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# Colston Budd Rogers & Kafes Pty Ltd

as Trustee for C & B Unit Trust  
ABN 27 623 918 759

Our Ref: TR/11638/jj

Transport Planning  
Traffic Studies  
Parking Studies

9 October 2020

Invesco Asset Management Australia (Holdings) Limited  
c/- Point Polaris  
L25, Tower III - International Towers  
300 Barangaroo Avenue  
BARANGAROO NSW 2000

**Attention: Andrew Hogan**

**Email: [andrew.hogan@pointpolaris.com.au](mailto:andrew.hogan@pointpolaris.com.au)**

Dear Sir,

**RE: FORESTWAY SHOPPING CENTRE REDEVELOPMENT**  
**ADDENDUM TRAFFIC REPORT**

1. As requested, we have prepared an addendum report on the traffic and parking effects of the modifications (compared to the 2019 scheme) to the proposed redevelopment of Forestway shopping centre. We prepared the traffic report for the 2019 scheme (Traffic Report for Proposed Amended Expansion of Forestway Shopping Centre, Frenches Forest – October 2019) and supplementary report (12 March 2020).
2. The proposed modifications, with respect to traffic, are set out below:
  - revised access arrangements;
    - left in entry from Forest Way via a left turn deceleration lane;
    - entry/exit from Russell Avenue; and
    - entry/exit from Grace Avenue.
  - changes to the B1 car park level to accommodate the changes in access;
  - minor reduction in GLA (some 252m<sup>2</sup>, from 21,851m<sup>2</sup> to 21,599m<sup>2</sup>);
  - minor reduction in parking provision (from 743 spaces to 738 spaces);
  - banning of the right turn out of Russell Avenue onto Forest Way (currently banned in the weekday morning peak period) and
  - relocation of the bus bay and pedestrian signals on Forest Way to the north (to accommodate the left turn deceleration lane on Forest Way).
3. The above modifications are shown in the attached plans prepared by the Buchan Group (plans ATP 20101, ATP 20102, ATP 20103 and ATP 20105 - Attachment A).

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Directors - Geoff Budd - Stan Kafes - Tim Rogers - Joshua Hollis ACN 002 334 296  
EMAIL: [cbrk@cbrk.com.au](mailto:cbrk@cbrk.com.au)

4. It is noted that TfNSW has provided in-principle approval to the proposed left in entry from Forest Way (with a deceleration lane) and relocation of the bus bay and pedestrian signals on Forest Way as set out its letter dated 23 September 2020 (Attachment B). The proposed banning of the right turn out of Russell Avenue is at the request of TfNSW (to address existing safety concerns with this movement). It is noted that:
- the right turn out is banned in the weekday morning peak period;
  - turning right out is difficult at other times (due to the high traffic flows in Forest Way) relying on gaps created by the traffic signals located either side of Russell Avenue;
  - the number of vehicles turning right in the weekday afternoon and Saturday peak hours is low at some 35 to 40 vehicles per hour; and
  - in the long term right turns to/from Russell Avenue will be banned as Council implements road network improvements as part of its structure plan for the area.
5. The traffic and parking effects of the proposed modifications (2020 scheme) are set out through the following sections:
- public transport and pedestrians
  - parking;
  - access and internal circulation
  - servicing;
  - traffic effects; and
  - summary.

#### Public Transport and Pedestrians

6. To accommodate the full length deceleration lane into the site from Forest Way, it is necessary to relocate the existing bus bay and pedestrian traffic signals some 30 metres to the north. This would have minimal impact on pedestrian movement and bus operations. The pedestrian signals have been relocated to a position where they would not impact on access to properties on the eastern side of Forest Way and provide a waiting area for pedestrians (clear of driveways). The relocated bus bay provides the same storage capacity as the existing bus bay. All works associated with the relocation of the bus bay and pedestrian signals will be at the cost of the developer.

#### Parking

7. Parking requirements for the previous DA were based on a rate of 3.3 spaces per 100m<sup>2</sup> GLA. This was based on surveys of the existing shopping centre. Applying this rate the modified scheme (some 21,599m<sup>2</sup>) would require 713 spaces. The proposed provision of 738 spaces satisfies this requirement.

Access and Internal Circulation

8. As noted above access will be provided from Forest Way (left in), Russell Avenue (entry/exit) and Grace Avenue (entry/exit). The Russell Avenue access will be located in the same position as the existing access. Both the Grace Avenue and Russell Avenue accesses will provide for all turning movements with single entry and two exit lanes.
9. We note that as part of Council's structure plan, Russell Avenue is proposed to be closed and Naree Road extended through to Grace Avenue. The timing for this to occur is unknown and as such future access to the shopping centre from Russell Avenue (and whether it would be entry/exit, exit only or have connections to Grace Avenue and/or Forest Way) will be determined in consultation with Council at the appropriate time.
10. To accommodate the new Russell Avenue access, relocation of the Forest Way entry (and removal of Forest Way exit), the B1 car park level has been modified. The Grace Avenue and Forest Way entries will provide connections to basement (B1 and B2) and rooftop car park levels via internal ramps. Access from Russell Avenue is to B1 with connections from B1 to B2 and rooftop levels. The new car parks will be designed to comply with the requirements of AS2890.1-2004 and AS2890.6-2009 with respect to parking space dimensions, provision of shared zones for accessible spaces, aisle widths, ramp grades and height clearances. A review of the plans has found that the car park layout generally complies with the requirements of AS2890.1-2004 (aisles 6.6 metres wide with parking spaces 2.6 metres wide by 5.4 metres long and 2.4 metre wide shared zones for accessible spaces).

Servicing

11. No changes to the loading dock on Grace Avenue or Woolworths dock in Sorlie Place are proposed as part of the modifications.

Traffic Effects

12. The proposed new access arrangements (compared to the 2019 scheme) will result in changes in traffic travelling to and from the centre.
13. The major traffic flow changes between the 2019 and 2020 schemes are:
  - a reduction in traffic flows along Grace Avenue (decrease of some 35 to 260 vehicles per hour, two way); and
  - an increase in traffic flows along Russell Avenue (increase of some 100 to 120 vehicles per hour, two-way).

14. Figures 1 and 2 and Table 1 below show the increases in traffic flows on roads adjacent to the shopping centre with the revised access arrangements (compared to existing traffic flows). This takes into account the banning of the right turn out of Russell Avenue

<b>Table 1: Existing + Development Two-Way (Sum of Both Directions) Peak Hour Traffic Flows</b>				
<b>Road</b>	<b>Weekday Afternoon</b>		<b>Saturday Midday</b>	
	Existing	+ Dev	Existing	+ Dev
Warringah Road				
– east of Forest Way	3705	+40	3515	+50
– west of Forest Way	3175	+45	2775	+45
Forest Way				
– north of Naree Road	3340	+105	4165	+115
– south of Naree Road	3120	+120	4110	+125
– south of Russell Avenue	2970	+35	3815	+30
– north of Warringah Road	3390	+85	4020	+95
Russell Avenue				
– east of Forest Way	510	+45	465	+60
– west of Grace Avenue	400	+105	385	+110
Grace Avenue				
– north of Russell Avenue	835	+175	695	+180
– south of Russell Avenue	835	+90	650	+100
– north of Sorlie Place (N)	845	+130	610	+130
– south of Sorlie Place (S)	830	+130	595	+130
Sorlie Place				
– entry	130	+0	160	+0
– exit	140	+0	150	+0
Naree Road				
– east of Forest Way	640	+15	555	+20

15. The adjacent intersections have been analysed with development traffic in place using the SIDRA 8 network program. SIDRA 8 Network allows the analysis of a network of intersections and the interaction of traffic flows between intersections. It provides a number of performance measures. The most useful measure provided is average delay per vehicle expressed in seconds per vehicle. Based on average delay per vehicle, SIDRA estimates the following levels of service (LOS):

- For traffic signals, the average delay per vehicle in seconds is calculated as delay/(all vehicles), for roundabouts the average delay per vehicle in seconds is selected for the movement with the highest average delay per vehicle, equivalent to the following LOS:

0 to 14	=	“A”	Good
15 to 28	=	“B”	Good with minimal delays and spare capacity
29 to 42	=	“C”	Satisfactory with spare capacity

43 to 56	=	"D"	Satisfactory but operating near capacity
57 to 70	=	"E"	At capacity and incidents will cause excessive delays. Roundabouts require other control mode
>70	=	"F"	Unsatisfactory and requires additional capacity

- For give way and stop signs, the average delay per vehicle in seconds is selected from the movement with the highest average delay per vehicle, equivalent to following LOS

0 to 14	=	"A"	Good
15 to 28	=	"B"	Acceptable delays and spare capacity
29 to 42	=	"C"	Satisfactory but accident study required
43 to 56	=	"D"	Near capacity and accident study required
57 to 70	=	"E"	At capacity and requires other control mode
>70	=	"F"	Unsatisfactory and requires other control mode

16. It should be noted that for roundabouts, give way and stop signs, in some circumstances, simply examining the highest individual average delay can be misleading. The size of the movement with the highest average delay per vehicle should also be taken into account. Thus, for example, an intersection where all movements are operating at a level of service A, except one which is at level of service E, may not necessarily define the intersection level of service as E if that movement is very small. That is, longer delays to a small number of vehicles may not justify upgrading an intersection unless a safety issue was also involved.

17. The results of the analyses are summarised below:

- the intersection of Warringah Road and Forest Way would operate with average delays of less than 30 seconds per vehicle in the weekday and Saturday peak periods. This represents level of service B/C a satisfactory level of intersection operation;
- the intersection of Forest Way and Naree Road would operate with average delays of less than 20 seconds per during the weekday afternoon and Saturday midday peak periods. This represents level of service B. a reasonable level of service with spare capacity;
- the intersection of Forest Way and Russell Avenue (with the right turn out of Russell Avenue banned) would operate with average delays of less than 20 seconds per during the weekday afternoon and Saturday midday peak periods. This represents level of service B. an acceptable level of service
- the intersection of Grace Avenue and Russell Avenue would operate with average delays of less than 15 seconds per during the weekday afternoon

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and Saturday midday peak periods. This represents level of service A/B. a good level of service; and

- the Russell Avenue and Grace Avenue accesses would operate with average delays of less than 15 seconds per during the weekday afternoon and Saturday midday peak periods. This represents level of service A/B. a good level of service

### Summary

18. The key findings of the addendum traffic and parking report are:

- TfNSW has provided in-principle approval for the revised access arrangements and relocation of the bus bay and pedestrian signals on Forest Way
- parking provision is appropriate
- revised access arrangements are appropriate;
- no change in service arrangements;
- reduced in traffic flows on Grace Avenue and increase in traffic flows on Russell Avenue; and
- the road network can accommodate the traffic generated by the proposed development.

19. We trust the above provides the information you require. Finally, if you should have any queries, please do not hesitate to contact us.

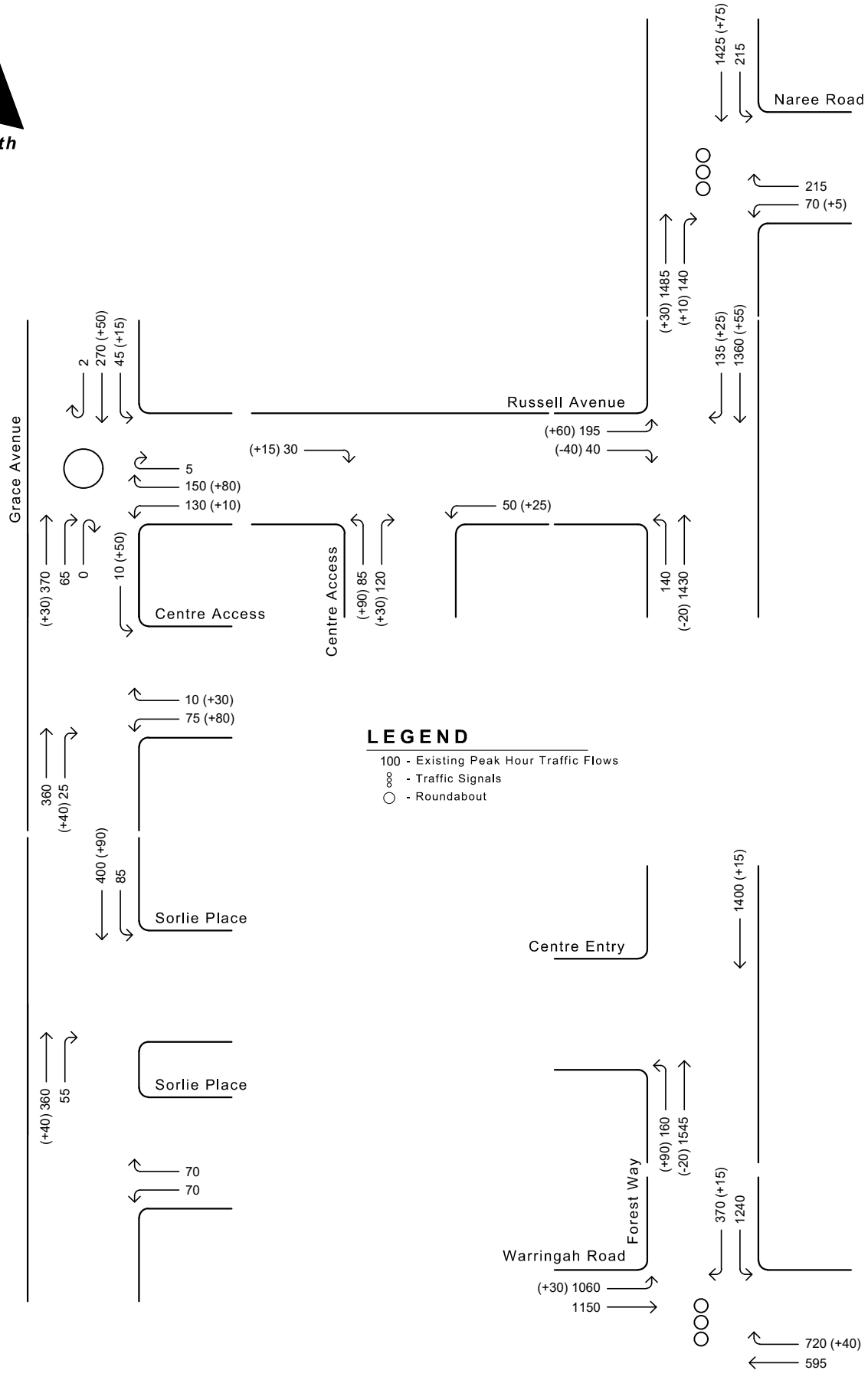
Yours faithfully,

COLSTON BUDD ROGERS & KAFES PTY LTD

A handwritten signature in black ink, appearing to read 'Tim Rogers', with a stylized flourish at the end.

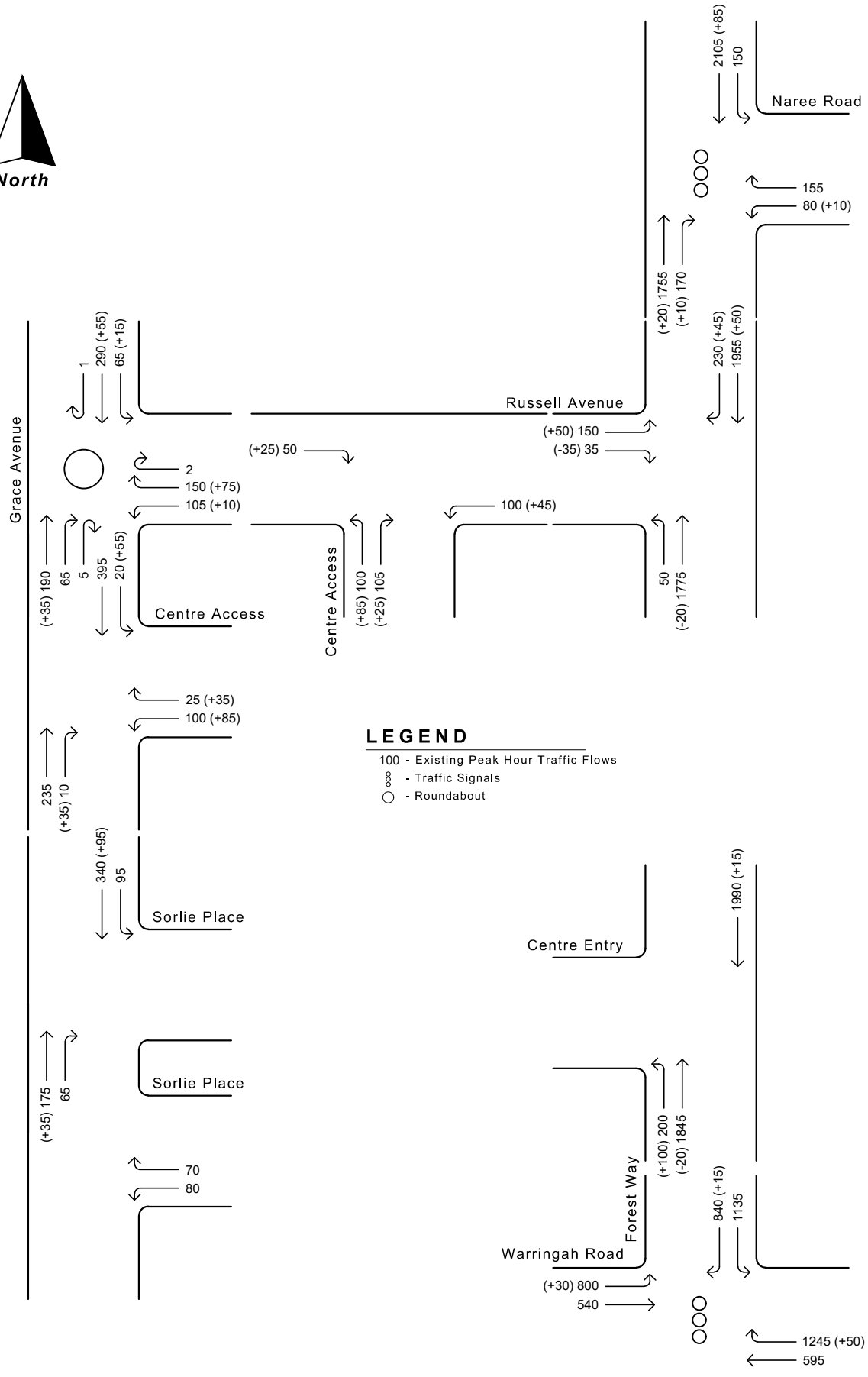
Tim Rogers

Director



**Existing weekday afternoon  
peak hour traffic flows plus  
development traffic**

**Figure 1**



**Existing Saturday Midday  
peak hour traffic flows plus  
development traffic  
Figure 2**

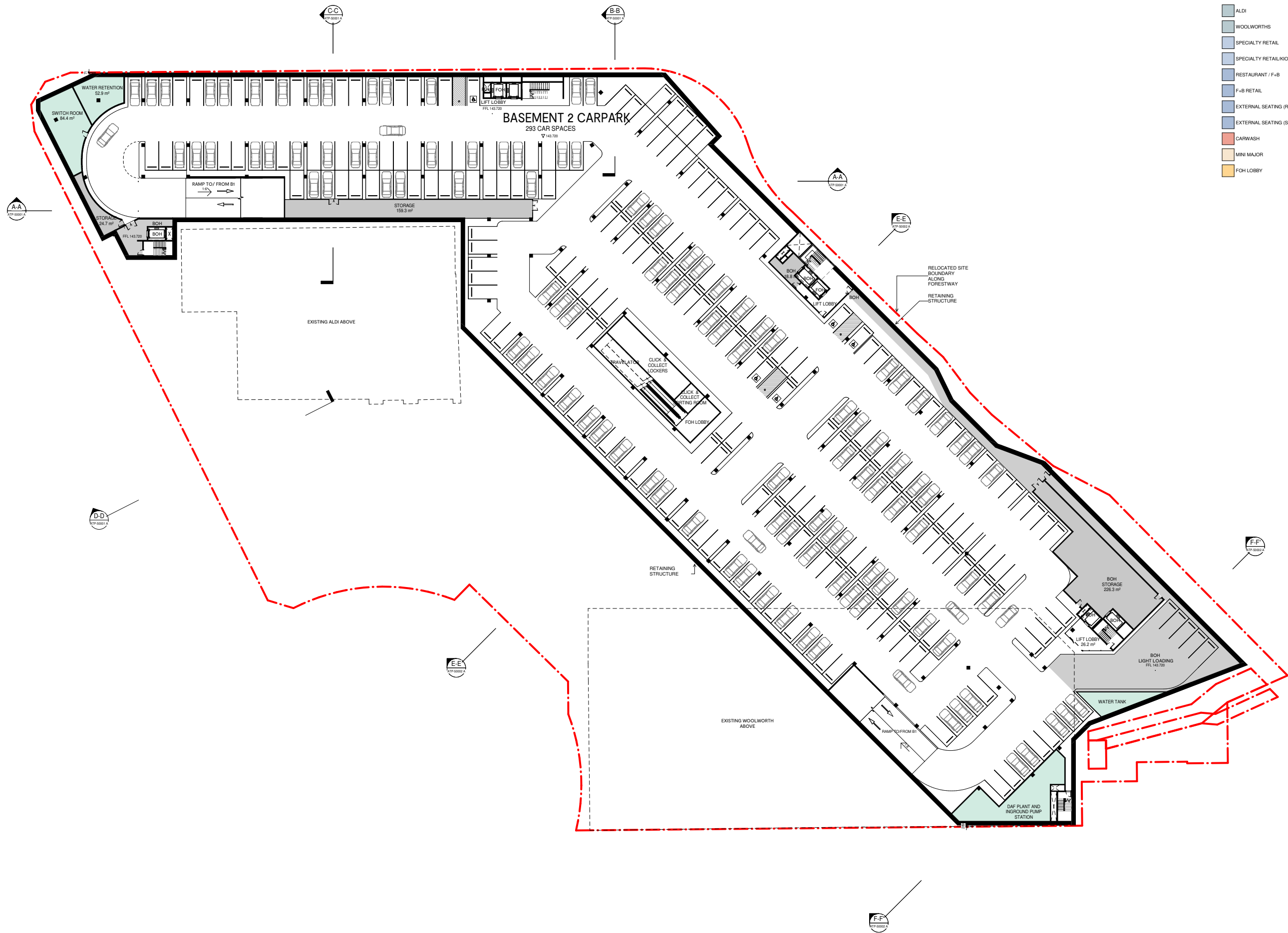


ATTACHMENT A

MODIFIED ARCHITECTURAL PLANS

KEY LEGEND

- |                                 |                |
|---------------------------------|----------------|
| ALDI                            | CHILDCARE      |
| WOOLWORTHS                      | COMMERCIAL     |
| SPECIALTY RETAIL                | MEDICAL        |
| SPECIALTY RETAIL/KIOSK          | GYM            |
| RESTAURANT / F+B                | EXISTING       |
| F+B RETAIL                      | BOH / STORE    |
| EXTERNAL SEATING (RUSSELL AVE)  | AMENITIES      |
| EXTERNAL SEATING (SORLIE PLACE) | PLANT/SERVICES |
| CARWASH                         | SKYPARK        |
| MINI MAJOR                      | STORAGE        |
| FOH LOBBY                       |                |



STAGE 01 FWY BOUNDARY / ROAD ALIGNMENT

FORESTWAY



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DEVELOPMENT APPLICATION ARCHITECTURAL DRAWINGS

Warringah Rd & Forest Way, Frenchs Forest, NSW, 2086

Revision: P1  
Date: 09/10/2020  
Scale: 1:250 @A0  
Proj. No.: 317182



GENERAL ARRANGEMENT PLAN

LEVEL B2 - Stage 01 Boundary Alignment

ATP-20101

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BUCHAN











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ATTACHMENT B

TfNSW LETTER DATED 23 SEPTEMBER 2020



23 September 2020

TfNSW Reference: SYD18/01143/15

Council Reference: DA2018/1924

General Manager  
Northern Beaches Council  
PO BOX 882  
MONA VALE NSW 1660

Attention: **David Auster**

## **REDEVELOPMENT OF FOREST WAY SHOPPING CENTRE (STAGE 1) – 22 FOREST WAY, FRENCHS FOREST**

Dear Sir/Madam,

Reference is made to the amended access plan SKC82 Revision P1 dated 4 September 2020, which was referred to Transport for NSW (TfNSW) for concurrence in accordance with Section 138 of the *Roads Act, 1993* and approval in accordance with Section 87 of the *Roads Act, 1993*.

TfNSW has reviewed the proposal to relocate the existing signalised pedestrian crossing further to the southwest, and would provide “in-principle” approval in accordance with Section 87 of the *Roads Act 1993*, subject to the following requirements:

1. The proposed modification to the existing pedestrian Traffic Control Signal on Forest Way shall be designed to meet TfNSW requirements. The Traffic Control Signal (TCS) plans shall be drawn by a suitably qualified person and endorsed by a suitably qualified practitioner.

The submitted design shall be in accordance with Austroads Guide to Road Design in association with relevant TfNSW supplements (available on [www.rms.nsw.gov.au](http://www.rms.nsw.gov.au)). The certified copies of the TCS design and civil design plans shall be submitted to TfNSW for consideration and approval prior to the release of a Construction Certificate and commencement of road works. Please send all documentation to [development.sydney@rms.nsw.gov.au](mailto:development.sydney@rms.nsw.gov.au).

TfNSW fees for administration, plan checking, civil works inspections and project management shall be paid by the developer prior to the commencement of works. The developer will be required to enter into a Works Authorisation Deed (WAD) for the abovementioned works.

2. The proponent is required to dedicate land as public road for the maintenance of the pedestrian Traffic Control Signals and associated infrastructure, further details will be included as part of the WAD process.

TfNSW would also provide concurrence to the entry only with deceleration lane and relocation of the bus bay on Forest Way under Section 138 of the *Roads Act 1993*, subject to the following conditions being included in any consent issued by Council:

1. Any new buildings or structures, together with any improvements integral to the future use of the site, are to be wholly within the freehold property (unlimited in height or depth), along the Forest Way boundary.
2. The works associated with the relocation of the bus bay and construction of a new left-in vehicular crossing with deceleration lane on Forest Way shall be in accordance with TfNSW requirements. Details of these requirements should be obtained by email to [developerworks.sydney@rms.nsw.gov.au](mailto:developerworks.sydney@rms.nsw.gov.au).

Detailed design plans of the relocation of the bus bay and construction of a new left-in crossing with deceleration lane are to be submitted to TfNSW for approval prior to the issue of a Construction Certificate and commencement of any road works. Please send all documentation to [development.sydney@rms.nsw.gov.au](mailto:development.sydney@rms.nsw.gov.au).

A plan checking fee and lodgement of a performance bond is required from the applicant prior to the release of the approved road design plans by TfNSW.

3. The applicant is required to dedicate 3.5 meter wide land along full length of the deceleration lane as public road at no cost to Council and TfNSW prior to release of any construction certificate and commencement of road works.
4. An additional 3.2m wide land along the full frontage to Forest Way is required to ensure provision of a future fourth lane/bus lane on Forest Way. Any new buildings or structures, together with any improvements integral to the future use of the site, are to be erected clear of the land required for road. The land required for the future road shall be identified as a separate lot in any plan of development.
5. A Traffic Management Plan (TMP) is to be submitted to TfNSW for the banning of the right turn from Russell Street onto Forest Way to improve road safety at this intersection. Appropriate community consultation needs to be undertaken by the consent authority.
6. Detailed design plans and hydraulic calculations of any changes to Forest Way stormwater drainage system are to be submitted to TfNSW for approval, prior to the commencement of any works. Please send all documentation to [development.sydney@rms.nsw.gov.au](mailto:development.sydney@rms.nsw.gov.au).

A plan checking fee will be payable and a performance bond may be required before TfNSW approval is issued.



7. All vehicles are to enter and leave the site in a forward direction.
8. All vehicles are to be wholly contained on site before being required to stop.
9. The swept path of the longest vehicle entering and exiting the subject site, as well as maneuverability through the site, shall be in accordance with AUSTROADS. In this regard, a plan shall be submitted to Council for approval, which shows that the proposed development complies with this requirement.
10. A Construction Pedestrian Traffic Management Plan (CPTMP) detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council for approval prior to the issue of a Construction Certificate.
11. All demolition and construction vehicles are to be contained wholly within the site and vehicles must enter the site before stopping. A construction zone will not be permitted on Forest Way.
12. A Road Occupancy Licence (ROL) should be obtained from Transport Management Centre (TMC) for any works that may impact on traffic flows on Forest Way during construction activities. A ROL can be obtained through <https://myrta.com/oplinc2/pages/security/oplincLogin.jsf>.
13. The developer shall be responsible for all public utility adjustment/relocation works, necessitated by the above work and as required by the various public utility authorities and/or their agents.

TfNSW also provides the following design comments that will need to be considered and addressed by the developer for the detailed design plans:

1. The dimensions between transverse pedestrian lines are incorrect and need to be 6.0 – 6.0 – 6.0 (per VD001-6).
2. There will need to be median posts, so the pedestrian fencing will need to stop about 1 m from the stop lines.
3. There is currently no pedestrian fencing at the existing crossing and within the median. The pedestrian fencing should be removed unless deemed necessary.
4. A zebra crossing should be considered at the new left entry. The pedestrian crossing may need to be raised.
5. An appropriate end type barrier needs to be considered in the vicinity of the chevron markings.
6. Kerb ramps should be full width of the PCW lines and a new ramp will be required on the east side.

If you have any further questions please direct attention to Malgy Coman on 8849 2413 or email [development.sydney@rms.nsw.gov.au](mailto:development.sydney@rms.nsw.gov.au). I hope this has been of assistance.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Pahee', with a stylized flourish at the end.

**Pahee Rathan**

Senior Land Use Assessment Coordinator