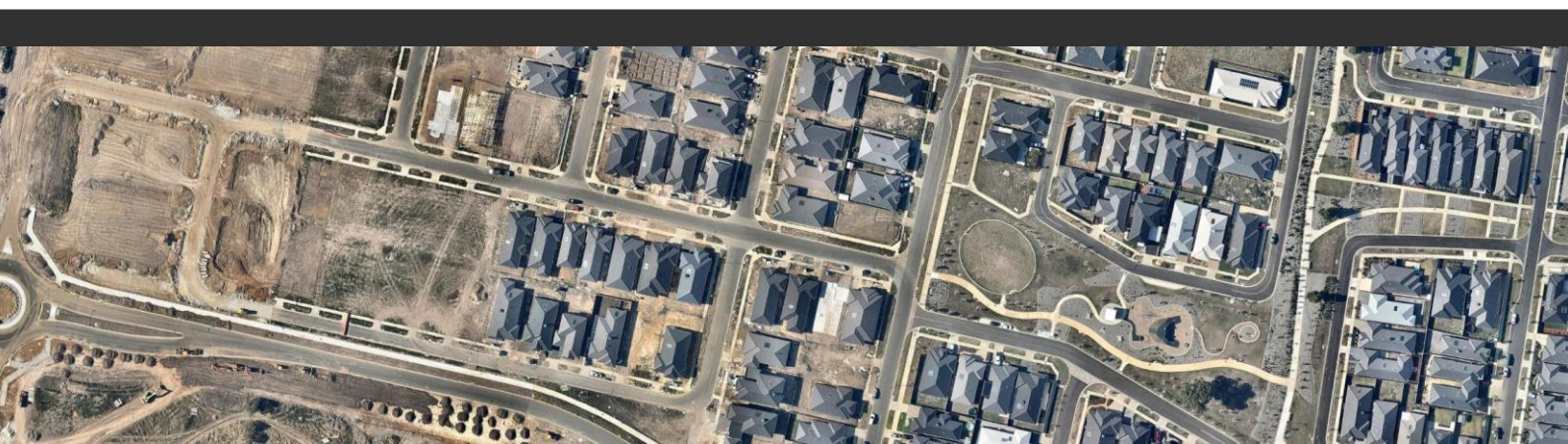


2028 Culcairn-Holbrook Road, Morven

Transport Impact Assessment



240243TIA001B-F

5 August 2024

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1 INTRODUCTION

onemilegrid has been requested by Habitat Planning to undertake a Transport Impact Assessment of the proposed rezoning application to allow for development of the land at 2028 Culcairn-Holbrook Road, Morven for the purposes of a residential subdivision.

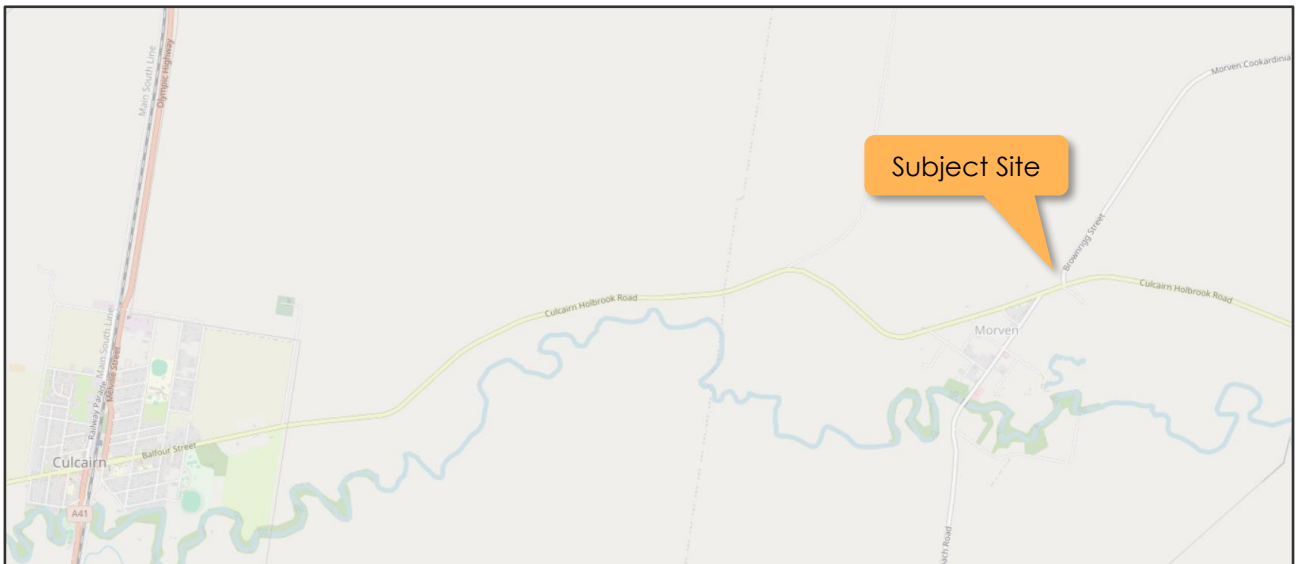
As part of this assessment the subject site has been inspected with due consideration of the development proposal, and relevant background information has been reviewed.

2 EXISTING CONDITIONS

2.1 Site Location

The [subject site](#) is addressed as 2028 Culcairn-Holbrook Road, Morven, and is located on the north side of Culcairn-Holbrook Road, with the road reserve for Morven-Cookardinia Road located on the eastern boundary of the site as shown in Figure 1.

Figure 1 Site Location



Source: OpenStreetMap

The site is currently occupied by a single dwelling located on the southern portion of the lot, accessed via a crossover to Culcairn-Holbrook Road. The site primarily accommodates rural land, with land surrounding the site generally the same use. The Morven township is located to the south of the subject site, which is characterised by low density residential dwellings.

Access to the site is currently available in three locations, with two unsealed crossovers provided to Culcairn-Holbrook Road, and one unsealed crossover provided in the north-east corner of the site to Morven-Cookardinia Road.

An aerial view of the subject site is provided in Figure 2.

Figure 2 Site Context

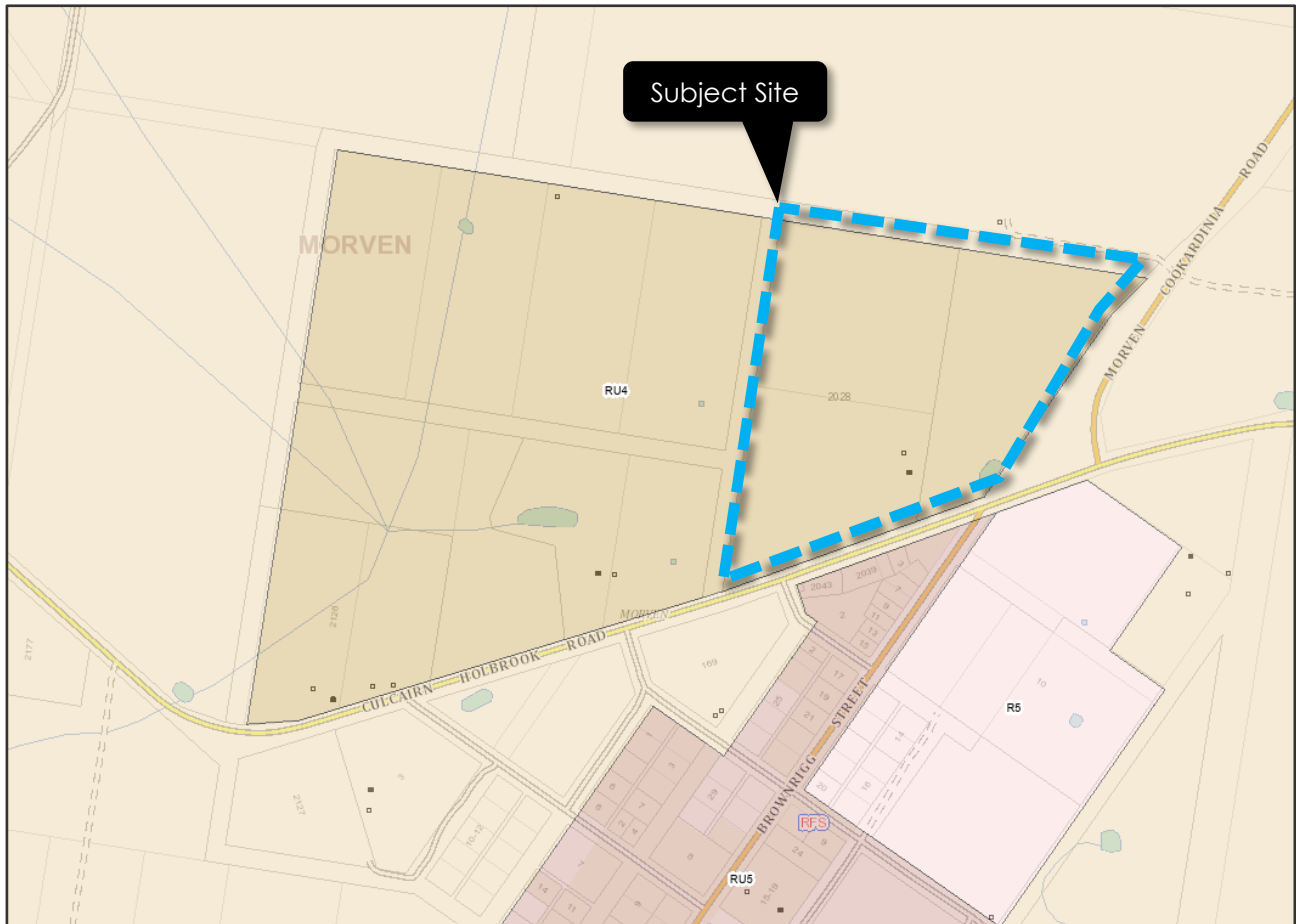


Copyright Apple Maps

2.2 Planning Zones and Overlays

It is shown in Figure 1 the site is currently located within a rural zone (RU4), for which the permitted uses are listed in the Land Use Table of the Greater Hume Local Environmental Plan.

Figure 3 Local Environment Plan Zones



Additionally, the site abuts Culcairn-Holbrook Road, which is classified as a Regional Road controlled by Transport for NSW.

2.3 Road Network

2.3.1 Culcairn-Holbrook Road

Culcairn-Holbrook Road is a regional road generally aligned east-west, changing name to Young Street in the town of Holbrook in the east, and to Balfour Street in the town of Culcairn in the west. Culcairn-Holbrook Road provides a single traffic lane in each direction, with wide largely unvegetated verges either side of the carriageway adjacent to the site.

The cross-section of Culcairn-Holbrook Road at the frontage of the site is shown in Figure 4.

Figure 4 Culcairn-Holbrook Road, looking west adjacent to the subject site



Copyright Google (Image date: October 2023)

An 80 km/h speed limit generally applies to Culcairn-Holbrook Road in the vicinity of the site, with a speed limit sign adjacent the site increasing the speed limit to 100 km/hr east of the site.

2.3.2 Morven-Cookardinia Road

Morven-Cookardinia Road is a local road generally aligned north-south, running between Culcairn-Holbrook Road in the south, and Holbrook Wagga Road in the north. Morven-Cookardinia Road provides a single traffic lane in each direction adjacent to the site.

The cross-section of Morven-Cookardinia Road at the frontage of the site is shown in Figure 5.

Figure 5 Morven-Cookardinia Road, looking north adjacent to the subject site



Copyright Google (Image date: July 2022)

The default 100 km/h speed limit applies to Morven-Cookardinia Road in the vicinity of the site.

2.4 Traffic Volumes

Traffic Volume information for Culcairn-Holbrook Road was obtained via Transport for NSW's Traffic Volume Viewer. Review of the limited available data suggests that traffic volumes in 2010 were marginally lower than volumes observed in 2006. Regardless, for the purposes of a conservative estimate of the current volumes, growth rates of 3% per year (compound) have been applied to the traffic volumes provided for 2010 over a 14-year period, equivalent to a 51% increase. The estimated traffic volumes are shown below in Table 1.

Table 1 Culcairn-Holbrook Road Estimated Traffic Volumes

Direction	Daily
Eastbound	540 vpd
Westbound	542 vpd
Total	1,082 vpd

3 DEVELOPMENT PROPOSAL

3.1 General

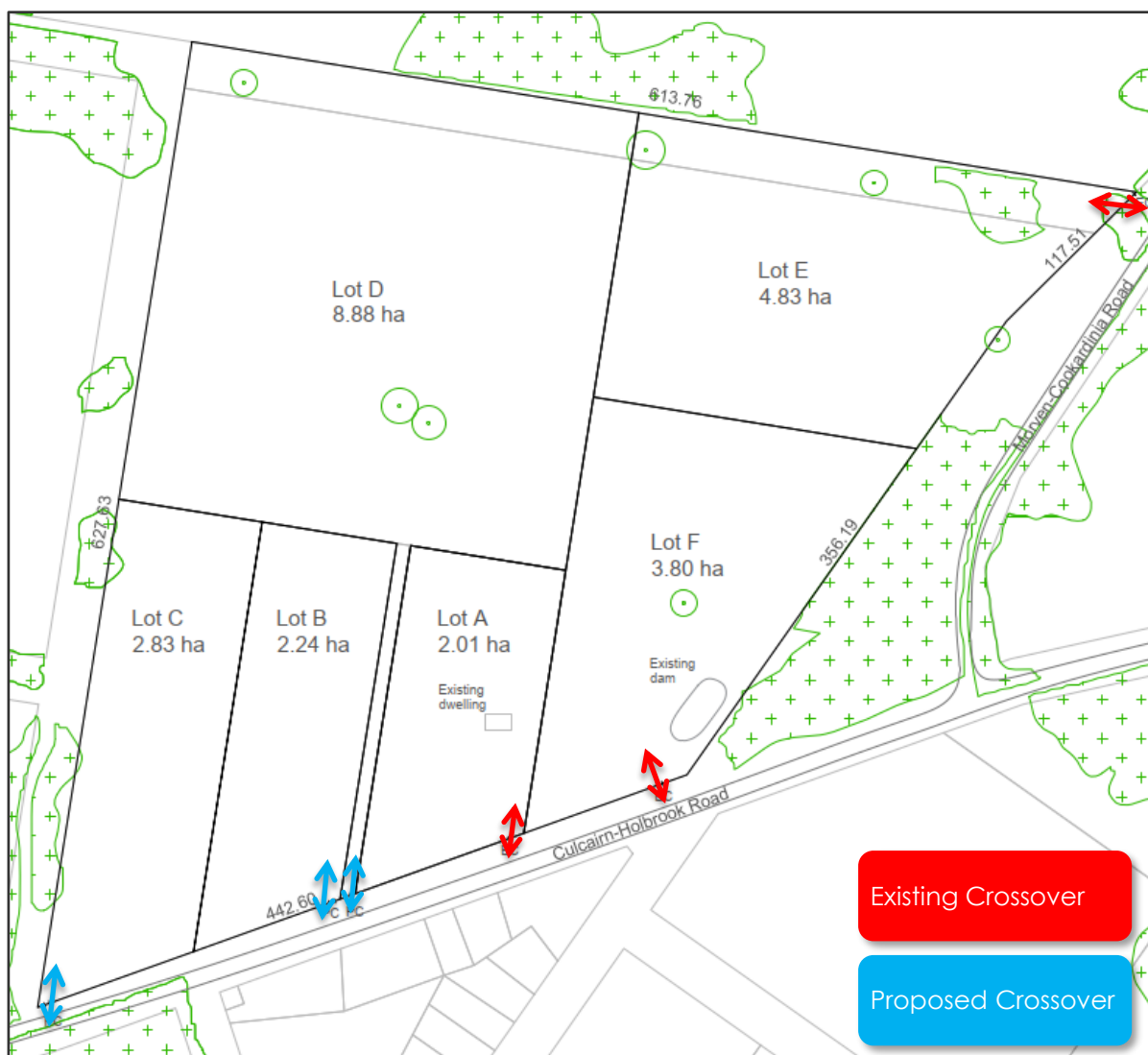
It is proposed to amend the Greater Hume Local Environment Plan to amend the zoning of the subject site from RU4 Primary Production Small Lots to R5 Large Lot Residential. The zoning amendments will allow for subdivision of the subject site for the purposes of a residential subdivision comprising six low-density dwellings in total.

3.2 Access

Vehicular access to five of the lots is proposed via direct crossovers to Culcairn-Holbrook Road. Lots A and F are to be accessed via existing crossovers to Culcairn-Holbrook Road, while access to Lots B, C and D will be provided by new crossovers, with an extended driveway being incorporated into lot D. The extended driveway providing access to Lot D (additionally dividing lot A and B) is proposed with a width of approximately 9 m from fence to fence. Lot E is to be accessed via an existing crossover to Morven-Cookardinia Road in the north-east corner of the site.

A view of the indicative lot layout is provided below in Figure 6.

Figure 6 Proposed Site Layout and Access Points



3.3 Access and Staging

The subdivision is proposed to be constructed across 3 stages. Of note, Lot D, the only lot that does not have a major frontage to a road, is to be constructed concurrently with Lot B, ensuring all lots are provided with access across all stages of the development.

4 DESIGN ASSESSMENT

4.1 General

The design of the proposed residential subdivision has been assessed, in relation to the Greater Hume Development Control Plan and the Rural Housing Code in the State Environmental Planning Policy (Exempt and Complying Development Codes).

4.2 Greater Hume Development Control Plan

It is proposed to amend the zoning of the subject site to R5 Large Lot Residential, which is subject to the requirements of the 'Rural Living' categorisation of residential development in the Greater Hume DCP. An assessment of the 'Car parking & access' subchapter of the DCP follows in Table 2.

Table 2 Car Parking & access design assessment

	Comments
14. As per Part 3A, Division 3, Subdivision 5 of the Rural Housing Code in the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.	Please see Section 4.3 below.
15. The main access point for the property should be from a sealed local road where practical and possible.	Generally satisfied – All properties are provided with an access point via a sealed road. All lots except Lot E are provided with access via Culcairn-Holbrook Road, a TfNSW Classified road. This is considered reasonable given the shape and orientation of the site with an extensive road frontage to Culcairn-Holbrook Road. Furthermore, each access point is only providing access to one lot and subsequently will generate a relatively low level of traffic, to go with the low traffic volumes carried by Morven-Cookardinia Road.
16. All-weather access roads and driveways within the property should follow the contours of the land as much as possible so as to avoid excessive cut and fill and potential erosion problems.	N/A – To be covered in detailed design.
17. Long dead-end sealed roads such as cul-de-sacs will be considered as inconsistent with the objectives for this control.	N/A – No Internal roads provided
18. Roads and driveways crossing gullies and streams, both within and external to the site, should be constructed using a culvert to Council's requirements. Applicants should check with Council to ascertain whether any other approvals are required to undertake works such as a vehicle crossing within a road reserve or waterway.	N/A

4.3 Rural Housing Code

A review of Part 3A, Division 3, Subdivision 5 (Car parking and access) of the Rural Housing Code in the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 follows.

4.3.1 Car parking requirements

- (1) This clause applies only to lots in Zone R5 that have an area of less than 4,000m².*
- (2) At least one off-street car parking space must be provided on a lot on which a new dwelling house is erected.*
- (3) At least one off-street car parking space must be retained on a lot on which alterations or additions to an existing car parking space are carried out.*
- (4) A car parking space under this clause may be an open hard stand space or a carport or garage, whether attached to or detached from the dwelling house.*

It is noted the above requirements are related to car parking provisions not covered by proposed subdivision plan. Notwithstanding, given the size of the lots proposed, it is expected that each lot will comfortably accommodate all parking demands on site.

4.3.2 Garages, carports and car parking spaces

- (1) This clause applies only to lots in Zone R5 that have an area of less than 4,000m².*
- (2) A garage, carport or car parking space that is accessed from a primary road must—*
 - (a) if the dwelling house has a setback from the primary road boundary of 4.5m or more—be at least 1m behind the building line of the dwelling house, or*
 - (b) if the dwelling house has a setback from the primary road boundary of less than 4.5m—be at least 5.5m from that boundary.*
- (3) If the door or doors on a garage face a primary road, a secondary road or a parallel road, the total width of all those door openings must—*
 - (a) be not more than 6m, and*
 - (b) if the lot has a frontage of more than 15m—be not more than 50 per cent of the width of the building, measured at the building line to the relevant property boundary, and*
 - (c) if the lot has a frontage of not more than 15m—be not more than 60 per cent of the width of the building, measured at the building line to the relevant property boundary.*
- (4) An open hard stand car parking space must measure at least 2.6m wide by 5.4m long.*

As noted previously, the above requirements are related to car parking provisions not covered by the existing plan set. Regardless, the site is expected to meet all of the above requirements.

4.3.3 Vehicle access

(1) A lot on which an off-street car parking space is provided or retained under clause 3A.27 must have a driveway to a public road.

(2) A driveway on a lot must be constructed in accordance with AS/NZS 2890.1:2004, *Parking facilities, Part 1: Off-street car parking*.

All lots are proposed with a driveway to a public road. The design of the driveway crossovers has not been covered by the existing plan set, though each proposed crossover is expected to meet the requirements of AS/NZS 2890.1:2004.

4.4 Access Review

onemilegrid has undertaken a review of the proposed vehicular arrangements provided to the site with reference to the level of traffic generated, the site access location and the context of the surrounding road network.

In relation to traffic generation, given each lot will only service one residential dwelling, the level of traffic generated is expected to be low. It is generally accepted that residential dwellings in outer locations generate 10 vehicle movements per day with 1 movement during the peak hours. Noting the existing configuration of Culcairn-Holbrook Road and the low level of traffic it currently carries, the addition of 1 – 6 vehicles during the peak hours, will not impact on the operation of the roadway.

In relation to the siting of the access points, each has been appropriately located to reduce conflicts between abutting properties. It is noted that the proposed crossovers to lot B and D are proximate to each other, however noting the wide verge and low traffic volumes this is not expected to present an issue with regard to access or conflicts. All other crossovers to Culcairn Holbrook Road have greater separation, with a minimum of 100 metres between crossovers, providing clear sight distances between crossovers and the intersections with Richmond Street and Brownrigg Street.

Additionally, all crossovers are located away from the Culcairn Holbrook Road and Richmond Street intersections, therefore removing any potential conflict with turning movements at these intersections. It is acknowledged that the existing crossover to Lot F is located adjacent to the Culcairn Holbrook Road and Brownrigg Street intersection, however this is an existing condition that it is understood has recently been upgraded with Council approval and the proposal does not intend to change this. Regardless, similar to the above discussion, the crossovers lead to single dwelling lots only and accordingly the location of the site access will not present a safety or operational issue.

It is therefore considered that the subdivision has been appropriately designed to allow for access to each lot.

5 TRAFFIC

It is commonly accepted that as a 'rule of thumb' single dwellings may generate traffic at up to 10 vehicle trips per day.

When applied to the 6 lots proposed, a daily traffic generation of 60 vehicles per day can be expected, with 6 vehicles per hour during the morning and evening peak hour. Additionally, 1 of the dwellings is an existing dwelling, therefore the proposed development is only adding an additional 50 vehicle trips per day to the external road network.

Reviewing the volumes above, it is noted that a maximum of 6 vehicle movements during both the AM and PM peak hours are expected to be generated to the road network as a result of the development. Therefore, the traffic volumes generated by the proposed development are very low, and are expected to be easily absorbed into the surrounding road network.

6 CONCLUSIONS

It is proposed to amend the zoning of the subject site to subdivide the site for 6 residential lots.

Considering the analysis presented above, it is concluded that:

- The proposed subdivision design is considered to be generally in accordance with the transport related requirements of the Greater Hume DCP and the Rural Housing Code in the State Environmental Planning Policy;
- The access design is appropriate;
- The proposed development is expected to have a negligible impact on the surrounding road network when compared to the existing operation.