

DEVELOPMENT APPLICATION

APPLICATION NUMBER:	PLN-25-222
PROPOSED DEVELOPMENT:	Residential (Alterations & Additions)
LOCATION:	147 Bowen Road Lutana
APPLICANT:	B.Viney Drafting Services
ADVERTISING START DATE:	19/12/2025
ADVERTISING EXPIRY DATE:	13/01/2026

Plans and documentation are available for inspection at Council's Offices, located at 374 Main Road, Glenorchy between 8.30 am and 5.00 pm, Monday to Friday (excluding public holidays) and the plans are available on Glenorchy City Council's website (www.gcc.tas.gov.au) until **13/01/2026**.

During this time, any person may make representations relating to the applications by letter addressed to the Chief Executive Officer, Glenorchy City Council, PO Box 103, Glenorchy 7010 or by email to gccmail@gcc.tas.gov.au.

Representations must be received by no later than 11.59 pm on **13/01/2026**, or for postal and hand delivered representations, by 5.00 pm on **13/01/2026**.

JMG Ref: J250605CS
Client Ref: PLN-25-222

06 November 2025

Glenorchy City Council
374 Main Road
Glenorchy TAS 7010

Attention: Sylvia Jeffreys

Dear Sylvia

**PROPOSED USE / DEVELOPMENT: RESIDENTIAL (ALTERATIONS AND ADDITIONS)
147 BOWEN ROAD LUTANA - APPLICATION NUMBER (PLN-25-222)**

JMG Engineers were engaged on behalf of the property owner to respond to RFI - PLN-25-222, 25 August 2025, General Manager's Consent for Interference with Public Stormwater Systems Item 2. Since the initial response to this RFI Council have issued a follow up letter stating item 2 was not yet satisfied. Council has requested that the permissible site discharge shall be calculated based on the critical storm duration of the local catchment instead of the development site time of concentration. The associated calculations have been amended to reflect this request and documented within this letter.

The property at 147 Bowen Road, Lutana is located within the General Residential Zone of the Glenorchy planning area. At present, the house roof drains north to a private connection at the rear of the property, while the driveway sheets west toward Bowen Road, discharging to the kerb.



Figure 1 - Aerial View of Pre-Development Site and Existing Stormwater Network

The proposed alterations and additions include a new garage, carport, covered walkways, and concrete driveway. Council have advised JMG Engineers all post-development runoff, including the existing roof runoff, is to be directed and formalised via a new DN150 connection to Council's DN300 main asset 130895 in Bowen Road. The current connection on the northern boundary is to be sealed to Council approval.

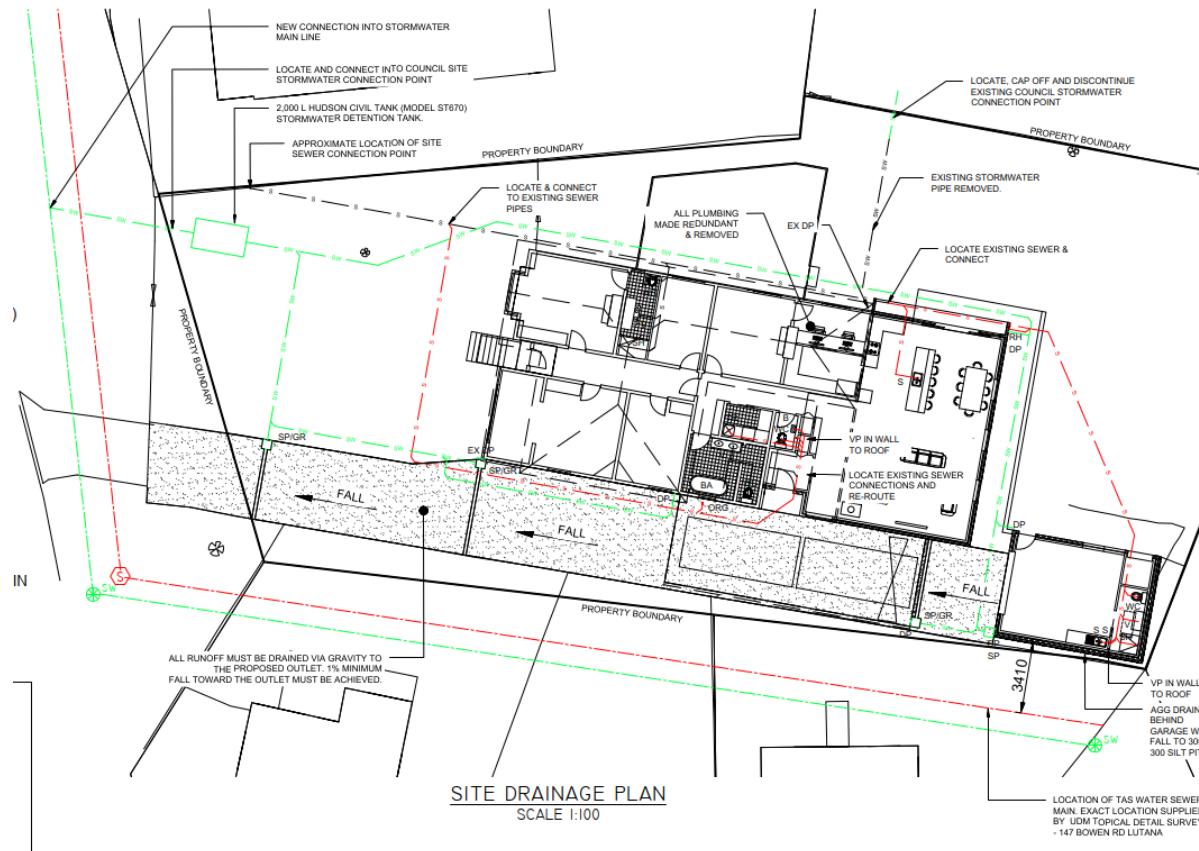


Figure 2 - Proposed Stormwater and Catchment Plan to Detention Tank

A hydrologic assessment has been undertaken using the Rational Method, which is appropriate for small urban catchments and aligns with the principles of *Australian Rainfall and Runoff* (ARR 2019). The assessment parameters have been adopted in accordance with Glenorchy City Council's Stormwater Management Policy (February 2024).

Design rainfall parameters were obtained from the Bureau of Meteorology (BoM) 2016 IDF data corresponding to the site coordinates (latitude -42.8375° , longitude 147.3125°).

The critical time of concentration for the local catchment was calculated based on the critical flow path shown in Figure 3 derived from Glenorchy City Council's online asset infrastructure map and LIDAR elevation data. The critical time of concentration was calculated to be 10 minutes for the local catchment to reach the critical point in the network where the proposed development enters the catchment.



Figure 3 - Catchment Flow Path

The following table summarises the catchment properties used to calculate the critical time of concentration:

Table 1 - Critical Time of Concentration Calculations

Time of Concentration - Sheet, Channel and Pipe			
Hortons			
Sheet Flow	H1	78.7 m	AHD at top of max flow path
	H2	72.5 m	AHD at bottom of max flow path
	ΔH	6 m	Change in height of flow path
	L	50 m	Max flow length
	Grade	12%	Average grade of site
	Surface	Bare soil surface	
	N	0.028	Hortons surface roughness
ToC		6.54 min	$T_{cs} = 107 * N * (L^{.333}) / (S^{.2})$
Kirpich			
Channel	H1	72.5 m	AHD at top of channel
	H2	71.1 m	AHD at bottom of channel
	ΔH	1 m	Change in height of channel
	L	90 m	Length of flow in channel
	Grade	2%	Average grade of channel
	Surface	Concrete/Asphalt	
	N	0.40	
ToC		1.24 min	$T_{ch} = 0.0195 * L^{.77} * S^{(-.385)}$
Pipe			
Pipe	L	420 m	Max pipe length
	H1	71 m	AHD at start of pipe
	H2	36 m	AHD at bottom of pipe
	ΔH	35 m	Fall in pipe
	Grade	8%	Grade of pipe
	Pipe Dia	0.30 m	Pipe diameter (m)
	Velocity	3.95 m/s	Velocity of water in pipe
ToC		1.77 min	Travel time in pipe
Total ToC			
ToC	10	mins	

The analysis has been undertaken for the 5% Annual Exceedance Probability (AEP) storm event in accordance with Council requirements. An area of approximately 240 m² has been excluded from both the pre- and post-development hydrologic calculations. This area comprises existing landscaped and grassed sections at the front of the property, which will remain unchanged and unconnected to the proposed on-site detention (OSD) system.

The peak runoff for the post-development scenario was determined by calculating discharge rates for the full range of site storm durations and selecting the peak flow rate.

The permissible site discharge (PSD) for the proposed OSD system was determined using a runoff coefficient of 0.55, in accordance with Council's Stormwater Management Policy. The post-development peak runoff was calculated using runoff coefficients of 0.9 for impervious areas and 0.4 for pervious areas.

The following table summarises the pre- and post- development peak discharge rates:

Table 2 - Stormwater Calculations Summary

Condition	C	TOC (mins)	Q (5% AEP)
Pre-development	0.55	10 mins	8.3 L/s
Post-development	0.9 and 0.4	5 mins	14.4 L/s

The site storage requirement and subsequently the OSD system has been sized using Boyd's Method to limit post-development outflows for the full range of site storm durations to the pre-development rate of 8.3 L/s to determine the maximum volume required. Identifying approximately 1.8 m³ of storage is required to achieve compliance with Council policy. To provide additional future capacity and facilitate ease of construction by using a locally manufactured proprietary device, a 2,000 L Hudson Civil (model ST670), or similar approved, detention tank with a surcharge grate in the lid is recommended.

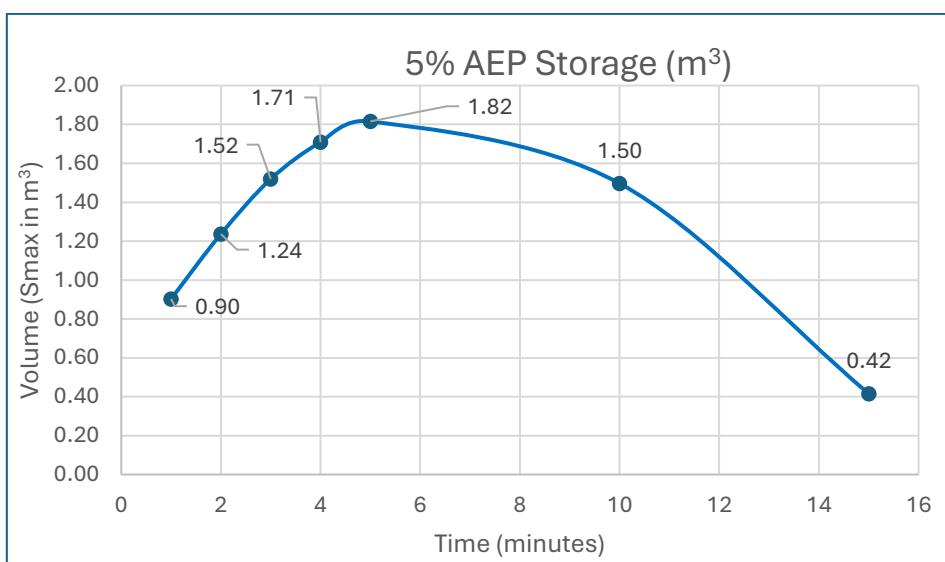


Figure 4 - Boyd's Formula Storage Results

Restricted flow based on the 2,000 L Hudson Civil tank (model ST670) has been calculated as 8.3 L/s, controlled by a 70 mm orifice plate positioned near the base of the structure with a design head of approximately 700 mm.

In summary, the proposal meets the Glenorchy City Council's Stormwater Management Policy (February 2024) and provides an appropriate stormwater outcome for the planned alterations and additions at 147 Bowen Road.

Please don't hesitate to contact me should you require any further information or clarification via email to jbutler@jmg.net.au.

Yours sincerely
JOHNSTONE, MCGEE & GANDY PTY LTD



Jack Butler
Civil Engineer

Encl. JMG Stormwater Calculations

c.c. B. Viney Drafting Services - Ben Viney

STORMWATER CALCULATIONS

JMC

PROJECT DESCRIPTION: On-Site Detention
PROJECT ADDRESS: 147 Bowen Road, Lutana
PROJECT NUMBER: 250605CS
REVISION: 2

DATE: 5/11/2025
DESIGNED: JFB
REVIEWED: BHL

SITE PARAMETERS

	Pre Development		Post Development	
Site Area	812.0	m ²	812.0	m ²
Impervious Area	420	m ²	512.0	m ²
GCC Impervious Runoff Coefficient	0.55	(-)	0.9	(-)
GCC Pervious Runoff Coefficient	0.55	(-)	0.40	(-)
Time of Concentration	10	mins	5	mins

PEAK CATCHMENT FLOWS FOR GIVEN AEP AT T.O.C.

	Pre Development		Post Development	
AEP	I _{tc,Y} (mm/h)	Flow (L/s)	I _{tc,Y} (mm/h)	Flow (L/s)
10%	53.8	6.7	72.2	11.7
5%	63.9	8.3	84.9	14.4
2%	78.6	11.2	102.0	18.9
1%	91.0	13.6	116.0	22.5

Allowable Site Discharge: 8.3 L/s

DETENTION VOLUME AND ORIFICE SIZING

Detention			
Storm Duration (min)	Tank Inflow (L/s)	Tank Outflow (L/s)	Storage (m ³)
5	14.4	8.3	1.82

Orifice		
Head (Above Orifice):	0.7	m
No. of Orifice:	1	(-)
Total Orifice Flow:	8.3	L/s
Orifice Diameter:	70	mm

147 BOWEN ROAD, LUTANA, TASMANIA

GLENORCHY CITY COUNCIL
PLANNING SERVICES
APPLICATION No. : PLN-25-222
DATE RECEIVED: 28 November 2025

SCHEDULE OF DRAWINGS

NAME	DRAWING NO.
COVER PAGE	1 OF 10
SITE PLAN	2 OF 10
DEMO PLAN	3 OF 10
AYOUT PLAN	4 OF 10
GARAGE PLAN & ELEVATIONS	5 OF 10
ELEVATION	6 OF 10
ELEVATION	7 OF 10
SITE DRAINAGE PLAN	8 OF 10
STORMWATER CONNECTION DETAIL	9 OF 10
ROOF PLAN	10 OF 10

GENERAL INFORMATION

PLANNING SCHEME -	TASMANIA PLANNING SCHEME
OVERLAYS -	-
ZONING -	GENERAL RESIDENTIAL
BUILDING CLASS -	1A / 10
SOIL CLASSIFICATION -	-
WIND CLASSIFICATION -	-
CLIMATE ZONE -	7
ALPINE AREA -	NO
BUSH FIRE ATTACK LEVEL -	-
CORROSIVE ENVIRONMENT -	NO
OTHER KNOWN SITE HAZARDS-	NONE

TOTAL FLOOR AREA

HOUSE : 150 M² GROUND FLOOR
82 M² PROPOSED EXTENSION
232 M² TOTAL FLOOR AREA

35 M² GARAGE

1061 M² TOTAL BLOCK AREA

LAND REFERENCE NUMBER

Volume / Folio

124986 / 1

DESIGNER

SAM BURNETT - CC6609

OWNERS CONTACT

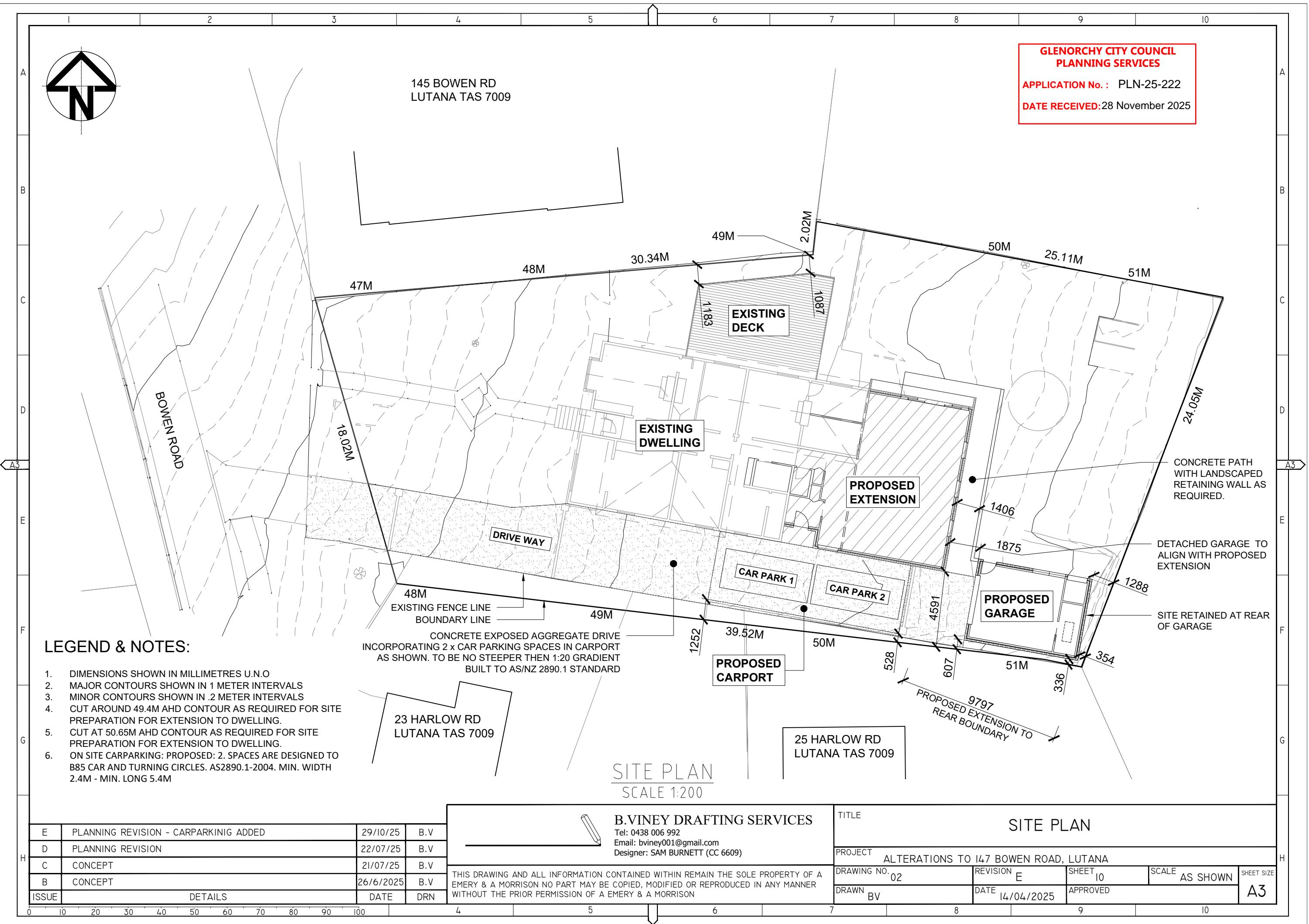
A. Emery

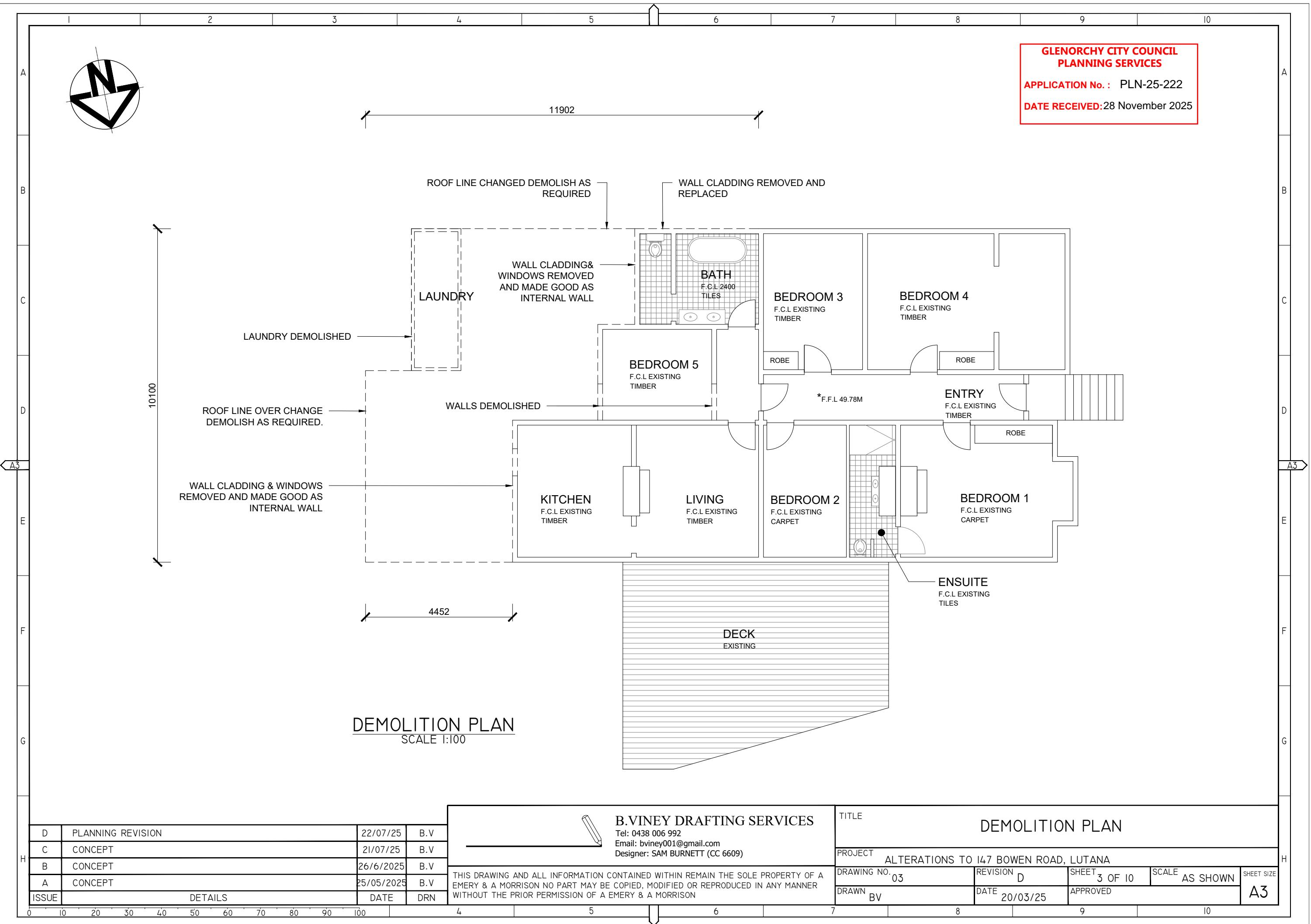
PH. 0437867039

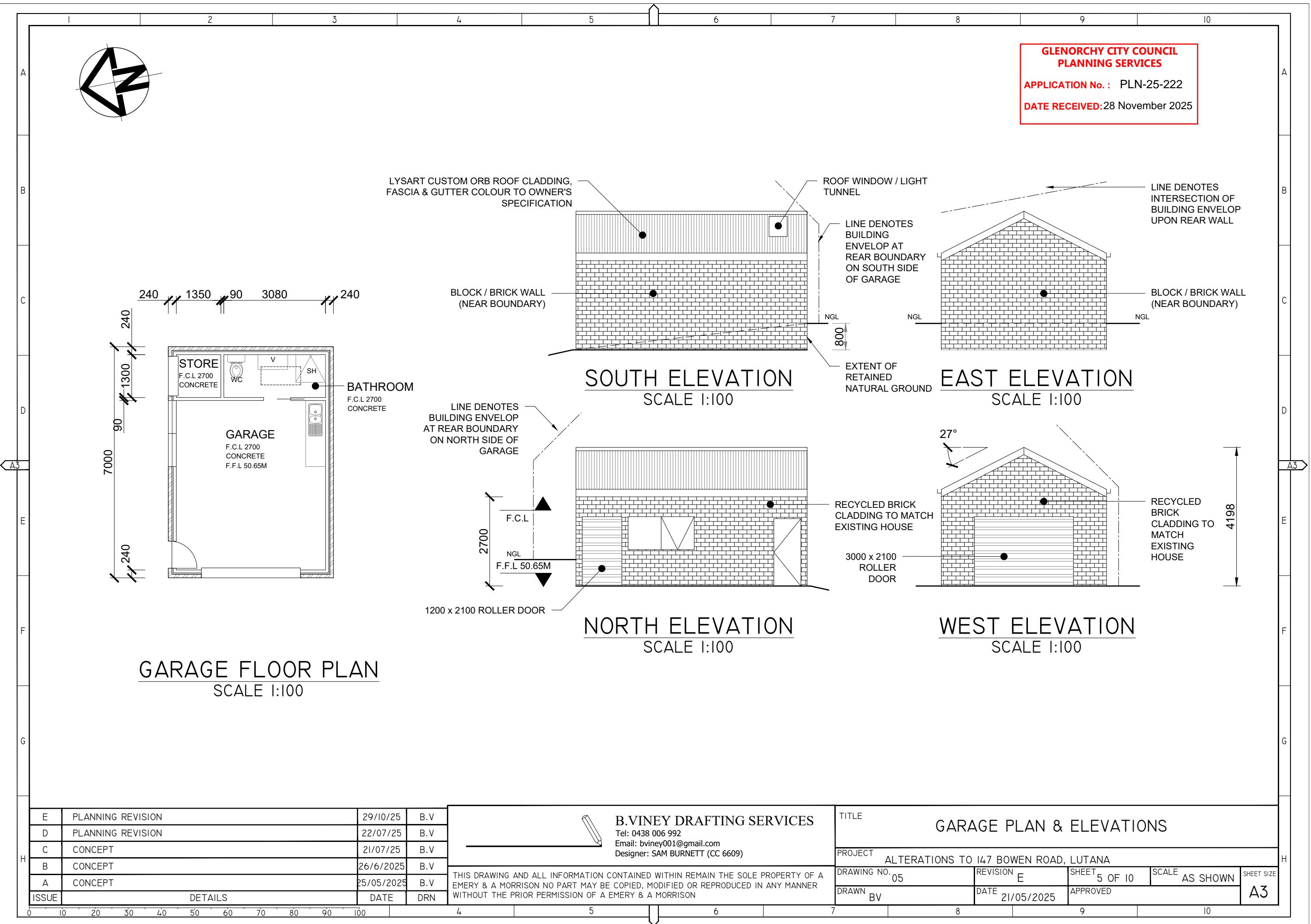
EMAIL: roo.emery@outlook.com

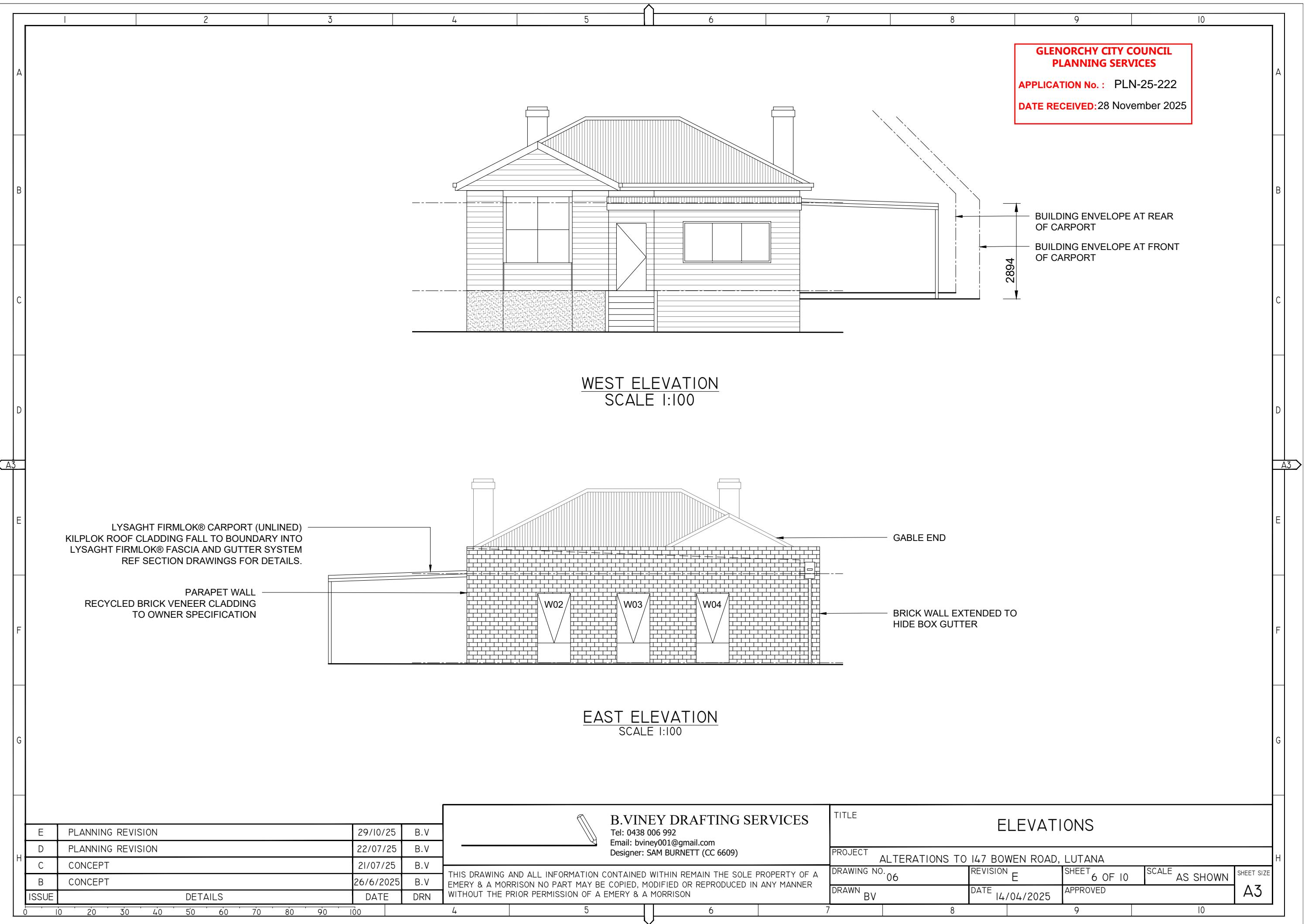


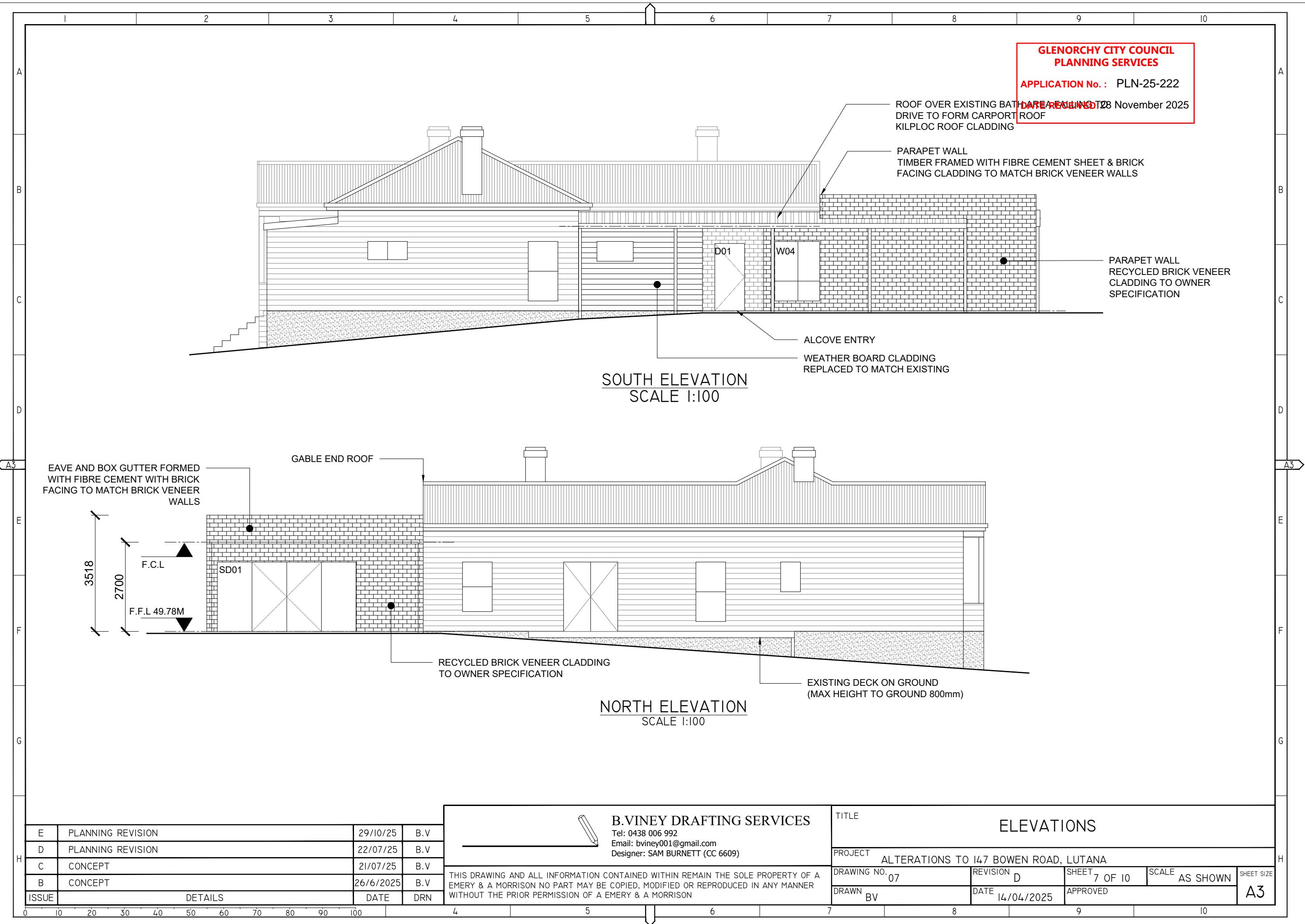
F	PLANNING REVISION -DRAWING ADDED	28/11/2025	B.V	 <p>B.VINEY DRAFTING SERVICES Tel: 0438 006 992 Email: bviney001@gmail.com Designer: SAM BURNETT (CC 6609)</p>	<p>TITLE COVER PAGE</p> <p>PROJECT ALTERATIONS TO 147 BOWEN ROAD, LUTANA</p> <table border="1"> <tr> <td>DRAWING NO.</td><td>REVISION</td><td>SHEET</td><td>SCALE</td><td>SHEET SIZE</td></tr> <tr> <td>01</td><td>F</td><td>1 OF 10</td><td>AS SHOWN</td><td>A3</td></tr> <tr> <td colspan="2">DRAWN BV</td><td colspan="2">DATE 14/04/2025</td><td>APPROVED</td></tr> </table>	DRAWING NO.	REVISION	SHEET	SCALE	SHEET SIZE	01	F	1 OF 10	AS SHOWN	A3	DRAWN BV		DATE 14/04/2025		APPROVED
DRAWING NO.	REVISION	SHEET	SCALE	SHEET SIZE																
01	F	1 OF 10	AS SHOWN	A3																
DRAWN BV		DATE 14/04/2025		APPROVED																
E	PLANNING REVISION -DRAWING ADDED	29/10/25	B.V																	
D	PLANNING REVISION	22/07/25	B.V																	
C	CONCEPT	21/07/25	B.V																	
B	CONCEPT	26/6/2025	B.V																	
ISSUE	DETAILS	DATE	DRN																	
0	10	20	30	40	50	60	70	80	90	100	4	5	6	7	8	9	10			

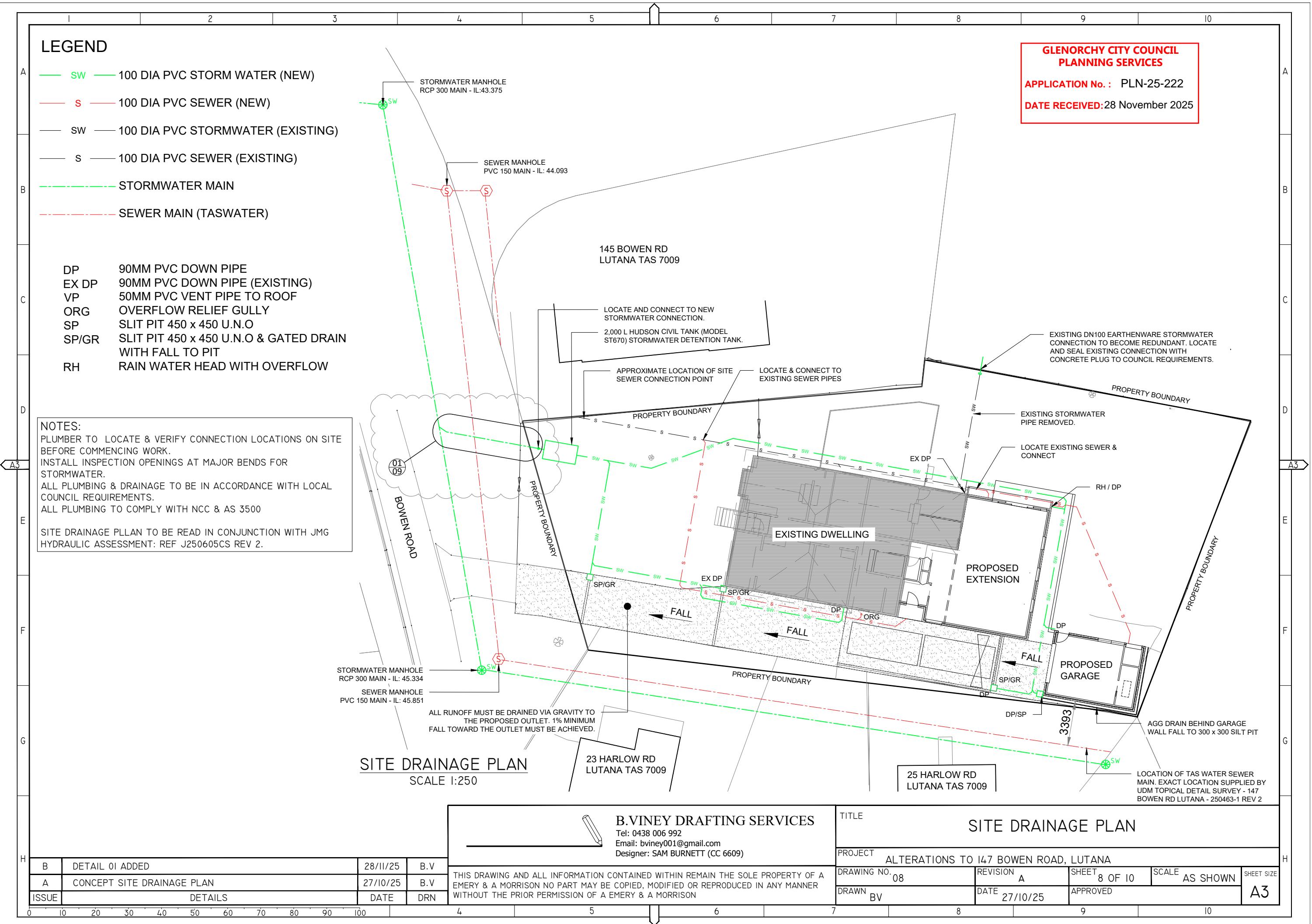












A

B

C

D

A3

E

F

G

H

A

B

C

D

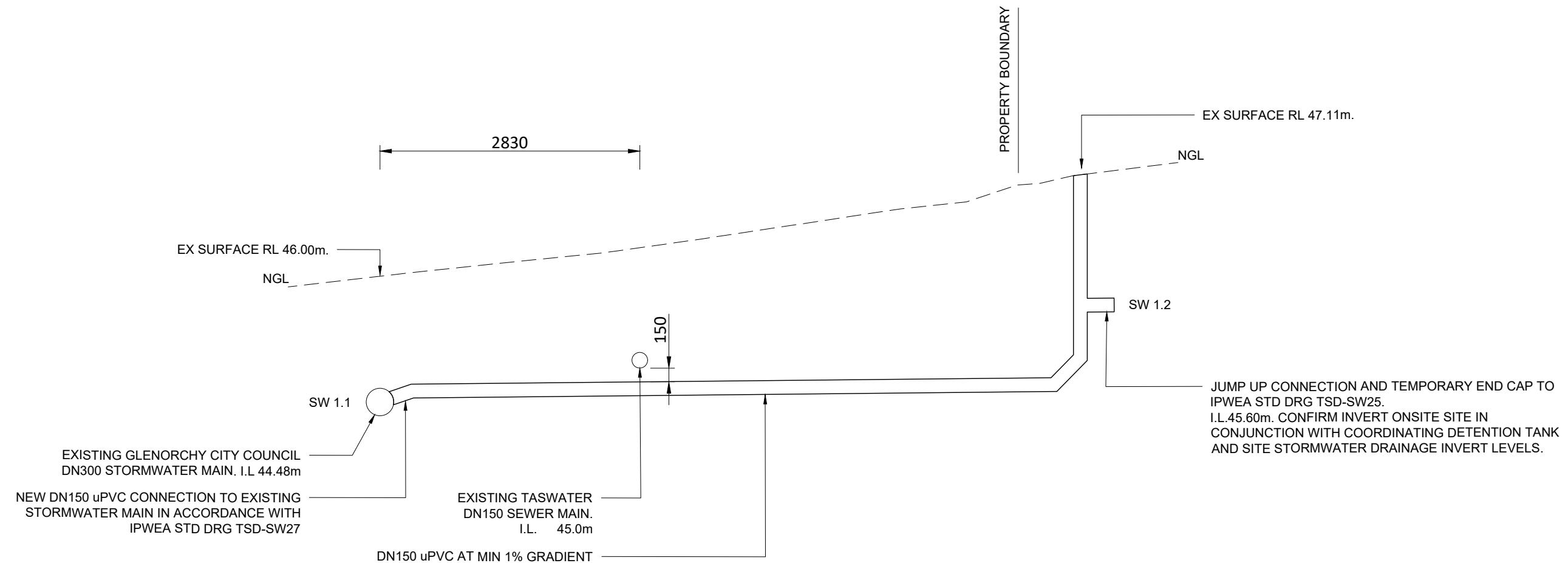
E

F

G

H

**GLENORCHY CITY COUNCIL
PLANNING SERVICES**
APPLICATION No. : PLN-25-222
DATE RECEIVED: 28 November 2025

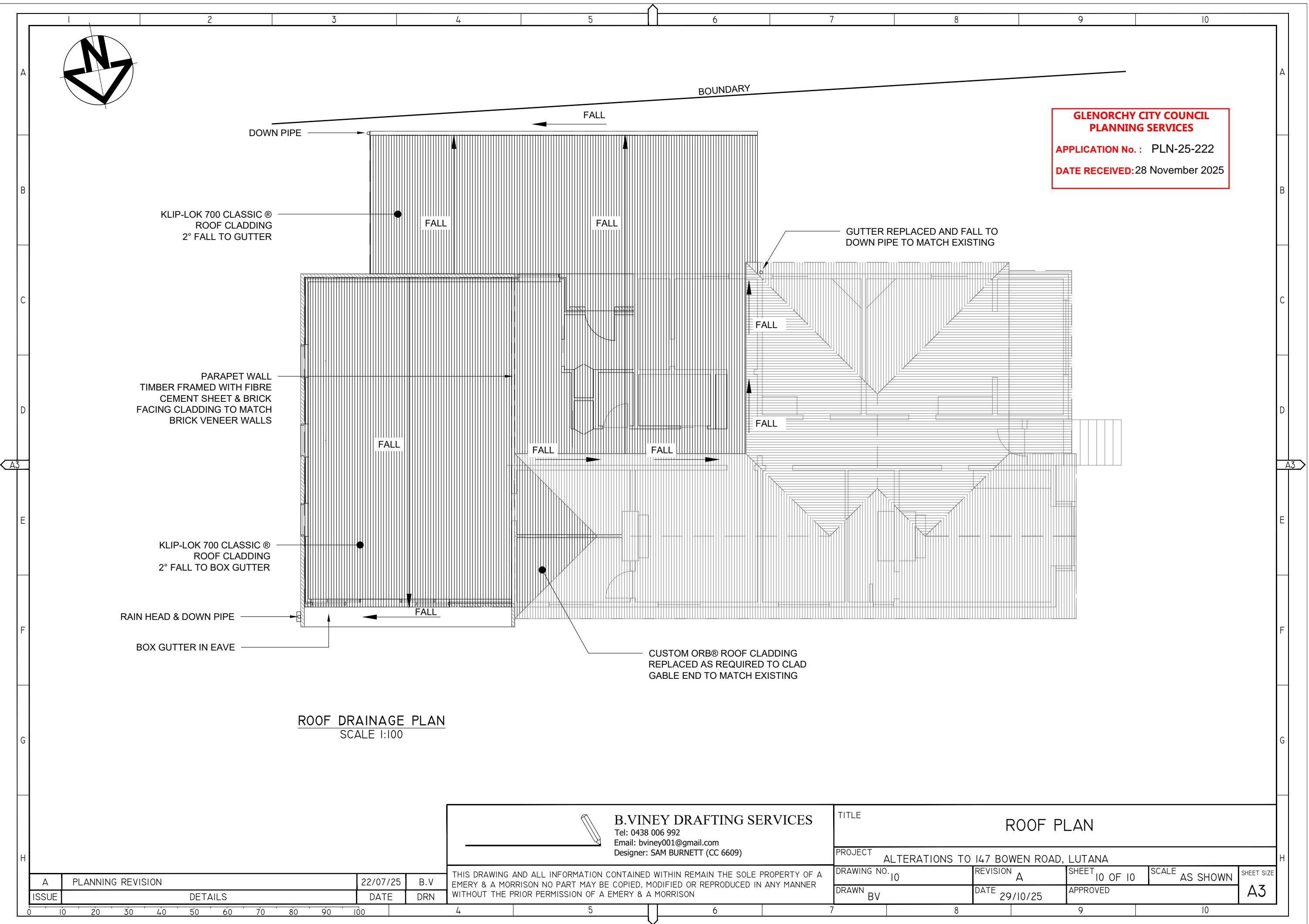


01 08 1:50
STORMWATER CONNECTION DETAIL

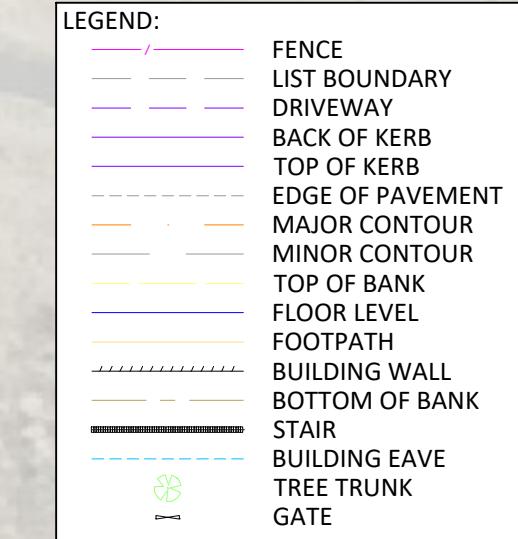
A	STORMWATER CONNECTION DETAIL	28/II/25	B.V
ISSUE	DETAILS	DATE	DRN

 B.VINEY DRAFTING SERVICES Tel: 0438 006 992 Email: bviney001@gmail.com Designer: SAM BURNETT (CC 6609)				TITLE	STORMWATER CONNECTION DETAIL		
				PROJECT	ALTERATIONS TO 147 BOWEN ROAD, LUTANA		
DRAWING NO.	09	REVISION	A	SHEET	09 OF 10	SCALE	AS SHOWN
DRAWN	BV	DATE	27/10/25	APPROVED			
							A3

THIS DRAWING AND ALL INFORMATION CONTAINED WITHIN REMAIN THE SOLE PROPERTY OF A
EMERY & A MORRISON NO PART MAY BE COPIED, MODIFIED OR REPRODUCED IN ANY MANNER
WITHOUT THE PRIOR PERMISSION OF A EMERY & A MORRISON



**GLENORCHY CITY COUNCIL
PLANNING SERVICES**
APPLICATION No.: PLN-25-222
DATE RECEIVED: 28 November 2025



GENERAL COMMENTS AND DISCLAIMER:
This survey has been compiled using a combination of conventional and UG Service Detection survey techniques.

Property boundary overlays, where supplied, vary in accuracy but are generally to 0.5m. Therefore a Land Survey, as defined under the Surveying Act 2002, should be undertaken before any construction activity is carried out on or near the land boundaries depicted by this model.

The survey from which this model was created was carried out to comply with the requirements of the client as set out in the scope of works contained in the survey instructions/brief for this project. Anybody who uses this survey for any purpose other than that for which it was carried out does so at his or her own risk.

Any public utilities and services shown in this model have been located by using visible surface features and underground service detection techniques.

Please note that not all buried pipes, cables and ducts can be detected and mapped in consideration of their depth, location, material type, geology and proximity to other utilities. Even an appropriate and professionally executed survey may not be able to achieve a 100% detection rate.

Survey control information is regarded as suitable for the survey and correct at the time of survey, but should be verified before being used for any purpose.

WARNINGS:
1. Classification of subsurface utility information refer to AS5488.1:2019.
2. No design should be undertaken outside of survey extents. If design exceeds survey extents, additional survey data should be acquired.

AS 5488 Subsurface Utility Information
A quality level describes the amount and accuracy of information that is collected or held on a subsurface utility. There are four quality levels—A, B, C & D.

Quality Level A - Location accuracy deemed to be between +/- 50mm. Lowest Risk.
Quality Level B - Location accuracy deemed to be between +/- 300mm horizontally and +/- 500mm vertically. Medium Risk.
Quality Level C - Location accuracy assumed to be aligned with visible surface features. High Risk.
Quality Level D - The default level if no level of accuracy is specified. Highest Risk.



DATE OF SURVEY	11/05/2025	
BEARING DATUM	MGA2020	
HORIZONTAL DATUM	GDA2020	
HEIGHT DATUM	AHD(TAS)1983	
SURVEY MARK	SPM10694	
EASTING	525109.628	
NORTHING	5256992.383	
HEIGHT	35.092	
5		
4		
3		
2	STORMWATER UPDATED	JF 19/11/2025
1	SEWER AND STORMWATER ADDED	DY, JF 21/10/2025
REV:	Revision Note	Dm Date



COPYRIGHT ©
A person using UDM Group (UDM) drawings and other data accepts the risk of:
1. Using the drawings and cad files in electronic form without requesting and checking them for accuracy against the original hard copy versions;
2. Using the drawings or other data for any purpose not agreed to in writing by UDM.

CLIENT:

Ben Viney

SITE: 147 Bowen Road
Lutana TAS 7009
TITLE: Topographic Detail Survey

SCALE AT A3:	1:250	DATE:	17/06/2025	DRAWN:	DY	CHECKED:	EH
PROJECT NO:	250463	DRAWING NO:	250463-1	REV:	2		