

# LETTER

## Transport Engineering



REF: PL873505

DATE: 29 October 2021

HT Building Pty Ltd  
72 Glendower Street  
GILEAD NSW AUSTRALIA

Attention: Mr. Bill McGarry

Dear Bill,

### RE: LOT 21 MOUNT GILEAD ESTATE

This letter sets out the transport analysis which has relied upon to support the Site Compatibility Certificate for Lot 21 and the reconfiguration of existing access to the adjacent site. More specifically, it provides a high-level assessment of the accessibility to the site regarding Land Use Context, Trip Generation, and Transport Analysis.

## Land Use Context

### Proposal

- The proposed development plans provided by Benson McCormack Architecture dated October 2021 (refer to enclosed) indicate that the proposal will comprise the following:
  - Independent living units (ILU) on Lot 21 incorporating 148 units (28 three-bedroom units and 120 two-bedroom units) and 236 car parking spaces.
  - Community Centre of 5,775m<sup>2</sup> GFA including 122 car parking spaces.
- The proposal seeks to alter the existing arrangements to the adjacent Mount Gilead Estate by providing a new access road connection to Glendower Street which will be shared with Lot 21.
- Lot 21 and the adjacent Mount Gilead Estate will be accessed via separate approaches to the internal roundabout within Lot 21. A third approach will provide a connection between the internal roundabout to Glendower Street.
- Glendower Street is a collector road within the broader area. Kerbside parking is permitted and generally unrestricted.

### Mount Gilead Estate

From the *Colston Budd Hunt & Kafes Pty Ltd Transport Report for Proposed Gilead Retirement Village, Glendower Street, Gilead* dated July 2005 the following information was extracted:

- The proposal included 1,200 dwellings and 2,350m<sup>2</sup> of community facility.
- This site was forecast to generated 210 two-way vehicle trips per hour in the AM and PM Peak periods in which it is noted that the community facilities serviced the internal dwellings and therefore was considered an ancillary facility.

On the 24 April 2006, Colston Budd Hunt & Kafes Pty Ltd prepared a letter to amend the transport study for the staged approach however the development yield was reduced to 1,100 dwellings including 840 self-contained dwellings and 270 hostel dwellings.

## Traffic Generation

- Traffic generation rates have been sourced from the Transport for NSW *Guide to Traffic Generating Developments (2002) and Technical Direction (TDT 2013/04a)*.
- The Weekday PM trip rate for seniors housing rates to peak site activity that typically occurs earlier than the PM road network peak hour. The relevant trip generation for the PM road network peak hour is typically closer to the AM peak rate of 0.2 trips/ unit, which aligns with the rate used in the previous Mount Gilead Estate assessment and has therefore been adopted.
- Table 1 illustrates the anticipated traffic estimates generated by Lot 21 and the Mount Gilead Estate (adjacent site). Once again, please note that the commercial building (allied health) is considered ancillary which is consistent with previous studies, however an allowance for turnover of parking as a proportion of the parking supply has been made. In this regard TDT 2013/04a includes specific commercial rates equating to 0.49 trips and 0.33 trips per parking space during the AM and PM peak hours respectively.

**Table 1: Traffic generation estimates**

Use	Size	Traffic generation rate (trips/ hour)		Traffic generation estimates (trips/ hour)	
		Weekday AM	Weekday PM	Weekday AM	Weekday PM
ILU	148 units	0.2 trips/ unit	0.2 trips/ unit	30	30
Commercial (allied health)	5,775 square metres (122 parking spaces)	0.37 trips/ space [1]	0.25 trips/ space [1]	45	31
<b>Lot 21 Sub-Total</b>				<b>75</b>	<b>61</b>
<b>Mount Gilead Estate</b>				<b>210</b>	<b>210</b>
<b>Total</b>				<b>285</b>	<b>271</b>

[1] Volumes based on TDT 2013/04a for commercial land uses. The applicable rates of 0.49 and 0.33 trips per parking spaces have been reduced by 25% to account for less intensive land uses associated with Allied Health and to reflect peak hour activity, which differs slightly from the road network peaks.

Table 1 indicates that Lot 21 could potentially generate around 75 and 61 additional vehicle trips in the weekday AM and PM peaks hours, respectively. This equates to approximately one trip every minute during the road network peak hours, which is considered negligible. This is also partially offset by the reduction in trip generation discussed in the 2006 changes to the Mt Gilead development yield.

It is also noted that the allied Health building is unlikely to have such condensed traffic generation in the AM peak, as is more common with typical commercial office buildings. In this regard, this assessment is conservatively high and representative of a theoretical maximum. Most peak period activity is likely to be associated with staff and ILU residents (also being internal trips).

## Road Capacity

The Transport for NSW *Guide to Traffic Generating Developments (2002)* defines the environmental capacity performance standards for local residential street and collectors Road. An analysis of the access road to Lot 21 and Glendower Street ability to accommodate the additional trips to is contained within Table 2. As shown, while the Access Road to Lot 21 and Glendower Street would come close to reaching their environmental capacities (or marginally exceed in the PM peak), the proposal remains the sole land use at the southern end of Glendower Street with no additional future trips expected.

As also discussed, the Allied Health building is not expected to generate such volumes of traffic in the respective peaks. This recognises that this land use typically has less condensed generation when compared with typical commercial office space and the site peak not coinciding with the road network peak.

**Table 2: Transportation Analysis**

Road/Street	Access Road to Lot 21		Glendower Street	
Trip Generation / Peak	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Lot 21	75	61	75	61
Mount Gilead Estate	210	210	210	210
Existing Road Volumes <sup>1</sup>	-	-	230	145
<b>Volumes Total</b>	<b>285 trips per hour</b>	<b>271 trips per hour</b>	<b>515 trips per hour</b>	<b>416 trips per hour</b>
Road Hierarchy	Local Road		Collector Road	
Maximum Capacity	300 trips per peak hour		500 trips per peak hour	
<b>Compliance</b>	<b>✓ (300&gt;271-285 trips)</b>		<b>✓ part (500&gt;416-515 trips)</b>	

[1] Existing Volumes obtained from Colston Budd Hunt & Kafes Pty Transport Report for Proposed Gilead Retirement Village, Glendower Street, Gilead dated July 2005.

## Conclusion

From the analysis contained within this letter, there appears sufficient capacity in the access roads including Glendower Street to support Lot 21 and the reconfiguration of the access arrangements to Mount Gilead Estate (adjacent site).

While the Glendower Street traffic volumes marginally and temporarily exceed the environmental capacity in the PM peak, they remain within three per cent of the capacity and the additional trips generated by Lot 21 are expected to have a negligible impact on the operation of Glendower Street and the broader road network.

Further detailed assessments will be included as part of any future Development Application, if required.

I trust the above is clear. Naturally, should you have any questions, please don't hesitate to contact the undersigned on +61 2 8448 1808.

Yours sincerely

GTA, NOW STANTEC



**Brett Maynard**  
Senior Principal Transportation Engineer