

To:	Dovetail Developments	From:	Jason Stone (Traffix Group)
Our Ref:	G31933M-01A	Date:	Wednesday 22 nd February, 2023
1A Gear Avenue, Mount Evelyn Proposed Childcare Centre Development			

Introduction

Further to your instructions, we have prepared a response to the objector concerns related to the proposed childcare centre development at 1A Gear Avenue, Mount Evelyn.

This response is based upon the concerns received from Council and objectors related to traffic engineering items only.

This response should be read in conjunction with the traffic impact assessment prepared by our office (Ref: G31933R-01B – dated 23rd August, 2022).

Objector Traffic Concerns

The principal concerns related to traffic engineering items are summarised as follows:

- Right-turn out of the proposed childcare centre using View Street as a 'rat-run' to get back onto York Road, with no right-turn from View Street to York Road,
- Issues with the signalised intersection between York Road/Gear Avenue/Wray Crescent allowing for vehicles to turn right-out of Gear Avenue,
- General traffic impacts of the proposed site along Gear Avenue and View Street, along with impacts of the new vet clinic at No. 19 York Road, Mount Evelyn which is currently under construction,
- Increased chance of accidents due to the proposed site at the signalised intersection, particularly due to vehicles not giving way when turning right from Wray Crescent,
- Potential for vehicles to park along Gear Avenue,
- Sight distance issues along Gear Avenue,
- Width of Gear Avenue does not allow for vehicles to pass each other,
- View Street is a dirt road which only allows for one-way traffic,
- Gear Avenue is used as a short-cut for locals and school children in the morning and afternoon, the childcare traffic will add to this,
- Impact of the proposed childcare centre having on emergency service vehicles arriving and departing from the local CFA Fire Station,

Our response to the above concerns are summarised below.

Response to Traffic Concerns

Gear Avenue is a Council operated Local Road and it is expected that all vehicles exiting the proposed childcare centre will turn left to access the signalised intersection between Gear Avenue/York Road/Wray Crescent, unless a resident in the View Street area wishes to use the centre.

We consider that turning right out of the site and using View Street to then access York Road would be inconvenient and unlikely to be undertaken by parents and staff of the proposed childcare centre. The main reasons for this include:

- the length of travel required to do undertake this travel route, given the distance required to travel in order to access York Road being approximately 950m to 1km (as seen at Figure 1 below),
- not being able to turn right onto York Road from View Street, and
- View Street narrows to form a single-width winding gravel road approximately adjacent to No. 27 View Street (western portion of the road).

Drivers are unlikely to travel this route due to the inconvenience of the route and narrow gravel road component for the western portion prior to York Road. These characteristics will deter anyone from using this travel path. Navigational programs are also highly unlikely to direct anyone down this path.

Accessing York Road via the traffic signals is the logical route of access to and from the centre and the signals will facilitate access to and from York Road and Wray Crescent.

Notwithstanding the above, an appropriate signage and line marking plan can be prepared to encourage left-out movements from the site (local residents excepted).



Figure 1: Distance travel from proposed childcare centre to York Road via View Street



Traffic Impact Concerns

As outlined within our Traffic Engineering Assessment, during peak periods, a total of 77 vehicle trip ends are expected in each of the commuter peak hours for the 96 place childcare centre, which equates to 39 entry and 39 exit movements.

Based on the surrounding road connections and residential catchment areas, it is expected that traffic exiting the site will be evenly split between amongst left-turn, right-turn and through movements at the signalised intersection between Gear Avenue/York Road/Wray Crescent.

Therefore, the southern leg (Gear Avenue) of the signalised intersection will experience a total of 39 exit movements in the peak hours, comprising a total of 13 right-turn, 13 left-turn and 13 straight through movements from Gear Avenue to York Road.

This equates to approximately 1 movement every 4 to 5 minutes undertaking any one turning movement at the intersection (or 1 movement per every 2 to 3 cycles at the intersection). This is not an overly high volume and is expected to be accommodated by the traffic signals.

Local roads often experience delays accessing arterial roads as the Department of Transport and Planning (DoTP) generally prefer to maintain through performance on their roads. DoTP do monitor intersection performance and have the ability to adjust traffic signal timings as required (i.e. allocate more 'green time' to side roads).

Traffic from the centre will be spread out and not have a discernable impact in conjunction with the adjacent CFA Fire Station and proposed vet clinic at No. 19 York Road, given that childcare centres do not operate in the same manner as schools (which have set start and end times), with drop-off and pick-up occurring in a more spread out manner and peak times generally not overlapping. Furthermore, a number of parents may link trips to the schools in the nearby area along with the proposed childcare centre and these vehicles may already be on the road network.

There is 'KEEP CLEAR' line marking across the southern approach of Gear Avenue nearby to the traffic signals, ensuring that at peak traffic times that vehicles can still access No. 19 York Road and the Police Station. The CFA Fire Station has direct access to York Road and no impacts are expected as a result of the proposal.

Safety Concerns

A total of 6 casualty crashes were recorded within the review area as per the traffic impact assessment prepared during the town planning application stage. All of the crashes recorded were located at the signalised intersection between York Road/Wray Crescent and Gear Avenue, located to the north-west of the site. No casualty crashes were recorded along Gear Avenue during the review period, including nearby to the site access.

Given the volume of traffic travelling through this intersection each day (York Road carries 22,000 vehicles per day in 2020)¹, crashes at the intersection of a major arterial road is not uncommon. The road authority, being the Department of Transport and Planning, should

¹ According to vicroadsopendata-vicroadsmaps.opendata.arcgis.com/datasets/traffic-volume/ - sourced 17th August, 2022



continue to monitor the intersection into the future to determine if there are any safety improvements that need to be taken.

We understand that York Road will be undergoing a road upgrade in the near future as part of committed works outlined at <https://bigbuild.vic.gov.au/projects/mrpv/york-road-upgrade>. Whilst the exact nature of the works is still to be determined, the intent of the upgrade is to improve road network connectivity and other improvements along York Road. These works will improve performance of the road network in this area.

Gear Avenue adjacent to the site currently provides a carriageway width of 5.9m, which allows for one lane of traffic in each direction, with no on-street parking on either side of the carriageway. Given the requisite number of car spaces are proposed to be provided on the site, we do not consider any overflow effects to occur in the nearby area, including along Gear Avenue and View Street. This carriageway width also accommodates two-way simultaneous traffic movements.

A sight distance assessment was also conducted for vehicles exiting the proposed childcare centre onto Gear Avenue as part of the town planning application stage. The available sight distance of 63m is in our view acceptable in the context of it complying with the minimum SSD from the Australian Standard and the SISD requirement from the AustRoads Guide to Road Design when considering the speed of vehicles in this location as per the traffic surveys. The current sight distance is acceptable in our view for a number of reasons (slower speeds recorded along Gear Avenue) and the low level of traffic which travels along Gear Avenue, meaning that there will be a lower level of potential vehicle conflicts occurring along the road.

We trust the above response assists with respect to the proposed childcare centre development at 1A Gear Avenue, Mount Evelyn.

Yours faithfully,

TRAFFIX GROUP PTY LTD



JASON STONE
Associate

