

144-146 BORONIA ROAD, GREENACRE

PROPOSED NEW GENERATION
BOARDING HOUSE DEVELOPMENT

**TRAFFIC & PARKING
IMPACT ASSESSMENT**

AUGUST 2018

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HOUSE DEVELOPMENT
DATE: 27 AUGUST 2018**

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1 INTRODUCTION

This report has been prepared by Hemanote Consultants to assess the traffic and parking implications for the proposed new generation boarding house development at 144-146 Boronia Road, Greenacre.

This report is to be read in conjunction with the architectural plans prepared by CK Design (reduced copy of the plans is attached in Appendix A of this report) and submitted to Canterbury Bankstown Council as part of a Development Application.

This report is set as follows:

- *Section 2:* Description of the existing site location and its use;
- *Section 3:* Description of existing traffic conditions near the subject site;
- *Section 4:* Description of the proposal, vehicular access and on-site parking provision, layout and circulation;
- *Section 5:* Assessment of the on-street parking conditions and utilisation near the subject site; and impacts on parking;
- *Section 6:* Assessment of impacts on traffic near the subject site; and
- *Section 7:* Outlines conclusions.

2 EXISTING SITE DESCRIPTION

➤ Site Location

The subject site is located on the southern side of Boronia Road at properties No. 144-146, within the suburb of Greenacre. The site has a frontage of approximately 40 metres to Boronia Road to the north. Refer to Figure 1 for a site locality map.

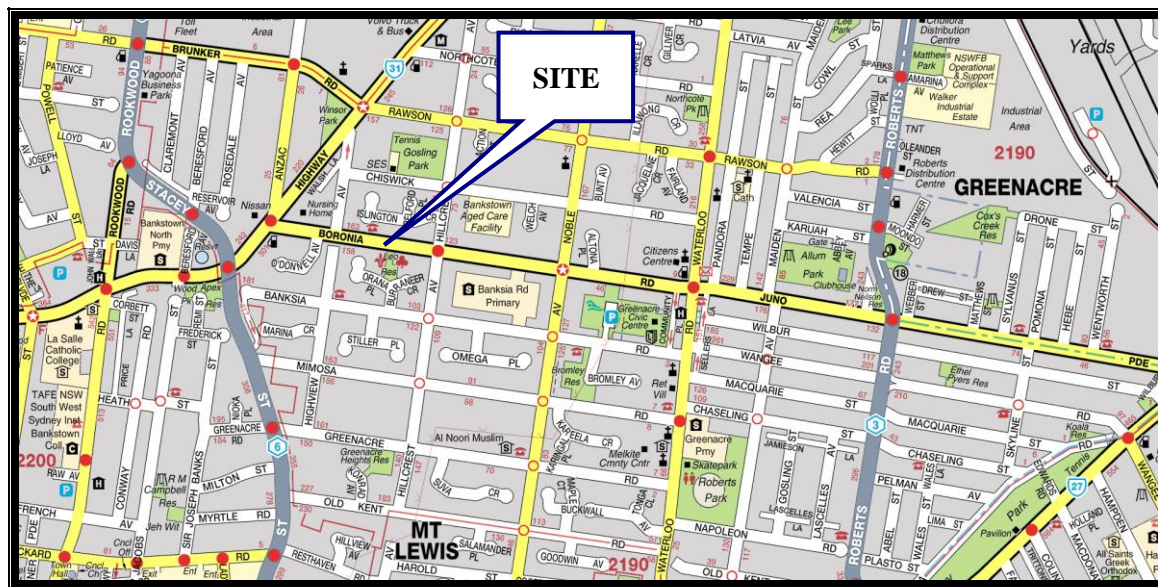


Figure 1: Site Locality Map

➤ Existing Site & Surrounding Land Use

The subject site has an area of 2,525m² and is currently occupied by two residential single dwellings. The site is located in a residential area, including a mixture of single dwellings and in close proximity to commercial properties along the Hume Highway.

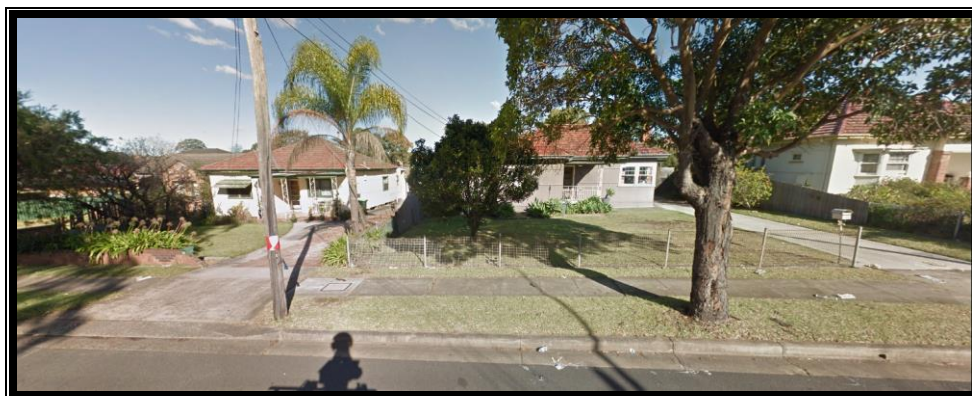


Photo 1: The frontage of the subject site to Boronia Road

3 EXISTING TRAFFIC CONDITIONS

3.1 Road Network and Classification

Boronia Road is a classified State Road under the jurisdiction of the Roads and Maritime Services, which runs in an east-west direction, between Hume Highway (state road) and Waterloo Road (regional road). It intersects with a number of regional and local roads along its length, site including Highview Avenue (local road) and Hillcrest Avenue (local road) in the vicinity of the subject site.

3.2 Road Description and Traffic Control

Boronia Road has a four-lane two-way undivided carriageway with a width between kerbs of approximately 12 metres. These lanes generally provide one travel lane per direction, plus a kerbside parking lane on each side of the road. At present, unrestricted kerbside parking is permitted on both sides of Boronia Road.

The legal speed limit on Boronia Road is 60 km/h and it intersects with Hillcrest Avenue, in the vicinity of the subject site and is controlled by Traffic Signals. Boronia Road also intersects with Highview Avenue and is controlled by a 'Give Way' restriction, with priority given to traffic travelling along Boronia Road.



Figure 2: Aerial photo of the subject site



Photo 2: Boronia Road at the subject site - facing west



Photo 3: Boronia Road at the subject site - facing east

The current traffic flows on Boronia Road are considered to be appropriate for a state road in a mainly residential area, where traffic is generally free flowing without any major queuing or delays in peak hours, with spare capacity.

3.3 Existing Transportation Services

The subject site has good access to existing public transport services in the form of trains and buses. The site is approximately 2 kilometres from Yagoona Railway Station.

Regular bus services operate along both sides of Boronia Road in close proximity to the subject site (i.e. bus routes M90 and 913). There are existing bus stops located approximately 120 metres from the subject site.

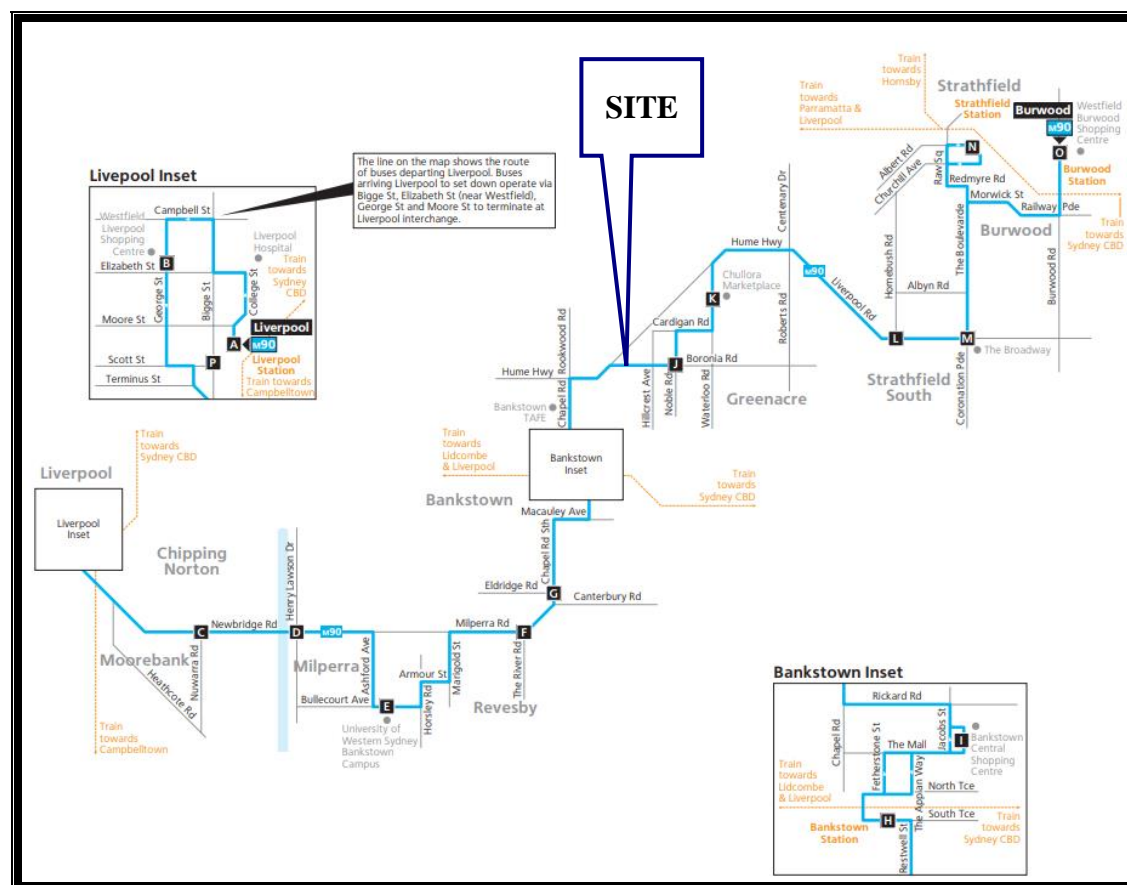


Figure 3: Bus routes near the subject site

4 PROPOSED DEVELOPMENT

4.1 Description of the proposal

The proposed development application is for the demolition of the existing dwellings and the construction of a new generation boarding house at 144-146 Boronia Road, Greenacre.

The proposed development will include the following:

- A boarding house with fifty-two (52) boarding rooms, including one room for the building manager, in addition to a community room.
- Off-street parking in a basement level accommodating twenty-six (26) car parking spaces, including two (2) accessible parking spaces. In addition to eleven (11) motorbike parking spaces (in basement level) and a bicycle storage facility for twelve (12) bicycles (on ground level).

Refer to **Appendix 'A'** for the proposed development plans.

4.2 Vehicular & Pedestrian Access

The proposed vehicular access to and from the on-site parking area will be via a new driveway crossing to be located in Boronia Road.

The existing driveway crossings will be removed and replaced with footpath, kerb and gutter. The proposed driveway crossing is to have a width of 6 metres and provides for two-way traffic, where two vehicles can pass each other without causing congestion or delay on the street. All vehicles are to enter and exit the site in a forward direction.

The clear sight line triangles (2.5m x 2m) are provided at the front boundary at both sides of the proposed driveway, to provide adequate sight lines to pedestrians, as per Figure 3.3 of AS2890.1:2004.

All vehicular access to be located and constructed in accordance with the requirements of AS2890.1:2004, where adequate sight distance is available.

Two separate pedestrian access points are also provided from the front of the site and accessed from the footpath in Boronia Road, to segregate vehicular and pedestrian access and increase safety within the site.

4.3 On-site Parking Provision

The SEPP (Affordable Rental Housing) requires car parking to be provided at a rate of 0.5 parking spaces for each boarding room for a development in an accessible area. The subject site is considered to be located in an accessible area as it is situated less than 800 metres walking distance of a bus stop on a bus route. The SEPP also requires parking for motorbikes and bicycles to be provided at a rate of 1 per 5 rooms.

Therefore, according to the ARHSEPP the proposed boarding house for 52 rooms is to provide 26 car parking spaces, 11 motorbike spaces and 11 bicycle spaces, as demonstrated in Table 1 below:

Parking requirements and Parking provision		
Car parking rate for boarding houses	1 space per 2 rooms	
Motorbike parking rate for boarding houses	1 space per 5 rooms	
Bicycle parking rate for boarding houses	1 space per 5rooms	
Total		
Proposed boarding rooms	52 rooms	
<i>Parking required for boarding house</i>	52 / 2	26
Total car parking required	26 spaces for residents	26
Total car parking provided	26 spaces for residents	26
Total motorbike and bicycle parking required	11 spaces for motorbikes + 11 spaces for bicycles	22
Total motorbike and bicycle parking provided	11 spaces for motorbikes + 12 spaces for bicycle	23
Compliance with off-street parking		Yes

Table 1: On-site parking requirement & provision

The proposed development provides for 52 boarding rooms, including one room for the building manager. Therefore, requires a total of 26 car parking spaces, in addition to eleven (11) motorbike parking spaces and a bicycle facility for the storage of eleven (11) bicycles.

The proposed development provides for a total of twenty-six (26) car parking spaces, including two (2) accessible parking spaces. In addition to eleven (11) motorbike parking spaces and a bicycle storage facility for the storage of twelve (12) bicycles.

Therefore, the off-street parking provided is considered to be adequate for the proposed development and in compliance with the ARHSEPP parking requirements.

It should also be noted that the subject site has great access to existing public transport services in the form of regular bus routes along Boronia Road. It should also be noted that there are available on-street parking opportunities in Boronia Road and surrounding streets.

Waste Collection

All waste storage is to take place within the dedicated garbage storage area located on ground level within the site. Waste Bins will be transported by the building manager to the street kerb for collection on waste collection day.

4.4 On-site Parking Layout and Circulation

The layout of the on-site car parking area and manoeuvring arrangements has been designed to enhance vehicular access, where vehicles can enter and exit the site from and onto Boronia Road in a forward direction safely, through the provision of adequate internal aisle widths and turning space.

AS2890.1:2004 Parking facilities Part 1: Off-street car parking requires a minimum parking space width of 2.4 meters and a minimum length of 5.4 meters. The proposed off-street car parking spaces have a minimum width of 2.5 metres and a length of 5.4 meters each, which is adequate.

The accessible car parking spaces for people with a disability have a width of 2.4 metres, in addition to an adjacent 2.4 metres wide shared/no parking area with a bollard, which is adequate in accordance with AS2890.6:2009.

Car parking spaces adjacent to walls/obstructions have been made wider than the minimum width, to accommodate full door opening in accordance with Clause 2.4.2 (d) of AS2890.1:2004. The blind aisle has been extended by a minimum 1 metre beyond the last parking space, in accordance with Clause 2.4.2 (c) of AS2890.1:2004.

Clause 2.4.2 of AS2890.1:2004 requires a minimum aisle width of 5.8 metres for two-way aisles, adjacent to 90° angle parking. The proposed aisle within the site has a minimum width of 6.2 metres, which is adequate for two-way traffic and manoeuvring into and out of parking spaces.

The proposed internal driveway/ramp has a width of 6 metres and allows for two-vehicles to pass each other at the same time, including the first 6 metres within the site having a width of 6 metres, which is adequate in accordance with AS2890.1:2004.

The proposed ramp has a clear width of 6 metres, which is adequate in accordance with Clause 2.5.2 of AS2890.1:2004. The proposed ramp grades are within the maximum grade of 1 in 4 (25%) in accordance with Clause 2.5.3 of AS2890.1:2004 and a change in grade of 1:6.7 (15%) to prevent vehicle scrapping.

A minimum 2.2 metres headroom clearance is generally provided from the entry to car park level to the underside of all services conduits and suspended stormwater pipelines, in accordance with clause 5.3.1 of AS2890.1:2004. A minimum 2.5 meters

headroom clearance is provided above accessible parking spaces and adjacent shared zones in accordance with clause 2.4 of AS2890.6:2009.

All vehicular manoeuvring within the site has been designed and checked using the B99 and B85 design car turning paths from AS2890.1:2004 and Austroads. Refer to the attached vehicle swept path diagrams in Appendix 'B'.

Therefore, the car parking layout and circulation are considered to be adequate in accordance with AS2890.1:2004 and AS2890.6:2009, where vehicles can enter and exit the site in a forward direction.

5 ON-STREET PARKING PROVISION

5.1 Existing Parking Controls

The subject site is located in a mainly residential area, including a mixture of single dwellings and retail shops. At present, unrestricted kerbside parking is permitted on both sides of Boronia Road in the vicinity of the subject site.

5.2 Impacts of Proposed Development on Parking

It has been observed that on-street car parking spaces in the vicinity of the subject site are moderately utilised in general, with available parking opportunities nearby. It should be noted that the majority of adjacent properties have their own off-street parking facilities.

The parking demand resulting from the proposed boarding house development can be easily accommodated within the proposed complaint on-site parking provision, in addition to available on-street parking opportunities in the vicinity of the subject site, if required. The site also has gear access to existing public transport services.

Therefore, the proposal will have no major impacts on parking in the surrounding area.

6 EXTERNAL TRAFFIC IMPACT

An indication of the potential traffic generation of the proposed development is provided by the RMS *Guide to Traffic Generating Development - 2002*.

1- The Guide specifies the following traffic generation rates for high density residential units:

- 0.19 Morning peak hour vehicle trips per unit.
- 0.15 Evening peak hour vehicle trips per unit
- 1.52 daily vehicle trips per unit

Therefore, the proposed development (52 rooms) has an estimated traffic generation as follows:

- 10 morning peak hour vehicle trips.
- 8 evening peak hour vehicle trips.
- 79 daily vehicle trips.

The estimated traffic generation from the proposed boarding house development is considered to be acceptable and of low impact on existing flows on the surrounding road network, where additional traffic can be readily accommodated.

The potential increase in the number of vehicle movements in and about Boronia Road and adjacent streets will remain well within the Environmental capacity of these streets, with no adverse impacts on the amenity of the area.

The proposed development satisfies the objectives of Clause 101 of SEPP (Infrastructure) 2007. The proposed development provides a wide two-way access driveway where vehicles enter and exit the site in a forward direction from Boronia Road (i.e. the only road frontage to the subject site) and the estimated traffic generation will have no major impact on traffic flow efficiency, safety or ongoing operation on Boronia Road.

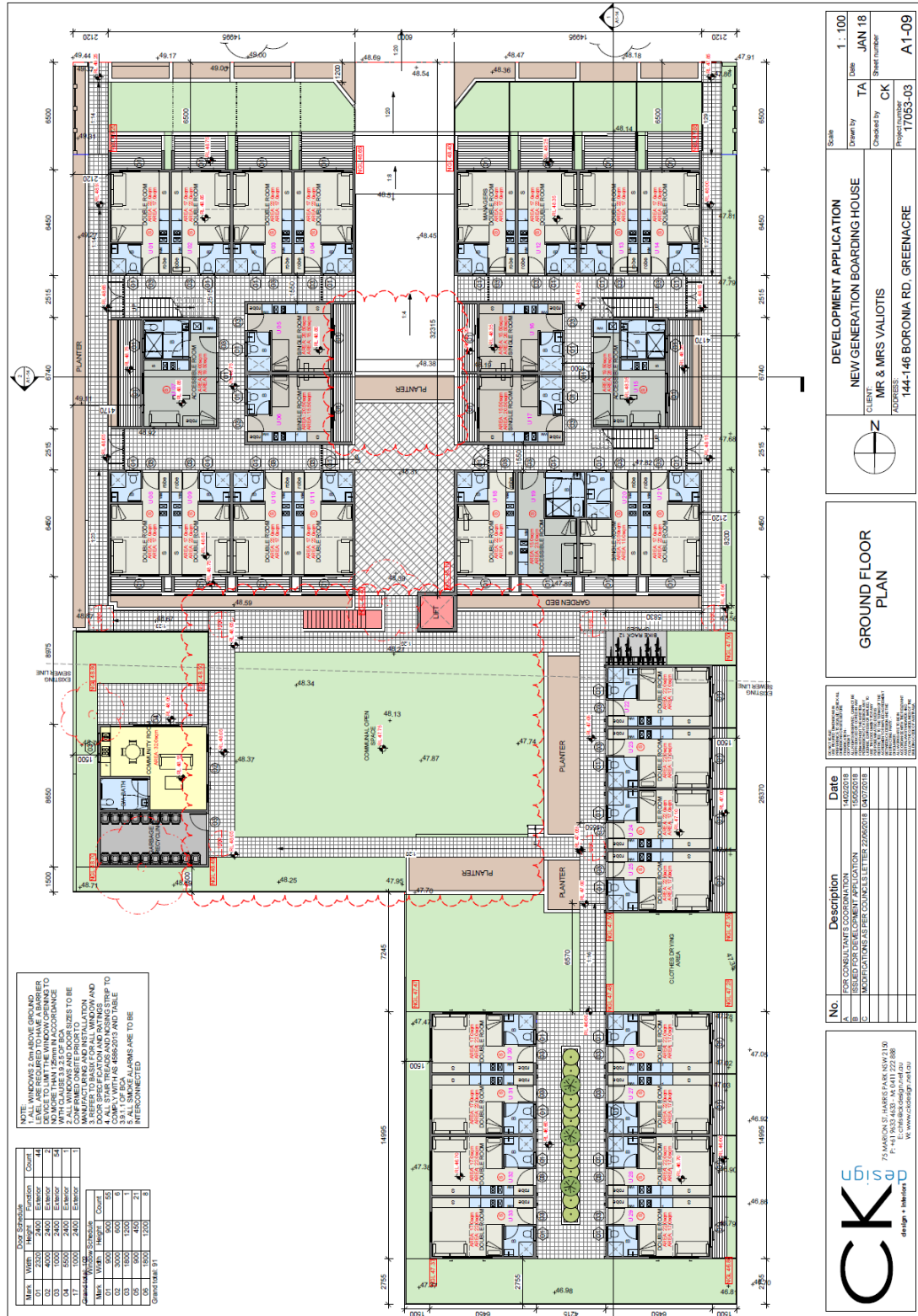
7 CONCLUSION

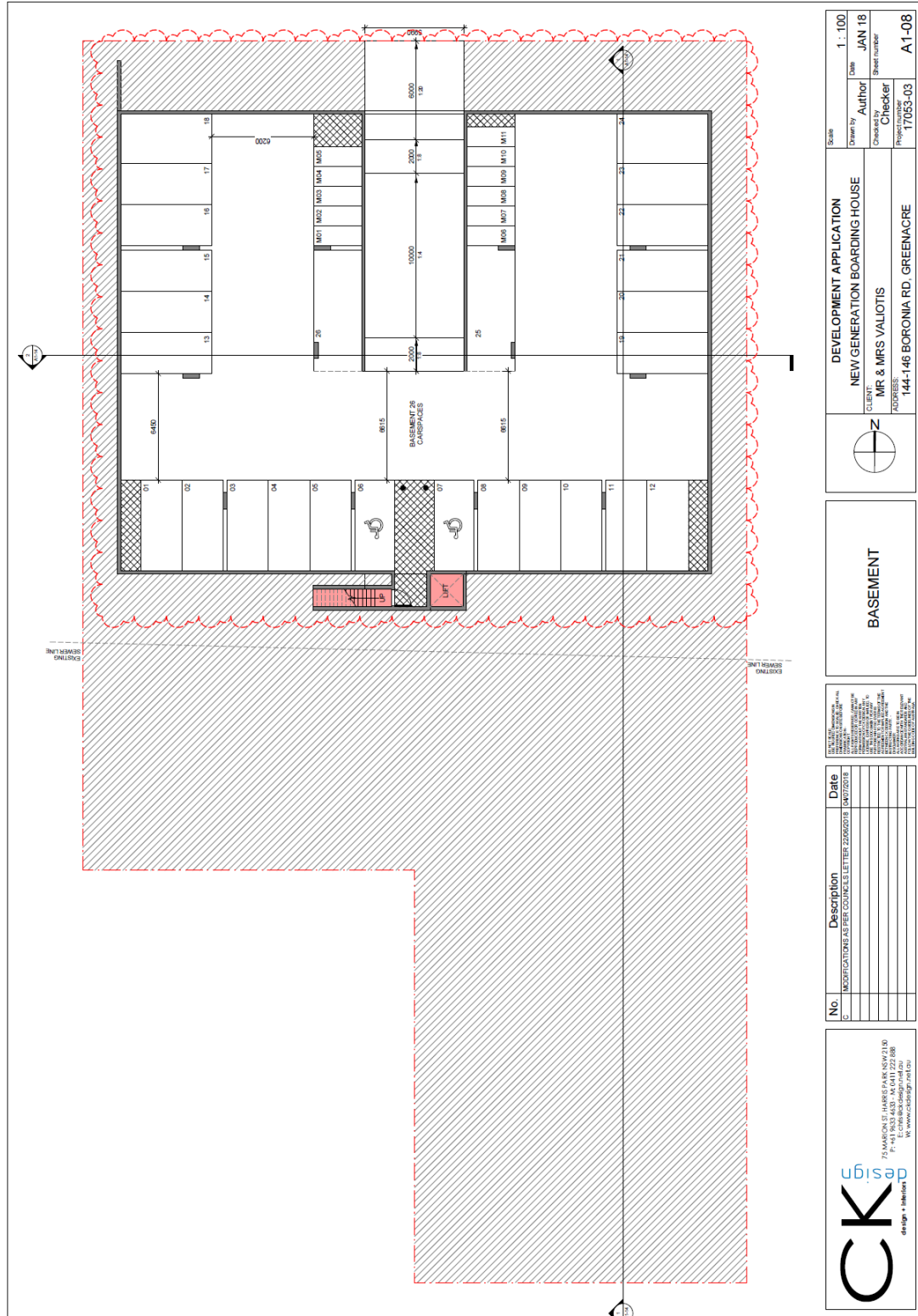
It can be concluded from the traffic and parking impact assessment that the proposed new generation boarding house development at 144-146 Boronia Road, Greenacre is adequate and will have no major impacts on existing traffic or parking conditions.

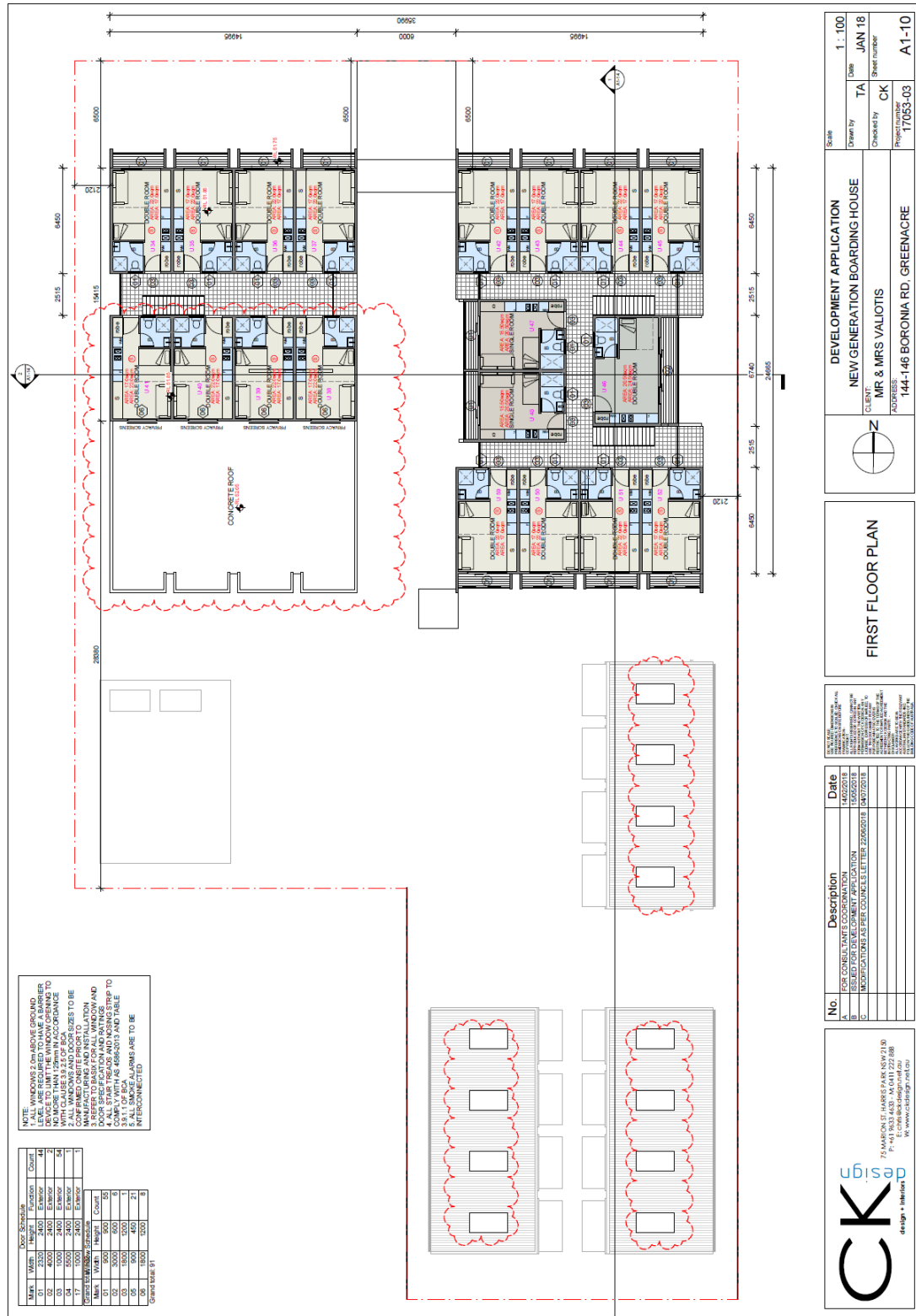
- The current traffic flows on Boronia Road are considered to be appropriate for a classified state road in a mainly residential area, with free-flowing traffic without any major queuing or delay in peak traffic periods, with spare capacity.
- The external impact of the traffic generated by the proposal is considered to be satisfactory and will not result in an unacceptable peak hour traffic generation.
- The potential increase in the number of vehicle movements in and about Boronia Road and surrounding road network will remain well within the Environmental capacity of these streets, with no adverse impacts on the amenity of the area.
- The proposed development satisfies the objectives of Clause 101 of SEPP (Infrastructure) 2007. The proposed development provides a wide two-way access driveway where vehicles enter and exit the site in a forward direction from Boronia Road (i.e. the only road frontage to the subject site) and the estimated traffic generation will have no major impact on traffic flow efficiency, safety or ongoing operation on Boronia Road.
- The level of on-site car, motorbike and bicycle parking provision is considered to be adequate for the proposed development and in compliance with the ARHSEPP parking requirements, in addition to available public transport services and on-street car parking opportunities in the vicinity of the subject site.
- The on-site car parking layout and circulation is considered to be adequate in accordance with AS2890.1:2004 and AS2890.6:2009, where vehicles enter and exit the site in a forward direction.
- The proposed development will have no major impact on parking.
- The subject site has great access to existing public transport services in the form of regular train and bus services.

Appendix A – Proposed Development Plans

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Appendix B – Vehicular Swept Paths

