Ref 10 151l07v02

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11th October 2013

Urbis
Level 23, Darling Park Tower 2
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Sydney NSW 2000

Attention: Ian Cady, Associate Director

Re: Section 75W Application relating to 110-114 Herring Road, Macquarie Park (MP 10_0112)

Dear Ian,

We refer to your correspondence regarding the abovementioned development and in particular the proposed modification to Condition C5 of the Concept Plan Approval (MP 10_0112) dated September 2012, relating to the provision of car parking. In this regard, TRAFFIX has undertaken a detailed assessment of the implications of increasing the overall parking provision for the development and the results of our assessment are summarised below.

Context

In September 2012, the Planning Assessment Commission (PAC) approved a Concept Plan Application for a mixed use development on the existing Stamford Hotel Site located at 110-114 Herring Road, Macquarie Park. The original application submitted to the Department of Planning and Infrastructure in January 2011, sought approval for a mixed use residential development comprising seven (7) residential flat buildings including approximately 626 units, 790 parking spaces and a FSR of 2.54:1.

The application was subsequently modified to address the submissions lodged with the Department, and the amended application was approved by the PAC in September 2012. The approved development included seven residential flat buildings with an approximate yield of 537 apartments and 1,210m^2 of non residential GFA with an overall FSR of 2.13:1. The approval required parking to be provided in accordance with the RMS publication entitled Guide to Traffic Generating Developments which required some 543 parking spaces

A Section 75W was lodged in January 2013 to amend the approved Concept Plan. The application sought to increase the overall FSR to 2.28:1 and resulted in an overall development yield of approximately 593 apartments (+56). The application also sought to increase the parking provision to 1 space per apartment. The application was approved by the PAC on 3 June 2013, although the PAC did not support any increase in the residential parking rates and refused any additional parking for the additional approved residential floor space.

Discussion

This modification seeks to amend the car parking provision for the overall development to 1 space per unit as opposed to the rates required under Condition C5 of the Concept Plan Approval, as summarised in **Table 1** below.

Table 1: Comparison of Approved and Proposed Residential Parking Rates

Dwelling Type	2013 PAC Approved Rates	Now Proposed
One Bedroom Unit	0.6 / unit	1.0 / Unit
Two Bedroom Unit	0.9 / unit	1.0 / Unit
Three Bedroom Unit	1.4 / unit	1.0 / Unit
Visitor	0.2 / Unit	0.2 / Dwelling
Total Parking Provision	**565***	**781**

* includes the additional FSR not subject to additional parking as required by PAC in its approval dated 3 June 2013

The modification sought in Table 1 is considered justified on numerous grounds and these are outlined in the following sections.

Precedent

TRAFFIX has undertaken a comparison of approved parking rates for other development sites with similar accessibility to public transport than the Stamford site, as shown in **Table 2**.

Table 2: Comparison of Approved Comparable Developments within Macquarie Park

Type	84-92 Talavera Road	1-9 Allengrove Road	120-128 Herring Road	110-114 Herring Road
Consent Authority	JRPP (2012)	Land & Environment Court (2012)	Minister/DoPI (2011)	PAC (2012)
One Bedroom Rate	1.0 Spaces/Unit	1.0 Spaces/Unit	1.0 Spaces/Unit	0.6 Spaces/Unit
Two Bedroom Rate	1.2 Spaces/Unit	1.2 Spaces/Unit	1.0 Spaces/Unit	0.9 Spaces/Unit
Three Bedroom Rate	NA	1.6 Spaces/Unit	1.6 Spaces/Unit	1.4 spaces per unit
Total Approved Parking	258	394*	574**	628
Council Maximum DCP Provision	258	394*	615**	833
% Variation from DCP Maximum	0%	0%	-6%	-24%
Walking Distance from Rail Station	400m	400m	260m	550

* Based on indicative yields established in the TMAP assessment submitted as part of the EA

** The parking provision has been established through indicative yields documented in the DG EA Report

It is evident that the parking rates proposed are lower than those comparable developments recently approved within Macquarie Park, all of which are even closer to major public transport and critical infrastructure than is the subject site as demonstrated in Figure 1. Specifically, the proposed 781 spaces represents a 6% reduction in the maximum permissible provision under Council's DCP 2010 and therefore complies with Councils controls. The proposed provision is also consistent with the approval granted for 120-128 Herring Road despite being located a greater distance from the Macquarie Park bus and rail interchange.

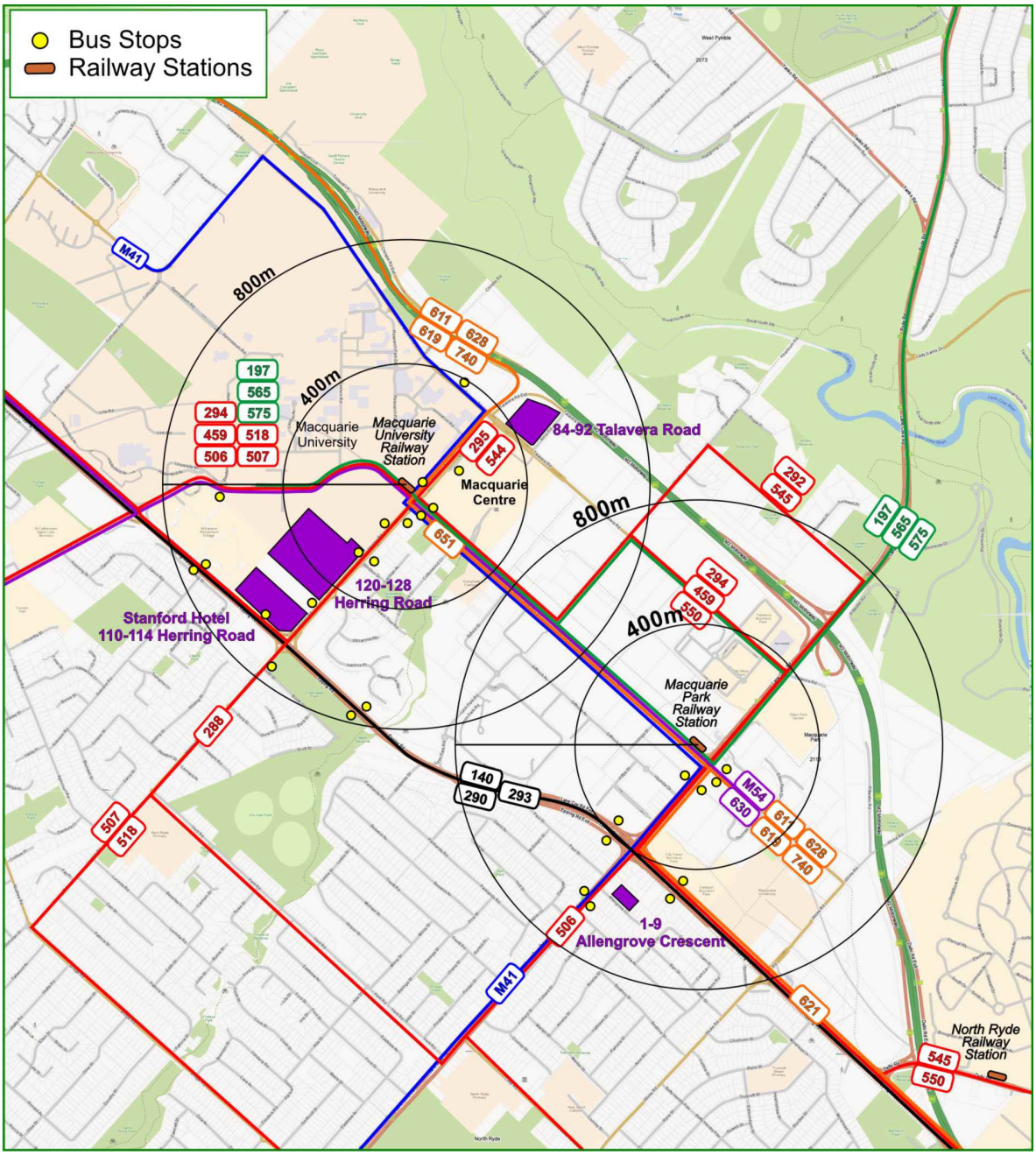


Figure 1: Comparison of Site Locations Versus Proximity to Public Transport

Review of Parking and Travel Patterns at TOD Locations

TRAFFIX has undertaken an analysis of the parking rates for Metropolitan Sub Regional Centres within Sydney. In particular we have reviewed the DCP parking rates for major centres which provide a similar level of accessibility to critical infrastructure (including public transport) to that available within Macquarie Park. The relevant parking rates for major Sub Regional Centres is provided in Table 3 below and compares these rates to the rates under the current approval.

Table 3: Comparison Residential Parking Requirements for TOD Locations

Dwelling Type	PAC Approved Rates (2012)	North Sydney / St Leonards	Green Square	Chatswood[2]	Parramatta
One Bedroom Unit	0.6 / unit	1.0 / Unit	0.5 / Unit	1.0 / Unit	1.0 / Unit
Two Bedroom Unit	0.9 / unit	1.0 / Unit	1.0 / Unit	1.0 / Unit	1.0 / Unit
Three Bedroom Unit	1.4 / unit	1.5 / Unit	1.2 / Unit	1.25 / Unit	1.2 / Unit
Visitor	0.2 / Unit	0.25 / Dwelling	0.2 – 0.067 / unit [1]	0.25 / Dwelling	0.25 / Dwelling

1. 0.2 / unit for first 30 units, 0.125 / unit for next 40 dwellings and 0.067 / unit above 70 units
2. Refers to DCP requirements within Railway Precincts and Major Public Transport Corridors

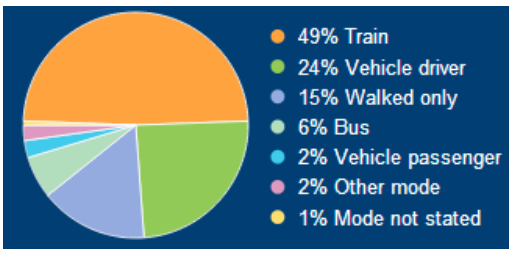
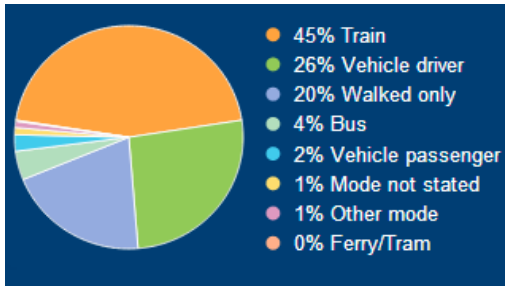
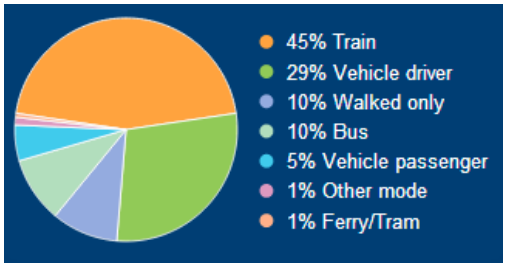
The above comparison demonstrates that the parking rates approved by the PAC are lower than those provided in major sub regional and regional centres, including North Sydney, Chatswood and Parramatta, all of which provide a greater range of services and accessibility to public transport than are available within Macquarie Park.

TRAFFIX has also undertaken a review of the Parsons Brinkerhoff (PB) TMAP assessment undertaken for the North Ryde Station Precinct, dated 22 November 2012. This assessment was undertaken on behalf of the NSW Government for the rezoning of lands located near the intersections of Epping Road and Delhi Road.

The traffic impacts of that proposed rezoning were assessed based on an analysis of the existing transport mode shares within similar urban centres utilising the Bureau of Transport Statistics (BTS) 2006 Journey to Work Data. The assessment identified that the "Car Driver" modal split percentages for the major centres of Chatswood and St Leonards were 36% and 35% respectively with public transport representing 59% and 61% of all daily residential and employee trips.

Since the publication of the PB report, the 2011 Journey to Work Data has been released. The data demonstrates that car driver trips in locations within 500m of a rail station have reduced since 2006 have reduced considerably. A summary of the travel modes for each key location is provided in **Table 4**.

Table 4: 2011 Journey to Work Mode Splits

Location	Travel Zones	Modal Split
St Leonards	1844, 1843	
Chatswood	1805, 1806	
Parramatta	1059, 1055, 1057	

The above analysis demonstrates that the provision of parking alone will not result in increased peak hourly trips by private cars. Both North Sydney and St Leonards provide parking at a level in excess of that considered under the RMS Guide for sub-regional centres (and that approved for the subject site) and yet daily modal splits for the journey to work reflect a strong preference towards alternative transport modes including public transport.

It is therefore reasonable to conclude that the accessibility of public transport has a greater influence on the use of non car travel modes than the suppression of residential parking. As such the suppression of parking alone will have a limited impact on achieving state and local government planning objectives, while creating unacceptable local impacts associated with increased reliance on on-street parking, which presents a risk to the amenity of existing residential communities.

The provision of parking in accordance with the rates proposed will therefore ensure that all parking demands associated with the development are met on-site, with no reliance on on-street parking, in the knowledge that the availability of public transport will ensure that this is used for the majority of work-related trips. In this context, the parking that is provided will relate to car use for the broad range of other trip purposes that are not well served by public transport, many of which occur during the evening and on weekends.

DoPI Policy Position

The previous application considered by the Department of Planning and Infrastructure (which also sought approval for parking at a rate of 1 space per unit) was recommended for approval by the Department as documented in its Director General's Environmental Assessment Report dated May 2013. This was based on an independent review commissioned by the Department to assess any impacts associated with the increased parking rates. This independent review concluded that:

- *The parking rates approved under the Concept Plan represent a substantial reduction compared with development control plans for other significant sub-regional centres in Sydney*
- *Research on car ownership and journey to work trave indicates an increased tendency for ownership of cars with increased travel to work by public transport; and*
- *The proposed parking rates, which represent an 8% reduction from Council's DCP are appropriate for the development.*

Based on the independent review the Department considered the modification request to reasonable and that it would have a minimal environmental impact above that assessed with the original application. Accordingly, the Department recommend that the previous approval be modified as originally sought. Furthermore, Council's submission to the Department of Planning dated 21 March 2013 relating to the previous Section 75W application stated that:

> *"If the Department is of a mind to support the increase in car parking, then Council's Development Control Plan 2010 – Part 9.3 – Car Parking and the relevant Australian Standards can be nominated as these are the controls that Council uses to assess Local Development Applications."*

In fact, this application seeks approval for a parking at a rate that is 6% lower than the maximum parking permissible under Council's DCP and hence complies fully with the requests of Council. It is therefore consistent with relevant State and Local planning policies.

Traffic Impacts

The traffic impacts of the Concept Plan application were assessed in accordance with the DGR's which required the use of Council's Paramics micro simulation model. Council's Paramics model (as outlined in Council's reference documentation) allows a holistic approach to be adopted that assesses the overall impacts of the development having regard for the cumulative impacts of other approved applications within the Macquarie Park Corridor.

The traffic impact assessment was undertaken by TRAFFIX and assessed the impacts of a scheme with an indicative residential traffic generation of approximately 180 veh/hr during the AM and PM peak periods. The traffic impact assessment was undertaken in accordance with Council's requirements which included a peer review of all modelling by Council. The assessment concluded that "the future traffic will have no measurable impact on the existing operation of key intersections". No issues were raised by Council pursuant to this assessment and subsequently the assessment was adopted by Council and endorsed by the Roads and Maritime Services (RMS).

Notwithstanding the above, the PAC approved Concept Plan Application dated September 2012 resulted in a yield of approximately 537 units. This yield results in an overall "approved" traffic generation of approximately 155veh/hr based on the generation rates adopted in the Traffic Impact Assessment submitted with the Environmental Impact Assessment. It is emphasised that the increased parking now sought does not affect the traffic 'benefit' that arises from this reduced yield, as peak period traffic generation is a function only of the unit yield and not parking supply, for the reasons discussed above.

RMS Revised Trip Rates

The traffic generation data adopted in the Traffic Impact Assessment was based on the 2002 RMS Guide to Traffic Generating Developments. In August 2013, the RMS released a Technical Direction to replace rates embodied in the 2002 Guide, which were considered outdated and not representative of the likely traffic generation of the future land uses.

The RMS 2013 Technical Direction provides revised traffic generation rates for adoption in the assessment of traffic impacts for major land uses, including high density residential developments. The data is based on surveys undertaken by the RMS in 2012 of developments that met the following criteria:

1. Close to public transport
2. Greater than six storeys in height, and
3. Almost exclusively residential in nature.

The RMS Technical Direction provides trip rates for high density residential developments for both trips per unit and trips per car parking space. A summary of the resulting traffic generation associated with the application of the updated RMS rates is provided in **Table 5** below:

Table 5: Traffic Generation Data

Assessment Type	Peak Period	RMS Trip Rate	Yield / Parking No.	Resultant Traffic Generation
Generation by Unit Numbers	AM	0.19 trips per unit	646 Units	123 veh/hr
	PM	0.15 trips per unit		97 veh/hr
Generation by Car Parking Numbers	AM	0.15 trips per car space	781 Car Spaces	118 veh/hr
	PM	0.12 trips per car space		94 veh/hr

Application of the traffic generation rates published by the RMS in May 2013 predicts a future traffic generation of between 118-123veh/hr during the AM peak period and 94-97veh/hr during the PM peak period. This level of generation is considerably lower than the 180veh/hr previously assessed under the Concept Plan application and the inherent traffic generation approved by the PAC of 155veh/hr. Accordingly, further additional improvements in the operation of key intersections in the locality may be expected compared with the previous assessment, notwithstanding that this was acceptable.

Infrastructure Upgrades

Since the approval of the Concept Plan Application in 2012, a number of infrastructure works have been undertaken with the Macquarie Park precinct which have changed employee and residential travel patterns in the locality.

In particular, new on and off ramps to the M2 motorway have been constructed at Christie Road and at the intersection of Talavera Road with Herring Road. The construction of these ramps now

provides greater accessibility to the Macquarie Park and will, over time, reduce the need for resident and employee vehicles to utilise Epping Road.

Accordingly, whilst the assessment undertaken during the Concept Plan application stage demonstrated that the development could be accommodated within the existing road network (a conclusion reached through analysis using Council's traffic model), the recent infrastructure upgrades would result in improved network operation.

Generation of Permissible Land Uses

The site is currently zoned B4 Mixed Use and hence permits a number of varied land uses including commercial premises, recreational facilities, entertainment facilities, resisted clubs and more. All of these land uses would be considered higher traffic generating uses than the high density residential now proposed.

In this regard, a comparison of the AM and PM traffic generation of the proposed development and a complying commercial development with 22,433m^2 of GFA (which assumes an FSR of 1:1 as permissible under Council's 2010 LEP) is provided in **Table 6** below. The comparison is based on the revised trip rates published in the RMS Technical Direction.

Table 6: Traffic Generation Data

Peak Period	Land Use	RMS Trip Rate (worst case)	Yield	Resultant Traffic Generation	Difference (veh/hr)
AM	High Density Residential	0.19 trips per unit	646 Units	123 veh/hr	+236veh/hr
	Commercial	1.6 trips per 100m^2	22,433m^2	359 veh/hr	
PM	High Density Residential	0.15 trips per unit	646 Units	97 veh/hr	+172veh/hr
	Commercial	1.2 trips per 100m^2	22,433m^2	269 veh/hr	

1. Note that the analysis adopts the RMS trip rate per unit, as this provides the worst case traffic generation.

The analysis demonstrates that a complying commercial development would result in a substantial increase in traffic generation to that now proposed, with in the order of 236 additional vehicle trips per hour during the morning peak and 172 vehicle trips per hour during the evening peak.

It is evident therefore that the land use proposed (residential), will result in a lesser impact on the operation of key intersections in the locality, and the road network more generally, compared to other permissible land uses.

Response to PAC Report

The PAC report dated 3 June 2013 concluded that the development would have unacceptable impacts on the road network and made specific reference to the original Traffic Impact Assessment report submitted as for the Concept Plan Application which acknowledged "challenges within the Macquarie Park Road Network".

Whilst the issue of congestion within the Macquarie Park road network is acknowledged, the PAC report omits the findings of the assessment which established that the application would have no detrimental impacts on the operation of key intersections in the locality and all intersections would continue to operate at existing levels of service and with similar delays. This conclusion was reached through the use of Council's Paramics model (as required by Council at considerable cost to the proponent) and no objections to the results of this modelling were ever received (noting a peer review was also undertaken and commissioned by Council).

In addition, no objections to the application on traffic grounds were raised by either the RMS or the Department of Planning. Indeed, a further independent review of the application (commissioned by the Department) confirmed the findings of the TRAFFIX assessment and based on this, the Department recommended the application for approval stating that "the increase in floor space, height and car parking would have minimal environmental impacts above that assessed with the original application".

Having regard for this, the basis of the conclusion reached by the PAC that the application would result in unacceptable traffic impacts is questioned and does not justify the conclusions (and determination) in its report dated 3 June 2013.

Conclusions

The proposed increase in car parking rates is considered supportable for the reasons discussed above. In particular the following key points are noteworthy:

- The provision of parking of itself for residential development has no direct influence of transport choice associated with the journey to work. The availability of public transport is the prime determinant and where this is good, residents will use it. Nevertheless, the ability to access a car for a range of other trip purposes is important and provides flexibility, while also avoiding the impacts of overflow parking into residential areas.
- The parking rates proposed result in a 6% reduction from Council's DCP, which was recommended for adoption by CoR in the event that the Department approved the previous Section 75W application. Given then the Department's recommendation for adoption, the proposed rates are considered reasonable.
- The rates proposed are lower than those approved by the Department and Council for developments located within closer proximity to public transport and critical services to the subject site.
- The proposed rates are less than those permissible in similar Transit Oriented Development locations in Sydney. Furthermore, a review of travel patterns of TOD locations demonstrates a preference to the use of public transport rather than private cars. It is therefore reasonable to conclude that the accessibility of public transport has a greater influence on the use of non car travel modes than the suppression of residential parking. As such the suppression of parking alone will have a limited impact on achieving state and local government planning objectives.
- Application of the new residential trip rates for high density residential developments as documented in the RMS Technical Direction, results in a future traffic generation considerably lower than the inherent generation implicit in the PAC approval for the concept plan application. Accordingly, the impacts of the development have already been assessed and considered acceptable by RMS and Council,
- The development of the site for high density residential land use results in a lower impact on the operation of key intersections and the network generally when compared to other permissible land uses.

- The provisos application was recommended for adoption by the Department of Planning and no objection to the future impacts were raised by Council or the RMS.

We trust that the above provides sufficient justification to the changes now sought. In this regard, should the Department remain concerned about any aspects of the amendment, we would be pleased to attend any meetings as may be required. In the interim, please contact the undersigned should you have any queries or require and further information or assistance.

Yours faithfully

traffix

Andrew Johnson
Associate Engineer