



## NOTICE OF DETERMINATION OF A DEVELOPMENT APPLICATION

**Application number** DA-147/2023  
PAN-385897

**Applicant** ABODE Building Design

**Description of development** The proposed development is for the construction of 3 self-storage sheds containing a total of 198 separate storage units, associated earthworks, drainage and concrete pavements

**Property** 43 BRISSETT STREET INVERELL 2360  
3/-/DP1126040

**Determination** Approved  
Consent Authority - Council

**Date of determination** 1/03/24

**Date from which the consent operates** 1/03/24

**Date on which the consent lapses** 1/03/29

Under section 4.18(1) of the EP&A Act, notice is given that the above development application has been determined by the granting of consent using the power in section 4.16(1)(a) of the EP&A Act, subject to the conditions specified in this notice.

### Reasons for approval

1. The development, subject to conditions, is consistent with the objectives of the E4 General Industrial zone.

### Right of appeal / review of determination

If you are dissatisfied with this determination: 2. The built form and design of the self-storage units, subject to conditions is consistent with the streetscape, development in the locality.

### **Request a review**

You may request a review of the consent authority's decision under section 8.3(1) of the EP&A Act. The application must be made to the consent authority within 6 months from the date that you received the original determination notice provided that an appeal under section 8.7 of the EP&A Act has not been disposed of by the Court.

3. In consideration of controls of the Inverell Development Control Plan 2013, the development is considered appropriate within the locality.

### **Rights to appeal**

You have a right under section 8.7 of the EP&A Act to appeal to the Court within 6 months after the date on which the determination appealed against is notified or registered on the NSW planning portal.

The Dictionary at the end of this consent defines words and expressions for the purposes of this determination.



Anthony Alliston  
Manager Development Services  
Person on behalf of the consent authority

## Terms and Reasons for Conditions

Under section 88(1)(c) of the EP&A Regulation, the consent authority must provide the terms of all conditions and reasons for imposing the conditions other than the conditions prescribed under section 4.17(11) of the EP&A Act. The terms of the conditions and reasons are set out below.

### General Conditions

1	<p><b>Compliance with Building Code of Australia and insurance requirements under Home Building Act 1989</b></p> <ol style="list-style-type: none"><li>1. It is a condition of a development consent for development that involves building work that the work must be carried out in accordance with the requirements of the Building Code of Australia.</li><li>2. It is a condition of a development consent for development that involves residential building work for which a contract of insurance is required under the Home Building Act 1989, Part 6 that a contract of insurance is in force before building work authorised to be carried out by the consent commences.</li><li>3. It is a condition of a development consent for a temporary structure used as an entertainment venue that the temporary structure must comply with Part B1 and NSW Part H102 in Volume 1 of the Building Code of Australia.</li><li>4. In subsection (1), a reference to the Building Code of Australia is a reference to the Building Code of Australia as in force on the day on which the application for the construction certificate was made.</li><li>5. In subsection (3), a reference to the Building Code of Australia is a reference to the Building Code of Australia as in force on the day on which the application for development consent was made.</li><li>6. This section does not apply—<ol style="list-style-type: none"><li>a. to the extent to which an exemption from a provision of the Building Code of Australia or a fire safety standard is in force under the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021, or</li><li>b. to the erection of a temporary building, other than a temporary structure to which subsection (3) applies.</li></ol></li></ol> <p><b>Condition reason:</b> Prescribed condition under section 69 of the Environmental Planning and Assessment Regulation 2021.</p>
2	<p><b>Erection of signs</b></p> <ol style="list-style-type: none"><li>1. This section applies to a development consent for development involving building work, subdivision work or demolition work.</li><li>2. It is a condition of the development consent that a sign must be erected in a prominent position on a site on which building work, subdivision work or demolition work is being carried out—<ol style="list-style-type: none"><li>a. showing the name, address and telephone number of the principal certifier for the work, and</li></ol></li></ol>

- u. showing the name of the principal contractor, if any, for the building work and a telephone number on which the principal contractor may be contacted outside working hours, and
  - c. stating that unauthorised entry to the work site is prohibited.
3. The sign must be—
- a. maintained while the building work, subdivision work or demolition work is being carried out, and
  - b. removed when the work has been completed.
4. This section does not apply in relation to—
- a. building work, subdivision work or demolition work carried out inside an existing building, if the work does not affect the external walls of the building, or
  - b. Crown building work certified to comply with the Building Code of Australia under the Act, Part 6.

**Condition reason:** Prescribed condition under section 70 of the Environmental Planning and Assessment Regulation 2021.

3

**Approved plans and supporting documentation**

Development must be carried out in accordance with the following approved plans and documents, except where the conditions of this consent expressly require otherwise.

Approved plans				
Plan number	Revision number	Plan title	Drawn by	Date of plan
230218 (Sheets 1 - 8)	A	Proposed Self-Storage Sheds	ABODE Building Design	13/02/2024
STW001 (Sheets 1-5)	A	Stormwatere Analysis and Design for Propsoed Storage Units at 43 Brissett Street, Inverell NSW 2360	Local Government Engineering Services	12/02/2024

In the event of any inconsistency with the approved plans and a condition of this consent, the condition prevails.

**Condition reason:** To ensure all parties are aware of the approved plans and supporting documentation that applies to the development.

4

**Staging of Works**

The construction of the storage units may be undertaken as a whole development or in stages.

*Note: If the development is to be constructed in stages, separate Construction Certificates are to be obtained for each stage.*

**Condition reason:** To ensure that if the development is done in stages construction certificates for each stage is obtained

**Building Work**

**Before issue of a construction certificate**

5	<b>Section 138 Approval</b>
	Prior to the issue of a Construction Certificate a separate application shall be made to Council for approval under Section 138 of the <i>Roads Act 1993</i> to undertake any of the following: <ul style="list-style-type: none"> <li>• Erect a structure or carry out a work in, on or over a public road; or</li> <li>• Dig up or disturb the surface of a public road; or</li> <li>• Remove or interfere with a structure, work or tree on a public road; or</li> <li>• Pump water into a public road from any land adjoining the road; or</li> <li>• Connect a road (whether public or private) to a classified road.</li> </ul>
	<b>Condition reason:</b> To ensure approval is obtained for the new access crossing.
6	<b>Staging Plan</b>
	Prior to issue of the Construction Certificate for the first stage a detailed staging plan must be submitted to and approved by the Accredited Certifier.
	<b>Condition reason:</b> To ensure a staging plan is approved in the case the development is not completed as a whole.

**Before building work commences**

7	<b>Construction -Erosion and Sediment Control</b>
	Prior to commencement of works (including earthworks), run-off and erosion control measures must be implemented to prevent soil erosion, water pollution and the discharge of loose sediment on the surrounding land. Measures are to include: <ul style="list-style-type: none"> <li>• Diverting uncontaminated run-off around cleared or disturbed areas;</li> <li>• Erecting a silt fence and providing any other necessary sediment control measures that will prevent debris escaping into drainage systems, waterways or adjoining properties;</li> <li>• Preventing the tracking of sediment by vehicles onto roads; and</li> <li>• Stockpiling top soil, excavated materials, construction and landscaping supplies and debris within the lot.</li> </ul>
	Run-off and erosion control measures must be in place for the duration of building work and until adequate (more than 70%) vegetation (grass) cover is established on the site to prevent debris escaping from the site into drainage systems, waterways, adjoining properties and roads. In the event that the building contract is completed, it is the responsibility of the owner to maintain the run-off and erosion control measures.
	<b>Condition reason:</b> To ensure sediment laden runoff and site debris do not impact local stormwater systems and waterways.

**During building work**

8	<b>Hours of work</b>
	Site work must only be carried out between the following times –
	From 7:00am to 5:00pm on Monday to Saturday
	Site work is not to be carried out outside of these times except where there is an emergency, or for urgent work directed by a police officer or a public authority.
	<b>Condition reason:</b> To protect the amenity of the surrounding area.

9	<p><b>Construction - Local amenity, noise and environmental pollution</b></p> <p>To safeguard the local amenity, reduce noise nuisance and to prevent environmental pollution during the construction period:</p> <ul style="list-style-type: none"> <li>• Works on site are to be carried out in accordance with the Protection of the Environment Operations Act 1997 in relation to noise, dust and associated nuisances from the site. The carrying out of works shall not interfere with the quiet enjoyment of the surrounding neighbourhood;</li> <li>• Stockpiles of topsoil, sand, aggregate, spoil or other material shall be stored clear of any drainage path of easement, natural watercourse, footpath, kerb or road surface and shall implement measures to prevent the movement of such material off site;</li> <li>• Building operations such as brick cutting, washing tools, concreting and bricklaying shall be undertaken on the building block. The pollutants from these building operations shall be contained on site;</li> <li>• Builders waste must not be burnt or buried on site. All waste (including felled trees) must be contained and removed to a waste disposal depot;</li> <li>• Where the proposed development involves the disturbance of any existing survey monuments, those monuments affected will need to be relocated by a registered surveyor under the <i>Surveying and Spatial Information Act 2002</i>. A plan showing the relocated monuments will then be required to be lodged as a matter of public record at the Lands Titles Office.</li> </ul> <p><b>Condition reason:</b> To protect local amenity and survey monuments during construction.</p>
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**Before issue of an occupation certificate**

10	<p><b>Occupation of Premises</b></p> <p>An Occupation Certificate must be issued for each building in accordance with the <i>Environmental Planning and Assessment Act 1979</i>.</p> <p><i>Note: Prior to issue of the Occupation Certificate, the Principal Certifying Authority is required to be satisfied, amongst other things, that:</i></p> <ul style="list-style-type: none"> <li>• <i>all required inspections (including each applicable mandatory critical stage inspection) have been carried out; and</i></li> <li>• <i>any preconditions to the issue of the certificate required by a development consent have been met.</i></li> </ul> <p><b>Condition reason:</b> To ensure an Occupation Certificate is obtained</p>
11	<p><b>Completion associated works</b></p> <p>Prior to issue of an Occupation Certificate the internal driveways and associated stormwater drainage are to be constructed in accordance with the approved, staging plan, engineering plans, specifications and the capping of the unused layback off Brissett Street.</p> <p><b>Condition reason:</b> To ensure all driveways, stormwater works and drainage are completed</p>
12	<p><b>Registration of Easement</b></p> <p>Prior to issue of an Occupation Certificate an easement 3m wide for drainage of stormwater is to be registered over Lot 2 DP 1126040 over the location of the stormwater pipe work discharging to the drainway at the rear.</p> <p><b>Condition reason:</b> To ensure that an easement over the stormwater pipework is registered.</p>

**Occupation and ongoing use**

13	<b>Use of Storage Units</b>
	The self-storage units must not be used for manufacturing, production, assembling, altering, formulating, repairing, renovating, ornamenting, finishing, cleaning, washing, dismantling, transforming, processing, recycling, adapting or servicing of, any goods, substances, food, products or articles.
	<b>Condition reason:</b> To ensure units are used for self storage only.
14	<b>Storage Outside of Units</b>
	No storage of materials, equipment or goods is to occur outside of the units.
	<b>Condition reason:</b> To ensure all items are stored within storage units.
15	<b>Maintenance of Site</b>
	The site is to be maintained in such a manner that it does not create unsightly conditions when viewed from adjoining land or a public place.
	<b>Condition reason:</b> To ensure site is maintained in a tidy manner.
16	<b>Signage</b>
	The prior approval of Council is to be obtained prior to the installation of any signage.
	<b>Condition reason:</b> To ensure the required approvals are obtained.
17	<b>Fire Safety Statement</b>
	The owner of the self-storage units must certify to Inverell Shire Council every year that any essential fire safety measures have been inspected and are capable of operating to the required minimum standard.
	<b>Condition reason:</b> To ensure a fire safety statement is provided to Council each year.
18	<b>External Lighting</b>
	All new external lighting must: <ul style="list-style-type: none"> <li>• comply with AS 4282–1997 <i>Control of the obtrusive effects of outdoor lighting</i>, and</li> <li>• be mounted, screened and directed in a way that it does not create a nuisance or light spill on to buildings on adjoining lots or public places.</li> </ul>
	<b>Condition reason:</b> To ensure compliance with AS4282 and not to impact the surround area.
19	<b>Maintaining Landscaping</b>
	Landscaping is to be maintained perpetuity and replaced if damaged or the plant has died
	<b>Condition reason:</b> To ensure landscaping remains in place and maintained

### General advisory notes

This consent contains the conditions imposed by the consent authority which are to be complied with when carrying out the approved development. However, this consent is not an exhaustive list of all obligations which may relate to the carrying out of the development under the EP&A Act, EP&A Regulation and other legislation. Some of these additional obligations are set out in the [Conditions of development consent: advisory notes](#). The consent should be read together with the *Conditions of development consent: advisory notes* to ensure the development is carried out lawfully.

The approved development must be carried out in accordance with the conditions of this consent. It is an offence under the EP&A Act to carry out development that is not in accordance with this consent.

Building work or subdivision work must not be carried out until a construction certificate or subdivision works certificate, respectively, has been issued and a principal certifier has been appointed.

A document referred to in this consent is taken to be a reference to the version of that document which applies at the date the consent is issued, unless otherwise stated in the conditions of this consent.

## Dictionary

The following terms have the following meanings for the purpose of this determination (except where the context clearly indicates otherwise):

**Approved plans and documents** means the plans and documents endorsed by the consent authority, a copy of which is included in this notice of determination.

**AS** means Australian Standard published by Standards Australia International Limited and means the current standard which applies at the time the consent is issued.

**Building work** means any physical activity involved in the erection of a building.

**Certifier** means a council or a person that is registered to carry out certification work under the *Building and Development Certifiers Act 2018*.

**Construction certificate** means a certificate to the effect that building work completed in accordance with specified plans and specifications or standards will comply with the requirements of the EP&A Regulation and *Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021*.

**Council** means INVERELL SHIRE COUNCIL.

**Court** means the Land and Environment Court of NSW.

**EPA** means the NSW Environment Protection Authority.

**EP&A Act** means the *Environmental Planning and Assessment Act 1979*.

**EP&A Regulation** means the *Environmental Planning and Assessment Regulation 2021*.

**Independent Planning Commission** means Independent Planning Commission of New South Wales constituted by section 2.7 of the EP&A Act.

**Occupation certificate** means a certificate that authorises the occupation and use of a new building or a change of building use for an existing building in accordance with this consent.

**Principal certifier** means the certifier appointed as the principal certifier for building work or subdivision work under section 6.6(1) or 6.12(1) of the EP&A Act respectively.

**Site work** means any work that is physically carried out on the land to which the development the subject of this development consent is to be carried out, including but not limited to building work, subdivision work, demolition work, clearing of vegetation or remediation work.

**Stormwater drainage system** means all works and facilities relating to:

- the collection of stormwater,
- the reuse of stormwater,
- the detention of stormwater,
- the controlled release of stormwater, and
- connections to easements and public stormwater systems.

**Strata certificate** means a certificate in the approved form issued under Part 4 of the *Strata Schemes Development Act 2015* that authorises the registration of a strata plan, strata plan of subdivision or notice of conversion.

**Sydney district or regional planning panel** means Northern Regional Planning Panel.

# Inverell Shire Council

## Stormwater Water Report

43 Brissett Street  
Inverell, NSW

Prepared by

<b>INVERELL SHIRE COUNCIL DEVELOPMENT APPROVAL</b> <small>Approved subject to the provision of the EP &amp; A Act 1979 and any conditions contained in the attached written approval.</small> Development Application No: <b>DA-147/2023</b> Date: <b>1 March 2023</b>
Council Officer:  <small>This is a development approval only and a Construction Certificate must still be obtained for any building works.</small>



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This report was produced for Inverell Shire Council by:

CT Engineering Pty Ltd  
Level 1, 44 Formby Road Devonport TAS 7310  
email: [jacob.tan@legs.com.au](mailto:jacob.tan@legs.com.au)  
[www.legs.com.au](http://www.legs.com.au)

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## **Executive Summary**

TO BE COMPLETED

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### 2.3. Proposed Development

Abode Building Design has completed the site development and building designs for the proposed development. The proposed development includes 3 x large building structures, which house the proposed storage units (approximately 198 units combined). Further, it also proposes significant hardstand areas/driveways, to access the storage units on all sides of the 3 x buildings. The site incorporates a cut/fill approach, with the aim to set the building heights based on fall for the stormwater drainage. Building levels and site levels have been adjusted as an outcome of this analysis and will be further refined as the project progresses into final design.

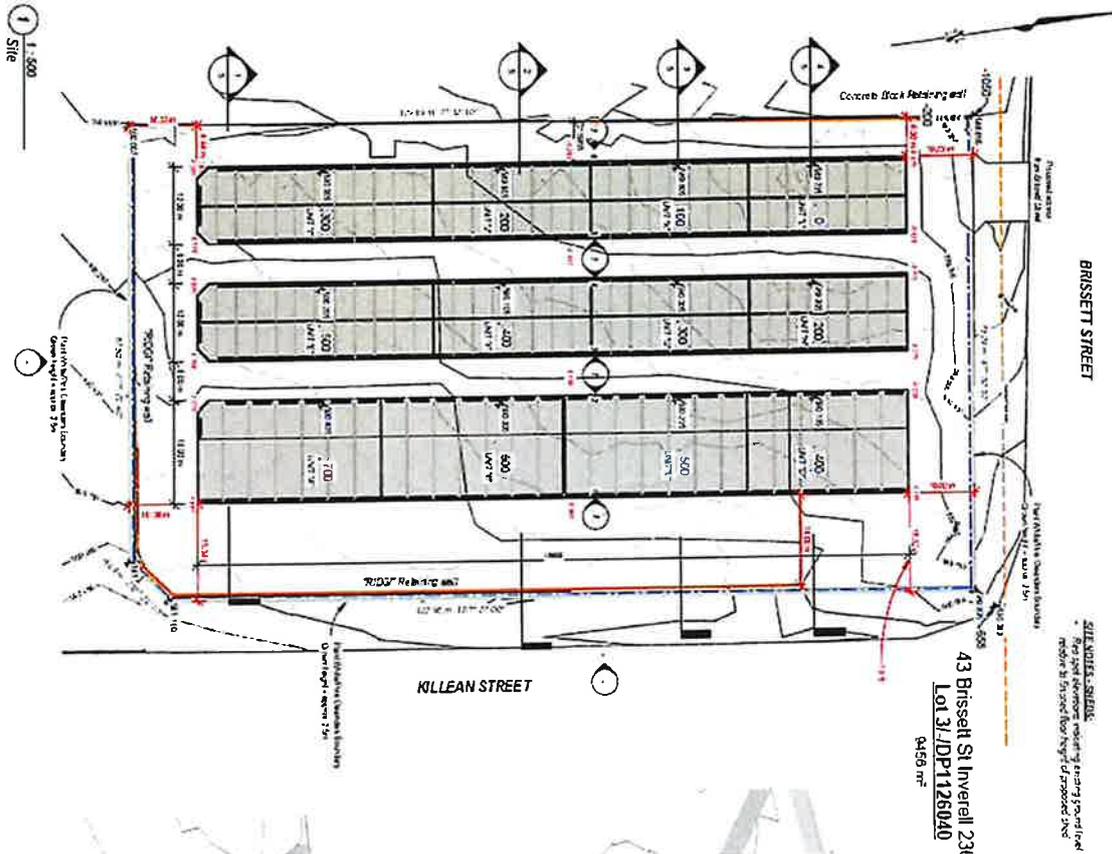


Image 2.2: Proposed Site Layout Plan (by Abode Building Design).

### 2.4. Hydraulic modelling

From the proposed layout, catchments have been analysed and areas calculated. A pit and pipe networks have been geometrically modelled in 12d to determine grades, depths and cover. Surface flow routes have been geometrically modelled to capture and direct all surface water off each catchment. With all geometric features exported to DRAINS software for the preparation of the hydraulic model. The following parameters have been used in setting up the hydraulic model:

- Model Type: Horton/ILSAX, Full Unsteady Hydraulic Model
- Impervious depression storage: 1mm
- Pervious depression storage: 3mm
- Soil Type: 4 (clays with high run off potential)
- Overland Flow Equation: Kinematic Wave Equation

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- Roughness Coefficient: 0.03 (Gravel), 0.01 (Roof)
- Rainfall Data: 10% AEP and 1% AEP. ARR 2019 (Refer Item 2.5)

The results from which include hydrographs, storages, peak flow rates, channel velocities, and the full design of the stormwater pipe and pit infrastructure. Note, a copy of the DRAINS model can be provided to council for review with strict copyright conditions of viewing.

### 2.5. Rainfall Events

By nature, there is always a high degree of variability between rainfall events in terms of spatial, intensity, duration, and frequency. The catchments have therefore been modelled for a range of events, including annual exceedance probabilities (AEP) between 1% and 50%, storm durations between 5 minutes to 2 hours, and the resulting rainfall intensity hyetographs for these frequencies and durations as determined from Australian Rainfall and Runoff (ARR 2019).

### Australian Rainfall & Runoff Data Hub - Results

#### Input Data

Longitude	151 131
Latitude	-29 766
Selected Regions (clear)	
River Region	<a href="#">show</a>
ARF Parameters	<a href="#">show</a>
Storm Losses	<a href="#">show</a>
Temporal Patterns	<a href="#">show</a>
Areal Temporal Patterns	<a href="#">show</a>
BOA IFDs	<a href="#">show</a>
Median Preburst Depths and Ratios	<a href="#">show</a>
10% Preburst Depths	<a href="#">show</a>
25% Preburst Depths	<a href="#">show</a>
75% Preburst Depths	<a href="#">show</a>
90% Preburst Depths	<a href="#">show</a>
Interim Climate Change Factors	<a href="#">show</a>
Probability Neutral Burst Initial Loss	<a href="#">show</a>

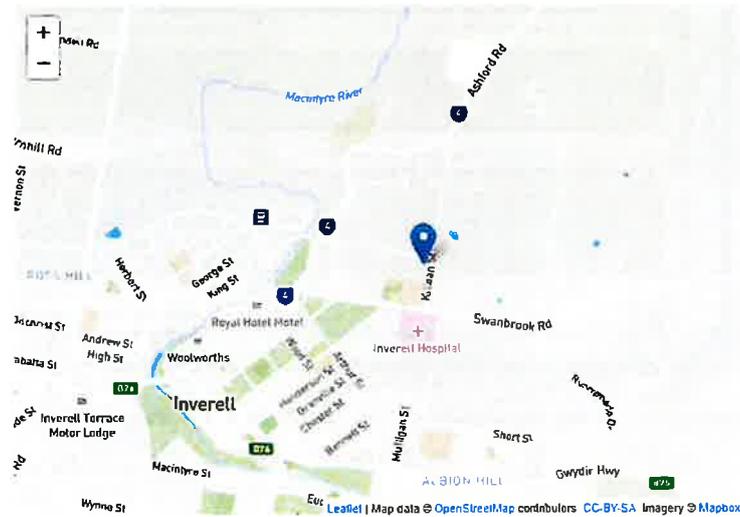


Figure 2.3: ARR Data Hub. Site location and data input.

**IFD Design Rainfall Intensity (mm/h)**

Issued: 20 February 2024

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

Table  Unit:

Duration	Annual Exceedance Probability (AEP)						
	63.25%	50%#	20%*	10%	5%	2%	1%
1 min	120	135	185	220	255	303	340
2 min	105	118	162	193	224	261	291
3 min	96.5	109	149	177	205	240	268
4 min	90.0	102	139	165	191	225	251
5 min	84.5	95.4	130	155	179	212	237
10 min	65.9	74.5	102	121	140	167	188
15 min	54.7	61.9	84.9	101	117	139	157
20 min	47.1	53.3	73.2	87.1	101	120	135
25 min	41.6	47.1	64.6	76.9	89.3	106	120
30 min	37.4	42.3	58.1	69.1	80.2	95.4	107
45 min	29.1	32.8	45.0	53.5	62.1	73.8	82.9
1 hour	24.0	27.1	37.1	44.1	51.2	60.6	68.1
1.5 hour	18.2	20.5	27.9	33.1	38.3	45.3	50.8
2 hour	14.9	16.7	22.6	26.8	30.9	36.5	40.9
3 hour	11.2	12.5	16.7	19.7	22.7	26.8	30.0
4.5 hour	8.35	9.30	12.4	14.5	16.6	19.6	21.9
6 hour	6.80	7.55	9.97	11.7	13.3	15.7	17.6
9 hour	5.10	5.65	7.40	8.61	9.80	11.5	12.9
12 hour	4.16	4.61	6.01	6.97	7.91	9.30	10.4
18 hour	3.13	3.46	4.50	5.20	5.88	6.90	7.70
24 hour	2.56	2.83	3.68	4.24	4.78	5.60	6.24
30 hour	2.18	2.42	3.14	3.62	4.08	4.77	5.31
36 hour	1.92	2.13	2.76	3.18	3.58	4.18	4.64
48 hour	1.55	1.73	2.25	2.59	2.91	3.39	3.75
72 hour	1.15	1.28	1.67	1.92	2.16	2.49	2.75
96 hour	0.913	1.02	1.33	1.53	1.71	1.97	2.17
120 hour	0.760	0.847	1.11	1.27	1.42	1.63	1.78
144 hour	0.650	0.723	0.940	1.07	1.20	1.38	1.51
168 hour	0.567	0.629	0.812	0.926	1.03	1.18	1.29

Figure 2.4: Design Rainfall Data System (www.bom.gov.au)

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### 3. Catchment Analysis

#### 3.1. Catchment & Sub-Catchment Terminology

The overall full catchment is broken up into 2 main types.

- Type 1: Shown as purple colour in the below plan. Consists of all roof catchment area, conveyed through roof gutter/downpipes and discharged directly to the nearest stormwater pit.
- Type 2: Shown as pink colour in the below plan. Consists of all hardstand area, conveyed to nearby grated surface inlet pits via v-shaped surface drains.

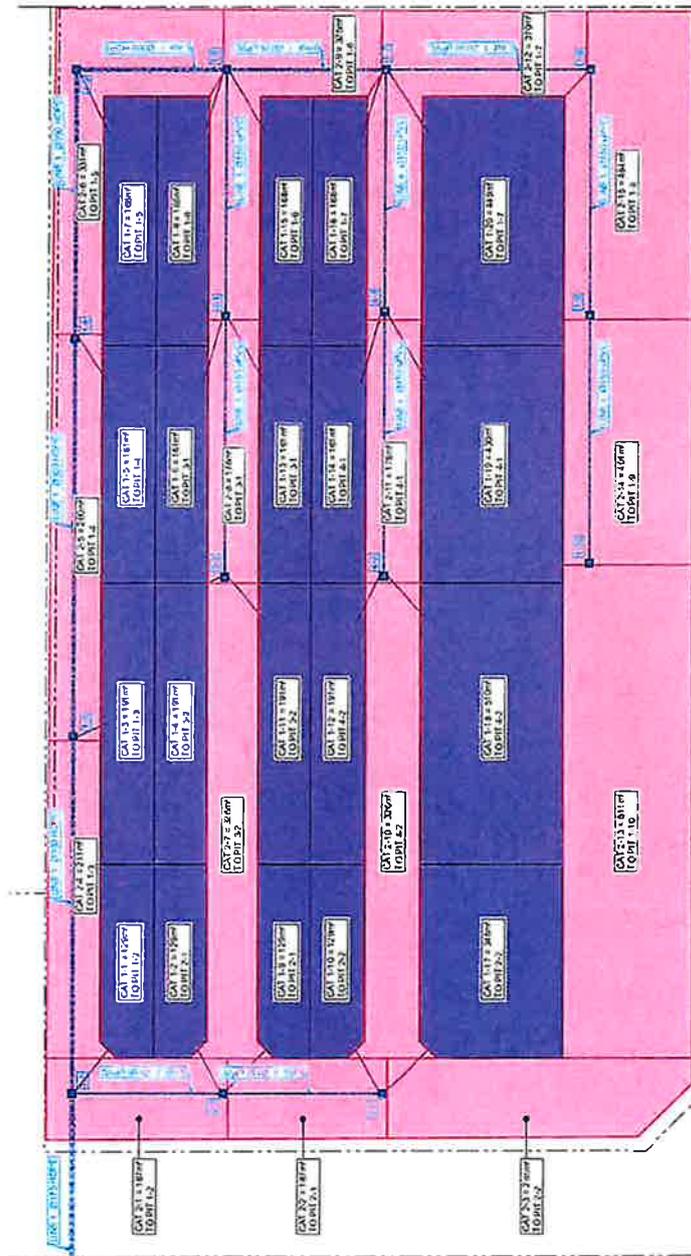


Figure 2.5: Catchment Layout Plan

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## 4. Results

The basis of the design was to maximise the flow of water directed to the existing channel to the south of the development (Point of Discharge A), while reducing the flow of water to the Northwest corner (Point of Discharge B) to be less than or equal to predeveloped flows. The design hence captures all water into pits and pipes and directs flows to the Point A, once the pipe system reaches capacity it, surcharges at pit 1-5 and overflows to the Northwest Point B.

Catchments and flow routes have been modelled in Drains and a range of storm ensembles have been used to analyse the proposed design and compare against the existing. The results have been summarised and presented on the below table (refer Appendix A below).

## 5. Outcome of Analysis

The following hydrographs compare the flowrate/time for the existing and proposed discharge for the 1% and 10% AEP. From reviewing the hydrographs, the following conclusions can be determined:

- The peak flow is reduced at point B, as a result of the proposed stormwater design directing the increased flow to point A..
- The existing site typically had a peak flow between 40min - 50min for both events. Whereas the peak time is significantly shortened for the proposed.
- Although, there is increased flow at a reduced time, the overall volume (flowrate x time) of water is significantly reduced at point B, due to the majority of the water being directed through the pipe system to the reach channel point A.

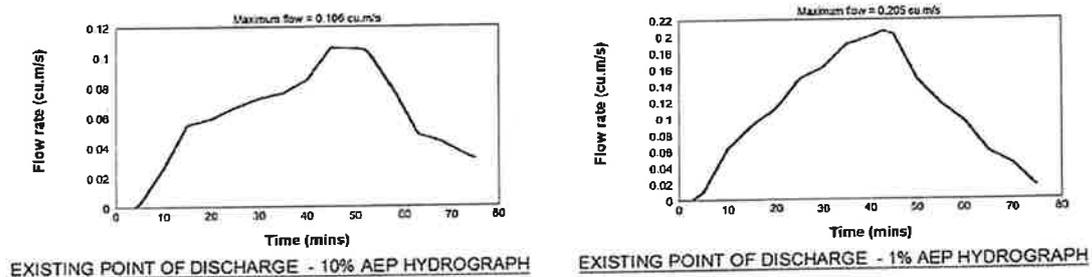


Figure 5.1: Hydrograph for the existing site, discharging to the North West corner of the block.

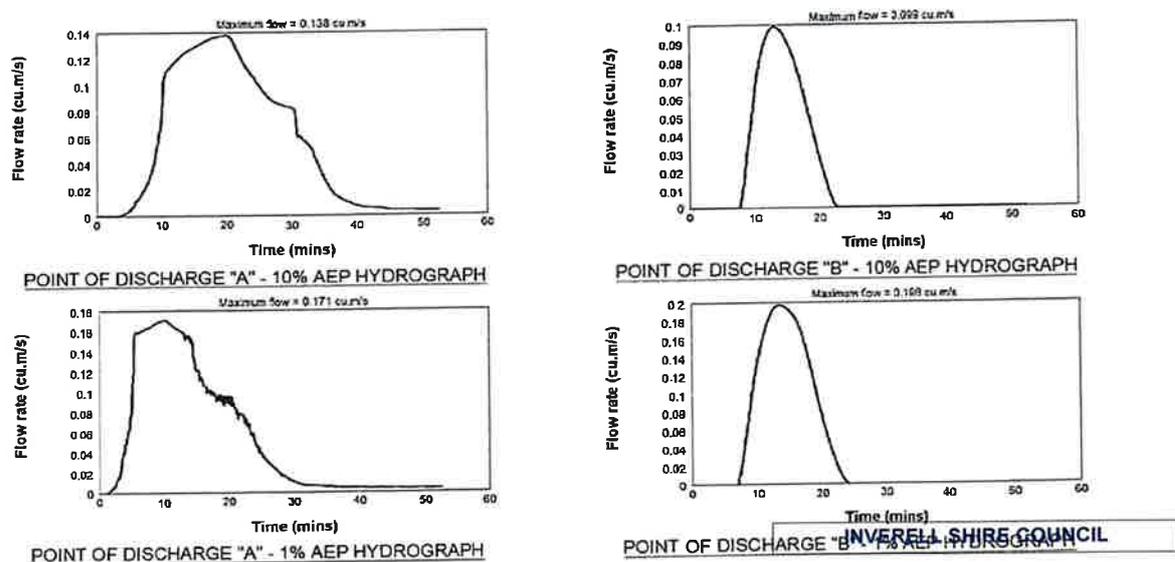


Figure 5.2: Hydrograph for the proposed development, discharging at two locations point A and point B.

## **6. Appendices**

A – Results Export

B – Stormwater Analysis Plan

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**NOTES**

The cited sources result from a pipe system model using USAX, the rational method (ERM), or the ARII 2016 equations. An alternative (i.e., CL) model implemented in the IIRAS program (see website) may not provide comparable calculations with multiple rainfall patterns, and complex pipe networks may result in an output that is not as accurate as the cited sources.

**Warning on inputs:** the data may differ from a source stream, or other stream, or both. You can use **headings** or **column names** or **rows**.

The contents of each column are explained below.

**Column 1:** Design storm recurrence probability (AR), unless the source stream, impervious areas or both may be designed. Nominal values are not available for the rational method, but users can set a flow.

**Column 2:** PI (or other return period) for the corresponding catchment, downstream pipe and overbank areas, as assumed to have 30-year return, so that 60-year flood is returned in the table.

**Column 3:** Sub-Catchment Area (ha)

**Column 4:** Land Use Type: Flooded, Impervious and Gravelled areas for USAX, impervious and pervious areas for the rational method and ERM, or effective impervious areas (EIA) remaining impervious areas (RIMA) and pervious areas (PA) for the K-CL model.

**Column 5:** Length of Flooded, Impervious and Gravelled area (km) for USAX, or impervious and pervious areas for the rational method and ERM, or effective impervious areas (EIA) remaining impervious areas (RIMA) and pervious areas (PA) for the K-CL model.

**Column 6:** Length of Flooded, Impervious and Gravelled area (km) for USAX, or impervious and pervious areas for the rational method and ERM, or effective impervious areas (EIA) remaining impervious areas (RIMA) and pervious areas (PA) for the K-CL model.

**Column 7:** Runoff Coefficient (C) for USAX, or impervious and pervious areas for the rational method and ERM, or effective impervious areas (EIA) remaining impervious areas (RIMA) and pervious areas (PA) for the K-CL model.

**Column 8:** Total flow (mm) for the Rational, Impervious and Gravelled areas (sums) for USAX, or impervious and pervious areas for the rational method and ERM, or effective impervious areas (EIA) remaining impervious areas (RIMA) and pervious areas (PA) for the K-CL model.

**Column 9:** PI for the rational method, or the total catchment flow of concentration.

**Column 10:** PI for the rational method, or the total catchment flow of concentration, with this as a flat catchment or point sub-catchment.

**Column 11:** Peak Outflow from upstream pipe or catchment, which may include flow from the sub-catchment through which they flow.

**Column 12:** Credit of Overflow, the return of any pipe or node from which overflow occurs to the PI.

**Column 13:** Peak Outflow from upstream pipe or catchment, which may include flow from the sub-catchment through which they flow.

**Column 14:** Approximate Peak Depth a Velocity (m/s), not required for the rational method.

**Column 15:** Sub-Factor, or the GRASP coefficient.

**Column 16:** Total Overbank Flow (m<sup>3</sup>/s), not required for the rational method.

**Column 17:** Total Overbank Flow (m<sup>3</sup>/s), not required for the rational method.

**Column 18:** Total Overbank Flow (m<sup>3</sup>/s), not required for the rational method.

**Column 19:** Return Time (min), the coefficient, assuming no loss of peak capacity or overtopping of the pipe system.

**Column 20:** Maximum of Overbank Flow (m<sup>3</sup>/s), if present in the model, otherwise this column does not appear.

**Column 21:** Pipe Length (m).

**Column 22:** Pipe Slope (%).

**Column 23:** Pipe Diameter (mm).

**Column 24:** Maximum Pipe Invert Level (m AHD).

**Column 25:** Minimum Pipe Invert Level (m AHD).

**Column 26:** Upstream Pipe Hydraulic Grade Line Level (meters above pipe) (m AHD).

**Column 27:** Pipe Flow Velocity (m/s), for full or part full flow.

**Column 28:** Pipe Frictional Change Coefficient, the value applying to the manhole through the pipe.

**Column 29:** Frictional Loss (m), the value applying to the manhole through the pipe.

**Column 30:** Frictional Loss (m), the value applying to the manhole through the pipe.

**Column 31:** Slope, or Head and Channel (RMA and Channel) Object Level (m AHD).

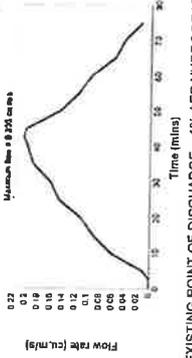
**Column 32:** Frictional Loss, the difference between the levels in the two previous columns.

**Column 33:** PI (Name specified).

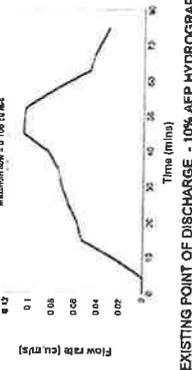




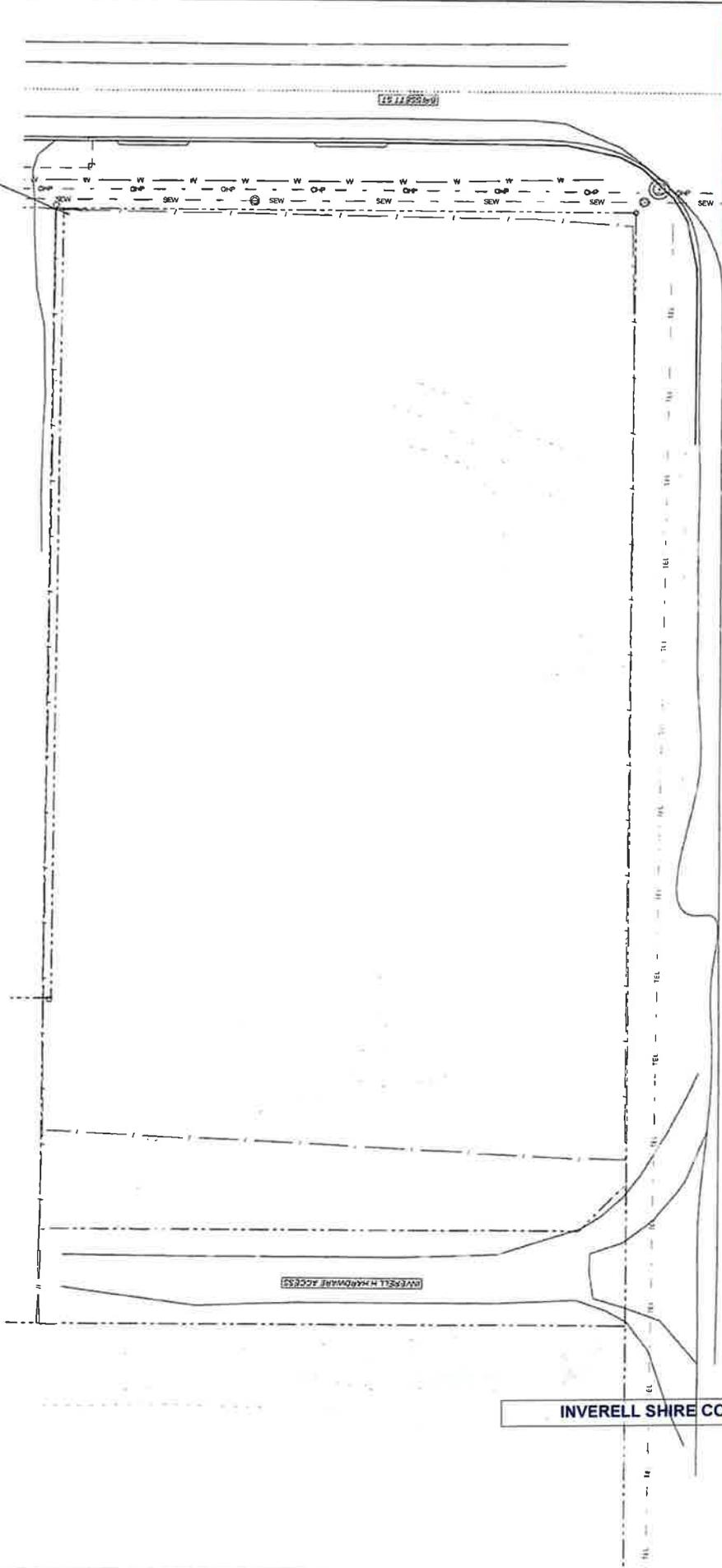
EXISTING POINT OF DISCHARGE  
 10% AEP = 0.106 m/s  
 1% AEP = 0.207 m/s



EXISTING POINT OF DISCHARGE - 1% AEP HYDROGRAPH



EXISTING POINT OF DISCHARGE - 10% AEP HYDROGRAPH



**PRELIMINARY  
 NOT FOR CONSTRUCTION**

EXISTING LAYOUT PLAN  
 SCALE 1:50

CLIENT

DATE	12/02/24	SCALE	A 2
DESIGNED BY	JT	DESIGNED DATE	09/02/24
APPROVED BY	JT	APPROVED DATE	12/02/24
PROJECT NO.	TAS04B	PROJECT TITLE	10004646 for STW001
DATE	12/02/24	SCALE	A 2
DESIGNED BY	JT	DESIGNED DATE	09/02/24
APPROVED BY	JT	APPROVED DATE	12/02/24
PROJECT NO.	TAS04B	PROJECT TITLE	10004646 for STW001

CLIENT  
 PAUL KELLY  
 PROJECT  
 STORMWATER ANALYSIS AND DESIGN FOR  
 PROPOSED STORMWATER TREATMENT  
 43 BRISSETT ST, INVERELL NSW 2380  
 COVER SHEET

LOCAL GOVERNMENT  
**LES**  
 ENGINEERING SERVICES  
 Park Meadows 11/12 Park Meadows Drive Inverell NSW 2380  
 Tel: 07 4222 1111 Fax: 07 4222 1112  
 Email: paul.kelly@les.com.au  
 11 Evans Lynch  
 11/12 Evans Lynch Drive Inverell NSW 2380  
 Tel: 07 4222 1111 Fax: 07 4222 1112  
 Email: paul.kelly@les.com.au

INVERELL SHIRE COUNCIL  
 APPROVAL

FILE NAME: TAS04B\_CTL.dwg

DATE	12/02/24
DESIGNED BY	JT
APPROVED BY	JT
PROJECT NO.	TAS04B
PROJECT TITLE	10004646 for STW001







# PAUL KELLY

## STORMWATER ANALYSIS FOR PROPOSED STORAGE UNITS AT 43 BRISSETT ST, INVERELL NSW 2360

LOCALITY MAP



INDEX

SHEET No.	DESCRIPTION
1	COVER SHEET
2	EXISTING FEATURES
3	STORMWATER MANAGEMENT - LAYOUT PLAN
4	STORMWATER LONGITUDINAL SECTIONS
5	STORMWATER LONGITUDINAL SECTIONS

**INVERELL SHIRE COUNCIL  
DEVELOPMENT APPROVAL**  
Approved subject to the provision of the EP & A Act 1979 and any conditions contained in the attached written approval.  
Development Application No: DA-147/2023  
Date: 1 March 2023

Council Officer: 

This is a development approval only and a Construction Certificate must still be obtained for any building works.

**PRELIMINARY  
NOT FOR CONSTRUCTION**

ISSUE	REVISION	AUTH	DATE
A	ISSUED FOR COUNCIL APPROVAL	JT	12/02/24

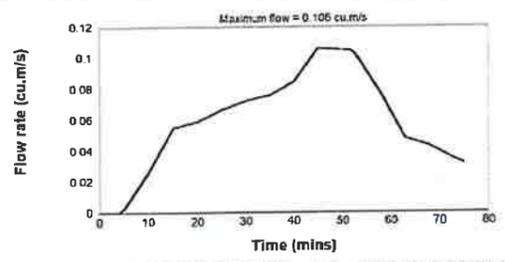
**LG ES LOCAL GOVERNMENT ENGINEERING SERVICES**  
CT Engineering Pty Ltd ABN 87 658 405 995  
 Web: www.lggs.com.au

Port Macquarie: 71 Lord Street, Port Macquarie NSW 2444, Ph: 02-65843868, Email: john@lggs.com.au  
 Devonport: Level 1, 44 Fomby Road, Devonport TAS 7310, Email: jacob.tan@lggs.com.au  
 Inverell: 37 Byron Street, Inverell NSW 2360, Ph: 02-67225110, Email: andrew@lggs.com.au

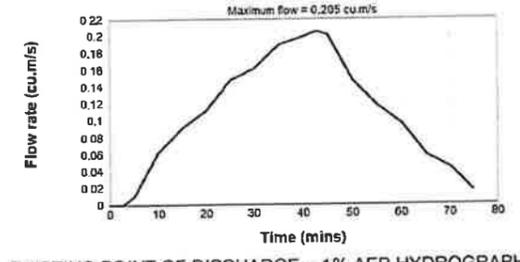
CLIENT	PAUL KELLY
PROJECT	STORMWATER ANALYSIS AND DESIGN FOR PROPOSED STORAGE UNITS AT 43 BRISSETT ST, INVERELL NSW 2360
	COVER SHEET

SCALES	A1 ORIGINAL
FILE NAME:	TAS048_CTL.dwg

DRAWN	DATE	JOB No:	ISSUE	SHEET No
JT	12/02/24	TAS048	A	1
DESIGNED	DATE	DOCUMENT No:		OF 5
JT	09/02/24	STW001		
APPROVED	DATE	STATUS: APPROVAL		
JT	12/02/24	REG. No:		
DATUM: -				

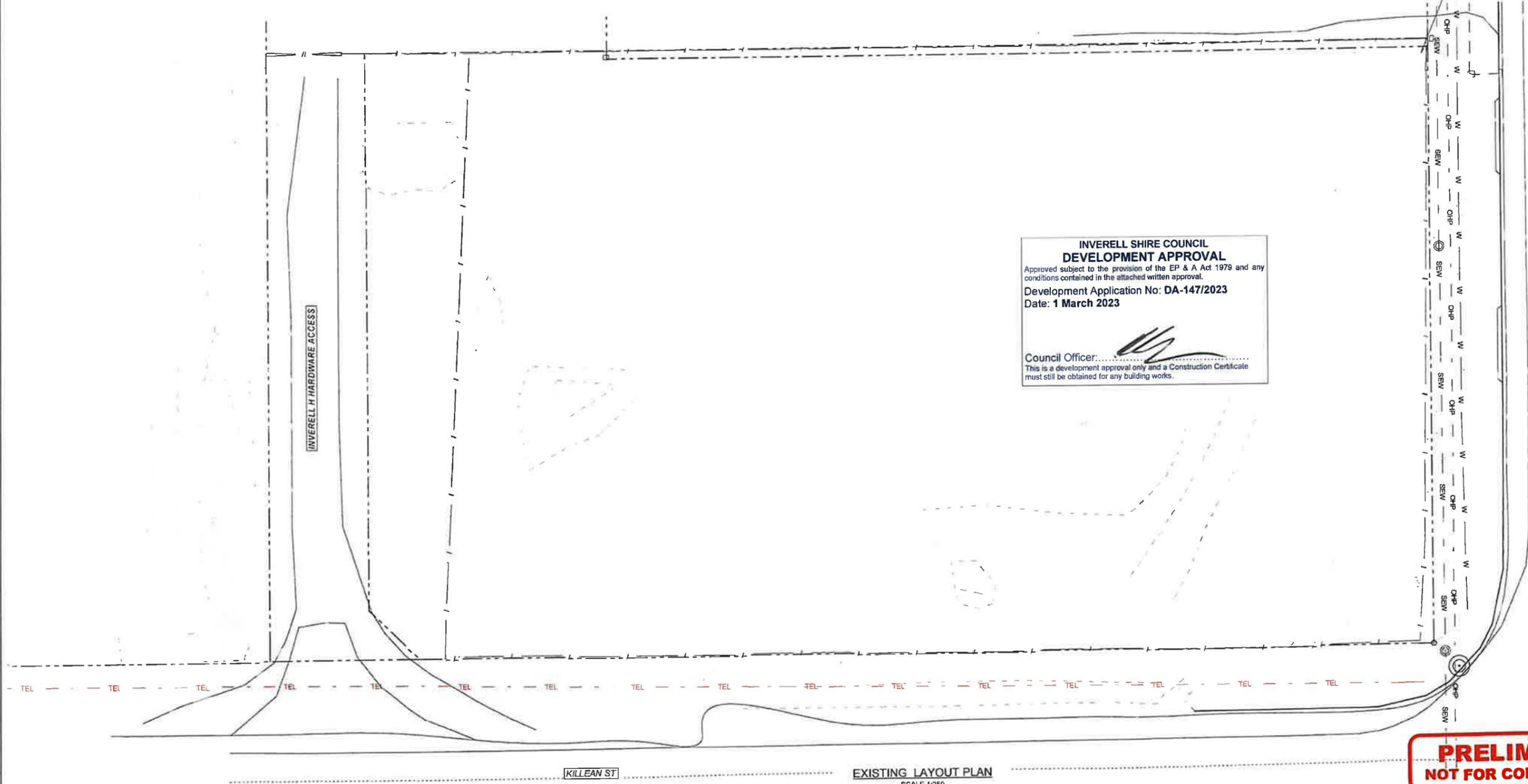


EXISTING POINT OF DISCHARGE - 10% AEP HYDROGRAPH



EXISTING POINT OF DISCHARGE - 1% AEP HYDROGRAPH

EXISTING POINT OF DISCHARGE  
 10% AEP = 0.106 m³/s  
 1% AEP = 0.205 m³/s



**INVERELL SHIRE COUNCIL  
 DEVELOPMENT APPROVAL**  
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Council Officer: *[Signature]*  
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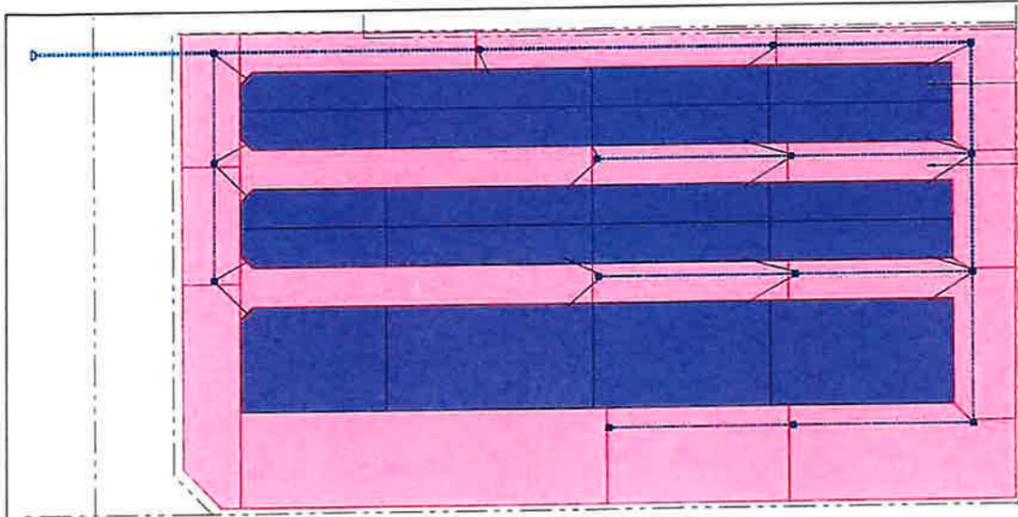
**LG ES LOCAL GOVERNMENT ENGINEERING SERVICES**  
 CT Engineering Pty Ltd ABN 87 658 409 995  
 Web: www.lg-es.com.au

Port Macquarie: 71 Lord Street, Port Macquarie NSW 2444 Ph: 02-65843888 Email: john@lges.com.au  
 Devonport: Level 1, 64 Forrby Road, Devonport TAS 7310 Email: jacob.tan@lges.com.au  
 Inverell: 17 Byron Street, Inverell NSW 2360 Ph: 02-67225110 Email: andrew@lges.com.au

CLIENT: PAUL KELLY  
 PROJECT: STORMWATER ANALYSIS AND DESIGN FOR PROPOSED STORAGE UNITS AT 43 BRISSETT ST, INVERELL NSW 2360  
 COVER SHEET

SCALES: A1 ORIGINAL  
 FILE NAME: TAS04B\_CTL.dwg

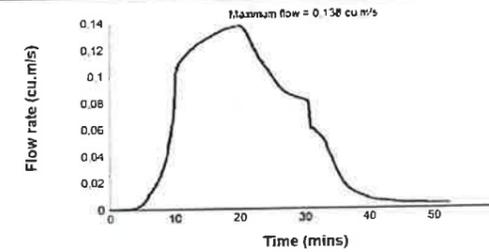
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JT	12/02/24	TAS048	A	2
DESIGNED	DATE	DOCUMENT No:	OF 5	
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APPROVED	DATE	STATUS:	APPROVAL	
JT	12/02/24	REG. No:		
DATUM: -				



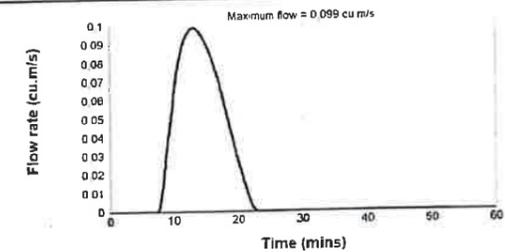
CATCHMENT LAYOUT PLAN  
SCALE 1:500

ALL ROOF WATER SHALL BE SUITABLY  
PIPED TO NEARBY STORMWATER PITS.

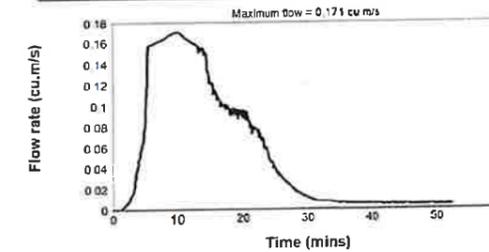
ALL HARDSTAND SURFACES TO BE  
SHAPE INTO 'V-SHAPED' DRAINS AND  
DIRECTED TO GRATED SURFACE INLET  
PITS AS PER THE DESIGN SURFACE.



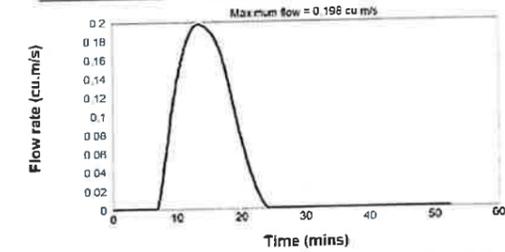
POINT OF DISCHARGE "A" - 10% AEP HYDROGRAPH



POINT OF DISCHARGE "B" - 10% AEP HYDROGRAPH



POINT OF DISCHARGE "A" - 1% AEP HYDROGRAPH



POINT OF DISCHARGE "B" - 1% AEP HYDROGRAPH

POINT OF DISCHARGE - A  
(FROM Ø375 STW PIPE)  
10% AEP = 0.136 m³/s  
1% AEP = 0.171 m³/s

NEW HEADWALL OUTLET TO  
EXISTING CHANNEL INVERT  
OF PROPOSED PIPE 250mm  
ABOVE INVERT OF CHANNEL

NEW EASEMENT REQUIRED FOR  
DRAINAGE OVER INVERELL H  
HARDWARE ACCESS

EXISTING OPEN  
STORMWATER DRAINAGE  
CHANNEL

**INVERELL SHIRE COUNCIL  
DEVELOPMENT APPROVAL**  
Approved subject to the provision of the EP & A Act 1979 and any  
conditions contained in the attached written approval.  
Development Application No: DA-147/2023  
Date: 1 March 2023

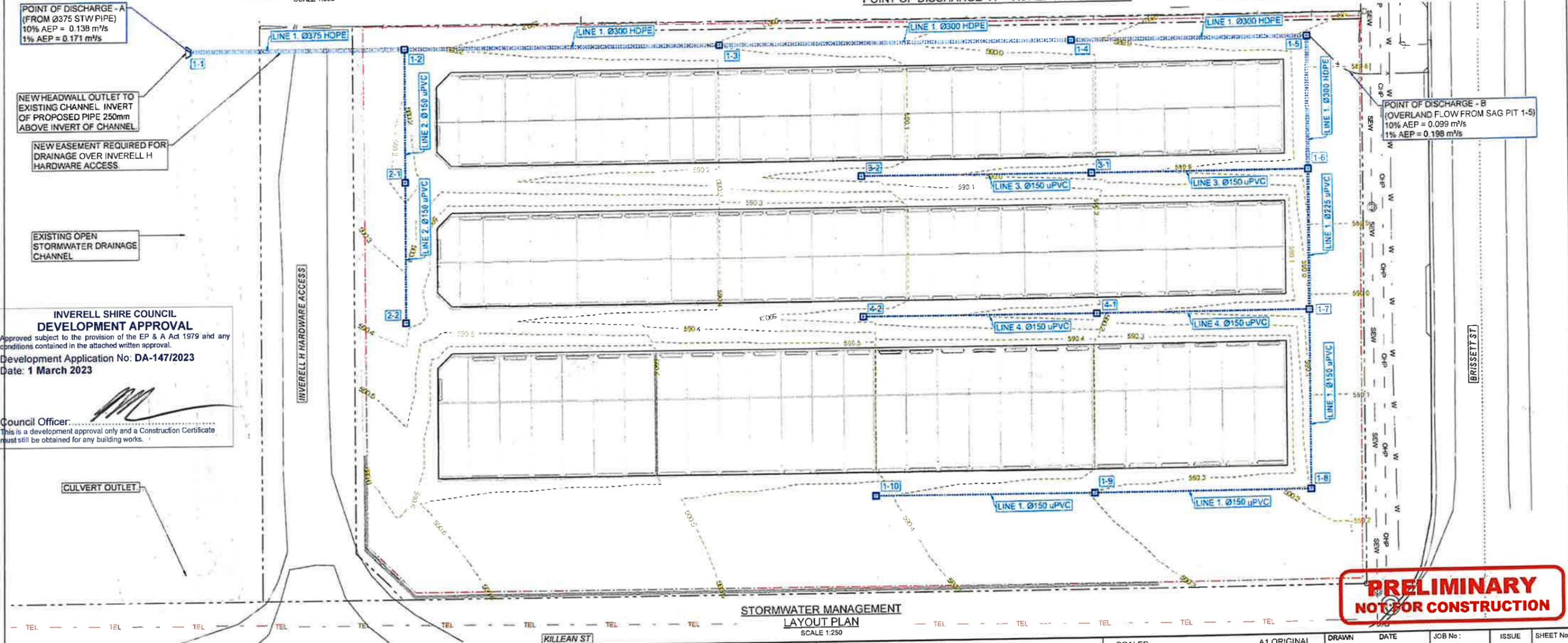
Council Officer:   
This is a development approval only and a Construction Certificate  
must still be obtained for any building works.

CULVERT OUTLET

INVERELL H HARDWARE ACCESS

BRISSETT ST

POINT OF DISCHARGE - B  
(OVERLAND FLOW FROM SAG PIT 1-5)  
10% AEP = 0.099 m³/s  
1% AEP = 0.198 m³/s

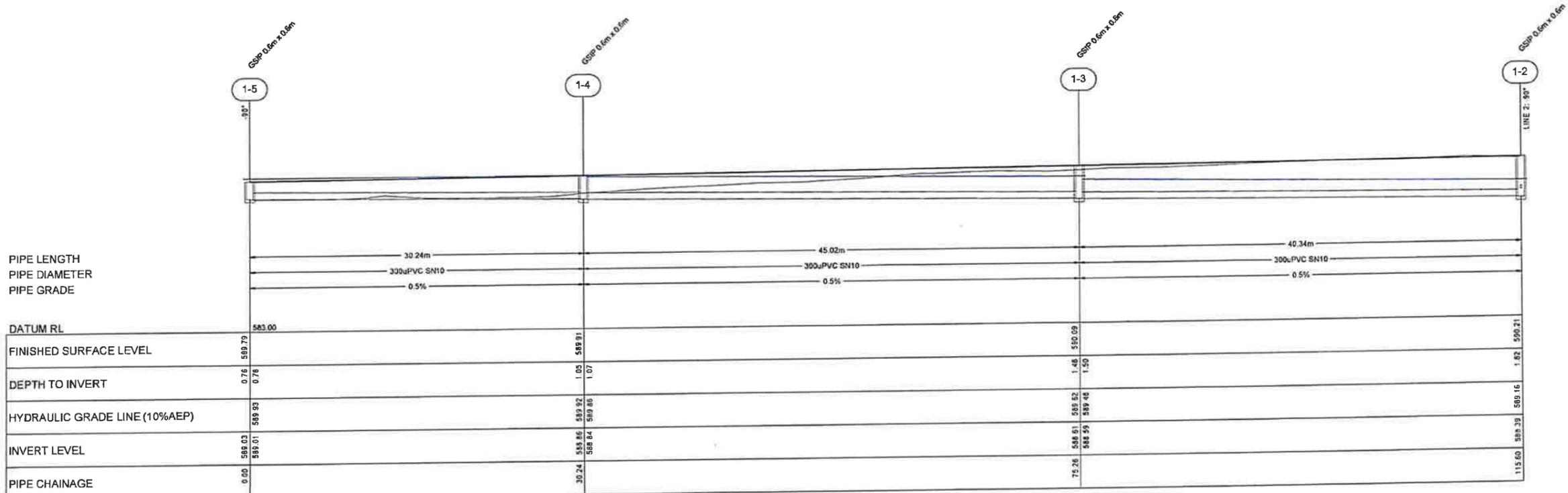


STORMWATER MANAGEMENT  
LAYOUT PLAN  
SCALE 1:250

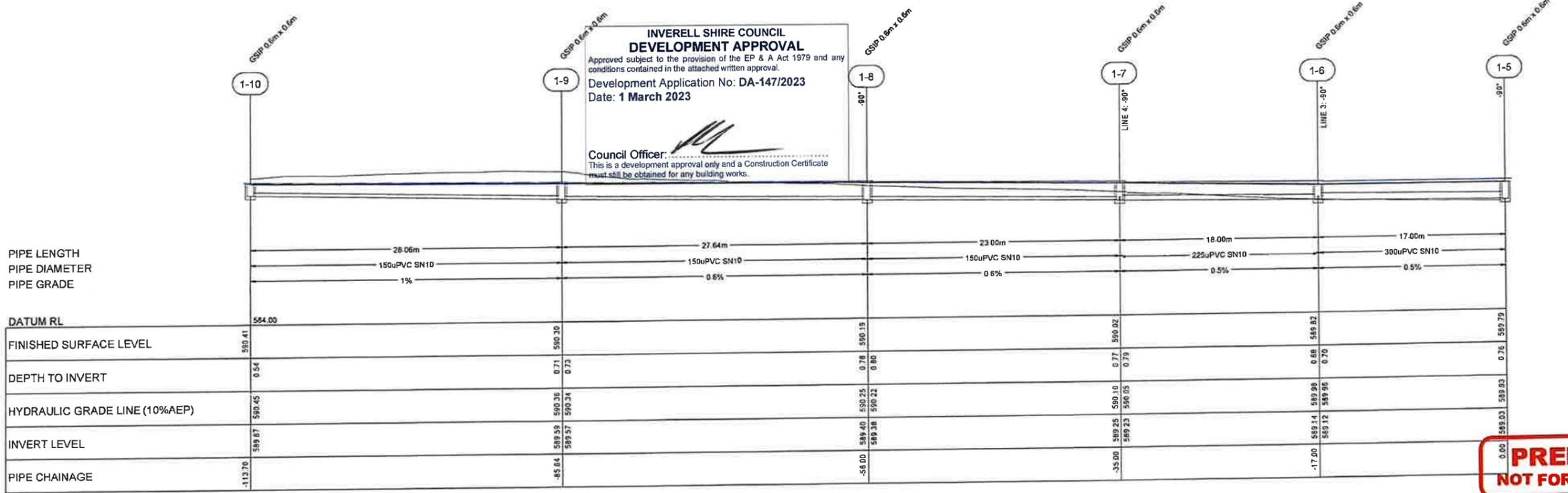
**PRELIMINARY  
NOT FOR CONSTRUCTION**

<b>LG ES LOCAL GOVERNMENT ENGINEERING SERVICES</b> CT Engineering Pty Ltd ABN 87 438 809 935 Port Macquarie 71 Lord Street, Port Macquarie NSW 2444 Ph: 02-65843888 Email: john@lges.com.au Devonport Level 1, 44 Torneby Road, Devonport TAS 7310 Email: jacob.tan@lges.com.au Inverell 17 Barron Street, Inverell NSW 2309 Ph: 02-67225110 Email: andrew@lges.com.au	CLIENT	PAUL KELLY	SCALES	A1 ORIGINAL	DRAWN	DATE	JT	12/02/24	JOB No:	TAS04B	ISSUE	A	SHEET No	3
	PROJECT	STORMWATER ANALYSIS AND DESIGN FOR PROPOSED STORAGE UNITS AT 43 BRISSETT ST, INVERELL NSW 2360	DESIGNED	JT	09/02/24	APPROVED	DATE	JT	12/02/24	STATUS:	APPROVAL	REG. No:		OF 5
DATE	12/02/24	FILE NAME:	TAS04B_CTL.dwg	DATUM:	-									

ISSUED FOR COUNCIL APPROVAL	JT	12/02/24
REVISION	AUTH	DATE



DRAINAGE LINE 1



DRAINAGE LINE 1

**INVERELL SHIRE COUNCIL  
DEVELOPMENT APPROVAL**  
Approved subject to the provision of the EP & A Act 1979 and any conditions contained in the attached written approval.  
Development Application No: DA-147/2023  
Date: 1 March 2023

Council Officer: *[Signature]*  
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**PRELIMINARY  
NOT FOR CONSTRUCTION**

<b>LG ES LOCAL GOVERNMENT ENGINEERING SERVICES</b> CT Engineering Pty Ltd ABN 87 658 408 995 Port Macquarie 71 Lord Street, Port Macquarie NSW 2444 Devonport Level 1, 44 Formby Road, Devonport TAS 7310 Email: john@legs.com.au Email: jacob.tan@legs.com.au Email: andrew@legs.com.au	CLIENT: PAUL KELLY PROJECT: STORMWATER ANALYSIS AND DESIGN FOR PROPOSED STORAGE UNITS ATS 43 BRISSETT ST, INVERELL NSW 2360 COVER SHEET	SCALES: A1 ORIGINAL FILE NAME: TAS048_CTL.dwg	DRAWN: JT 12/02/24 DESIGNED: JT 09/02/24 APPROVED: JT 12/02/24 DATUM: -	JOB No: TAS048 DOCUMENT No: STW001 STATUS: APPROVAL REG No:	ISSUE: A SHEET No: 4 OF 5
	A ISSUED FOR COUNCIL APPROVAL JT 12/02/24				

PIPE LENGTH  
PIPE DIAMETER  
PIPE GRADE

DATUM RL	583.00
FINISHED SURFACE LEVEL	590.21
DEPTH TO INVERT	1.82 1.84
HYDRAULIC GRADE LINE (10%AEP)	588.39 588.37
INVERT LEVEL	588.39 588.37
PIPE CHAINAGE	115.60 142.85

DRAINAGE LINE 1

DATUM RL	584.00
FINISHED SURFACE LEVEL	590.37
DEPTH TO INVERT	1.25 1.27
HYDRAULIC GRADE LINE (10%AEP)	589.36 589.33
INVERT LEVEL	589.12 589.10
PIPE CHAINAGE	0.00 18.00

DRAINAGE LINE 2

DATUM RL	583.00
FINISHED SURFACE LEVEL	590.05
DEPTH TO INVERT	0.32
HYDRAULIC GRADE LINE (10%AEP)	589.73 589.08
INVERT LEVEL	589.73 589.41
PIPE CHAINAGE	0.00 29.47

DRAINAGE LINE 3

PIPE LENGTH  
PIPE DIAMETER  
PIPE GRADE

DATUM RL	583.00
FINISHED SURFACE LEVEL	590.25
DEPTH TO INVERT	0.41 0.58 0.61
HYDRAULIC GRADE LINE (10%AEP)	590.31 590.28
INVERT LEVEL	589.84 589.54 589.52
PIPE CHAINAGE	0.00 29.91

DRAINAGE LINE 4

**INVERELL SHIRE COUNCIL**  
**DEVELOPMENT APPROVAL**  
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Development Application No: DA-147/2023  
Date: 1 March 2023

Council Officer: \_\_\_\_\_  
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**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

A	ISSUED FOR COUNCIL APPROVAL	JT	12/02/24
ISSUE	REVISION	AUTH	DATE

**LG ES LOCAL GOVERNMENT ENGINEERING SERVICES**

CT Engineering Pty Ltd ABN 67 658 409 999  
Web: www.lg-es.com.au

Port Macquarie 71 Lord Street, Port Macquarie NSW 2444 Ph: 02-65643888 Email: john@lg-es.com.au

Devonport Level 1, 44 Formby Road, Devonport TAS 7310 Email: jacob.tan@lg-es.com.au

Inverell 17 Byron Street, Inverell NSW 2360 Ph: 02-67225110 Email: andrew@lg-es.com.au

CLIENT PAUL KELLY

PROJECT STORMWATER ANALYSIS AND DESIGN FOR PROPOSED STORAGE UNITS AT 43 BRISSETT ST, INVERELL NSW 2360

SCALES A1 ORIGINAL

DRAWN	DATE	JOB No:	ISSUE	SHEET No:
JT	12/02/24	TAS048	A	5
DESIGNED	DATE	DOCUMENT No:		OF 5
JT	09/02/24	STW001		
APPROVED	DATE	STATUS:	APPROVAL	
JT	12/02/24	REG. No:		

FILE NAME: TAS048\_CTL.dwg

DATUM: -

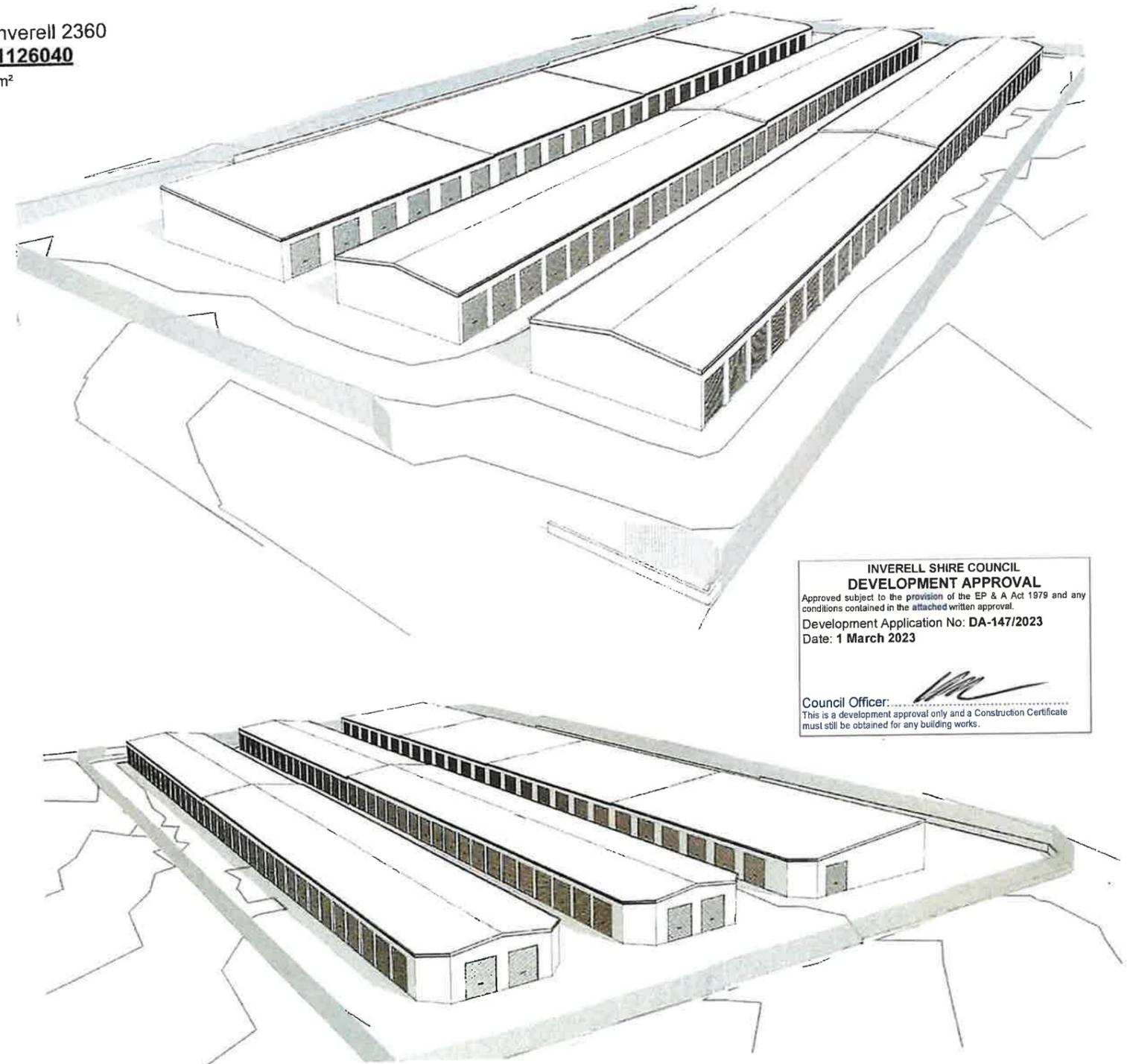
COVER SHEET

# Proposed Self-Storage Sheds

Paul Kelly  
43 Brissett St Inverell 2360  
3/-/DP1126040

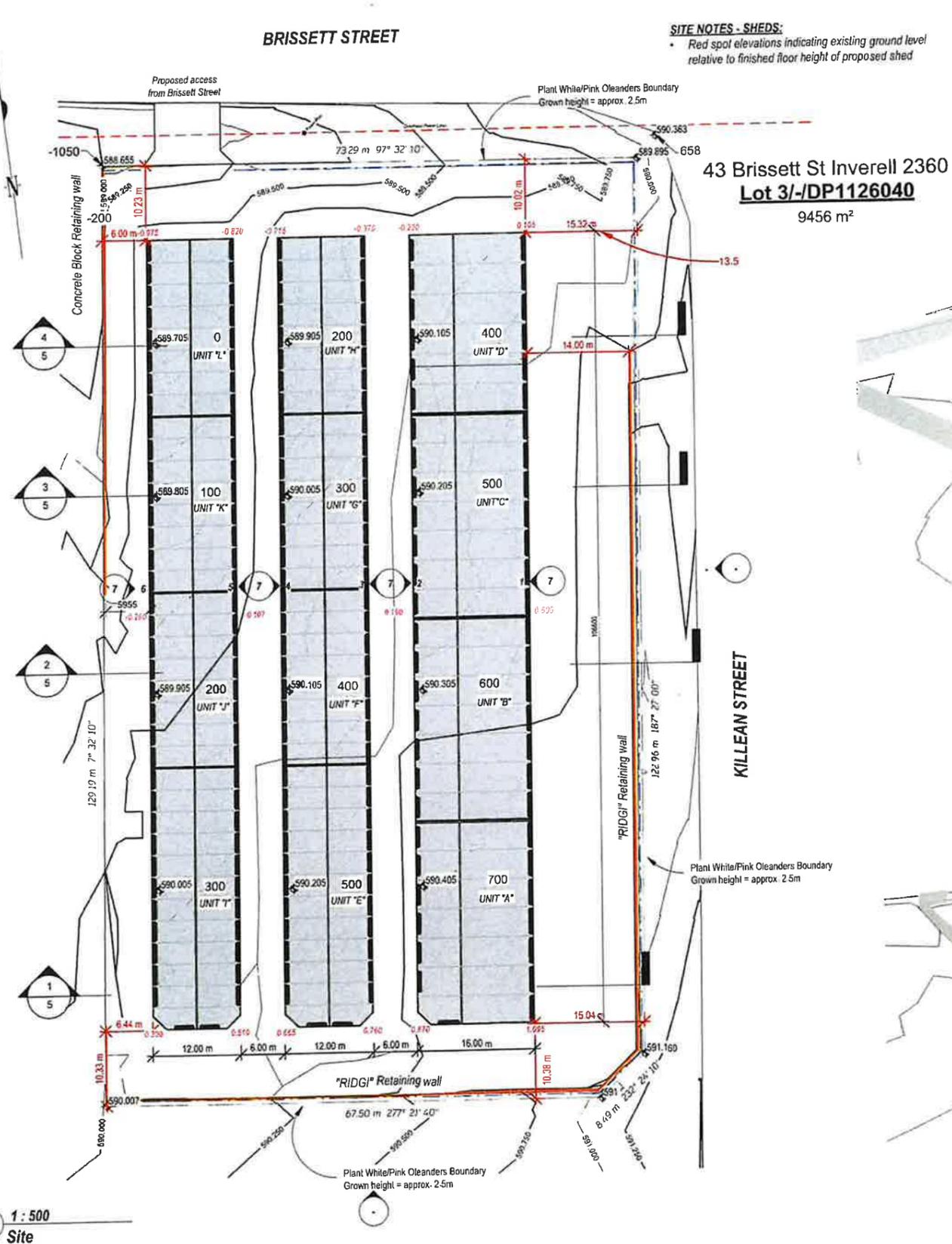
SHEET LIST	
Number	Name
1	SITE
2	SITE DRAINAGE
3	FLOOR PLAN
4	SLAB PLAN
5	SECTIONS
6	LONG SECTIONS
7	ELEVATIONS
8	SCHEDULES

**SITE NOTES - SHEDS:**  
• Red spot elevations indicating existing ground level relative to finished floor height of proposed shed



**INVERELL SHIRE COUNCIL  
DEVELOPMENT APPROVAL**  
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Development Application No: DA-147/2023  
Date: 1 March 2023

Council Officer: *[Signature]*  
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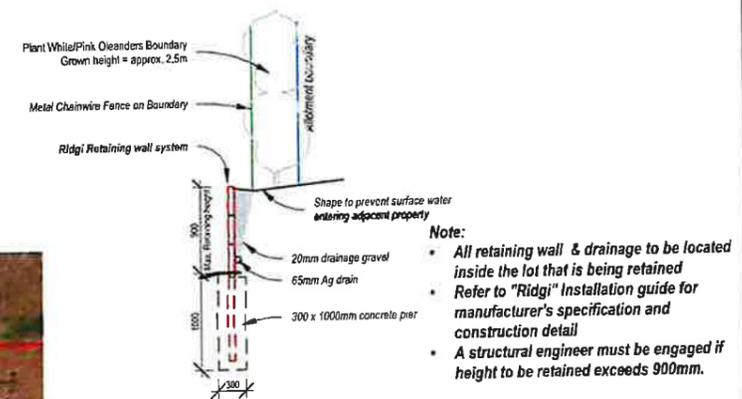
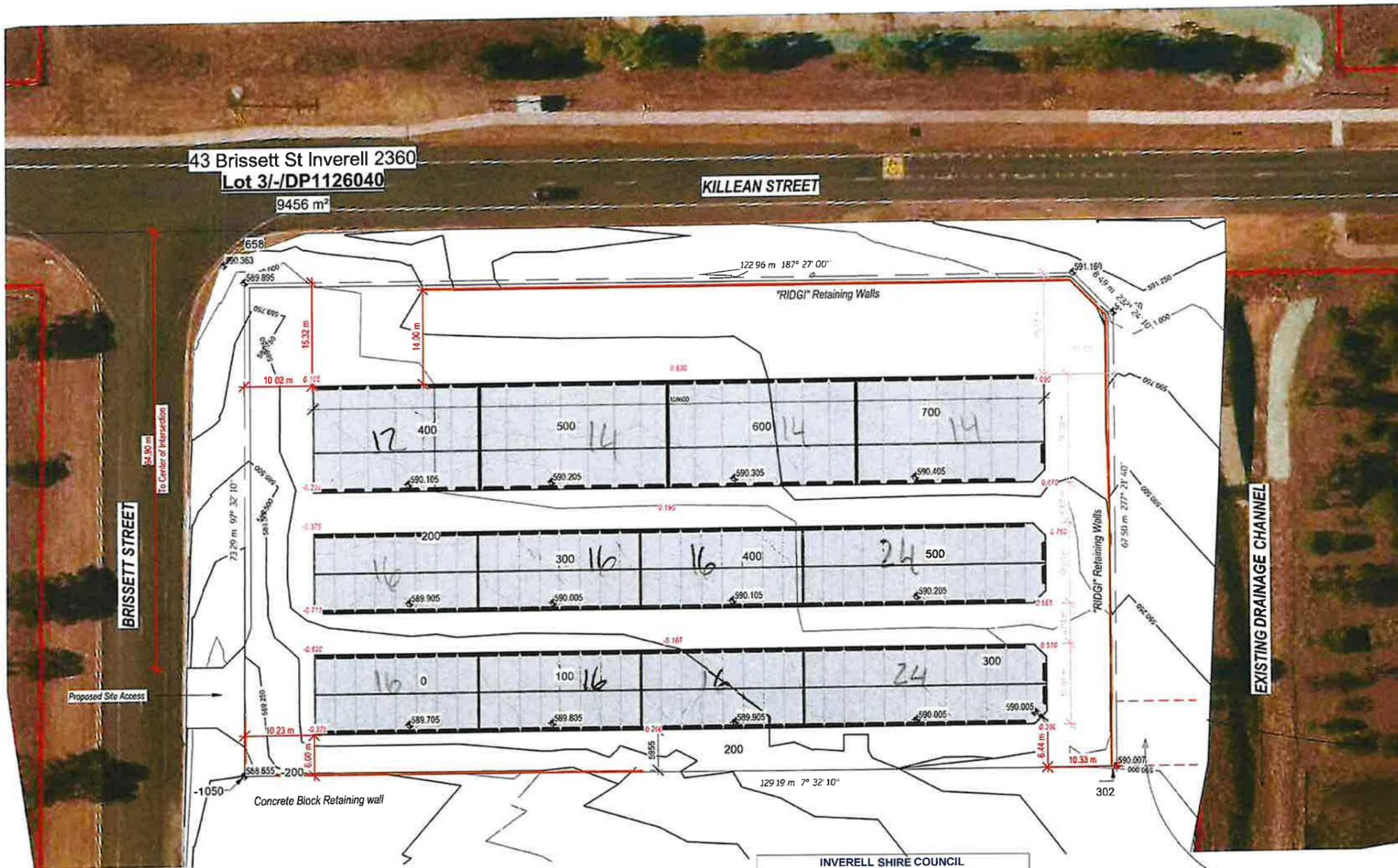
1 : 500  
Site

PROJECT:	Proposed Self-Storage Sheds	DRAWING NO:	230218 - A	SCALE:	A2 1 : 500	DRAWN BY:	JB
CLIENT:	Paul Kelly	ISSUE DATE:	22/03/2023	SHEET:	1 of 8 - SITE		
ADDRESS:	43 Brissett St Inverell 2360	REVISION DATE:	13/02/2024	DRAWING STATUS:	FINAL - ISSUED FOR PLANNING APPROVAL		
LOT/SEC/PLAN:	3/-/DP1126040						

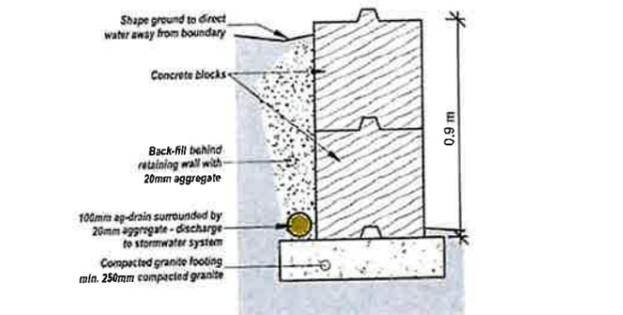
**bdad ABODE**  
ACCREDITED BUILDING DESIGNER

34 Oswald Lane, Inverell NSW 2360  
0447 770 174  
jon@abodebuildingdesign.au

DA DA ANS NOT END CONSTRUCTION



1: 50  
 2 11-"RIDGI" Retaining Wall Detail



1: 20  
 3 11-Retaining Wall Detail Sandstone Block

**STORMWATER & SURFACE WATER TO BE DIRECTED TO EXISTING DRAINAGE CHANNEL. SEE HYDRAULIC DESIGN FOR ALL STORMWATER AND SURFACE DRAINAGE**

**PROPOSED 10 METER WIDE EASEMENT TO BE CREATED FOR THE DRAINAGE OF STORMWATER (PIPED)**

1: 500  
 1 Site Drainage

**INVERELL SHIRE COUNCIL  
 DEVELOPMENT APPROVAL**  
 Approved subject to the provision of the EP & A Act 1979 and any conditions contained in the attached written approval.  
 Development Application No: DA-147/2023  
 Date: 1 March 2023  
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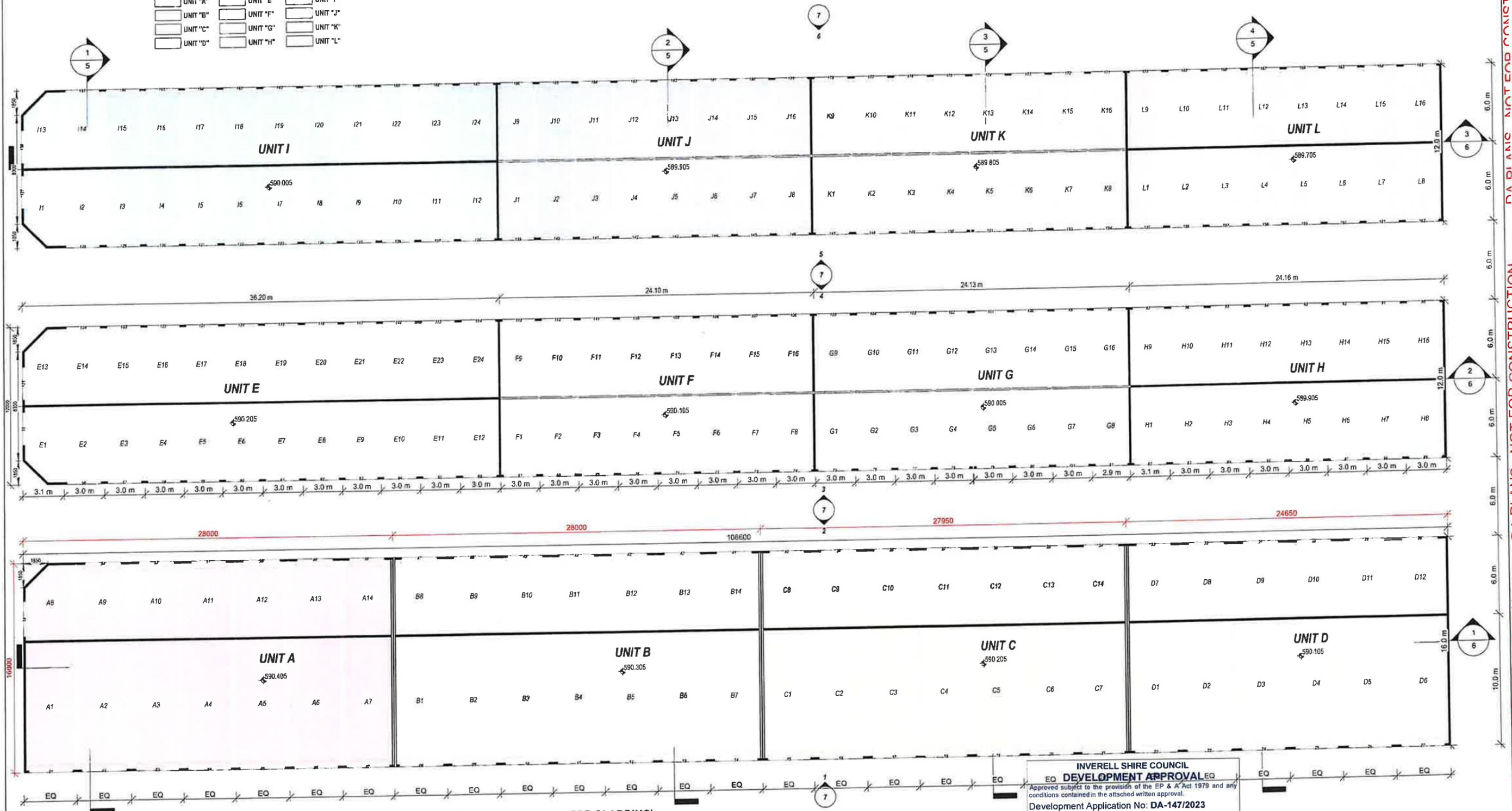
PROJECT:	Proposed Self-Storage Sheds	DRAWING NO:	230218 - A	SCALE:	A2 As indicated	DRAWN BY:	JB
CLIENT:	Paul Kelly	ISSUE DATE:	22/03/2023	SHEET:	2 of 8 - SITE DRAINAGE		
ADDRESS:	43 Brissett St Inverell 2360	REVISION DATE:	13/02/2024	DRAWING STATUS:	FINAL - ISSUED FOR PLANNING APPROVAL		
LOT/SEC/PLAN:	3/-/DP1126040						

**bdad ABODE**  
 ACCREDITED BUILDING DESIGNER  
 BUILDING DESIGN  
 34 Oswald Lane, Inverell NSW 2360  
 0447 770 174  
 jon@abodebuildingdesign.au

DA DA ANS NOT END CONSTRUCTION

**UNIT LEGEND**

UNIT "A"	UNIT "E"	UNIT "I"
UNIT "B"	UNIT "F"	UNIT "J"
UNIT "C"	UNIT "G"	UNIT "K"
UNIT "D"	UNIT "H"	UNIT "L"



DIMENSIONS SHOWN ARE TO OUTSIDE EDGE OF SLAB (INCLUDING 30MM REBATE FOR CLADDING)

INVERELL SHIRE COUNCIL  
**DEVELOPMENT APPROVAL**  
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 Date: 1 March 2023  
 Council Officer: \_\_\_\_\_  
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1 : 200  
**FLOOR PLAN SETOUT**

PROJECT:	Proposed Self-Storage Sheds
CLIENT:	Paul Kelly
ADDRESS:	43 Brissett St Inverell 2360
LOT/SEC/PLAN:	3/-/DP1126040

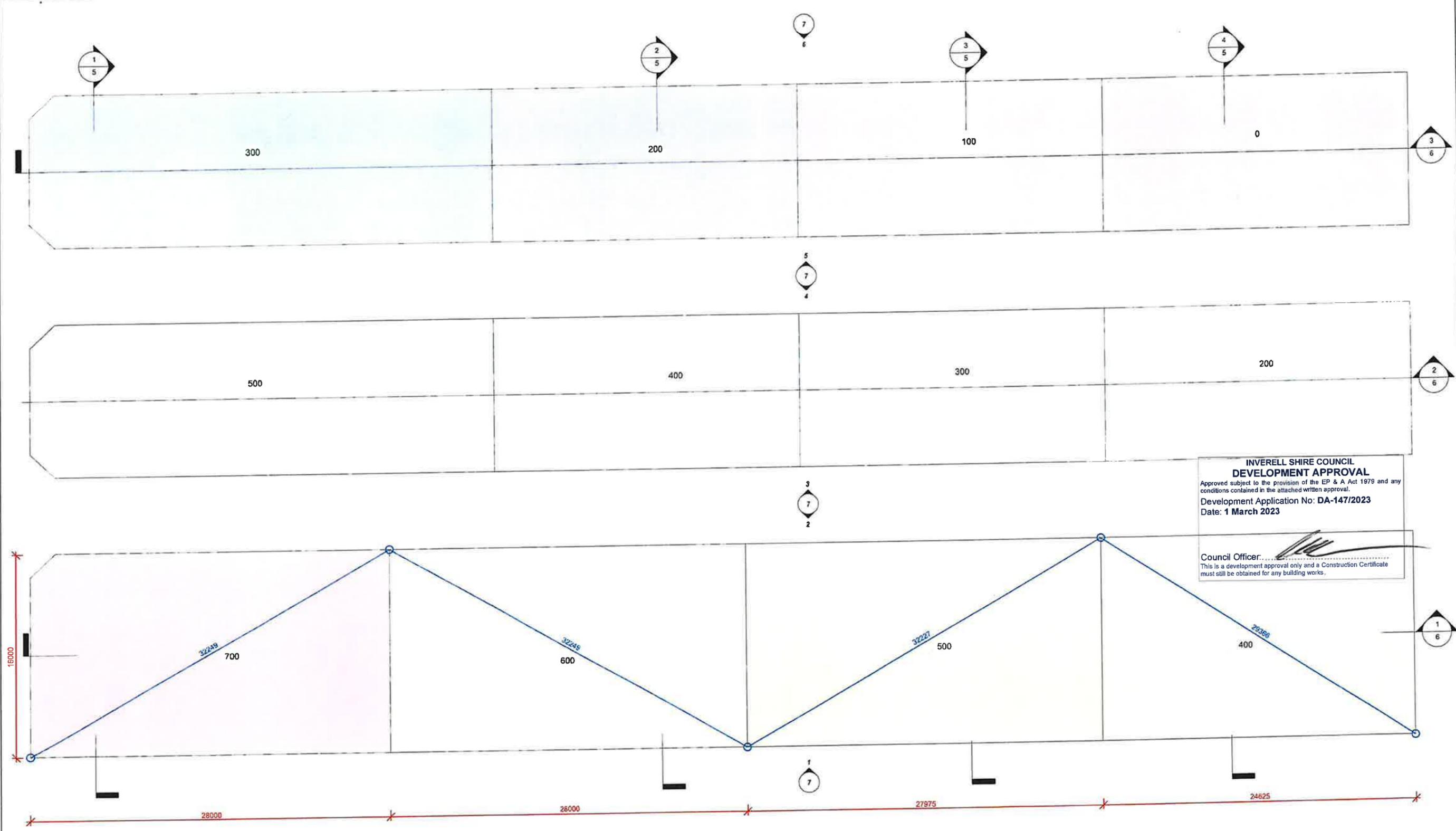
REV#	REVISION DESCRIPTION	DATE
A	Issued for Planning Approval	JB 13/02/2024
V5	Amend skillion roof to steep with slab	JB 25/10/2023
V4	(Minor) Provided a Unit Schedule and additional notation.	JB 07/07/2023
V3	Changed high roller doors to caravan storage units to 3000mm wide and the lower doors to Units (A), (B), & (C) to 2700 wide - no change to heights.	JB 05/07/2023
V2	Change Units (A), (B), & (C) to a skillion type roof. Revised internal partition walls to align throughout. Provide take-off schedule to assist in preliminary pricing.	JB 01/07/2023
V1	Changed intermediate steps in shed elevation to 100mm each. Reduced driveway widths to 6 meters. Provide min. 14.5 meter to eastern side of Unit A-D	JB 10/06/2023

DRAWING NO:	230218 - A	SCALE:	A2 1 : 200	DRAWN BY:	JB
ISSUE DATE:	22/03/2023	SHEET:	3 of 8 - FLOOR PLAN		
REVISION DATE:	13/02/2024	DRAWING STATUS:	FINAL - ISSUED FOR PLANNING APPROVAL		

**bdad** **ABODE**  
 ACCREDITED BUILDING DESIGNER  
 BUILDING DESIGN  
 34 Oswald Lane, Inverell NSW 2360  
 0447 770 174  
 jon@abodebuildingdesign.au







**INVERELL SHIRE COUNCIL  
DEVELOPMENT APPROVAL**  
Approved subject to the provision of the EP & A Act 1979 and any conditions contained in the attached written approval.  
Development Application No: DA-147/2023  
Date: 1 March 2023

Council Officer: *[Signature]*  
This is a development approval only and a Construction Certificate must still be obtained for any building works.

1 : 200  
**FLOOR PLAN SETOUT**

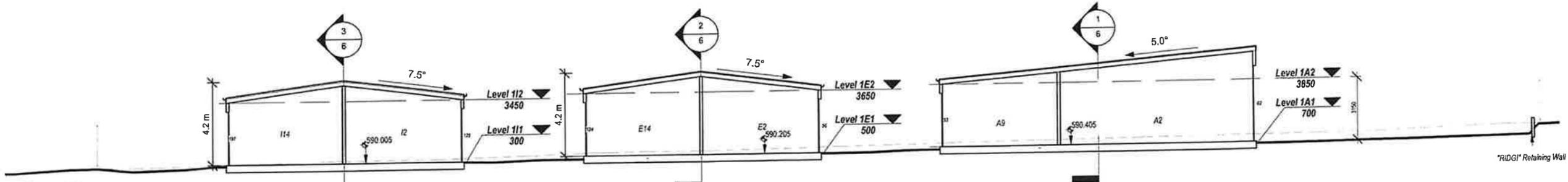
PROJECT:	Proposed Self-Storage Sheds	DRAWING NO:	230218 - A	SCALE:	A2 1 : 200	DRAWN BY:	JB
CLIENT:	Paul Kelly	ISSUE DATE:	22/03/2023	SHEET:	4 of 8 - SLAB PLAN		
ADDRESS:	43 Brissett St Inverell 2360	REVISION DATE:	13/02/2024	DRAWING STATUS:	FINAL - ISSUED FOR PLANNING APPROVAL		
LOT/SEC/PLAN:	3/-/DP1126040						

ISSUE	REVISION DESCRIPTION	AUTH.	DATE
A	Issued for Planning Approval	JB	13/02/2024
V5	Amend skillion roof to slope with slab	JB	25/10/2023
V4	Minor Provide a Unit Schedule and additional notation.	JB	07/07/2023
V3	Changed high roller doors to caravan storage units to 3300mm wide and the lower doors to Units (A), (B), & (C) to 2700 wide - no change to heights.	JB	05/07/2023
V2	Change Units (A), (B), & (C) to a skillion type roof. Revised internal partition walls to slugs throughout. Provide take-off schedules to assist in preliminary pricing.	JB	01/07/2023
V1	Changed intermediate slabs to slab elevations to 100mm each. Reduced driveway widths to 5 meters. Provide min. 3.5 meter to eastern side of Unit A-D.	JB	10/04/2023

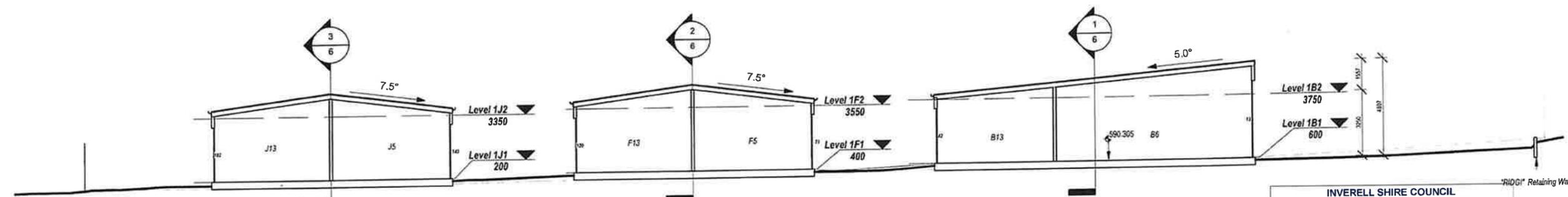
**bdad** **ABODE**  
ACCREDITED BUILDING DESIGNER  
BUILDING DESIGN

34 Oswald Lane, Inverell NSW 2360  
0447 770 174  
jon@abodebuildingdesign.au

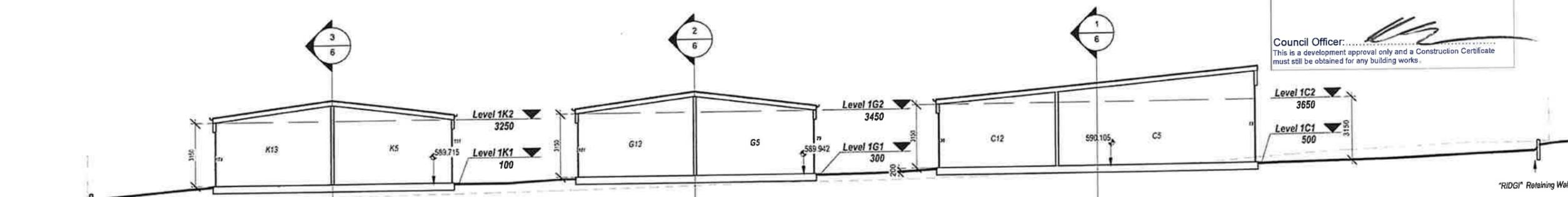
DA DI ANS NOT END CONSTRUCTION



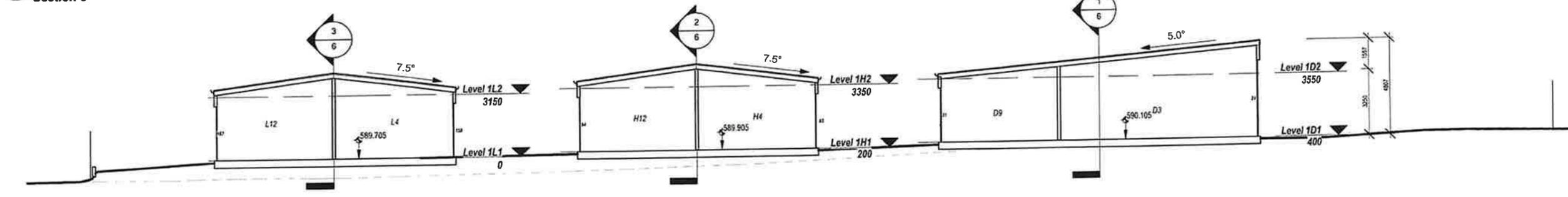
1 : 150  
Section 1



1 : 150  
Section 2



1 : 150  
Section 3



1 : 150  
Section 4

**INVERELL SHIRE COUNCIL  
DEVELOPMENT APPROVAL**  
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Development Application No: DA-147/2023  
Date: 1 March 2023

Council Officer:   
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PROJECT:	Proposed Self-Storage Sheds	DRAWING NO:	230218 - A	SCALE:	A2 1 : 150	DRAWN BY:	JB
CLIENT:	Paul Kelly	ISSUE DATE:	22/03/2023	SHEET:	5 of 8 - SECTIONS		
ADDRESS:	43 Brissett St Inverell 2360	REVISION DATE:	13/02/2024	DRAWING STATUS:	FINAL - ISSUED FOR PLANNING APPROVAL		
LOT/SEC/PLAN:	3/-/DP1126040						

ISSUE	REVISION DESCRIPTION	AUTH.	DATE
A	Issued for Planning Approval	JB	13/02/2024
V3	Amend skillion roof to step with slab.	JB	25/10/2023
V4	(Minor) Provided a Unit Schedule and additional notation.	JB	07/07/2023
V2	Changed high roller doors to caravan storage units to 3300mm wide and the lower doors to Units (A), (B), & (C) to 2700 wide - no change to heights.	JB	05/07/2023
V1	Change Units (A), (B), & (C) to a skillion type roof. Revised internal partition walls to align throughout. Provide (skillion) schedule to assist in preliminary pricing.	JB	01/07/2023
V1	Changed intermediate steps to shed elevation to 100mm each. Reduced driveway widths to 6 meters. Provide join 14.5 meter to eastern side of Unit A-D	JB	10/04/2023

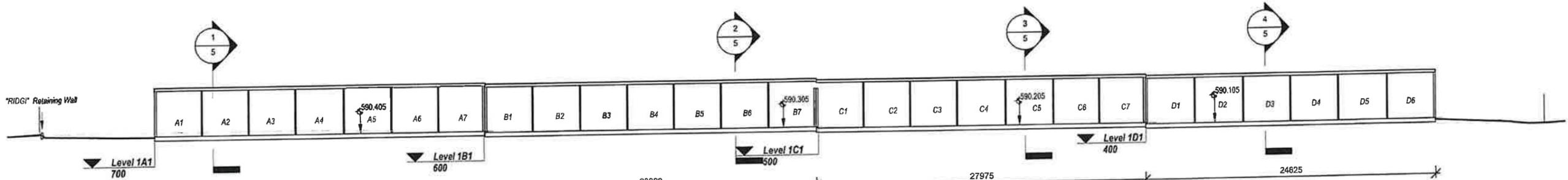
**bdad ABODE**  
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BUILDING DESIGN

34 Oswald Lane, Inverell NSW 2360  
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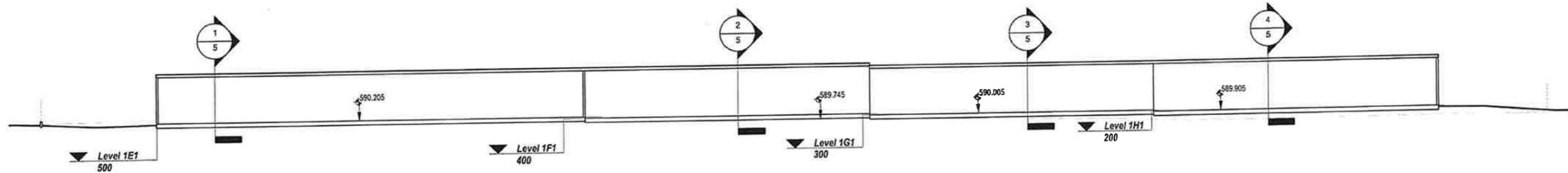


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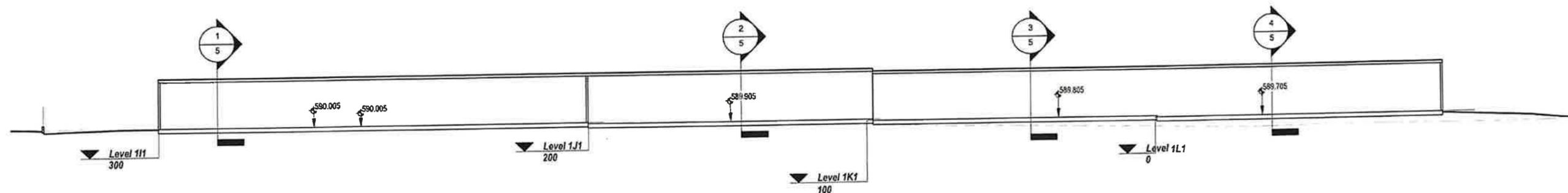


1 : 250  
Section A

DIMENSIONS SHOWN ARE TO OUTSIDE EDGE OF SLAB (INCLUDING 30MM REBATE FOR CLADDING)



2 : 250  
Section B



3 : 250  
Section C

**INVERELL SHIRE COUNCIL  
DEVELOPMENT APPROVAL**  
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Development Application No: DA-147/2023  
Date: 1 March 2023

Council Officer:   
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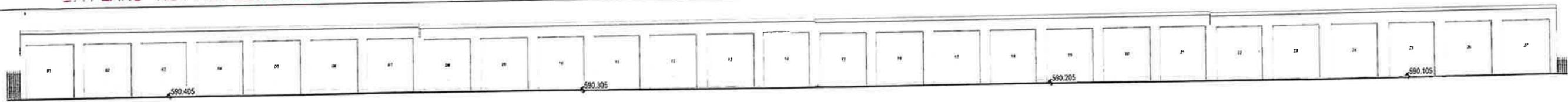
PROJECT:	Proposed Self-Storage Sheds	DRAWING NO:	230218 - A	SCALE:	A2 1 : 250	DRAWN BY:	JB
CLIENT:	Paul Kelly	ISSUE DATE:	22/03/2023	SHEET:	6 of 8 - LONG SECTIONS		
ADDRESS:	43 Brissett St Inverell 2360	REVISION DATE:	13/02/2024	DRAWING STATUS:	FINAL - ISSUED FOR PLANNING APPROVAL		
LOT/SEC/PLAN:	3/-/DP1126040						

**bdad ABODE**  
ACCREDITED BUILDING DESIGNER BUILDING DESIGN

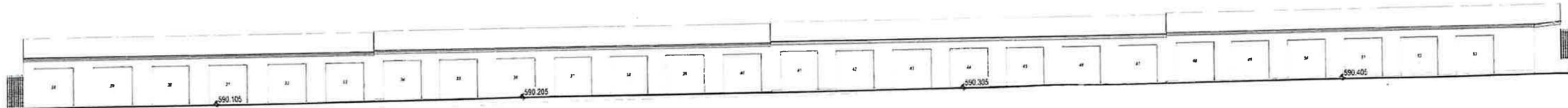
34 Oswald Lane, Inverell NSW 2360  
0447 770 174  
jon@abodebuildingdesign.au



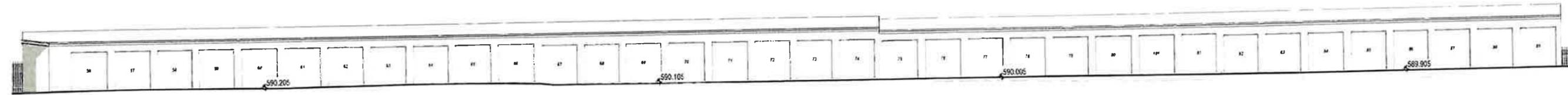
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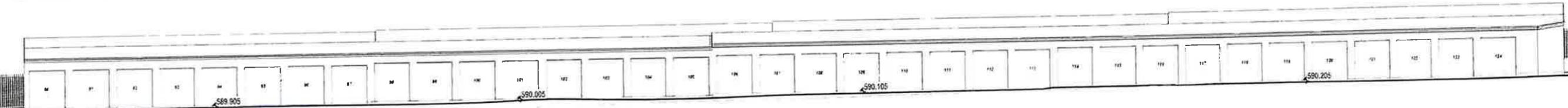
1 1:200  
UNITS A,B,C,D - Eastern Elevation



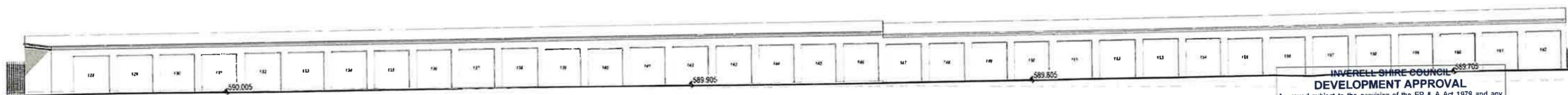
2 1:200  
UNITS A,B,C,D Western Elevation



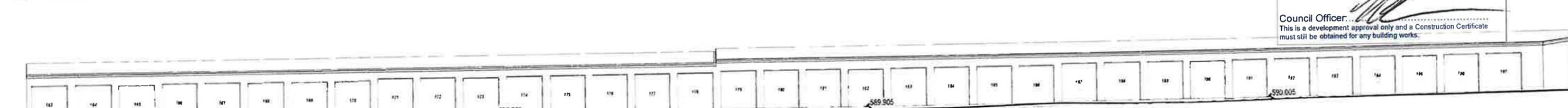
3 1:200  
UNITS E,F,G,H - Eastern Elevation



4 1:200  
UNITS E,F,G,H - Western Elevation



5 1:200  
UNITS I,J,K,L - Eastern Elevation



6 1:200  
UNITS I,J,K,L - Western Elevation

INVERELL SHIRE COUNCIL  
**DEVELOPMENT APPROVAL**  
Approved subject to the provision of the EP & A Act 1979 and any conditions contained in the attached written approval.  
Development Application No: DA-147/2023  
Date: 1 March 2023

Council Officer: *[Signature]*  
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DA DA ANS NOT EAD CONSTRUCTION

PROJECT:	Proposed Self-Storage Sheds
CLIENT:	Paul Kelly
ADDRESS:	43 Brissett St Inverell 2360
LOT/SEC/PLAN:	3/-/DP1126040

ISSUE	REVISION DESCRIPTION	AUTH	DATE
A	Issued for Planning Approval	JB	13/02/2024
V5	Amend skillion roof to step with slab	JB	25/10/2023
V4	(Minor) Provided a Unit Schedule and additional notation	JB	07/01/2023
V3	Changed high roller doors to caravan storage units to 3300mm wide and the lower doors to Units (A), (B), & (C) to 2700 wide - no change to heights	JB	05/07/2023
V2	Change Units (A), (B), & (C) to a skillion type roof. Revised internal partition walls to align throughout. Provide take-off schedule to assist in preliminary pricing	JB	01/07/2023
V1	Change intermediate steps to shed elevation to 180mm each. Reduced driveway widths to 6 meters. Provide min. 14.5 meter to eastern side of Unit A-D	JB	10/04/2023

DRAWING NO:	230218 - A	SCALE:	A2 1:200	DRAWN BY:	JB
ISSUE DATE:	22/03/2023	SHEET:	7 of 8 - ELEVATIONS		
REVISION DATE:	13/02/2024	DRAWING STATUS:	FINAL - ISSUED FOR PLANNING APPROVAL		



**ABODE**  
ACCREDITED BUILDING DESIGNER



**BUILDING DESIGN**

34 Oswald Lane, Inverell NSW 2360  
0447 770 174  
jon@abodebuildingdesign.au





DA DI ANS NOT END CONSTRUCTION

DOOR SCHEDULE				
Mark	Height	Width	Count	Unit Name
01	3800	3300	1	A1
02	3800	3300	1	A2
03	3800	3300	1	A3
04	3800	3300	1	A4
05	3800	3300	1	A5
06	3800	3300	1	A6
07	3800	3300	1	A7
08	3800	3300	1	B1
09	3800	3300	1	B2
10	3800	3300	1	B3
11	3800	3300	1	B4
12	3800	3300	1	B5
13	3800	3300	1	B6
14	3800	3300	1	B7
15	3800	3300	1	C1
16	3800	3300	1	C2
17	3800	3300	1	C3
18	3800	3300	1	C4
19	3800	3300	1	C5
20	3800	3300	1	C6
21	3800	3300	1	C7
22	3800	3300	1	D1
23	3800	3300	1	D2
24	3800	3300	1	D3
25	3800	3300	1	D4
26	3800	3300	1	D5
27	3800	3300	1	D6
28	2700	2700	1	D12
29	2700	2700	1	D11
30	2700	2700	1	D10
31	2700	2700	1	D9
32	2700	2700	1	D8
33	2700	2700	1	D7
34	2700	2700	1	C14
35	2700	2700	1	C13
36	2700	2700	1	C12
37	2700	2700	1	C11
38	2700	2700	1	C10
39	2700	2700	1	C9
40	2700	2700	1	C8
41	2700	2700	1	B14
42	2700	2700	1	B13
43	2700	2700	1	B12
44	2700	2700	1	B11
45	2700	2700	1	B10
46	2700	2700	1	B9
47	2700	2700	1	B8
48	2700	2700	1	A14
49	2700	2700	1	A13
50	2700	2700	1	A12

DOOR SCHEDULE				
Mark	Height	Width	Count	Unit Name
51	2700	2700	1	A11
52	2700	2700	1	A10
53	2700	2700	1	A9
54	2700	2700	1	A8
55	2700	2500	1	E1
56	2700	2500	1	E2
57	2700	2500	1	E3
58	2700	2500	1	E4
59	2700	2500	1	E5
60	2700	2500	1	E6
61	2700	2500	1	E7
62	2700	2500	1	E8
63	2700	2500	1	E9
64	2700	2500	1	E10
65	2700	2500	1	E11
66	2700	2500	1	E12
67	2700	2500	1	F1
68	2700	2500	1	F2
69	2700	2500	1	F3
70	2700	2500	1	F4
71	2700	2500	1	F5
72	2700	2500	1	F6
73	2700	2500	1	F7
74	2700	2500	1	F8
75	2700	2500	1	G1
76	2700	2500	1	G2
77	2700	2500	1	G3
78	2700	2500	1	G4
79	2700	2500	1	G5
80	2700	2500	1	G6
81	2700	2500	1	G8
82	2700	2500	1	H1
83	2700	2500	1	H2
84	2700	2500	1	H3
85	2700	2500	1	H4
86	2700	2500	1	H5
87	2700	2500	1	H6
88	2700	2500	1	H7
89	2700	2500	1	H8
90	2700	2500	1	H16
91	2700	2500	1	H15
92	2700	2500	1	H14
93	2700	2500	1	H13
94	2700	2500	1	H12
95	2700	2500	1	H11
96	2700	2500	1	H10
97	2700	2500	1	H9
98	2700	2500	1	G16
99	2700	2500	1	G15
100	2700	2500	1	G14

DOOR SCHEDULE				
Mark	Height	Width	Count	Unit Name
101	2700	2500	1	G7
102	2700	2500	1	G13
103	2700	2500	1	G12
104	2700	2500	1	G11
105	2700	2500	1	G10
106	2700	2500	1	G9
107	2700	2500	1	F15
108	2700	2500	1	F14
109	2700	2500	1	F13
110	2700	2500	1	F12
111	2700	2500	1	F11
112	2700	2500	1	F10
113	2700	2500	1	F9
114	2700	2500	1	E24
115	2700	2500	1	E23
116	2700	2500	1	E22
117	2700	2500	1	E21
118	2700	2500	1	E20
119	2700	2500	1	E19
120	2700	2500	1	E18
121	2700	2500	1	E17
122	2700	2500	1	E16
123	2700	2500	1	E15
124	2700	2500	1	E14
125	2700	2500	1	E13
127	2700	2500	1	I1
128	2700	2500	1	I2
129	2700	2500	1	I3
130	2700	2500	1	I4
131	2700	2500	1	I5
132	2700	2500	1	I6
133	2700	2500	1	I7
134	2700	2500	1	I8
135	2700	2500	1	I9
136	2700	2500	1	I10
137	2700	2500	1	I11
138	2700	2500	1	I12
139	2700	2500	1	J1
140	2700	2500	1	J2
141	2700	2500	1	J3
142	2700	2500	1	J4
143	2700	2500	1	J5
144	2700	2500	1	J6
145	2700	2500	1	J7
146	2700	2500	1	J8
147	2700	2500	1	K1
148	2700	2500	1	K2
149	2700	2500	1	K3
150	2700	2500	1	K4

DOOR SCHEDULE				
Mark	Height	Width	Count	Unit Name
151	2700	2500	1	K5
152	2700	2500	1	K6
153	2700	2500	1	K7
154	2700	2500	1	K8
155	2700	2500	1	L1
156	2700	2500	1	L2
157	2700	2500	1	L3
158	2700	2500	1	L4
159	2700	2500	1	L5
160	2700	2500	1	L6
161	2700	2500	1	L7
162	2700	2500	1	L8
163	2700	2500	1	L16
164	2700	2500	1	L15
165	2700	2500	1	L14
166	2700	2500	1	L13
167	2700	2500	1	L12
168	2700	2500	1	L11
169	2700	2500	1	L10
170	2700	2500	1	L9
171	2700	2500	1	K16
172	2700	2500	1	K15
173	2700	2500	1	K14
174	2700	2500	1	K13
175	2700	2500	1	K12
176	2700	2500	1	K11
177	2700	2500	1	K10
178	2700	2500	1	K9
179	2700	2500	1	J16
180	2700	2500	1	J15
181	2700	2500	1	J14
182	2700	2500	1	J13
183	2700	2500	1	J12
184	2700	2500	1	J11
185	2700	2500	1	J10
186	2700	2500	1	J9
187	2700	2500	1	I24
188	2700	2500	1	I23
189	2700	2500	1	I22
190	2700	2500	1	I21
191	2700	2500	1	I20
192	2700	2500	1	I19
193	2700	2500	1	I18
194	2700	2500	1	I17
195	2700	2500	1	I16
196	2700	2500	1	I15
197	2700	2500	1	I14
198	2700	2500	1	I13

DOOR QUANTITY SCHEDULE			
Type	Height	Width	Count
Roller Door 2.5m W	2700	2500	1
Roller Door 2.5m W: 144			
Roller Door 2.7m W	2700	2700	1
Roller Door 2.7m W: 27			
Roller Door high	3800	3300	1
Roller Door high: 27			
Grand total:			198

FLOOR AREA SCHEDULE	
Unit	Area (m²)
UNIT A	449.5
UNIT B	449.7
UNIT C	451.1
UNIT D	385.7
UNIT E	431.0
UNIT F	289.2
UNIT G	288.7
UNIT H	290.9
UNIT I	430.1
UNIT J	289.2
UNIT K	289.6
UNIT L	290.9
AREA TOTAL	4335.4

ROOF AREA SCHEDULE	
Comments	Area (m²)
UNIT A & B	448.4
UNIT C & D	449.7
UNIT E & F	726.4
UNIT G & H	584.6
UNIT I & J	726.4
UNIT K & L	584.6
UNIT A & B	449.7
UNIT C & D	394.7
Grand total	4364.5

GUTTER LENGTH SCHEDULE	
Mark	Length (m)
	28.00
	24.58
	52.58
UNIT A & B	26.18
UNIT A & B	26.18
UNIT C & D	28.00
UNIT C & D	28.00
UNIT E & F	116.91
UNIT E & F	116.91
UNIT G & H	96.59
UNIT G & H	96.59
UNIT I & J	116.91
UNIT I & J	116.91
UNIT K & L	96.59
UNIT K & L	96.59
Grand total	533.75

WALL AREA SCHEDULE	
(External walls only)	
UNIT	Area
	173.5
	173.5
UNIT A	238.1
	238.1
UNIT B	181.8
	181.8
UNIT C	266.7
	266.7
UNIT D	133.6
	133.6
UNIT E	244.3
	244.3
UNIT F	145.8
	145.8
UNIT G	139.7
	139.7
UNIT H	188.4
	188.4
UNIT I	244.3
	244.3
UNIT J	145.8
	145.8
UNIT K	137.7
	137.7
UNIT L	188.8
	188.8
Grand total	2428.3

UNIT SCHEDULE	
Name	Combined Area
UNIT "A"	420.3
UNIT "A": 14	420.3
UNIT "B"	421.8
UNIT "B": 14	421.8
UNIT "C"	421.4
UNIT "C": 14	421.4
UNIT "D"	371.2
UNIT "D": 12	371.2
UNIT "E"	400.1
UNIT "E": 24	400.1
UNIT "F"	269.4
UNIT "F": 16	269.4
UNIT "G"	269.7
UNIT "G": 16	269.7
UNIT "H"	270.1
UNIT "H": 16	270.1
UNIT "I"	400.1
UNIT "I": 24	400.1
UNIT "J"	269.4
UNIT "J": 16	269.4
UNIT "K"	269.7
UNIT "K": 16	269.7
UNIT "L"	270.1
UNIT "L": 16	270.1
Grand total: 198	4053.2

**INVERELL SHIRE COUNCIL  
DEVELOPMENT APPROVAL**

Approved subject to the provision of the EP & A Act 1979 and any conditions contained in the attached written approval.

Development Application No: **DA-147/2023**  
Date: **1 March 2023**

Council Officer: 

This is a development approval only and a Construction Certificate must still be obtained for any building works.

PROJECT:	Proposed Self-Storage Sheds	DRAWING NO:	230218 - A	SCALE:	A2	DRAWN BY:	JB
CLIENT:	Paul Kelly	ISSUE DATE:	22/03/2023	SHEET:	8 of 8 - SCHEDULES	</	