

Homes NSW

35 Francis St & 16-20 Sanita St, Goulburn RFB Development Traffic Impact Assessment

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1 Introduction

1.1 Background

Sydney Traffic Engineers have been commissioned to undertake a traffic impact assessment for Homes NSW, for the proposed development of a 29-unit residential flat building (RFB) on the site at 35 Francis Street & 16-20 Sanita Street, Goulburn.

The Goulburn Mulwaree Local Government Area (LGA) is seeing increased housing demand due to the growth in local infrastructure which has flow on impacts on housing affordability and the Homes NSW wait list growth. This project is aligned to the vision for the LGA set out in Homes NSW's Asset Recycling Strategy Implementation Plan for the delivery of new residential flat buildings.

The proposed development of the RFB will replace four older style detached weatherboard dwellings currently on the site, with 29 one- and two-bedroom units, including accessible units and lifts, sized for ageing in place. This is in response to an identified demand and support the required shift to smaller dwellings.

1.2 Purpose of this Report

This report provides an assessment of the proposed vehicle access and parking on the site against requirements, and traffic and transport implications of the proposed residential development on the surrounding road network. The following matters have been considered in the development of this report.

- Existing traffic conditions on the surrounding road network.
- Suitability of the proposed access drive location.
- The traffic generating characteristics of the proposed development.
- The transport impacts of the development proposal on the surrounding road network.

1.3 References

In the preparation of this report the following has been carried out:

- An inspection of the site and the surrounding road network.
- Review of the concept plan for the development
- Australian Standards
- Guide to Traffic Generating Development Version 2.2
- Other documents and information as included in this report.

2 Existing conditions

2.1 Road Hierarchy

The road network in the area is classified in accordance with the type of road and its function. All roads surrounding the site are under the care and administration of the Goulburn Mulwaree Council.

Figure 2-1 Area Map



Source: SIX Maps

2.1.1 Addison Street

Addison Street is considered a collector road as it provides a link to the rural area west of Goulburn, becoming Gurrundah Road at the edge of the residential area and providing a link to the main road network and Goulburn City Centre. The street is 13m in width with a single traffic lane in each direction, a marked parking lane on the southern side of the road west of the intersection with Francis Street. There is a 40km/h School Zone located just west of the intersection with Francis Street.

Figure 2-2 Addison Street looking west toward Francis Street intersection



Source: Ken Hind (2023)

2.1.2 Coromandel Street

Coromandel Street is a collector road varying in pavement width, being 14m in width south of the intersection with Addison Street and 21m in width north of Addison Street. In the southern section the street is provided with a traffic lane in each direction, wide parking lane on the western side incorporating large trees within the pavement area and a narrow bicycle lane on the eastern side of the road. No Parking is allowed on the section with the bicycle lane. North of the Addison Street intersection it is a single traffic lane in each direction with wide parking lanes on both sides due to the location of large trees within the road pavement on both sides.

Figure 2-3 Coromandel Street looking north toward Addison Street



Source: Ken Hind (2023)

2.1.3 Francis Street, Sanita Street, Mundy Street

Are all considered local roads providing access to residential properties in the area. They are provided with a traffic lane in each direction and parking with kerb and gutter and, generally, do not have any linemarking.

Francis Street is generally 10m in width south of Sanita Street, narrowing to 8m in width at the intersection with Addison Street. Sanita Street is 10m in width. Mundy Street (which becomes Garfield Avenue west of Francis Street) is 10m in width. These roads provide for a traffic lane in each direction and parking on both sides of the road.

Figure 2-4 Francis Street looking north to Sanita Street



Source: Ken Hind (2023)

2.2 Existing Traffic Controls

The following traffic controls are in place on the road network at the present time:

- Give Way signs are provided on Addison Street at the intersection with Deccan Street. This provides priority for the right turn movements from Deccan Street to Addison Street.
- Give Way signs are also provided on Addison Street at the intersection with Coromandel Street.
- Francis Street has Give Way signs provided at the intersection with Mundy Street
- All other intersections in the area surrounding the proposed development operate under the T-junction rule, where vehicles on the terminating road must give way to vehicles on the through road.

2.3 Proposed Site Location

The site for the proposed development is located on the southeastern corner of the intersection of Francis Street and Sanita Street, encompassing four separate blocks of land. These blocks are currently occupied with four detached single weatherboard dwellings. Three of the properties have frontage to Sanita Street with the remaining fourth property having frontage and access to Francis Street.

It is located approximately 2km west of the Goulburn CBD and 1.6km from Goulburn Base Hospital. The area surrounding the site is generally low density residential with detached

houses. Christchurch Anglican Church is located on Addison Street just to the east of the proposed site and Trinity Catholic College access is located approximately 400m north of the site on Addison Street.

The location of the site is shown in Figure 2-5.

Figure 2-5 **Location Map**



Source: Nearmap

2.4 Road Network

The road network surrounding the site is generally laid out in a grid pattern with the primary road directions being north east/south west and south east/north west.

As indicated in Section 2.1, Coromandel Street and Addison Street are considered collector streets providing access from the local streets to the main road network for access to the Goulburn CBD and other facilities in Goulburn.

While no formal traffic counts have been undertaken for this report, on-site observations indicate that the street network generally operates within capacity during peak hours, although some minor congestion occurs in Addison Street around Trinity Catholic College at school start and finish times.

2.5 Public transport, pedestrians and cyclists

A bus stop is located on Francis Street, near the intersection with Mundy Street, approximately 130m from the Francis St pedestrian entry for the development. This is part of the Route 823 operated by PBC Goulburn. This service operates as a loop service from the

Goulburn CBD to West Goulburn and South Goulburn. In the area of the proposed development, it operates along Deccan Street, Addison Street, Francis Street and Moody Street to Robinson Street, thence to South Goulburn and returning to the Goulburn CBD.

The service operates generally on a 60-90 minute frequency between 8:30am and 5:30pm Monday to Friday and a similar frequency on Saturdays between 9:00am and 3:00pm. There are no services on this route on Sundays and public holidays.

Figure 2-6 Route 823 map



Source: PBC Goulburn (www.pbcgoulburn.com.au)

While footway areas are provided along the surrounding streets there are no formal footpaths provided. No formal bicycle facilities are provided, the low traffic volumes on most of the surrounding streets means that cycling is possible along all streets.

3 Development Proposal

3.1 Access & Internal Circulation

The proposed development is for the construction of a residential flat building across two levels with 29 one- and two-bedroom units (18 x 1B units and 11 x 2B units). On grade parking is provided for 20 vehicles at the rear of the property. There is a small retaining wall provided on the southern side of the car park, varying in height of 0.4-0.6m. Australian Standard AS2890.1 – Off-street car parking Section 2.4.5.3 provides that “*Barriers shall be constructed to prevent vehicles from running over the edge of raised platform or deck of a multi-storey car park including the perimeter of all decks above ground level. They are required wherever the drop from the edge of the deck to a lower level exceeds 600mm.*” The standard also notes that any barriers placed shall be designed structurally for the loading requirements of AS1170.1.

While the retaining wall at the end of the car parking at the rear of the property is envisaged to be a maximum of 600mm in height, it is proposed to provide a crash barrier along the top of the wall to assist in preventing vehicles travelling beyond the end of the parking spaces. The proposed crash barrier is “RHINO-STOP ® Elite”, a fencing type, crash rated, barrier which complies with requirements of AS 1170.1. An example of the fencing is shown in Figure 3-1

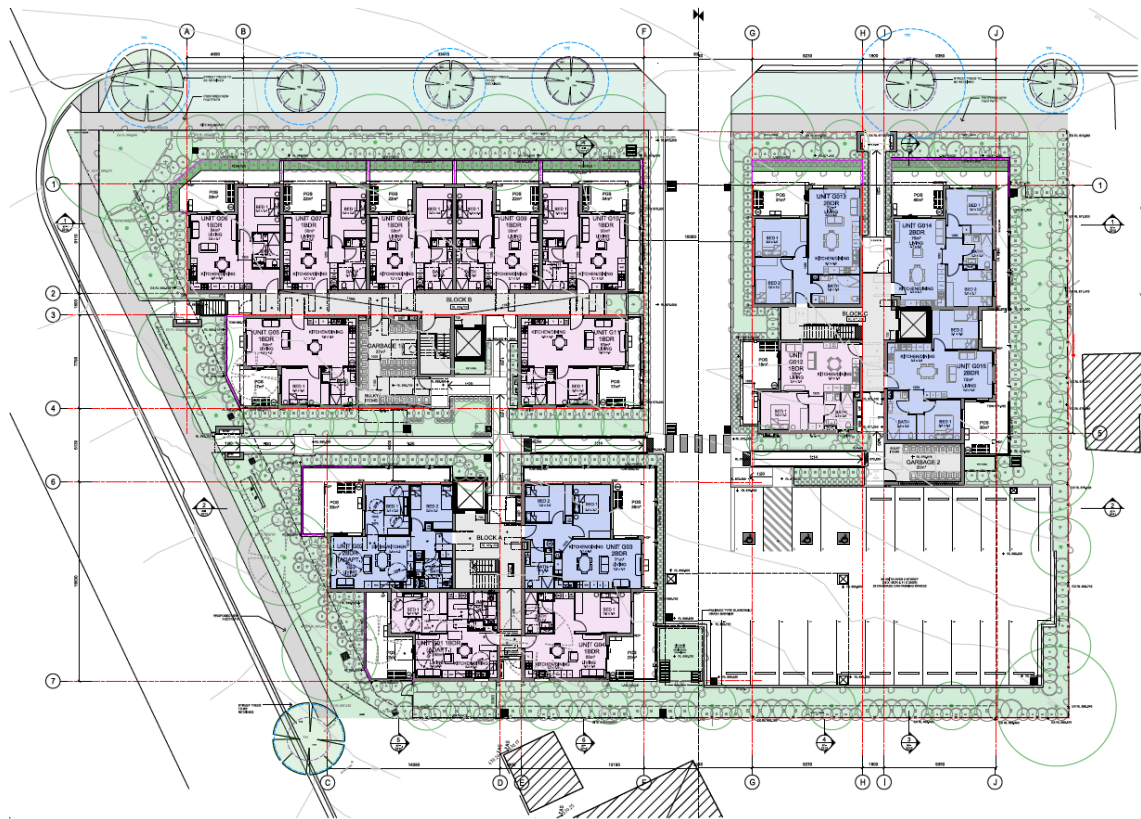
Figure 3-1 Example of proposed crash barrier



Access to the car parking area is provided by a single driveway 5.5m in width on the Sanita Street frontage and located approximately 50m from the intersection with Francis Street. The ground floor layout of the development is shown in Figure 3-2 below.

The 20 on-grade car parking spaces provide three accessible parking spaces and 17 standard parking spaces 2.4m in width and 5.4m in length. An aisle of 5.8m in width has been provided. An extension of 1m has been provided at the end of the blind aisle to allow vehicles parking in the ends spaces to manoeuvre when entering or exiting the space.

Figure 3-2 Proposed development layout

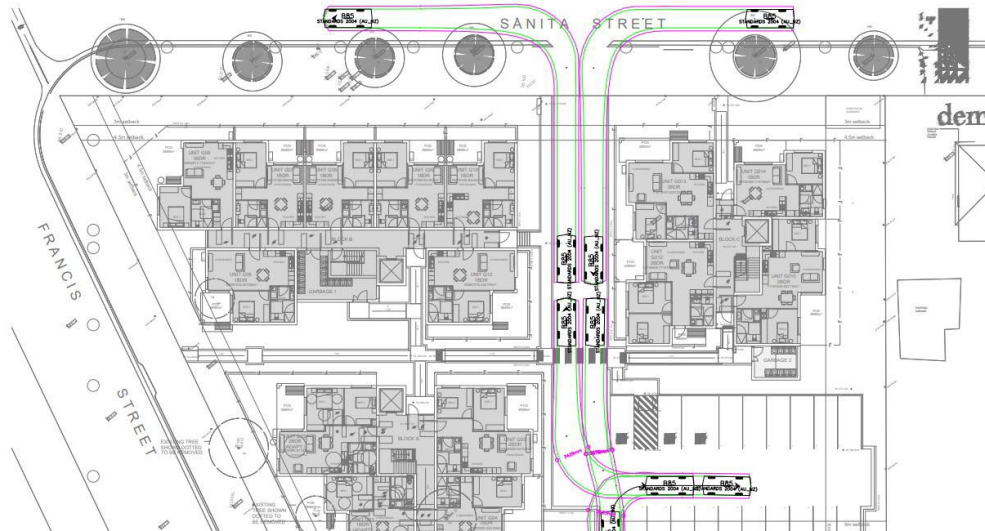
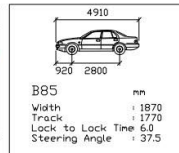


The driveway location, width and car parking layout including parking bay dimensions have been assessed against Australian Standards AS 2890.1 (Off-street car parking), and AS2890.6 (Off-street parking for people with disabilities). The proposed layout meets the requirements of the relevant Australian Standards.

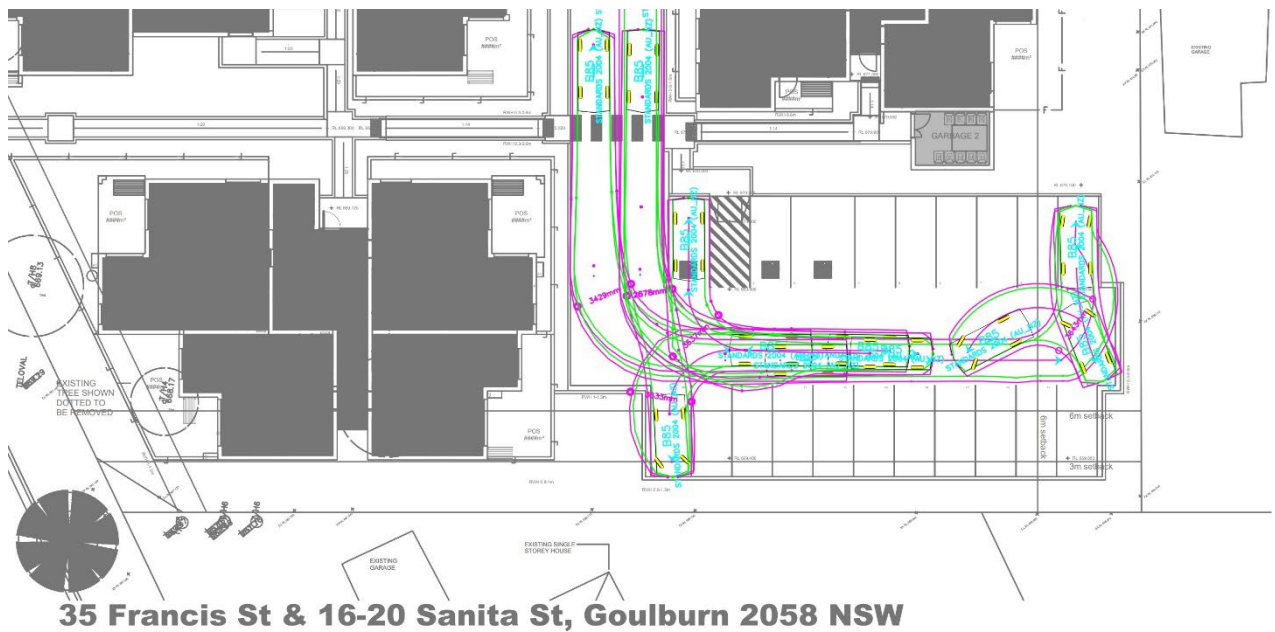
A swept path assessment has been carried out for vehicles entering and exiting the driveway onto Sanita Street and for circulation within the car parking area. These indicate that the design of the entry/exit and car park is suitable for the vehicles likely to be accessing the site.

Turning assessment via driveway (To be reviewed again once final driveway design is coordinated with Civil Engineer)

LEGEND:-	
—	BODY CLEARANCE (300mm)
—	VEHICLE BODY
—	EXISTING CONDITION



Parking access.



3.2 Parking

The proposed development is permitted within the R1 General Residential Zone under the Goulburn Mulwaree Local Environmental Plan 2009 (GMLEP 2009) and could be carried out “without development consent” through Part 5 Activity Determination approval process undertaken by Homes NSW, provided that controls set out under clause 42 of Division 6 of the State Environmental Planning Policy (Housing) 2021 (Housing SEPP) are all met.

The relevant parking criteria are specified under clause 42(f) of the Housing SEPP, which indicates the following parking rate for non-accessible areas (i.e. for sites with limited access to high frequency public transport services):

- (i) 0.5 spaces per one-bedroom dwelling
- (ii) 1.0 space per two-bedroom dwelling

The proposed development consists of 29 units in total and would indicate a requirement of:

- (i) 18 x one-bedroom - 9 spaces
- (ii) 11 x two-bedroom - 11 spaces

Total 20 spaces

The proposal with 20 on-grade parking spaces (incl 3 accessible parking spaces) is considered satisfactory and complies with the Housing SEPP's minimum requirement.

3.3 Site Servicing

The refuse bins will be 'wheeled out' to the kerb frontage on the nominated collection days. Council's refuse vehicles will undertake waste collection from either Francis Street or Sanita Street, or both streets, as other residential developments are being serviced in the local area. Both bin stores are located behind building frontages but with accessible pathway available to allow bins being wheeled out to street frontages for pickup on Council's nominated waste collection dates. Refer to Waste Management Plan for details.

4 Traffic Impact Assessment

4.1 Traffic generation

The traffic generation for the proposed RFB development has been calculated having regard for the rates provided in the RMS Guide to Traffic Generating Developments (Version 2.2) (The Guide).

The Guide provides definitions for a range of residential development including medium density residential flat buildings and high density residential flat buildings. The Guide outlines a medium density residential building as a *“building containing at least 2 but less than 20 dwellings”*¹. A high density residential building is defined as a *“building containing more than 20 dwellings”*².

The proposed development is to provide a total of 29 units so could be classified as a high density development. However, it is worth noting that the Guide also provides that a high density residential developments *“are usually more than five levels, have basement level car parking and are located in close proximity to public transport services.”*³

Having regard to the above the traffic generation for the proposed development has been calculated on the basis of a medium density residential development as, while it has more than 20 dwellings it does not meet the other characteristics of a high density residential development. The traffic generation for the development of 29 residential units has been calculated in accordance with the Guide.

- Weekday average peak hour trips = 0.4-0.5 per dwelling
- Daily vehicle trips = 4-5 per dwelling

Based on the above traffic generation rates and the proposal for the development of 29 units then the expected traffic generation for the development would be:

- Peak vehicle trips – 12-15 trips
- Daily – 116-145 vehicle trips.

4.2 Traffic Impact

The estimated traffic generation for the site should be discounted by the estimated traffic generation for the existing housing on the site. The Guide⁴ provides that a single residential dwelling would generate 0.85 peak hour vehicle trips on a weekday. This would provide a traffic generation for the existing dwellings of approximately 3 trips during the peak hour. This results in a net traffic increase of 9-12 weekday peak hour vehicle trips for the proposed development.

This traffic has then been estimated to be distributed on the surrounding road network on the following basis during the peak periods:

- AM peak – 80% outbound, 20% inbound.
- PM peak – 20% outbound, 80% inbound
- 20% of the traffic heading south toward South Goulburn
- 70% heading east toward Goulburn CBD

¹ Guide to Traffic Generating Developments v.2.2, Section 5.4.2 (Transport for NSW 2002)

² Guide to Traffic Generating Developments v.2.2, Section 5.4.3 (Transport for NSW 2002)

³ Guide to Traffic Generating Developments v.2.2, Section 5.4.3 (Transport for NSW 2002)

⁴ Guide to Traffic Generating Developments v.2.2, Section 3.3.1 (Transport for NSW 2002)

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- 10% heading north toward Goulburn Base Hospital and those areas to the west and north west of the CBD.

The principal access roads to the proposed development site are Coromandel Street, Deccan Street, Addison Street and Francis Street.

This distribution would result in a maximum net increase of 8 vehicle trips in the primary direction during peak hours and 1-2 vehicles in other directions. This volume is likely to have minimal impact on the traffic volumes on the surrounding road network. The remaining houses in Sanita Street would generate approximately 14 weekday peak hour vehicle trips.

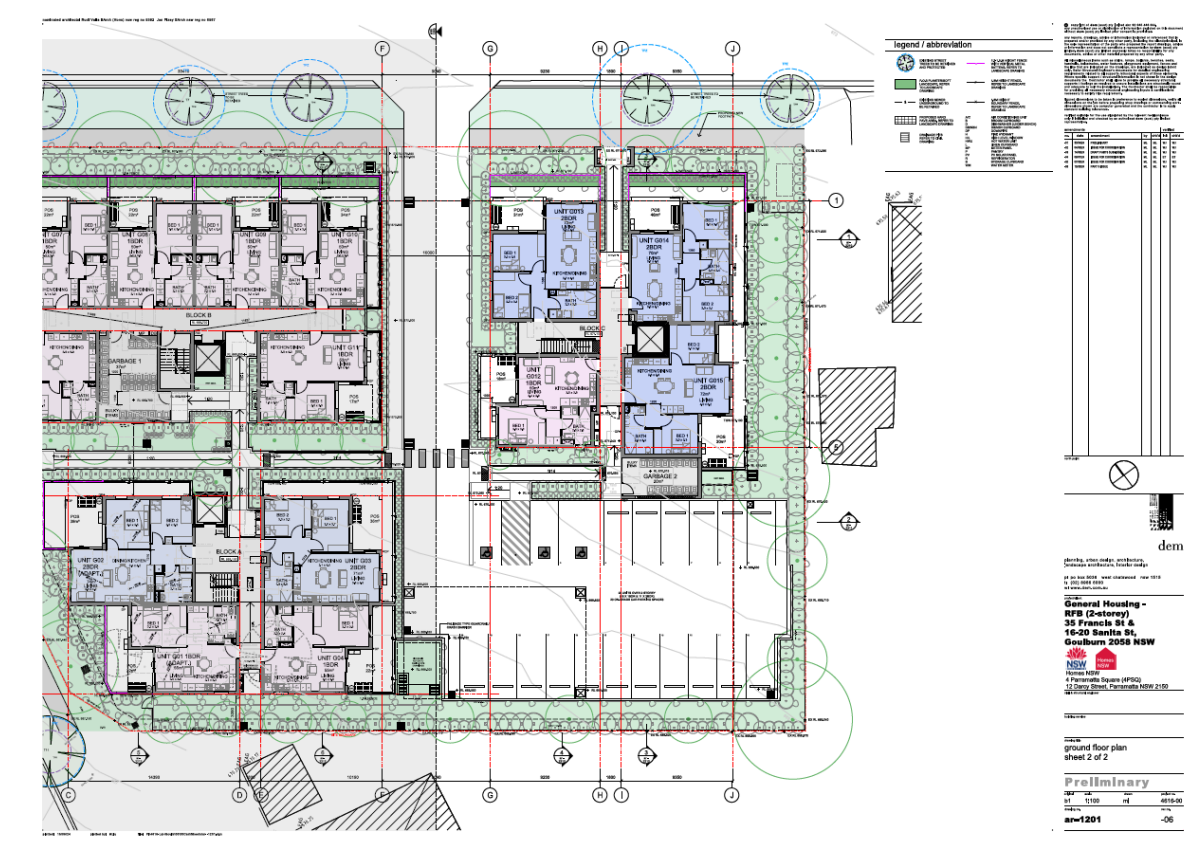
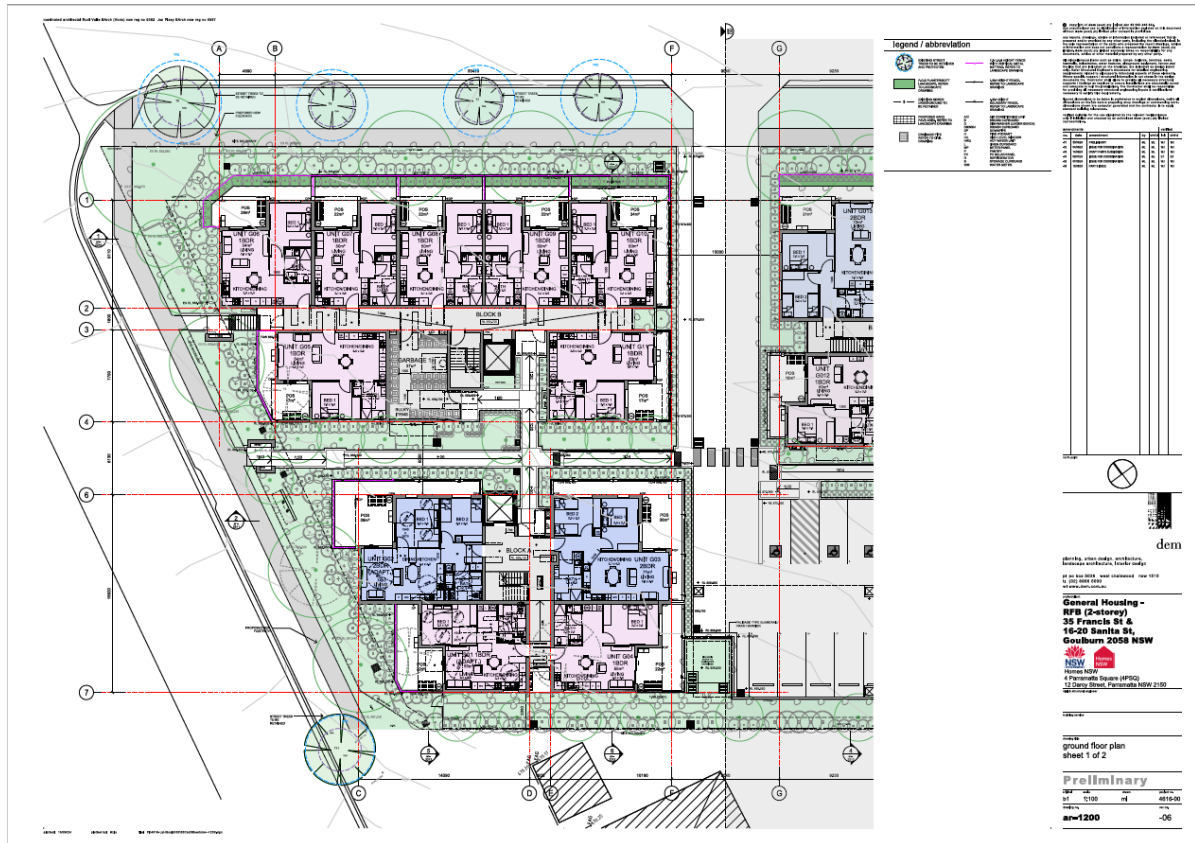
It is considered that the traffic generation from the proposed development is acceptable with no adverse impacts on the existing surrounding road network.

5 Conclusion

The proposed residential flat building development by Homes NSW at 35 Francis Street and 16-20 Sanita Street Goulburn is proposed to replace four existing detached dwellings with a two level building providing 29 one-and two-bedroom units (18 x 1B units and 11 x 2B units) and off street car parking for 20 vehicles, including three car spaces for people with disabilities. The proposed parking provision will be adequate, appropriate and comply with the SEPP criteria. The design of vehicle access, parking, and internal circulation arrangements are considered to comply with the requirements of Australian Standards AS2890.

The traffic impacts of the proposed development have been assessed and it is considered that the development of the land will have minimal additional impact on the existing road network in West Goulburn. The proposed development will increase weekday peak hour traffic volumes by 8 vehicle trips per hour. Given the spare capacity available on the road network surrounding the site the proposed development is acceptable.

Appendix A Proposed Floor Plans



Appendix B Swept Path Assessment