

# Amending DA – Traffic Impact Assessment

## Proposed Mixed Use Development

### The Mill, Wagga Wagga

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# 1 Introduction

## 1.1 Overview

Ason Group has been engaged by Interlink Wagga Central Pty Ltd to prepare a Traffic Impact Assessment report in support of an Amending Development Application for a proposed Mixed Use Development at The Mill, Wagga Wagga (the Site). The proposal generally relates to the development of a hotel and commercial precinct with 237 car parking spaces accessed via the Mill Avenue and the Edward Street access driveway. The Site is located within the Wagga City Council and is therefore subject to Wagga City Council's controls.

This TIA report provides an assessment of the relevant traffic, transport and parking implications of the Proposal. In preparing this TIA report, Ason Group has referenced the following key planning documents that are relevant to development at the site:

- Wagga Wagga Development Control Plan 2010 (**WDCP2010**).
- Wagga Wagga Local Environmental Plan 2010 (**WLEP2010**)

This TIA report also references general access, traffic and parking guidelines, including:

- RMS Guide to Traffic Generating Developments (RMS Guide)
- RMS Technical Direction TDT 2013/04a, *Guide to Traffic Generating Developments – Updated traffic surveys* (**RMS Guide Update**).
- Australian Standard 2890.1 (2004): *Off-street car parking* (**AS2890.1**).
- Australian Standard 2890.2 (2002): *Off-street commercial vehicle facilities* (**AS2890.2**).
- Australian Standard 2890.6 (2009): *Off-street parking for people with disabilities* (**AS2890.6**).

This TIA report addresses the relevant traffic, transport and parking implications of the development, including compliance with relevant State and Local Government controls, Australian Standards and has regard for the approved development.

## 1.2 Report Structure

The remainder of this report is structured as follows:

- Section 2 provides a summary of the proposed development
- Section 3 describes the existing road network and accessibility to alternative transport modes.
- Section 4 provides a summary of the approved developments
- Section 5 describes the parking requirements of the proposed development
- Section 6 describes the traffic impacts of the proposed development including projected trip generation and forecasted network performance.
- Section 7 describes the access, internal configuration of the proposed car parking and servicing facilities of the development.
- Section 8 provides a conclusion of the key traffic and parking impacts.

## 2 Overview of Proposal

### 2.1 Amending DA

The Proposal generally seeks approval for the following changes to the non-residential component of the site (**Lot 12 of DP1178547**). The amending DA comprises the replacement of the approved supermarket and retail centre with as follows:

- a 156 room 4.5-star Hotel and integrated Function Centre (354 m<sup>2</sup> Gross Floor Area (GFA));
- a commercial centre over two levels of with 2,122 m<sup>2</sup> office/commercial GFA and 150m<sup>2</sup> retail GFA
- a basement carpark providing 112 car spaces and additional on-grade car parking to provide a total of 237 spaces on Lot 12 DP1178547. The overall parking quantum of 237 parking spaces is provided as follows:
  - 111 spaces located in the primary basement car park.
  - 94 spaces in the Heritage forecourt
  - 26 spaces on Mill Avenue
  - 6 spaces within the hotel porte-cochere
- amended Mill Avenue design, with shared access agreement in place with Keneco Property;
- Amended intersection design, in agreement with RMS and Keneco Property; and
- Subdivision of Lot 12 DP1178547, to align with separate ownership of the Grainstore and the Hotel Precinct.

Reference should be made to the plans prepared by Become Architects which are submitted separately. A reduced copy of the relevant plans are reproduced at a reduced scale for context below in **Figure 1** and **Figure 2**.



Figure 1: Site Plan (Parking Layout – 126 Parking Spaces)

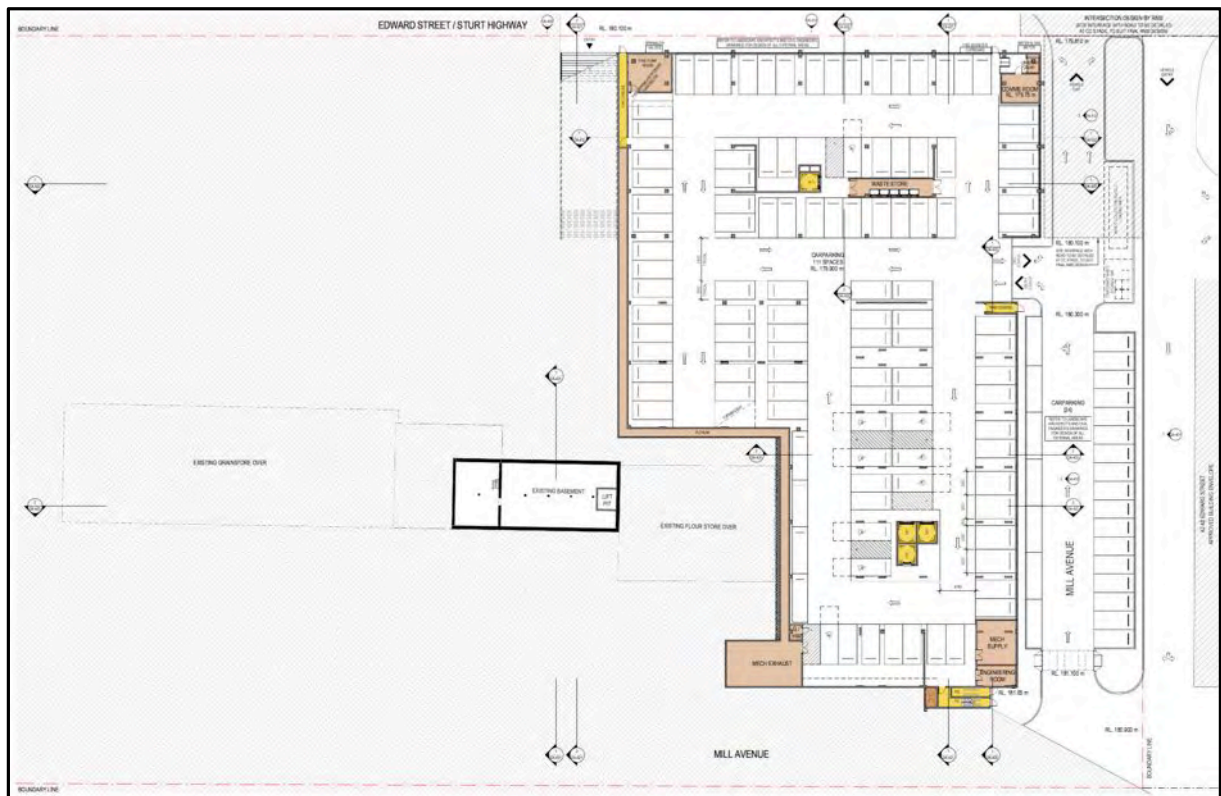


Figure 2: Site Plan (Basement Car Park – 111 Parking Spaces)



## Amending DA - Traffic Impact Assessment

The subject Traffic Impact Assessment has been prepared with consideration for the overall site (development yield and parking provision) and the previous Traffic Impact Assessments which underpin the planning approvals. This is essential to the subject study for the following reasons:

1. To determine the net traffic generation impact of the Amending DA, and
2. To assess and conclude the parking demand for non-residential land use across the site, thereby determining the parking synergy between the various land uses.

Whilst the Amending DA seeks changes to the land uses of Lot 12 of DP1178547 (refer to **Figure 3**), the following in approved (or operational) land uses are relevant.

- It is noteworthy to recognise that Lot 1 of DP127797 (refer to Figure 3) has been constructed which comprises of 29 apartments, retail/restaurant uses within the residential precinct equating to 1,162m<sup>2</sup>. These include the 602m<sup>2</sup> retail GFA, 360m<sup>2</sup> restaurant GFA and 200m<sup>2</sup> café GFA.
- Lot SP93076 (refer to Figure 3) will maintain the approved yield of 69 residential units and its associated car parking (totalling in an overall 98 residential dwellings).
- The Grainstore Heritage located in Lot DP1178547 will retain the approved restaurant GFA of 674m within Grainstore and no amendment is proposed as part of the subject Amending DA.



**Figure 3: Lot Boundaries**



**Table 1** provides an overview of the approved development for the overall site and the resultant development yield in response to the Amending DA approval. As such, the Amending DA yield provided in Table 1 has been adopted as the development criteria for this report to inform the parking assessment and net traffic generation impact, enabling a holistic review of the site.

**Table 1: Approved and Amending DA Comparison**

Approved		Amending DA	
Non-Residential	GFA / Units	Non-residential	GFA / Units
Supermarket	1,600 m <sup>2</sup>	Hotel	156
Retail	1,752 m <sup>2</sup>	Retail	752 m <sup>2</sup>
Commercial/Office	3,870 m <sup>2</sup>	Commercial/Office	2,122 m <sup>2</sup>
Restaurant	675 m <sup>2</sup>	Restaurant	1,034 m <sup>2</sup>
		Café	200 m <sup>2</sup>
Residential		Residential	
Units	98	No-change	

## 3 Existing Conditions

### 3.1 Site and Location

The Site is located on the southern side of Edward street and between Flinders Street and Lake Albert Road. The site has a total area of 25,514m<sup>2</sup>. The surrounding developments predominantly comprise of commercial and residential developments as well as a major park, Bolton Park, to the north of the Site. At a regional level, the Site is located adjacent to the boundary of the Wagga Wagga City Centre. It is within the Local Government Area (LGA) of Wagga Wagga Council. The Location and Road Hierarchy Plan presented as **Figure 4** provides an appreciation of the Site and its location.

### 3.2 Road Network

The key roads in the vicinity of the Site are as shown in **Figure 4** and are described in the following sections.

- **Edward Street** – an RMS State Highway (HW14) known as Sturt Highway. This roadway is an important link for passengers and freight travelling between Sydney and Adelaide. The road carries 4 trafficable lanes with a divided carriageway. It is located immediately to the north street frontage of the Site. No Stopping parking restrictions generally line the street frontage of the Site.
- **Baylis Street** – a collector road that runs in a north-south direction to the west of the Site. It connects directly to the Wagga Wagga's Station Place and Edward street, creating a major signalised intersection. The road is a major street for the Wagga Wagga City Centre where many Wagga Wagga's major commercial developments are located. The street accommodates 1 lane of traffic in both directions with 45-degree parking on one side and parallel parking on the other.
- **Fitzhardinge Street** – a local road directly to the north of the Site. It joins Edward Street directly to the north of the Site's street frontage, forming an important intersection. The street is lined with 45-degree parking on both sides of the street.
- **Lake Albert Road** – a local road located to the direct east of the Site. It connects to Edward Street and provides residents to the south-east of Wagga Wagga access to the City Centre. The road carries 4 trafficable lanes with a shared turning bay in centre of the road.
- **Station Place** – a local road that provides access to the Wagga Wagga Train Station. The road is to the west of the Site and can be accessed via Edward Street or Baylis Street. It has a taxi stand and multiple commuter car parking accesses.
- **Flinders Street** – a local road directly to the west of the Site, providing the western street frontage for the site.

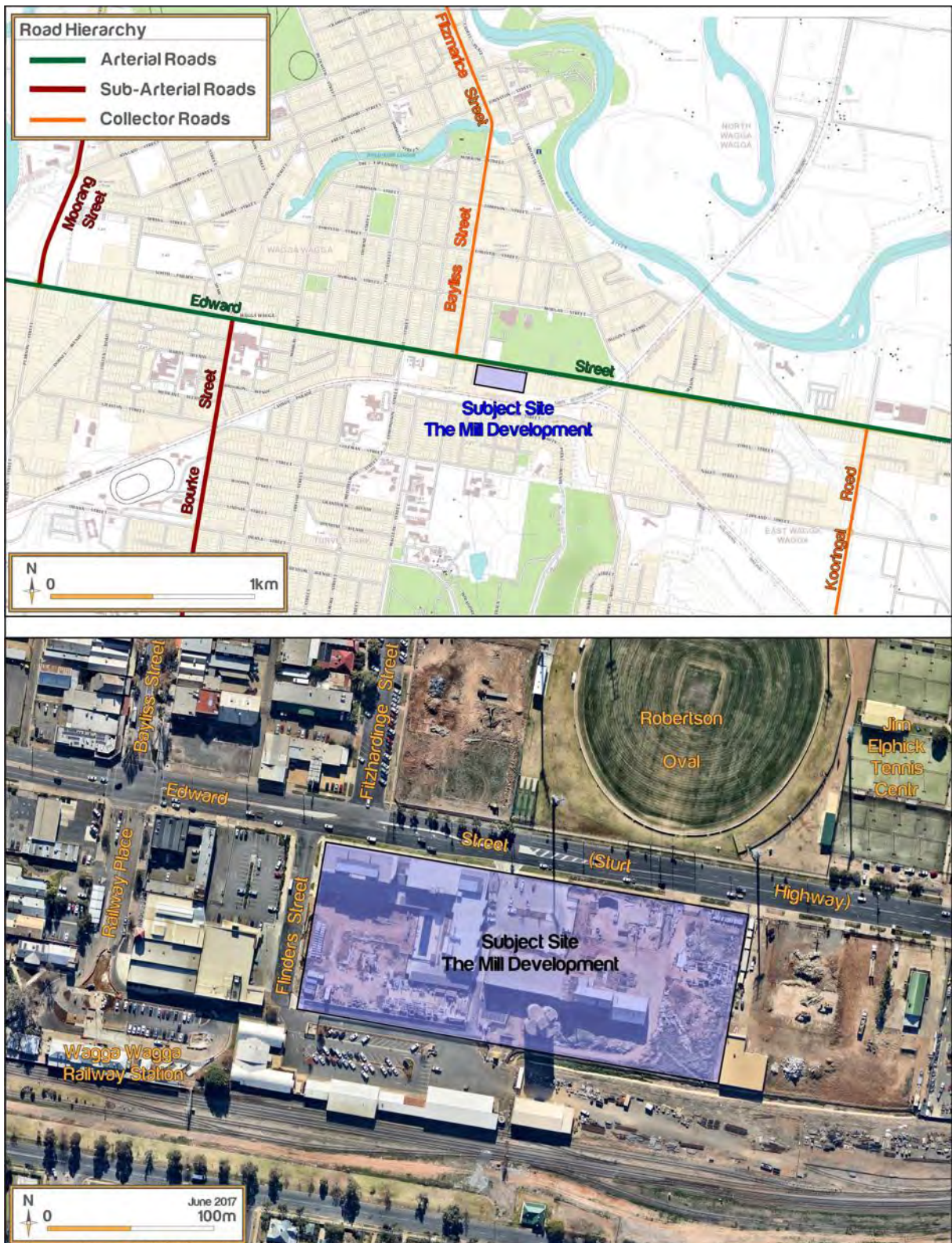


Figure 4: Location and Road Hierarchy Plan



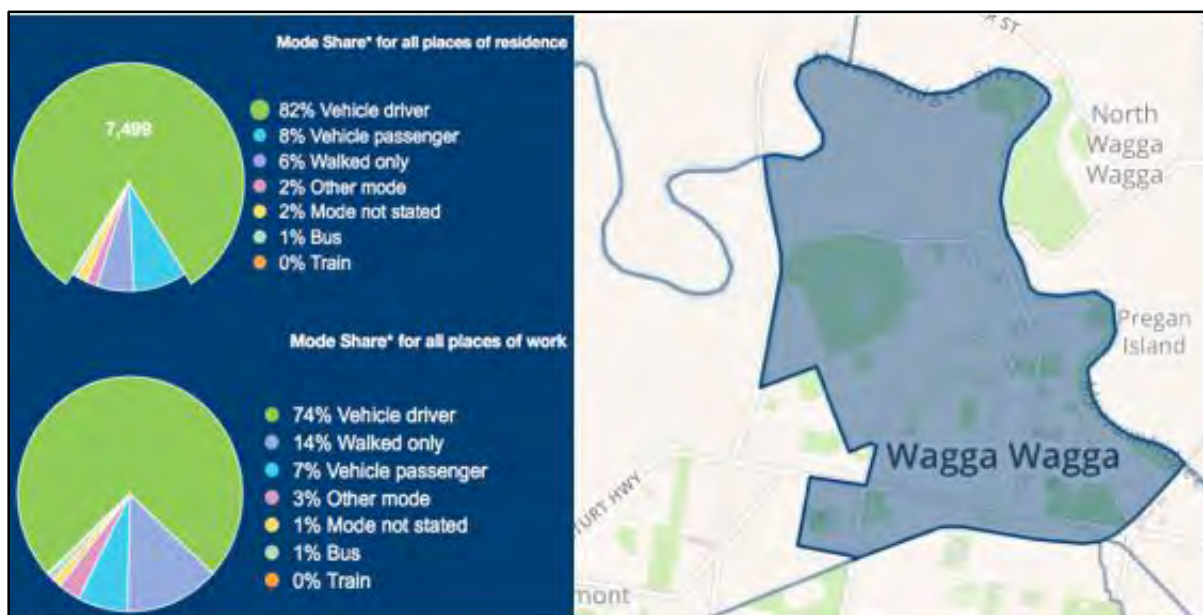
### 3.3 Public Transport

The Site's proximity to public transport is shown in **Figure 4**. The Wagga Wagga Train Station is a major regional train station, providing an important link to other major cities. Intercity buses are also serviced at the Wagga Wagga Train Station transport hub.

Local buses are available at Baylis street which arrive at 15-30 minute intervals. These bus routes provide access to Glenfield Park, Bourkelands and Lake Albert.

### 3.4 Journey to Work Data Analysis

The Journey-to-Work data (provided by the Bureau of Transport Statistics) for employee mode share within the Travel Zone 7339, is shown in **Figure 5**. The data indicates approximately 81-90% of commuters rely on private vehicle use.



**Figure 5 – Journey-to-Work Data**

## 4 Traffic Planning History

Development consent DA11/0568.09 currently provides for residential and retail development on Lot 11 DP1178547 and commercial development on Lot 12 DP1178547:

- A total of 98 residential apartments in six buildings, associated car parking, swimming pool and gymnasium:
  - 29 apartments in three mixed use buildings comprising ground floor retail units and upper level residential apartments, fronting Edward Street (Occupation Certificate has been issued and both residential and retail are occupied/trading);
  - One four storey apartment block containing 21 apartments and gymnasium within the centre of the residential precinct (Construction certificate has been issued);
  - Two five storey residential apartment blocks, each with 24 apartments, towards the rear of the site (Construction certificate has been issued);
- New Shopping Centre, comprising basement car parking, a ground floor supermarket incorporating adaptive reuse of the former flour mill building and first floor commercial floor space;
- Internal adaption of the mill building to allow retail, office and restaurant uses,
- Adaptive reuse of the grain store and grain silos including minor internal and external works;
- “Mill Avenue”, linking Flinders Street through to a signalised junction connecting Edward Street to the eastern portion of the site, including access to the basement car-parking and servicing and loading docks;
- New street tree planting along Edward Street and Flinders Street; and
- Landscaping and car-parking ancillary to each respective element of the site.

The Site has extensive history and of relevance are the Traffic Impact Assessment reports prepared by Colston Budd Hunt & Kafes (CBHK) for the approved DA (2011) and a Section 96 report prepared in 2013.

Ason Group prepared a Section 96 report for the Site in 2015 which sought to increase the residential yield by 1 unit and the parking capacities by 14 spaces however the CBHK reports are summarised in detail below to understand the significant DA & S96 applications and key traffic planning findings.

A summary of the development yields and associated traffic generating characteristics is provided in the following sections which provides context for the previous planning approvals.

#### 4.1 CBHK DA Report – 2011 – DA11/0568

The 2011 Development Application for The Mill comprised of:

- A Supermarket of 3,945 m<sup>2</sup> GFA or 2,960 m<sup>2</sup> GLFA
- 2,900 m<sup>2</sup> GFA of Office/Commercial Spaces;
- 510 m<sup>2</sup> GFA of Retail and 385 m<sup>2</sup> GLFA
- 580 m<sup>2</sup> GFA of Restaurants
- A residential component consisting of 12 town houses (12 x 3 beds) and 52 units (10 x 2 beds and 42 x 3 beds); and
- A conference centre of 1,630 m<sup>2</sup> GFA
- A parking provision of 443 spaces

The approved parking rates and requirements from the subsequent report are listed below in **Table 2**:

**Table 2: 2011 Car Parking Requirements**

Use	Area / Units	Parking Rate	DCP Parking Requirement
Residential (2 bed units)	10	1 space / unit	10
Residential (3 bed units)	54	2 space / unit + 1 visitor space / 4 units	124
Supermarket	3,945 m <sup>2</sup>	1 space / 33 m <sup>2</sup> GFA	120
Retail	510 m <sup>2</sup>	1 space / 45 m <sup>2</sup> GFA	12
Commercial/Office	2,900 m <sup>2</sup>	1 space / 45 m <sup>2</sup> GFA	65
Restaurant	580 m <sup>2</sup>	1 space / 25 m <sup>2</sup> GFA	23
Conference Centre	1,630 m <sup>2</sup>	1 space / 25 m <sup>2</sup> GFA	65
<b>Total</b>	-	-	<b>419</b>

The traffic generation of the 2011 DA is provided in **Table 3** however in total, the development was estimated to **generate 480 veh/hr** during the weekday PM peak (taking into consideration linked trips).



**Table 3: 2011 Approved Peak Hour Trip Generation**

Use	Area / Units	Weekday PM Trip Rate	Weekday PM Trips	Weekend Trip Rate	Weekend Trips
Supermarket	2,960 m <sup>2</sup>	15.5 trips / 100 m <sup>2</sup> GLFA	456	14.7 / 100 m <sup>2</sup> GFA	435
Retail	385 m <sup>2</sup>	4.6 trips / 100 m <sup>2</sup> GLFA	18	10.7 / 100 m <sup>2</sup> GFA	41
Restaurant	580 m <sup>2</sup> (25 spaces)	1 trip / parking space	25	1 trip / parking space	25
Offices	2,900 m <sup>2</sup> (65 Spaces)	0.8 trips / parking space	52	-	-
Residential	97 units	0.5 trips / unit	49	0.5 trips / unit	49
Conference Centre	1,630 m <sup>2</sup> (65 Spaces)	1 trip / parking space	65	1 trip / parking space	65

## 4.2 CBHK S96 Report – 2013 – ADA13/0080

The 2013 Section 96 Application for The Mill comprised of:

- A Supermarket of 1,600 m<sup>2</sup> GFA and 1,200 m<sup>2</sup> GLFA
- 3,870 m<sup>2</sup> GFA of Office/Commercial Spaces;
- 1,752 m<sup>2</sup> GFA of Retail and 1,314 m<sup>2</sup> GLFA
- 675 m<sup>2</sup> GFA of Restaurants
- A residential component consisting of 97 units (66 x 2 beds and 31 x 3 beds); and
- A parking provision of 339 spaces

The primary modifications (from a traffic perspective) included the reduction of supermarket GFA and increase to the commercial GFA.

The approved parking rates and requirements from the subsequent report are listed below in **Table 4**:

**Table 4: 2013 Car Parking Requirements**

Use	Area / Units	Parking Rate	DCP Parking Requirement
Residential (2 bed units)	66	1 space / unit	66
Residential (3 bed units)	31	2 space / unit + 1 visitor space / 4 units	81
Supermarket and Retail	3,352 m <sup>2</sup>	1 space / 45 m <sup>2</sup> GFA	75
Commercial	3,870 m <sup>2</sup>	1 space / 45 m <sup>2</sup> GFA	86
Restaurant	675 m <sup>2</sup>	1 space / 25 m <sup>2</sup> GFA	27
<b>Total</b>	-	-	<b>335</b>

The traffic generation of the 2011 DA is provided in **Table 5**, however in total, the development was estimated to generate 340 veh/hr during the weekday PM peak (taking into consideration linked trips).

**Table 5: 2013 Approved Peak Hour Trip Generation**

Use	Area / Units	Weekday PM Trip Rate	Weekday PM Trips	Weekend Trip Rate	Weekend Trips
Supermarket	1,200 m <sup>2</sup>	15.5 trips / 100 m <sup>2</sup> GFA	186	14.7 / 100 m <sup>2</sup> GFA	176
Retail	1,314 m <sup>2</sup>	4.6 trips / 100 m <sup>2</sup> GFA	60	10.7 / 100 m <sup>2</sup> GFA	141
Restaurant	675 m <sup>2</sup> (27 spaces)	1 trip / parking space	27	1 trip / parking space	27
Commercial	3,870 m <sup>2</sup> (86 spaces)	0.8 trips / parking space	67	-	-
Residential	97 units	0.5 trips / unit	49	0.5 trips / unit	49

## 5 Parking Requirements

### 5.1 Council Car Parking Rates

Section 2.2 of Wagga Wagga's Development Control Plan (DCP) 2010 outlines Council's parking controls. Whilst the DCP defines the city centre boundary at Edward Street, the site is located on the boundary of the city centre. Hence, the city centre rate has been adopted for the restaurant land use. This city centre restaurant rate was also adopted in the previously approved Development Application and is therefore consistent with traffic planning for the site.

The following summarises the applicable minimum car parking rates from Council's DCP to individual land uses:

- Hotel: 1 space per unit plus 1 space per 2 employees
- Office: 1 space per 45 m<sup>2</sup> GFA
- Retail: 1 space per 45 m<sup>2</sup> GFA
- Restaurant: 1 space per 25 m<sup>2</sup> GFA (City Centre)
- Function Room: 1 space per 25 m<sup>2</sup> GFA

Section 2.2 Control C4 of Council's DCP specifies the following for mixed use developments:

*"The parking required is the total of requirements for each use. Variations can be considered where it can be demonstrated that the peak demand for each land use component is staggered or that development as a whole generates less parking than separable parts"*

Control C4 acknowledges that an appropriate parking provision for a mixed-use development has varied demands and simple application of Council's rates could result in an overprovision of parking. **Table 6** presents Council's parking requirement based on the application of the above rates to the proposed development schedule and individual land uses.

**Table 6: Council Car Parking Controls**

Use	Area / Units	Parking Rate	DCP Parking Requirement
Hotel	156	1 space per unit	156
Hotel Staff	20	1 space per 2 staff	10
Office	2,122 m <sup>2</sup>	1 space per 45m <sup>2</sup>	47
Retail	752 m <sup>2</sup>	1 space per 45m <sup>2</sup>	17
Restaurant	1,034 m <sup>2</sup>	1 space per 25m <sup>2</sup>	41
Cafe	200 m <sup>2</sup>	1 space per 25m <sup>2</sup>	8
Function Room	354 m <sup>2</sup>	1 space per 25m <sup>2</sup>	14
<b>Total</b>	<b>-</b>		<b>293</b>

Table 6 demonstrates that application of the DCP parking rates to the individual land uses would require 293 however the synergy of use across the precinct has been investigated in Section 4.2.

## 5.2 Parking Profile

Determining an appropriate parking provision for the Mixed-Use development requires the analysis of peak demands of varying land uses rather than summing the parking requirements of each element of the proposed development. As highlighted above, Section 2.2 C4 of Wagga Wagga's Development Control Plan (DCP) 2010 states that for mixed use developments, the appropriate parking required can be demonstrated through investigating the staggered peak demands for each of the development's components.

The proposed development consists of a number of restaurants, café, retail tenancies, offices and a hotel with a function room. Each of the land uses generate parking demands at varying times. The following principles form the basis of the parking analysis.

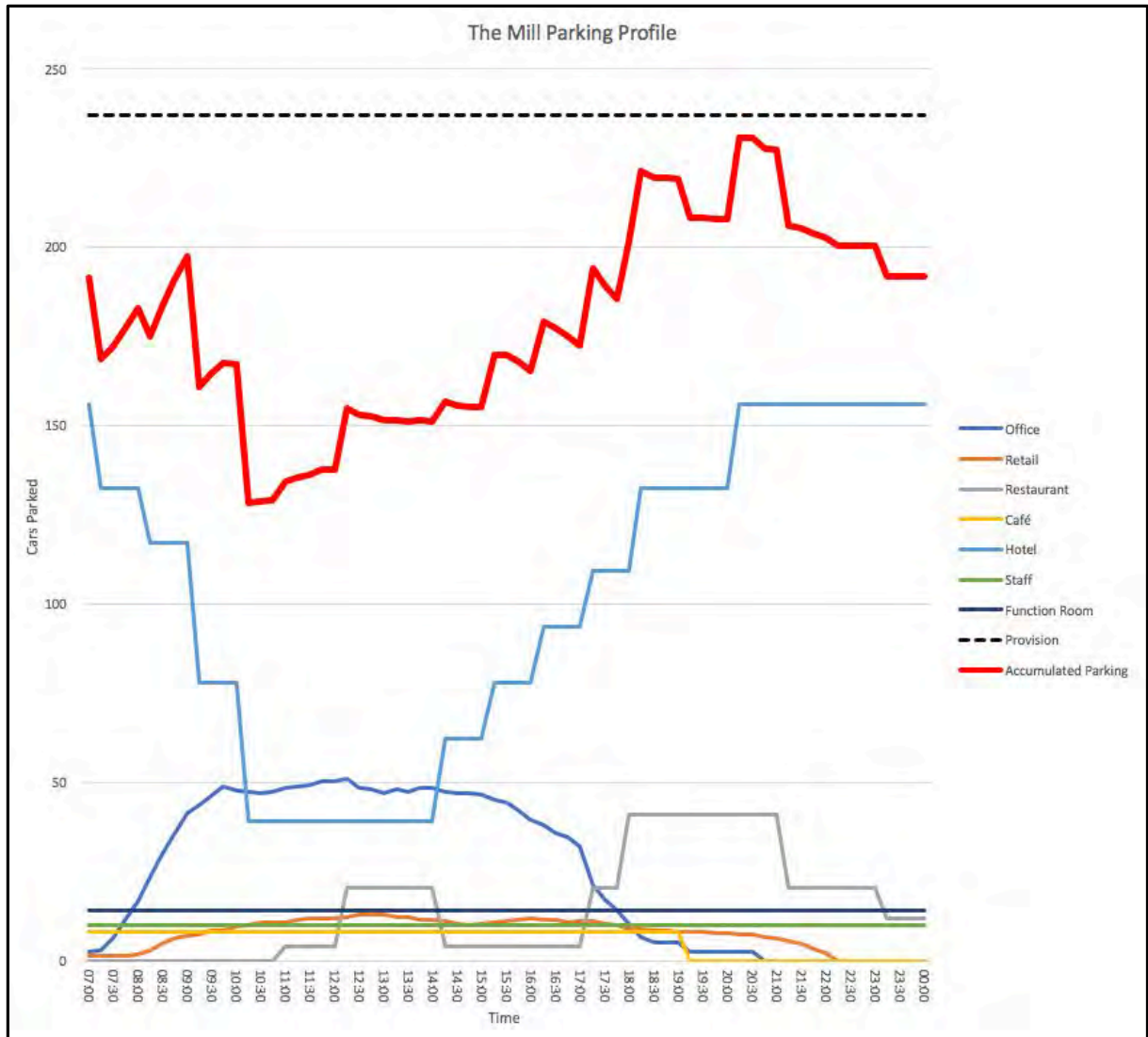
- The RMS survey analysis of a Newcastle office was undertaken in 2010 to determine the parking generation rates of an office development in a regional location (Trip Generation and Parking Surveys (Office Blocks) Analysis Report). This is the most appropriate rate for an office/commercial development based on RMS Guidance and has been adopted for this assessment. The parking accumulation profiles have been applied and extrapolated based on Council's DCP parking requirement.

- Regional retail parking demands for the proposed development has been determined based on the parking RMS survey data for regional shopping centres. The parking data for the Mittagong Shopping Centre can be found in the RMS data report *Trip Generation and Parking Demand Surveys of Shopping Centre*. The Mittagong Shopping Centre survey is the most appropriate profile for adoption within the RMS Guidance.
- For the purpose of this assessment, the restaurant and café peak period has been represented at 100% between 12 PM – 2 PM and 6 – 9 PM.
- As a conservative approach, the parking analysis has assumed full occupancy of the hotel between 8 PM to 7 AM and scaled factors outside of this as advised by Interlink (shown in **Table 7**) below. It has also been advised that 20 hotel staff members will be present at any time due the varying shift times of employees. This is a worst-case assessment which would theoretically occur on rare occasions.
- The function area has a DCP parking requirement of 14 parking spaces and this parking demand has been adopted as a worst-case assessment.

**Table 7: Hotel Parking Profile**

Time	Parking Profile
Midnight to 7:00am	100%
7:00am-8:00am	85%
8:00am-9:00am	75%
9:00am – 10:00am	50%
10:00am – 2:00pm	25%
2:00pm – 3:00pm	40%
3:00pm – 4:00pm	50%
4:00pm – 5:00pm	60%
5:00pm – 6:00pm	70%
6:00pm – 8:00pm	85%
8:00pm – midnight	100%

**Figure 6** illustrates the parking profile for the mixed-use development with the detailed analysis provided in **Appendix B**.



**Figure 6: Projected Parking Demand**

The peak parking demand occurs at 8:15 PM to 8:45 PM, and is estimated as 231 accumulated parking spaces for the mixed use development. This peak demand is fundamentally due to the significant parking requirement of the proposed hotel and based on the provision that every room would require a parking space with 100% occupancy assumed. The provision of 237 parking spaces within the precinct therefore satisfies the maximum peak demand. Furthermore, during standard business hours (7-5PM), the weekday parking demand ranges from 128 spaces (10:15AM) - 197 spaces (9AM) offering assurance that the parking quantum is more than appropriate to accommodate all parking within the site.



Finally, the weekend demand has not been assessed on the basis that the office component would not be operational (47 spaces). With this, the sum of the individual parking requirements in accordance with Council's parking standards equates to 246 parking spaces (the development provides 237 spaces) and analysis of the profiling would clearly satisfy the staggered demands.

### 5.3 Parking Analysis

The parking profile demonstrates that there is synergy between the mixed land uses that could readily be serviced on site with the available parking quantum. The analysis should be considered a worst-case assessment and provide confidence that The Mill development with 237 parking spaces can satisfactorily accommodate the parking demands for the following reasons:

- The RMS Guidelines recommends the following parking provision for a tourist hotel:
  - 5-star Hotel: 1 space per 5 rooms;
  - 3 – 4 star Hotel: 1 space per 4 rooms;

RMS Guidelines defines a 5-star Hotel as a hotel development that incorporates characteristics of retail, entertainment, conference facilities and health clubs. The RMS parking rate of 1 space per 4 rooms would therefore apply to the development. Application of this rate would require 41 spaces compared to 156 spaces under Council's DCP. Whilst the RMS rate is not adopted or relied upon for this assessment, it is rational that the analysis which assumes 100% occupancy and each room requiring 1 space is a high provision. Furthermore, it has been advised that on average, 85% occupancy is projected as part of the hotels business plan.

- The hotel and indeed the other retail/commercial uses on site are located in close proximity to the Wagga Wagga train station within a 400 metres radius of the hotel. Patrons are within walking distance of transport options of intercity coaches, trains and a taxi usage.
- A shuttle bus service is proposed by the hotel to transport guests to and from the Wagga Wagga Airport to the hotel, decreasing patron reliance on private vehicles.
- The function area has been assessed independently however it is probable that attendees would also be hotel patrons.
- As part of the design brief, coach parking (adjacent the porte-cochere) has been provided for the hotel. These vehicles can accommodate up to 65 persons which would significantly reduce the parking demand of the hotel.

In summary, whilst the parking profiling has demonstrated that peak demands could theoretically be accommodated with the 237 parking spaces on site, the analysis is considered a worst-case assessment for the reasons discussed above. It can be concluded that the development generates less parking than the separable parts. The parking provision is therefore supportable and consistent with Councils' parking controls.

#### 5.4 Disabled Parking

Section 2.2 C3 of Council's DCP states that disabled (or accessible) car parking are to be provided and to comply with the relevant Australian Standard. In response, the development provides 13 accessible parking spaces. These spaces are to be designed in accordance with requirements of AS2890.6 (2009) *Part 6: Off-street parking for people with disabilities*.

## 6 Traffic Impacts

### 6.1 Forecast Traffic Generation

**Table 8** presents the forecast peak hour trip generation based on the applicable Roads & Maritime Services (RMS) trip rate guidance.

**Table 8: Forecast Weekday Peak Hour Trip Generation**

Use	Area / Units	Weekday PM Trip Rate	Weekday PM Trips
Hotel	156	0.4 trips / unit	62
Office	2,122 m <sup>2</sup>	0.8 trips / space	38
Retail	752 m <sup>2</sup>	4.6 trips / 100 m <sup>2</sup> GFA	35
Restaurant	1,034 m <sup>2</sup>	5 trips / 100 m <sup>2</sup> GFA	52
Cafe	200 m <sup>2</sup>	4.6 trips / 100 m <sup>2</sup> GFA	9
Function Room	354 m <sup>2</sup>	1 trip per space	14
<b>TOTAL</b>	-	-	<b>210</b>

NOTE: All trip rates are in trips per 100 m<sup>2</sup> of GFA, except for the residential use, which is in trips per unit

It is evident from the above table that the Proposal would generate 210 veh/hr during the PM peak.

In addition, the approved residential component of 98 units should be accounted, so that a direct comparison with the most recent traffic generation assessment (CBHK 2013 report – Section 3 of this report) can be undertaken. The residential component generated ~ 50 trips during the peak hour. With this, the precinct is estimated to generate a **Weekday PM peak of 260 veh/hr**. Comparison of the forecast trip generations with CBHK 2013 threshold (340veh/hr) results in an overall reduction of 80 veh/hr during the weekday PM peak.

The proposal is therefore supported on traffic planning grounds and would not result in any adverse traffic impacts over and above the previous development approvals.

## 7 Access and Internal Design Aspects

The access, internal circulation and car parking generally complies with the Australian Standard requirements of AS2890.1 (2004) *Part 1: Off-street car parking*, AS2890.2 (2002) *Part 2: Off-street commercial vehicle facilities* and AS2890.6 (2009) *Part 6: Off-street parking for people with disabilities*. Whilst it is acknowledged that the design will be refined at the detailed CC stage in response to the applicable condition of consent, the following characteristics are noteworthy:

### 7.1 Internal Road Network and Access

- The development primary site access is located to the north-east via the proposed signalised intersection on Edward Street. This signalisation of the intersection (which is a current condition of consent) will continue to serve The Mill site and the Super-A-Mart development to the east. It is understood that the intersection would be subject to detailed design by the RMS.
- The largest vehicle required to access The Mill precinct is a large coach or bus (14.5m in length). Swept path analysis has been undertaken demonstrating coach access to the pick-up and drop off area (to the south of the hotel lobby).
- The internal roadway has been designed by SCP Civil Engineers and reference should be made to the detailed drawings submitted separately. The Mill Avenue (north-south link) which connects Edward Street and the southern boundary, has been designed to generally accommodate 1 lane of traffic in the southbound direction and 2 northbound lanes on approach to the proposed signalised intersection.
- Mill Avenue (north-south link) forms an internal intersection with Mill avenue (east-west link). Priority control is proposed at this intersection with the west approach to “give-way” to all traffic (southbound right turns and U-turns). These are the predominant movements at this intersection.

Appropriate line marking and signage is proposed in accordance with AS.

- Parking is provided on western section of Mill Avenue (north-south) and is designed in accordance with AS 2890.1 (2004).
- The Hotel Porte-Cochere has been assessed and is capable of accommodating a B99 design vehicle as per the requirements of AS 2890.1. The parking configuration in this area comply with AS 2890.1.

- Access to the primary basement car park is located on Mill Avenue (North) nearest Edward Street. Swept path analysis has been undertaken demonstrating uninterrupted two-way flow. The access driveway is designed in accordance with AS 2890.1.
- The internal road network has been designed in accordance with the requirements of AS2890.2.

## 7.2 Parking Module Design

- User Class 2 parking is designated with the primary car park (basement car park), accommodating a minimum space length of 5.4m, a minimum width of 2.5m and a minimum aisle width of 5.8m. These dimensions are applicable to 'town centre parking' and 'hotels'. Although the parking within the precinct is shared, it is likely that the primary car park would generally accommodate the hotel and office (daytime) parking demands. The design of the car park is therefore appropriate and is capable of accommodating the shared car parking demands for the precinct.
- The Heritage forecourt has been partially constructed and currently accommodates some retail demand (associated with the existing residential component) and construction employee parking demands. Nonetheless, the car park which will service the retail/restaurant or more short term demands has been designed to accommodate User Class 3 parking. This is equivalent to User Class 2 (being 100mm wider) and AS 2890.1 highlights that it is also appropriate for town centre parking (similar to User Class 2).
- Three parking spaces are provided with a 4.78m aisle and as a result, a wider parking bay of 3.2m is provided as compensation. This would allow satisfactory operation and has been tested with swept path analysis confirming acceptability.
- All spaces located adjacent to obstructions of greater than 150mm in height are provided with an additional width of 300mm.
- Dead-end aisles are provided with the required 1.0m aisle extension in accordance with Figure 2.3 of AS2890.1.
- All accessible/disabled parking spaces are designed in accordance with AS2890.6. Disabled spaces are provided with a clear width of 2.4m and located adjacent to a minimum shared area of 2.4m.

### 7.3 Head Heights

- A minimum clear head height of 2.2m is provided for all areas within the basement or covered car parks as required by AS2890.1. A clear head height of 2.5m is provided above all disabled spaces as required by AS2890.6.

#### Other Design Considerations

- All columns are required to be located outside of the parking space design envelope shown in Figure 5.2 of AS2890.1.
- Appropriate visual splays are provided in accordance with the requirements of Figure 3.3 of AS2890.1 at all accesses.

### 7.4 Summary

The internal configuration of the site – including vehicular access, car parking areas and the servicing areas – has been designed in accordance with the relevant Australian Standards of AS2890.1, AS2890.2 and AS2890.6. It is however envisaged that a condition of consent would be imposed requiring compliance with these standards and as such any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.



## 8 Council Consultation

Council has provided Interlink Wagga Central Pty Ltd with DA feedback during the meeting held on 24<sup>th</sup> October 2017. **Table 9** presents an overview of Councils request and the consequent response provided by Interlink Wagga Central Pty Ltd.

**Table 9: Council Consultation Request and Response**

Council Comment	Response
Council require the Report to fully articulate how the car parking will be managed after the three-lot subdivision	<ul style="list-style-type: none"> <li>The Stratum Subdivision will show car parking on each of the three Lots.</li> <li>The easements and s88B instrument will set out common car-parking rights across all car spaces (except Hotel Lobby). In other words, all car spaces are available to all users (owners, tenants and visitors/customers to all three Lots), except the Hotel drop-off/pick-up area.</li> </ul>
Council require the Report to fully articulate how access for all users will be managed after the three lot subdivision.	<p>The existing Mill Avenue easement granting right of carriageway will be extinguished and replaced with a new easement granting right of carriageway to all users:</p> <ul style="list-style-type: none"> <li>the residential development (98 units)</li> <li>the Mill Retail Colonnade tenancies</li> <li>The Grainstore tenancies</li> <li>The Hotel and Function Centre</li> <li>The Commercial Building tenancies</li> <li>Vehicles exiting the Super A-Mart</li> </ul>
Interlink and Keneco will enter into an agreement to include:	<ul style="list-style-type: none"> <li>Design of the shared private road to be known as Mill Avenue.</li> <li>Keneco Property will construct and maintain the portion of the road on its' property</li> <li>Interlink Wagga Central will construct and maintain the portion of the road on its' property</li> <li>Interlink and Keneco will grant reciprocal rights of carriageway</li> <li>Interlink and Keneco will each register Plans and s88B with LPI, including the respective easements benefitting and burdening each party</li> </ul>
Interlink will enter into an agreement with RMS, for RMS to undertake developer's works specified in the development consent DA11/0568.09	<ul style="list-style-type: none"> <li>RMS will undertake the works shown on their concept plan, and in doing so, will satisfy the relevant Conditions of Consent in both Interlink Wagga Central Consent DA11/0568.09 and Keneco Property Consent DA16/0372</li> <li>Interlink will amend the carpark levels in the Mill Forecourt driveway, to</li> </ul>

	<p>match the final levels determined by RMS for the left-turn deceleration lane</p> <ul style="list-style-type: none"> <li>▪ Interlink will design and construct the Mill Avenue exit lane to match with RMS requirements for the left-hand turn out.</li> </ul>
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## 9 Conclusions

The key findings of this Traffic Impact Assessment are:

- The amending DA comprises the replacement of the approved supermarket and retail centre with and generally seeks approval for a 156 room 4.5-star Hotel, integrated Function Centre and a commercial centre over two levels of with 2,122 m<sup>2</sup> office/commercial GFA. The revised basement carpark provides 112 car spaces and additional on-grade car parking to provide a total of 237 spaces on Lot 12 DP1178547.
- The Site has been the subject to previous planning approvals and currently has development approval for a mixed-use development encompassing apartments, a supermarket, and retail and office components. This subject TIA report has assessed all non-residential land uses on site to determine the adequacy of the car parking provision (237 spaces) and demonstrate the peak parking demand across a typical weekday.
- Council's DCP controls permits merit based parking assessments and variations can be considered where it can be demonstrated that the peak demand for each land use component is staggered or that development (as a whole) generates less parking than separable parts. The conservative parking assessment analysed the varied parking profiles and it was determined that future parking demands could be accommodated on-site with 237 parking spaces. The peak period was identified at 8:15PM-8:45PM with 231 parking spaces.
- The overall development is estimated to generate a weekday PM peak of 260 veh/hr. Comparison of the forecast trip generations with the most recent approved development threshold (340veh/hr) results in an overall reduction of 80 veh/hr during the weekday PM peak. The proposal is therefore supported on traffic planning grounds and would not result in any adverse traffic impacts over and above the previous development approvals.
- The internal configuration of the site – including vehicular access, car parking areas and the servicing areas – has been designed in accordance with the relevant Australian Standards of AS2890.1, AS2890.2 and AS2890.6.

It is therefore concluded that the proposed development at Edward Street, Wagga Wagga is supportable on traffic planning grounds.