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# 11 STURT STREET WAGGA WAGGA

## PROPOSED MIXED USE DEVELOPMENT
## TRAFFIC IMPACT AND PARKING ASSESSMENT

### 1.0 PURPOSE AND SITE DESCRIPTION

The purpose of this report is to provide an assessment of traffic and parking considerations and implications in relation to the proposed mixed use development on the land known as 11 Sturt Street Wagga Wagga (hereinafter referred to as 'the site').

The site is currently primarily undeveloped land bounded by Sturt Street to the south, Cadell Place to the west, Murrumbidgee River Riverside Corridor to the north and an existing two storey commercial/medical building to the east (adjoining the site – existing building to be retained).

### 2.0 PLANNING CONTROLS AND POLICIES

This statement has been prepared with consideration of the following Planning Documents and Policies of Wagga Wagga City Council, relevant Roads and Maritime Services Guidelines and Technical Directions and NSW Planning and Environment SEPP65 Design Quality of Residential Apartment Development and the Technical Note on parking requirements.

The Wagga Wagga City Council documents of particular interest include:

Wagga Wagga Development Control Plan 2010 (WW DCP)
Part A Section 2 Controls that apply to all development
Part D Section 9 Residential Development
Part D Section 12 Specific Uses and Developments
Wagga Wagga Integrated Transport Strategy and Implementation Plan 2040 (WW ITS)

The primary RMS reference is:
Guide to Traffic Generating Developments 2002 (GTTGD) – including Metropolitan Parking Policy 1988 (MPP).

The Planning and Environment references are:
SEPP65- Design Quality of Residential Development (SEPP65) and

technical note - Car parking requirements in SEPP 65 (SEPP65 TN)
Apartment Design Guide (ADG)

## 3.0 PROPOSED DEVELOPMENT

The proposed development is for a twin tower mixed use development comprising a total of 67 residential units and 3 commercial units, 3 levels of carparking to accommodate 91 spaces, a community meeting room, lobby and utility area.

Details of the proposed development are shown on Development Application drawings prepared by GPG architecture and design for the project titled Mixed Use Development at 11 Sturt Street, Wagga Wagga on behalf of CRK Holdings.

The general site arrangement will be for two commercial tenancies to have ground level frontage to Sturt Street and one commercial tenancy on the riverside frontage. The Riverside tower will be 17 storeys with 3 levels of car parking and 14 levels of residential. The Sturt St tower will be 6 storeys with 5 levels of residential above the commercial premises.

Access & egress to the on-site parking will be from Sturt Street near the eastern side between the Commercial Tenancy A and the existing two storey building (which currently operates on an adjoining lot as dental rooms). Access to ground level carparking spaces and service areas will be from Cadell Place and for the purpose of this assessment traffic distribution will be assumed to be southwards towards Sturt Street.

The 67 residential dwellings will be 10 X 1 bedroom units, 29 X 2 bedroom units and 28 X 3 bedroom units. An internal ramp will provide connection to the upper level car parking areas.

## 4.0 TRAFFIC GENERATION

The estimated traffic generation has considered the rates presented in the Guide to Traffic Generating Developments as well as the location and proximity to the Wagga Wagga CBD and the Wiradjuri Walking Track (to the north of the site beside the Murrumbidgee River).

The residential high density apartments are expected to generate not more than 0.3 trips per hour for 1 & 2 bedroom apartments and 0.35 trips per hour for 3 or more bedroom apartments during both the AM and PM peak traffic periods. Trips are expected to be 80% outwards in the AM peak and 20% outwards in the PM peak from the residential element of the proposed development. This will result in trip generation of the order of 20 trips per hour during both AM and PM peak periods for the residential with 16 vph leaving and 4 vph approaching the site in AM the peak and the reverse during the PM peak.

The commercial tenancies could generate as low as 2-3 trips per hour during the peak periods for an office or as high as 7 vph during the PM peak for a restaurant land use across the whole of the area of 235 $m^2$ GFA.

The maximum estimate of trip generation for the complete development will be further considered for assessment of traffic impacts. The trip generation during the AM peak (8.00am to 9.00am on weekdays) is estimated to be 16 vph leaving the site and 6 vph approaching the site from Sturt Street and during the PM peak (5.00pm to 6.00pm on weekdays) 6 vph leaving the site and 22 vph approaching the site from Sturt Street.

## 5.0 ROAD NETWORK

The road network in the vicinity of the site comprises:
- the CBD main street (Fitzmaurice Street – which is also a continuation of Baylis Street) which runs generally in a north/south direction,
- Sturt Street which is a short stub street running generally in an east/west direction from Fitzmaurice Street towards the Murrumbidgee River corridor and connects to Tarcutta Street (with on street angle parking along both sides of the wide carriageway),
- Tarcutta Street which connects with Sturt Street near the eastern corner of the site and runs parallel to Fitzmaurice Street towards the south, and
- Cadell Place which is a service lane which runs behind the commercial buildings along Fitzmaurice Street (and adjacent to the western boundary of the site).

It is noted that the intersection of Sturt Street / Fitzmaurice Street is a priority controlled left in / left out intersection (due to an unbroken central median along Fitzmaurice Street) and that Gurwood Street forms another Tee intersection a short distance or stagger to the north of Sturt Street with all turns permitted at Gurwood Street / Fitzmaurice Street intersection. Access to the site is expected to be primarily from Fitzmaurice Street / Sturt Street for vehicles approaching from the north and west of the site and from Johnston Street / Tarcutta Street / Sturt Street for vehicles approaching from the south of the site.

It is considered to be unlikely that a significant number of vehicles will use Cadell Place due to the nature and alignment of this service lane, although it is acknowledged that some vehicles travelling south to the site may turn left from Cadell Place on to Sturt Street.

Egress from the site is expected to be primarily to Sturt Street then to the Fitzmaurice Street intersection for most vehicles as this route will permit travel in most directions after a left turn into Fitzmaurice Street. It is not considered likely that more that 20% of vehicles leaving the site will travel via Tarcutta Street after leaving the site.

Egress of vehicle utilising visitor and commercial spaces adjacent Cadell Place will follow similar travel directions.

## 6.0 TRAFFIC DISTRIBUTION FROM THE SITE

Consideration of the road network connections and intersection configuration has indicated that the likely traffic distribution to / from the site is expected to be as follows (for the purpose of this assessment):

AM Peak 8.00am to 9.00am

6 vehicles approaching the site – 4vph left turn from Fitzmaurice Street into Sturt Street and left turn to site and 2vph left turn from Tarcutta Street into Sturt Street and right turn to site.

16 vehicles leaving the site – 14vph into Sturt Street and left turn into Fitzmaurice Street and 2 vph left turn from Cadell Street and left turn into Sturt Street and right turn into Tarcutta Street.

PM peak 5.00pm to 6.00pm

22 vehicles approaching the site – 14vph left turn from Fitzmaurice Street into Sturt Street and left turn to site and 8 vph left turn from Tarcutta Street into Sturt Street and right turn to site.

6 vehicles leaving the site – 5vph from site into Sturt Street and left turn into Fitzmaurice Street and 1 vph from site into Cadell Place then left turn into Sturt Street and right turn into Tarcutta Street.

## 7.0 TRANSPORT AND TRAFFIC IMPACTS

The anticipated traffic impacts from the proposed mixed use development are considered below:

Impacts on road network and intersections in the vicinity of the site:
Intersections - Cadell Place / Sturt Street
- the maximum additional traffic turning at this intersection is expected to be vehicles leaving the site onto Sturt Street which will be of the order of 16 vph (14 vph turning right and 2 vph turning left into Sturt Street) in the AM peak and 6 vph (5 vph turning right and 1 vph turning left into Sturt Street) in the PM peak,

- The additional turning traffic combined with additional through traffic (4 vph from Fitzmaurice Street) is not expected to have any discernible impact on operations or safety at this intersection as prevailing traffic volumes and vehicle speeds are very low.

– Fitzmaurice Street / Sturt Street
- the maximum additional traffic through this intersection is expected to be of the order of 18 vph during the AM peak with 4 vehicles turning left into Sturt Street and 14 vph turning left into Fitzmaurice Street and 19 vph during the PM peak with 14 vph turning left into Sturt Street and 5 vph turning left into Fitzmaurice Street,

- The additional turning traffic is not expected to have any discernible impact on operations or safety at this intersection as vehicles turning left from Fitzmaurice Street will decelerate before turning, however will clear the intersection without delay to through vehicles as there is not expected to be any congestion or delay in Sturt Street.
The vehicles turning left from Sturt Street will all be required to give way to through traffic travelling along Fitzmaurice Street at this priority

controlled intersection and will be expected to have little impact on the intersection operation.

- Sturt Street / Tarcutta Street

- the maximum additional traffic through this intersection is expected to be of the order of 4 vph during the AM peak with 2 vehicles turning left into Sturt Street and 2 vph turning right into Tarcutta Street and 9 vph during the PM peak with 8 vph turning left into Sturt Street and 1 vph turning right into Tarcutta Street,

- the additional traffic is not expected to have any discernible impact on operations or safety at this intersection as vehicles turning to and from Sturt Street into and from Tarcutta Street will have little conflict with "through traffic" along Sturt Street as this street terminates a short distance to the east where is joins with Henley Lane.

Roads - Cadell Place

- the additional traffic along Cadell Place is 16 vph in the AM peak and 6 vph in the PM peak (assumed to be southbound towards Sturt Street) is not expected to have any impact on traffic operations or safety due to very low traffic volumes and vehicle speeds.

- Fitzmaurice Street

- the additional traffic along Fitzmaurice Street is less than 20 vph (or 1 vehicle every 3 minutes on average) both north and south of the intersection with Sturt Street and is not expected to have any impact on traffic operations or safety.

- Sturt Street

- the additional traffic along Sturt Street in the vicinity of the site is less than 20 vph between the site and Fitzmaurice Street and less than 10 vph between the site and Tarcutta Street and is not expected to have any impact on traffic operations or safety.

- Tarcutta Street

- the additional traffic along Tarcutta Street is less than 5 vph during the AM peak and less than 10 vph during the PM peak. And is not expected to have any impact on traffic operations or safety.

The additional traffic is not expected to have any impact on bus operations, cycle movements or pedestrian safety (although it is proposed to create a shared pedestrian access from the Sturt Street entrance to the

site with a connection to the Murrumbidgee River riverside Wiradjuri Walking Track pathway system.

## 8.0 PARKING

### 8.1 Controls and Parking Requirements

The *Wagga Wagga Development Control Plan Part A Section 2 Controls that apply to all development* sets out in *Clause 2.1 Vehicle access and movements* and in *Clause 2.2 Off-street parking the requirements for all developments*.

Clause 2.1 sets out the Objectives and Controls to ensure the safe and efficient operation of roads within the Wagga Wagga local government area. The proposed development has access for cars from Sturt Street (which is a local access street) and service vehicle access (waste collection will be off-street from Cadell Place) will be from Cadell Place which is the service lane for buildings with frontage to Fitzmaurice Street.

This is consistent with the Objectives and specific Controls set out in this Clause as the site does not have frontage to a major or arterial road and all vehicles will drive in a forward direction along the public street network. The main access/egress driveway will be from Sturt Street and will provide access for cars to the basement through automatic security gates and a shared carriageway and all cars will enter and leave Sturt Street in a forward direction with adequate sight lines for vehicles leaving the site.

Clause 2.2 sets out Objectives and Controls to ensure that developers provide off-street parking to meet anticipated parking demands and includes Table 1 which sets out rates for the provision of off-street parking for a range of developments. The Controls set out the minimum parking rates and need for compliance with applicable Australian Standards (AS2890.1 and AS2890.6 in particular) in order to ensure that adequate provision is made for safe and efficient movement of vehicles and pedestrians.

The parking requirements in WW DCP for residential flat buildings are for 1 space per 1 or 2 bedroom unit and 2 spaces for each 3 bedroom (or larger) unit plus visitor parking at the rate of 1 space per 5 units. The parking requirements for commercial (business, office and retail) in the CBD area and mixed use areas (B4 Zone) is 1 space per 45 $m^2$ GFA.

SEPP65 TN and the ADG applies a minimum requirement that is the lesser of either the relevant rate set out in the GTTGD or council car parking requirement for residential apartment development in nominated centres in NSW. Wagga Wagga is a nominated centre.

The GTTGD prescribes car parking rates for residential flat buildings (a building with more than 20 dwellings is described as a high density residential flat building) and considers location and function of the area to be developed in determining applicable car parking rates. In the case of the subject site's location within the CBD of Wagga Wagga, I have considered the location to meet the characteristics similar to those described as a "Metropolitan Regional (CBD) Centre". The Wagga Wagga CBD meets the criteria for this classification, as outlined in GTTGD and MPP.

Consideration was given to the Apartment Design Guide and the SEPP65 car parking technical note in which applicable car parking rates are suggested. The SEPP65 technical note refers to both the GTTGD and MPP for determining appropriate classification for carparking rate, as well as a general reference to using the Sub-Regional rate for nominated centres in the absence of more detailed characterisation investigation.

The MPP is a metropolitan (Sydney) based document. It does, however, establish planning principles used to qualify certain centres as either a Regional or a Sub Regional, namely the function and connectivity of the locality rather than the residential population base. In the policy, significant weight is given to centres that act as hubs for employment and public transport, suggesting these locations should have reduced parking rates due to a reduced reliance on car-based transportation. The Wagga Wagga CDB, as major regional centre, provides high levels of local employment and business activity, as well as having an established public transport system in the way of regular bus services, as well as other types of active movement networks including footpaths, walkways and bicycle connections. The planning principles used in preparing the MPP are equally applicable to regional centres, such as Wagga Wagga, that have a distinct CBD character and function. This is further supported by the Wagga Wagga DCP2010 and the findings of the Wagga Wagga Integrated Transport Study that aims to reduce the dependence on car based transport within the CDB for the same reasons as major regional or metropolitan centres.

The prescribed parking rates are set out in Clause 5.4.3 of GTTGD to be as follows for a high density residential flat building in a (Metropolitan) Regional (CBD) Centre:
0.4 spaces per 1 bedroom unit
0.7 spaces per 2 bedroom unit
1.20 spaces per 3 bedroom unit
1 space per 7 units (visitor parking)

The application of the GTTGD parking requirements will result in a lesser parking requirement for the residential elements of the proposed development (73 spaces) than the WW DCP parking requirements (114 spaces). In accordance with the provisions of SEPP 65 the parking requirements presented in GTTGD will be used for this assessment.

The calculated parking requirements for the proposed development using the above GTTGD rates are as follows:

Residential Flats
10 X 1 BR units (@0.4 spaces / unit) = 4 spaces
29 X 2 BR units (@ 0.7 spaces /unit) = 20.3 spaces
28 X 3 BR units (@ 1.20 spaces / unit) = 33.6 spaces
TOTAL Parking for Residents = 57.9 spaces
Visitor parking (@ 1 space / 7 units) = 9.6 spaces

Commercial
235.0 m2 GFA (@ 1 space per 45 $m^2$) = 5.2 spaces

TOTAL Parking for Development = 72.7 spaces = 73 spaces

The proposed development will provide 91 spaces, being a surplus of 18 spaces.

## 8.2 Parking Management Principles

The parking for residents will need to be secure to prevent intrusive parking to the private car spaces and storage areas – the proposed development provides 91 car spaces for the total development on ground level L0 (for residents, commercial & visitors) and the first floor levels L1a and L1b (for residents).

These spaces are required to be Class 1A spaces as defined in the User Class in AS2890.1. The parking on L0 also includes 1 parking space for

people with a mobility disability (compliant with the requirements of AS2890.6 for User Class 4 spaces) and there is also secure onsite bicycle parking at ground level.

The employee/manager parking for the tenancies could be accommodated on the site as Class 1 spaces in the secure car parking areas.

The additional parking for the commercial tenancies is for public access and it is appropriate for these spaces to be provided as Class 3 spaces as defined in the User Class in AS2890.1.

Commercial customers will also utilise on-street parking that is currently provided along Sturt Street (where there are approximately 60 spaces (on-street angle parking spaces between Fitzmaurice Street and Henley Lane) for public parking for customers visiting the commercial properties along Fitzmaurice Street (and Sturt Street). The on-street parking has not been referenced in calculating parking provision for the development.

Short stay carparking (customer and visitor) has been provided along Cadell Place and identified disabled space that is accessible from the internal driveway off Sturt Street. It is considered appropriate that, taking into account time of use for both visitor and commercial will tend not to clash, that the combined utilisation of these spaces will be adequate to address needs.

### 8.3 Temporal Parking Demand

Consideration has been given to the peak demand for parking which is likely to be generated by the proposed mixed use development and in particular, to the long stay parking demand from residents and employees and short stay parking demand from visitors and customers.

The long stay parking demand is expected to be due to resident parking (73 spaces - with peak demand overnight and at weekends) and from employees in the commercial tenancies (6 spaces – with peak demand during business hours).

The cumulative total of these demands is expected to be of the order of 79 spaces, however during weekday business hours this demand is expected to be much lower, of the order of not more than 50 spaces due

to the number of residents who may drive to their place of employment or other activity during business hours.

During weekends, the peak long stay parking demand is expected to be of the order of 73 spaces as the commercial tenancies are expected to be closed outside of business hours.

The short stay parking demand is expected to be due to the visitors to residents (10 spaces – with peak during evenings and weekends and approximately 50% during business hours) and from customers visiting the commercial tenancies (1 or 2 spaces – during business hours). The cumulative total of these demands is expected to be of the order of 14 to 15 spaces, however during weekday business hours this demand is expected to be much lower, of the order of 8 or 9 spaces due to the smaller number of visitors to the residents during working hours. During weekends, the peak short stay parking demand is expected to be of the order of 10 spaces as the commercial tenancies are expected to be closed outside of business hours.

The parking utilisation in the vicinity of the site (particularly along Sturt Street) is observed to be very high during business hours due to the parking demand along the main CBD core section of Fitzmaurice Street, however the occupancy of these spaces reduces significantly during evenings and at weekends due to the reduced commercial business activity outside of business hours.

Accordingly, it is suggested that for convenience alone, a proportion of evening and weekend visitors to the residents will choose to park in the public parking spaces along Sturt Street in preference to negotiating Cadell Place or entering the site.

## 9.0 ACCESS AND SERVICING

Access for servicing, waste collection and furniture deliveries is available from Cadell Place which is the rear service lane for the commercial buildings with frontage to Fitzmaurice Street (and also this site at 11 Sturt Street).

Consulting Engineers have prepared swept path drawings to demonstrate the turning path for a 12.5 metre long waste collection vehicle will access

and travel along Cadell Place to the waste storage are for pick-up of waste and recyclables hoppers. The vehicle will drive in a forward direction along Cadell Place to an onsite identified loading zone/garbage collection area.

## 10.0 OTHER TRAVEL MODES AND STRATEGIES

Consideration has been given to other sustainable travel modes for residents and these include public transport and active travel such as cycling and walking. The site lies beside the Murrumbidgee River and the Wiradjuri Walking Track provides a convenient shared pathway alongside the river for travel along the south / western side of the river and for the full length of the Wagga Wagga CBD. This provides an excellent and convenient opportunity for residents to travel to work, shopping or recreation by active travel modes.

The location and nature of the proposed mixed use development is consistent with the objectives of the Wagga Wagga Riverside Master plan (as set out in the Strategic Master Plan 2010).

The Wagga Wagga Integrated Transport Strategy and Implementation Plan 2040 (WW ITS) identifies a number of transport opportunities and challenges for Wagga Wagga. The WW ITS sets out an objective to provide transport including walking, cycling, public transport and private vehicles and the proposed development adopts a mixed use scenario for an integrated land use to increase residential density at this key site in close proximity to the CBD.

Strategic planning and supportive land use planning controls by Council has been identified as measures to enhance the viability of higher density development (such as this development) within the commercial core (CBD) of Wagga Wagga.

Section 3.2 of WW ITS identified the need for reduction of parking requirements on future development in the highest activity centre CBD and for the introduction of maximum development parking rates for off-street parking to encourage the use of alternative modes of travel and to implement principles of a car parking hierarchy within the DCP.

It is suggested that the proposed development, including the proposed on site parking for residents, commercial customers and visitors, is consistent with the objectives and strategies set out in the WW ITS.

## 11.0 CONCLUSIONS AND RECOMMENDATIONS

It is recommended that the proposed mixed use development in the land known as 11 Sturt Street Wagga Wagga comprising 67 residential units, 235m$^2$ GFA in three commercial tenancies and 91 on site car parking spaces be approved with respect to traffic impacts and parking supply.

I am satisfied that the road network will have the capacity to safely accommodate the additional traffic which is expected to be generated by the proposed development and that the proposed car parking arrangements will satisfy the temporal peak parking demand of the development.

Graeme Shoobridge
29 Aug 2019
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