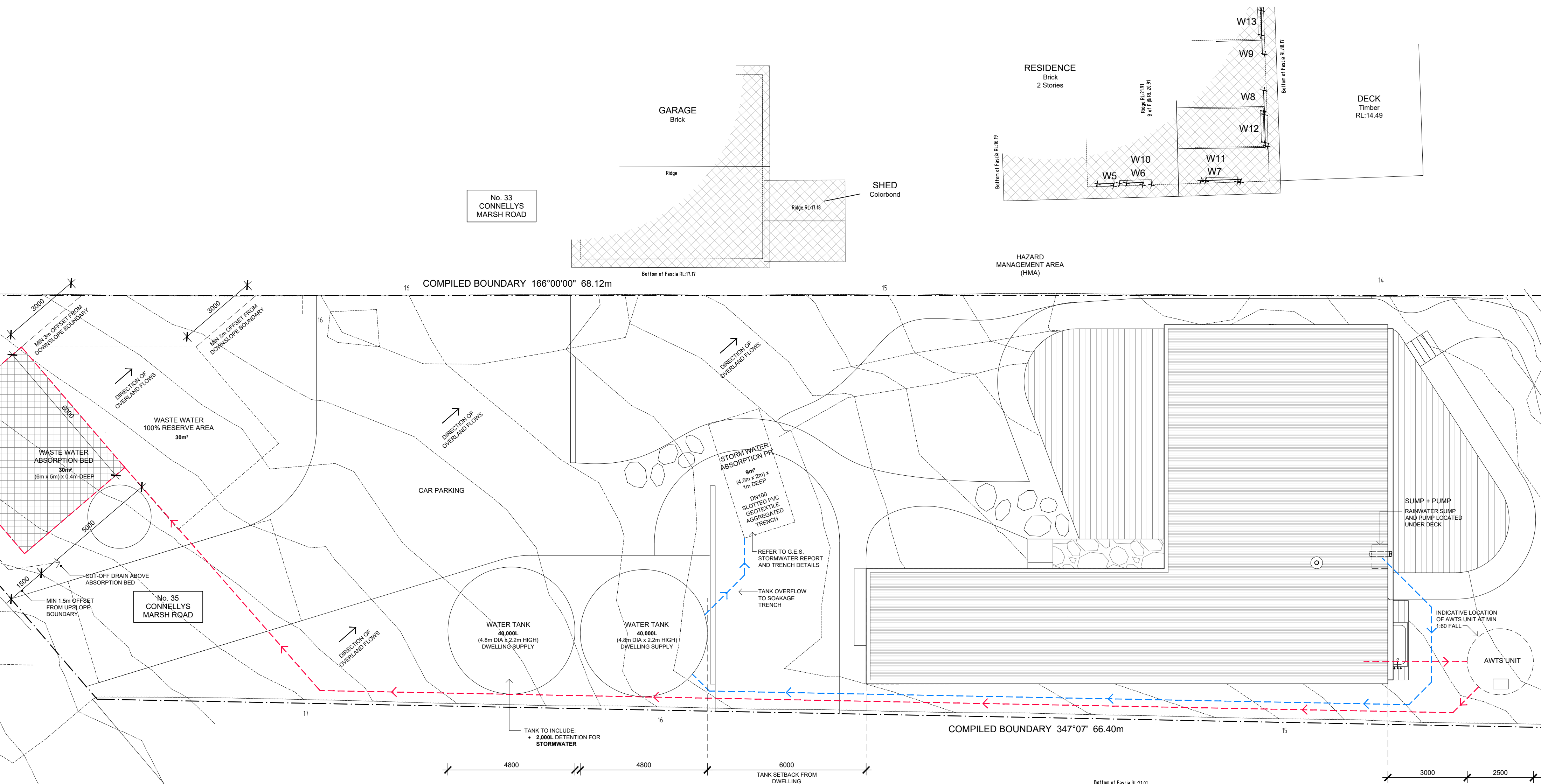
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ADDRESS: 35 CONNELLYS MARSH RD, CONNELLYS MARSH TAS 7173

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ISSUE DATE: 21.08.2026
PROJECT STAGE: TOWN PLANNING
DRAWING NO: A100 REVISION: A





1 PROPOSED ROOF PLAN
A102 SCALE 1:100 @ A2



1 PROPOSED STORMWATER + ENIRON. PLAN
A103 SCALE 1:100 @ A2

REFER TO CONSULTANT REPORTS BY G.E.S.
(GEO-ENVIRONMENTAL SOLUTIONS) FOR ALL
SPECIFICATIONS AND DETAILS FOR:

- STORM WATER
- WASTEWATER
- BUSHFIRE

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DRAWING:
PROPOSED STORMWATER + ENVIRON PLAN
PROJECT NAME:
CONNELLYS MARSH

CLIENT: WILL OCKENDEN
ADDRESS: 35 CONNELLYS MARSH RD, CONNELLYS MARSH TAS 7173

DRAWN BY: EE SCALE: 1:100 @ A2
CHECKED BY: -
ISSUE DATE: 21.08.2026
PROJECT STAGE: TOWN PLANNING
DRAWING NO: REVISION:

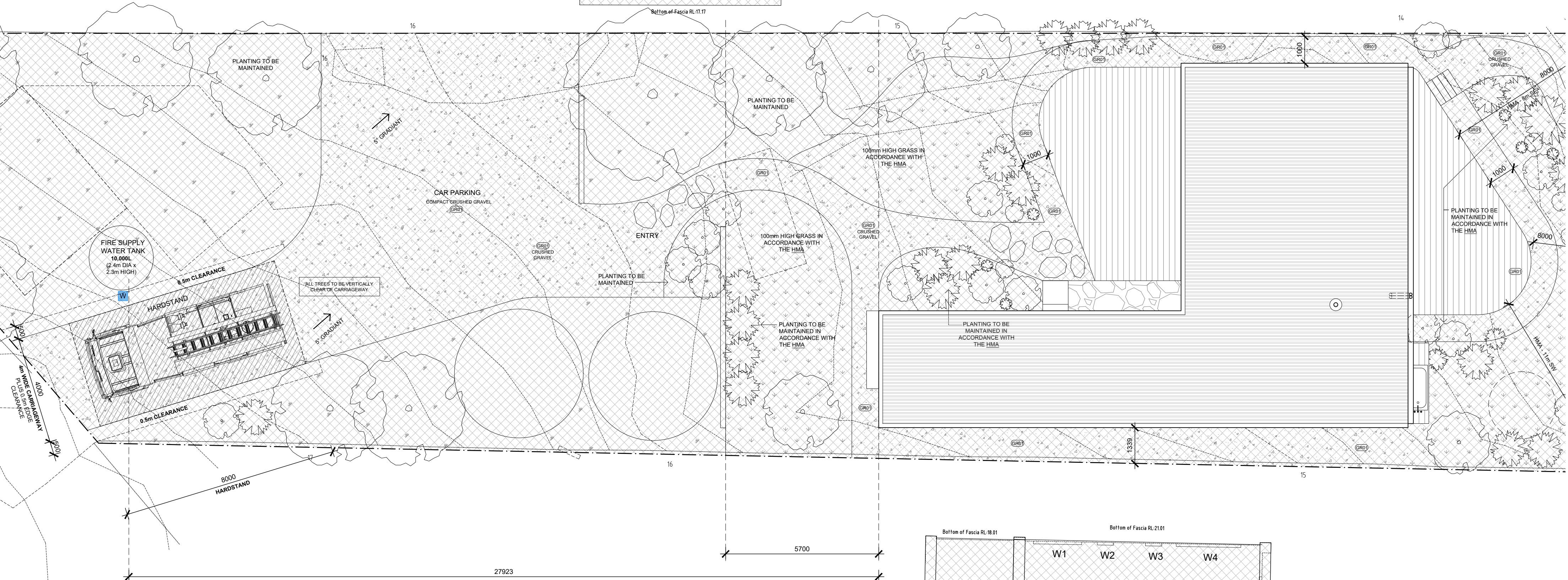
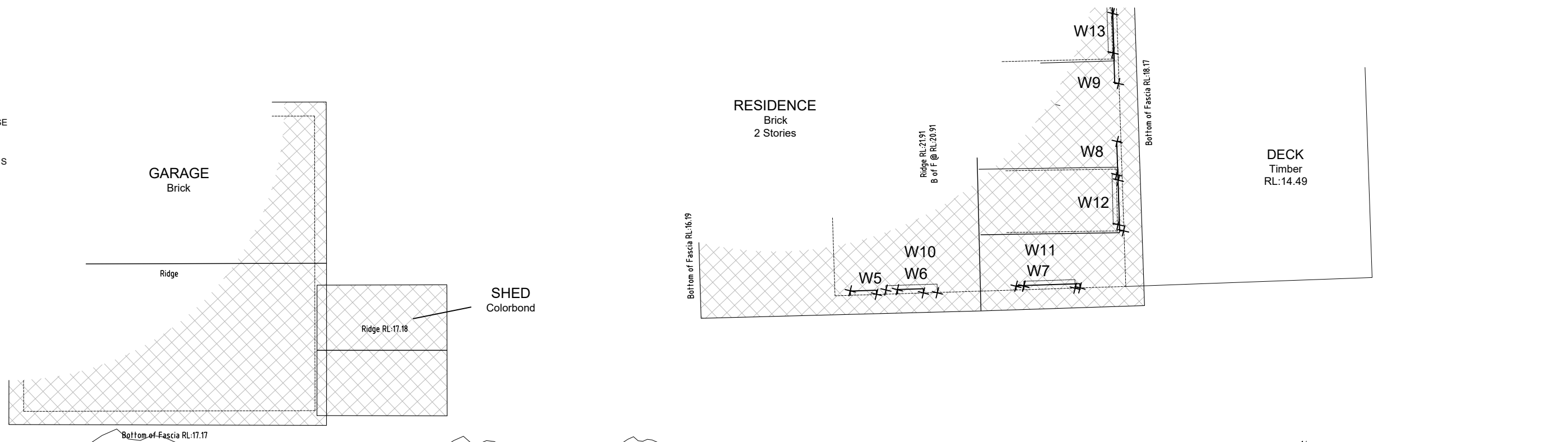
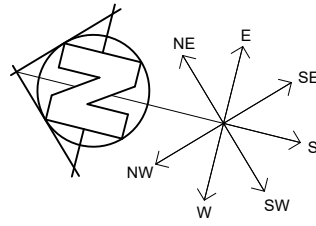
A103 -

FIREFIGHTING REQUIREMENTS	
W FIREFIGHTING WATER CONNECTION POINT AND SIGNAGE	
ACCESS REQUIREMENTS FOR FIREFIGHTING: 4m CARRIAGEWAY - ALL-WEATHER SURFACE - FIRE APPLIANCE ACCESS - MAXIMUM GRADIENTS 20 TONNE LOAD CAPACITY	WATER REQUIREMENTS FOR FIREFIGHTING: 10,000L WATER SUPPLY - STOR2 FITTINGS - HARDSTAND - ACCESSIBLE CONNECTION POINT WITHIN 90m AS-THE-HOSE-LAYS OF DWELLING

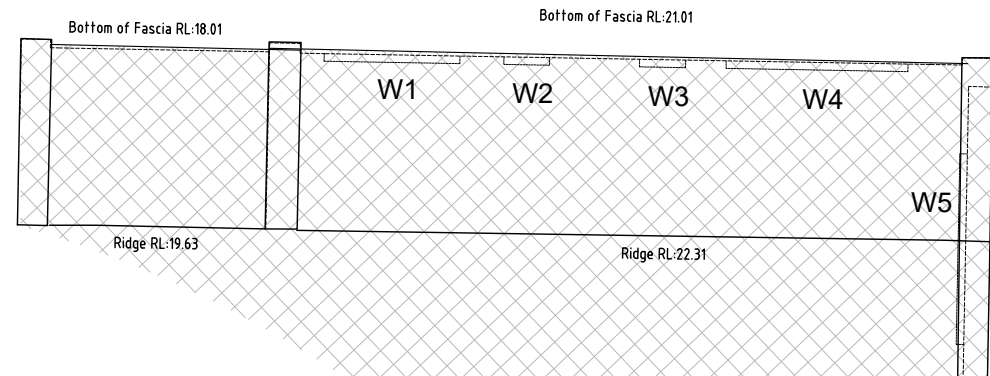
HAZARD MANGEMENT REQUIREMENTS	
HAZARD MANAGEMENT AREA (HMA)	
HM AREAS: - NORTH - 6m - EAST - 10m - SOUTH EAST - 8 - SOUTH - 8m - SOUTH WEST - 11m - NORTH WEST - 6m	HMA LANDSCAPE REQUIREMENTS: - GRASS MAINTAINED BELOW 100mm - LOW FLAMMABILITY PLANTING - NO COMBUSTIBLE MULCH ADJACENT TO DWELLING - CANOPY SEPARATION - UNDERSTORY THINNING - NO FIREWOOD AGAINST DWELLING - GUTTERS KEPT CLEAR

REFER TO CONSULTANT REPORTS BY G.E.S. (GEO-ENVIRONMENTAL SOLUTIONS) FOR ALL SPECIFICATIONS AND DETAILS FOR:

- STORM WATER
- WASTEWATER
- BUSHFIRE



1 PROPOSED FIRE PLAN
A104 SCALE 1:100 @ A2



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DRAWING:
PROPOSED FIRE PLAN
PROJECT NAME:
CONNELLYS MARSH

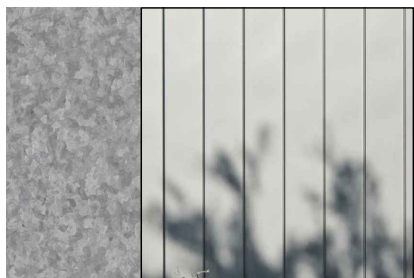
CLIENT: WILL OCKENDEN
ADDRESS: 35 CONNELLYS MARSH RD, CONNELLYS MARSH TAS 7173

DRAWN BY: EE SCALE: 1:100 @ A2
CHECKED BY: -
ISSUE DATE: 21.08.2026
PROJECT STAGE: TOWN PLANNING
DRAWING NO: REVISION:

A104 A

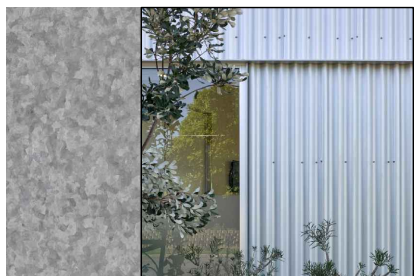


MATERIALS SCHEDULE



M01 METAL SHEET - ROOF

MATERIAL: TRIMDEK METAL
FINISH: ZINCALUME
MANUF.: LYSAUGHT



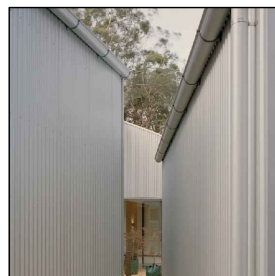
M02 METAL SHEET - EXTERNAL WALL CLADDING

MATERIAL: CUSTOM ORB METAL
FINISH: ZINCALUME
MANUF.: LYSAUGHT



M03 STEEL GRATE MESH TO TRAFFICABLE PLATFORMS + STEPS

MATERIAL: STEEL GRATE
FINISH: RAW / GALVANIZED
MANUF.: -



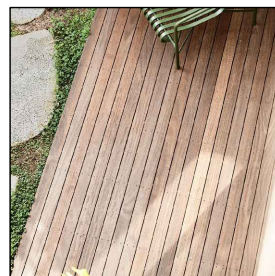
M04 METAL SHEET - TRIMS, FLASHINGS, RAINWATER GOODS

MATERIAL: METAL
FINISH: ZINCALUME
MANUF.: LYSAUGHT



GR01 GRAVEL - PATHWAYS

MATERIAL: ROCK/GRAVEL
FINISH: CRUSHED GRANITE TOPPINGS
MANUF.: -



T01 TIMBER - DECKS

MATERIAL: TIMBER
FINISH: BLACKBUTT, NATURAL OIL
MANUF.: -



T02 TIMBER - WALL CLADDING

MATERIAL: TIMBER
FINISH: BLACKBUTT, NATURAL OIL
MANUF.: -



ST01 STONE - PAVING

MATERIAL: STONE CRAZYPAVE
FINISH: BLUESTONE
MANUF.: -



ST02 STONE - STEPPING PAVERS

MATERIAL: STONE STEPPING PAVERS
FINISH: BLUESTONE
MANUF.: -



ST03 STONE - STEPS

MATERIAL: SOLID STONE BLOCK
FINISH: BLUESTONE, ROUGH SAWN EDGE
MANUF.: -

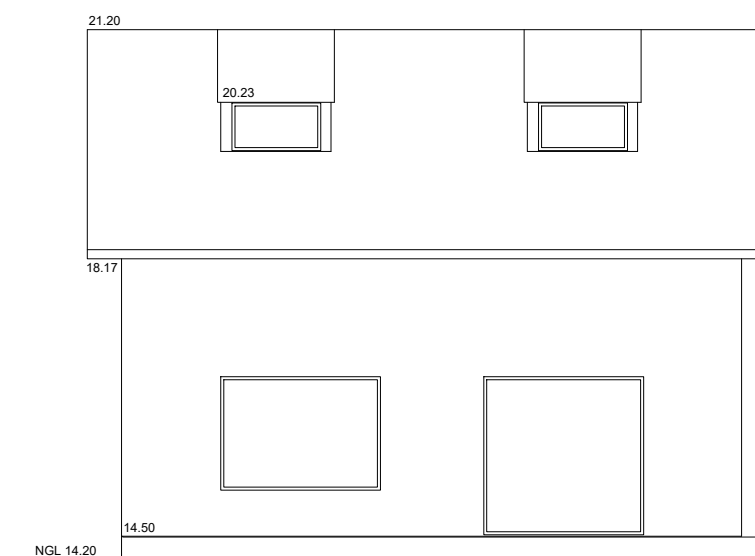


Figure 1 is a schematic diagram of a three-story building facade. The diagram shows the building's profile with a central rectangular section and two gabled sections on either side. The roofline is marked with a peak height of 22.31. The left gable has a peak height of 19.63 and a base height of 18.01. The right gable has a peak height of 20.72. The building is labeled "NGL 15.80" at the bottom left.