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REGIONAL COUNCIL

APPENDIX C – ENGINEERING RESPONSE LETTER

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6 May 2026
Ref No. 28592

Bracknell Lodge
Trading as Taroom Fast Horses
80 Rosenberger Road
Wyreema Qld 4352

Email: info@bracknelllodge.com.au

Dear Rick and Rebecca,

Re: No. 38 WYREEMA CAMBOOYA ROAD, WYREEMA

PROPOSED TOURIST PARK EFFLUENT DISPOSAL, VEHICLE MANOUEVRING AND SIGHT DISTANCE REQUIREMENTS

1.00 INTRODUCTION

1.01 This report was prepared to document the measures proposed to cater for the disposal of the waste fluids which will be generated within this proposed facility and to address the following issues raised by Toowoomba Regional:-

(i) To provide details regarding onsite parking and manoeuvring.
(ii) To provide details regarding the proposed vehicle cross-over from Rosenberger Road.
(iii) To provide *sight distance* assessments for vehicles utilising the proposed cross-over.

1.02 The development site currently comprises predominantly agricultural land with an existing house and various outbuildings. Waste fluids from the house are currently disposed of using "On-Site Disposal" methods.

1.03 It is proposed to redevelop the site and change its current use to that of a "Tourist Park". This change in use will involve establishing additional buildings and campsites. The proposed accommodation will comprise the following:-

(i) The existing (original) elevated house containing four (4) bedrooms.
(ii) Two (2) new elevated cabins each containing three (3) bedrooms.
(iii) The converted train carriage which will be renovated to contain one (1) bedroom.
(iv) Ten (10) tent or caravan sites – these guests to use the proposed Amenities Building.

1.04 Toowoomba Regional Council's sewer infrastructure comprising a 150mm diameter sewer runs pass the site on the northern side of Rosenberger Road.

2.00 PROPOSED EFFLUENT DISPOSAL PROVISIONS

2.01 It is proposed to connect this development into Council's sewer drainage system by providing a "branch line" from the sewer manhole which is located at the intersection of Rosenberger and Wyreema-Cambooya Roads. How it is proposed to achieve this outcome is conceptually documented on Drawing No. 28592 Sheet 2.

2.02 The feasibility of the proposed sewer drainage solution has been assessed on the basis of detailed Topographical Survey and evaluations using the pipework gradients, etc, which are necessary to comply with Toowoomba Regional Council's planning scheme and the Australian Standard *AS3500*. (Refer Drawing No. 28592 Sheet 1).

2.03 It is proposed that the connection to Council's infrastructure will provide a "sewer stub" inside the property. A proposed 20 metre (approximate) branch line from Council's sewer manhole (Asset No. S10109M03) will achieve this outcome. The sewer extension is proposed to cross Rosenberger Road and to create a new *"legal point of sewer drainage discharge"* at the location indicated on Drawing No. 28592 Sheet 2.

2.04 It is not possible to service all of the proposed facilities within the site using entirely gravity sewer drainage. It is however possible to provide an internal sewer drainage system which drains to the proposed new sewer stub. The proposed internal sewer drainage system will incorporate a combination of gravity drainage and a privately owned pump/mini-pump station to cater for the facilities which cannot drain to the proposed new "legal point of discharge". The proposed internal sewer drainage works will be subject to a *Plumbing Application* and *Approval*, all of which it is proposed will be installed generally in accordance with the layout details documented on Drawing No. 28592 Sheet 2. These proposals are able to be achieved in a manner which complies with the requirements of the *Australian Standard Plumbing Code – AS3500.*

3.00 EFFLUENT DISPOSAL VOLUMETRIC REQUIREMENTS

3.01 The volume of waste fluids generated during conditions of full occupancy is assessed on the basis that one (1) Equivalent Person (***EP***) is defined as 200 litres/day/person x 7 days = 1400 litres per week and is evaluated in Sections 3.02 to 3.04.

3.02 Guidance with respect to the volume of waste fluids generated per camper is provided in Table H4 of AS1547.

A design flow rate of 50 litres/day/camper is provided in Table H4 for guidance for non-reticulated or bore water supplied sites compares reasonably with the volumes estimated in Section 3.03 of this report. Table H4 of AS1547 suggests 50 litres/person/day for campers without reticulation or bore water supply. It is considered that a *design flow rate* of 50 litres/day/camper is appropriate to these assessments.

The volume of waste fluids generated by an *All Day Camper* who showers every day is estimated as follows: -

(i)	Toilets (WC)	2 x 3 litres	6 litres
		1 x 6 litres	6 litres
(ii)	Wash Basins (WC)	3 x 2 litres	6 litres
(iii)	Showers	1 x 25 litres**	25 litres
			43 litres
			(Say 50 litres/day)

3.03 The peak hydraulic loading which may be expected to drain into Toowoomba Regional Council's sewer infrastructure is assessed as follows:-

(i)	Ten (10) camp sites x 2.5 (average) persons/site 50 litres/day/camper x 2.5 x 10 campers	= 1520 litres/day
(ii)	House 5 persons x 150 litres/day/person	= 750 litres/day
(iii)	Two (2) Removable Houses 4 persons/building x 2 buildings x 150 litres/day/person	=1200 litres/day
(iv)	Railway Carriage Accommodation 2 persons x 150 litres/day/person	= 300 litres/day
	Total	***3500 litres/day***

The calculated flow volumes are provided on the conservative basis that all facilities will be fully occupied on every day of every week.

3.04 The equivalent No. of Equivalent Persons (***EP***) generating to flows into Council's sewer infrastructure is calculated as:-

$$\frac{\text{3500 litres/day}}{200} = \textbf{\textit{17.5 EP*}}$$

** The calculated number of 'Equivalent Persons' is provided to assist Council in determining the maximum anticipated hydraulic loading to be imposed on the sewer drainage network.*

4.00 VEHICLE ACCESS AND SIGTH DISTANCE ASSESSMENTS

4.01 Preliminary details of the proposed property access are documented on Drawing No. 28592 Sheet 3.

4.02 Carparking and driveway details are *conceptually* documented on Drawing No. 28592 Sheet 3.

4.03 Vehicle manoeuvring diagrams are documented on Drawing No. 28592 Sheet 4.

4.04 Vehicle sight distances and visibility assessments are documented on Drawing No. 28592 Sheet 5 and Photographic Record No. 28592 dated May 2026.

Yours faithfully,

LINDSAY B. REID *BE(Hons1), MIEAust, RPEQ, CPEng, NER, APEC Engineer, IntPE(Aus)*

ATTACHMENTS:

- Photographic Record displaying vehicle sight provisions at the proposed cross-over to Rosenberger Road (2 Pages)
- Reid Consulting Engineers Pty Ltd Drawing No. 28592 Sheet 1 – Topographical Survey Plan
- Reid Consulting Engineers Pty Ltd Drawing No. 28592 Sheet 2 – Conceptual Sewer Drainage Details
- Reid Consulting Engineers Pty Ltd Drawing No. 28592 Sheet 3 – Carparking and Site Access Provisions
- Reid Consulting Engineers Pty Ltd Drawing No. 28592 Sheet 4 – Vehicle Manoeuvring Plan
- Reid Consulting Engineers Pty Ltd Drawing No. 28592 Sheet 5 – Sight Distance Check
- Australian Standard AS1547 – On-Site Domestic Wastewater Management - Table H4

PHOTOGRAPH No. 1

Looking north east from the proposed crossover location.

PHOTOGRAPH No. 2

Looking south west from the proposed crossover location.

PHOTOGRAPH No. 3

50km/h advisory speed sigh on approach to the sweeping bend south west of the proposed crossover loation.

TABLE H4
TYPICAL DOMESTIC WASTEWATER DESIGN FLOW ALLOWANCES
– DOMESTIC WASTEWATER FROM COMMERCIAL PREMISES – NEW ZEALAND

Source	Typical wastewater design flows (L/person/day)	
	On-site roof water tank supply	**Reticulated community or a bore-water supply**
Motels/hotels		
– guests, resident staff	220	
– non-resident staff	30	
– reception rooms	20 – 30	
– bar trade (per customer)	20	
– restaurant (per diner)	25 – 30	
Tearooms/lunch bars (per customer)		
– without restroom facilities	10	15
– with restroom facilities	15	25
Community halls		
– banqueting	20	30
– meetings	10	15
School (pupils plus staff)	15 – 30	
Rural factories, shopping centres	30	50
Camping grounds		
– fully serviced	100	130
– recreation areas	50	65

NOTE: These flows should be used for design purposes unless past experience demonstrates lower actual flows. Design flows should be based on the maximum figure in the range unless justification for lower values can be provided by way of actual water use data. Although guidance is provided for flow allowances for non-household activities, this Standard does not provide specific requirements for commercial loads, for example in commercial kitchens and laundries (see 1.9 definition of domestic wastewater).