

Proposed Boarding House Development

**3 Edward Street,
Kingswood**

TRAFFIC AND PARKING ASSESSMENT REPORT

6 August 2020

Ref 20302

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1. INTRODUCTION

This report has been prepared to accompany a development application to Penrith City Council for a boarding house development proposal to be located at 3 Edward Street, Kingswood (Figures 1 and 2), which upon approval, will be developed on behalf of a social housing provider.

The proposed development involves the demolition of the existing dwelling house on the site to facilitate the construction of a new boarding house development, comprising 14 rooms plus communal facilities.

Off-street parking is to be provided for 3 cars, 3 motorcycles and 3 bicycles in a new open, at-grade car parking area at the rear of the site in accordance with *State Environmental Planning Policy (Affordable Rental Housing) 2009* requirements.

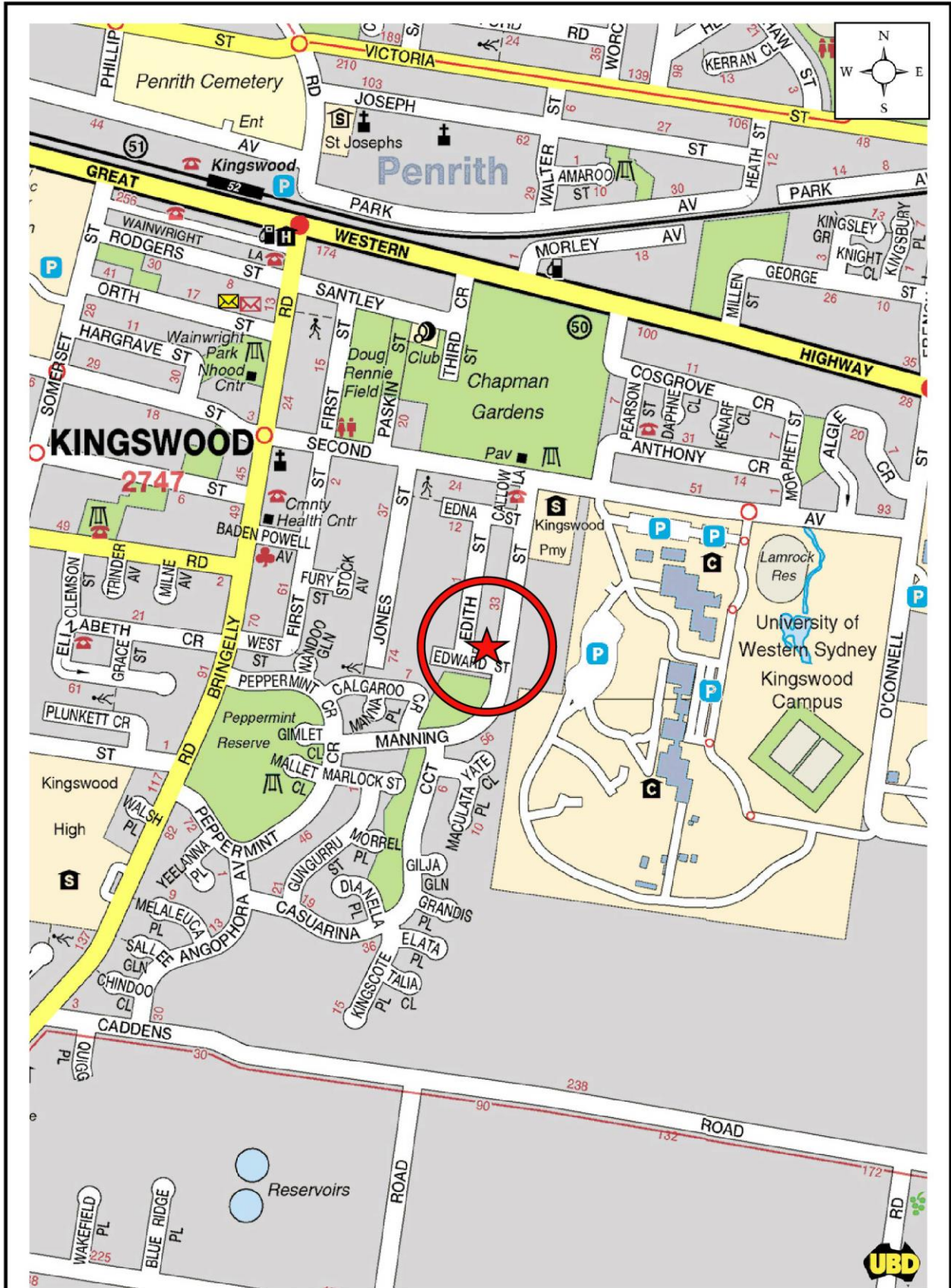
The site is located in close proximity to a range of alternative transport options as well as Nepean Hospital, Western Sydney University's Kingswood Campus and TAFE NSW's Nepean/Kingswood Campus.

In essence, the site is ideally located to discourage private car ownership and usage and to encourage greater use of alternate forms of transport such as walking, cycling or public transport. Given the site's proximity to the hospital and tertiary establishments, the site is considered to be located in a prime location for an affordable housing development, given many key workers and students typically have a very low car ownership rate.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site
- reviews the public transport services in the vicinity of the site

- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed parking facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street parking provided on the site.



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LOCATION
FIGURE 1



2. PROPOSED DEVELOPMENT

Site

The subject site is located on the northern side of Edward Street, midway between Manning Street and Edith Street. The site has a street frontage of approximately 23 metres in length to Edward Street and occupies an area of approximately 632m².

It is noted that much of the surrounding area is zoned *R3 Medium Density Residential* where multi-dwelling housing is appropriate and encouraged.

The subject site is currently occupied by a single-storey residential dwelling house with an associated hardstand parking area accessed directly off Edward Street.

A recent aerial image of the site and its surroundings is reproduced below.



Courtesy of Nearmap Imagery 2020

Proposed Development

The proposed development involves the demolition of existing structures on the site to facilitate the construction of a new boarding house development.

A total of 14 boarding rooms plus communal facilities are proposed in the new building.

Off-street parking is proposed for a total of 3 cars (including 1 accessible space), 3 motorcycles, and 3 bicycles in an open, at-grade car parking area at the rear of the site.

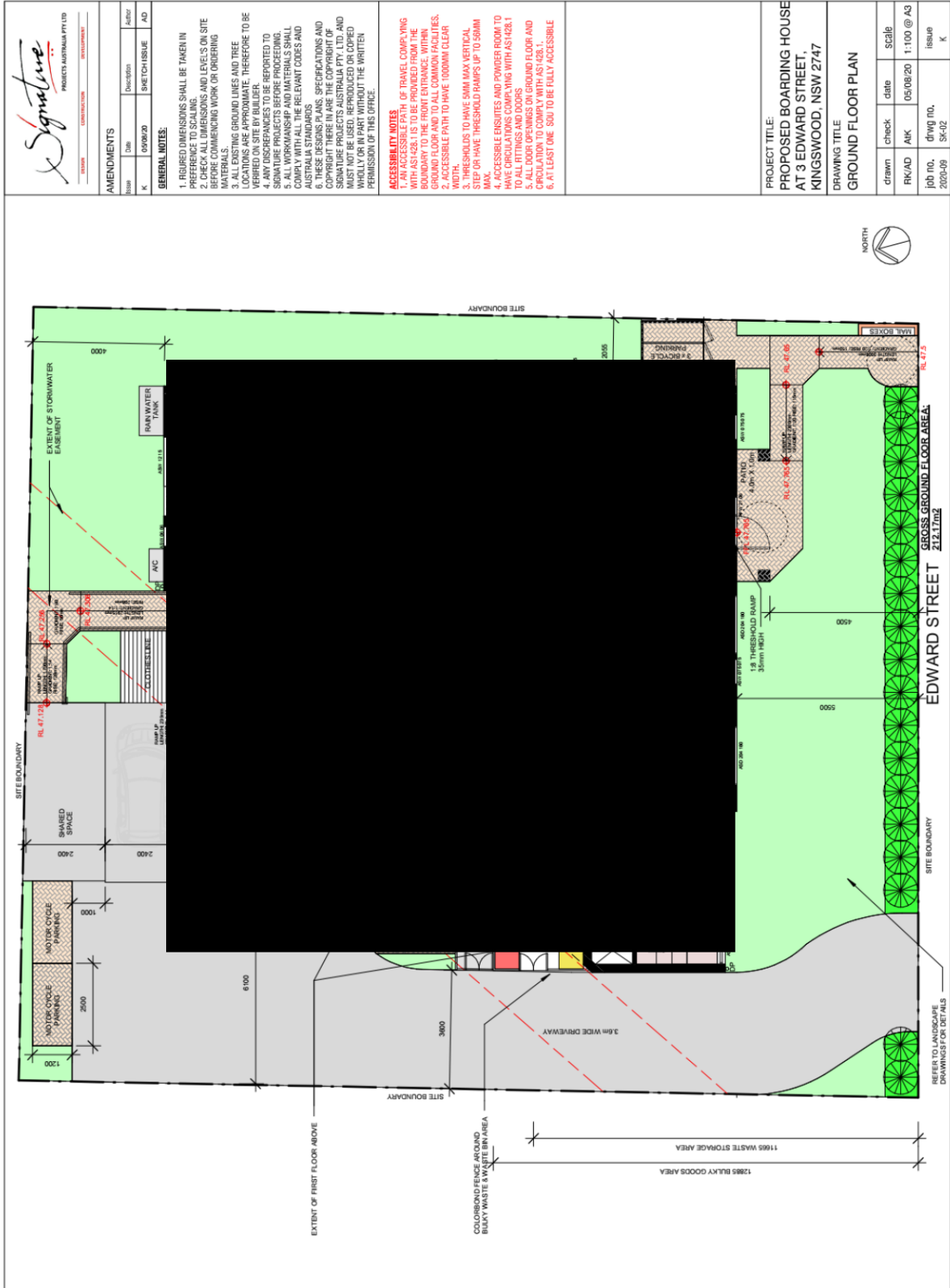
Vehicular access to the parking facilities is to be provided via a new entry / exit driveway located at the western end of the Edward Street site frontage.

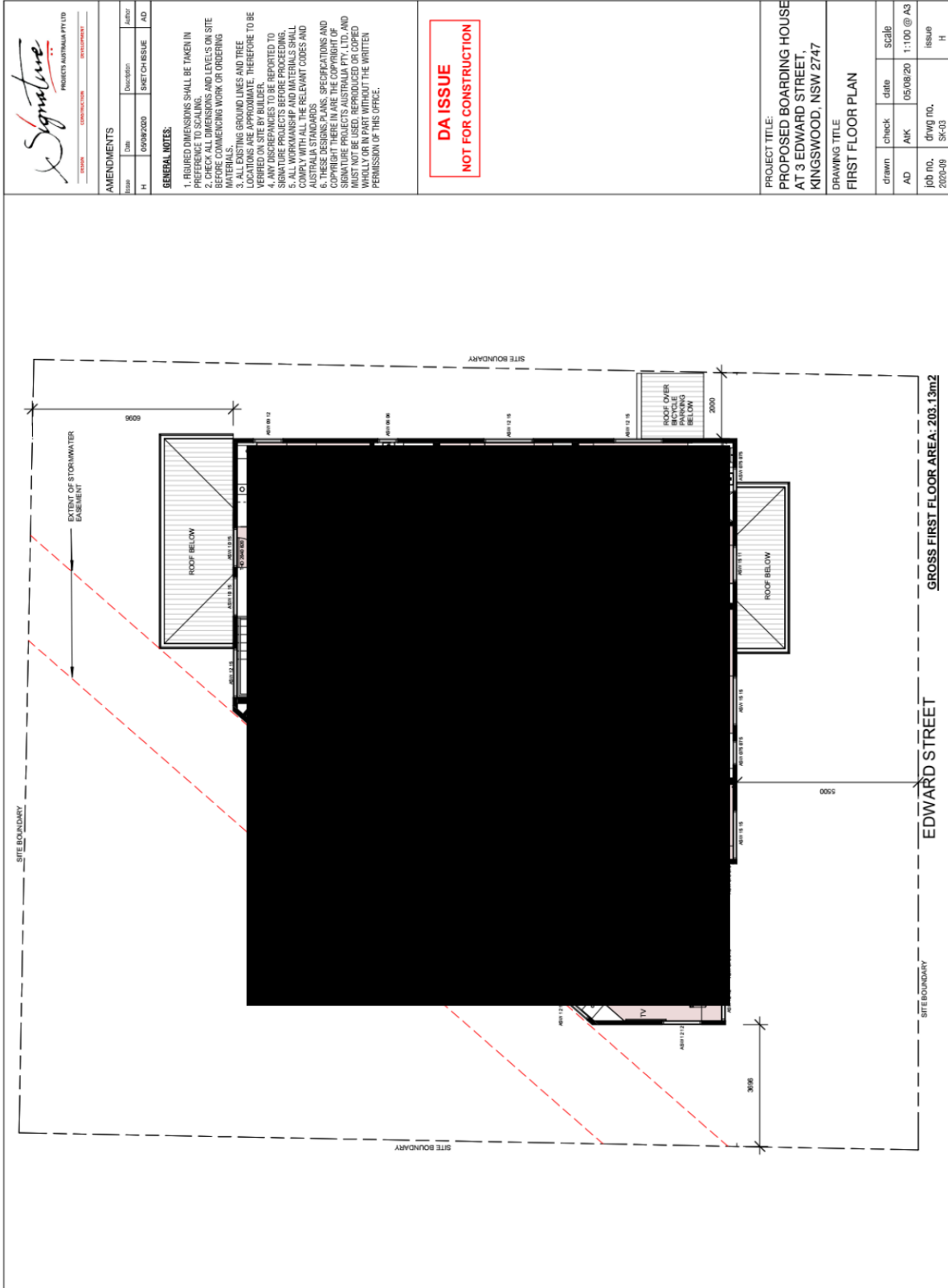
Garbage collection is expected to be undertaken by Council's waste contractor, with bins to be lined up along the kerbside area directly outside the site on "bin night" for collection the following day.

Other than waste collection, the servicing needs of the proposed boarding house is expected to be minimal and likely to comprise fast food deliveries by scooter or bicycle and the occasional visit by a maintenance contractor in a utility.

It is pertinent to note that the proposed boarding house will be fully furnished such that other than the initial fitout of the premises, there will not be removalist trucks or vans.

Plans of the proposed development have been prepared by *Signature Projects Australia Pty Ltd* and are reproduced in the following pages.





Issue	Date	Description	Author
1	09/08/2020	SKETCH ISSUE	AD

GENERAL NOTES:

1. REQUIRED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALING AND LEVELS ON SITE TO BE USED FOR COMMENCING WORK OR ORDERING MATERIALS.
2. ALL EXISTING GROUND LINES AND TREE LOCATIONS ARE APPROXIMATE. THEREFORE TO BE VERIFIED ON SITE BY BUILDER.
3. ALL EXISTING GROUND LINES AND TREE LOCATIONS ARE APPROXIMATE. THEREFORE TO BE VERIFIED ON SITE BY BUILDER.
4. ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH ALL THE RELEVANT CODES AND AUSTRALIA STANDARDS.
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**DA ISSUE
NOT FOR CONSTRUCTION**

PROJECT TITLE: PROPOSED BOARDING HOUSE AT 3 EDWARD STREET, KINGSWOOD, NSW 2747			
DRAWING TITLE: FIRST FLOOR PLAN			
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3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

The Great Western Highway is classified by the RMS as a *State Road* and provides the key east-west road link in the area, linking Sydney with Bathurst. It typically carries three traffic lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a central median island.

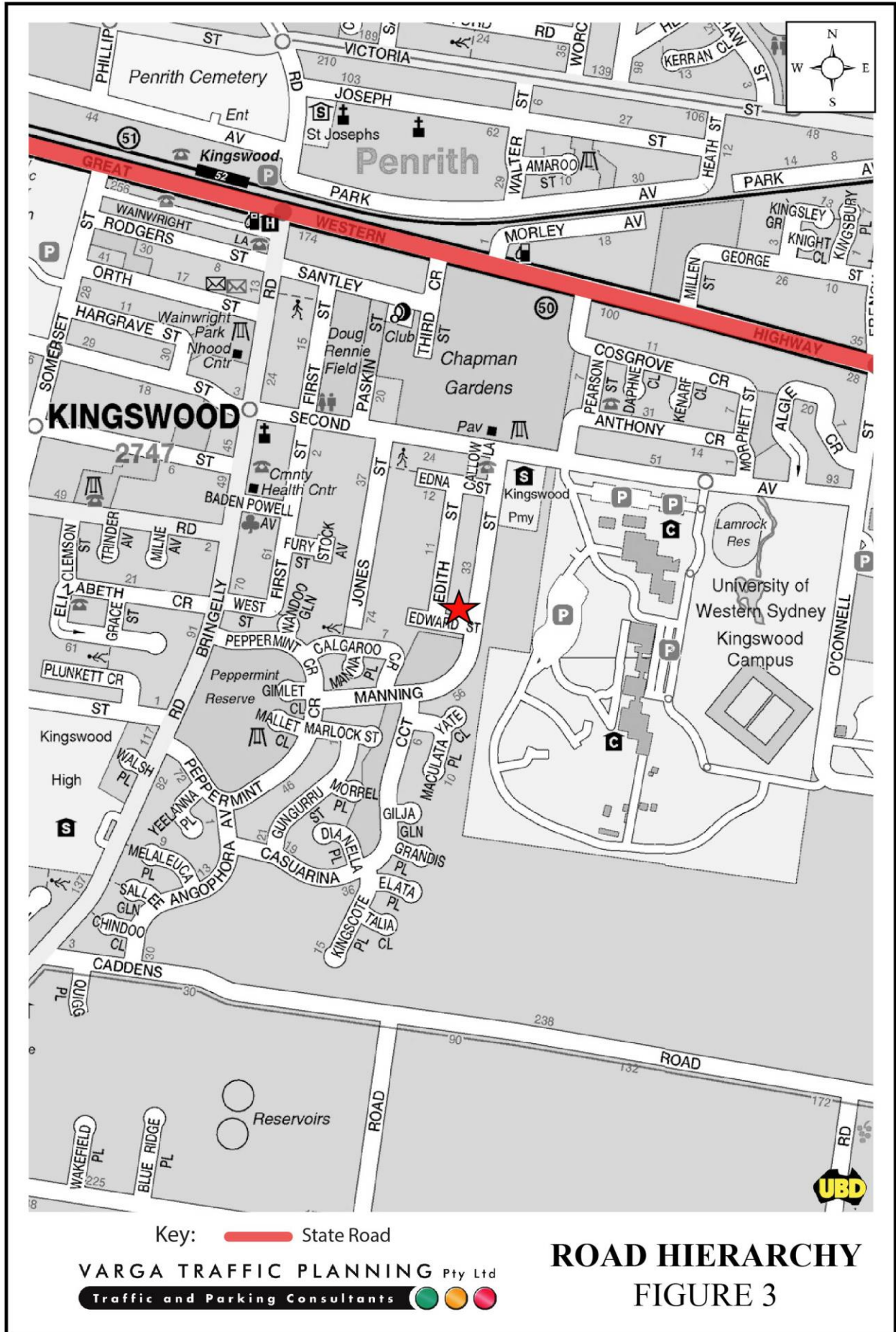
Bringelly Road is a local, unclassified road that performs the function of a north-south *collector route* through the local area, linking the Great Western Highway and Parker Street. It typically carries one traffic lane in each direction, with kerbside parking generally permitted.

Edward Street is a local, unclassified road that is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 50 km/h SPEED LIMIT which applies to Second Avenue, Manning Avenue, Edward Street and all other local roads in the area
- GIVE WAY restrictions in Edward Street where it intersects with Manning Street
- GIVE WAY restrictions in Manning Street where it intersects with Second Avenue

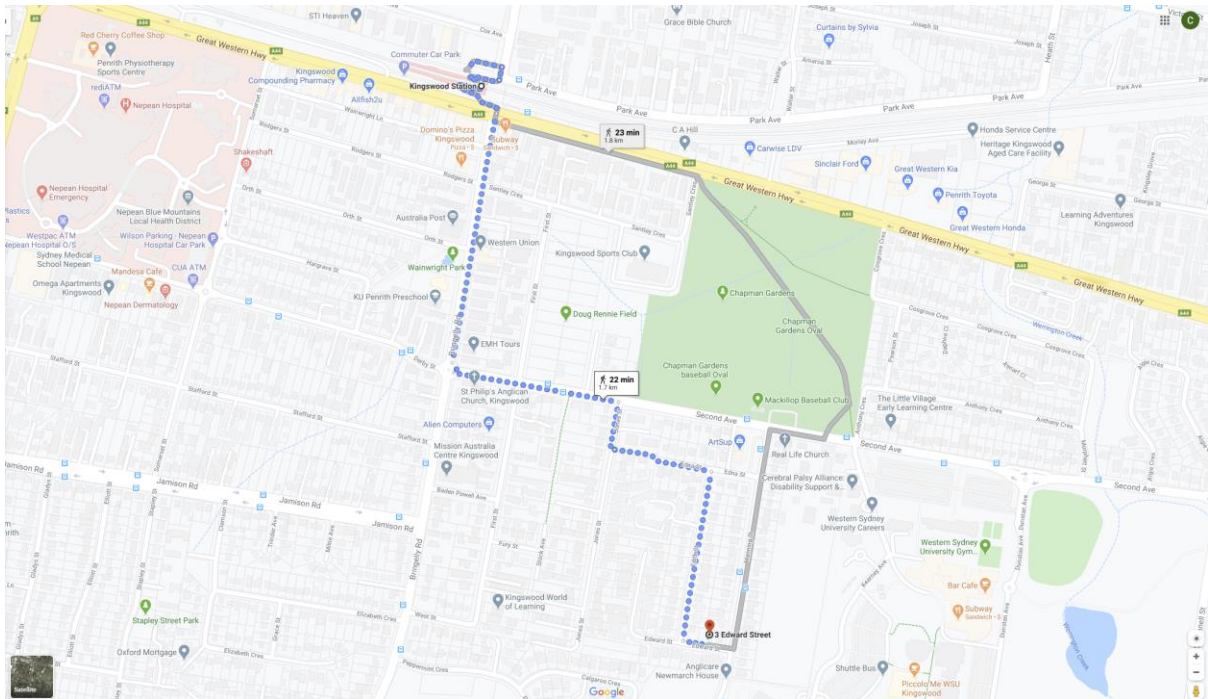




Existing Public Transport Services

The existing public transport services available in the vicinity of the site are illustrated on Figure 5.

The site is located approximately 1.5km walking distance to the Kingswood Station entrance. The walking route to/from the site to the station is depicted below.

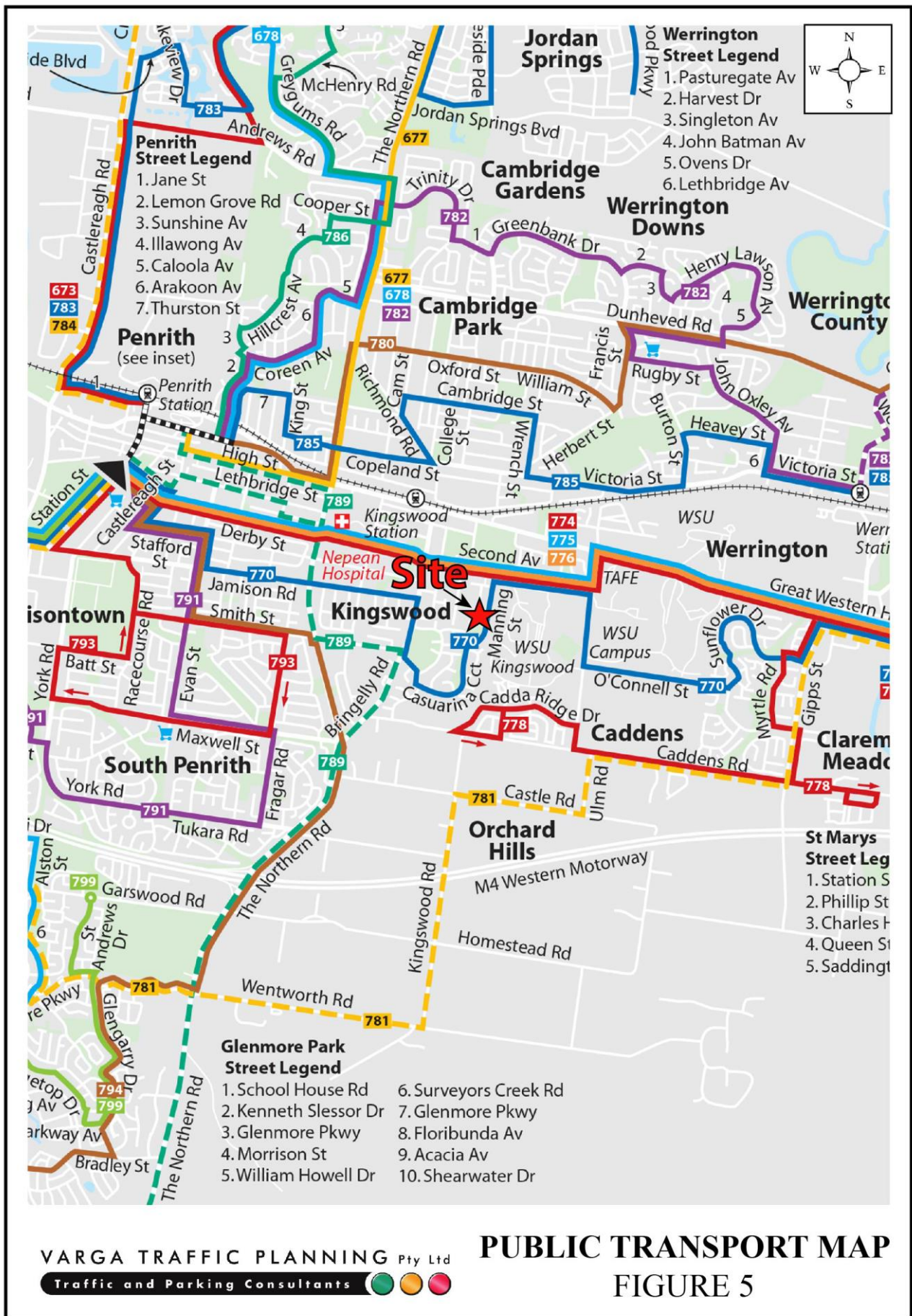


Source: Google Maps Australia

Kingswood Station lies on the T1 Western Line operating between Emu Plains to City. Train services typically arrive / depart the station at 5-minute intervals during commuter peak periods and 15-minute intervals throughout the day.

The site is also located within a short 160m walking distance to bi-directional bus stops on Manning Street, providing access to bus route 770. Two additional bus services operate along Second Avenue, the 775 & 776 services, with bi-directional bus stops located approximately 500m walking distance from the site.

The abovementioned bus services also provide access with connecting train services at Penrith, St Marys and Mt Druitt railway stations.



In particular, the nearby 770 bus stop located on Manning Street, operating between Penrith and Mt Druitt via St Marys, provides at least one bus per hour between 6:00am and 9:00pm Monday to Friday and between 8:00am and 6:00pm Saturday and Sunday.

On the above basis, the site satisfies the *accessible area* criteria specified in *State Environmental Planning Policy (Affordable Rental Housing) 2009* document and is subject to a reduced on-site car parking provision given that the property will be developed on behalf of a *social housing provider*.

Projected Traffic Generation

The traffic implications of development proposals primarily concern the effects of the *additional* traffic flows generated as a result of a development and its impact on the operational performance of the adjacent road network during the morning and afternoon commuter peak periods.

An indication of the traffic generation potential of development proposals is usually provided by reference to the Roads and Maritime Services' publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the RMS *Technical Direction (TDT 2013/04a)* document.

However, neither the RMS *Guidelines* nor the *Technical Direction* nominate a traffic generation rate for boarding house developments.

An empirical traffic assessment has therefore been undertaken by conservatively assuming each of the parking spaces associated with the proposed boarding house development is accessed once during a two-hour period in both the morning and afternoon peak periods, corresponding to a traffic generation rate of:

Empirical Boarding House Traffic Generation Rate

0.5 peak hour vehicle trips *per car space*

Accordingly, the proposed provision of 3 car spaces could potentially generate up to 1.5 vehicle trips per hour (vph) during both the AM and PM peak hour.

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the existing uses of the site, in order to determine the *nett increase* in traffic generation potential of the site.

Application of the traffic generation rates for “low density residential dwellings” nominated in the RMS *Technical Direction* to the existing residential dwelling house on the site yields a traffic generation potential of approximately 1 vph during both the AM and PM peak hour.

Accordingly, it is likely that the proposed development will result in a *nett increase* in the traffic generation potential of the site of approximately 0.5 vph during both the AM and PM peak hour, as set out below:

**Projected Nett Increase in Peak Hour Traffic Generation Potential
of the Site as a Consequence of the Development Proposal**

Projected Future Traffic Generation Potential:	1.5 vph
Less Existing Traffic Generation Potential:	-1.0 vph
NETT INCREASE IN TRAFFIC GENERATION POTENTIAL:	0.5 vph

That projected increase in traffic activity as a consequence of the development proposal is *statistically insignificant*, is consistent with the land zoning objectives of the site and will clearly not have any unacceptable traffic implications in terms of road network capacity.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

At present, there are generally no kerbside parking restrictions that apply in the immediate vicinity of the site, including both sides of Edward Street and along the site frontage.

Off-Street Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in the *State Environmental Planning Policy (Affordable Rental Housing) 2009* document in the following terms:

Division 3 Boarding Houses

29 Standards that cannot be used to refuse development consent for boarding houses

- (2) A consent authority must not refuse consent to development to which this Division applies on any of the following grounds:
 - (e) **Parking:** if at least the following is provided:
 - (i) in the case of development carried out by or on behalf of a social housing provider in an accessible area – at least 0.2 parking spaces are provided for each boarding room, and
 - (ii) in the case of development carried out by or on behalf of a social housing provider not in an accessible area – at least 0.4 parking spaces are provided for each boarding room, and
 - (iia) in the case of development not carried out or on behalf of a social housing provider – at least 0.5 parking spaces are provided for each boarding room, and
 - (iii) in the case of any development – not more than 1 parking space is provided for each person employed in connection with the development and who is resident on site
- (4) A consent authority may consent to development to which this Division applies whether or not the development complies with the standards set out in subclause (1) or (2).

30 Standards for boarding houses

- (1) A consent authority must not consent to development to which this Division applies unless it is satisfied of each of the following:
- (h) at least one parking space will be provided for a bicycle, and one will be provided for a motorcycle, for every 5 boarding rooms.

This development will be carried out on behalf of a *social housing provider* and therefore application of the parking rate specified in Clause 29(e)(i) and Clause 30(1)(h) to the proposed 14 boarding rooms outlined in the development proposal yields an off-street parking requirement of 2.8 car spaces, 2.8 motorcycle spaces, and 2.8 bicycle spaces.

The proposed development makes provision for a total of 3 car spaces (including 1 accessible spaces), 3 motorcycle spaces and 3 bicycle spaces, thereby satisfying *SEPP (Affordable Rental Housing) 2009* parking requirements.

The geometric design layout of the proposed parking facilities has been designed to generally comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1 - 2004* and *Parking Facilities Part 6 - Off-Street Parking for People with Disabilities AS2890.6 – 2009* in respect of parking bay dimensions, aisle / driveway widths, overhead clearances and pedestrian sight triangles.

Despite the proposed 2.4m wide car parking spaces complying with *AS2890.1:2004* requirements for a Class 1A development, Council's *DCP* requires the car parking spaces to be 2.6m wide. This requirement is considered onerous, particularly for such a small development, and therefore the 2.4m wide parking spaces are considered acceptable and *compliant* with the overriding document, *AS2890.1:2004*.

With respect to the proposed driveway design, specific reference is made to *AS2890.1:2004 Clause 3.2.2*, which states that as a guide, *30 or more movements in a peak hour (in and out combined) would usually require the provision for two vehicles to pass on the driveway – i.e. a minimum width of 5.5m. On long driveways, passing opportunities should be provided at least every 30m.*

As mentioned in the foregoing, the proposed amended development scheme is expected to generate just 1.5 peak hour vehicle trips (*less* at other times), which is *significantly less* than the 30 vehicles per hour threshold for two-lane driveways. As such, the likelihood of two cars entering and exiting the site at the same moment in time is *statistically insignificant*.

Reference is also made to *AS2890.1:2004 Table 3.1 & Table 3.2* which requires parking areas with *less than 25* spaces on a local road to have a driveway width of between 3m-5.5m. Furthermore, the internal driveway is approximately 18m long between the front boundary and the rear car park, which is *less than* the 30m length threshold requiring passing bays.

The proposed driveway at 3.6m wide and approximately 18m long is therefore considered acceptable and *compliant* with *AS2890.1:2004*.

Notwithstanding, it is recommended that suitable signage is installed to the outside face of the bulky waste storage area advising drivers to “Give Way to Entering Vehicles”.

The vehicular access arrangements have been designed to accommodate the swept turning path requirements of the B85 design vehicle as specified in *AS2890.1:2004*, allowing them to access each of the car parking spaces and to enter and exit the site in a forward direction at all times.

It is recommended that signage be installed at the entrance to the site at the front boundary advising that there is “No Visitor Parking” provided on site.

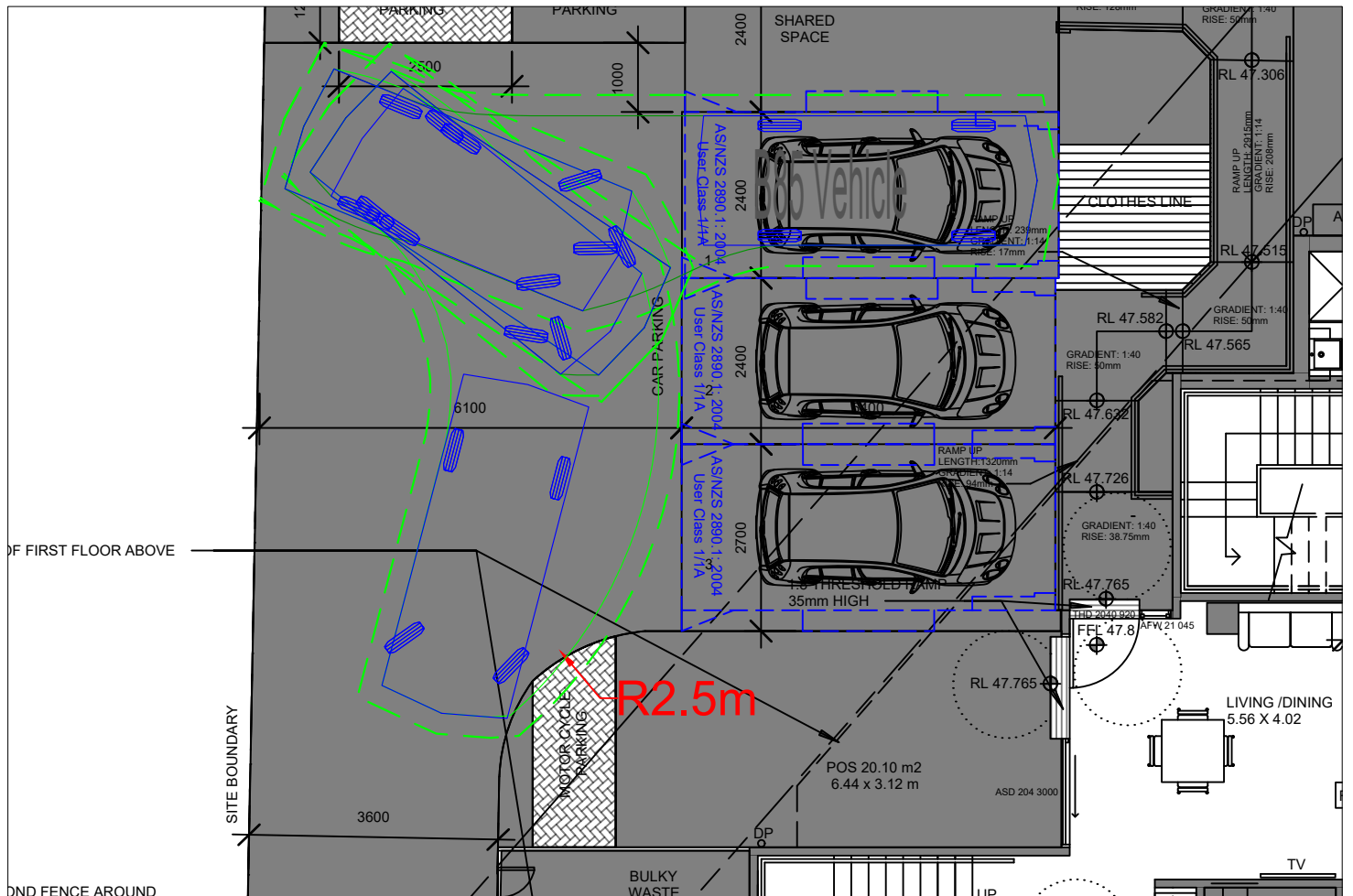
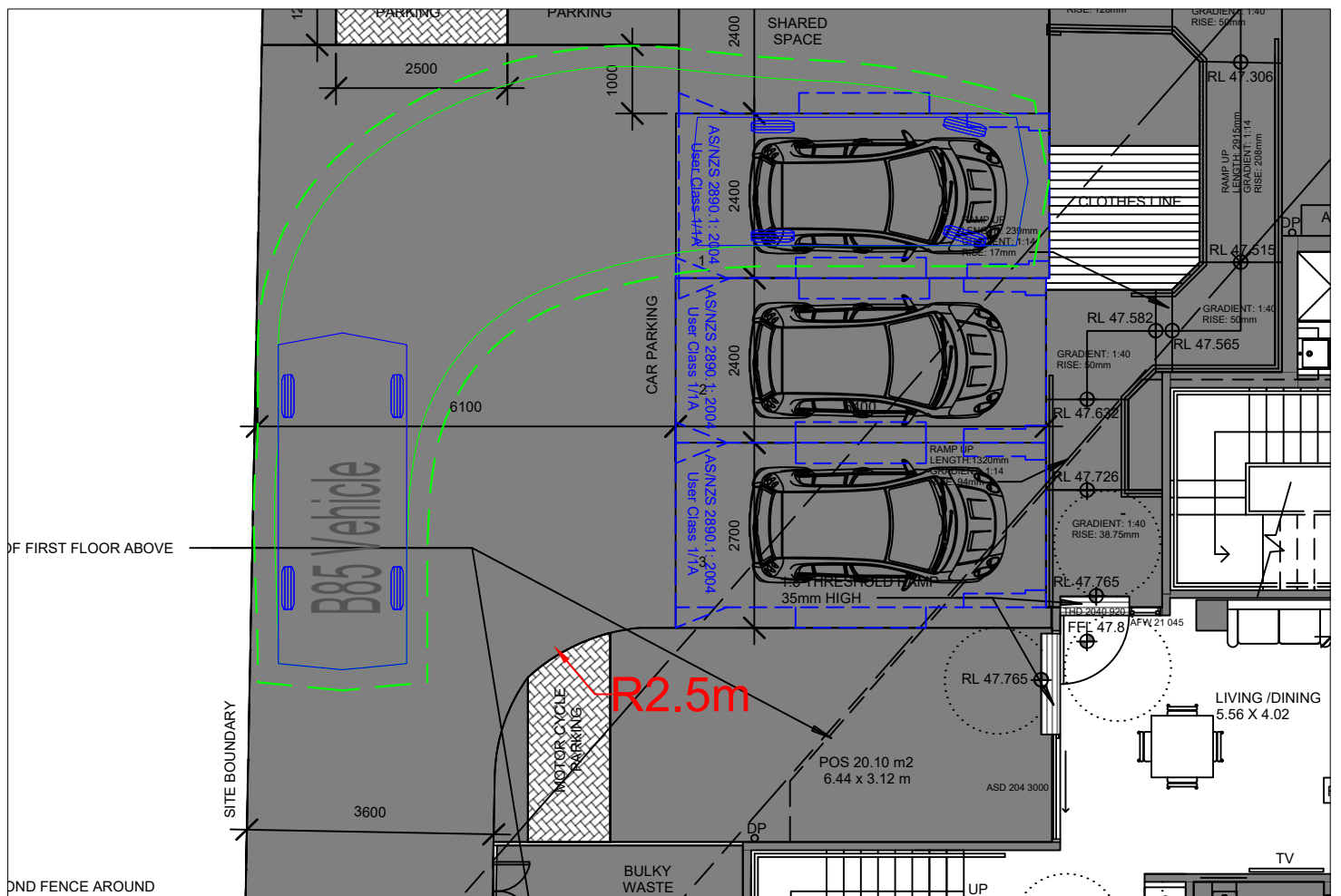
Driver Sight Distance/Visibility

The driver sight distance/visibility requirements applicable to the proposed vehicular access driveway have been designed to comply with *Figure 3.2 – Sight Distance requirements at Access Driveways* and also *Figure 3.3 – Minimum Sight Lines for Pedestrian Safety* in *AS2890.1:2004*.

In this regard, a 2.5m x 2.0m visibility splay is provided on *both* sides of the site access driveway at the front boundary, and the straight/flat alignment of Edward Street provides good visibility for drivers in both directions.

Conclusion

In summary, the proposed parking facilities satisfy the relevant requirements specified in the *SEPP (Affordable Rental Housing) 2009* document as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking or access implications.



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PROJECT
 RESIDENTIAL DEVELOPMENT

DRAWING TITLE
Space3_B85_Entry&Exit

ADDRESS
 3 Edward Street
 Kingswood

PROJECT NO.
 20302

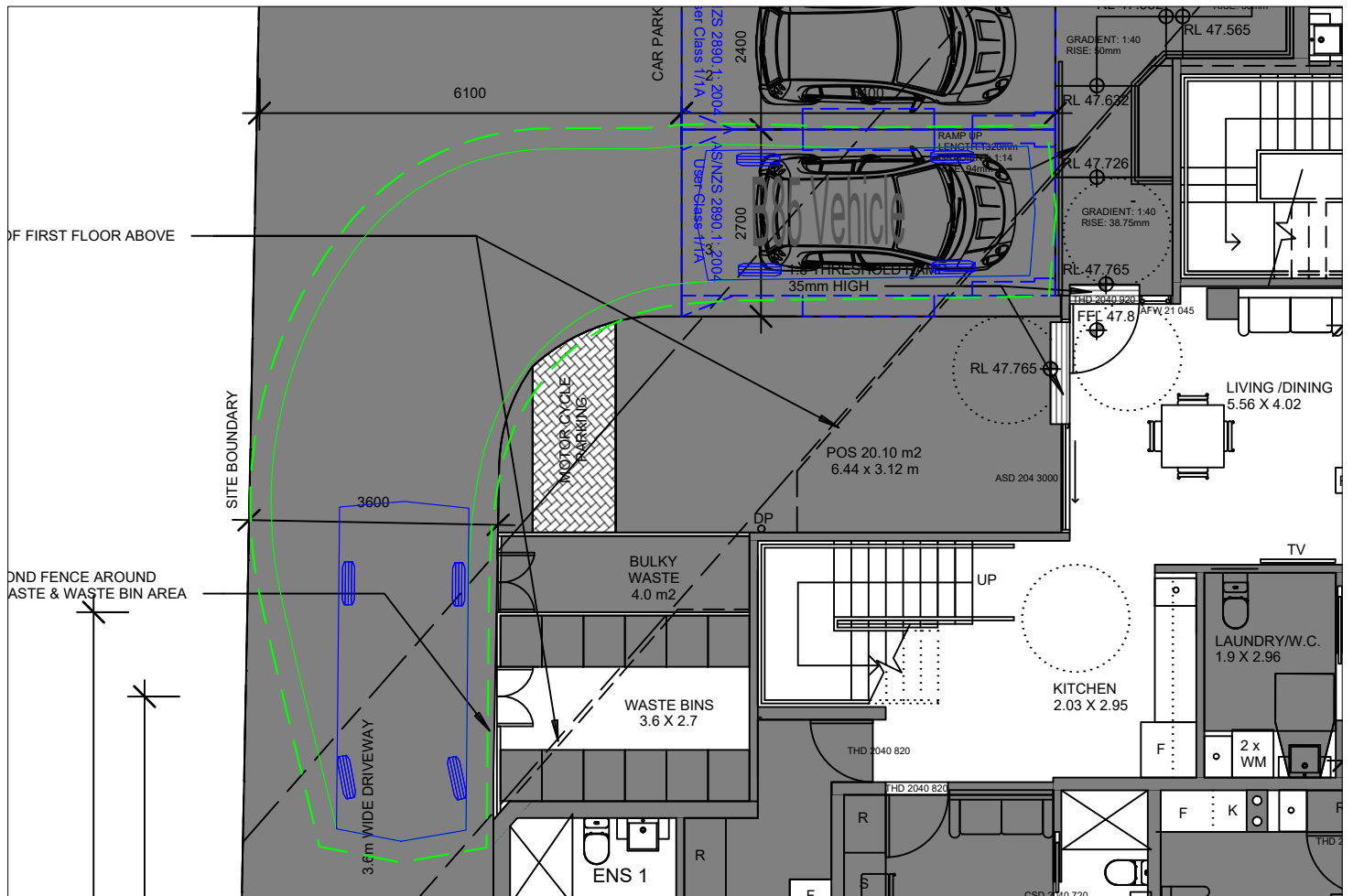
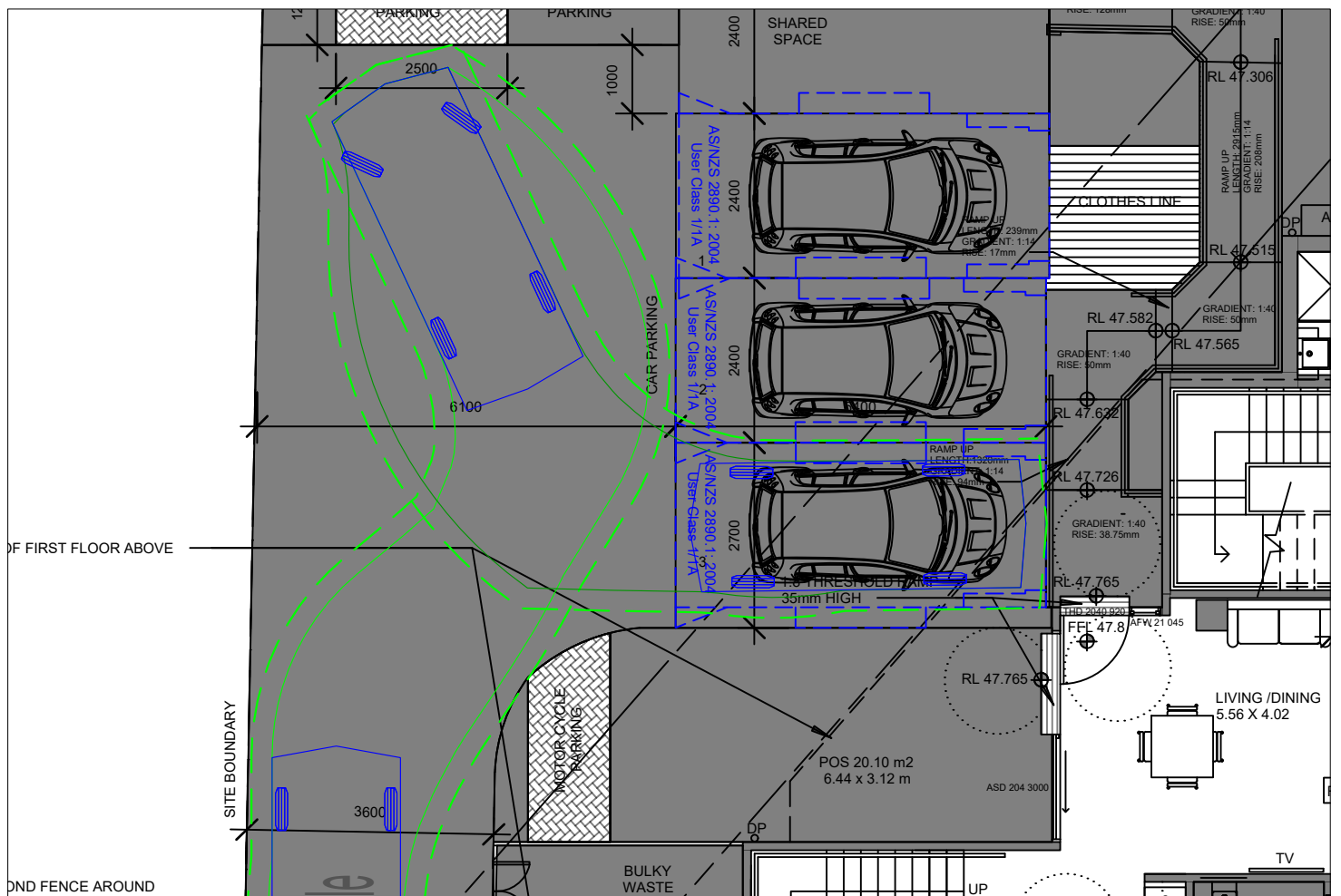
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DRAWING TITLE
 Space1_B85_Entry&Exit

PROJECT
 RESIDENTIAL DEVELOPMENT

ADDRESS
 3 Edward Street
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PROJECT NO.
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