

Ref 10.151I01v02

traffic & transport planners

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23 January 2015

Urbis Level 23, Darling Park Tower 2 201 Sussex Street Sydney NSW 2000

Attention: Ian Cady, Associate Director

#### Re: Section 75W Application relating to 110-114 Herring Road, Macquarie Park Concept Plan Modification (MP10\_0112 MOD 5) and Stage 1 Project Approval Modification (MP10\_0113 MOD 5) Traffic Statement - Amended Car Park Layout

Dear Ian,

This letter has been prepared to accompany updated architectural drawings for the subject development, which have been amended in response to the Planning Assessment Commission (PAC's) refusal of the modification to the residential parking rates as proposed under MOD 3.

It addresses the following issues:

- The overall level of on-site car parking proposed in response to the PAC's refusal of the increase in the residential parking rates as proposed under MOD 3; and
- Key elements of the car park design and layout, considering the requirements of AS2890.1.

## **O** Car Parking Requirements

Given the PAC's refusal of the increase in the residential parking rates as proposed under MOD 3, the approved car parking rates for the development are as follows:

•	1 bedroom apartments	0.6 spaces / apartment

•	2 bedroom apartments	0.9 spaces /	apartment
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- 3 bedroom apartments 1.4 spaces / apartment
- Visitor parking
  0.2 spaces / apartment
- Commercial
  1.0 spaces / 100m<sup>2</sup>

It is noted that no car parking spaces are permitted for the increased residential GFA over the limiting floor area of 46,420m<sup>2</sup>.



#### Stage 1 Requirements

Application of the above parking rates to the current area schedule for <u>Stage 1</u> of this application provides the following parking requirements, as outlined in **Table 1** below.

Component of Development		Number / Area Approved Parking Rate		Stage 1 Parking Requirement (spaces)
	1-bedroom	138	0.6 spaces / apartment	83
	2-bedroom	171	0.9 spaces / apartment	154
Residential (26,418m <sup>2</sup> )	3-bedroom	0	1.4 spaces / apartment	0
(20,410111)	Sub-total			237
	Adaptable	34	1.0 spaces / apartment	34
Residential Visitor		343	0.2 spaces / apartment	69
Commercial / Retail		0	1.0 spaces / 100m <sup>2</sup>	0
TOTAL				340

## Table 1: Car Parking Requirements based upon Approved Parking Rates Stage 1

#### Stage 2 Requirements

Application of the approved parking rates to the current area schedule for <u>Stage 2</u> of this application provides the following parking requirements as outlined in **Table 2** below.

Given that no car parking spaces are permitted for the residential GFA over  $46,420m^2$ , a factor of <u>81%</u> has been applied to determine the parking requirements for the residents. This is the ratio of the Stage 2 GFA to which the approved parking rates apply (20,002m<sup>2</sup>, which is  $46,420m^2$  minus the Stage 1 GFA of 26,418m<sup>2</sup>) to the proposed Stage 2 GFA for the residential component of the development (24,721m<sup>2</sup>).

Table 2: Car Parking I	Requirements based ur	on Approved Parkin	a Rates - Stage 2
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Component of Development		Number / Area Approved Parking Rate		Stage 2 Parking Requirement (spaces)
	1-bedroom	165	0.6 spaces / apartment	99 x 0.81 = 81
	2-bedroom	85	0.9 spaces / apartment	77 x 0.81 = 62
Residential (24,721m <sup>2</sup> )	3-bedroom	17	1.4 spaces / apartment	24 x 0.81 = 20
(_+,, )	Sub-total			163
	Adaptable	30	1.0 spaces / apartment	30
Residential Visitor		297	0.2 spaces / apartment	60
Commercial / Retail		1,200m <sup>2</sup>	1.0 spaces / 100m <sup>2</sup>	12
TOTAL				265



#### **Overall Requirements**

In summary, based upon the approved parking rates and the proposed area schedule and unit mix, the parking requirements are as follows:

- Stage 1: 340 spaces
- Stage 2: 265 spaces
- TOTAL: 605 spaces

This excludes motorcycle parking, car share parking spaces (as proposed on the podium level), and other podium parking as previously approved.

## **O** Proposed Car Parking Provisions

The proposed level of car parking as shown in the modified architectural plans (which are included for reference as **Attachment A**) is summarised as follows:

	Stage 1				Stage 2			
Level	Resident (Standard)	Resident (Adaptable)	Visitor	Comm / Retail	Resident (Standard)	Resident (Adaptable)	Visitor	Comm / Retail
B1	39	12	24	0	77	14	22	0
B2	52	22	0	0	86	16	38	12
B3	146	0	45	0	0	0	0	0
Sub TOTAL	237	34	69	0	163	30	60	12
TOTAL	340					265	;	

#### **Table 3: Proposed Parking Provisions**

As outlined in the table above, a total of 605 parking spaces are proposed in the three basement levels, with 340 spaces to be provided under Stage 1, and an additional 265 spaces to be provided under Stage 2. This is consistent with the requirements determined through the application of the PAC approved parking rates, as outlined in the previous section.

## Car Park Layout

As shown the architectural drawings included as **Attachment A**, the internal car parking design, including ramps, internal circulation aisles, parking aisles and parking modules, is generally in accordance with the requirements of AS2890.1 and AS4299, as summarised following:

- Standard parking spaces are 2.4m wide and 5.5m long, exceeding the minimum requirements as stipulated in AS2890.1 (Clause 2.4.1);
- Parking aisles are 5.8m wide, meeting the minimum requirements as stipulated in AS2890.1 (Clause 2.4.2);



- Columns are positioned so as to not impede vehicle manoeuvring into and out of parking spaces, or opening of doors, in accordance with the AS2890.1 (Clause 5.2);
- Accessible parking spaces are 3.8m wide and 5.5m long, in accordance with the requirements of AS4299 (Clause 3.7);
- Ramps are proposed to have a maximum grade of 1:8, which meets both the maximum grade and the maximum grade change requirements as stipulated in AS2890.1 (Clause 5.5.3); and
- Speed humps are proposed to be strategically placed on long parking aisles, to help control vehicle speeds.

Notwithstanding the above, the car park layout would be subject to refinement at detailed design / Construction Certificate stage, therefore any minor amendments (if necessary) could be made at that stage.

## **O** Summary and Recommendation

In summary:

- The overall level of on-site parking for Stage 1 and Stage 2 under this application is 605 parking spaces (340 spaces under Stage 1 and 265 spaces under Stage 2), which meets the requirements determined through the application of the PAC approved parking rates.
- The internal car parking design as shown in the amended plans, including ramps, internal circulation aisles, parking aisles and parking modules, is generally in accordance with the requirements of AS2890.1 and AS4299.

This application is therefore considered to be supportable from a traffic-engineering perspective.

Please contact the undersigned should you have any queries or require any further information or assistance.

Yours faithfully

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Anne Coutts Senior Engineer

Encl: Attachment A



# **ATTACHMENT A**

**Amended Architectural Drawings** 

traffic impact studies | expert witness | local govt. liaison | traffic calming | development advice | parking studies pedestrian studies | traffic control plans | traffic management studies | intersection design | transport studies

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	LEGEND
	STAGE 2 CARPARK FIT-OUT
	75W CONCEPT PLAN - PAC APPROVED BASEMENT OUTLINE
A	PARKING SPACE – ADAPTABLE APARTMENT
МВ	PARKING SPACE – MOTOR BIKE
R	PARKING SPACE – RETAIL
V	PARKING SPACE – VISITOR
	RESIDENTIAL STORAGE - STORAGE AREAS ENCLOSED WITH CYCLONE FENCING AND GATE OR SOLID WALLS AND DOOR.

Issue

A1



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STAGE 1 PARKING TALLY

COMMERCIAL/RETAIL

RISIDENTS (EX. ADAPT) 52

RESIDENTS ADAPATBLE 22

VISITORS

STAGE 2 PARKING TALLY

38

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- VISITORS RISIDENTS (EX. ADAPT) 86 RESIDENTS ADAPATBLE
- COMMERCIAL/RETAIL



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LEGEND STAGE 2 CARPARK FIT-OUT **75W** CONCEPT PLAN – PAC APPROVED BASEMENT OUTLINE A PARKING SPACE – ADAPTABLE APARTMENT MB PARKING SPACE – MOTOR BIKE **R** PARKING SPACE – RETAIL V PARKING SPACE - VISITOR RESIDENTIAL STORAGE – STORAGE AREAS ENCLOSED WITH CYCLONE FENCING AND GATE OR SOLID WALLS AND DOOR.



## Drawing No Scale 1:330@A1DA2002

Issue

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NOT FOR CONSTRUCTION



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STAGE 1 PARKING TALLY

RISIDENTS (EX. ADAPT) **146** 

RESIDENTS ADAPATBLE 0

COMMERCIAL/RETAIL

VISITORS

STAGE 2 PARKING TALLY

VISITORS RISIDENTS (EX. ADAPT) RESIDENTS ADAPATBLE COMMERCIAL/RETAIL

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Architect

MACQUARIE PARK VILLAGE 110-114 HERRING ROAD MACQUARIE PARK

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