

Appendix E
Traffic letter of review

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The General Manager
 Pittwater Council
 PO Box 882
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Dear General Manager

Warriewood Brook Stage 3 Development

Aurecon was commissioned on behalf of Anglican Retirement Villages (ARV) to review the proposed modifications to the approved development at Nos 6 8 10 12 and 14 Macpherson Street Warriewood in reference to the Seniors Housing and Residential Aged Care Facility Buildings J and K of the previously approved Development Approval (DA) have been modified as a result of some internal ARV review of the business case after the construction of Buildings A B and C and the Residential Aged Care Facility (RACF)

A previous Traffic and Parking Assessment was undertaken in 28 February 2005 for the entire site by Hutcheson Transport Solutions Pty Limited This report formed part of the Development Approval that was approved by Pittwater Council

As a result of the redesign Buildings K and J have merged together and the services provided within the building has changed Modifications to the design are shown below in Table 1

Table 1 Changes to the development

Component	Unit of Measure	Approved Development	Proposed Changes	Difference
Independent Living Units	3 bedroom units	11	13	2
	2 bedroom units		12	12
Child Care Centre	places	50		50
Village Administration & Community Centre Staff	m2 GFA	550	144	-406
Community Centre	m2 GFA	600		600
Multi Purpose Hall	m2 GFA	520	361	159
Health & Fitness Centre	m2 GFA	725	309	-416
Consulting Rooms	m2 GFA		74	74
Cafe	seats	70	25	-45
Corner Store	m2 GFA	40		-40

As shown in Table 1, the Child Care Centre Community Centre and the Corner Store have been removed and facilities on the ground floor of Building J have been reduced to accommodate additional Independent Living Units (2 bedroom and 3 bedroom units) As a result of the modification to design there will be changes to the traffic generation and parking requirements compared to the previous report

Traffic Impacts

The approved Traffic and Parking Assessment calculated that the site would have a total morning peak hour traffic generation of 130 vehicles while the evening peak hour would generate 126 vehicles The traffic generation has been calculated based on the modification to Buildings J and K to evaluate

the differences between the approved development and proposed changes This is shown in Table 2 below

Table 2 Changes to Traffic Generation

Component	Unit of Measure	Quantity	Approved Development				Quantity	Proposed Changes			
			Morning Peak Hour		Afternoon Peak Hour			Morning Peak Hour		Afternoon Peak Hour	
			Rate	Traffic	Rate	Traffic		Rate	Traffic	Rate	Traffic
Independent Living Units	3 bedroom units	11	0.2	2	0.2	2	13	0.2	5	0.2	5
	2 bedroom units	0				12					
	Visitors										
Child Care Centre	places	50	0.6	30	0.525	26	0	0.6	0	0.525	0
Village Administration & Community Centre Staff	m ² GFA	550	0.02	11	0.02	11	144	0.02	3	0.02	3
Community Centre	m ² GFA	600	Fixed	10	Fixed	10	0	Fixed	10	Fixed	10
Multi Purpose Hall	m ² GFA	520	Fixed	10	Fixed	10	361	Fixed	10	Fixed	10
Health & Fitness Centre	m ² GFA	725	Fixed		Fixed		309	Fixed		Fixed	
Consulting Rooms	m ² GFA	0	Fixed	10	Fixed	10	74	Fixed		Fixed	10
Cafe	seats	70	Fixed		Fixed		25	Fixed	10	Fixed	
Corner Store	m ² GFA	40	Fixed		Fixed		0	Fixed		Fixed	
TOTAL			74		70			38		38	

As shown in Table 2 the traffic generation as a result of the modifications to the development have reduced both the morning and evening peak hour volume. The morning peak hour traffic generation has reduced from 74 vehicles/hour to 38 vehicles/hour (a reduction of 36 vehicles/hour). The evening peak hour traffic generation has reduced from 70 vehicles/hour to 38 vehicles/hour (a reduction of 32 vehicles/hour).

The previous report stated that

The proposed roundabouts at Brands Lane and the main entry for the Independent Living Units and Community Facilities will have sufficient capacity to accommodate traffic flows

There was no intersection analysis undertaken in the previous report. Based on the reduction in the traffic generation the development will have a reduced traffic impact to the previously approved DA.

Parking and Internal Road System

Parking Requirements

Similar to the Traffic Impacts as a result of the modifications to the development the parking requirements need to be assessed based on Buildings J and K. The previous Traffic and Parking Assessment stated that a minimum of 480 parking spaces were required to be provided for the whole site. This included the following:

- One ambulance parking space adjacent to the Residential Aged Care Facility
- 10 parking spaces for Village Administration and Community Centre staff and
- 30 parking spaces for the remaining community facilities (includes Multi Purpose Hall, Community Centre, Health and Fitness Centre, Cafe and Corner Store)
- 13 parking spaces for the Child Care Centre (10 spaces where to be shared with the RACF parking spaces)

It is important to note that in the Traffic and Parking Assessment approved for the Development Application accepted a fixed rate for the Village Administration and Community Centre staff of 10 parking spaces and 30 parking spaces for the combined services of the remaining community facilities. As a result of the modifications to the development some of these services have changed or have been removed (eg Community Centre and Corner Store).

Below Table 3 shows the car parking requirements for Buildings J and K.

Table 3 Parking requirements

Component	Unit of Measure	Quantity	Approved Development			Proposed Changes			Required Spaces
			Parking Provision		Rec'd in Previous Study	Parking Provision		Quantity	
			Rate	Rate Requirement		Rate	Rate Requirement		
Independent Living Units	3 bedroom units	11	1 space/2 beds	17	17	13	1 space/2 beds	32	32
	2 bedroom units	0				12			
	Visitors								
Child Care Centre	places	50	1 space/5 units	3	3	0	1 space/5 units	5	5
Village Administrator & Community Centre Staff	m ² GFA	550	4 spaces/100m ²	22	10	144	4 spaces/100m ²	6	6
Community Centre	m ² GFA	600	Used by local residents only			0	Used by local residents only		
Multi Purpose Hall	m ² GFA	520				361			
Health & Fitness Centre	m ² GFA	725	4.5 spaces/100m ²	33	30	309	4.5 spaces/100m ²	14	13
Consulting Rooms	m ² GFA	0	4 spaces/100m ²	0		74	4 spaces/100m ²	3	
Cafe	seats	70	1 space/3 seats	24		25	1 space/3 seats	9	
Corner Store	m ² GFA	40	5 spaces/100m ²	2		0	5 spaces/100m ²	0	
TOTAL				114	63			69	56

The required number of parking spaces for the Independent Living Units was calculated based on SEPP rates for Senior Living RTA rates from the *Guide to Traffic Generating Developments* and information provided in the initial report. As shown in Table 3, the required number of spaces for the development far exceeds the provision provided in the report. This is due to the nature of the development and the fixed information provided from the previous report.

With the removal of the Child Care Centre, Community Centre and the Corner Store, and the reduction in the size of the other community services, the parking requirement based on the RTA rates have decreased.

Based on the approved development, the community services (Village Administration staff, Multi Purpose Hall, Health and Fitness Centre, Cafe and Consulting Rooms) were provided with half the number of parking spaces required by the RTA rates. This is deemed acceptable due to the nature of the development and the fact that these facilities will be providing services to the residents of the development with very little attraction to people outside the development. Using the same principles, the required number of parking for the community services is estimated to be 13 parking spaces.

The number of parking spaces required as a result of the changes to the development has reduced from 63 to 56 parking spaces (based on the rates and assumptions from the Traffic and Parking Assessment). Although there is a decrease in the number of parking spaces required for the development, the number of parking spaces provided has also reduced.

As stated previously, 480 parking spaces were required as part of the development approval. The approved plans for the entire site indicate that there would be 534 parking spaces (445 basement parking spaces and 89 street parking spaces). This gave the site a total surplus of 54 parking spaces. Of the parking spaces shown on the plan, 63 parking spaces (including 11 street parking spaces) are shown to be in relation with Buildings J and K. This means that the approved development meets the requirements for the parking spaces.

The number of parking spaces provided as a result of the changes to the development is now 52 parking spaces (26 basement parking spaces and 26 street parking spaces). This is four parking spaces less than required. Due to the surplus of 54 parking spaces across the rest of the site, the four parking space deficiency can be absorbed into the surplus for whole development.

The dimensions of the parking spaces and the width of the aisles comply with the Australian Standard 2890 Part 1 Off-street car parking. There is no turning bay at the end of the aisle in the undercover car park. This is acceptable as these parking spaces are allocated to residents of the development and are not open to the public.

Internal Road System

The design of the internal road system has changed from the approved design. It is now planned to have a lane between the internal road and Brands Lane between the RACF Building and Buildings J and K. This lane replaces the lane from the approved plan between the RACF Building and Buildings A, B and C. The revised lane provides connection to the undercover car park of Buildings J and K and on-street parking spaces.

Conclusion

The modification to Buildings J and K will have the following affect

- The Child Care Centre, Community Centre and the Corner Store have been removed and facilities on the ground floor of Building J have been reduced to accommodate additional Independent Living Units (2 bedroom and 3 bedroom units)
- The morning peak hour traffic generation has reduced from 74 vehicles/hour to 38 vehicles/hour (a reduction of 36 vehicles/hour)
- The evening peak hour traffic generation has reduced from 70 vehicles/hour to 38 vehicles/hour (a reduction of 32 vehicles/hour)
- Based on the reduction in the traffic generation, the development will have a reduced traffic impact than previously approved
- Based on the approved development, the community services were provided with half the number of parking spaces required by the RTA rates. This is deemed acceptable due to the nature of the development and that these facilities will be providing services to the residents of the development with very little attraction to people outside the development. Using the same principles, the required number of parking for the community services is estimated to be 13 parking spaces
- The number of parking spaces required as a result of the changes to the development has reduced from 63 to 56 parking spaces
- The entire site has a total surplus 54 parking spaces
- The number of parking spaces provided as a result of the changes to the development is now 52 parking spaces
- Due to the surplus of 54 parking spaces for the entire site, the four parking space deficiency can be absorbed into the surplus for whole development

The modifications to the design of Buildings J and K are acceptable in terms of traffic generation and parking demand.

Should you have any questions in relation to traffic and parking as a result to the modifications to this development, please do not hesitate to contact me.

Regards



Robert Dunn
Traffic and Transport Engineer
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