

Engineering Referral

#Enter the doc. number

DA No.	10.2018.483.1
Proposal:	Rural Tourist Accommodation: Eight (8) Cabins, Swimming Pool and Associated Works
Property description:	LOT: 4 DP: 621548 58 Montecollum Road WILSONS CREEK
Parcel No/s:	53590
Applicant:	Frank Stewart Architect
Owner:	Mr S B Yishay & Ms L B Levi
Zoning:	Zone No. RU2 Rural Landscape / PART DM Deferred Matter
Planning Officer:	Mr B J Grant
Referral Date:	26 June 2019

CONCURRENT SECTION 68 AND 138 APPLICATIONS: Not applicable

	Fees paid	Date paid	Receipt No.
Stormwater (55)			
Roads Act (51)			

This engineering assessment is based on the following documents:

Date	Description	TRIM Doc. No.
28/9/18	Engineering Referral & Assessment	A2018/31532
26/6/19	Report 15 08 2019	I2019/974
24/4/19	Recommended Conditions	E2019/29050

RECOMMENDATION

Supported, subject to the amended conditions recommended at the end of this report

[Click here to enter any comments.](#)

Renan Solatan

14 July 2019

Administration use only

- ☐ Check if Engineer has granted Roads Act approval, please create 51 register and determine it, need to also place payments on the DA – Fee Codes RAA \$105 and RAI \$310
- ☐ Lock Assessment Report
- ☐ Print full Assessment Report for file with sign off included by engineer.

** Administration Instructions**

- ☐ Update tracking item outcome as 'COMP'
- ☐ Lock document.
- ☐ Place referral and documents with Stamped plans on trolley for delivery to Planner

PLEASE RETURN REFERRAL TO ADMIN TRAY

ASSESSMENT

Road Investigation

This report is based on observations made during the road investigation conducted on Friday the 12th of July 2019, and determines any potential hazards and risks within the gravel and sealed sections of Montecollum Road from Cedar Road up to the frontage of the development in 58 Montecollum Road.

The following aspects were investigated during the site inspection:

- Road cross section and geometric features
- Road surface type and condition
- Observed roadside hazards and driver risk
- Driver sightline availability, particularly at intersections

Site Inspection

A daytime site inspection was conducted from 1:00 pm to 2 pm on Friday the 12th of July 2019. Weather conditions during the audit inspection were fine and sunny.

Audit Data

Existing Road Description Summary

Montecollum Road	from Cedar Road east bound direction
Road cross section	4.0m pavement, 1.0m grassed shoulders/verge
Section length	450m
Speed	Assumed 50 km/h however due to the road formation vehicles can safely travel below 50 km/h
Running surface & condition	formed gravel, reasonable condition
Side drainage	Table drain right side
Horizontal Alignment	Long straight sections with bends
Vertical alignment	grade less than 10 degrees

Typical Photo



Figure 1 Gravel Section from Cedar Road



Figure 2 Gravel Section 200m from Cedar Road

Montecollum Road	450m to 800m from Cedar Road east direction
Road cross section	5.0m pavement, 1.0m grassed shoulders/verge
Section length	450m
Speed	Assumed 50 km/h however due to the road formation vehicles can safely travel below 50 km/h
Running surface & condition	formed seal, reasonable condition with few pot holes
Side drainage	Table drain right side
Horizontal Alignment	Long straight sections
Vertical alignment	steep

Typical Photo



Figure 3 Road past the Development Access

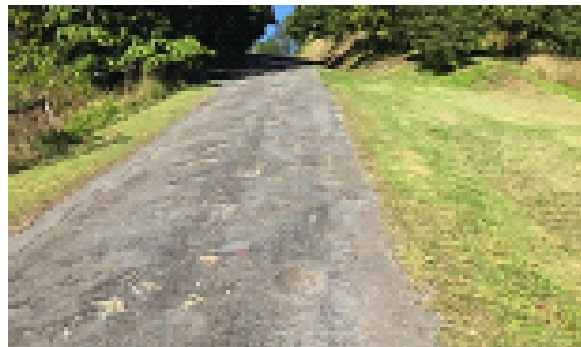


Figure 4 Midway of Sealed Section



Figure 5 End of Council Maintained Section

Assessment

Montecollum Road is classified as a Local Access Rural Road with an approximate capacity of 150 vehicles per day (Austroads). The first 450m of Montecollum Road east of Cedar Road is the main section of road that carries the majority of traffic east of Cedar Road. The road currently services 7 rural properties generating 63 vehicles per day and 5.95 vehicles per peak hour. The new development generate a projected total traffic of 36 vehicles per day and 4.1 peak hour trips utilising Montecollum Rd.

On many roads in Australia, traffic volumes are less than 150 vehicles per day. Where traffic volumes are less than 150 vehicles per day and, particularly, where terrain is open, single lane carriageways may be used. The traffic lane width adopted on such roads should be at least 3.7 m in accordance with Austroads Guide to Road Design. A width of less than 3.7 m can result in excessive shoulder wear. A width greater than 4.5 m but less than 6.0 m may lead to two vehicles trying to pass with each remaining on the seal. This potentially increases head-on accidents. The width of 3.5 m ensures that one or both vehicles must have the outer wheels on the shoulders while passing.

The total volume of traffic post development is approximately 99 vehicles per day. The total traffic volume does not exceed the current capacity of the road. The additional traffic therefore does not create adverse impact onto the road capacity.

The current surface condition of Montecollum Road is reasonable and does not show pavement structural defects. There are surface defects however such as pot holes and slight corrugations, this is due to lack of maintenance.

There were no vehicles travelling the road during the inspection. The main safety concern is the ability and manoeuvrability to pass over the 5.0m wide road formation especially at bends. Vehicles tend to travel at slow speed due to the road formation, vertical & horizontal alignment and limited sight distance. The sealing of the full length of Montecollum Road will improve the driving comfort however it will not improve the road safety. Sealing is not warranted in this case. Safety of traffic at this section of Montecollum Road may be improved by regrading the road to provide a minimum road pavement and carriageway of 4.0m with the provision of passing bays at 200m.

Recommendations

The volume of development traffic will not create adverse impact main section of Montecollum Road east of Cedar Road, however the development will increase the frequency of maintenance requirement to provide an acceptable level of service. The gravel road must be upgraded to correct the road formation prior to the issue of occupation certificate.

Recommended Conditions

Amend Condition 15

Consent required for works within the road reserve

Consent from Council must be obtained for works within the road reserve pursuant to Section 138 of the Roads Act 1993. Three (3) copies of engineering construction plans must accompany the application for consent for works within the road reserve.

Such plans are to be in accordance with Council's current Design & Construction Manuals and are to provide for the following works:

Road Upgrade

The following sections of Montecollum Road must be upgraded:-

1. The first 450m from Cedar Road;
2. From the end of the existing sealed section (approximately 800m from Cedar Road) and up to 10m past the proposed driveway servicing Cabin 1 to Cabin 6.

The upgrade must included the following:-

1. Generally in accordance with Council's standard drawing R13 for a rural crowned road with a formation of 4m carriageway with roadside drainage and table drains in accordance with Section D1.22 of NRLG D1 Geometric Road Design.
2. Provision shall be made to provide passing bay at 200m

spacing. The passing bay shall be 20m long x 6m wide carriageway.

3. Provision of sealed surface at all access points, longitudinal grades 10° or greater, 10m before and after the dwelling house in Lot 3 DP621548.

Driveway (rural & residential areas without kerb & gutter)

A driveways (2x) servicing the Cabins shall be upgraded in accordance with Council's current "Northern Rivers Local Government Development Design & Construction Manuals and Standard Drawing R14".