Traffic Technical Note

Planning Proposal
18-40 Anderson Street, Parramatta

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-	09/03/2018	Draft	A. Rasouli	P. Trethewey
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1 Introduction

1.1 Overview

This Technical Note (TN) has been prepared by Ason Group to assess a proposal for the subject site located at 18-40 Anderson Street, Parramatta (the Site). The proposal generally seeks to vary the permitted land-uses to allow residential development on the Site, whilst retaining the current business / commercial zoning at a rate of 6:1.

It is noted that the City of Parramatta (Council) are currently undertaking studies to rezone the Site from B5 Business Development to B3 Commercial Core with a Floor Space Ratio (FSR) increase from of 4:1 to 6:1.

1.2 Study Objective

The objectives of this study are to:

- Undertake a traffic generation assessment of the Site under the following two scenarios:
  - Scenario 1 – Council's CBD Planning Proposal (the CBD Planning Proposal)
  - Scenario 2 – Proposed Mixed-use Development
- Subject to the outcome of the above, outline the scope of any further traffic studies required, if any.

This TN references the following guidelines and documents, including:

- The 2002 NSW Roads and Maritime Services (RMS), *Guide to Traffic Generating Developments* (the RMS Guide), and
- The 2013 RMS *Guide to Traffic Generating Developments – Updated traffic surveys* (the RMS Guide Update).
- Parramatta City Council, *Planning Proposal - Parramatta CBD Amendment to Parramatta LEP 2011*- No. 3, March 2016.

2 Strategic Context

2.1 Existing LEP

The Site is currently zoned B5 Business Development by the Parramatta Local Environment Plan (LEP) 2011. A 180-room Hotel and 220 car parking spaces – operated by Holiday Inn – is currently located on-site.

2.2 Parramatta City Council CBD Planning Proposal

2.2.1 Overview

City of Parramatta has undertaken a draft Planning Framework study for the future of Paramatta CBD area in 2014 with the aim of increasing new residential and commercial developments and to improve the design quality of the proposed uses within the CBD. As part of this study, several recommendations have been made of which expanding the commercial core of the CBD area is one of these recommendations.

According to Council's CBD Planning Proposal the Site is identified as a future B3 Commercial Core land-use. The strategy also envisages a future Floor- FSR of 6:1, with 15% bonus FSR and height provisions for development that demonstrate "design excellence".

2.2.2 Transport Planning

Under the CBD Planning Proposal, the Site is identified as a commercial redevelopment site. Accordingly, it is assumed that the transport studies being undertaken in support of Council's City-wide vision have adopted a commercial development yield based on the proposed controls, being a commercial land-use with a floor space ratio (FSR) of 6:1.

3 Traffic Assessment

3.1 Adopted Traffic Generation Rates

3.1.1 RMS Guide & Technical Direction Rates

The RMS Guide outlines the following rates for a 'Motel':

- PM peak hour = 0.4 trips per unit
- Daily = 3.0 trips per unit

The RMS Technical Direction (TDT 2013/ 04a) provides the most recent guidance for commercial (offices) uses; the relevant rates are as follows:

- AM peak hour = 1.6 trips per 100m^2 GFA (gross floor area)
- PM peak hour = 1.2 trips per 100m^2 GFA
- Daily = 11 per 100m^2 GFA

However, the above rates are the average of commercial offices across Sydney and therefore may not reflect the 'constrained' parking provisions applicable to commercial development within the Parramatta CBD. In this regard, Appendix D2 of the RMS Guide Update includes survey results for an office site in Parramatta. Accordingly, the following generation rates – from that surveyed site – are deemed to be more appropriate to estimate the traffic generation of office development on the Site:

- AM peak hour = 0.69 trips per 100m^2 GFA
- PM peak hour = 0.61 trips per 100m^2 GFA
- Daily = 6.06 trips per 100m^2 GFA

The RMS Guide Technical Direction (TDT 2013/ 04a) provides the most recent guidance for residential uses; the relevant rates as follows:

- AM peak hour = 0.19 trips per units
- PM peak hour = 0.15 trips per units
- Daily = 1.52 trips per units

The use of the above RMS rates is considered to be appropriate for the proposed mixed-use development on the following grounds:

- The Site is located in the Parramatta CBD area including major employment shopping and recreational facilities.
- The traffic generation is reflective of the restrained parking provisions applicable to the Parramatta CBD.

3.1.2 Surveyed Hotel Rates

Recognising that the generic RMS Guide Motel trip rates are both antiquated and relate to Motel use, as opposed to the existing and proposed hotel uses, surveys of the existing 180-room Holiday Inn hotel were undertaken with a view to determining site specific hotel trip rates.

Accordingly, video surveys were undertaken for the 3 existing driveway crossovers that provide access to the hotel, covering a period of 48 hours over 15-16 February 2018. During this period all the vehicular movements in and out of each driveway were counted, and based on the data, the following average morning, evening and daily traffic volumes were determined:

- AM peak hour (between 7.30-8.30AM) = 65 vehicle trips
- PM peak hour (between 4.45-5.45PM) = 48 vehicle trips
- Daily = 507 vehicle trips

Accordingly, and considering the available 180 rooms for the existing hotel, the following actual trip rates per room are estimated:

- AM peak hour = 0.36 trips per room
- PM peak hour = 0.27 trips per room
- Daily = 2.82 trips per room

3.1.3 Summary of the Adopted Traffic Generation Rates

Having regard for the above, the adopted traffic generation rates to estimate the traffic generation of Scenario 1 and 2 are outlined in **Table 1**.

Table 1: Adopted Traffic Generation Rates

Land-use	AM Peak	PM Peak	Daily
Commercial / Office (trips per 100m^2 GFA)	0.69	0.61	6.06
Residential (trips per unit)	0.19	0.15	1.52
Hotel / Serviced Apartment (trips per room)	0.362	0.267	2.82

3.2 Estimated Traffic Generation – Scenario 1

The CBD Planning Proposal scheme proposes a commercial land-use on the Site for about 48,102m^2 of commercial/office GFA. Application of the adopted trip rates for commercial/office land-use as set out in Table 1 results in a forecast traffic generation of:

- AM peak hour = 332 trips
- PM peak hour = 293 trips
- Daily = 2,915 trips

3.3 Estimated Traffic Generation – Scenario 2

Table 2 presents the proposed development adopted for Scenario 2, as well that the traffic generation forecast based on the application of the adopted trip rates in Table 1.

Table 2 : Traffic Generation - Proposed Mixed-Use Scheme

Land Use	Yield	AM Peak Hour (trips)	PM Peak Hour (trips)	Daily (trips)
Hotel	250 rooms	91	67	705
Residential apartments	266 apartments	51	40	404
Serviced apartments	24 apartments	9	6	68
TOTAL	**NA**	**151**	**113**	**1,177**

3.4 Comparison of Scenario 1 and Scenario 2 Traffic Generation

Table 3 provides a summary of the comparison of the traffic generation forecasts for Scenario 1 (based on the CBD Planning Proposal) and Scenario 2 (based on the Proposal).

Table 3: Traffic Generation Comparison

Scheme	AM Peak	PM Peak	Daily
Council CBD Planning Proposal (Scenario 1)	332	293	2,915
Proposed Mixed-Use Scheme (Scenario 2)	151	113	1,177
Difference	**+ 181**	**+ 180**	**+ 1,738**

The results in Table 3 demonstrate that the estimated traffic generation for the scenario with the proposed mixed-use development (Scenario 2) on the Site is significantly lower than the estimated traffic generations associated with the Council's approved B3 Commercial Core scenario (Scenario 1) for the morning and evening peak hours and across the entire day.

Therefore, it can be assumed that the traffic impacts of development at the Site under Council's CBD Planning Proposal would be significantly greater than the impacts associated with the Proposed mixed-use development.

4 Conclusions

The key findings of this study are:

- Based on the indicative development yields arising from the two scenarios under consideration, the future traffic generation has been assessed as follows:

Scheme	AM Peak	PM Peak	Daily
Council CBD Planning Proposal	332	293	2,915
Proposed Mixed Use	151	113	1,177
Difference	**- 181**	**- 180**	**- 1,738**

- Having regard for the above, the proposed mixed-use development at 18-40 Anderson Street, Parramatta will generate less traffic than under a standard B3 Commercial Core zoning proposed by the Council.
- Accordingly, the traffic generation associated with the proposed mixed-use development would have less traffic impact on the surrounding road network and intersections. Indeed, current transport planning for the wider CBD is being undertaken based on the higher Council proposal and will therefore more than account for the likely contribution of the proposed development.
- As the traffic generation associated with the proposal is less than the Council's scheme for the Site, further detailed traffic assessments are deemed to be unnecessary at this stage. Further detailed studies, if required, can be undertaken during subsequent Development Application(s) once the strategic transport planning for the CBD, as a whole, has been completed.