# DEVELOPMENT APPLICATION

## PDPLANPMTD-2025/053037

**PROPOSAL:** Additions & Alterations (Single Dwelling)

**LOCATION:** 66 Cahill Place, Acton Park

**RELEVANT PLANNING SCHEME:** Tasmanian Planning Scheme - Clarence

**ADVERTISING EXPIRY DATE:** 01 September 2025

The relevant plans and documents can be inspected at the Council offices, 38 Bligh Street, Rosny Park, during normal office hours until 01 September 2025. In addition to legislative requirements, plans and documents can also be viewed at www.ccc.tas.gov.au during these times.

Any person may make representations about the application to the Chief Executive Officer, by writing to PO Box 96, Rosny Park, 7018 or by electronic mail to clarence@ccc.tas.gov.au. Representations must be received by Council on or before 01 September 2025.

To enable Council to contact you if necessary, would you please also include a day time contact number in any correspondence you may forward.

Any personal information submitted is covered by Council's privacy policy, available at www.ccc.tas.gov.au or at the Council offices.

**City of Clarence**
38 Bligh St Rosny Park
PO Box 96
Rosny Park TAS, 7018

03 6217 9500
clarence@ccc.tas.gov.au
ccc.tas.gov.au

# Application for Development / Use or Subdivision

Use this form to obtain planning approval for developing or using land, including subdividing it into smaller lots or lot consolidation.

Proposal: Alteration & Additions

Location: 66 Cahill Place, Acton Park 7170

**Personal Information Removed**

Estimated cost of development: $300,000.00

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Is the property on the Tasmanian Heritage Register? Yes ☐ No ☒

If yes, we recommend you discuss your proposal with Heritage Tasmania prior to lodgement as exemptions may apply which may save you time on your proposal.

If you had pre-application discussions with City of Clarence, please provide planner's name:

Current use of site:

Does the proposal involve land administered or owned by the Crown or Council? Yes ☐ No ☒

**Declaration**

- I have read the Certificate of Title and Schedule of Easements for the land and am satisfied that this application is not prevented by any restrictions, easements or covenants.
- I authorise the provision of a copy of any documents relating to this application to any person for the purposes of assessment or public consultation. I agree to arrange for the permission of the copyright owner of any part of this application to be obtained. I have arranged permission for Council's representatives to enter the land to assess this application
- I declare that, in accordance with Section 52 of the Land Use Planning and Approvals Act 1993, that I have notified the owner of the intention to make this application. Where the subject property is owned or controlled by Council or the Crown, their signed consent is attached.
- I declare that the information in this declaration is true and correct.

**Acknowledgement**

- I 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 consultation; 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.

Applicant's signature:

**Personal Information Removed**

Date: 10/06/2025

Please refer to the development/use and subdivision checklist on the following pages to determine what documentation must be submitted with your application.

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# Development/use or subdivision checklist

**Mandatory Documents**
This information is required for the application to be valid. We are unable to proceed with an application without these documents.

- ☒ Details of the location of the proposed use or development.
- ☒ A copy of the current Certificate of Title, Sealed Plan, Plan or Diagram and Schedule of Easements and other restrictions for each parcel of land on which the use or development is proposed.
- ☒ Full description of the proposed use or development.
- ☒ Description of the proposed operation. May include where appropriate: staff/student/customer numbers; operating hours; truck movements; and loading/unloading requirements; waste generation and disposal; equipment used; pollution, including noise, fumes, smoke or vibration and mitigation/management measures.
- ☒ Declaration the owner has been notified if the applicant is not the owner.
- ☒ Crown or Council consent (if publically-owned land).
- ☒ Any reports, plans or other information required by the relevant zone or code.
- ☒ Fees prescribed by the City of Clarence.

Application fees (please phone 03 6217 9550 to determine what fees apply). An invoice will be emailed upon lodgement.

**Additional Documents**
In addition to the mandatory information required above, Council may, to enable it to consider an application, request further information it considers necessary to ensure that the proposed use or development will comply with any relevant standards and purpose statements in the zone, codes or specific area plan, applicable to the use or development.

- ☒ Site analysis and site plan, including where relevant:
  - Existing and proposed use(s) on site.
  - Boundaries and dimensions of the site.
  - Topography, including contours showing AHD levels and major site features.
  - Natural drainage lines, watercourses and wetlands on or adjacent to the site.
  - Soil type.
  - Vegetation types and distribution, and trees and vegetation to be removed.

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- Location and capacity of any existing services or easements on/to the site.
- Existing pedestrian and vehicle access to the site.
- Location of existing and proposed buildings on the site.
- Location of existing adjoining properties, adjacent buildings and their uses.
- Any natural hazards that may affect use or development on the site.
- Proposed roads, driveways, car parking areas and footpaths within the site.
- Any proposed open space, communal space, or facilities on the site.
- Main utility service connection points and easements.
- Proposed subdivision lot boundaries.

☒ Where it is proposed to erect buildings, detailed plans with dimensions at a scale of 1:100 or 1:200 showing:

- Internal layout of each building on the site.
- Private open space for each dwelling.
- External storage spaces.
- Car parking space location and layout.
- Major elevations of every building to be erected.
- Shadow diagrams of the proposed buildings and adjacent structures demonstrating the extent of shading of adjacent private open spaces and external windows of buildings on adjacent sites.
- Relationship of the elevations to natural ground level, showing any proposed cut or fill.
- Materials and colours to be used on rooves and external walls.

☒ Where it is proposed to erect buildings, a plan of the proposed landscaping showing:

- Planting concepts.
- Paving materials and drainage treatments and lighting for vehicle areas and footpaths.
- Plantings proposed for screening from adjacent sites or public places.

☒ Any additional reports, plans or other information required by the relevant zone or code.

This list is not comprehensive for all possible situations. If you require further information about what may be required as part of your application documentation, please contact City of Clarence Planning team on (03) 6217 9550.

# RESULT OF SEARCH

RECORDER OF TITLES

*Issued Pursuant to the Land Titles Act 1980*

Tasmanian Government

SEARCH OF TORRENS TITLE

| VOLUME | FOLIO |
|---|---|
| 172346 | 76 |
| EDITION | DATE OF ISSUE |
| 3 | 03-Jan-2018 |

SEARCH DATE : 05-Jun-2025
SEARCH TIME : 12.41 PM

## DESCRIPTION OF LAND

City of CLARENCE
Lot 76 on Sealed Plan 172346
Derivation : Part of 1000 Acres Located to John Jewell
Prior CT 164580/1

## SCHEDULE 1

M670180 TRANSFER to KELLIE MAREE EBONY PEARTON and JEFFREY ROBERT SALTER Registered 03-Jan-2018 at noon

## SCHEDULE 2

Reservations and conditions in the Crown Grant if any
SP172346 COVENANTS in Schedule of Easements
SP172346 FENCING PROVISION in Schedule of Easements
SP172346 SEWERAGE AND/OR DRAINAGE RESTRICTION
SP172346 SEPTIC TANK NOTIFICATION
C403611 AGREEMENT pursuant to Section 71 of the Land Use Planning and Approvals Act 1993 Registered 03-Sep-2002 at noon
E61128 AGREEMENT pursuant to Section 71 of the Land Use Planning and Approvals Act 1993 Registered 29-Sep-2016 at noon
E118225 MORTGAGE to Commonwealth Bank of Australia Registered 03-Jan-2018 at 12.01 PM

## UNREGISTERED DEALINGS AND NOTATIONS

E416510 DISCHARGE OF MORTGAGE E118225 Lodged by DOBSON MITCHELL on 20-May-2025 BP: E416510
E416517 MORTGAGE to Perpetual Corporate Trust Limited Lodged by DOBSON MITCHELL on 20-May-2025 BP: E416510

OWNER TORONTO PASTORAL COY. PTY. LTD.
FOLIO REFERENCE: C.T.164580/1
C.T.168584/1

GRANTEE
PART OF 97 ACRES GTD TO WILLIAM GARLICK.
~~PART OF 90 ACRES GTD TO GEORGE & CHARLOTTE JOSEPH~~ LOC.
PART OF 1000 ACRES ~~GTD~~ TO JOHN JEWELL

# PLAN OF SURVEY

BY SURVEYOR CRAIG BRADLEY ROGERSON
**ROGERSON & BIRCH SURVEYORS**
UNIT 1 2 KENNEDY DRIVE, CAMBRIDGE PARK
PH 6248-5898 MOB. 0418-120-796

LOCATION
CITY OF CLARENCE

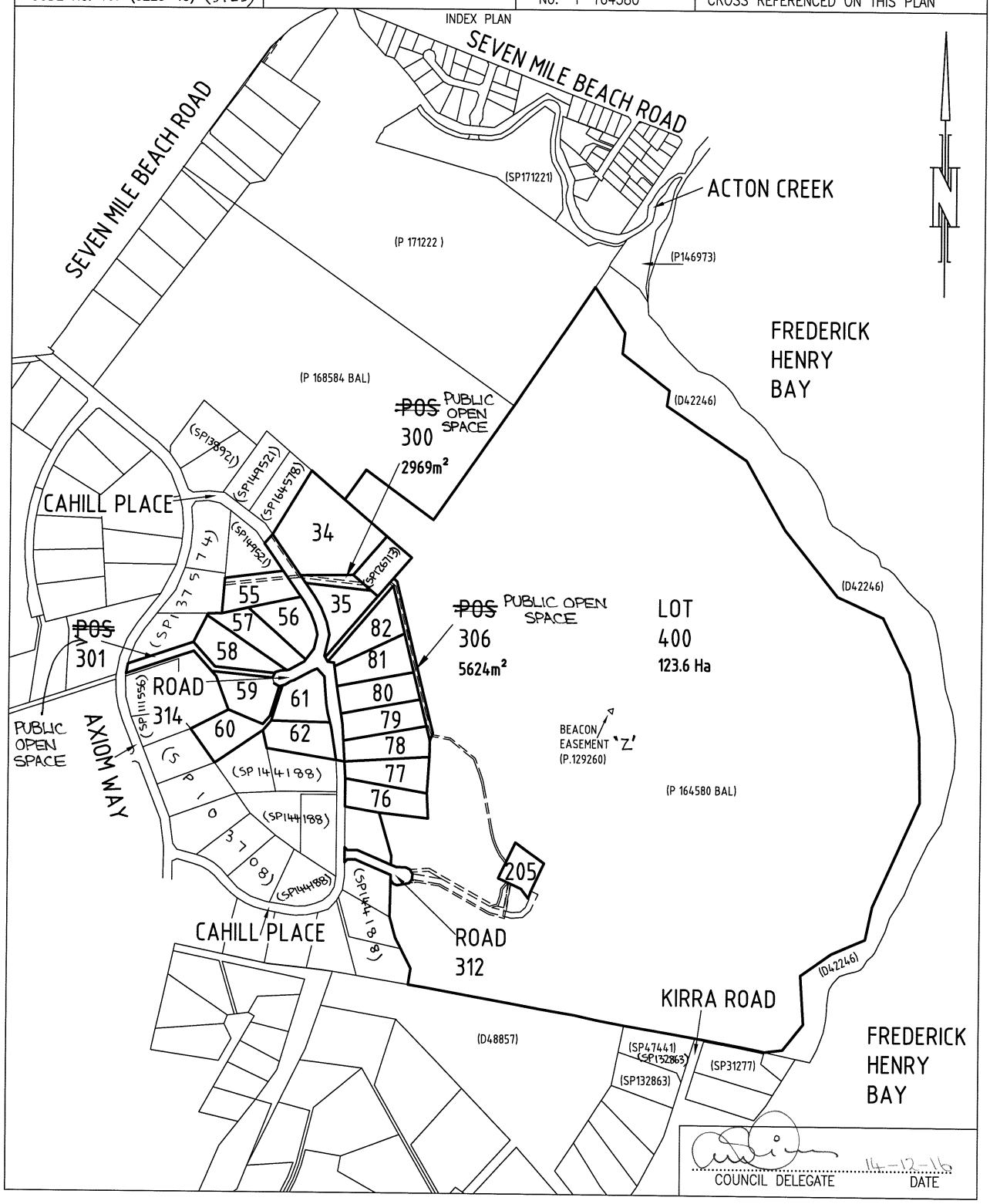
SCALE 1: 7500 LENGTHS IN METRES

REGISTERED NUMBER
**SP172346**

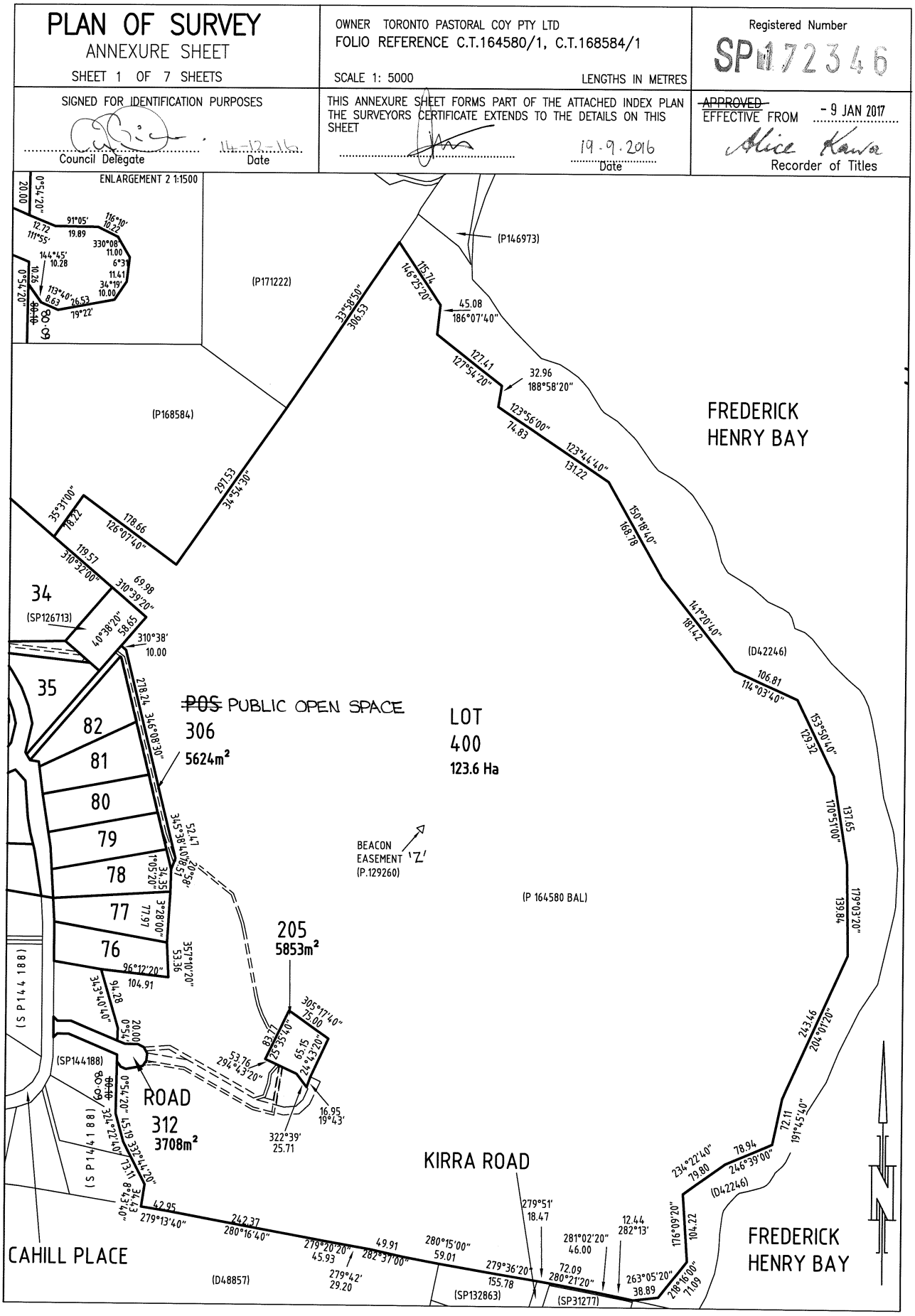
~~APPROVED~~
EFFECTIVE FROM - 9 JAN 2017
Alice Kava
Recorder of Titles

MAPSHEET MUNICIPAL CODE No. 107 ~~(5225-45)~~ (5425)
LAST UPI No.
LAST PLAN No. ~~P168584~~ P 164580
ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN

INDEX PLAN




COUNCIL DELEGATE 14-12-16 DATE


PLAN OF SURVEY
ANNEXURE SHEET
SHEET 1 OF 7 SHEETS
OWNER TORONTO PASTORAL COY PTY LTD
FOLIO REFERENCE C.T.164580/1, C.T.168584/1
SCALE 1: 5000
LENGTHS IN METRES
Registered Number
SP 172346
SIGNED FOR IDENTIFICATION PURPOSES
Council Delegate
14-12-16
Date
THIS ANNEXURE SHEET FORMS PART OF THE ATTACHED INDEX PLAN
THE SURVEYORS CERTIFICATE EXTENDS TO THE DETAILS ON THIS SHEET
19-9-2016
Date
APPROVED
EFFECTIVE FROM - 9 JAN 2017
Recorder of Titles
ENLARGEMENT 2 1:1500
(P171222)
(P168584)
(P146973)
FREDERICK HENRY BAY
34
(SP126713)
35
82
81
80
79
78
77
76
~~POS~~ PUBLIC OPEN SPACE
306
5624m²
LOT
400
123.6 Ha
205
5853m²
BEACON
EASEMENT 'Z'
(P.129260)
(P 164580 BAL)
(D42246)
(SP144188)
ROAD
312
3708m²
KIRRA ROAD
CAHILL PLACE
(D48857)
(SP132863)
(SP31277)
FREDERICK HENRY BAY

# PLAN OF SURVEY
ANNEXURE SHEET
SHEET 2 OF 7 SHEETS

OWNER TORONTO PASTORAL COY PTY LTD
FOLIO REFERENCE C.T.164580/1, C.T.168584/1
SCALE 1: 1250 LENGTHS IN METRES

Registered Number
SI 172346

SIGNED FOR IDENTIFICATION PURPOSES
Council Delegate 14-12-16 Date

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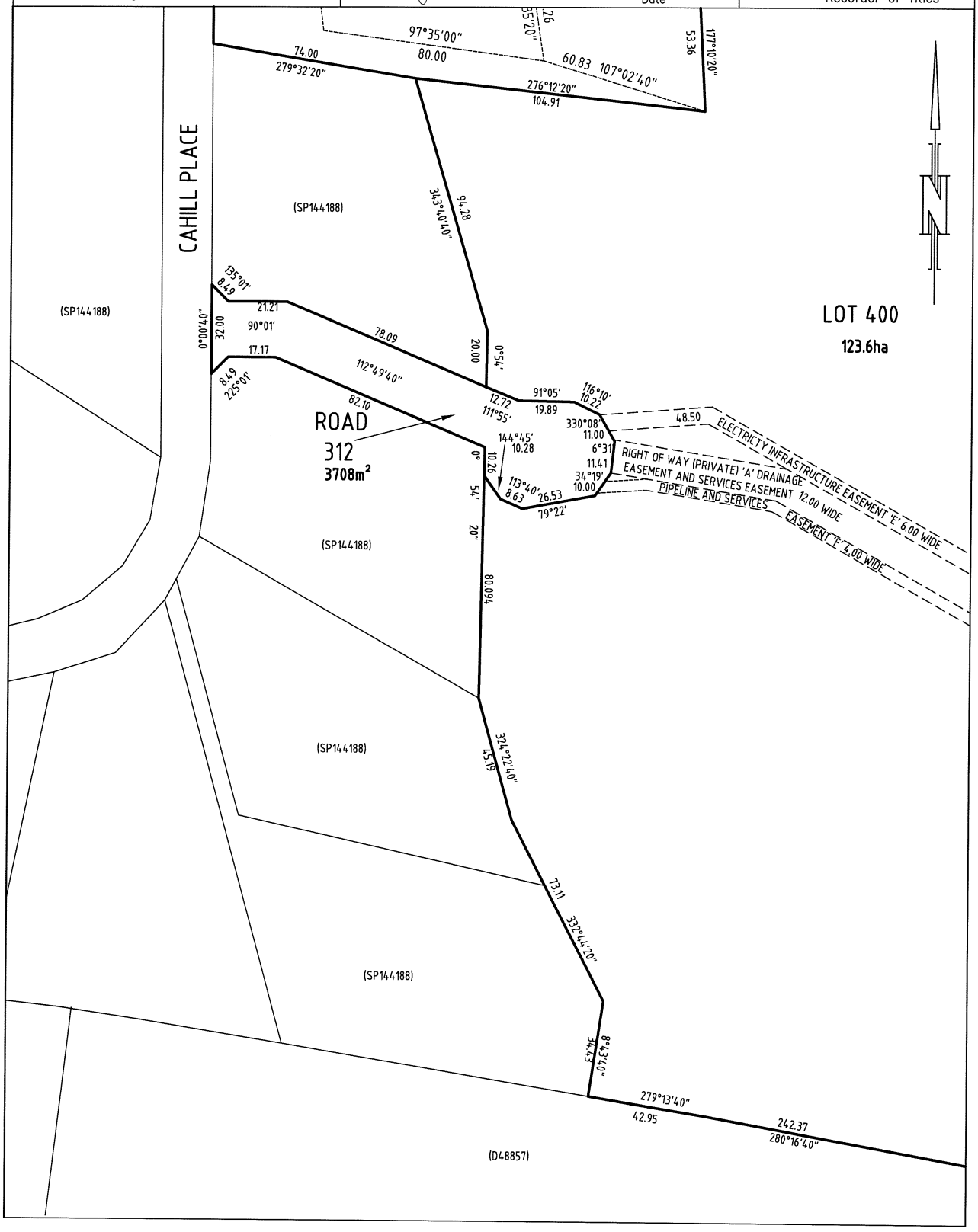
19.9.2016 Date

~~APPROVED~~
EFFECTIVE FROM - 9 JAN 2017
Alice Kawa
Recorder of Titles



# PLAN OF SURVEY
ANNEXURE SHEET
SHEET 3 OF 7 SHEETS

OWNER TORONTO PASTORAL COY PTY LTD
FOLIO REFERENCE C.T.164580/1, C.T.168584/1
SCALE 1: 1500 LENGTHS IN METRES

Registered Number
SP 172346

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Council Delegate 14-12-16 Date

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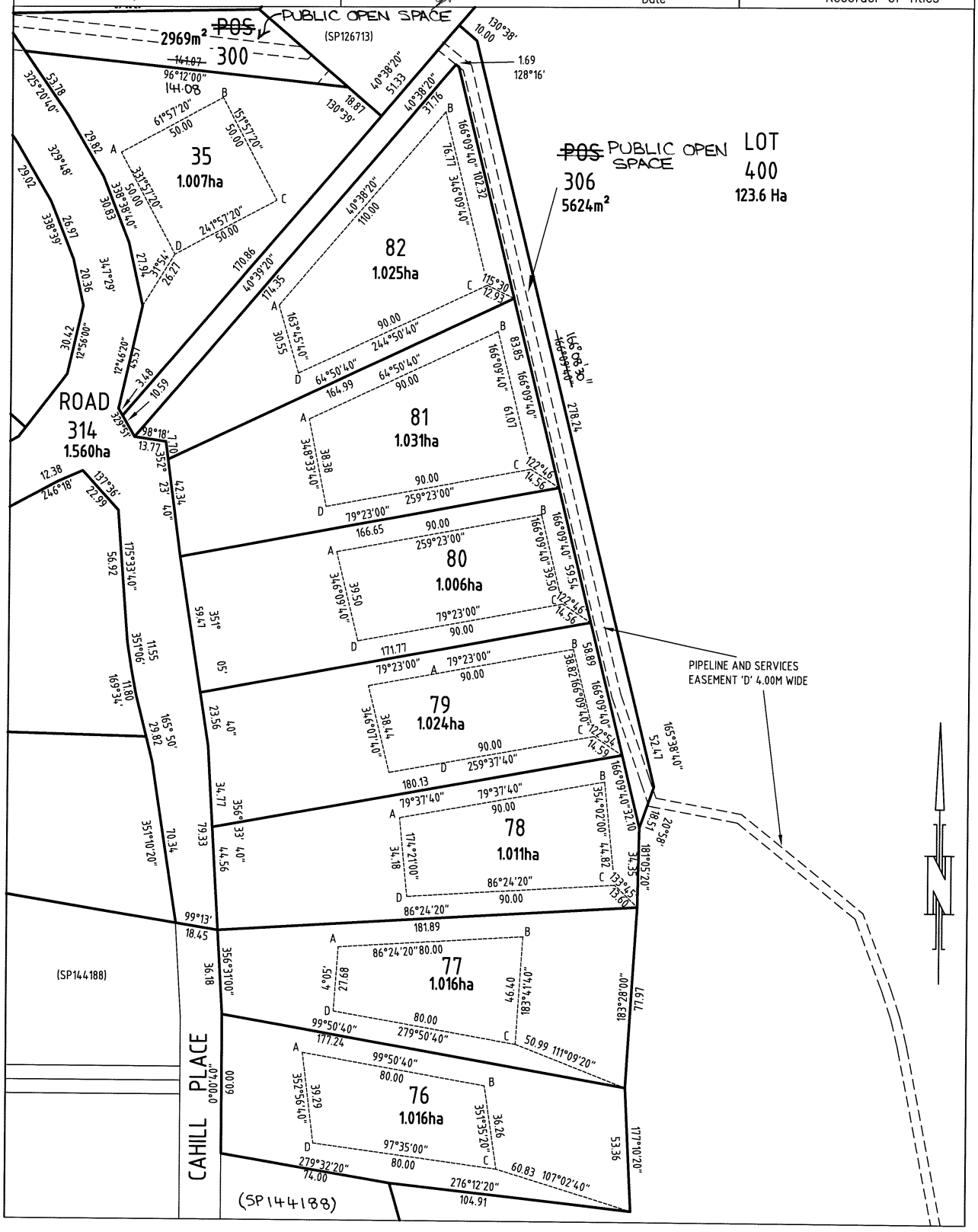
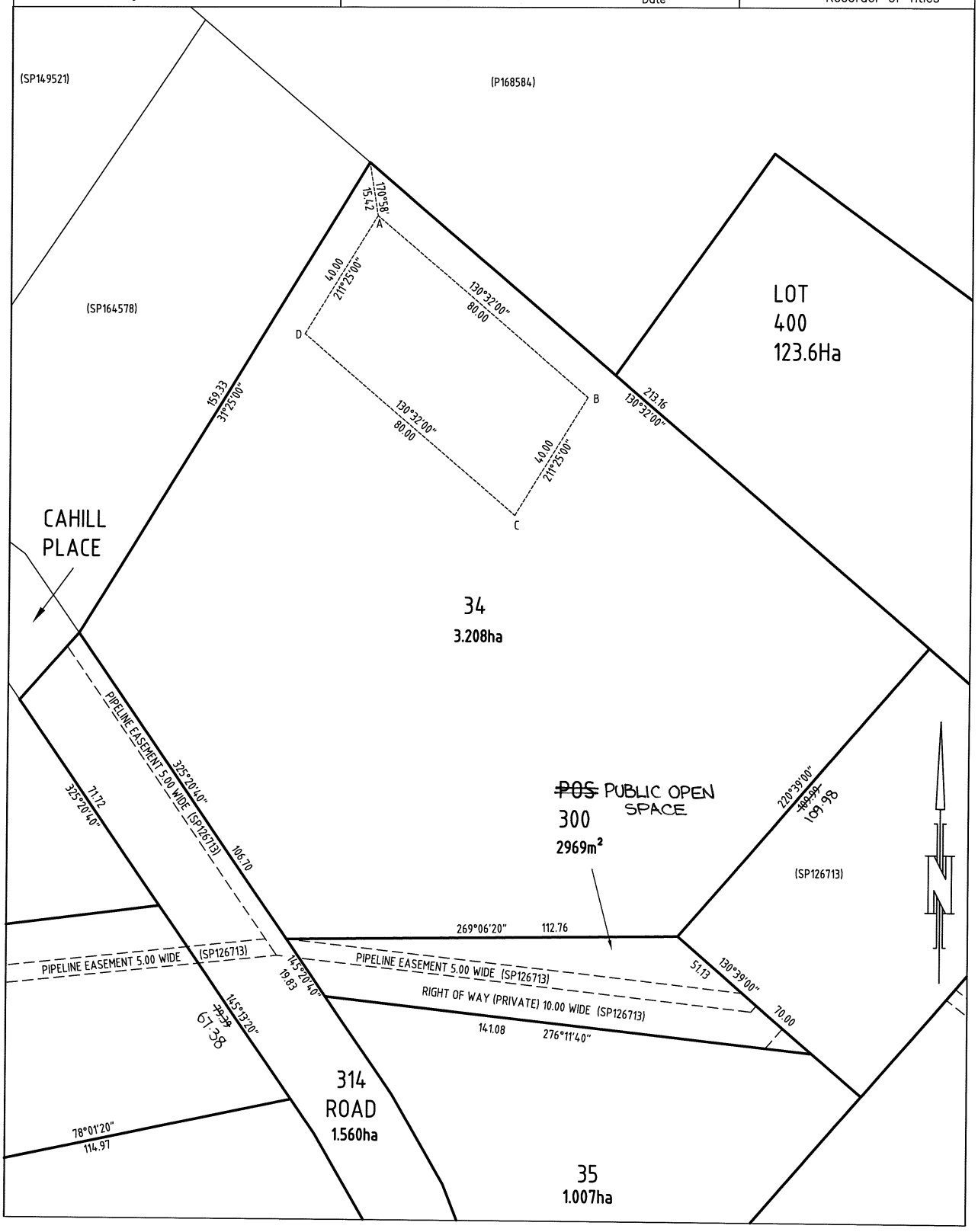


| PLAN OF SURVEY<br>ANNEXURE SHEET<br>SHEET 4 OF 7 SHEETS | OWNER TORONTO PASTORAL COY PTY LTD<br>FOLIO REFERENCE C.T.164580/1, C.T.168584/1<br>SCALE 1: 1000 LENGTHS IN METRES | Registered Number<br>SP 172346 |
|---|---|---|
| SIGNED FOR IDENTIFICATION PURPOSES<br>Council Delegate 14-12-16 Date | THIS ANNEXURE SHEET FORMS PART OF THE ATTACHED INDEX PLAN THE SURVEYORS CERTIFICATE EXTENDS TO THE DETAILS ON THIS SHEET<br>19-9-2016 Date | ~~APPROVED~~<br>EFFECTIVE FROM - 9 JAN 2017<br>Alice Kawa Recorder of Titles |



# PLAN OF SURVEY
ANNEXURE SHEET
SHEET 5 OF 7 SHEETS

OWNER TORONTO PASTORAL COY PTY LTD
FOLIO REFERENCE C.T.164580/1, C.T.168584/1
SCALE 1: 2000 LENGTHS IN METRES

Registered Number
SP172346

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Council Delegate 14-12-16 Date

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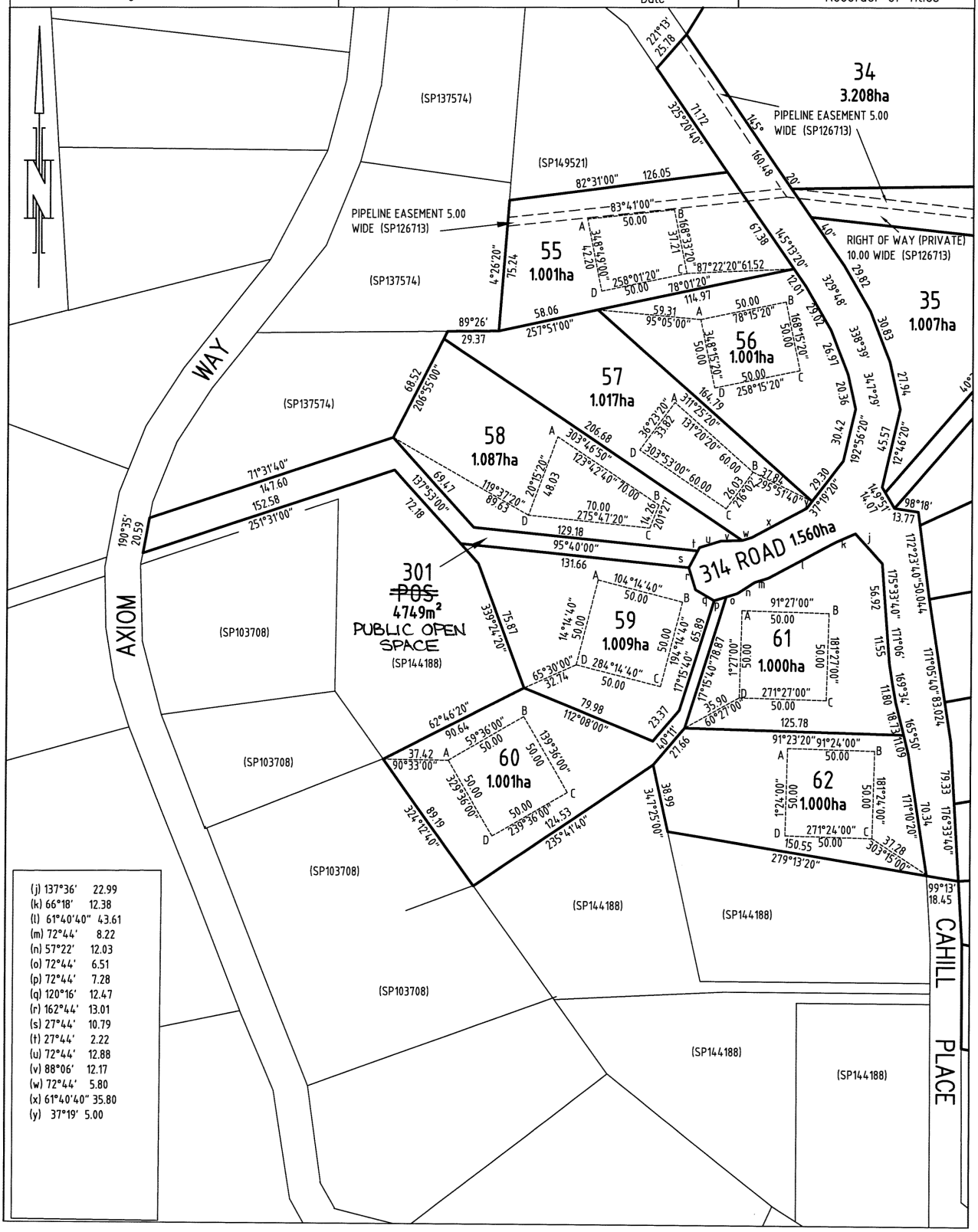

# PLAN OF SURVEY
ANNEXURE SHEET
SHEET 6 OF 7 SHEETS

OWNER TORONTO PASTORAL COY PTY LTD
FOLIO REFERENCE C.T.164580/1, C.T.168584/1
SCALE 1: 2500 LENGTHS IN METRES

Registered Number
SP 172346

SIGNED FOR IDENTIFICATION PURPOSES
Council Delegate 14-12-16 Date

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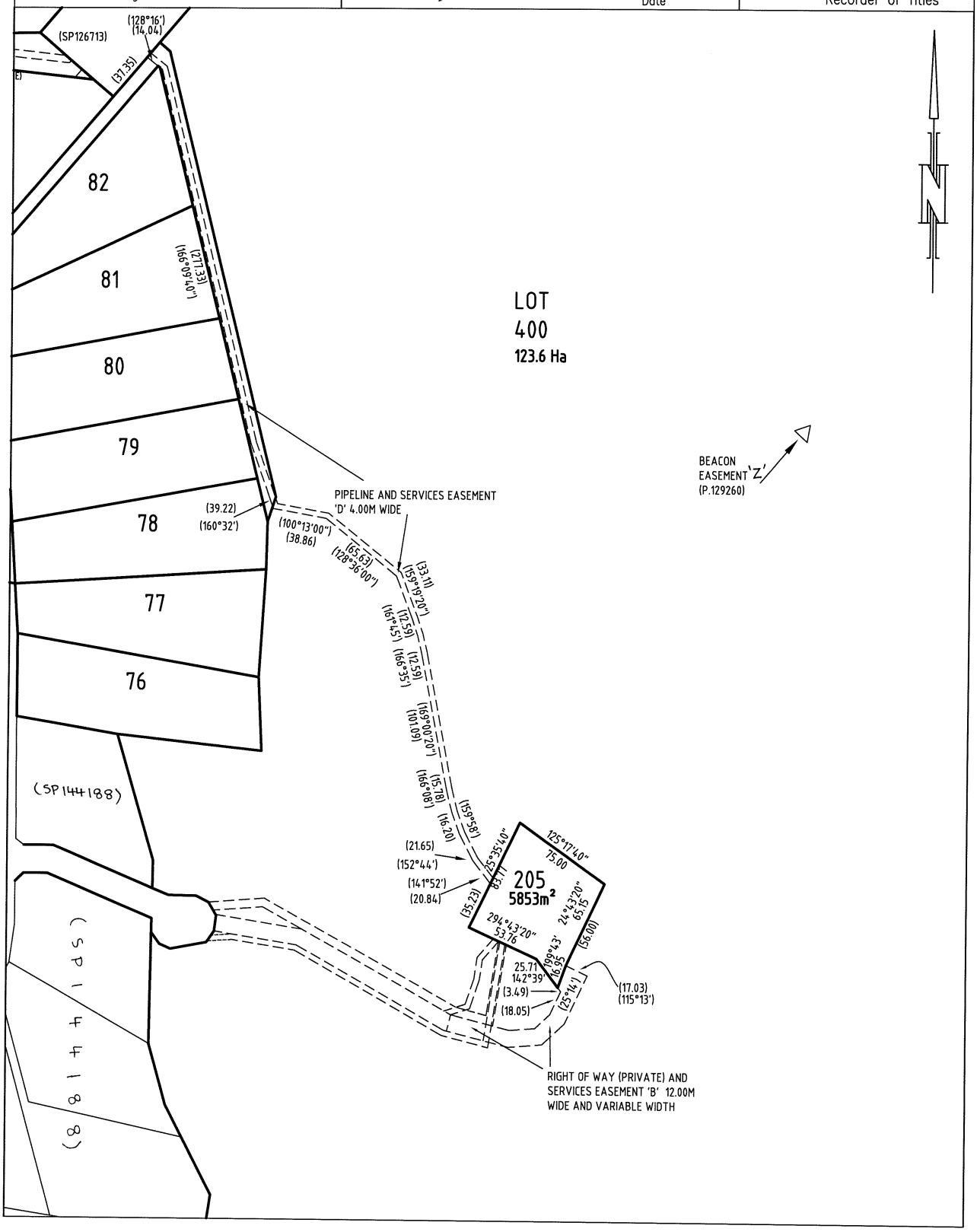

# PLAN OF SURVEY
ANNEXURE SHEET
SHEET 7 OF 7 SHEETS

OWNER TORONTO PASTORAL COY PTY LTD
FOLIO REFERENCE C.T.164580/1, C.T.168584/1
SCALE 1: 1000 LENGTHS IN METRES

Registered Number
SP 172346

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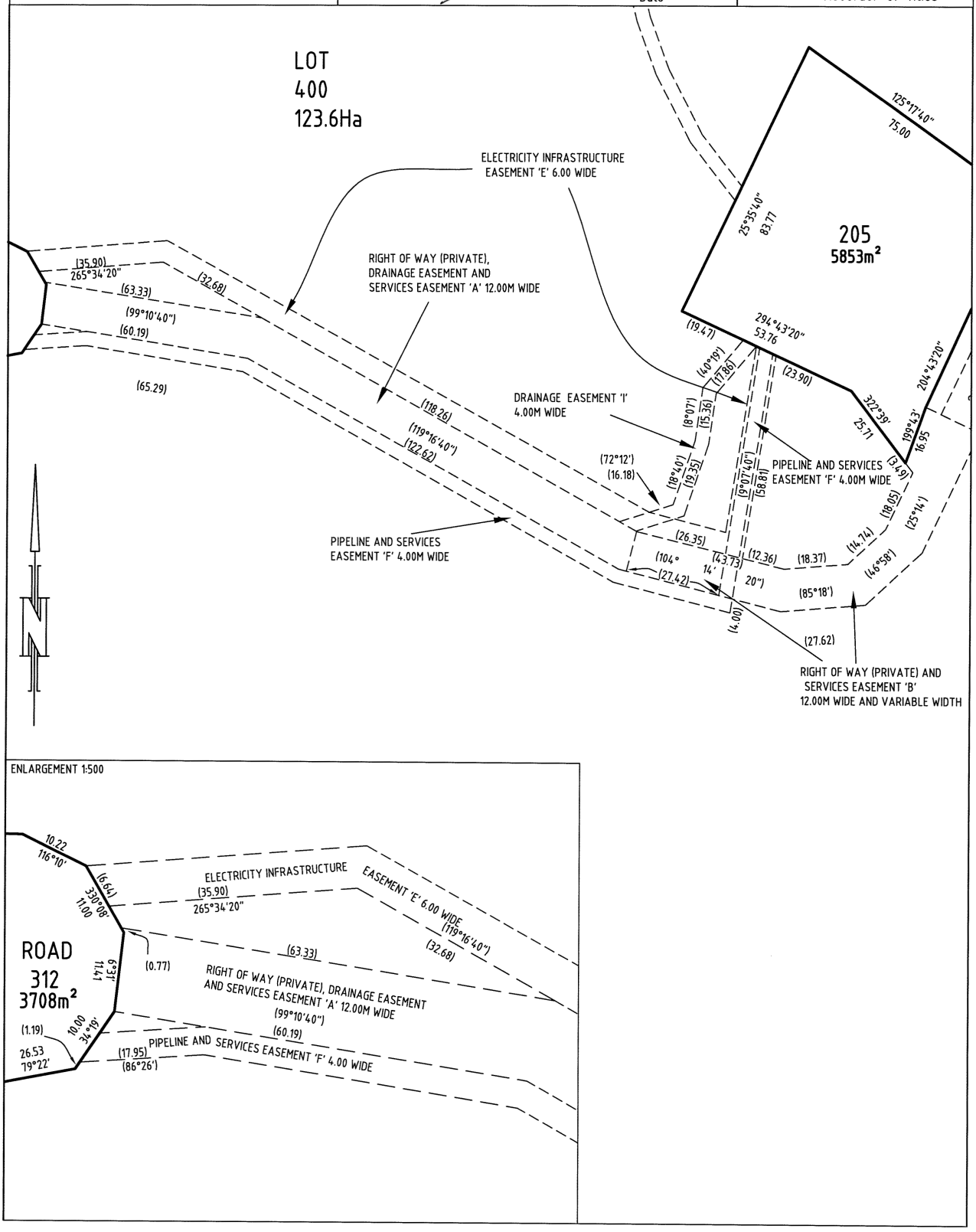

| SCHEDULE OF EASEMENTS | Registered Number |
|---|---|
| **NOTE:** THE SCHEDULE MUST BE SIGNED BY THE OWNERS & MORTGAGEES OF THE LAND AFFECTED. SIGNATURES MUST BE ATTESTED. | SP 172346 |



## EASEMENTS AND PROFITS

Each lot on the plan is together with:-
(1) such rights of drainage over the drainage easements shown on the plan (if any) as may be necessary to drain the stormwater and other surplus water from such lot; and
(2) any easements or profits a prendre described hereunder.
Each lot on the plan is subject to:-
(1) such rights of drainage over the drainage easements shown on the plan (if any) as passing through such lot as may be necessary to drain the stormwater and other surplus water from any other lot on the plan; and
(2) any easements or profits a prendre described hereunder.
The direction of the flow of water through the drainage easements shown on the plan is indicated by arrows.

**Electricity Infrastructure Easement in gross**
Lot 400 on the plan is SUBJECT TO an Electricity Infrastructure Easement in gross over that part of Lot 400 shown on the plan as "ELECTRICITY INFRASTRUCTURE EASEMENT 'E' 6.00 WIDE" in favour of the Water Corporation

**Right of Way in gross**
Lot 400 on the plan is SUBJECT TO a Right of Way Easement in gross over that part of Lot 400 shown on the plan as "RIGHT OF WAY (PRIVATE) 'A' DRAINAGE EASEMENT AND SERVICES EASEMENT 12.00 WIDE" in favour of the Water Corporation

Lot 400 on the plan is SUBJECT TO a Right of Way Easement in gross over that part of Lot 400 shown on the plan as "RIGHT OF WAY (PRIVATE) AND SERVICES EASEMENT 'B' 12.00 WIDE AND VARIABLE WIDTH" in favour of the Water Corporation

**Right of way**
Lot 300 on the plan is SUBJECT TO a right of carriage way over that part of Lot 300 shown on the plan as "RIGHT OF WAY (PRIVATE) 10.00 WIDE" appurtenant to lot 1 on Sealed Plan 126713 (subject to conditions more fully set forth in Sealed Plan 126713 (if any))

**Drainage Easement in gross**
Lot 400 on the plan is SUBJECT TO a right of drainage in gross over that part of Lot 400 shown on the plan as "RIGHT OF WAY (PRIVATE) 'A' DRAINAGE EASEMENT AND SERVICES EASEMENT 12.00 WIDE" in favour of the Water Corporation

Lot 400 on the plan is SUBJECT TO a right of drainage in gross over that part of Lot 400 shown on the plan as "DRAINAGE EASEMENT 'I' 4.00 WIDE" in favour of the Water Corporation

**Service Easement in gross**

(USE ANNEXURE PAGES FOR CONTINUATION)

| | |
|---|---|
| SUBDIVIDER: Toronto Pastoral Coy Pty Ltd<br>FOLIO REF: 164580/1 and 168584/1<br>SOLICITOR & REFERENCE: Dobson Mitchell Allport James Ramsay | PLAN SEALED BY: Clarence City Council<br>DATE: 14-12-2016<br>SD-2012/11<br>REF NO.<br>Council Delegate |

**NOTE:** The Council Delegate must sign the Certificate for the purposes of identification.

| ANNEXURE TO SCHEDULE OF EASEMENTS<br>PAGE 2 OF 6 PAGES | Registered Number<br>SP 172346 |
|---|---|
| SUBDIVIDER: Toronto Pastoral Coy Pty Ltd<br>FOLIO REFERENCE: 164580/1 and 168584/1 | |

Lot 400 on the plan is SUBJECT TO a Service Easement in gross over that part of Lot 400 shown on the plan as "RIGHT OF WAY (PRIVATE) 'A' DRAINAGE EASEMENT AND SERVICES EASEMENT 12.00 WIDE" in favour of the Water Corporation

Lot 400 on the plan is SUBJECT TO a Service Easement in gross over that part of Lot 400 shown on the plan as "RIGHT OF WAY (PRIVATE) AND SERVICES EASEMENT 'B' 12.00 WIDE AND VARIABLE WIDTH" in favour of the Water Corporation

**Pipeline and Services Easement** in gross
Lot 400 on the plan is SUBJECT TO a Pipeline and Services Easement in gross over that part of Lot 400 shown on the plan as "PIPELINE AND SERVICES EASEMENT 'F' 4.00 WIDE" in favour of the Water Corporation

Lot 306 and Lot 400 on the plan are SUBJECT TO a Pipeline and Services Easement in gross over that part of Lot 306 and Lot 400 shown on the plan as "PIPELINE AND SERVICES EASEMENT 'D' 4.00 WIDE" in favour of the Water Corporation

**Pipeline Easement** ¢ 300
Lot ~~35~~, 55 and 314 on the plan are SUBJECT TO pipeline rights (as defined therein and subject to conditions contained therein) for the Hobart Reginal Water Joint Authority over the "PIPELINE EASEMENT 5.00 WIDE" shown on the plan created by and more fully set forth in Dealing C81825 (subject to conditions (if any))

¢ 300
Lot ~~35~~, 55 and 314 on the plan are SUBJECT TO a pipeline rights (as defined therein and subject to conditions contained therein) right of carriage way over the "PIPELINE EASEMENT 5.00 WIDE" shown on the plan appurtenant to lot 1 on Sealed Plan 126713 (subject to conditions more fully set forth in Sealed Plan 126713 (if any))

**Beacon Easement**
Lot 400 on the plan is SUBJECT TO an aviation facility easement as defined therein for the benefit of Federal Airports Corporation over the "BEACON EASEMENT 'Z'" shown on the plan created by and more fully set forth in Dealing C108265 (subject to conditions (if any))

**Restrictive covenants**
The owners of Lot 34, 35, 55, 56, 57, 58, 59, 60, 61, 62, 76, 77, 78, 79, 80, 81 and 82 each covenant with the Vendor and the owners for the time being of every other lot shown on the plan and the Balance Land to the intent that the burden of this covenant may run with and bind the covenantor's Lot, and every part of it, and that the benefit of it may be annexed to and devolve with each and every part of every other lot shown on the plan (and with the Balance Land and each and every part of it) to observe the following stipulations:

1. NOT TO, without the consent of Council, erect or permit to be erected or permit to remain on a Lot any advertising signs of any type whatsoever PROVIDED THAT a sign indicating that a Lot is for sale will be permitted for a limited period;
2. NOT TO use reflective materials in the construction of any dwelling on a Lot nor to erect any shed or outbuilding of anything but non-reflective materials;

**NOTE:** Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.

| ANNEXURE TO SCHEDULE OF EASEMENTS<br>PAGE 3 OF 6 PAGES | Registered Number<br>SP 172346 |
|---|---|
| SUBDIVIDER: Toronto Pastoral Coy Pty Ltd<br>FOLIO REFERENCE: 164580/1 and 168584/1 | |

3. NOT TO construct a residential building on a Lot using materials other than general brick, weatherboard, finished rendered surface or masonry construction but the use of other timber or non-masonry materials used as in-fill panels will be permitted PROVIDED THAT these latter materials do not exceed 30 percent of the total external wall area;
4. NOT TO use galvanised iron or other reflective material in the construction of the roof of any dwelling or other structure on a Lot;
5. NOT TO construct a dwelling on a Lot that has a minimum floor area of less than 160 square metres which area does not include patios, garages or carports;
6. NOT TO permit vehicles with a Gross Vehicle Mass greater than 10 tonne to be parked, stored or allowed to remain on the Lot for in excess of six hours;
7. NOT TO store or allow to remain on a Lot any construction plant and equipment, transport equipment or salvage or building materials except where immediately required for use in the construction of a dwelling and associated infrastructure on a Lot;
8. NOT TO bring on a Lot any transportable house or a house relocated from another place;
9. NOT TO place or permit to remain on a Lot any water tank which has any external metal finish;
10. NOT TO place or permit to remain on a Lot any caravan, shed or other structure (excluding dwellings) to be used as a permanent residence provided that a caravan, shed or other structure may be utilised for a period not exceeding one year during the construction of a permanent dwelling or residence;
11. NOT TO, without the consent of Council, conduct any trade or business on a Lot PROVIDED THAT the letting for residential purposes of the whole of any dwelling erected on a Lot will not be in contravention of this stipulation;
12. NOT TO use colourbond and/or cedar boards as the main materials in the construction of a residential dwelling; and
13. NOT TO construct any building or part of a building on the Lot outside the building envelope area marked A, B, C, D on the plan unless otherwise approved by Council.

**Fencing provision**
In respect of each Lot shown on the plan the Vendor will not be required to fence

**Definitions**
**Balance Land** means the balance of the land remaining in folios of the Register Volume 164580 Folio 1 and Volume 168584 Folio 1 at the date of acceptance of the plan excepting Lots 34, 35, 55, 56, 57, 58, 59, 60, 61, 62, 76, 77, 78, 79, 80, 81, 82, 205, 300, 301, 306, 312, 314 and 400 on the plan

**Council** means the Clarence City Council or its legal successors from time to time

**Electricity Infrastructure Easement** means the full right and liberty for the Water Corporation and its employees, agents and contractors and all other persons duly authorised by it to enter and remain upon the Electricity Infrastructure Easement Land with or without machinery and materials, to install, inspect, maintain, repair and replace pipes, valves, pumps, sewers, poles, electrical power lines, wires, cables and other conducting media and ancillary infrastructure of such size and number as from time to time may be required in or on the Electricity Infrastructure Easement Land, provided that the rights granted are

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| ANNEXURE TO SCHEDULE OF EASEMENTS<br>PAGE 4 OF 6 PAGES | Registered Number<br>SP 172346 |
|---|---|
| SUBDIVIDER: Toronto Pastoral Coy Pty Ltd<br>FOLIO REFERENCE: 164580/1 and 168584/1 | |

exercised in a proper manner so as to cause as little inconvenience as possible and to do as little damage as practicable to the Electricity Infrastructure Easement Land.

**Electricity Infrastructure Easement Land** means the land subject to an Electricity Infrastructure Easement.

**Pipeline and Services Easement** means the full right and liberty for the Water Corporation at all times to:

(a) enter and remain upon the land marked as PIPELINE AND SERVICES EASEMENT 'F' 4.00 WIDE and PIPELINE AND SERVICES EASEMENT 'D' 4.00 WIDE on the plan (**Pipeline and Services Easement Land**) with or without employees, contractors, agents and all other persons duly authorised by it and with or without machinery, vehicles, plant and equipment;

(b) investigate, take soil, rock and other samples, survey, open and break up and excavate the Pipeline and Services Easement Land for any purpose or activity that Water Corporation is authorised to do or undertake;

(c) install, retain, operate, modify, relocate, maintain, inspect, cleanse and repair the Infrastructure;

(d) remove and replace the Infrastructure;

(e) run and pass sewage, water and electricity through and along the Infrastructure;

(f) do all works reasonably required in connection with such activities or as may be authorised or required by any law:

  (i) without doing unnecessary damage to the Pipeline and Services Easement Land; and

  (ii) leaving the Pipeline and Services Easement Land in a clean and tidy condition; and

(g) if the Pipeline and Services Easement Land is not directly accessible from a highway, then for the purpose of undertaking any of the preceding activities Water Corporation may with or without employees, contractors, agents and all other persons authorised by it, and with or without machinery, vehicles, plant and equipment enter the Lot from the highway at any then existing vehicle entry and cross the Lot to the Pipeline and Services Easement Land; and

(h) use the Pipeline and Services Easement Land as a right of carriage way for the purpose of undertaking any of the proceeding purposes om the other land, the Water Corporation reinstating any damage it causes in doing so to any boundary fence on the Lot.

PROVIDE ALWAYS THAT:

(i) The registered proprietors of the Pipeline and Services Easement Land (**Owner**) must not without the written consent of the Water Corporation first had and obtained (which cannot be unreasonably refused) and only in compliance with any conditions which form the consent:

  (i) alter, excavate, plough, drill or otherwise penetrate the ground level of the Pipeline and Services Easement Land;

  (ii) install, erect or plant any building, structure, fence, pit, well, footing, pipeline, paving, tree, shrub or other object on or in the Pipeline and Services Easement Land;

**NOTE:** Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.

| ANNEXURE TO SCHEDULE OF EASEMENTS<br>PAGE 5 OF 6 PAGES | Registered Number<br>SP172346 |
|---|---|
| SUBDIVIDER: Toronto Pastoral Coy Pty Ltd<br>FOLIO REFERENCE: 164580/1 and 168584/1 | |

(iii) remove any thing that supports, protects or covers any Infrastructure on or in the Pipeline and Services Easement Land;

(iv) do any thing which will or might damage or contribute to damage to any of the Infrastructure on or in the Pipeline and Services Easement Land;

(v) in any way prevent or interfere with the proper exercise and benefit of the Pipeline and Services Easement Land by the Water Corporation or its employees, contractors, agents and all other persons duly authorised by it; or

(vi) permit or allow any action which the Owner must not do or acquiesce in that action.

(j) The Water Corporation is not required to fence any part of the Pipeline and Services Easement Land.

(k) The Owner may erect a fence across the Pipeline and Services Easement Land at the boundaries of the Lot.

(l) The Owner may erect a gate across any part of the Pipeline and Services Easement Land subject to these conditions:

(i) the Owner must provide the Water Corporation with a key to any lock which would prevent the opening of the gate; and

(ii) if the Owner does not provide the Water Corporation with that key or the key provided does not fit the lock, the Water Corporation may cut the lock from the gate.

(m) If the Owner causes damage to any of the Infrastructure, the Owner is liable for the actual cost to the Water Corporation of the repair of the Infrastructure damaged.

(n) If the Owner fails to comply with any of the preceding conditions, without forfeiting any right of action, damages or otherwise against the Owner, the Water Corporation may:

(i) reinstate the ground level of the Pipeline and Services Easement Land; or

(ii) remove from the Pipeline and Services Easement Land any building, structure, pit, well, footing, pipeline, paving, tree, shrub or other object; or

(iii) replace any thing that supported, protected or covered the Infrastructure.

For the purposes of this definition **Infrastructure** means infrastructure owned or for which the Water Corporation is responsible and includes but is not limited to:

(a) sewer pipes and water pipes and associated valves;

(b) telemetry and monitoring devices;

(c) inspection and access pits;

(d) power poles and lines, electrical wires, electrical cables and other conducting media (excluding telemetry and monitoring devices);

(e) markers or signs indicating the location of the Pipeline and Services Easement Land, the Infrastructure or any warnings or restrictions with respect to the Pipeline and Services Easement Land or the Infrastructure;

(f) any thing reasonably required to support, protect or cover any of the Infrastructure;

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| ANNEXURE TO SCHEDULE OF EASEMENTS<br>PAGE 6 OF 6 PAGES | Registered Number<br>SP172346 |
|---|---|
| SUBDIVIDER: Toronto Pastoral Coy Pty Ltd<br>FOLIO REFERENCE: 164580/1 and 168584/1 | |

(g) any other infrastructure whether of a similar nature or not to the preceding which is reasonably required for the piping of sewage or water, or the running of electricity, through the Pipeline and Services Easement Land or monitoring or managing that activity; and

(h) where the context permits, any part of the Infrastructure.

**Right of carriage way** has the meaning given to it in the *Conveyancing and Law of Property Act 1884* (Tas).

**Right of drainage** has the meaning given to it in the *Conveyancing and Law of Property Act 1884* (Tas).

**Right of Way Easement** means the full and free right for the Water Corporation to go, pass and repass over the Right of Way Easement Land at all times and for all purposes, with every person authorised by it and with machinery, vehicles, plant and equipment.

**Right of Way Easement Land** means the land subject to a Right of Way Easement.

**Service Easement** means the full right and liberty for the Water Corporation and its employees, agents and contractors and all other persons duly authorised by it to enter and remain upon the Service Easement Land with or without machinery and materials, to install, inspect, maintain, repair and replace pipes, valves, pumps, sewers, poles, electrical power lines, wires, cables and other conducting media and ancillary infrastructure of such size and number as from time to time may be required in or on the Service Easement Land, provided that the rights granted are exercised in a proper manner so as to cause as little inconvenience as possible and to do as little damage as practicable to the Service Easement Land.

**Service Easement Land** means the land subject to a Service Easement.

**Vendor** means Toronto Pastoral Coy Pty Ltd (ACN 009 480 086) or its legal successors from time to time

**Water Corporation** means the Tasmanian Water & Sewerage Corporation Pty Ltd (ACN 162 220 653) and its legal successors from time to time

Executed by **Toronto Pastoral Coy Pty Ltd** in accordance with section 127(1) of the *Corporations Act* 2001 )

Andrew John Farrell
Full name:
Position held: Director

Full name: CRAIG BRADLEY ROGERSON
Position held: DIRECTOR.

**NOTE:** Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.

| SHEET | NAME |
|---|---|
| | DRAWING INDEX & NOTES |
| A01 | SITE PLAN |
| A02 | PART SITE PLAN |
| A03 | EXISTING & DEMOLITION PLAN |
| A04 | PROPOSED PLAN |
| A05 | EXISTING ELEVATIONS |
| A06 | PROPOSED ELEVATIONS 01 |
| A07 | PROPOSED ELEVATIONS 02 |
| A08 | ROOF PLAN |
| A09 | SCHEDULES |
| A10 | PERSPECTIVES 01 |
| A11 | PERSPECTIVES 02 |
| A12 | PERSPECTIVES 03 |
| A13 | PHOTOMONTAGE |
| A14 | BAL-19 + GENERAL NOTES |
| A15 | EXISTING CONDITIONS |

# ALTERATIONS & ADDITIONS

| | |
|---|---|
| PROPERTY IDENTIFICATION NUMBER: | 3487440 |
| CERTIFICATE OF TITLE REFERENCE: | 172346/76 |
| EXISTING BUILDING: | 148.35M² |
| EXISTING SHED: | 74.63M² |
| PROPOSED ADDITION: | 167.06M² |
| PROPOSED ALFRESCO: | 22.26M² |
| PROPOSED PORCH 1: | 3.97M² |
| PROPOSED PORCH 2: | 9.61M² |
| BUILDING FOOTPRINT: | 425.88M² |
| SITE AREA: | 10160M² |
| PLOT RATIO: | 4.19% |
| SOIL CLASSIFICATION: | CLASS M |
| REGION: | A |
| TERRAIN CATEGORY: | TC2.5 |
| SHIELDING CLASSIFICATION: | NS |
| TOPOGRAPHIC CLASSIFICATION: | T2 |
| WIND CLASSIFICATION: | N3 |
| DESIGN WIND GUST SPEED (V H,U): | 50 M/SEC |
| NCC CLIMATE ZONE: | 7 |
| BUSHFIRE ATTACK LEVEL: | BAL-19 |

## JEFFREY & KELLIE SALTER
## 66 CAHILL PLACE, ACTON PARK

NOTE: 3D VIEWS ARE FOR ILLUSTRATIVE PURPOSES ONLY AND NOT AS PART OF THE CONSTRUCTION DOCUMENTS


ACCREDITED PRACTITIONER:

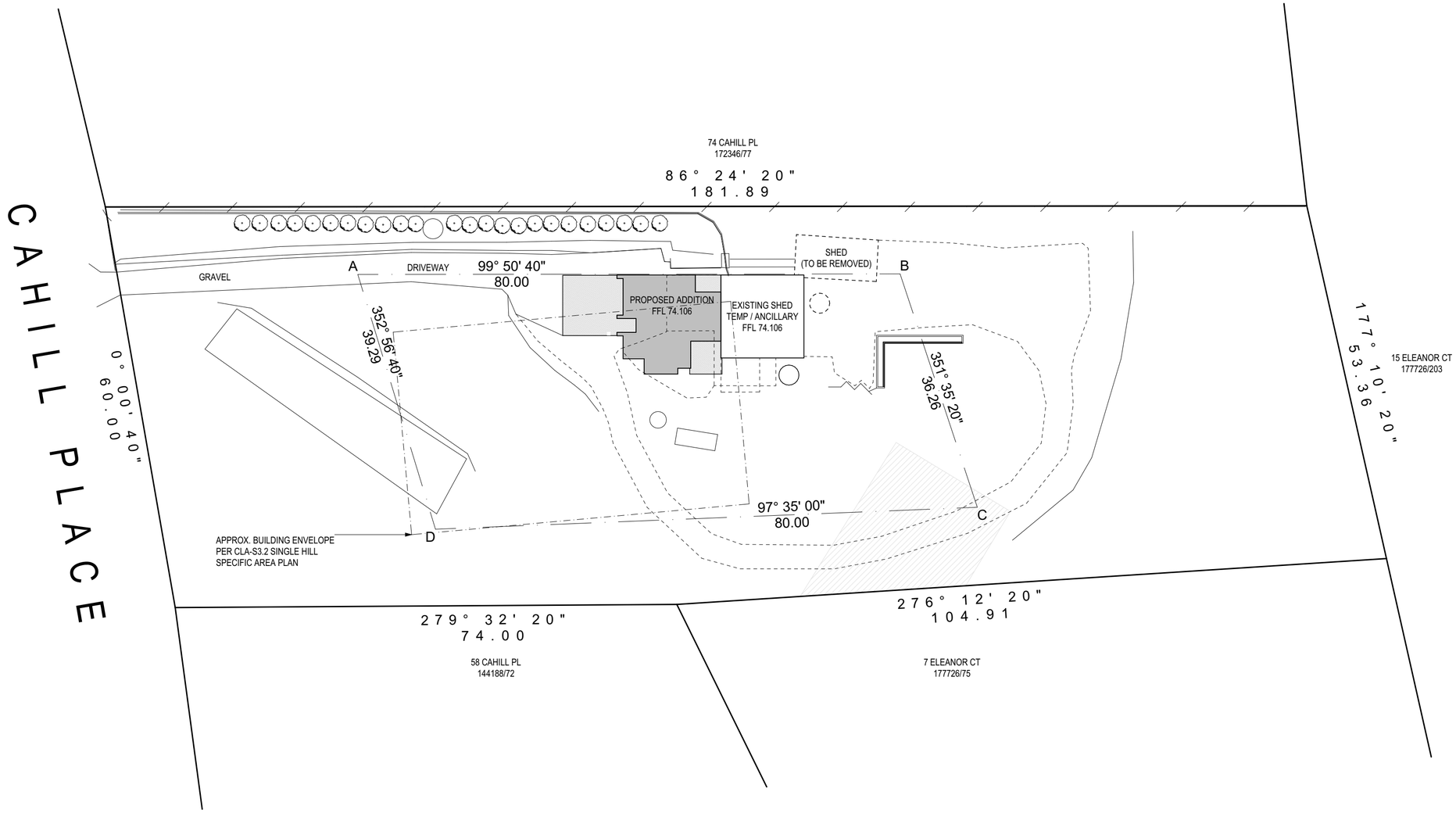
| | |
|---|---|
| NAME: | BOB MIROWSKI |
| REG: | CC435O |
| ADDRESS: | 157 CAMPBELL ST, HOBART 7000 |
| PHONE: | (03) 6231 3888 |
| ABN: | 25 009 570 843 |
| WEB: | BMDC.COM.AU |
| E-MAIL: | ADMIN@BMDC.COM.AU |

MIROWSKI
DESIGN & CONSTRUCTION
BRIGHTER BUILDING IDEAS

**GENERAL NOTES:**
ALL CONSTRUCTION WORK AND MATERIALS SHALL COMPLY WITH STATE BUILDING REGULATIONS, RELEVENT CODES, LOCAL COUNCIL BY-LAWS AND RELEVANT NCC 2022 CODES

BUILDER TO VERIFY ALL DIMENSIONS AND LEVELS PRIOR TO COMMENCING CONSTRUCTION.

USE WRITTEN DIMENSIONS - DO NOT SCALE




**SITE INFORMATION:**

| | |
|---|---|
| PROPERTY IDENTIFICATION NUMBER: | 3487440 |
| CERTIFICATE OF TITLE REFERENCE: | 172346/76 |
| BUILDING FOOTPRINT: | 425.88M² |
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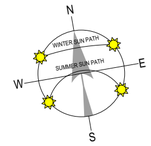




AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

SITE PLAN

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| 1:500 AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A01 |

0 10 20M

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74 CAHILL PL
172346/77

EXISTING GRAVEL SURFACE AND ROCK PERIMETER WHERE PRESENT, INSTALLED OVER NATURAL SURFACE LEVELS AND USED FOR TEMPORARY ACCESS TO BE REMOVED FROM SITE. REHABILITATE LAND TO NATURAL GRASSED CONDITION TO ELIMINATE POTENTIAL IMPACTS CAUSED BY EROSION, SILTATION, SEDIMENTATION & RUNOFF TO ALLOW NATURAL FLOW AND DRAINAGE TO MEET THE REQUIREMENTS OF C7.6.1 P1.1 & C12.6.1 P1.1 OF THE PLANNING SCHEME (REFER A16 FOR PHOTOS OF EXISTING DRIVEWAY CONDITIONS)

86° 24' 20"
181.89

EXISTING WATER TANK FOR FIRE FIGHTING

WATER, COMMS & POWER UNDERGROUND (APPROX LOCATION)

SIDE SETBACK 10.131

EXISTING 800MM HIGH TIMBER RETAINING WALL

STEPS

EXISTING 1000MM HIGH TIMBER RETAINING WALL

CONNECT TO STORMWATER AT EXISTING DOWNPIPE LOCATION

SHED (TO BE REMOVED)

SPOON

DRAIN

DRIVEWAY

A

B

99° 50' 40"
80.00

PROPOSED PORCH FFL 74.031

PROPOSED ADDITION FFL 74.106

MINIMUM 8.0M x 8.0M SEALED DRIVEWAY AREA

CONCRETE (TO BE REMOVED)

EXISTING SHED TEMP / ANCILLARY FFL 74.106

WATER TANK TO BE MOVED TO THE SOUTHERN SIDE OF THE HOUSE

EXISTING 2000MM HIGH CONCRETE BLOCK RETAINING WALL REDUCED TO 1000MM HIGH BY INSTALLING A NEW 1000MM HIGH RETAINING WALL INFRONT WITH 1000MM SEPERATION BETWEEN AS PER CLA-S3.7.2 A2 OF THE PLANNING SCHEME

352° 56' 40"
39.29

71.090
FRONT SETBACK

PROPOSED ALFRESCO FFL 74.031

CONCRETE (TO BE REMOVED)

TANK

GRASSED AREA

PROPOSED 1000MM HIGH CONCRETE BLOCK RETAINING WALL WITH MINIMUM 1000MM HORIZONTAL SEPERATION BETWEEN WALLS AS PER CLA-S3.7.2 A2 OF THE PLANNING SCHEME

351° 35' 20"
36.26

BUILDING ENVELOPE

RUBBER MATTING (TO BE REMOVED)

LEANTO (TO BE REMOVED)

RELOCATED EXISTING 14,000L WATER TANK WITH MIN 2,500L FREE VOLUME FOR GARDEN WATERING

EXISTING 1000MM HIGH TIMBER RETAINING WALL

CONTAINER

EXISTING WASTE-WATER TREATMENT SYSTEM

CUT OFF DRAIN

SOAKAGE AREA

SIDE SETBACK 34.007

18M x 2M x 0.6M STORMWATER ABSORPTION TRENCH, REFER GEO-ENVIRONMENTAL ASSESSMENT

WATERWAY AND COASTAL PROTECTION AREA

97° 35' 00"
80.00

C

D

APPROX. BUILDING ENVELOPE PER CLA-S3.2 SINGLE HILL SPECIFIC AREA PLAN

276° 12' 20"
104.91

279° 32' 20"
74.00

EXISTING GRAVEL SURFACE AND ROCK PERIMETER WHERE PRESENT, INSTALLED OVER NATURAL SURFACE LEVELS AND USED FOR TEMPORARY ACCESS TO BE REMOVED FROM SITE. REHABILITATE LAND TO NATURAL GRASSED CONDITION TO ELIMINATE POTENTIAL IMPACTS CAUSED BY EROSION, SILTATION, SEDIMENTATION & RUNOFF TO ALLOW NATURAL FLOW AND DRAINAGE TO MEET THE REQUIREMENTS OF C7.6.1 P1.1 & C12.6.1 P1.1 OF THE PLANNING SCHEME (REFER A16 FOR PHOTOS OF EXISTING DRIVEWAY CONDITIONS)

58 CAHILL PL
144188/72

7 ELEANOR CT
177726/75

**SITE INFORMATION:**

| | |
|---|---|
| PROPERTY IDENTIFICATION NUMBER: | 3487440 |
| CERTIFICATE OF TITLE REFERENCE: | 172346/76 |
| BUILDING FOOTPRINT: | 425.88M² |
| SITE AREA: | 10160M² |
| PLOT RATIO: | 4.19% |


MIROWSKI
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BRIGHTER BUILDING IDEAS

ACCREDITED PRACTITIONER:
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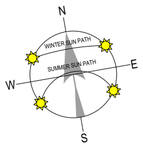




AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

# PART SITE PLAN

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| 1:200 AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A02 |

0 4 8M

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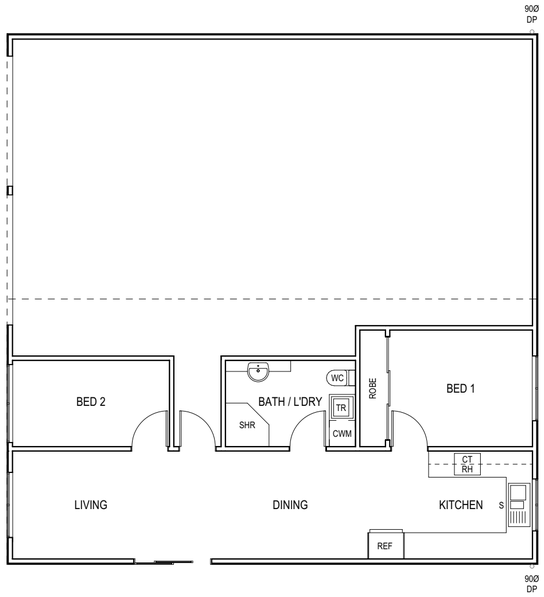
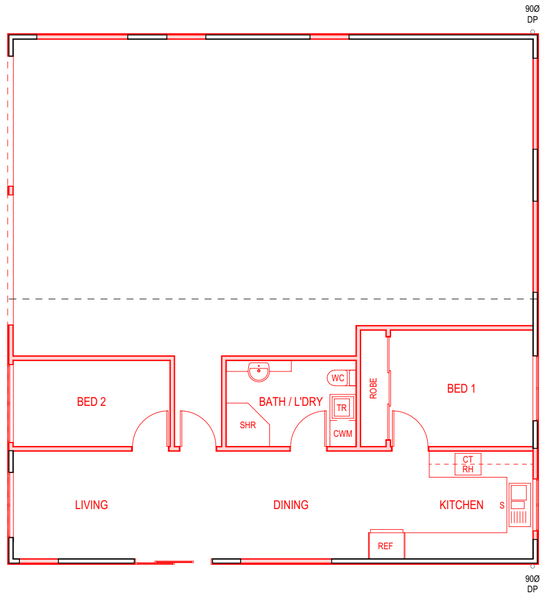



## EXISTING PLAN




## DEMOLITION PLAN

**LEGEND:**

| | |
|---|---|
| | DEMOLISHED WALLS |
| | EXISTING WALLS |
| B | BASIN |
| BTH | BATH |
| CBD | CUPBOARD |
| CT | COOKTOP |
| DP | DOWNPIPE |
| CWM | CLOTHES WASHING MACHINE |
| DWM | DISH WASHING MACHINE |
| DR | DRYER |
| MW | MICROWAVE |
| P'TRY | PANTRY |
| RH | RANGEHOOD |
| REF | REFRIGERATOR |
| S | SINK |
| SHR | SHOWER |
| SL | SKYLIGHT |
| TR | TROUGH |
| WC | TOILET |
| WO | WALL OVEN |

**FLOOR AREA:**
EXISTING BUILDING 148.35M²


MIROWSKI
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BRIGHTER BUILDING IDEAS

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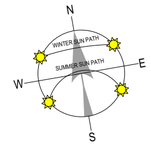




AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:
EXISTING & DEMOLITION PLAN

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| 1:100 AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A03 |

0 2 4M

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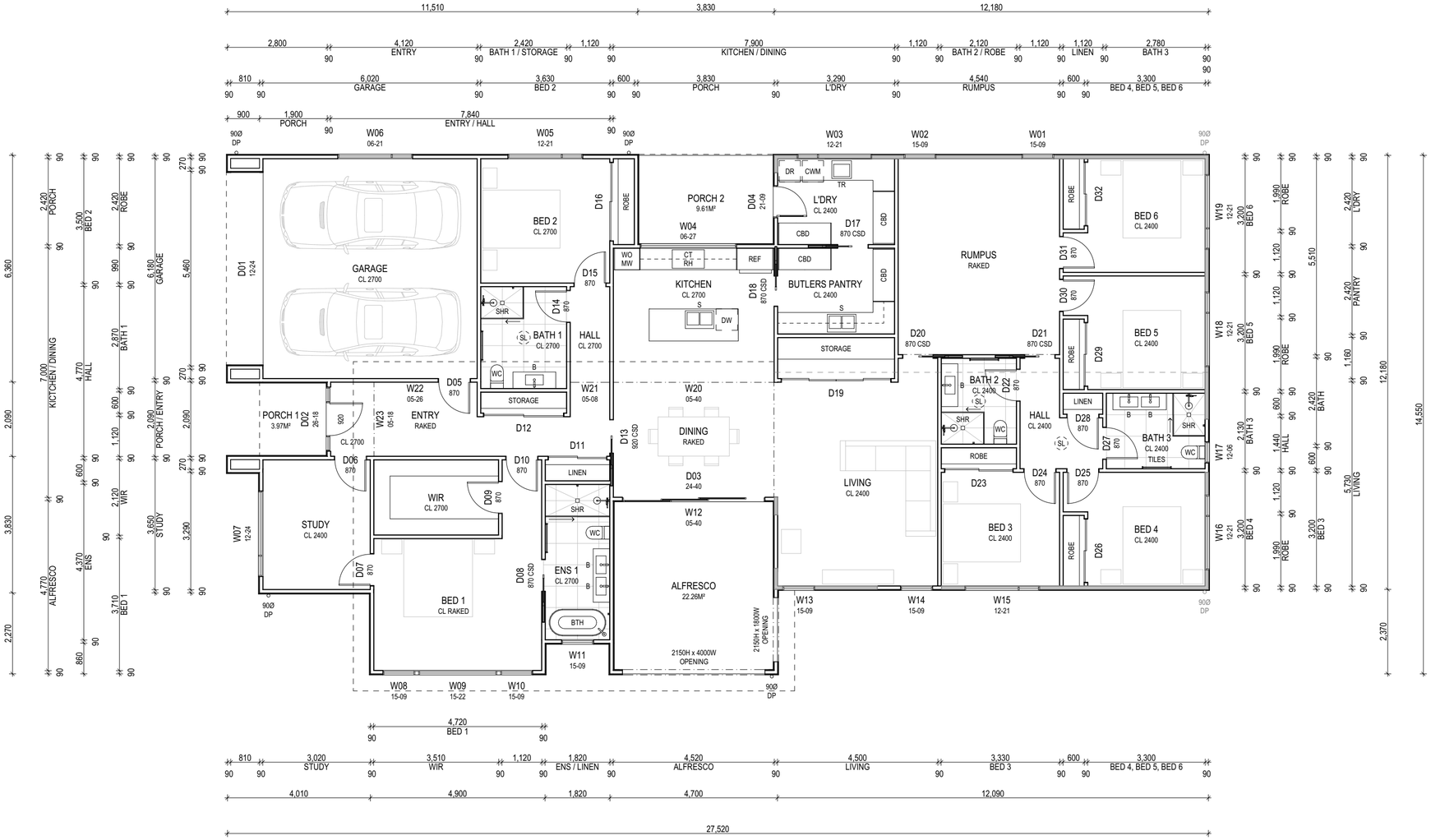
USE WRITTEN DIMENSIONS - DO NOT SCALE




**LEGEND:**

| | |
|---|---|
| | NEW WALLS |
| | EXISTING WALLS |
| B | BASIN |
| BTH | BATH |
| CBD | CUPBOARD |
| CT | COOKTOP |
| DP | DOWNPIPE |
| CWM | CLOTHES WASHING MACHINE |
| DWM | DISH WASHING MACHINE |
| DR | DRYER |
| MW | MICROWAVE |
| P'TRY | PANTRY |
| RH | RANGEHOOD |
| REF | REFRIGERATOR |
| S | SINK |
| SHR | SHOWER |
| SL | SKYLIGHT |
| TR | TROUGH |
| WC | TOILET |
| WO | WALL OVEN |

**FLOOR AREA:**

| | |
|---|---|
| EXISTING BUILDING | 148.35M² |
| PROPOSED ADDITION | 167.06M² |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BRIGHTER BUILDING IDEAS

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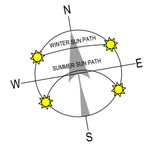




AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

# PROPOSED PLAN

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| 1:100 AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A04 |

0 2 4M

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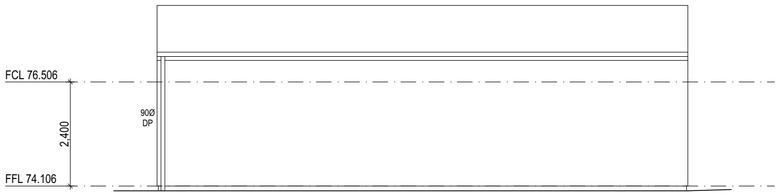
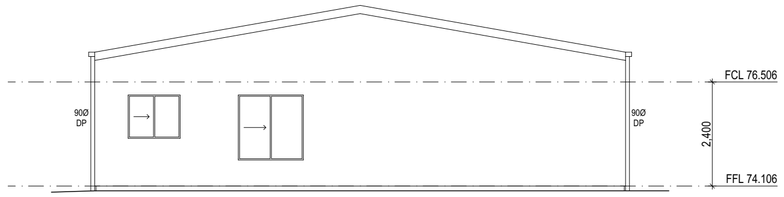
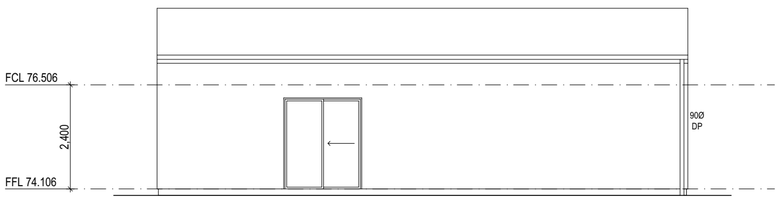


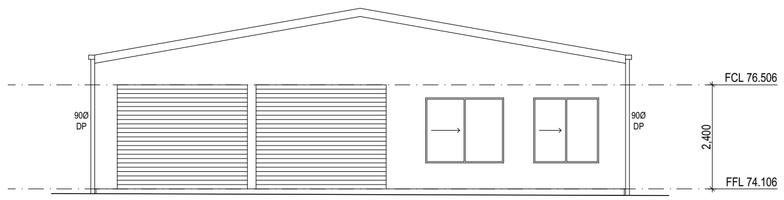

## NORTH ELEVATION




## EAST ELEVATION




## SOUTH ELEVATION




## WEST ELEVATION

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BRIGHTER BUILDING IDEAS

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EMAIL: ADMIN@BMDC.COM.AU



AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

EXISTING ELEVATIONS

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| 1:100 AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A05 |

0 2 4M

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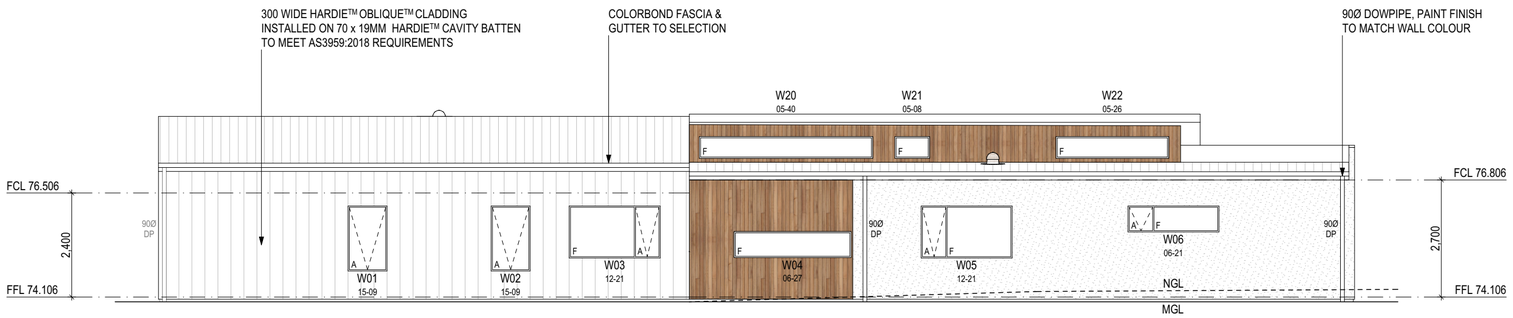
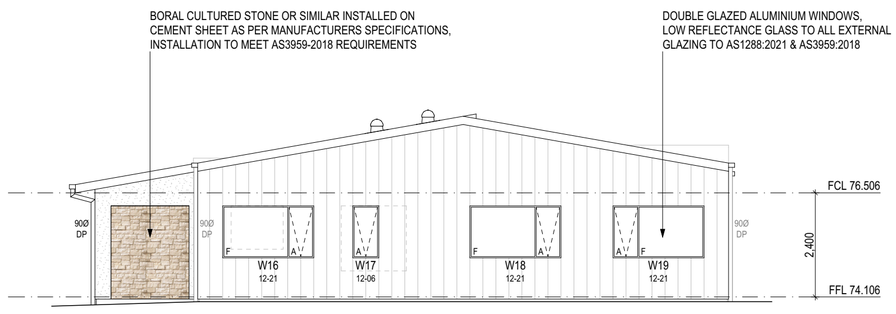
BUILDER TO VERIFY ALL DIMENSIONS AND LEVELS PRIOR TO COMMENCING CONSTRUCTION.

USE WRITTEN DIMENSIONS - DO NOT SCALE




## NORTH ELEVATION




## EAST ELEVATION

**MATERIAL & COLOUR SCHEDULE**

| ELEMENT | MATERIAL | COLOUR |
|---|---|---|
| WALL CLADDING | SILVERTOP ASH / BLACKBUTT | NATURAL STAIN |
| WALL CLADDING | HARDIE™ OBLIQUE™ | BLACK - PAINT |
| WALL CLADDING | HARDIE™ TEX BASE SHEET | BLACK - RENDER |
| DOWNPIPES | UPVC | BLACK |
| ROOF | COLORBOND TRIMDEK | NIGHT SKY |
| FASCIA | COLORBOND NOVALINE | NIGHT SKY |
| GUTTER | COLORBOND QUAD - SLOTTED | NIGHT SKY |
| EAVES | CEMENT SHEET | WHITE - PAINT |
| WINDOWS & DOORS | ALUMINIUM | BLACK |
| GARAGE DOOR | SILVERTOP ASH / BLACKBUTT | NATURAL STAIN |

MIROWSKI
DESIGN & CONSTRUCTION
BRIGHTER BUILDING IDEAS

ACCREDITED PRACTITIONER:
NAME: BOB MIROWSKI
REG: CC435O
ADDRESS: 157 CAMPBELL ST, HOBART 7000
PHONE: (03) 6231 3888
ABN: 25 009 570 843
WEB: BMDC.COM.AU
EMAIL: ADMIN@BMDC.COM.AU



AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

PROPOSED ELEVATIONS 01

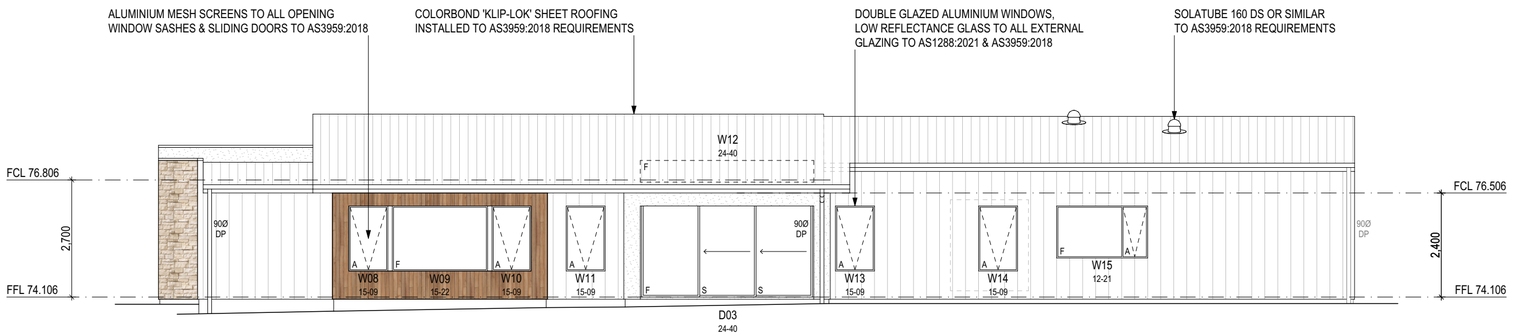
| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| 1:100 AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A06 |

0 2 4M

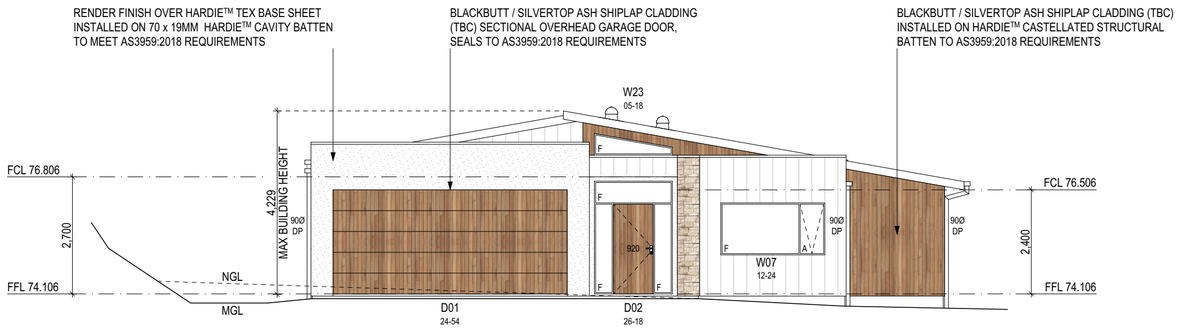
**GENERAL NOTES:**
ALL CONSTRUCTION WORK AND MATERIALS SHALL COMPLY WITH STATE BUILDING REGULATIONS, RELEVENT CODES, LOCAL COUNCIL BY-LAWS AND RELEVANT NCC 2022 CODES

BUILDER TO VERIFY ALL DIMENSIONS AND LEVELS PRIOR TO COMMENCING CONSTRUCTION.

USE WRITTEN DIMENSIONS - DO NOT SCALE




## SOUTH ELEVATION




## WEST ELEVATION

**MATERIAL & COLOUR SCHEDULE**

| ELEMENT | MATERIAL | COLOUR |
|---|---|---|
| WALL CLADDING | SILVERTOP ASH / BLACKBUTT | NATURAL STAIN |
| WALL CLADDING | HARDIE™ OBLIQUE™ | BLACK - PAINT |
| WALL CLADDING | HARDIE™ TEX BASE SHEET | BLACK - RENDER |
| DOWNPIPES | UPVC | BLACK |
| ROOF | COLORBOND TRIMDEK | NIGHT SKY |
| FASCIA | COLORBOND NOVALINE | NIGHT SKY |
| GUTTER | COLORBOND QUAD - SLOTTED | NIGHT SKY |
| EAVES | CEMENT SHEET | WHITE - PAINT |
| WINDOWS & DOORS | ALUMINIUM | BLACK |
| GARAGE DOOR | SILVERTOP ASH / BLACKBUTT | NATURAL STAIN |


MIROWSKI
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NAME: BOB MIROWSKI
REG: CC435O
ADDRESS: 157 CAMPBELL ST, HOBART 7000
PHONE: (03) 6231 3888
ABN: 25 009 570 843
WEB: BMDC.COM.AU
EMAIL: ADMIN@BMDC.COM.AU




AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

PROPOSED ELEVATIONS 02

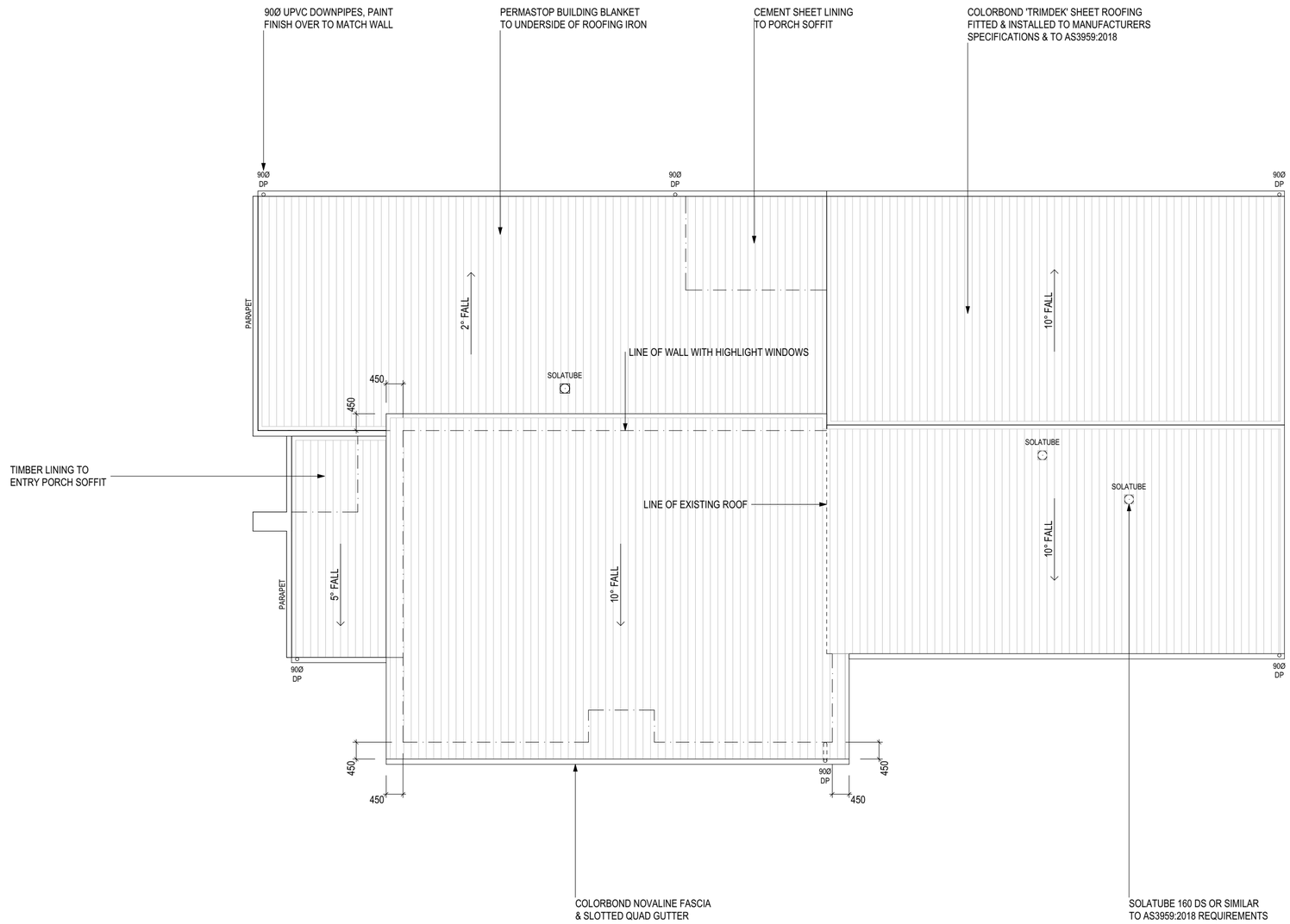
| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| 1:100 AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A07 |

0 2 4M

**GENERAL NOTES:**
ALL CONSTRUCTION WORK AND MATERIALS SHALL COMPLY WITH STATE BUILDING REGULATIONS, RELEVENT CODES, LOCAL COUNCIL BY-LAWS AND RELEVANT NCC 2022 CODES

BUILDER TO VERIFY ALL DIMENSIONS AND LEVELS PRIOR TO COMMENCING CONSTRUCTION.

USE WRITTEN DIMENSIONS - DO NOT SCALE




**REQUIRED FIXINGS:**

| | |
|---|---|
| BATTEN TO RAFTER / TRUSS WITHIN 1200MM OF EDGES | 1/75MM LONG SCREW - NO.14, TYPE 17 (TABLE 9.25 (C))<br>OR<br>1/FRAMING ANCHOR WITH 4/2.8MM DIA. NAILS TO EACH LEG (TABLE 9.25 (E))<br>OR<br>1/30 X 0.8MM G.I. STRAP OVER BATTEN WITH THREE 2.8MM DIA. NAILS EACH END (TABLE 9.25 (F)) |
| ELSEWHERE | 2/75MM X 3.75MM DEFORMED SHANK NAILS (TABLE 9.25 (B))<br>OR<br>1/75MM LONG SCREW - NO.14, TYPE 17 (TABLE 9.25 (C))<br>OR<br>1/FRAMING ANCHOR WITH 4/2.8MM DIA. NAILS TO EACH LEG (TABLE 9.25 (E)) |
| TRUSS TO TOP PLATE REQUIRED CONNECTION | 1/30 x 0.8MM G.I. LOOPED STRAP WITH FOUR 2.8MM DIA. NAILS EACH END (TABLE 9.21 (D))<br>OR<br>1/M10 CUP HEAD BOLT THROUGH BATTEN ALSO (TABLE 21 (E)) |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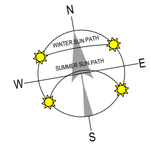




AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

ROOF PLAN

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: 1:100 AT A2 | STATUS: PRELIMINARY |
| JOB NO: 1701 | DWG NO: A08 REV: |

0 2 4M

**DOOR LIST**

| ID | HEIGHT | WIDTH | OPERATION | OPENING M² | FRAME | GLASS TYPE | U-VALUE | SHGC | ORIENTATION |
|---|---|---|---|---|---|---|---|---|---|
| D01 | 2,400 | 5,400 | SECTIONAL | 12.96 | SECTIONAL OVERHEAD TIMBER GARAGE DOOR | - | - | - | WEST |
| D02 | 2,600 | 1,800 | HINGED | 1.90 | RESIDENTIAL SERIES 549 ENTRY DOOR - DOUBLE GLAZED (TIMBER DOOR) | (TBC) | (TBC) | (TBC) | WEST |
| D03 | 2,400 | 4,000 | SLIDING | 6.31 | RESIDENTIAL SERIES 541/542 SLIDING DOOR -DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | SOUTH |
| D04 | 2,100 | 900 | HINGED | 1.75 | RESIDENTIAL SERIES 549 ENTRY DOOR - DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | WEST |
| D05 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D06 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D07 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D08 | 2,040 | 870 | CAVITY SLIDING | - | GLAZED INTERNAL DOOR | WHITE TRANSLUCENT | - | - | - |
| D09 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D10 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D11 | 2,060 | 1,660 | SLIDING | - | WARDROBE DOOR x 2 | - | - | - | - |
| D12 | 2,060 | 2,260 | SLIDING | - | WARDROBE DOOR x 2 | - | - | - | - |
| D13 | 2,040 | 920 | CAVITY SLIDING | - | GLAZED INTERNAL DOOR | CLEAR | - | - | - |
| D14 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D15 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D16 | 2,060 | 2,220 | SLIDING | - | WARDROBE DOOR x 2 | - | - | - | - |
| D17 | 2,040 | 870 | CAVITY SLIDING | - | GLAZED INTERNAL DOOR | CLEAR | - | - | - |
| D18 | 2,040 | 870 | CAVITY SLIDING | - | GLAZED INTERNAL DOOR | CLEAR | - | - | - |
| D19 | 2,060 | 3,090 | SLIDING | - | WARDROBE DOOR x 4 | - | - | - | - |
| D20 | 2,040 | 870 | CAVITY SLIDING | - | GLAZED INTERNAL DOOR | CLEAR | - | - | - |
| D21 | 2,040 | 870 | CAVITY SLIDING | - | GLAZED INTERNAL DOOR | CLEAR | - | - | - |
| D22 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D23 | 2,060 | 1,930 | SLIDING | - | WARDROBE DOOR x 2 | - | - | - | - |
| D24 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D25 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D26 | 2,060 | 1,800 | SLIDING | - | WARDROBE DOOR x 2 | - | - | - | - |
| D27 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D28 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D29 | 2,060 | 1,800 | SLIDING | - | WARDROBE DOOR x 2 | - | - | - | - |
| D30 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D31 | 2,040 | 870 | HINGED | - | FLUSH INTERNAL DOOR | - | - | - | - |
| D32 | 2,060 | 1,800 | SLIDING | - | WARDROBE DOOR x 2 | - | - | - | - |

**WINDOW LIST**

| ID | HEIGHT | WIDTH | OPERATION | OPENING M² | FRAME | GLASS TYPE | U-VALUE | SHGC | ORIENTATION |
|---|---|---|---|---|---|---|---|---|---|
| W01 | 1,500 | 900 | AWNING | 1.35 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | NORTH |
| W02 | 1,500 | 900 | AWNING | 1.35 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | NORTH |
| W03 | 1,200 | 2,100 | AWNING / FIXED | 0.72 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | NORTH |
| W04 | 600 | 2,700 | FIXED | - | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | NORTH |
| W05 | 1,200 | 2,100 | AWNING / FIXED | 0.72 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | NORTH |
| W06 | 600 | 2,100 | AWNING / FIXED | 0.36 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | NORTH |
| W07 | 1,200 | 2,400 | AWNING / FIXED | 0.72 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | WEST |
| W08 | 1,500 | 900 | AWNING | 1.14 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | SOUTH |
| W09 | 1,500 | 2,200 | FIXED | - | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | SOUTH |
| W10 | 1,500 | 900 | AWNING | 1.14 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | SOUTH |
| W11 | 1,500 | 900 | AWNING | 1.35 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | SOUTH |
| W12 | 500 | 4,000 | FIXED | - | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | SOUTH |
| W13 | 1,500 | 900 | AWNING | 1.35 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | SOUTH |
| W14 | 1,500 | 900 | AWNING | 1.35 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | SOUTH |
| W15 | 1,200 | 2,100 | AWNING / FIXED | 0.72 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | SOUTH |
| W16 | 1,200 | 2,100 | AWNING / FIXED | 0.72 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | EAST |
| W17 | 1,200 | 600 | AWNING | 0.72 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | EAST |
| W18 | 1,200 | 2,100 | AWNING / FIXED | 0.72 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | EAST |
| W19 | 1,200 | 2,100 | AWNING / FIXED | 0.72 | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | EAST |
| W20 | 500 | 4,000 | FIXED | - | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | NORTH |
| W21 | 500 | 800 | FIXED | - | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | NORTH |
| W22 | 500 | 2,600 | FIXED | - | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | NORTH |
| W23 | 500 | 1,800 | FIXED | - | RESIDENTIAL SERIES 517 AWNING WINDOW- DOUBLE GLAZED | (TBC) | (TBC) | (TBC) | WEST |

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AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

SCHEDULES

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| 1:1 AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A09 |

MIROWSKI
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AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

PERSPECTIVES 01

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| NTS | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A10 |

MIROWSKI
DESIGN & CONSTRUCTION
BRIGHTER BUILDING IDEAS

ACCREDITED PRACTITIONER:
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AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

PERSPECTIVES 02

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| NTS | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A11 |

MIROWSKI
DESIGN & CONSTRUCTION
BRIGHTER BUILDING IDEAS

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EMAIL: ADMIN@BMDC.COM.AU



AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

PERSPECTIVES 03

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| NTS | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A12 |

**VIEWED FROM STREET IN CAHILL PLACE LOOKING WEST**

MIROWSKI
DESIGN & CONSTRUCTION
BRIGHTER BUILDING IDEAS

ACCREDITED PRACTITIONER:
NAME: BOB MIROWSKI
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AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

PHOTOMONTAGE

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| NTS | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A13 |

**BAL-19 GENERAL CONSTRUCTION SCHEDULE**
GENERAL CONSTRUCTION SCHEDULE IN ACCORDANCE WITH SECTIONS 3 & 6 OF AS 3959-2018. THIS SCHEDULE IS NOT A STRUCTURAL SPECIFICATION AND IS PROVIDED AS A GUIDE ONLY. IT IS NOT TO TAKE THE PLACE OF THE BUILDING DESIGNERS SPECIFICATIONS ON THE DRAWINGS. BUILDING DESIGNERS SPECIFICATIONS TAKE PRECEDENT OVER THIS SCHEDULE.

**SUBFLOOR:** THE STANDARD DOES NOT PROVIDE CONSTRUCTION REQUIREMENTS FOR SLAB ON GROUND.
THE STANDARD DOES NOT PROVIDE SPECIFICATION OF THE MATERIALS AND CONSTRUCTION REQUIREMENTS FOR SUBFLOOR SUPPORTS AND THERE IS NO REQUIREMENT TO ENCLOSE THE SUBFLOOR SPACE OR PROTECT THE SUBFLOOR SUPPORTS UNLESS IT IS INTENDED TO STORE COMBUSTIBLE MATERIALS BENEATH THE FLOOR OF THE DWELLING. WHERE THE SUBFLOOR SPACE IS ENCLOSED THE CLADDING SHALL COMPLY WITH CLAUSE 6.4. *REFER SECTION 6.3.1 FOR DETAIL.*

**ELEVATED FLOORS:** THIS STANDARD DOES NOT PROVIDE SPECIFICATION OF THE MATERIALS AND CONSTRUCTION REQUIREMENTS FOR ELEVATED FLOORS. *REFER SECTION 6.3.2* FOR DETAIL ON ELEVATED FLOORS.

**WALLS:** THE EXPOSED ELEMENTS OF EXTERNAL WALLS THAT ARE LESS THAN 400MM ABOVE GROUND LEVEL, DECKS, CARPORT ROOFS, VERANDA ROOFS AND AWNINGS SHALL BE TIMBER OR METAL FRAMED, LINED WITH SARKING ON THE OUTSIDE OF THE FRAME AND CLAD EXTERNALLY WITH A NON-COMBUSTIBLE MATERIAL. OR AS 3959-2018 APPENDIX E1 OR APPENDIX F COMPLIANT BUSHFIRE RESISTING TIMBER. THE STANDARD DOES NOT PROVIDE SPECIFICATION OF THE MATERIALS AND CONSTRUCTION REQUIREMENTS FOR THE EXPOSED PARTS OF EXTERNAL CLADDING GREATER THAN 400MM ABOVE GROUND, DECKS, ETC. *REFER SECTION 6.4.1 FOR DETAIL.*
SARKING SHALL HAVE A FLAMMABILITY INDEX NOT MORE THAN 5 WHEN TESTED TO AS 1530.2. *REFER SECTION 3.10 FOR DETAIL.*

**JOINTS:** ALL JOINTS IN THE EXTERNAL SURFACE OF WALLS ARE TO BE COVERED, SEALED, OVERLAPPED, BACKED OR BUTT-JOINTED TO PREVENT GAPS GREATER THAN 3MM. *REFER SECTION 6.4.2 FOR DETAIL.*

**VENTS, WEEPHOLES AND GAPS:** ALL GAPS INCLLUDING WEEPHOLES, VENTS OR SIMILAR SHALL BE SCREENED EXCEPT FOR WEPHOLES TO THE SILLS OF WINDOWS AND DOORS. REFER SECTION 3.6.1 AND SECTION 3.6.2 OF AS 1684.2:2018

**BUSHFIRE SHUTTERS:** WHEN FITTED, BUSHFIRE SHUTTERS SHALL PROTECT THE WHOLE WINDOW/DOOR ASSEMBLY AND SHALL BE FIXED TO THE BUILDING AND BE NON-REMOVABLE WITH GAPS NO GREATER THAN 3MM BETWEEN THE SHUTTER AND THE WALL, SILL OR HEAD. THEY MUST BE MANUALLY OPENABLE FROM EITHER INSIDE OR OUTSIDE. THEY SHALL BE MADE OF NON-COMBUSTIBLE MATERIAL OR BUSHFIRE RESISTANT TIMBER (AS 3959-2018 APPENDIX F COMPLIANT). PERFORATIONS MUST HAVE AN AREA NO GREATER THAN 20% OF THE SHUTTER AND BE UNIFORMLY DISTRIBUTED WITH GAPS NO GREATER THAN 3MM (OR NO GREATER THAN 2MM WHEN THE OPENABLE PORTION OF THE WINDOW IS NOT SCREENED). *REFER SECTION 3.7 & 6.5.1 FOR DETAIL.*

**SCREENS FOR WINDOWS AND DOORS:** SCREENS ARE REQUIRED TO PREVENT THE ENTRY OF EMBERS INTO THE BUILDING WHEN THE WINDOW IS OPEN AND CAN BE FITTED INTERNALLY OR EXTERNALLY TO OPENABLE PORTIONS OF WINDOWS AND DOORS BE ALUMINIUM FRAMED WITH CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM MESH WITH 2MM MAXIMUM APERTURE. NO GAPS BETWEEN THE PERIMETER OF THE SCREEN ASSEMBLY AND THE BUILDING TO WHICH THEY ARE FITTED SHALL EXCEED 3MM. *REFER SECTION 6.5.1A FOR DETAIL*
ALTERNATIVELY, COMPLIANT BUSHFIRE SHUTTERS MAY BE INSTALLED.

**WINDOWS** AND THEIR FRAMES, JOINERY AND ARCHITRAVES (PARTICULARLY WINDOWS LESS THAN 400MM ABOVE GROUND LEVEL, DECKS, CARPORT ROOFS, VERANDA ROOFS AND AWNINGS) SHALL BE ALUMINIUM FRAMED BUT CAN ALSO BE PVC WHICH IS SHOWN TO BE BUSHFIRE RESISTANT OR BUSHFIRE RESISTANT TIMBER (AS 3959-2018 APPENDIX E2 OR APPENDIX F COMPLIANT).
COMPLIANT TIMBERS INCLUDE CELERY, BLACKWOOD, MYRTLE, SOUTHERN BLUE GUM, SOME TAS OAK (AS MESSMATE, ALPINE ASH, MOUNTAIN ASH, SILVERTOP ASH, PEPPERMINT & MANNA GUM) OR PLANTATION ASH (AS SHINING GUM) AS LONG AS THE DENSITY IS 650 KG/M3 OR GREATER.
EXTERNALLY FITTED HARDWARE SHALL BE METAL.

**DOOR OPENINGS AND WINDOW OPENINGS:** SCREENS FOR OPENABLE PORTIONS OF WINDOWS SHALL BE SCREENED INTERNALLY OR EXTERNALLY WITH SCREENS THAT CONFORM WITH CLAUSE 3.6 AND CLAUSE 6.5.2.
THERE IS NO REQUIREMENT FOR SCREENING HINGED OR SLIDING DOORS TO THE OPENABLE PART AT THIS BAL, IN ACCORDANCE WIHH AS3959:2018 CLAUSE 6.5.4 SECTION A2

**WINDOW GLAZING:** LESS THAN 400MM ABOVE GROUND LEVEL OR LESS THAN 400MM ABOVE DECKS, CARPORT ROOFS, VERANDA ROOFS AND AWNINGS WHICH HAVE AN ANGLE LESS THAN 18° SHALL BE A MINIMUM OF 5MM TOUGHENED GLASS.
WHEN USING DOUBLE GLAZING THIS REQUIREMENT APPLIES TO THE EXTERNAL FACE ONLY. WINDOWS ABOVE 400MM (UNLESS SPECIFIC GLAZING IS REQUIRED BY OTHER RELEVANT CONSTRUCTION STANDARDS) MAY USE ANNEALED GLASS HOWEVER THIS REQUIRES BOTH THE FIXED AND THE OPENABLE FACE TO BE SCREENED EXTERNALLY WHICH WILL CUT-OUT NATURAL LIGHT. IF 5MM TOUGHENED GLASS IS USED FOR ALL GLAZING ELEMENTS, ONLY THE OPENABLE PORTION IS REQUIRED TO BE SCREENED INTERNALLY. REFER SECTION 6.5.2 FOR DETAIL.
ALTERNATIVELY, COMPLIANT BUSHFIRE SHUTTERS MAY BE INSTALLED.
CARE SHOULD BE TAKEN TO ENSURE THAT THE ENERGY ASSESSOR FOR THIS PROJECT IS AWARE OF THE MINIMUM GLAZING REQUIREMENTS FOR THIS BAL CLASSIFICATION SO AS TO AVOID CONFLICT WITH GLAZING SPECIFICATIONS.

**DOORS - SIDE HUNG EXTERNAL (INCLUDING FRENCH DOORS, PANEL FOLD & BI-FOLD):** DOORS FRAMES (PARTICULARLY PARTS LESS THAN 400MM ABOVE GROUND LEVEL, DECKS, CARPORT ROOFS, VERANDA ROOFS AND AWNINGS) SHALL BE ALUMINIUM FRAMED BUT CAN ALSO BE PVC WHICH IS SHOWN TO BE BUSHFIRE RESISTANT OR AS 3959-2018 APPENDIX E2 OR APPENDIX F COMPLIANT BUSHFIRE RESISTANT TIMBER. DOORS SHALL BE EITHER NONCOMBUSTIBLE OR SOLID TIMBER WITH A MINIMUM THICKNESS OF 35MM, OR
HOLLOW CORE WITH A NON-COMBUSTIBLE KICKPLATE ON THE OUTSIDE FOR THE FIRST 400MM ABOVE THE THRESHOLD. *REFER SECTION 3.6 & 6.5.3 FOR DETAIL.*
FULLY FRAMED GLAZED DOORS SHALL BE ALUMINIUM FRAMED. GLAZING SHALL BE A MINIMUM OF 5MM TOUGHENED GLASS. THIS REQUIREMENT APPLIES TO THE EXTERNAL FACE ONLY OF THE DOUBLE GLAZING UNIT. *REFER SECTION 6.5.4 FOR DETAIL.*
EXTERNALLY FITTED HARDWARE SHALL BE METAL.
DOORS MUST BE TIGHT-FITTING TO THE DOOR JAMB (AND TO THE ABUTTING DOOR WHERE APPLICABLE). GAPS BETWEEN DOORS AND THE DOOR JAMBS, HEADS OR SILLS SHALL BE IN ACCORDANCE WITH AS 3959 FIG 3.2. ALTERNATIVELY GAPS SHALL BE PROTECTED BY DRAUGHT EXCLUDERS.
WEATHER STRIPS OR DRAUGHT EXCLUDERS SHALL BE INSTALLED AT THE BASE OF ALL SIDE-HUNG EXTERNAL DOORS.

**SLIDING DOORS:** BOTH THE DOOR FRAMES AND THE FRAMING SURROUNDING ANY GLAZING AND JOINERY SHALL BE ALUMINIUM FRAMED BUT CAN ALSO BE PVC WHICH IS SHOWN TO BE BUSHFIRE RESISTANT OR AS 3959-2018 APPENDIX E2 OR APPENDIX F COMPLIANT BUSHFIRE RESISTANT TIMBER.
EXTERNALLY FITTED HARDWARE SHALL BE METAL.
GLAZING SHALL BE A MINIMUM OF 5MM TOUGHENED GLASS. THIS REQUIREMENT APPLIES TO THE EXTERNAL FACE ONLY OF DOUBLE GLAZING UNITS. *REFER SECTION 6.5.4 FOR DETAIL.*
THERE IS NO REQUIREMENT TO SCREEN THE OPENABLE PORTION OF THE SLIDING DOOR BUT IF SCREENS ARE FITTED THEY SHALL COMPLY WITH SECTION 6.5.1A
DOORS MUST BE TIGHT-FITTING TO THE FRAMES.

**VEHICLE ACCESS DOORS:** (PARTICULARLY THE EXPOSED COMPONENTS THAT ARE LESS THAN 400MM ABOVE GROUND LEVEL) MUST BE NON-COMBUSTIBLE.
VEHICLE DOORS SHALL NOT INCLUDE VENTILATION SLOTS. *REFER SECTION 6.5.5 FOR DETAIL.*
PANEL LIFT, TILT OR SIDE HUNG DOORS SHALL BE FITTED WITH WEATHER STRIPS, DRAUGHT EXCLUDERS OR GUIDE TRACKS AS APPROPRIATE TO THE DOOR TYPE WITH GAPS NO GREATER THAN 3MM.
ROLLER DOORS SHALL HAVE GUIDE TRACKS WITH GAPS NO GREATER THAN 3MM OR FITTED WITH A NYLON BRUSH THAT IS IN CONTACT WITH THE DOOR.

**ROOF:** SHALL BE TIMBER OR METAL FRAMED, LINED WITH SARKING OR FOIL BACKED BLANKET INSULATION OVER THE BATTENS AND CLAD EXTERNALLY WITH CORRUGATED COLORBOND SHEET ROOF CLADDING OR OTHER NON-COMBUSTIBLE CLADDING I.E. TILES. *REFER SECTION 6.6.1 FOR DETAIL.*
TILED ROOFS SHALL BE TIMBER OR METAL FRAMED AND THE ENTIRE ROOF AREA INCLUDING RIDGES & HIPS MUST BE LINED WITH SARKING OR FOIL BACKED BLANKET INSULATION EXTENDED INTO THE GUTTERS AND VALLEYS. THE SARKING SHALL BE LOCATED ON TOP OF THE ROOF FRAMING, EXCEPT THAT THE ROOF BATTENS MAY BE FIXED ABOVE THE SARKING. *REFER SECTION 6.6.2 FOR DETAIL.*
ANY GAPS GREATER THAN 3MM UNDER CORRUGATIONS OR RIBS AND BETWEEN ROOF COMPONENTS SUCH AS FACIA AND WALL LINE AND AT VALLEYS, HIPS AND RIDGES ARE TO BE SEALED WITH 2MM APERTURE CORROSION RESISTANT, STEEL, BRONZE OR ALUMINIUM MESH, OR FILLED WITH MINERAL WOOL TO PREVENT OPENINGS GREATER THAN 3MM. *REFER SECTION 6.6.3 FOR DETAIL.*
POLYCARBONATE SHEETING IS NOT CONSIDERED TO BE A COMPLIANT NONCOMBUSTIBLE ROOF CLADDING UNLESS IT CAN BE SHOWN THAT THE PRODUCT SATISFIES THE TEST CRITERIA OF AS 1530.8.1
SARKING IS USED AS A SECONDARY FORM OF EMBER PROTECTION FOR THE ROOF SPACE TO ACCOUNT FOR ANY MINOR GAPS THAT MAY DEVELOP IN THE ROOF CLADDING. SARKING OR FOIL BACKED BLANKET INSULATION SHALL HAVE A FLAMMABILITY INDEX NOT MORE THAN 5 WHEN TESTED TO AS 1530.2. *REFER SECTION 3.10 FOR DETAIL.*
THE ROOF WALL JUNCTION SHALL BE SEALED TO PREVENT GAPS GREATER THAN 3MM EITHER BY USING FACIA OR EAVES LININGS OR BY SEALING BETWEEN THE TOP OF THE WALL AND THE UNDERSIDE OF THE ROOF AND BETWEEN THE RAFTERS AT THE LINE OF THE WALL.
ROOF VENTILATION OPENINGS SUCH AS GABLES AND ROOF VENTS MUST BE FITTED WITH CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM MESH SCREENS WITH 2MM MAXIMUM APERTURE. *REFER SECTION 6.6.1 FOR DETAIL.*

**VERANDA, CARPORT OR AWNING ROOFS** FORMING PART OF THE MAIN ROOF SHALL MEET THE REQUIREMENTS OF THE MAIN ROOF. *REFER SECTION 6.6.4 FOR DETAIL*

**ROOF PENETRATIONS** INCLUDING SKYLIGHTS, VENT PIPES AND AERIALS THAT PENETRATE THE ROOF MUST BE SEALED WITH A NON-COMBUSTIBLE MATERIAL TO PREVENT OPENINGS GREATER THAN 3MM.
OPENABLE AND VENTED SKYLIGHTS OR VENT PIPES SHALL BE FITTED WITH 2MM APERTURE CORROSION RESISTANT, STEEL, BRONZE OR ALUMINIUM MESH EMBER GUARDS. THIS DOES NOT APPLY TO THE EXHAUST FLUES OF HEATING OR COOKING DEVICES WITH A CLOSED COMBUSTION CHAMBER.
ALL OVERHEAD GLAZING SHALL BE GRADE A SAFETY GLASS. GLAZED ELEMENTS IN ROOF LIGHTS AND SKYLIGHTS MAY BE MADE OF POLYMER PROVIDED A GRADE A SAFETY GLASS DIFFUSER IS INSTALLED UNDERNEATH.
FLASHING ELEMENTS OF TUBULAR SKYLIGHTS MAY BE MADE OF A FIRE RETARDANT MATERIAL PROVIDED THE ROOF INTEGRITY IS MAINTAINED BY UNDER FLASHING WITH A MATERIAL WITH A FLAMMABILITY INDEX NO GREATER THAN 5. *REFER SECTION 6.6.5 FOR DETAIL*

**EAVES LINING, FASCIA AND GABLES** THE STANDARD DOES NOT PROVIDE SPECIFICATION OF THE MATERIALS AND CONSTRUCTION REQUIREMENTS FOR FASCIA, BARGEBOARDS AND EAVES LININGS FOR BAL-19. *REFER SECTION 6.6.6 FOR DETAIL.*
EAVES PENETRATIONS SHALL BE SEALED TO PREVENT OPENINGS GREATER THAN 3MM. EAVES VENTILATION OPENINGS GREATER THAN 3MM SHALL BE FITTED WITH CORROSION RESISTANT STEEL, BRONZE OR ALUMINIUM MESH SCREENS WITH 2MM MAXIMUM APERTURE.

**GUTTERS AND DOWNPIPES** PVC GUTTERS AND DOWNPIPES CAN BE INSTALLED AS THE STANDARD DOES NOT PROVIDE SPECIFICATION OF THE MATERIALS AND CONSTRUCTION REQUIREMENTS FOR GUTTERS AND DOWNPIPES FOR BAL-19 WITH THE EXCEPTION OF BOX GUTTERS, WHICH SHALL BE NONCOMBUSTIBLE AND FLASHED WITH A NON-COMBUSTIBLE MATERIAL AT THE JUNCTION WITH THE ROOF. *REFER SECTION 6.6.7 FOR DETAIL.*
GUTTER AND VALLEY LEAF GUARDS ARE NOT A REQUIREMENT OF THE STANDARD BUT THEY ARE STRONGLY RECOMMENDED. IF INSTALLED, THEY MUST BE NON-COMBUSTIBLE.

**VERANDA & DECKS INCLUDING SUPPORTS, FRAMING, DECKING AND TREADS** CAN BE ENCLOSED OR UNENCLOSED. THE STANDARD DOES NOT PROVIDE SPECIFICATION OF THE MATERIALS AND CONSTRUCTION REQUIREMENTS USED TO ENCLOSE A SUBFLOOR SPACE EXCEPT WHERE THE MATERIAL USED IS LESS THAN 400M FROM THE GROUND WHERE IT SHALL COMPLY WITH THE REQUIREMENTS FOR EXTERNAL WALLS (CLAUSE 6.4). SUPPORTS, FRAMING, DECKING AND TREADS/RAMPS CAN BE CONSTRUCTED FROM TIMBER AS THE STANDARD DOES NOT PROVIDE SPECIFICATION OF THE MATERIAL AND CONSTRUCTION REQUIREMENTS FOR VERANDA AND DECK SUPPORTS, FRAMING, DECKING AND TREADS FOR BAL-19 EXCEPT WHERE DECKING, STAIR TREADS AND OTHER TRAFFICABLE COMPONENTS ARE LESS THAN 300MM HORIZONTALLY AND 400MM VERTICALLY FROM GLAZED ELEMENTS WHICH SHALL BE NONCOMBUSTIBLE, PVC-U OR AS 3959-2009 APPENDIX F OR PARAGRAPH E1
APPENDIX E COMPLIANT BUSHFIRE RESISTANT TIMBER. *REFER SECTION 6.7.2. FOR DETAIL.*
DECKING MAY BE SPACED OR UN-SPACED AND THE SUB FLOOR EITHER ENCLOSED OR UNENCLOSED. IF THE DECKING IS SPACED IT IS ASSUMED THAT THE SPACING SHALL BE 3MM NOMINAL SPACING WITH AN ALLOWANCE OF BETWEEN 0-5MM DUE TO SEASONAL CHANGES. IF THE DECK SUBFLOOR IS ENCLOSED THEN CLADDING MATERIALS LESS THAN 400MM FROM THE GROUND SHALL BE NON-COMBUSTIBLE.

**BALUSTRADES AND HANDRAILS** CAN BE TIMBER AS THE STANDARD DOES NOT PROVIDE SPECIFICATION OF THE MATERIALS AND CONSTRUCTION REQUIREMENTS FOR BALUSTRADES AND HANDRAILS FOR BAL-19. *REFER SECTION 6.7.4 FOR DETAIL.*

**WATER AND GAS** SUPPLY PIPING WHERE IT IS ABOVE GROUND AND EXPOSED SHALL BE METAL. *REFER SECTION 6.8 FOR DETAIL.*

**ADJACENT STRUCTURES** LOCATED LESS THAN 6M FROM THE BUILDING ARE REQUIRED TO COMPLY WITH THE CONSTRUCTION REQUIREMENTS OF THE MAIN BUILDING. FOR EXAMPLE A GARAGE OR CARPORT LOCATED WITHIN 6M OF A DWELLING MUST BE CONSTRUCTED TO THE SAME REQUIREMENTS AS THE DWELLING. *REFER SECTION 3.2.3 FOR DETAIL.*

**GENERAL NOTES:**
ALL CONSTRUCTION WORK AND MATERIALS SHALL COMPLY WITH STATE BUILDING REGULATIONS, RELEVENT CODES, LOCAL COUNCIL BY-LAWS AND RELEVANT NCC 2022 CODES.
BUILDER TO VERIFY ALL DIMENSIONS AND LEVELS PRIOR TO COMMENCING CONSTRUCTION.
USE WRITTEN DIMENSIONS - DO NOT SCALE

**SITE PREPERATION:**
ANY EARTHWORKS SUCH AS EXCAVATION AND FILLING TO BE IN ACCORDANCE WITH NCC 2022 HOUSING PROVISIONS PART 4.1

**DEMOLITION WORKS:**
ALL DEMOLITION TO BE CONDUCTED BY SUITABLY QUALIFIED PERSONEL
ALL PERSONEL MUST FOLLOW AS 2601-2001 THE DEMOLITION OF STRUCTURES

**STRUCTURAL DESIGN:**
ALL ENGINEERING DESIGN INCLUDING, FOOTINGS, TIE DOWN REQUIREMENTS, BRACING, LINTELS, FLOOR & ROOF FRAMING BY ENGINEER.
ALL TIMBER FRAMING, FIXING & BRACING SHALL COMPLY WITH AS 1684.2:2021,
STRUCTURAL FRAMING AS PER ENGINEERS, WALL FRAMING AS PER SCHEDULE
ALL FOOTINGS & SLABS TO BE DESIGNED IN ACCORDANCE WITH AS 2870-2011 & NCC 2022 HOUSING PROVISIONS PART 4.2 REFER TO ENGINEERS DESIGN.

**BRACING:**
BRACING AS PER ENGINEERS CERTIFIED DESIGN & SPECIFICATIONS,
DESIGN TO BE IN STRICT ACCORDANCE WITH AS 1684.2:2021

**MASONRY CONSTRUCTION:**
ALL MASONRY CONSTRUCTION TO BE INTALLED IN ACCORDANCE WITH AS 4773.2:2015, AS 3700:2018 & NCC 2022 HOUSING PROVISIONS 5.1

**GLAZING:**
ALL GLAZING TO BE IN ACCORDANCE WITH AS 1288:2021 & AS 2047-2014 AND TO COMPLY WITH THE NCC HOUSING PROVISIONS PART 8.1
GLASS IN ACCORDANCE WITH TABLE 8.4.2 OF THE NCC 2022 HOUSING PROVISIONS.
ALL WINDOWS TO COMPLY WITH LIGHT & VENTILATION REQUIREMENTS UNDER PARTS 10.5 & 10.6 OF THE NCC 2022 HOUSING PROVISIONS

**ENERGY EFFICIENCY:**
TO COMPLY WITH PART 13.1 OF NCC 2022 HOUSING PROVISIONS

**WET AREAS:**
WET AREA WATERPROOFING TO AS 3740:2021 & IN ACCORDANCE WITH PART 10.2 OF THE NCC 2022 HOUSING PROVISIONS.
IMPERVIOUS FLOOR FINISHES TO BE LOCATED IN ALL WET AREAS.
IMPERVIOUS WALL FINISH TO BE LOCATED 1800MM MIN ABOVE SHOWER, 150MM MIN ABOVE BATH, BASIN, SINK AND TROUGH
MECHANICAL VENTILATION TO BE INSTALLED INTO ALL WC AREAS
SPLASHBACKS AND SEALING TO COMPLY WITH AS 3740:2021 & IN ACCORDANCE WITH THE NCC 2022 HOUSING PROVISIONS PART 10.2

**ELECTRICAL:**
ELECTRICAL INSTALLATION TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF AS/NZS 3000:2018
SMOKE ALARMS MUST BE INSTALLED IN ACCORDANCE WITH THE NCC 2022 HOUSING PROVISIONS PART 9.5 AND COMPLY WITH AS 3786:2014 AND MUST BE INTERCONNECTED AND CONNECTED TO MAIN POWER AND INSTALLED IN CEILINGS IN LOCATIONS SHOWN ON ELECTRICAL PLAN.

**STAIRS AND BALUSTRADE:**
STAIR CONSTRUCTION TO COMPLY WITH THE REQUIREMENTS OF PART 11.2 OF THE NCC 2022 HOUSING PROVISIONS. TREADS MUST HAVE A NON-SLIP RESISTANT FINISH.
RISER AND GOING DIMENSIONS IN ACCORADANCE WITH THE NCC 2022 HOUSING PROVISIONS PART 11.2, TABLE 11.2.2A
RISER (R) MAX. 190 - MIN. 115
GOING (G) MAX. 355 - MIN. 240
SLOPE RELATIONSHIP - (2R + G) 'MAX. 700 - MIN. 550
OPENINGS IN BARRIERS (INCLUDING DECORATIVE BALUSTRADES) MUST BE CONSTRUCTED SO THAT THEY DO NOT PERMIT A 125 MM SPHERE TO PASS THROUGH IT AND FOR STAIRWAYS, THE OPENING IS MEASURED ABOVE THE NOSING LINE OF THE STAIR TREADS

**GUTTER AND DOWNPIPES:**
TO COMPLY WITH PART 7.4 OF THE NCC 2022 HOUSING PROVISIONS
ALL GUTTERS TO BE INSTALLED TO MANUFACTURER'S SPECIFICATION

**PLUMBING:**
ALL PLUMBING AND DRAINAGE TO COMPLY WITH 3500:2021
ALL PLUMBING AND DRAINAGE TO BE IN ACCORDANCE WITH LOCAL BUILDING AND HEALTH AUTHORITY
HOT WATER CYLINDER TO DELIVER WATER NOT EXCEEDING 50 DEGREES CELCIUS
VENT PIPES TO BE 50MM DIA. PVC VERTICALLY THROUGH WALL AND ROOF TO EXTERNAL AIR. PLUMBING VENTS TO BE IN ACCORDANCE WITH AS/NZS 3500:2021

**ROOF AND WALL CLADDING:**
ROOF CLADDING TO COMPLY WITH NCC 2022 HOUSING PROVISIONS AND MANUFACTURERS INSTRUCTIONS.
METAL SHEET ROOFING TO COMPLY WITH NCC 2022 HOUSING PROVISIONS PART 7.2
ROOF TILES AND SHINGLES TO COMPLY WITH NCC 2022 HOUSING PROVISIONS PART 7.3
WALL CLADDING TO COMPLY WITH NCC 2022 HOUSING PROVISIONS PART 7.5

MIROWSKI
DESIGN & CONSTRUCTION
BRIGHTER BUILDING IDEAS

ACCREDITED PRACTITIONER:
NAME: BOB MIROWSKI
REG: CC435O
ADDRESS: 157 CAMPBELL ST, HOBART 7000
PHONE: (03) 6231 3888
ABN: 25 009 570 843
WEB: BMDC.COM.AU
EMAIL: ADMIN@BMDC.COM.AU

AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:
BAL-19 + GENERAL NOTES

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: PRELIMINARY |
| JOB NO: 1701 | DWG NO: A14 REV: |

**EXISTING GRAVEL SURFACE WITH PARTIAL ROCK PERIMETER**


MIROWSKI
DESIGN & CONSTRUCTION
BRIGHTER BUILDING IDEAS

ACCREDITED PRACTITIONER:
NAME: BOB MIROWSKI
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ADDRESS: 157 CAMPBELL ST, HOBART 7000
PHONE: (03) 6231 3888
ABN: 25 009 570 843
WEB: BMDC.COM.AU
EMAIL: ADMIN@BMDC.COM.AU




AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

EXISTING CONDITIONS

| DRAWN: | DATE: |
|---|---|
| DR | 13/08/2025 |
| SCALE: | STATUS: |
| AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A15 |

# *STORMWATER ASSESSMENT*

***66 Cahill Place***

***Acton Park***

***July 2025***

GES

GEO-ENVIRONMENTAL

SOLUTIONS

## Investigation Details

| | |
|---|---|
| **Client:** | Kellie & Jeff Salter |
| **Site Address:** | 66 Cahill Place, Acton |
| **Date of Inspection:** | 05/04/2018 |
| **Proposed Works:** | New house |
| **Investigation Method:** | Geoprobe 540UD - Direct Push |
| **Inspected by:** | G. McDonald |

## Site Details

| | |
|---|---|
| **Certificate of Title (CT):** | 172346/76 |
| **Title Area:** | Approx. 1.013 ha |
| **Applicable Planning Overlays:** | Bushfire-prone areas, Flood-prone Areas, Airport obstacle limitation area, Waterway and Coastal Protection Areas |
| **Slope & Aspect:** | 8° S facing slope |
| **Vegetation:** | Grass & Weeds |
| **Ground Surface:** | Disturbed |

## Background Information

| | |
|---|---|
| **Geology Map:** | MRT 1:250000 |
| **Geological Unit:** | Permian Mudstone |
| **Climate:** | Annual rainfall 550mm |
| **Water Connection:** | Tank |
| **Sewer Connection:** | Unserviced-On-site required |
| **Testing and Classification:** | AS2870:2011 & AS1726:2017 |

## 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***

| **Hole 1 Depth (m)** | **Hole 2 Depth (m)** | **Hole 3 Depth (m)** | **Horizon** | **Description** |
|---|---|---|---|---|
| 0 – 0.10 | 0 – 0.10 | 0 – 0.10 | B1 | Dark Greyish Brown **CLAY (CL)**, moderate sub-angular blocky structure, slightly moist stiff consistency, medium plasticity, gradual boundary to |
| 0.10 – 0.60 | 0.10 – 0.55 | 0.10 – 0.70 | B2 | Dark Brown **CLAY (CH)**, well developed sub-angular blocky structure, slightly moist stiff consistency, high plasticity, gradual boundary to |
| 0.60 – 0.70 | 0.55 – 0.60 | 0.70 – 0.80 | BC | Yellowish Brown to Pale Brown **CLAYEY GRAVEL (GC)**, weakly developed sub-angular structure, slightly moist hard consistency, ~20% clay, ~60% weathered gravels increasing with depth to auger refusal. |

## Soil Conditions

Soils on are developing from Permian Mudtone are clay dominant and well structured. A moderately low permeability of approximately 0.12-0.5m/day is expected.

GES have identified the following at the site:

- The site has a 14% grade and presents a low risk to slope stability and landslip
- There are no proposals for cuts or change of grade which will impact on any proposed onsite stormwater absorption,
- The site soils have been identified as comprising clay dominant.
- The water table was not encountered.
- There is a low risk of the natural soils being impacted by contamination;
- There is no evidence to suggest saline water intrusion at the site
- Bedrock was encountered at 0.60-0.80m
-

## Soil Dispersion

The site soils have been identified as non-dispersive (Emerson class 7).

## Existing Conditions and Assumptions

The site covers an area of approximately 1.013ha with a proposed roof area of approx. 424m$^2$ in addition to a sealed driveway area of approximately 71m$^2$. There is no public stormwater system that the property can connect to, and it is therefore it is proposed that stormwater from the site would be routed through the proposed drainage system comprising of Grated Sumps and PVC Pipes and a subsurface absorption trench.

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 18m x 2m x 0.6m trench is designed over a 20-minute storm duration for proposed development.

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 |

# STORAGE TRENCH

| **Hydrology** | | |
|---|---|---|
| Total Catchment Area | 495 | m2 |
| Runoff Coefficient | 0.986 | |
| Annunal Recurrence Interval (ARI) | 20 | yr |
| **Ground Conditions** | | |
| Hydraulic conductivity (K) | 0.120 | m/day |
| | 0.080 | mm/min |
| Adjusted Rate (15% clogging factor) | 0.068 | mm/min |
| **Trench Design** | | |
| Length | 18 | m |
| Width | 2 | m |
| Depth | 0.6 | m |
| Infiltration Area | 36 | m2 |
| Porosity | 0.35 | % |
| Trench Storage | 7.6 | m3 |
| | 7560 | L |
| **Detention tank data** | | |
| Tank Storage | 3.5 | m3 |
| Tank Underflow | 4.264 | L/s |
| Tank Underflow | 255.84 | L/min |
| Total Available storage | 11.1 | m3 |
| | 11060 | L |

| Final Check | | | |
|---|---|---|---|
| **Criteria** | **Requirement** | **Design** | **Check** |
| Total Detention needed | 4410 | 11060 | OK |
| Trench Capacity underflow for 5% AEP 20-minute storm | 7077 | 7560 | OK |

## STORM CHECK

| Storm Duration | Intensity | Inflow Volume | Outflow Volume | Required Storage | Emptying time | | % Storage Provided |
|---|---|---|---|---|---|---|---|
| | (mm/hr) | ($m^3$) | (L) | (L) | (hr) | | |
| **1 min** | **137** | 1114 | 11 | 1104 | 1.72 | | 685 |
| **2 min** | **107** | 1741 | 21 | 1719 | 2.68 | | 440 |
| **3 min** | **96.7** | 2360 | 32 | 2328 | 3.62 | | 325 |
| **4 min** | **89.6** | 2915 | 43 | 2873 | 4.47 | | 263 |
| **5 min** | **83.7** | 3404 | 54 | 3351 | 5.21 | | 226 |
| **10 min** | **63.7** | 5182 | 107 | 5075 | 7.90 | | 149 |
| **15 min** | **51.9** | 6333 | 161 | 6172 | 9.60 | | 122 |
| **20 min** | **44.1** | 7175 | 214 | 6960 | 10.83 | | 109 |
| **25 min** | **38.6** | 7850 | 268 | 7582 | 11.80 | | 100 |
| **30 min** | **34.6** | 8444 | 321 | 8122 | 12.64 | | 93 |
| **45 min** | **26.8** | 9810 | 482 | 9328 | 14.52 | | 81 |
| **1 hour** | **22.4** | 10933 | 643 | 10290 | 16.01 | | 73 |
| **1.5 hour** | **17.4** | 12739 | 964 | 11775 | 18.32 | | 64 |
| **2 hour** | **14.7** | 14349 | 1285 | 13064 | 20.33 | | 58 |
| **3 hour** | **11.7** | 17131 | 1928 | 15203 | 23.66 | | 50 |
| **4.5 hour** | **9.44** | 20733 | 2892 | 17842 | 27.76 | | 42 |
| **6 hour** | **8.15** | 23867 | 3856 | 20011 | 31.14 | | 38 |
| **9 hour** | **6.66** | 29255 | 5783 | 23472 | 36.53 | | 32 |
| **12 hour** | **5.77** | 33794 | 7711 | 26083 | 40.59 | | 29 |
| **18 hour** | **4.65** | 40851 | 11567 | 29285 | 45.57 | | 26 |
| **24 hour** | **3.95** | 46269 | 15422 | 30847 | 48.00 | | 25 |
| **30 hour** | **3.44** | 50369 | 19278 | 31091 | 48.38 | | 24 |
| **36 hour** | **3.05** | 53590 | 23134 | 30456 | 47.40 | | 25 |
| **48 hour** | **2.48** | 58100 | 30845 | 27255 | 42.41 | | 28 |
| **72 hour** | **1.79** | 62902 | 46267 | 16635 | 25.89 | | 45 |
| | | | | | | | |
| | | | **Full volume** | 7560 | 48.38 | | |

**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:** Acton Park
**Easting:** 540494
**Northing:** 5252801
**Zone:** 55
**Latitude:** Nearest grid cell: 42.8875 (S)
**Longitude:** Nearest grid cell: 147.4875 (E)

## IFD Design Rainfall Intensity (mm/h)

Issued: 29 July 2025

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

Table | Chart

Unit: mm/h

| | Annual Exceedance Probability (AEP) | | | | | | |
|---|---|---|---|---|---|---|---|
| **Duration** | **63.2%** | **50%#** | **20%*** | **10%** | **5%** | **2%** | **1%** |
| **1 min** | 61.7 | 69.7 | 96.6 | 117 | 137 | 167 | 192 |
| **2 min** | 52.5 | 58.7 | 79.0 | 93.2 | 107 | 124 | 137 |
| **3 min** | 46.5 | 52.2 | 70.7 | 83.8 | 96.7 | 113 | 126 |
| **4 min** | 42.1 | 47.3 | 64.6 | 77.1 | 89.6 | 106 | 120 |
| **5 min** | 38.5 | 43.5 | 59.7 | 71.6 | 83.7 | 101 | 114 |
| **10 min** | 28.1 | 31.8 | 44.3 | 53.7 | 63.7 | 78.3 | 90.5 |
| **15 min** | 22.8 | 25.8 | 36.0 | 43.7 | 51.9 | 64.0 | 74.1 |
| **20 min** | 19.5 | 22.1 | 30.7 | 37.2 | 44.1 | 54.2 | 62.7 |
| **25 min** | 17.2 | 19.5 | 27.0 | 32.7 | 38.6 | 47.3 | 54.5 |
| **30 min** | 15.6 | 17.6 | 24.3 | 29.3 | 34.6 | 42.1 | 48.3 |
| **45 min** | 12.4 | 14.0 | 19.1 | 22.9 | 26.8 | 32.2 | 36.6 |
| **1 hour** | 10.5 | 11.9 | 16.2 | 19.2 | 22.4 | 26.6 | 30.0 |
| **1.5 hour** | 8.43 | 9.47 | 12.8 | 15.1 | 17.4 | 20.4 | 22.8 |
| **2 hour** | 7.21 | 8.10 | 10.9 | 12.8 | 14.7 | 17.1 | 19.0 |
| **3 hour** | 5.79 | 6.52 | 8.77 | 10.3 | 11.7 | 13.5 | 14.9 |
| **4.5 hour** | 4.67 | 5.27 | 7.10 | 8.29 | 9.44 | 10.9 | 12.0 |
| **6 hour** | 4.00 | 4.53 | 6.12 | 7.16 | 8.15 | 9.46 | 10.4 |
| **9 hour** | 3.19 | 3.64 | 4.97 | 5.83 | 6.66 | 7.79 | 8.63 |
| **12 hour** | 2.71 | 3.09 | 4.26 | 5.03 | 5.77 | 6.79 | 7.56 |
| **18 hour** | 2.11 | 2.43 | 3.39 | 4.03 | 4.65 | 5.54 | 6.22 |
| **24 hour** | 1.75 | 2.02 | 2.84 | 3.40 | 3.95 | 4.73 | 5.34 |
| **30 hour** | 1.50 | 1.73 | 2.46 | 2.95 | 3.44 | 4.14 | 4.69 |
| **36 hour** | 1.32 | 1.52 | 2.17 | 2.61 | 3.05 | 3.68 | 4.18 |
| **48 hour** | 1.06 | 1.22 | 1.75 | 2.12 | 2.48 | 3.00 | 3.41 |
| **72 hour** | 0.762 | 0.879 | 1.26 | 1.53 | 1.79 | 2.16 | 2.46 |
| **96 hour** | 0.597 | 0.687 | 0.978 | 1.18 | 1.39 | 1.67 | 1.90 |
| **120 hour** | 0.491 | 0.564 | 0.797 | 0.958 | 1.13 | 1.35 | 1.53 |
| **144 hour** | 0.419 | 0.480 | 0.672 | 0.803 | 0.943 | 1.13 | 1.28 |
| **168 hour** | 0.366 | 0.419 | 0.582 | 0.689 | 0.810 | 0.969 | 1.10 |

Note:
# The 50% AEP IFD **does not** correspond to the 2 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 1.44 ARI.
* The 20% AEP IFD **does not** correspond to the 5 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 4.48 ARI.

GES GEO-ENVIRONMENTAL SOLUTIONS

**Designed:** 29/07/2025

# 66 Cahill Detention Design

## STORMWATER DETENTION V5.05

Geo-Environmental Solutions

**Location:** Acton Park
**Site:** 495m² with tc = 20 and tcs = 15 mins.
**PSD:** AEP of 5%, Underground rectangular tank PSD = 4.26L/s
**Storage:** AEP of 5%, Underground rectangular tank volume = 4.41m³

### Design Criteria

(Custom AEP IFD data used)

Location = Acton Park
Method = E (A)RI 2001,A(E)P 2019

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

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

### Site Geometry

Site area (As) = 495 m² = 0.0495 Ha
Pre-development coefficient (Cp) = 0.73
Post development coefficient (Cw) = 0.99

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

### Coefficient Calculations

**Pre-development**

| Zone | Area (m²) | C | Area * C |
|---|---|---|---|
| Concrete | 0 | 0.90 | 0 |
| Roof | 224 | 1.00 | 224 |
| Gravel | 271 | 0.50 | 136 |
| Garden | 0 | 0.30 | 0 |
| **Total** | 495 m² | | 360 |

Cp = ΣArea*C/Total = 0.726

**Post development**

| Zone | Area (m²) | C | Area * C |
|---|---|---|---|
| Concrete | 71 | 0.90 | 64 |
| Roof | 424 | 1.00 | 424 |
| Gravel | 0 | 0.50 | 0 |
| Garden | 0 | 0.30 | 0 |
| **Total** | 495 m² | | 488 |

Cw = ΣArea*C/Total = 0.986

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

PSD Intensity (I) = 44.5 mm/hr For catchment tc = 20 mins.
Pre-development (Qp = Cp*I*As/0.36) = 4.44 L/s
Peak post development (Qa = 2*Cw*I*As/0.36) = 12.07 L/s =(0.271 x I) Eq. 2.24

Storage method = U (A)bove,(P)ipe,(U)nderground,(C)ustom
Permissible site discharge (Qu = PSD) = 4.264 L/s

**Above ground - Eq 3.8**

$0 = PSD^2 - 2*Qa/tc*(0.667*tc*Qp/Qa + 0.75*tc+0.25*tcs)*PSD + 2*Qa*Qp$
Taking x as = PSD and solving
a = 1.0 b = -28.5 c = 107.2
PSD = $-b \pm \sqrt{(b^2-4ac)}/(2a)$
PSD = 4.448 L/s

**Below ground pipe - Eq 3.3**

$Qp = PSD*[1.6*tcs/\{tc*(1-2*PSD/(3*Qa))\}-0.6*tcs^{2.67}/\{tc*(1-2*PSDp/(3*Qa))\}^{2.67}]$
= 4.44
PSD = 4.442 L/s

**Below ground rectangular tank - Eq 3.4**

$t = tcs/(tc*(1-2*PSD/(3*Qa)))$ = 0.981
$Qp = PSD*[0.005-0.455*t+5.228*t^2-1.045*t^3-7.199*t^4+4.519*t^5]$
= 4.44
PSD = 4.264 L/s

## Design Storage Capacity (AEP of 5%)

Above ground (Vs) = $[0.5*Qa*td-[(0.875*PSD*td)(1-0.917*PSD/Qa)+(0.427*td*PSD^2/Qa)]]*60/10^3$ m³ Eq 4.23

Below ground pipe (Vs) = $[(0.5*Qa-0.637*PSD+0.089*PSD^2/Qa)*td]*60/10^3$ m³ Eq 4.8

Below ground rect. tank (Vs) = $[(0.5*Qa-0.572*PSD+0.048*PSD^2/Qa)*td]*60/10^3$ m³ Eq 4.13

| td (mins) | I (mm/hr) | Qa (L/s) | Above Vs (m³) | Pipe Vs (m³) | B/G Vs (m³) |
|---|---|---|---|---|---|
| **5** | 84.6 | 22.9 | | | 2.72 |
| **10** | 64.2 | 17.4 | | | 3.79 |
| **12** | 58.7 | 15.9 | | | 4.02 |
| **14** | 54.2 | 14.7 | | | 4.18 |
| **17** | 48.8 | 13.2 | | | 4.33 |
| **19** | 45.8 | 12.4 | | | 4.38 |
| **21** | 43.3 | 11.7 | | | 4.41 |
| **23** | 41.0 | 11.1 | | | 4.41 |
| **26** | 38.1 | 10.3 | | | 4.38 |
| **28** | 36.4 | 9.9 | | | 4.34 |

**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** | 22.3 | 41.8 | 11.3 | **4.41** |

**Table 2 - Storage requirements for AEP of 5%**

## Frequency of operation of Above Ground storage

Qop2 = 0.75 Cl 2.4.5.1

Qp2 =Qop2*Qp1 (where Qp1=PSD) = 3.34 L/s at which time above ground storage occurs

$I = 360*Qp2/(2*Cw*As*10^3)$ = 12.3 mm/h Eq 4.24

## Period of Storage

**Time to Fill:**

Above ground (tf) = td*(1-0.92*PSD/Qa) Eq 4.27

Below ground pipe (tf) = td*(1-2*PSD/(3*Qa)) Eq 3.2

Below ground rect. tank (tf) = td*(1-2*PSD/(3*Qa)) Eq 3.2

**Time to empty:**

Above ground (te) = $(Vs+0.33*PSD^2*td/Qa*60/10^3)*(1.14/PSD)*(10^3/60)$ Eq 4.28

Below ground pipe (te) = $1.464/PSD*(Vs+0.333*PSD^2*td/Qa*60/10^3)*(10^3/60)$ Eq 4.32

Below ground rect. tank (te) = $2.653/PSD*(Vs+0.333*PSD^2*td/Qa*60/10^3)*(10^3/60)$ Eq 4.36

Storage period (Ps = tf + te) Eq 4.26

| Type | td (mins) | Qa (L/s) | Vs (L/s) | tf (mins) | te (mins) | Ps (mins) |
|---|---|---|---|---|---|---|
| **Above** | | | | | | |
| **Pipe** | | | | | | |
| **B/ground** | 22.3 | 11.3 | 4.4 | 16.7 | 53.2 | 69.9 |

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

## Orifice

Permissible site discharge (Qu=PSD) = 4.26 L/s (Underground storage)

Orifice coefficient (CD) = 0.61 For sharp circular orifice

Gravitational acceration (g) = 9.81 m/s²

Maximum storage depth above orifice (H) = 400 mm

Orifice flow (Q) = $CD*Ao*\sqrt{(2*g*H)}$

Therefore:

Orifice area (Ao) = 2495 mm²

Orifice diameter ($D = \sqrt{(4*Ao/\pi)}$) = 56.4 mm

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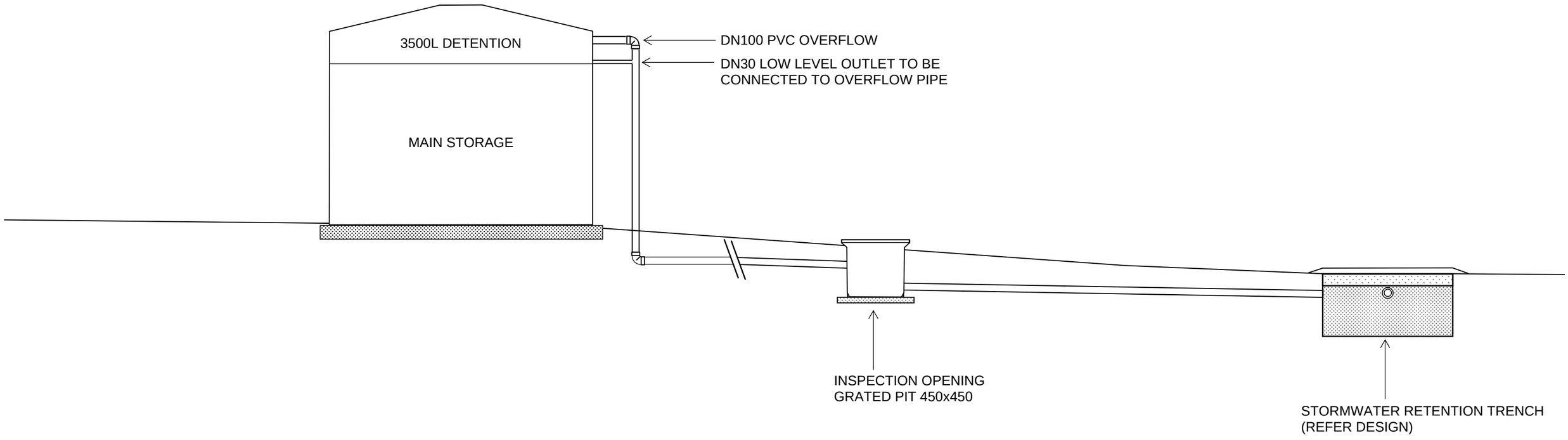
SOLUTIONS
29 Kirksway Place, Battery Point
T| 62231839 E| office@geosolutions.net.au




| | | | | | | |
|---|---|---|---|---|---|---|
| Do not scale from these drawings. Dimensions to take precedence over scale. | STORMWATER DETENTION SCHEMATIC CROSS-SECTION | | | RAINWATER TANK WITH 3500L DETENTION | | Sheet 1 of 1 |

**Design notes:**

1. Absorption bed dimensions of up to 21m long by 0.60m 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. Construction on slopes up to 20% to allow trench depth range 600mm upslope edge to 400mm on down slope edge.
6. All works on site to comply with AS3500 and Tasmanian Plumbing code.

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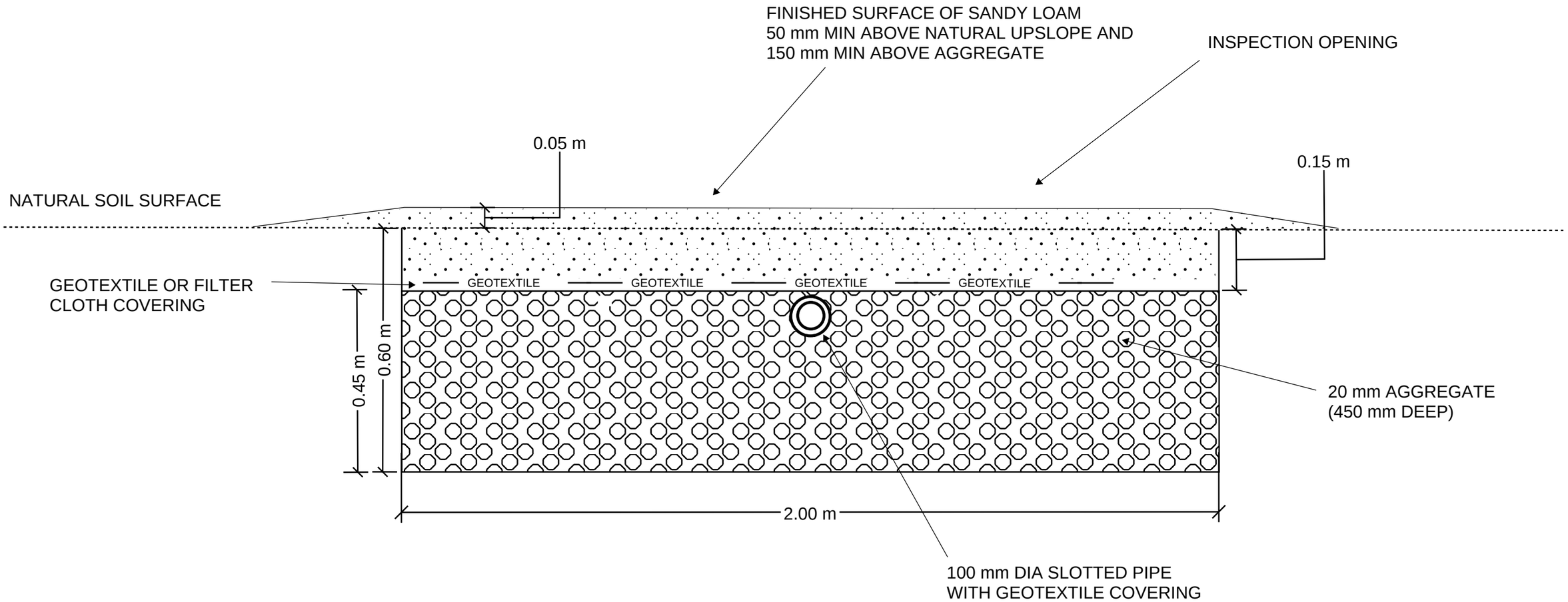


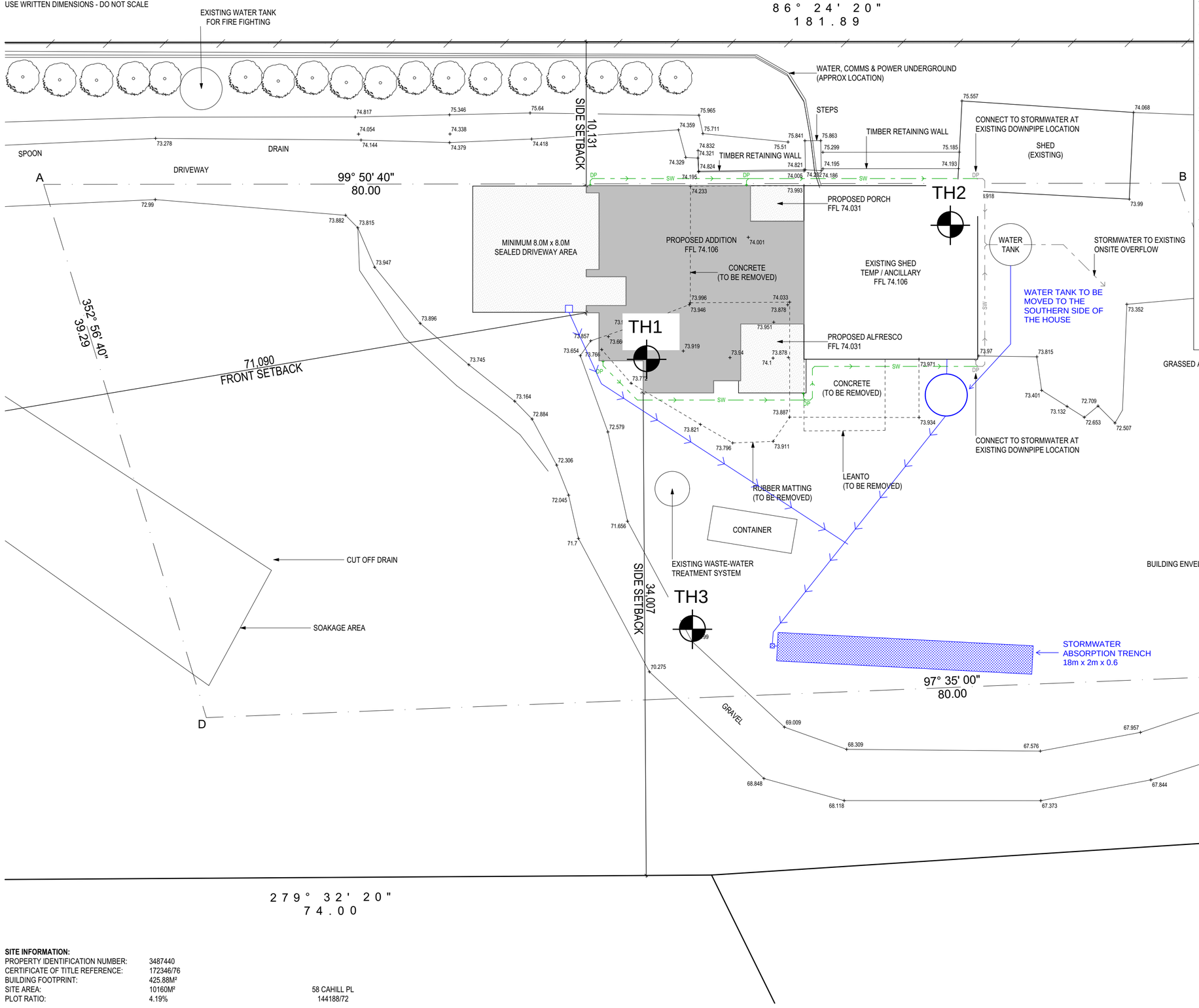

| | | | | |
|---|---|---|---|---|
| Do not scale from these drawings. Dimensions to take precedence over scale. | Geo-Environmental Solutions<br>Stormwater trench | | | Stormwater Absorption Detail |

**GENERAL NOTES:**
ALL CONSTRUCTION WORK AND MATERIALS SHALL COMPLY WITH STATE BUILDING REGULATIONS, RELEVENT CODES, LOCAL COUNCIL BY-LAWS AND RELEVANT NCC 2022 CODES

BUILDER TO VERIFY ALL DIMENSIONS AND LEVELS PRIOR TO COMMENCING CONSTRUCTION.

USE WRITTEN DIMENSIONS - DO NOT SCALE

74 CAHILL PL
172346/77




**SITE INFORMATION:**

| | |
|---|---|
| PROPERTY IDENTIFICATION NUMBER: | 3487440 |
| CERTIFICATE OF TITLE REFERENCE: | 172346/76 |
| BUILDING FOOTPRINT: | 425.88M² |
| SITE AREA: | 10160M² |
| PLOT RATIO: | 4.19% |

58 CAHILL PL
144188/72

7 ELEANOR CT
177726/75

## New Services

STORMWATER PIPE WITH FLOW DIRECTION

GRATED 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)

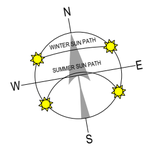
## Stormwater Services Notes:

1. 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.
2. ALL PIPES UNDER TRAFFICABLE AREAS ARE TO BE BACKFILLED FULL DEPTH WITH 20 F.C.R. AND FULLY COMPACTED.
3. ALL STORMWATER PIPES TO BE PVC-U-SWJ CLASS "SN8" TO AS1254 UNO.
4. ALL DRAIN AND TRENCH CONSTRUCTION SHALL COMPLY WITH THE LGAT STANDARD DRG TSD G01.
5. ANY EXCAVATED TRENCHES IN EXCESS OF 1.5M IN DEPTH ARE TO BE ADEQUATELY SHORED TO PREVENT COLLAPSE DURING WORKS.

GES GEO-ENVIRONMENTAL SOLUTIONS
29 Kirksway Place Battery Point
TI 62231839 EI office@geosolutions.net.au


MIROWSKI
DESIGN & CONSTRUCTION
BRIGHTER BUILDING IDEAS

ACCREDITED PRACTITIONER:
NAME: BOB MIROWSKI
REG: CC435O
ADDRESS: 157 CAMPBELL ST, HOBART 7000
PHONE: (03) 6231 3888
ABN: 25 009 570 843
WEB: BMDC.COM.AU
EMAIL: ADMIN@BMDC.COM.AU




AMENDMENTS:

JOB: ALTERATIONS & ADDITIONS

AT: 66 CAHILL PLACE, ACTON PARK

FOR: JEFFREY & KELLIE SALTER

DRAWING TITLE:

# PART SITE PLAN

| DRAWN: | DATE: |
|---|---|
| DR | 10/06/2025 |
| SCALE: | STATUS: |
| 1:200 AT A2 | PRELIMINARY |
| JOB NO: | DWG NO: REV: |
| 1701 | A02 |

0 4 8M

# CERTIFICATE OF THE RESPONSIBLE DESIGNER

**Section 94**
**Section 106**
**Section 129**
**Section 155**

Form **35**

To: Kellie & Jeff Salter *Owner name*
66 Cahill Place *Address*
Acton 7170 *Suburb/postcode*

## 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** Kellie & Jeff Salter
Designer's project reference No. J11982
**Address:** 66 Cahill Place
Lot No: 172346/76
Acton 7170

**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 absorption trench

## Design documents provided:

The following documents are provided with this Certificate –

*Document description:*

| | | |
|---|---|---|
| Drawing numbers: | Prepared by: Geo-Environmental Solutions | Date: Jul-25 |
| Schedules: | Prepared by: | Date: |
| Specifications: | Prepared by: Geo-Environmental Solutions | Date: Jul-25 |
| Computations: | Prepared by: | Date: |
| Performance solution proposals: Onsite stormwater retention | Prepared by: Geo-Environmental Solutions | Date: Jul-25 |
| Test reports: | Prepared by: Geo-Environmental Solutions | Date: Jul-25 |

**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:**

Stormwater Assessment - 66 Cahill Place Acton Park - Jul-25

**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.

| | *Name: (print)* | *Signed* | *Date* |
|---|---|---|---|
| Designer: | Vinamra Gupta |  | 29/07/2025 |
| 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:**

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

## Certification:

I ..... 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

| | *Name: (print)* | *Signed* | *Date* |
|---|---|---|---|
| Designer: | Vinamra Gupta |  | 29/07/2025 |

# DISPERSIVE SOIL ASSESSMENT

***66 Cahill Place***

***Acton Park***

***June 2025***

GEO-ENVIRONMENTAL SOLUTIONS



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

## Introduction

**Client:** Jeff and Kellie Salter
**Date of inspection:** 05/04/2018
**Location:** 66 Cahill Place, Acton Park
**Land description:** Approx. 1 ha
**Building type:** Proposed extension to dwelling
**Investigation:** Geoprobe540ud
**Inspected by:** G. M$^{c}$Donald

## Background information

**Map:** Mineral Resources Tasmania – Hobart Sheet 1:25 000
**Rock type:** Dolerite colluvium overlying Permian sediments
**Soil depth:** Approx. 0.60 – 0.8m
**Planning overlays:** Single Hill Specific Area Plan – dispersive soils
**Local meteorology:** Annual rainfall approx 500 mm
**Local services:** Reticulated water, with on-site waste water disposal required

## Site conditions

**Slope and aspect:** House site moderate approx. 14% degree slope SW, approx. 16% South, approx. 18% SE into a gully
**Site drainage:** Imperfect subsoil drainage
**Vegetation:** Mixed grass and pasture species
**Weather conditions:** Fine, 0 mm rainfall received in preceding 7 days.
**Ground surface:** Slightly moist clay surface

## Investigation

A number of excavations were completed to identify the distribution of, and variation in soil materials on the site. Representative excavations at the approximate location indicated on the site plan were chosen for testing and classification according to AS2870-2011 and AS1547-2012 (see profile summary).

## Profile Summary – House area

| Hole 1 Depth (m) | Hole 2 Depth (m) | Horizon | Description |
|---|---|---|---|
| 0 – 0.10 | 0 – 0.10 | B1 | Dark Greyish Brown **CLAY (CL)**, moderate sub-angular blocky structure, slightly moist stiff consistency, medium plasticity, gradual boundary to |
| 0.10 – 0.60 | 0.10 – 0.55 | B2 | Dark Brown **CLAY (CH)**, well developed sub-angular blocky structure, slightly moist stiff consistency, high plasticity, gradual boundary to |
| 0.60 – 0.70 | 0.55 – 0.60 | BC | Yellowish Brown to Pale Brown **CLAYEY GRAVEL (GC)**, weakly developed sub-angular structure, slightly moist hard consistency, ~20% clay, ~60% weathered gravels increasing with depth to auger refusal. |

## Soil profile notes

The soil on site is clay dominant with good structure and a medium to high plasticity. Refusal between 0.60m and 0.8m on highly weathered gravel.

## Construction Recommendations

The dispersive soil assessment of the property considers the proposed construction area.

**Potential for dispersive soils**

The site has been identified as an area subject to tunnel erosion hazard according to 'Dispersive Soils and Their Management: Technical Reference Manual'. This is due to the soils present on site that developed from a mix of dolerite and Permian sediments that contain considerable fine sand/silt content and high plastic clays. Permian sediments in the local area is known to produce soils with an excess of sodium on the soil exchange complex, which can cause soil dispersion. Under some circumstances the presence of dispersive soils can also lead to significant erosion, and in particular tunnel erosion. Based upon field survey

of the property, no visible tunnel or gully erosion was identified. However, a soil sampling program was undertaken to identify the presence of dispersive soils in the proposed development areas.

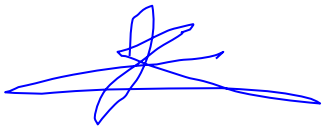
**Soil sampling and testing**

Samples were taken at the site for assessment of dispersion. An Emerson (1968) Dispersion test was conducted to determine if these samples were dispersive.

The sampling and testing results indicate that the soil on site is non-dispersive. Based upon the test results there is a very low risk of soil dispersion and erosion on the site, and as such no dispersive soil management recommendations have been made.

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

During construction GES will need to be notified of any major variation to the soil conditions or wastewater loading as predicted in this report.



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

*Environmental and Engineering Soil Scientist*

**Appendix 1– Soil test results**

# Laboratory Test Results

**Sample Submitted By:** A Plummer

**Date Submitted:** 08/04/18

**Sample Identification:** 2 samples – 66 Cahill Place

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

**Result:**

| Sample | Texture | Emerson class | Description |
|---|---|---|---|
| **BH1 – 0.4m** | **Clay** | **Class 8** | **slaking** |
| **BH2 – 0.4m** | **Clay** | **Class 8** | **slaking** |

**Sample Tested by:** A Plummer

# GEO-ENVIRONMENTAL ASSESSMENT

***Lot 76 Cahill Place***

***Acton Park***

***May 2018***

GEO-ENVIRONMENTAL SOLUTIONS



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

## Introduction

| | |
|---|---|
| **Client:** | Jeff and Kellie Salter |
| **Date of inspection:** | 05/04/2018 |
| **Location:** | Lot 76 Cahill Place, Acton Park |
| **Land description:** | Approx. 1 ha |
| **Building type:** | Proposed new dwelling |
| **Investigation:** | Geoprobe540ud |
| **Inspected by:** | G. M$^{c}$Donald |

## Background information

| | |
|---|---|
| **Map:** | Mineral Resources Tasmania – Hobart Sheet 1:25 000 |
| **Rock type:** | Dolerite colluvium overlying Permian sediments |
| **Soil depth:** | Approx. 0.60 – 0.8m |
| **Planning overlays:** | Bushfire Prone Area, Single Hill Specific Area Plan, Landslide Hazard Area on the East property border, Waterway and Coastal protection area SE area of property, Biodiversity Protection Area SE area of property |
| **Local meteorology:** | Annual rainfall approx 500 mm |
| **Local services:** | Reticulated water, with on-site waste water disposal required |

## Site conditions

| | |
|---|---|
| **Slope and aspect:** | House site moderate approx. 14% degree slope SW, approx. 16% South, approx. 18% SE into a gully |
| **Site drainage:** | Imperfect subsoil drainage |
| **Vegetation:** | Mixed grass and pasture species |
| **Weather conditions:** | Fine, 0 mm rainfall received in preceding 7 days. |
| **Ground surface:** | Slightly moist clay surface |

## Investigation

A number of excavations were completed to identify the distribution of, and variation in soil materials on the site. Representative excavations at the approximate location indicated on the site plan were chosen for testing and classification according to AS2870-2011 and AS1547-2012 (see profile summary).

## Profile Summary – House site

| Hole 1 Depth (m) | Hole 2 Depth (m) | Horizon | Description |
|---|---|---|---|
| 0 – 0.10 | 0 – 0.10 | B1 | Dark Greyish Brown **CLAY (CL)**, moderate sub-angular blocky structure, slightly moist stiff consistency, medium plasticity, gradual boundary to |
| 0.10 – 0.60 | 0.10 – 0.55 | B2 | Dark Brown **CLAY (CH)**, well developed sub-angular blocky structure, slightly moist stiff consistency, high plasticity, gradual boundary to |
| 0.60 – 0.70 | 0.55 – 0.60 | BC | Yellowish Brown to Pale Brown **CLAYEY GRAVEL (GC)**, weakly developed sub-angular structure, slightly moist hard consistency, ~20% clay, ~60% weathered gravels increasing with depth to auger refusal. |

## Profile summary – Wastewater

| Hole 3 Depth (m) | Horizon | Description |
|---|---|---|
| 0 – 0.10 | A1 | Dark Greyish Brown **CLAY (CL)**, moderate sub-angular blocky structure, slightly moist stiff consistency, medium plasticity, gradual boundary to |
| 0.10 – 0.70 | B1 | Dark Brown **CLAY (CH)**, well developed sub-angular blocky structure, slightly moist stiff consistency, high plasticity, gradual boundary to |
| 0.70 – 0.80 | B2C | Yellowish Brown to Pale Brown **CLAYEY GRAVEL (GC)**, weakly developed sub-angular structure, slightly moist hard consistency, ~20% clay, ~60% weathered gravels increasing with depth to auger refusal. |

## Soil profile notes

The soil on site is clay dominant with good structure and a medium to high plasticity. Refusal between 0.60m and 0.8m on highly weathered gravel.

## Site Classification

According to AS2870-2011 for construction the natural soil is classified as **Class M**, that is a moderately reactive clay which may experience moderate ground movement from moisture changes.

## Wind Classification

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

| | |
|---|---|
| Region: | **A** |
| Terrain category: | **TC2.5** |
| Shielding Classification: | **NS** |
| Topographic Classification: | **T2** |
| Wind Classification: | **N3** |
| Design Wind Gust Speed ( $V_{h,u}$ ) | **50 m/sec** |

## Wastewater recommendations

According to AS1547-2012 for on-site wastewater management the soil on the property is classified as a **Light clay (category 5)** with a Design Irrigation Rate (DIR) of 3mm/day. The use of a packaged treatment system is recommended, with an AWTS and subsurface irrigation used due to the limiting depth of the soil.

The proposed five bedroom equivalent dwelling has a calculated maximum wastewater loading of 1050L/day. This is based on a mains water supply and a maximum occupancy of 7 people (150L/day/person). Given a loading of 1050L/day, and a DIR of 3mm/day, then 350$m^2$ of subsurface irrigation area is required to accommodate the expected flows. Additional sandy loam (min 200mm) should be added to the site before the irrigation is installed to ensure adequate infiltration. A cut-off diversion drain will be required upslope of the absorption area and the area excluded from traffic or any future building works. A 100%

reserve area (an additional 350m$^2$) should be set aside for future wastewater requirements. For further detail please refer to the attached plan and Trench summary reports.

The following setback distances are required to comply with the Building Act 2016:

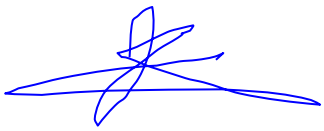
| | |
|---|---|
| Buildings: | 3m |
| Upslope or level boundaries: | 1.5m |
| Downslope boundaries: | 15.5m |
| Downslope surface water: | 100m |

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

## Construction Recommendations

According to AS2870-2011 for construction the natural soil is classified as **Class M,** and all site Earthworks must comply with AS3798-2012. It is recommended foundations be placed onto the clayey gravel found between 0.6m and 0.8m. Excavation should be avoided during periods of high soil moisture due to the working limits of the soil. Consideration should be given to drainage and sediment control onsite during and after construction to minimise potential foundation movement. In particular, drainage upslope of the construction area is recommended to minimise possible weakening of the clay sediments in the foundation area and appropriate articulation in the building in accordance with recommendations for reactive sites in AS2870-2011.

During construction GES will need to be notified of any major variation to the soil conditions or wastewater loading as predicted in this report.



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

GES

Land suitability and system sizing for on-site wastewater management

Trench 3.0 (Australian Institute of Environmental Health)

# Assessment Report

## Site assessment for on-site waste water disposal

| | | | |
|---|---|---|---|
| Assessment for | Jeff and Kellie Salter | Assess. Date | 14-May-18 |
| | | Ref. No. | |
| Assessed site(s) | Lot 76 Cahill Place | Site(s) inspected | 5-Apr-18 |
| Local authority | Clarence City Council | Assessed by | John Paul Cumming |

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

### Wastewater Characteristics

'astewater volume (L/day) used for this assessment = 1,050 (using the 'No. of bedrooms in a dwelling' method)

Septic tank wastewater volume (L/day) = 350

Sullage volume (L/day) = 700

Total nitrogen (kg/year) generated by wastewater = 3.8

'otal phosphorus (kg/year) generated by wastewater = 1.9

### Climatic assumptions for site

(Evapotranspiration calculated using the crop factor method)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean rainfall (mm) | 41 | 36 | 36 | 45 | 36 | 29 | 46 | 47 | 40 | 48 | 44 | 56 |
| Adopted rainfall (R, mm) | 41 | 36 | 36 | 45 | 36 | 29 | 46 | 47 | 40 | 48 | 44 | 56 |
| Retained rain (Rr, mm) | 35 | 31 | 31 | 38 | 31 | 25 | 39 | 40 | 34 | 41 | 37 | 48 |
| Max. daily temp. (deg. C) | | | | | | | | | | | | |
| Evapotrans (ET, mm) | 130 | 110 | 91 | 63 | 42 | 29 | 32 | 42 | 63 | 84 | 105 | 126 |
| Evapotr. less rain (mm) | **95** | **79** | **60** | **25** | **11** | **5** | **-8** | **2** | **29** | **43** | **68** | **78** |

Annual evapotranspiration less retained rain (mm) = 489

### Soil characterisitics

Texture = Light Clay Category = 5 Thick. (m) = 0.8

\dopted permeability (m/day) = 0.12 Adopted LTAR (L/sq m/day) = 3 Min depth (m) to water = 3

### Proposed disposal and treatment methods

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

### Suggested dimensions for on-site secondary treatment system

| | |
|---|---|
| Total length (m) = | 35 |
| Width (m) = | 10 |
| Depth (m) = | 0.2 |
| Total disposal area (sq m) required = | 350 |
| comprising a Primary Area (sq m) of: | 350 |
| and a Secondary (backup) Area (sq m) of: | |

Sufficient area is available on site

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

Comments

The wastewater loading is calculated for a 5 bedroom-equivalent house on mains water with a wastewater loading of 150 L/day/person and a maximum occupancy of 7 people. This will be treated in an AWTS and subsurface irrigation system. Using the DIR of 3mm/day, a surface irrigation area of 350sq will be required to accomodate the 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 | Jeff and Kellie Salter | Assess. Date | 14-May-18 |
| | | Ref. No. | |
| Assessed site(s) | Lot 76 Cahill Place | Site(s) inspected | 5-Apr-18 |
| Local authority | Clarence City Council | Assessed by | John Paul Cumming |

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

| Alert | Factor | Units | Value | Confid level | Limitation Trench | Limitation Amended | Remarks |
|---|---|---|---|---|---|---|---|
| | Expected design area | sq m | 3,000 | V. high | Very low | | |
| | Density of disposal systems | /sq km | 5 | Mod. | Very low | | |
| | Slope angle | degrees | 8 | High | Low | | |
| | Slope form | Convex spreading | | High | Very low | | |
| | Surface drainage | Imperfect | | High | Moderate | | |
| | Flood potential | Site floods <1:100 yrs | | High | Very low | | |
| | Heavy rain events | Infrequent | | High | Moderate | | |
| | Aspect (Southern hemi.) | Faces NE or NW | | V. high | Low | | |
| | Frequency of strong winds | Common | | High | Low | | |
| | Wastewater volume | L/day | 1,050 | High | High | Moderate | Other factors lessen impact |
| | SAR of septic tank effluent | | 1.2 | High | Low | | |
| | SAR of sullage | | 2.1 | High | Moderate | | |
| | Soil thickness | m | 0.8 | V. high | Low | | |
| | Depth to bedrock | m | 3.0 | Mod. | Very low | | |
| | Surface rock outcrop | % | 0 | V. high | Very low | | |
| | Cobbles in soil | % | 0 | V. high | Very low | | |
| | Soil pH | | 7.0 | High | Very low | | |
| | Soil bulk density | gm/cub. cm | 1.5 | High | Low | | |
| | Soil dispersion | Emerson No. | 7 | V. high | Very low | | |
| | Adopted permeability | m/day | 0.12 | Mod. | Very low | | |
| A | Long Term Accept. Rate | L/day/sq m | 3 | High | High | | |

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

Comments

Site capability for proposed waste water disposal system is generally good,

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 | Jeff and Kellie Salter | Assess. Date | 14-May-18 |
| | | Ref. No. | |
| Assessed site(s) | Lot 76 Cahill Place | Site(s) inspected | 5-Apr-18 |
| Local authority | Clarence City Council | Assessed by | John Paul Cumming |

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

| Alert | Factor | Units | Value | Confid level | Limitation Trench | Limitation Amended | Remarks |
|---|---|---|---|---|---|---|---|
| | Cation exchange capacity | mmol/100g | 80 | High | Low | | |
| | Phos. adsorp. capacity | kg/cub m | 0.7 | High | Moderate | | |
| | Annual rainfall excess | mm | -489 | High | Very low | | |
| | Min. depth to water table | m | 3 | High | Very low | | |
| | Annual nutrient load | kg | 5.7 | High | Low | | |
| | G'water environ. value | Agric non-sensit | | V. high | Low | | |
| | Min. separation dist. required | m | 5 | High | Very low | | |
| | Risk to adjacent bores | | Very low | V. high | Very low | | |
| | Surf. water env. value | Agric non-sensit | | V. high | Low | | |
| A | Dist. to nearest surface water | m | 120 | V. high | High | | |
| | Dist. to nearest other feature | m | 120 | V. high | Very low | | |
| | Risk of slope instability | | Low | V. high | Low | | |
| | Distance to landslip | m | 70 | V. high | Moderate | | |

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

Comments

There is a low environemntal risk associated with wastewater disposal on site. The soil onsite has a good CEC therefore the soil system has a good capacity to cope with the applied nutrient load from the system. The site will have good capability to accept waste-water disposal.

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

| **Acceptable Solutions** | **Performance Criteria** | **Compliance** |
|---|---|---|
| A1<br>Horizontal separation distance from a building to a land application area must comply with one of the following:<br>a) be no less than 6m; or<br>b) be no less than:<br>(i) 3m from an upslope building or level building;<br>(ii) If primary treated effluent to be no less than 4m plus 1m for every degree of average gradient from a downslope building;<br>(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<br>a) The land application area is located so that<br>(i) the risk of wastewater reducing the bearing capacity of a building's foundations is acceptably low.; and<br>(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 | Complies with A1 (b) (i)<br>Land application area will be located 3m from an upslope building or level building |
| A2<br>Horizontal separation distance from downslope surface water to a land application area must comply with (a) or (b)<br>(a) be no less than 100m; or<br>(b) be no less than the following:<br>(i) if primary treated effluent 15m plus 7m for every degree of average gradient to downslope surface water; or<br>(ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to down slope surface water. | P2<br>Horizontal separation distance from downslope surface water to a land application area must comply with all of the following:<br>a) Setbacks must be consistent with AS/NZS 1547 Appendix R;<br>b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable. | Complies with A2 (a)<br>Land application area located > 100m from downslope surface water |

| | | |
|---|---|---|
| A3<br><br>Horizontal separation distance from a property boundary to a land application area must comply with either of the following:<br><br>(a) be no less than 40m from a property boundary; or<br><br>(b) be no less than:<br><br>(i) 1.5m from an upslope or level property boundary; and<br><br>(ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or<br><br>(iii) If secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary. | P3<br><br>Horizontal separation distance from a property boundary to a land application area must comply with all of the following:<br><br>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and<br><br>(b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable. | Complies with A3 (b) (i)<br>Land application area will be located with a minimum separation distance of 1.5m from an upslope or level property boundary<br><br>Complies with A3 (b) (iii)<br>Land application area will be located with a minimum separation distance of 15.5m of downslope property boundary |
| A4<br><br>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<br><br>Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must comply with all of the following:<br><br>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and<br><br>(b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 demonstrates that the risk is acceptable | Complies with A4<br>No bore or well identified within 50m |

| | | |
|---|---|---|
| A5<br>Vertical separation distance between groundwater and a land application area must be no less than:<br>(a) 1.5m if primary treated effluent; or<br>(b) 0.6m if secondary treated effluent | P5<br>Vertical separation distance between groundwater and a land application area must comply with the following:<br>(a) Setback must be consistent with AS/NZS 1547 Appendix R; and<br>(b) A risk assessment completed in accordance with Appendix A of AS/NZS 1547 that demonstrates that the risk is acceptable | Complies with A5 (b)<br>No groundwater encountered |
| A6<br>Vertical separation distance between a limiting layer and a land application area must be no less than:<br>(a) 1.5m if primary treated effluent; or<br>(b) 0.5m if secondary treated effluent | P6<br>Vertical setback must be consistent with AS/NZS1547 Appendix R. | Complies with A6 (b)<br>No limiting layer identified |
| A7<br>nil | P7<br>A wastewater treatment unit must be located a sufficient distance from buildings or neighbouring properties so that emissions (odour, noise or aerosols) from the unit do not create an environmental nuisance to the residents of those properties | Complies |

# 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:** Lot 76 Cahill Place, Acton Park

**System Capacity:** 7 persons @ 150L/person/day

**Summary of Design Criteria**

**DIR:** 2mm/day.

**Irrigation area:** 350$m^2$

**Reserve area location /use:** Assigned – 100% available

**Water saving features fitted:** Standard fixtures

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

**Typical loading change consequences:** Expected to be minimal due to use of AWTS and large land area

**Overloading consequences:** Continued overloading may cause hydraulic failure of the irrigation 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 irrigation areas 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 QUALIFIED PERSON – ASSESSABLE ITEM

**Section 321**

Form **55**

To: Salter, Jeff & Kellie *Owner /Agent*

10 Morton Place *Address*

Howrah 7018 *Suburb/postcode*

## Qualified person details:

Qualified person: John-Paul Cumming

Address: 29 Kirksway Place

Battery Point 7004

Phone No: 03 6223 1839

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: Lot 76 Cahill Pl

Acton Park 7170

Lot No: 76

Certificate of title No: 172346/76

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<br>AS1726-1993 Geotechnical site investigations<br>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.**

| | *Signed:* | *Certificate No:* | *Date:* |
|---|---|---|---|
| Qualified person: | | 2518 | 15/06/2018 |


# CERTIFICATE OF THE RESPONSIBLE DESIGNER

**Section 94**
**Section 106**
**Section 129**
**Section 155**

Form **35**

To: Salter, Jeff & Kellie *Owner name*

10 MORTYN PL HOWRAH *Address*

Howrah 7018 *Suburb/postcode*

## Designer details:

Name: John-Paul Cumming

Category: Bld. Srvcs. Dsgnr. - Hydraulic

Business name: Geo-Environmental Solutions

Phone No: 03 6223 1839

Business address: 29 Kirksway Place

Battery Point 7004

Fax No: N/A

Licence No: CC774A

Email address: office@geosolutions.net.au

## Details of the proposed work:

**Owner/Applicant** Clint Wills

Designer's project reference No.

**Address:** Lot 76 Cahill Pl

Lot No: 172346/76

Acton Park

**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 subsurface drainage

## Design documents provided:

The following documents are provided with this Certificate –

*Document description:*

| | | |
|---|---|---|
| Drawing numbers: | Prepared by: Geo-Environmental Solutions | Date: Jun-18 |
| Schedules: | Prepared by: | Date: |
| Specifications: | Prepared by: Geo-Environmental Solutions | Date: Jun-18 |
| Computations: | Prepared by: | Date: |
| Performance solution proposals: | Prepared by: | Date: |
| Test reports: | Prepared by: Geo-Environmental Solutions | Date: Jun-18 |

**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:**

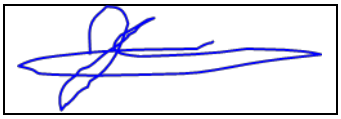
On-Site Wastewater Assessment – Lot 76 Cahill Place – May 2018 - GES

**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 |  | 15/06/2018 |
| 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.**

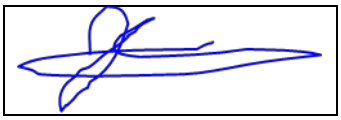
**I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:**

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

## Certification:

I .....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 |  | 11/05/2018 |

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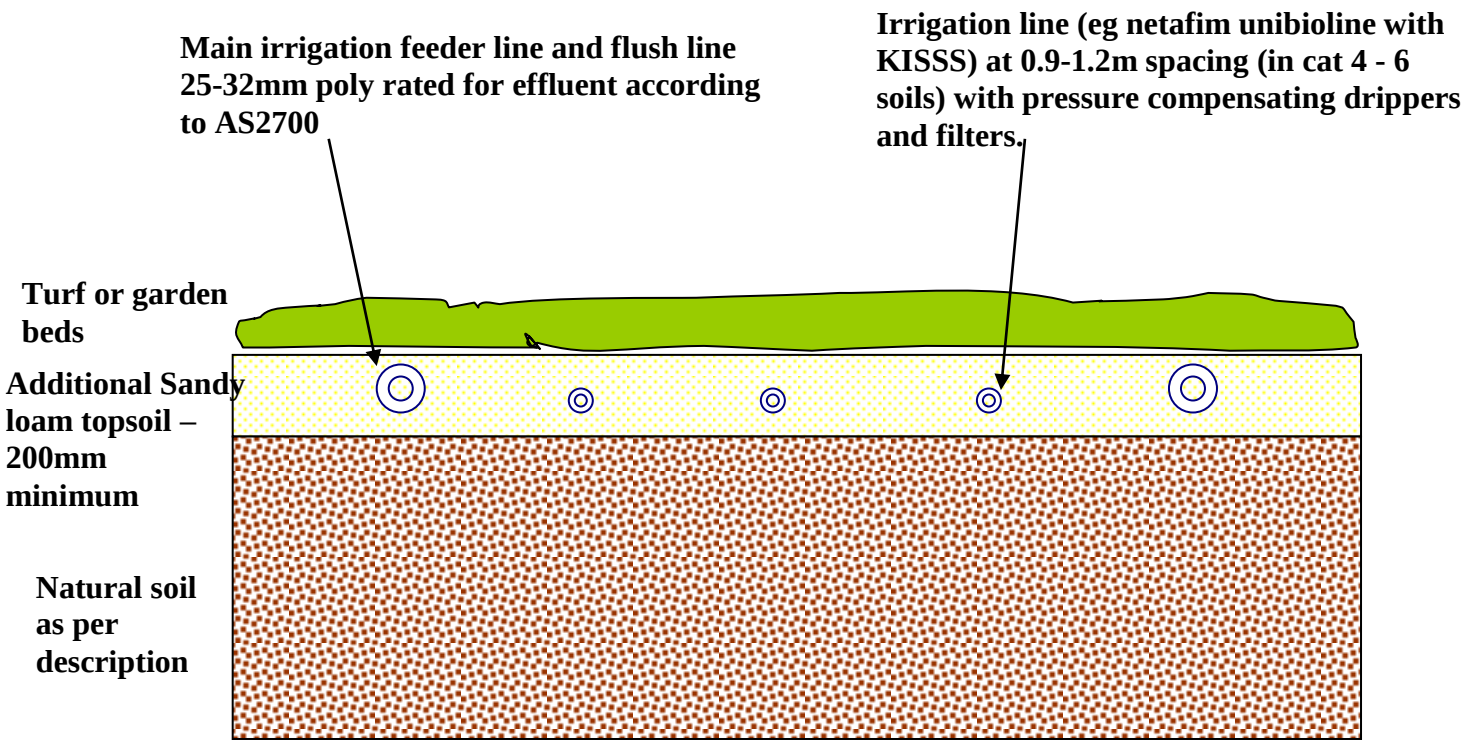
# Figure 1

## Subsurface irrigation design

To be used in conjunction with site evaluation report for construction of subsurface irrigation areas for use with aerated wastewater treatment systems (AWTS). On dispersive soils gypsum should be added to tilled natural soil at 1Kg/5m$^2$. The irrigation outlet line from the system or holding tank should utilize a 25-32mm main line out stepped down to a 11-16mm lateral drip irrigation lines in each irrigation row. If the final design is for shrubs/trees then a mounded row design is best employed with a nominal mound height of approximately 200mm.

**Irrigation Area Cross Section**




*Note – the bedding sandy loam & topsoil/turf depths are minimum, with a maximum depth below surface of 100mm recommended (range 100-200mm).*

- The existing surface of the site should be tilled to a depth of 100mm with a conventional plough, discs or spring tines to break down the turf matt and any large soil clods – all stones must be removed
- A minimum of 200mm of sandy loam should be added to the site to aid installation of the drip line into a suitable medium – the loam should be mixed into the exiting subsoil with another pass of the cultivating tines or similar
- Turf, seed or plants should be applied to the are as soon as practical after the laying of dripper line and commissioning of the system

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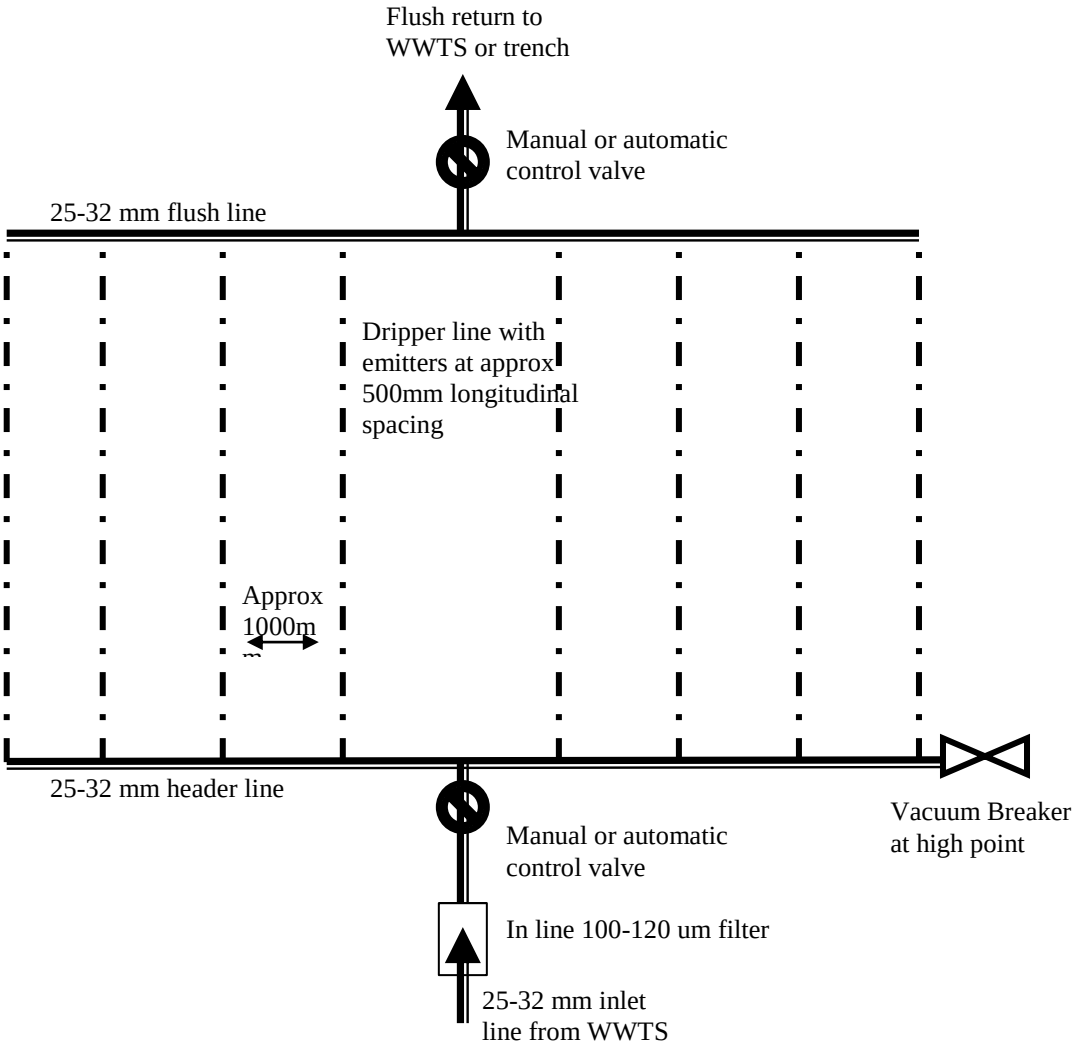
## Irrigation Area Plan View




**Design specifications:**

1. Manufacturer's recommendations for spacing of lateral irrigation lines should be followed (eg netafim unibioline with/without KISSS) with commonly used with spacing of 0.3m (0.6m KISSS) in highly permeable soils and 0.6m (1.0-1.2m KISSS) in less permeably loams and clays.
2. Dependant upon treatment system a 200µm filter may be installed at the pumping chamber outlet, but a 100-120 µm inline disc filter should be installed prior to discharge into the irrigation area.
3. A vacuum breaker valve must be installed at the highest point of each irrigation zone in a marked and protected valve control box.
4. A flush line must be installed at the lowest point/bottom of the irrigation area with a return valve for flushing back into the treatment chamber of the system (not into the primary chamber as it may affect the performance of the microbial community) or to a dedicated absorption trench.
5. The minimum irrigation pumping capacity should be equivalent to 120kpa (i.e. 12m of head) at the furthest point of the irrigation area (a gauge should be placed at the vacuum breaker) – therefore pump size can be matched on site to the irrigation pipe size and design.

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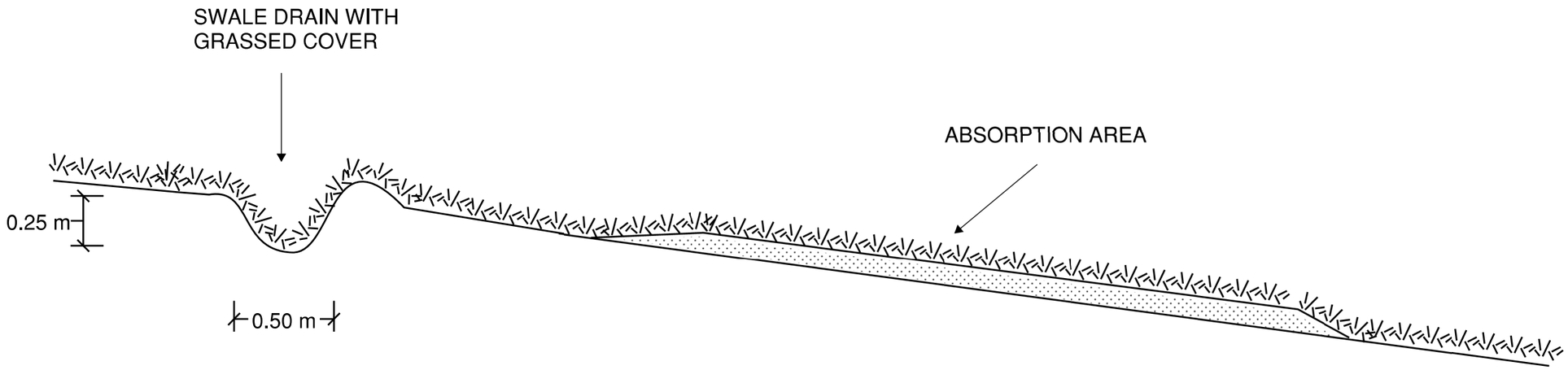
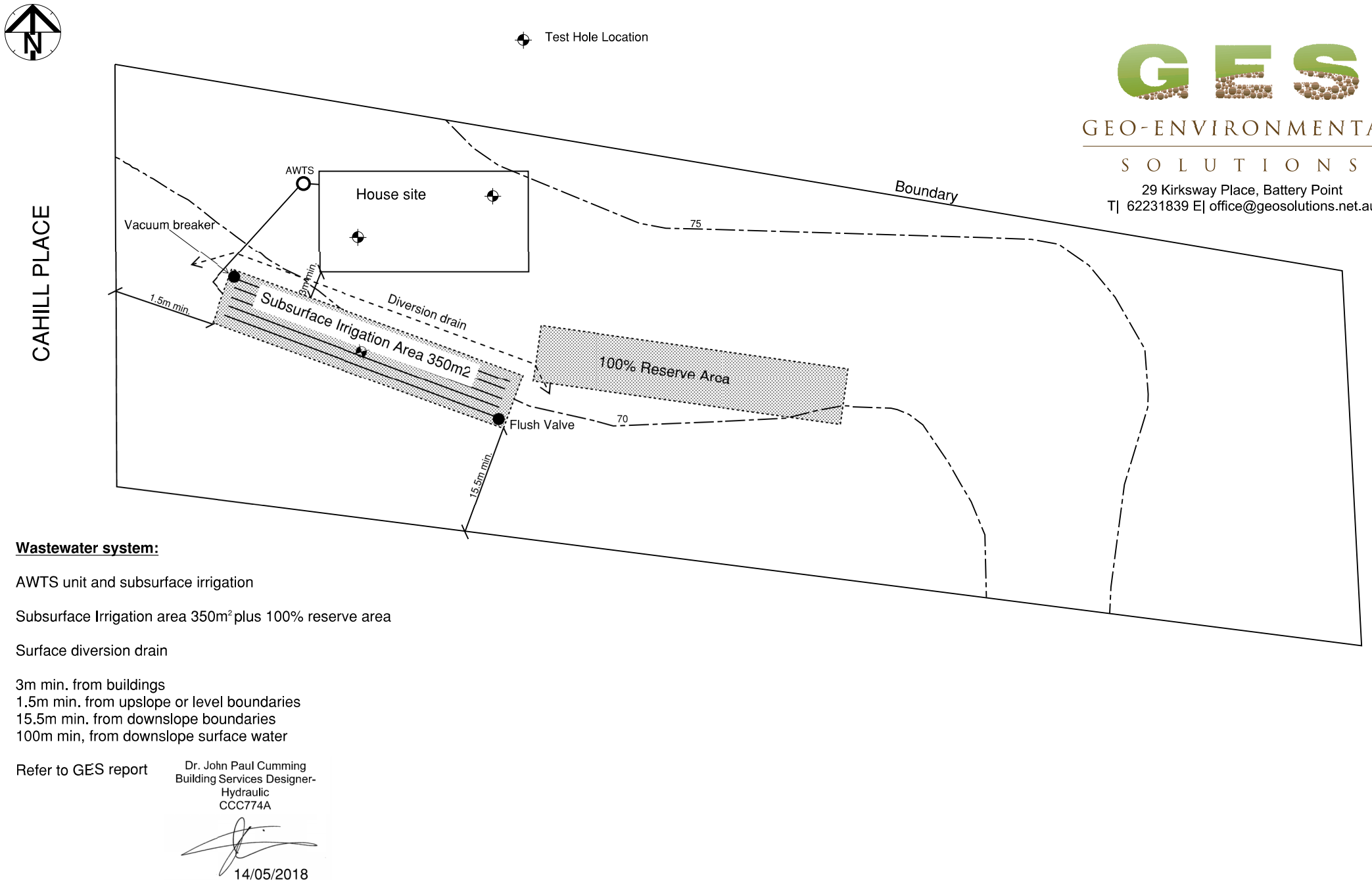
**TYPICAL GRASSED SWALE DRAIN CROSS-SECTION**

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




| | | | | | |
|---|---|---|---|---|---|
| Do not scale from these drawings. Dimensions to take precedence over scale. | Geo-Environmental Solutions | | Date: June 2017 | Grassed swale drain<br>typical cross-section | Sheet 1 of 1<br>Drawn by PL |

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**Wastewater system:**

AWTS unit and subsurface irrigation

Subsurface Irrigation area 350m² plus 100% reserve area

Surface diversion drain

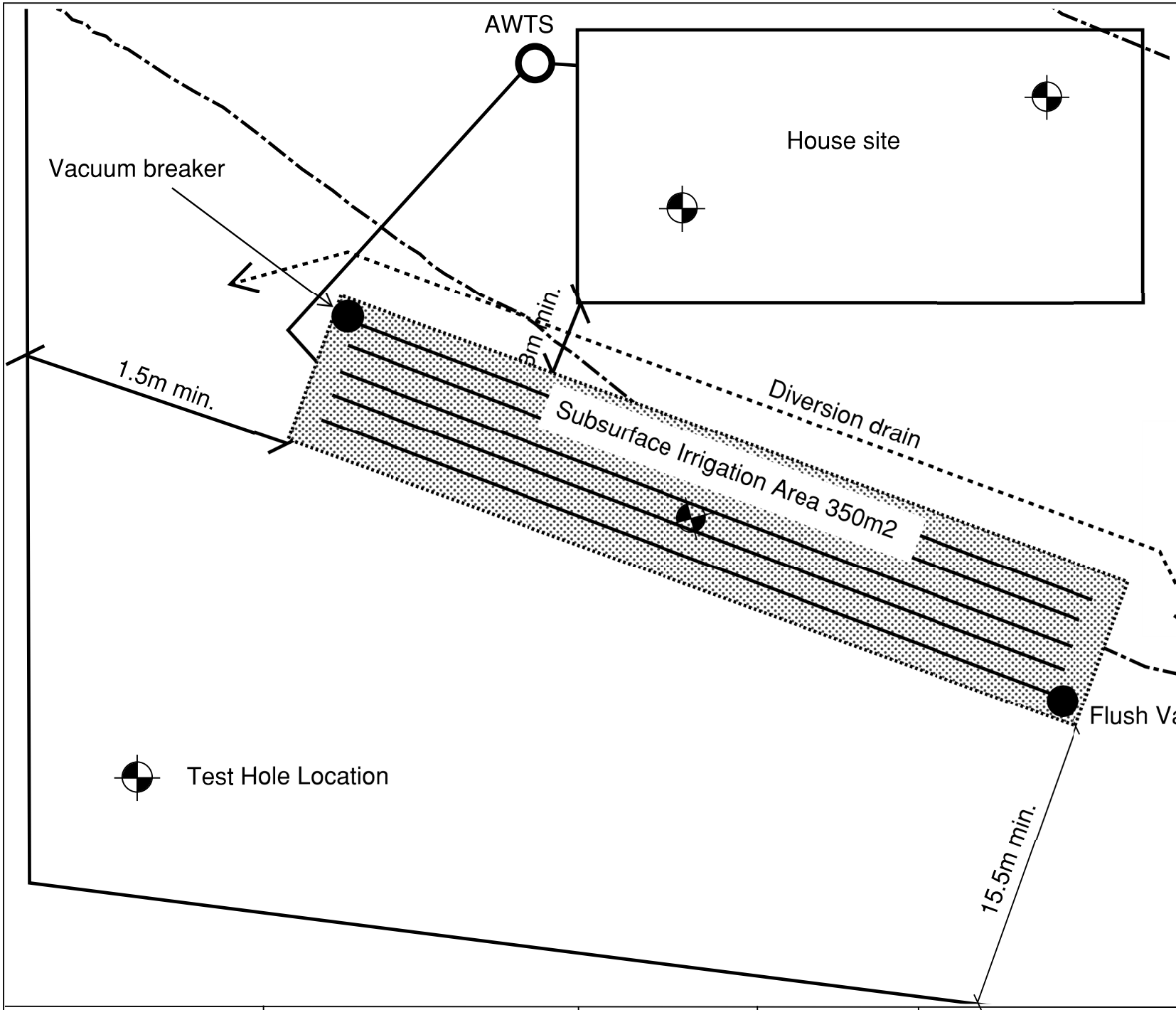
3m min. from buildings
1.5m min. from upslope or level boundaries
15.5m min. from downslope boundaries
100m min, from downslope surface water

Refer to GES report

Dr. John Paul Cumming
Building Services Designer-Hydraulic
CCC774A

14/05/2018

| | | | | | | |
|---|---|---|---|---|---|---|
| Do not scale from these drawings. Dimensions to take precedence over scale. | Jeff and Kellie Salter<br>Lot 76 Cahill Place<br>Acton Park | C.T.: 172346/76<br>PID: 3487440 | Date: 14/05/2018 | On-Site Wastewater Management Plan | Drawing Number: 1<br>Scale 1:500 | Sheet 1 of 2<br>Prepared by: ED |

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Refer to GES report

Dr. John Paul Cumming
Building Services Designer-Hydraulic
CCC774A

14/05/2018

| | | | | | | |
|---|---|---|---|---|---|---|
| Do not scale from these drawings. Dimensions to take precedence over scale. | Jeff and Kellie Salter<br>Lot 76 Cahill Place<br>Acton Park | C.T.: 172346/76<br>PID: 3487440 | Date: 14/05/2018 | On-Site Wastewater Management Plan | Drawing Number: 2<br>Scale 1:200 | Sheet 2 of 2<br>Prepared by: ED |