

# Traffic and Parking Impact Assessment

21-25 North Parade & 18-22 Spring Street - Site Investigation Report

50522025



Prepared for  
NSW Land And Housing Corporation

8 November 2022



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Our report is based on information made available by the client. The validity and comprehensiveness of supplied information has not been independently verified and, for the purposes of this report, it is assumed that the information provided to Cardno is both complete and accurate. Whilst, to the best of our knowledge, the information contained in this report is accurate at the date of issue, changes may occur to the site conditions, the site context or the applicable planning framework. This report should not be used after any such changes without consulting the provider of the report or a suitably qualified person.

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# 1 Introduction

## 1.1 Purpose of This Report

This report has been prepared for the NSW Land and Housing Corporation (LAHC) to accompany the *Duke of Kent Development – Design Report* submission regarding the proposed redevelopment of 21-25 North Parade & 18-22 Spring Street, Wagga Wagga.

The purpose of this report is to:

- > Summarise the current site, including its locality in the context of the Greater Wagga Wagga area;
- > Summarise the Proposed Development;
- > Describe the existing road network servicing the site and the existing traffic conditions;
- > Assess the adequacy of the proposed parking provisions;
- > Assess the potential traffic impacts on the surrounding network; and
- > Assess the suitability of the proposed vehicle access, internal circulation, and servicing arrangements.

## 1.2 Site Locality

21-25 North Parade (Lots 55-57 DP 21115), herein referred to as 'Stage 1', and 18-22 Spring Street (Lots 35-37 DP 21115), herein referred to as 'Stage 2', are located within Central Wagga Wagga, to the west of the Central Business District (CBD). Both Stages consist of three existing separate lots of 524.82m<sup>2</sup> for a total area of 1574.46m<sup>2</sup> for each Stage. **Figure 1-1** and **Figure 1-2** shows the locality of the two sites within their immediate and extended context, respectively. In both Figures, blue represents Stage 1 and yellow represents Stage 2.

Figure 1-1 Immediate Locality of Sites

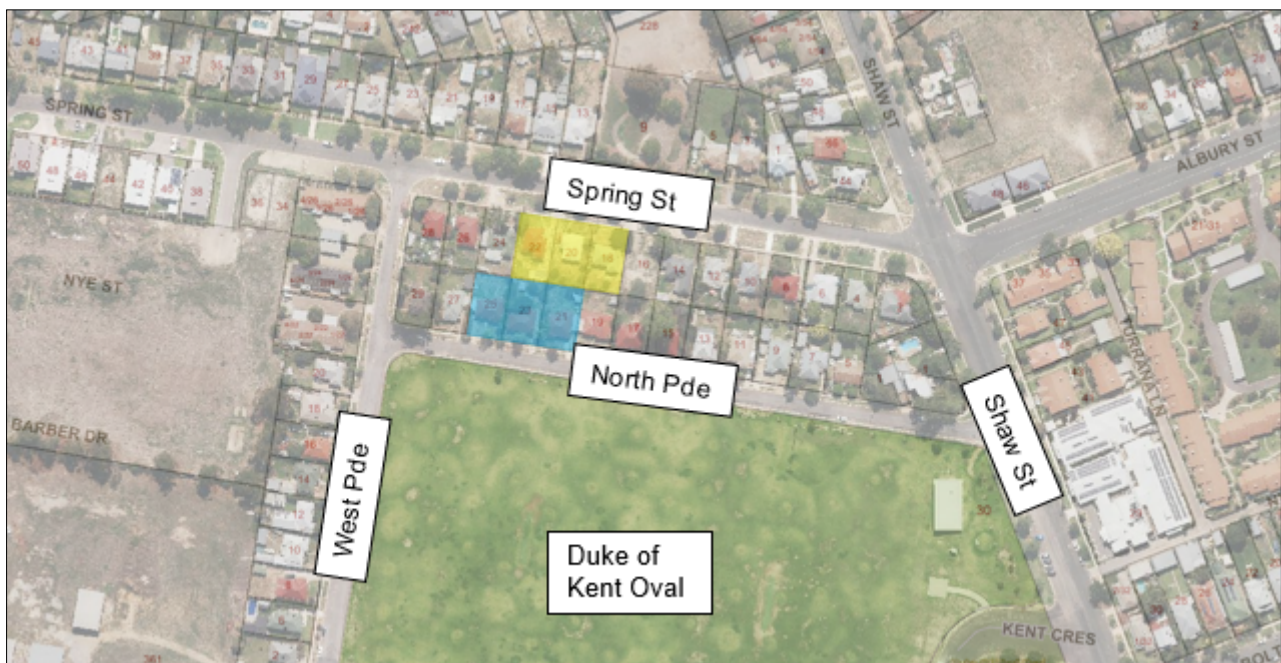
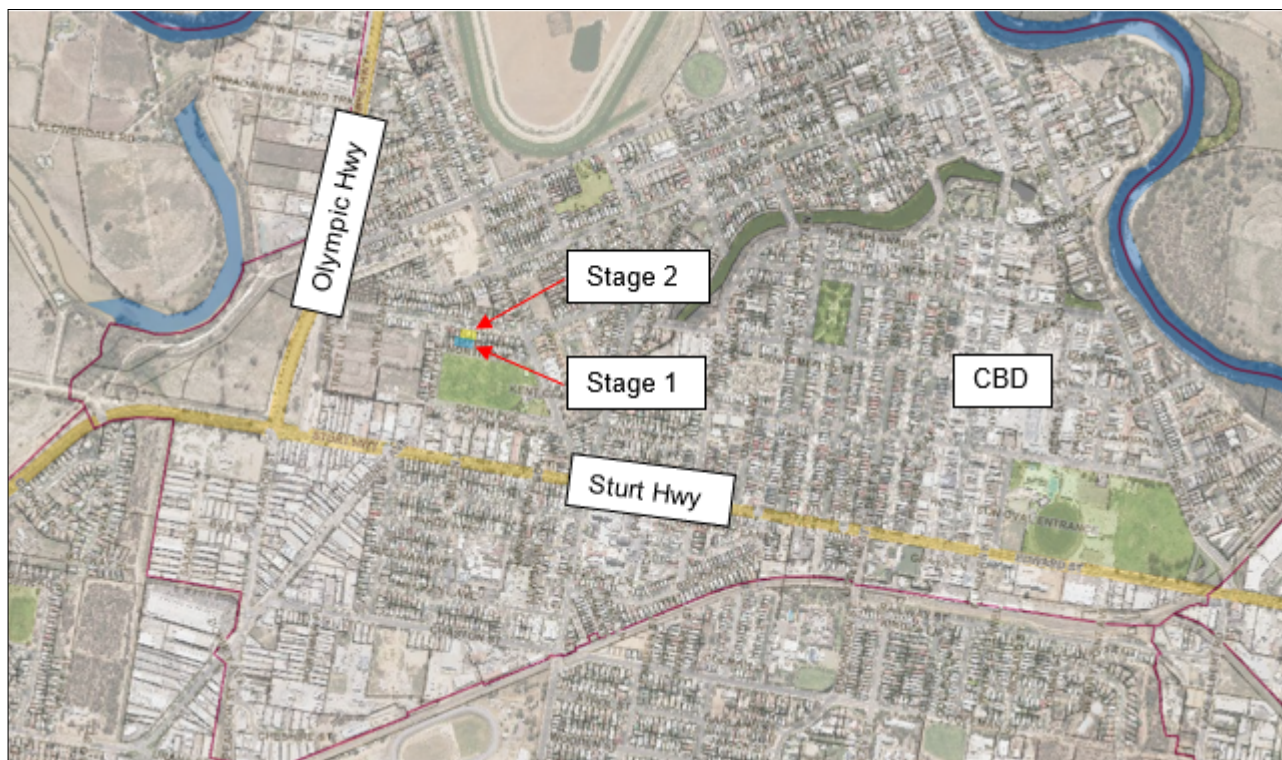


Figure 1-2 Extended Locality of Sites



## 2 Standards / Review of Literature

The following Standards / Literature were used in the preparation of this report.

Table 2-1 Relevant Standards / Literature

Standard	Authority	Year
Guide to Traffic Generating Developments	NSW RTA (now TfNSW)	2002
Housing State Environmental Planning Policy	NSW Government	2021
AS 2890.1:2004 Parking Facilities – Off Street Parking	Standards Australia	2004

### 3 Proposed Development

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It is understood that the proposed development for both Stages is very similar in scope and scale. It is proposed that the existing dwellings, structures, and trees across the existing sites are to be demolished and removed. For Stage 1, a new 2-storey structure is to be constructed containing eight 1-bedroom units and four 2-bedroom units, for a total of 12 units. Stage 2 will be similar; however, it will contain two separate 2-storey buildings, with six units in each building, eight 1 bedroom and four 2 bedroom.

Vehicular access for Stage 1 will be provided via North Pde and will allow access to an at-grade carpark to the rear of the new building containing seven parking spaces, including two accessible spaces. There is an additional parking space provided via a carport on the eastern boundary of the site.

Vehicular access for Stage 2 will be provided via Spring St and will allow access to an at-grade carpark between the two buildings containing six parking spaces. There is one undercover accessible parking space on either side of the site, also accessible via Spring St.

Architectural plans of the proposed building and carpark layout of the developments are provided within the approval package.

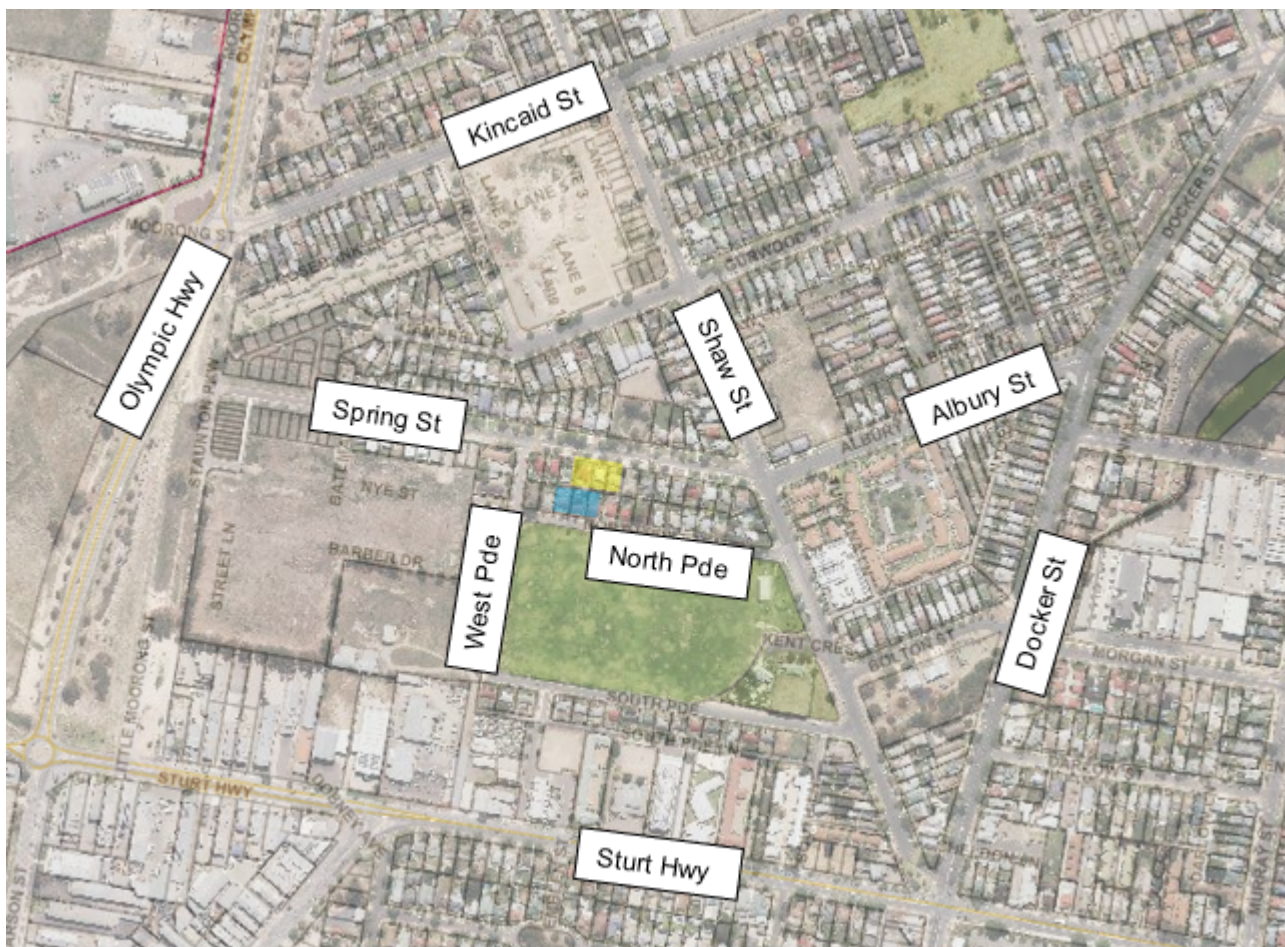
## 4 Existing Road Network and Traffic Conditions

### 4.1 Road Network

From **Figure 4-1** below, the road networks servicing the stages consists of:

- > *Sturt Highway* – a State Road and Arterial route running east/west through Central Wagga Wagga;
- > *Olympic Highway* – a State Road and Arterial route running north/south west of Central Wagga Wagga, forming the main connection within the city between north and south of the Murrumbidgee River;
- > *Docker Street* – a Collector Road feeding traffic into the Sturt Highway and between north and south of the Highway;
- > *Kincaid St* – a Collector Road providing access from western Wagga Wagga into northern part of the city, via the Olympic Highway;
- > *Shaw Street* – Major Local Road connecting the residential areas around the Sites to Kincaid Street;
- > *Albury Street* – Major Local Road connecting the residential areas around the Sites to Docker Street; and
- > *Spring St, North Parade, West Parade* – Local Access Roads servicing the Sites and other residential areas.

Figure 4-1 Existing Road Network



## 4.2 Traffic Conditions

There are no current traffic counts for Spring St, North Pde, or the surrounding road network. However, both Spring St and North Pde are local access roads for this area of Wagga Wagga. Spring St ends in a cul-de-sac at the western end and there are less than 50 developed lots with access on Spring St and an estimated maximum of 15 additional dwellings on West Pde that will also utilise Spring St. North Pde is also a local access street with 14 dwelling with access on North Pde and an estimated maximum of 8 additional dwellings on West Pde that will also utilise North Pde.

Due to these relatively low number of dwellings, it can be deduced that existing traffic on Spring St and North Pde is also relatively low. Additionally, the overwhelming majority of vehicles from the two streets are expected to access Shaw St via a left-hand turn, due to the southern end of Shaw St being one-way northbound traffic, allowing the easy egress from Spring St and North Pde into the wider road network. Due to this, it was concluded that more detailed traffic investigations would not be required and the existing traffic network would have sufficient capacity for a development of this magnitude.

## 4.3 Active Travel Services

The nearest bus stop to the development sites is at the intersection of Spring St, Shaw St, and Albury St, approximately 160m from sites. One bus route (no. 966), which connects the city to the northern suburbs around Estella, services this stop, however other routes can be accessed from the bus station in the CBD. In both cases access to the Shaw Street bus stop can be gained via an existing contiguous 1.2m concrete footpath.

## 4.4 Traffic Controls

The existing traffic controls within the surrounding road network include:

- > 50kmph speed limit on all roads around the development excluding the Sturt Highway and Olympic Highway;
- > 60kmph speed limit on the Sturt Highway;
- > 80kmph speed limit on the Olympic Highway;
- > Give Way signs on all minor roads connected to Shaw St and Docker St;
- > Give Way sign from Shaw St onto Docker St;
- > Traffic Signals at the Docker St / Sturt Highway Intersection; and
- > Roundabouts at the Kincaid St / Olympic Highway and Sturt Highway / Olympic Highway intersections.

## 5 Parking

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The relevant parking criteria for social housing developments is specified in the Housing SEPP (2022), which indicates the following required parking rates:

- > 0.5 spaces per one-bedroom dwelling
- > 1 space per two-bedroom dwelling

By applying these rates to the proposed developments results in the following parking requirements:

### Stage 1 – North Pde

- > 8 x one-bedroom units = 4 spaces required
- > 4 x two-bedroom units = 4 spaces required
- > **8 total spaces required**

### Stage 2 – Spring St

- > 8 x one-bedroom units = 4 spaces required
- > 4 x two-bedroom units = 4 spaces required
- > **8 total spaces required**

It is proposed that each stage will be provided with 6 regular parking spaces designed to AS2890.1:2004 and 2 accessible parking spaces designed to AS2890.6:2009, for a total of 8 parking spaces for each Stage. This satisfies the Housing SEPP's minimum requirement. There is no restriction for on-street parking on both Spring St and North Pde, meaning there is ample on-street parking available in the vicinity of the development sites for additional visitor parking as and when required.

## 6 Traffic

The RTA Guide to Traffic Generating Developments (2002) specifies the following peak hour traffic generation rates:

- > 0.85 trips per low density dwelling
- > 0.4-0.5 trips per small (2 or less bedrooms) medium density flats

The application of the above rates to the proposed developments is as follows:

### Stage 1 – North Pde

- > Remove dwellings ( $-3 \times 0.85 = -3$ )
- > Proposed 12 units ( $12 \times 0.5 = 6$ )
- > **Net additional peak hour traffic = 3 trips**

### Stage 2 – Spring St

- > Remove dwellings ( $-3 \times 0.85 = -3$ )
- > Proposed 12 units ( $12 \times 0.5 = 6$ )
- > **Net additional peak hour traffic = 3 trips**

As can be seen, the proposed developments results in an additional three vehicles in the peak hours on both Spring St and North Pde, for a total of six additional peak hour vehicles in the entire network. The six additional vehicles are insignificant compared to the expected current capacity of the surrounding road network, as well as to design capacity of the surrounding road network (300 peak hour vehicles). As a result, it is anticipated that the current local traffic movements will continue to operate without any significant reduction to traffic flow, and remain well within the design capacity of the road network.

## 7 Access, Internal Circulation, and Servicing

### 7.1 Access

#### 7.1.1 Stage 1 – North Pde

Two new accesses are proposed to service the development, both of which are from North Pde:

- > **Access 1** – A 4.7m wide driveway on the western boundary of the site, providing access to the main carpark. Designed and constructed in accordance with drawing EDS 02.08 from the *Wagga Wagga City Council Engineering Guidelines for Subdivisions and Development Standards*.
- > **Access 2** – A 3m wide driveway on the eastern boundary of the site, providing access for a single carpark servicing Unit G6. Designed and constructed in accordance with drawing EDS 02.08 from the *Wagga Wagga City Council Engineering Guidelines for Subdivisions and Development Standards*.

#### 7.1.2 Stage 2 – Spring St

Two new accesses are proposed to service the development, both of which are from Spring St:

- > **Access 1** – A 5.5m wide in the centre of the development, providing access to the main carpark. Designed and constructed in accordance with drawing EDS 02.08 from the *Wagga Wagga City Council Engineering Guidelines for Subdivisions and Development Standards*.
- > **Access 2** – A 3m wide driveway on both the eastern and western boundary of the site, providing access for single carparks servicing Units G1 & G6. Designed and constructed in accordance with drawing EDS 02.08 from the *Wagga Wagga City Council Engineering Guidelines for Subdivisions and Development Standards*.

Both the driveways have been positioned with suitable sight distance and comply with the relevant Australian Standards and Council design requirements.

### 7.2 Internal Circulation

Circulation within the proposed internal carparks has been designed in accordance with AS2890.1:2004 and AS2890.6:2009 in regards to the car space geometry, aisle widths, and circulation aisles for regular and accessible parking spaces. All vehicles utilising the main carparks of each development will be able to access and egress from the site in a forward manner. The one single drive in Stage 1 and the two single driveways in Stage 2 will require a single reversing manoeuvre when entering or exiting the parking space. This is acceptable arrangement that is commonplace for low order driveways that service four or less dwellings.

### 7.3 Site Servicing

Stage 1 and Stage 2 both have multiple bin enclosures throughout the sites and the bins will be wheeled out to the road for weekly/fortnightly collection. This will be managed internally. Council will be responsible for the kerbside collection of the bins via North Pde and Spring St, as is what is currently occurring in the area.

## 8 Conclusion

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This assessment of the proposed LAHC Housing Developments on 21-25 North Parade (Stage 1) and 18-22 Spring Street (Stage 2) has established that:

- > The proposed parking provisions will be adequate and comply with the Housing SEPP 2022 requirements;
- > The design of vehicle access, car park, and internal arrangement has been done in accordance with the relevant Australian Standards and Council Design Requirements; and
- > The expected increase in traffic due to the proposed developments is negligible and has not adverse impact on the existing road network.