From:	Savvas Hadjimichael
То:	Wilson Perdigao
Cc:	Brianna Cheeseman
Subject:	RE: DA 321/2020/1 - 19-27 Cross Street - response to council"s assessment report to SEPP
Date:	Friday, 16 July 2021 9:53:23 AM
Attachments:	image004.png
	TTPA 2107154 - Traffic - queuing.pdf

#### Hi Wilson

I know this submission does not fit in the formal process, but for the sake of keeping everyone up to date in light of the panel meeting on Monday, I attach a report from the traffic engineer addressing the queuing question + I reproduce below an email from the traffic engineer commenting on matters raised in Council's reports to the SEPP.

### 7. Parking

My Traffic and Parking Assessment Report contains all of the reasons and considerations in relation to this issue. I can only repeat that I have never seen any assessment which demonstrates that reducing the provision of resident parking from similar to that proposed to that which is specified in the DCP results in any perceptible reduction in traffic generation. In relation to the reduced provision of parking spaces for the commercial floorspace, the previous Contribution to Council for 30 parking spaces is entirely relevant.

### 8. Access Design Standards

- Car Park Layout and Aisle Width The proposal explicitly complies with the design requirements of AS2890.1 & AS2890.2 (SRV). The turning paths in Appendix C of the Traffic Report clearly demonstrates this compliance in all respects.
- Loading Bay

The proposed bay for a van is located outside of the dimensional requirements of the aisle. It is not located partially within the aisle and the vehicle can wait in the bay until the "Up lift" arrives for it to depart. The turning path for the van is provided overleaf.

- Access Driveway

AS 2890.1 specifies that a Category 1 combined entry/exit driveway can be in the range of 3.0 to 5.5m wide and this is also referenced in Section 3.2.2.

- Driveway Gradient

The 1:10 gradient in downwards towards the street and it therefore complies with Section 3.3 of AS2890.1. However this can be revised to 1:20 to comply with Section E1.15.3 of the DCP<mark>.(SH comment – latest [plans have captured this)</mark>

- Driveway Splays

AS2890.1 only requires a splay on the egress ride of a 2way driveway (see extract overleaf) and the building can be modified to provide this splay replacing the potted planted that was proposed to achieve the same outcome. .(SH comment – latest plans (7/6/2021) have captured this)

- Queuing of Vehicle

Council's DCP (Section E1.15.4) specifies that "where car parking is to be accessed by a car lift and there are more than 25 parking spaces then 2 separate lifts must be provided."

The proposed access arrangement clearly provides 2 lifts and a waiting

bay within the site which complies with the DCP dimensional requirements. .(SH comment – also see attached report)

<u>Waiting Bay</u>

Reference is made to "the car lift". There are 2 proposed lifts, one to take cars down and one to bring cars up. The down lift will automatically return and dwell on ground level and the up lift will automatically return and dwell on B2. The resident traffic generation will be 6vtph (1 IN - 5 OUT AM, 5 IN - 1 OUT PM) and the 8 commercial spaces will be occupied by tenants (4 IN - NIL OUT AM, NIL IN - 4 OUT PM). Thus, the peak ingress movement will only be 5vtph as 1vt per 12 minutes so there is no likelihood that there will be more than 1 car waiting to enter. .(SH comment – also see attached report)

Thank you.

Regards

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From: Wilson Perdigao < Wilson.Perdigao@woollahra.nsw.gov.au>

Sent: Monday, 7 June 2021 3:23 PM

**To:** Brianna Cheeseman <Brianna.Cheeseman@planning.nsw.gov.au>; Savvas Hadjimichael <savvas@sdha.com.au>

**Subject:** RE: DA 321/2020/1 - 19-27 Cross Street - response to council's assessment report to SEPP

Hi Bri,



# TRANSPORT AND TRAFFIC PLANNING ASSOCIATES

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15 July 2021 Ref: 18001

Mr Savvas Hadjimichael SDH & Associates

E: <u>savvas@sdha.com.au</u>

c.c. Evan Howard <u>evan@luigirosselli.com</u> Byron Rose <u>byron@roseandjones.com.au</u> George Karavanas <u>George@gsaplanning.com.au</u>

Dear Savvas

### Proposed Development 19 – 27 Cross Street, Double Bay

We have undertaken a queuing probability analysis as requested by Council.

The analysis has been undertaken in accordance with the Transportation and Traffic Engineering Handbook. The parameters provided by the lift manufacturer/distributor indicate a speed of 1.0m per second, however we have adopted a very conservative approach of 0.5m per second.

The analysis adopted the traffic generation assessment contained in the Traffic Report for the DA namely:

AM Peak	PM Peak	
10 vtph	12 vtph	
4 IN & 6 OUT	6 IN & 6 OUT	

The results of the assessment are attached indicating a 98<sup>th</sup> percentile queue probability of 1 entering car. Thus, there will be no probability of more than 1 car queuing particularly if the speed of 1.0m per second is achieved.

Yours faithfully

Ross Nettle Director Transport and Traffic Planning Associates

Traffic Engineering | Traffic Signal Design | Road Safety Audit

## Single Channel Queue see Transportation and Traffic Engineering Handbook (ITE) p303

arrival rate	6 vph
service rate	86 vph

Probability of "n" units in the system

n	Prob.	Prob n or more	percentile
0	93.0%	1.000	0.0%
1	6.5%	0.070	93.0%
2	0.5%	0.005	99.5%
3	0.0%	0.000	100.0%

Performance Measure	PM Peak Inbound				
CHARACTERISTICS					
Handling Capacity of the system per hour	86	vehicles			
Number of traffic movements in the PM peak period (Arrival Rate)	6	vehicles			
PROBABILITIES OF USE OF THE SYSTEM					
	1	vehicle within car lift			
98th percentile queue		vehicles			
	1	external to lift			
The car lift is empty (i.e. zero	93.0%	%			
The car lift is in use with no queue	6.5%	%			
The car lift is in use with an external queue of two (2) vehicles	0.5%	%			
The probability of queuing exceeding three vehicles	0.0%	%			
TIMING					
Average Total Cycle Time	41.4	seconds			