

Appendix 14 Traffic Assessment

TAR Technologies

April 2008



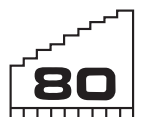
Warner Industrial Park Concept Plan and Project Application

Precinct 14 WEZ

Sparks Rd and Hue Hue Rd

Warnervale

June 2008



TERRACE
TOWER
GROUP

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Our Reference: 2008243RP3.DOC

Attention: Mr P Andrews

Dear Peter,

RE: WARNER INDUSTRIAL PARK

This letter report is in response to a request by Peter Andrews and Associates Pty Ltd (PAA) to undertake a traffic impact assessment of the Proposed Warner Industrial Park which entails the 90 lot subdivision of a parcel of land to be used for industrial and ancillary uses.

Site Description

The Warner Industrial Park comprises of land owned by Warner Business Park Pty Ltd and two adjoining parcels of land, namely Lot 5 in D.P. 259531 and Lot 9 in D.P. 239704. Collectively the total area of this site is 104.2 hectares and forms part of Precinct 14 of the Wyong Employment Zone (WEZ). The majority of the site is zoned 10a Investigation with a small portion zoned 7g Wetlands under the Wyong LEP. The site is bounded by the Sydney Newcastle Freeway (F3) to the east, Sparks Road to the south, Hue Hue Road to the west and Kiar Ridge Road to the north.

Road Network

The principal traffic routes that will be used by the site are Sparks Road and Hue Hue Road. Sparks Road is a two lane semi-rural road that links Hue Hue Road and the F3 to the Pacific Highway and Toukley. The intersection configuration of Sparks Road/Hue Hue Road is a rural give-way T-junction with a right-turn lane on Hue Hue Road south approach and a left-turn deceleration lane on Hue Hue Road north approach.

Assessment of the Proposal

Wyang Draft Development Control Plan

According to the Wyong Draft Development Control Plan (DCP) 88 the Warner Industrial Park (formally Warner Business Park) is directly accessible via Hue Hue Road and Sparks Road. Kiar Ridge Road provides access to Lot 9. A local road links the access point at Kiar Ridge Road and transverses Lot 9 and Lot 5, thereby providing access to the foresaid lots of land. The only means of access to Warner Industrial Park from Lot 9 and Lot 5 is via an Emergency Access Road.

Although the DCP 88 mentions access to Lot 9 via Kiar Ridge Road, no such provision is made in the proposal by PAA. Rather it is proposed that access to the Warner Industrial Park will only be from Sparks Road and Hue Hue Road.

Wyang Employment Zone Traffic Study

As part of strategic planning for the WEZ, ARUP was commissioned by Wyong Shire Council to prepare a traffic study (November 2006) to assist with the determination of intersection layouts along Sparks Road. This study did not include an access to Lot 9 via Kiar Ridge Road—akin to the PAA proposal.

The two main objectives of the WEZ Traffic Study (November 2005) were to:

- Determine the impact of the WEZ and the future Warnervale Town Centre/Greater Warnervale Area development on the adjoining state road system.
- Identify potential improvements to existing and proposed intersections on Sparks Road that would be required to cater for the anticipated traffic flows in 2018.

In order to cater for the forecast traffic flows in 2018, the WEZ Traffic Study recommends that the following intersection improvements be applied:

- A seagull intersection configuration for Sparks Road/Precinct 14, Hue Hue Road/Precinct 14 and Hue Hue Road/Kiar Ridge Road.
- A single lane roundabout for Hue Hue Road/Kiar Ridge Road/Buttonderry Waste Disposal Depot.

Warnervale Section 94 Contributions Plan

The aforementioned recommendations were based on the Warnervale Section 94 Contributions Plan (March 2005) which is derived from RTA Guidelines for Traffic Generating Developments. A rate of 2.3 Trips/Employees/Day and 28

Employees/Ha was applied for the various developments within the area bounded by the Pacific Highway, Mona Road, Hue Hue Road and the Porters Creek Flood Plain (Ref. WEZ Traffic Study 2006, Section 2.1.1; WEZ – Sparks Road Traffic Generation Report Part A 2005, Section 2.1). For the industrial/business park areas, AM and PM peak hour trips were assumed to be 15% of the daily generation rate, except for the Supplier Park areas where the proportion was assumed to be 10%.

Wyang Council undertook an analysis to determine the impact of restricting access to precinct 14 via merely Hue Hue Road and Sparks Road. A “seagull” intersection treatment for these two intersections was tested using the computer intersection analysis model ‘SIDRA’. The results are shown in Table 1.

Table 1 SIDRA Results

Location	AM		PM	
	Worst Mvt. Delay (sec)	LOS	Worst Mvt. Delay (sec)	LOS
Hue Hue/Precinct 14	19.0	C	13.6	B
Sparks/Precinct 14	18.9	B	12.9	A

It can be seen that the proposed seagull intersection arrangement will adequately cater for the forecast traffic flows in 2018 with access to precinct 14 via Hue Hue Road and Sparks Road only.

The additional traffic loading onto the intersections of Hue Hue Road and Sparks Road at precinct 14 if Lot 5 and 9 are not to use Kiar Ridge Road have been calculated to be 575 vehicles per day based on their lot sizes and the traffic assumption for generations used by Wyong Council. That is,

$$\frac{(10.12+7.54) \text{ ha}}{104.2 \text{ ha}} \times 3397 \frac{\text{trips}}{\text{day}} = 575 \frac{\text{trips}}{\text{day}}$$

Conclusion

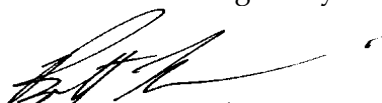
Council’s Draft Section 94 Development Contribution Plan WEZ (February 2008) now indicates that for precinct 14 that based on a Net Development Area (NDA) of 58.57ha, a traffic generation rate of 3397 Vehicles/Day applies for a business park. The proposal by PAA regards land intended for industrial use and has a 13% lower traffic generation rate compared to that of a business park (Ref. RTA Guidelines for Traffic Generating Developments 2002), equating to 3,282 trips per day.

The proposal by PAA therefore has lower generations relative to that adopted in the WEZ study. Thus it can be assumed that the seagull intersection configurations proposed in the WEZ traffic study (November 2006) would also accommodate traffic generations from a change in land use from a business park to industrial as proposed.

Works recommended in Councils Section 94 to provide a single lane roundabout at Hue Hue Road/Kiar Ridge Road/Buttonderry do not apply as Precinct 14 will not have direct access to Kiar Ridge Road.

We trust that the above information is clear and satisfactory. Should you require any further information or clarification please do not hesitate to contact me on 0419 338 081.

Yours sincerely,
for TAR Technologies Pty Ltd

A handwritten signature in black ink, appearing to read 'Brett Morrison', with a long horizontal flourish extending to the right.

Brett Morrison
Director MEngSc (UNSW)