Hemanote Consultants

6 EDNA STREET, KINGSWOOD

PROPOSED NEW AGE BOARDING HOUSE

TRAFFIC & PARKING IMPACT ASSESSMENT

OCTOBER 2020

HEMANOTE CONSULTANTS PTY LTD
TRAFFIC ENGINEERING & DESIGN CONSULTANTS



TRAFFIC & PARKING IMPACT ASSESSMENT 6 EDNA STREET, KINGSWOOD PROPOSED BOARDING HOUSE

DATE: 22 OCTOBER 2020

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Traffic & Parking Assessment – 6 Edna Street, Kingswood

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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 age boarding house development at 6 Edna Street, Kingswood, for twelve (12) self-contained boarding rooms over basement parking.

This report is to be read in conjunction with the architectural plans prepared by Designcorp Architects (reduced copy of the plans is attached in Appendix A of this report) and submitted to Penrith City 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 site is located on the southern side of Edna Street at property No. 6 (legally known as Lot 53 of DP241989), at its corner with Edith Street within the suburb of Kingswood. The site has a primary frontage of approximately 20.2 metres to Edna Street from the north and a secondary frontage of approximately 23.3 metres to Edith Street from the west. Refer to Figure 1 for a site locality map.

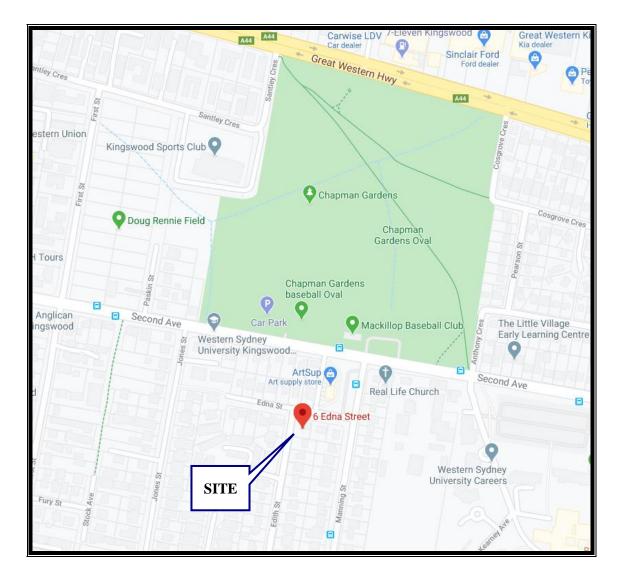


Figure 1: Site Locality Map

Existing Site & Surrounding Land Use

The subject site has an area of 632.3m² and is currently occupied by a single residential dwelling. It is located in a mainly residential area, characterised by single dwellings, and is in close proximity to some retail and commercial sites and Kingswood Public School. The site is also located 1.4 kilometres from Kingswood Railway Station.



Photo 1: The frontage of the subject site to Edna Street



Photo 2: The frontage of the subject site to Edith Street

3 EXISTING TRAFFIC CONDITIONS

3.1 Road Network and Classification

Edna Street is a local road that runs in an east to west direction, between Manning Street (local road) to the east and its Cul-de-sac to the west. It intersects with a number of local roads in the vicinity of the subject site including Edith Street (local road) and Callow Lane (local road).

3.2 Road Description and Traffic Control

Edna Street has a two-way undivided carriageway with a width between kerbs of approximately 9 metres. This carriageway generally provides one travel lane per direction, plus a kerbside parking lane on both sides of the road. At present, unrestricted parking is permitted on both sides of Edna Street including the frontage of the subject site.

The legal speed limit on Edna Street is at 50km/h. Edna Street intersects with Edith Street and Callow Lane near the subject site, where both intersections are controlled by a T-priority, giving priority to traffic travelling along Edna Street.

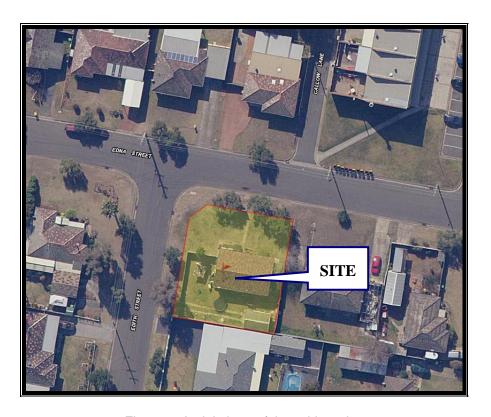


Figure 2: Aerial photo of the subject site



Photo 3: Edna Street near the subject site - facing east



Photo 4: Edna Street near the subject site - facing west

Edith Street has a two-way undivided carriageway, with a width between kerbs of approximately 9 metres. This carriageway generally provides one travel lane per direction, plus a parallel kerbside parking lane on both sides of the road. At present, unrestricted parking is permitted on both sides of Edith Street including the frontage of the subject site. The legal speed limit on Edith Street is at 50km/hr.



Photo 5: Edith Street near the subject site - facing north



Photo 6: Edith Street near the subject site - facing south

The current traffic flows on Edna and Edith Streets are considered to be low and appropriate for local roads in a mainly residential area, where traffic is free flowing without any major queuing or delays in peak hours, with spare capacity.

3.3 Public Transportation Services

The subject site has good access to existing public transport services in the form of trains and buses.

Train Services

The site is located approximately 1.4 kilometres from Kingswood Railway Station (17 minutes waking distance).

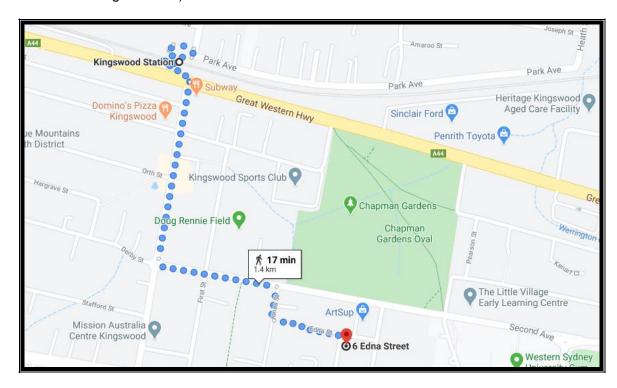


Figure 3: Kingswood Railway Station located 1.4 kilometres from the subject site (Source: Google Maps)

Bus Services

Regular bus services operate along Manning Street, Jamison Road and Angophora Avenue in close proximity to the subject site (i.e. bus route 770 Mount Druitt to Penrith via St Marys), with nearby bus stops.

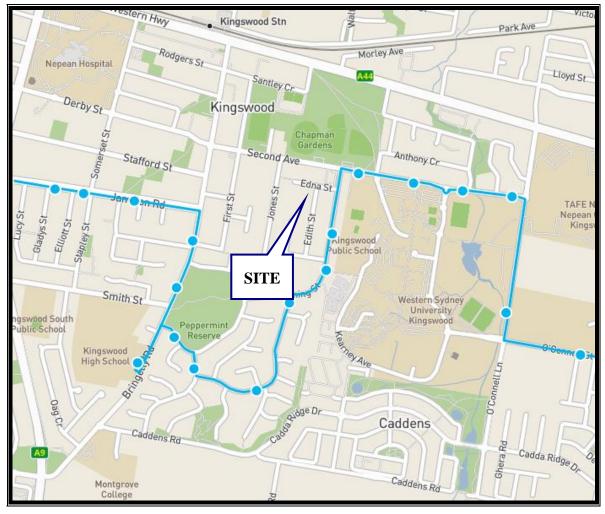


Figure 4: Bus services near the subject site (Bus no. 770) - Source: Transportnsw

4 PROPOSED DEVELOPMENT

4.1 Description of the proposal

The proposed development is for the demolition of the existing residential dwelling located at 6 Edna Street, Kingswood and the construction of a new age boarding house with on-site parking in basement level.

The proposed development will include the following:

 A new age boarding house containing twelve (12) self-contained boarding rooms, with 11 rooms allocated for the use of residents (including 2 adaptable rooms) and 1 room allocated for the boarding house manager.

A total of six (6) on-site car parking spaces allocated for residents (including 1 accessible car space with an adjacent shared area), in addition to 3 motorcycle spaces and 3 bicycle storage spaces, in basement level.

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

4.2 Vehicular & Pedestrian Access

The vehicular access to and from the off-street basement car parking level will be via a new access driveway in Edith Street near the south-western corner of the site. The access driveway is 5.5 metres in width, which is adequate for a low volume Category 1 access driveway in accordance with AS2890.1:2004 – Table 3.2. The access driveway is to provide two-way vehicular movements, where two vehicles can pass each other at the same time without causing delays or congestion to traffic on the street. The proposed access driveway is located more than 6 metres from the tangent point of the adjacent kerbline, in accordance with Figure 3.1 of AS2890.1:2004.

The clear sight line triangle (2.5m x 2m) between the driver's eye view and pedestrians is provided on the exit side of the driveway, as per Figure 3.3 of AS2890.1:2004.

The existing vehicular crossing located at the site fronting Edith Street is to be made redundant and replaced with new kerb, gutter and footpath, to be constructed to Council specifications.

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Vehicular access is to be located and constructed in accordance with the

requirements of AS2890.1:2004, where vehicles enter and exit the site in a forward

direction at all times.

A separate pedestrian access gate is also provided at the front of the site in Edna and

Edith Streets, to segregate pedestrians and vehicles and improve safety within the

site.

4.3 On-site Parking Provision

The State Environmental Planning Policy (Affordable Rental Housing) ARHSEPP

2009 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 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 motorcycles and bicycles to

be provided at a rate of 1 per 5 rooms.

Therefore, according to the SEPP, the proposed boarding house for 12 rooms is to

provide 6 car parking spaces, 3 motorcycle spaces and 3 bicycle spaces.

The proposed development provides for a total of six (6) on-site car parking spaces

allocated for residents (including 1 accessible car space with an adjacent shared

area), in addition to 3 motorcycle spaces and 3 bicycle storage spaces, in basement

level.

Therefore, the off-street parking provided is considered to be adequate for the

proposed development and in compliance with the ARHSEPP requirements.

It should also be noted that the subject site is well served by public transport services

in the form of regular bus routes.

Waste Collection

All waste storage is to take place within the dedicated garbage storage area located

on ground level. Waste Bins will be transported by the building manager to the street

for collection on waste collection day.

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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 and pedestrian access, where vehicles enter and exit

the site in a forward direction safely, through the provision of adequate internal aisle

width and turning space.

AS2890.1:2004 Parking facilities Part 1: Off-street car parking requires a minimum

parking space width of 2.4 meters (for all day residential parking) and a minimum

length of 5.4 meters. The off-street car parking spaces have a width of 2.4 metres and

a length of 5.4 meters each, which is adequate.

The accessible car parking space has 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.

An extension at the blind aisle has been provided beyond the last parking space in

accordance with Clause 2.4.2 (c) of AS2890.1:2004.

Car parking spaces adjacent to walls or 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.

Clause 2.4.2 of AS2890.1:2004 requires a minimum aisle width of 6.1 metres for two-

way, one-sided parking aisles, adjacent to 90° angle parking. The proposed aisle

within the basement level has a width of 6.1 metres, which is adequate for two-way

traffic and manoeuvring into and out of parking spaces.

The vehicular ramp to the basement level has a clear width of 5.5 metres which

narrows down to 4 metres, in addition to a 300mm kerb on the southern side. It has a

maximum grade of 1:4 (25%) with a change of grade of 1:8 (12.5/%) for 2 metres at

either end of the ramp, which is adequate.

It will provide for two-way traffic (one-way movement at any one time), where a traffic

control signal system (red / green lights) with associated waiting bay and motion

sensors/cameras will be installed at either end of the ramp, to manage two-way traffic

flow of vehicles into and out of the basement level.

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A minimum 2.2 metres headroom clearance is to be generally provided from the car park basement levels to the underside of all services conduits and suspended stormwater pipelines, in accordance with Clause 5.3.1 of AS2890.1:2004. A "maximim headroom clearance 2.2m" sign is to be erected at the entrance to the basement car park area and is to be clearly visible to all drivers. A minimum 2.5 meters headroom clearance is to be provided above the accessible parking spaces and adjacent shared zones in accordance with Clause 2.4 of AS2890.6:2009.

Traffic convex mirrors are to be installed at the bottom of the vehicular ramp and within the basement level (as shown on the basement plan), to provide drivers further assistance with viewing oncoming traffic.

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 vehicle swept paths diagrams attached in Appendix 'B' of this report.

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

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5 ON-STREET PARKING PROVISION

5.1 Existing Parking Controls

The subject site is located in a mainly residential area in close proximity to Kingswood Public School and Kingswood Railway Station, with unrestricted parking permitted on both sides of Edna and Edith Streets including the frontage of the subject site.

5.2 Impacts of Proposed Development on Parking

The parking demand resulting from the proposed boarding house can be accommodated within the proposed adequate and compliant on-site car, bicycle and motorcycle parking spaces. The subject site has good access to existing public transport in the form of train and bus services.

Therefore, the proposed development will not have adverse impacts on parking in the surrounding area.

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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*.

The Guide specifies the following traffic generation rates for medium density residential developments:

- 0.4 0.5 weekday peak hour vehicle trips; and
- 4 5 daily vehicle trips

Therefore, the proposed development with twelve (12) boarding rooms has an estimated traffic generation as follows:

- 5 to 6 morning peak hour vehicle trips (In and Out).
- 48 to 60 daily vehicle trips (In and Out)

The estimated traffic generation from the proposed development is considered to be of low impact on existing flows on Edna Street, Edith Street and surrounding streets. The traffic generated by the proposed boarding house development can be readily accommodated within the existing road network.

The potential increase in the number of vehicle movements in and about Edna Street and adjacent streets is minor and will not have adverse impacts on the amenity of the area.

7 CONCLUSION

It can be concluded from the traffic and parking impact assessment that the proposed

boarding house development at 6 Edna Street, Kingswood will not have adverse

impacts on existing traffic or parking conditions and is worthy of Council's support in

its current form.

The current traffic flows on Edna and Edith Streets are considered to be low and

appropriate for local roads in a mainly residential area, with free-flowing traffic

without major queuing or delay in peak traffic periods, with spare capacity.

The estimated traffic generation is of low impact on existing flows on Edna Street,

Edith Street and the surrounding road network. The traffic generated by the

proposed boarding house development can be readily accommodated within the

existing road network.

The potential increase in the number of vehicle movements in and about Edna

Street and adjacent streets will not have adverse impacts on the amenity of the

area.

The parking demand resulting from the proposed boarding house development

can be easily accommodated within the proposed adequate off-street car,

motorcycle and bicycle parking, which is in compliance with ARHSEPP 2009

requirements.

The subject site has good access to existing public transport services in the form

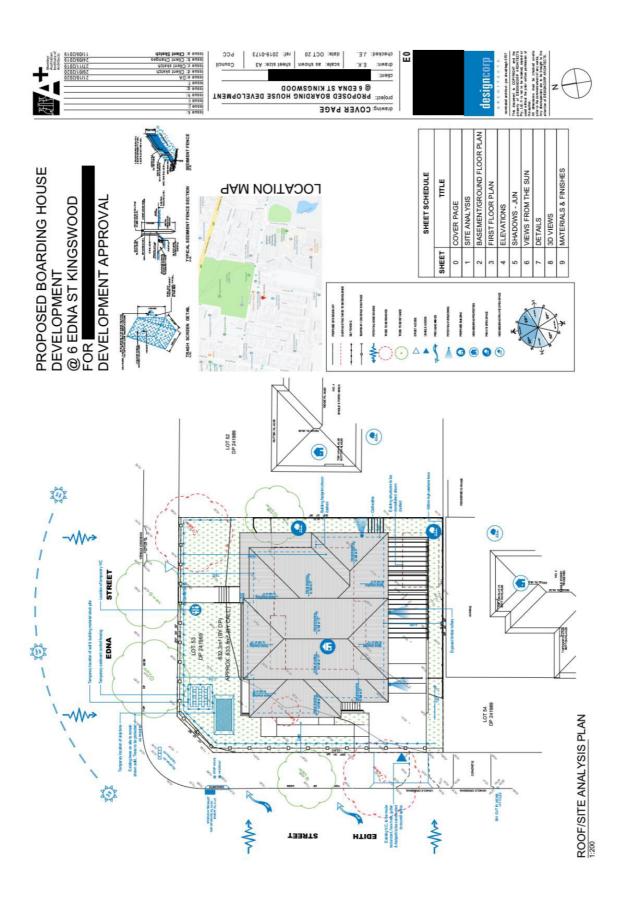
of regular train and bus services.

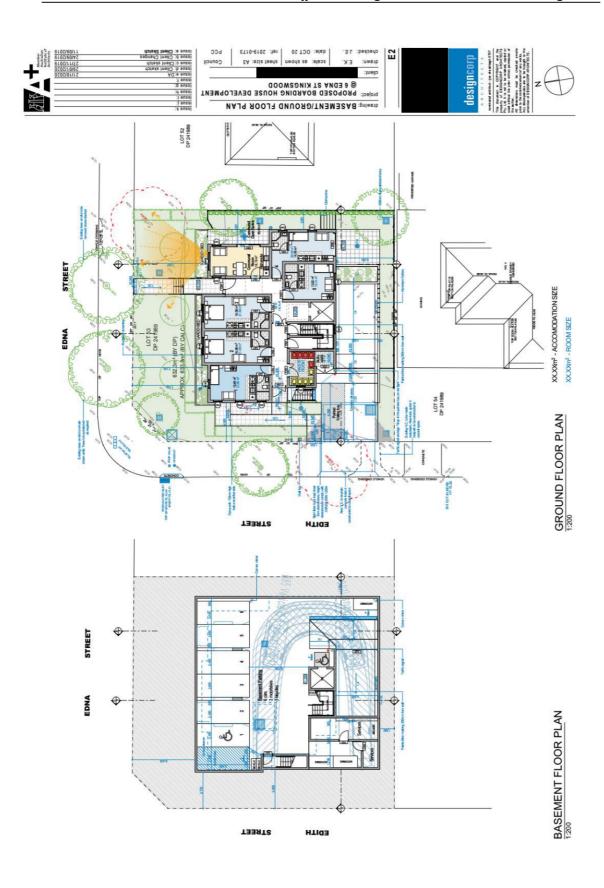
The proposed development will not have adverse impacts on parking in the

surrounding area.

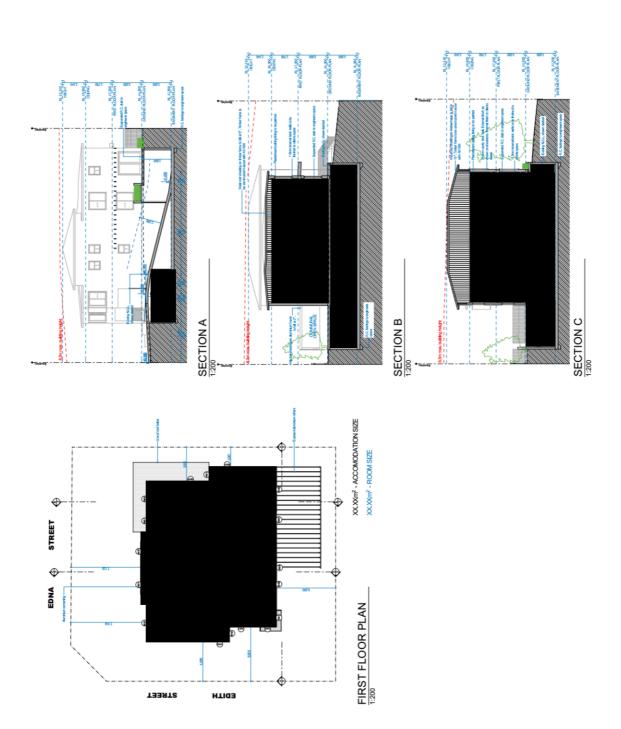
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Appendix A – Proposed Development Plans









Appendix B – Vehicle Swept Paths

