Our Ref: 20059

16 March 2020

Meriton
Level 11, Meriton Tower
528 Kent Street
Sydney NSW 2000

Attention: Mr Matthew Lennartz

Dear Matthew,

RE: LITTLE BAY COVE
PLANNING PROPOSAL TRAFFIC AND TRANSPORT RESPONSES

The Transport Planning Partnership (TTPP) on behalf of Meriton Properties (Meriton) has reviewed the correspondence received from Randwick City Council (Council) and Transport for NSW (TfNSW) in regard to the planning proposal for Little Bay Cove. The following letter sets out our review of the material provided and provides a response to the issues raised.

Background

Meriton have submitted a planning proposal for the site at Little Bay Cove in Sydney's south east which was the former sports grounds for UNSW. The site currently has approval for 391dwellings and the planning proposal seeks to increase this to 1,909 dwellings with allowance for a 5,900m^2 retail floor space and a 100-place childcare centre. We further understand that the site may include some hotel rooms and if a 200-300 room hotel was provided, the residential yield would reduce to 1607-1707 units.

A traffic and transport assessment was undertaken by Arup in a report 'Little Bay Cove, Transport Assessment' (Arup, 24 June 2019). This report sets out the assumptions for traffic generation, distribution and assessment of the impact on the road network of the planning proposal.

Correspondence in response to the planning proposal has been received from Council and TfNSW. The materials provided were:

- Letter dated 17 January 2020 'Little Bay Cove Planning Proposal – Amended Scheme' sent from Kerry Kyriacou, Director of Planning, Randwick City Council.

- Letter (11 November 2019) – 'Proposal Masterplan at Little Bay – Consultation with Transport for NSW' sent form Tim Raimond, Chief Transport Planner, Customer Strategy and Technology, Transport for NSW.

This correspondence raises concerns about the transport assessment and requests further assessment based on revised assumptions.

The responses in the following sections has been compiled with an updated assessment provided by Arup (see attachment 1). In undertaking this review, we have not reviewed the detail of the modelling but we assume that the traffic modelling has been undertaken with due care.

Transport for NSW (TfNSW)

First of all, I note that TfNSW agree that "*residential development at Little Bay/Malabar is broadly aligned with Greater Sydney Commission's Eastern City District Plan and Visionary Transport Network within the Future Transport Strategy 2056*". TfNSW then go on to raise some issues relating to the assessment carried thus far.

The following section sets out our response to those key issues raised by TfNSW. The comments from TfNSW are provided in the shaded boxes.

1. **There is no commitment to provide additional mass transport infrastructure.**

> There is no NSW Government commitment to provide additional mass-transit/rail infrastructure that would provide immediate support to the proposal. In this regard, future residents in the area would need to rely on existing transport infrastructure. Some increase in bus services could reasonably be assumed. Mode share and traffic generation assumptions should be reviewed to reflect the above. Some benchmarking could be undertaken using existing travel patterns of residents currently living around Cawood Avenue and Solarch Avenue.

TTPP agree that the mode share and traffic generation used in the assessment should not rely on future mass-transit/ rail infrastructure for which there is no definite commitment (i.e. it may not be provided).

As a result, the traffic assessment has been updated to reflect a more modest shift in mode share and a higher traffic generation rate. The amended traffic generation has been based on the 'Trip Generation Surveys: High Density Residential (Car Based) Analysis Report' compiled by Bitzios Consulting (20 October 2017) that was commissioned by the Roads and Maritime Services (RMS). The purpose of the RMS study was to update the outdated 2002 RMS Guide to Traffic Generating Developments. As a result, the traffic generation used is more contemporary than that used in the current guide.

The revised vehicle trip rates that have been adopted are:

- AM peak hour: 0.28 trips per dwelling unit
- PM peak hour: 0.34 trips per dwelling unit
- Weekends peak hour: 0.29 trips per dwelling unit

The residential trips were reduced by 15% to account for internal trips within the subdivision (e.g. trips to the child care and retail facilities). The RTA Guide to Traffic Generating developments suggests a 25% discount for residential subdivisions whereas Arup have adopted a more modest 15% discount.

This is considered a more realistic estimate of trip generation than the previous assumptions. These numbers have been used to update the traffic modelling accordingly.

2. Measures to reduce private car usage

It is recommended that measures be considered to reduce private car usage and to support trip containment.

The planning proposal provides for local retail and childcare to provide some level of trip containment within the development. However, trip containment can only account for a relatively small percentage of trips even at a suburb level.

It would however be practical to provide a Green Travel Plan for the precinct. For example, TTPP staff have been involved with the Harold Park development since 2011 where the implementation of the travel plan has resulted in significant traffic generation reductions of the residential blocks. The subject site is well located to take advantage of many similar measures to those proposed at Harold Park.

The measures at Harold Park included:-

- Compliance with the stringent parking controls applicable to the site.
- Creation of street networks and associated cycle ways, footpaths and links to encourage cycling and walking.
- Provision of a TAG which would be given to every new occupant of the dwellings (the proposed guide is included at Appendix A). This document has been based upon facilities currently available at the site.

- Public transport noticeboards have been provided to make residents and visitors more aware of the alternative transport options available. The format of the noticeboards is currently based upon the travel access guide, however further investigations into the provision of real time information systems within the residential precincts would be explored with the providers of the Light Rail Network.
- Provision of a free yearly GoOccasional, car share membership for the initial occupation of the dwellings that would allow two drivers to be registered per membership. Multiple allowable drivers per membership would encourage more than one occupant per dwelling to choose car share as their mode of choice. Several dedicated shared cars and parking spaces are available reasonably close to the proposed development. The provisional of an annual membership is a significant upgrade from the six monthly membership that was proposed in the initial traffic report.
- Provision of pre-loaded Opal Cards for the initial occupation so that residents would be encouraged to make public transport their modal choice from the day they occupy the property.
- All properties would be provided with high quality telecommunication points which would provide residents with the opportunity to work from home thus reducing the need to travel.
- Provision of bicycle parking spaces both for residents and for visitors to the site. Bicycle parking will be provided in accordance with City of Sydney Requirements.
- An annual newsletter was to be provided to every household after occupation bringing the latest news on sustainable travel initiatives in the area.

All of these measures were in place from Day One so that people could establish habits of a lifetime from day one, so if there is no bus service, timetable, bike, bike route or walking information, they will tend to drive.

Every residential welcome pack included not only the transport access guide which would give detailed information about how to travel to and from the site by means other than the car, but also an information sheet explaining how to claim the Opal Cards and how to use GoGet.

It is also important to note that the development layout provides detailed way finding information to assist residents/pedestrians to be directed to suitable public transport facilities.

Meriton will commit to providing a Green Travel Plan in consultation with Council to deliver all of the measures described above.

3. Transport assessment should identify estimated travel times

The Transport Assessment should identify estimated travel times via public transport to nearby metropolitan/strategic centres.

This comment is clearly referencing the Greater Sydney Region Plan which aspires to new populations living within 30 minutes by public transport of a metropolitan/strategic centre.

"The vision for Greater Sydney is one where people can access jobs and services in their nearest metropolitan and strategic centre within 30 minutes by public transport, seven days a week." (Greater Sydney Region Plan)

The nearest strategic centre is Eastgardens Maroubra Junction while the nearest Metropolitan Centre is the Sydney CBD.

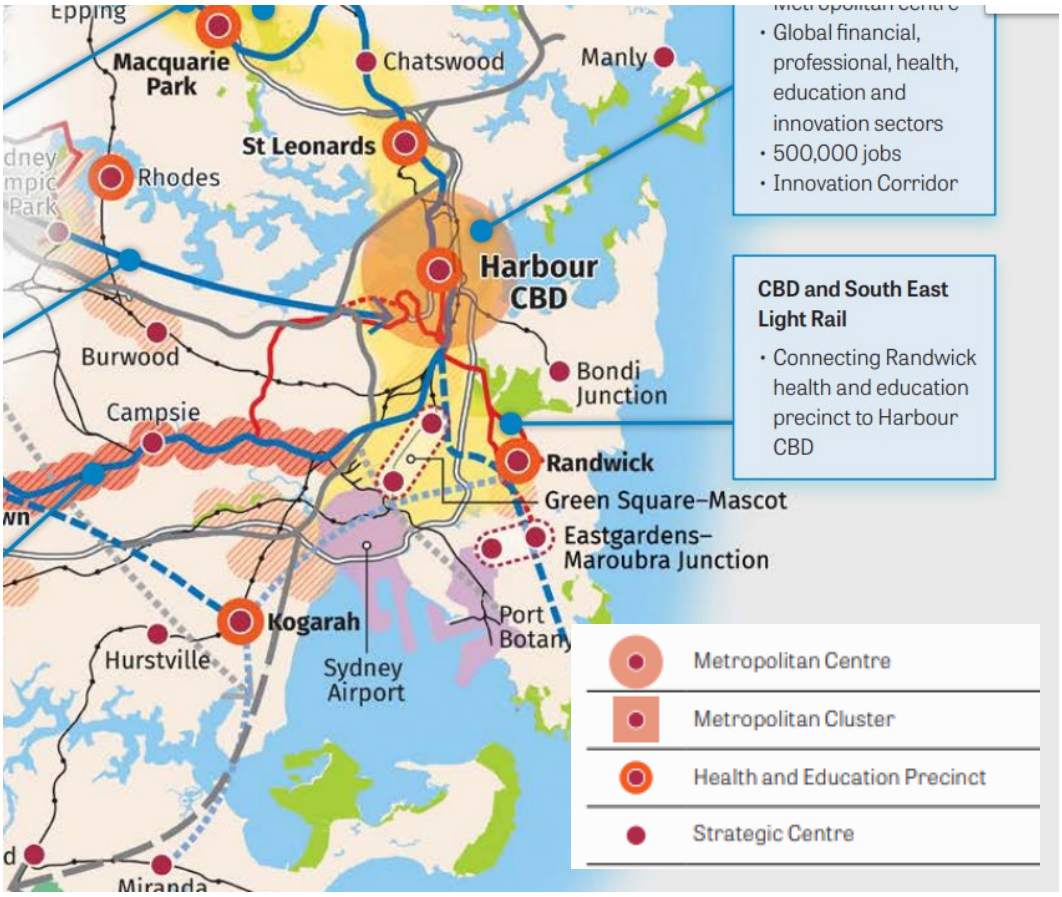


Figure 1: Greater Sydney Region Plan

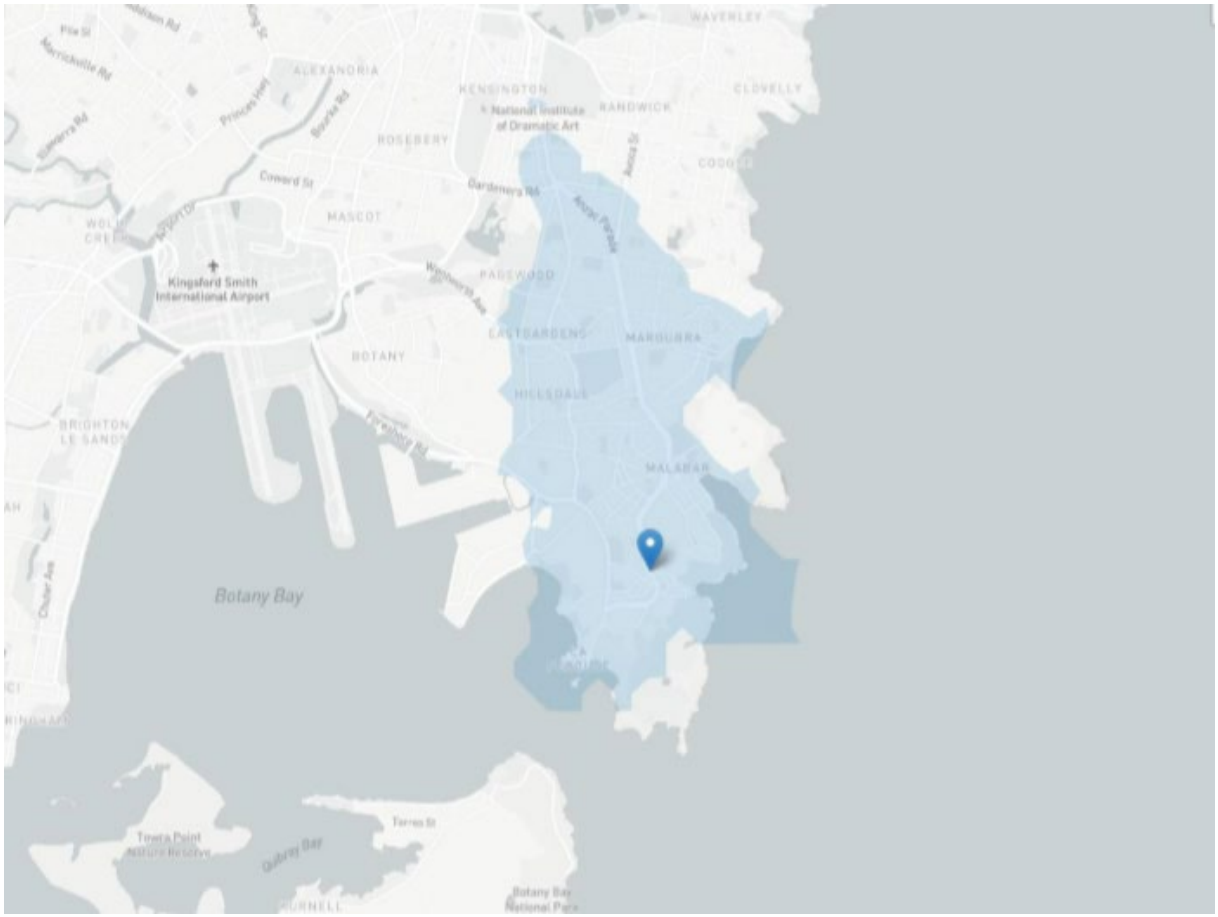
Source: Greater Sydney Region Plan

Arup's has estimated that current travel times to strategic centres by public transport are:-

- 14 min to Maroubra
- 22 min to Eastgardens
- 37 min to Mascot
- 39 min to Green Square
- 41 min to Randwick
- 50 min to 'Sydney'

Arup have demonstrated that site is within 30 minutes travel of Maroubra and Eastgardens and therefore meets the aspirations of the 30 minute city. A map of the 30minute public transport isochrone is shown in Figure 2.

Figure 2: 30 minute isochrone



Source: Arup

4. Contributions

The Planning Proposal notes that there would be an allowance for contributions towards state infrastructure via a VPA mechanism. This should be discussed with Council prior to any request to seek a gateway determination. The discussions should include the need for further studies to better understand the transport infrastructure required to support the envisioned land use outcomes.

This issue has been noted and the traffic assessment now identifies some infrastructure improvements which would mitigate the effect of general traffic growth and the traffic generated by the subject development. This is discussed in more detail later in this report.

5. Hotel use

It is recommended that the proposed hotel use be included in any revised Transport Assessment.

Arup have updated their analysis to include a 300 bed hotel within the traffic generation calculations. The hotel is forecast to generate 71 vehicle trips in the morning peak period.

6. Connections to Bilga Crescent

The master plan should make allowances for local connections to the north of the site. This will provide opportunities for future residents at the eastern portion of the site to access bus services stopping along Bilga Crescent and be within 400m of a bus stop.

Road connections to the north to Bilga Crescent are not being proposed as part of this development but footpath, road and open space are explored within the masterplan.

Randwick City Council

The following section address the comment received from Randwick City Council.

> The revised scheme did not provide any additional information regarding transport and parking provision. Given that the density and overall number of dwellings have only reduced by 15% the key issues remain regarding the lack of sufficient transport and parking infrastructure to support the intensification of use and the large number of dwellings and unrealistic mode share shift. The original proposal asserts by using the reduced car parking, improved public transport and mixed use precinct, the mode shift between public and private vehicles will be essentially swapped from 18% public transport to 68%, and from 64% private vehicle to 30%. This mode shift is unlikely to occur in this location. Moreover, there are already capacity constraints at Anzac Parade / Beauchamp Road and broader area without any development.
>
> Without any certainty in the level of public transport infrastructure invest to the site and area in the short to long term, it is highly unlikely that a mode shift towards the rates proposed in the original proposal can be achieved.
>
> In relation to the Voluntary Planning Agreement (VPA), it is Council's position that the strategic and site specific merits of the proposal needs to eb established for there to be any meaningful discussion about public benefits through a VPA.

It is agreed that the level of mode share shift presented in the previous Arup traffic and transport assessment is unlikely to be achieved. The assessment has been updated to reflect a more modest shift in mode share. Traffic generation has been revised based on the 'Trip Generation Surveys: High Density Residential (Car Based) Analysis Report' compiled by Bitzios Consulting (20 October 2017) that was commissioned by the Roads and Maritime Services (RMS). The revised vehicle trip rates that have been adopted are:

- AM peak hour: 0.28 trips per dwelling unit
- PM peak hour: 0.34 trips per dwelling unit
- Weekends peak hour: 0.29 trips per dwelling unit

The residential trips were reduced by 15% to account for internal trips within the subdivision. The RTA Guide to traffic generating developments suggests a 25% discount for subdivision whereas Arup have adopted a more modest 15% discount.

This is considered a more realistic estimate of trip generation than the previous assumptions. The traffic modelling has been updated and the results provided by Arup.

Traffic Modelling

The amended traffic modelling has identified that several local intersections perform poorly in the future and may require upgrades. These intersections are:

- Anzac Parade / Beauchamp Road
- Bunnerong Road / Beauchamp Road
- Botany Road / Foreshore Drive / Penrhyn Road

The upgrades of Anzac Parade / Beauchamp Road and Botany Road / Foreshore Drive / Penrhyn Road appear to be achievable within the existing road reserve.

However, the upgrade of the intersection of Bunnerong Road / Beauchamp Road would require additional land acquisition to facilitate the proposed right turn bays.

In suggesting that these road improvements will mitigate the traffic impacts of the development at a local level, it should be noted that such intersections are not required solely as a result of the proposed development but due to existing traffic volumes and future traffic growth.

It is not reasonable that the proposed development should solely fund the suggested improvements but a contribution to the costs could be negotiated through the VPA process. To that end, the Arup report indicates the level of development traffic expressed as a percentage of the total traffic at those intersections. This could easily form the basis of any contribution. This is described in more detail below.

In terms of those intersections which are operating above capacity in the future, the modelling considered the following improvements:-

- Site 7: ANZAC Parade / Beauchamp Rd - 6% of traffic is development traffic
- Site 8: Beauchamp / Bunnerong Rd - 8% of traffic is development traffic
- Site 12: Botany / Foreshore / Penrhyn - 3% of traffic is development traffic

Conclusions

We have reviewed the correspondence from TfNSW and Randwick City Council and agree that the mode share and traffic generation used in the assessment should not rely on future mass-transit/ rail infrastructure for which there is no definite commitment (i.e. it may not be provided).

Consequently, Arup has revised their assumptions/traffic generation calculations and updated the traffic analysis. This analysis shows that three intersections would perform poorly

in future with the development traffic. Measures proposed to upgrade the intersections would allow them to perform adequately in the future.

We trust the above is to your satisfaction. Should you have any queries regarding the above or require further information, please do not hesitate to contact the undersigned on 8437 7800.

Yours sincerely,

Ken Hollyoak
Director

Attachment One

Arup updated traffic analysis

1.1 Residential traffic generation

Residential trip generation rates were adopted from Table 4.1 of the *Trip Generation Surveys: High Density Residential (Car Based) Analysis Report* compiled by Bitzios Consulting (20 October 2017). The following sub-metropolitan were applied for Little Bay Cove:

- AM peak hour: 0.28 trips per dwelling unit
- PM peak hour: 0.34 trips per dwelling unit
- Weekends peak hour: 0.29 trips per dwelling unit

The report included the daily transport mode underlying these trip rates. The weighted mode shares, averaged across all sites and assuming the daily rates are also proxies for the peak periods, are:

- Private car: 47%
- Public transport: 15%
- Active modes: 38%

Based on the floor space ratio of 2:1, this results in a total unit yield of 1,907 units across the site. A proposed hotel will make up between 200-300 rooms, therefore the total residential yield is assumed to be 1,607 units.

The total residential trip yield resulting from these rates was reduced by 15% to account for containment within the development site. This is reasonable, considering the 38% active transport mode share observed at the high-density sub-metropolitan sites described in the Bitzios report. The residential trip totals, before and after reduction, are shown in Table 1.

Table 1: Residential traffic generation totals

Trips gen	Yield	AM Peak Hour	PM Peak Hour	Weekend Peak Hour
Using sub-metropolitan rates (no reduction)	1607 units	451	547	467
Using sub-metropolitan rates (15% reduction for containment)	1607 units	383	465	396

1.2 Summary of traffic generation

Using the updated residential trip generation, and the retail and childcare trip generation totals from Section 5.1 of Arup's *Little Bay Cove Transport Assessment (Rev B, 2019-07-18)*, the updated total traffic generation for Little bay Cove is summarised in Table 2. The hotel is assumed to be a component of the residential yields within the site.

Table 2: Updated traffic generation totals

Land use	Yields	AM Peak Hour		PM Peak Hour		Weekend Peak Hour	
		In	Out	In	Out	In	Out
Residential	1607 units	77	307	372	93	158	238
Hotel	300-rooms	14	57	70	17	30	44
Childcare	100-child centre	27	27	17	17	0	0
Retail	5,900sqm GFA	51	51	129	129	129	129
Total In/Out		**169**	**442**	**588**	**256**	**317**	**411**
Total All		**611**		**844**		**728**	

The full development scenario would result in the following traffic generation volumes:

- AM peak hour 611 trips
- PM peak hour 844 trips
- WE peak hour 728 trips

1.3 Intersection analysis with development

The intersection modelling results of the year 2029, with 1% per annum traffic growth, the updated trips generated by the 1,909 dwellings, as well as the associated retail and child care traffic, are shown in Table 3.

It is noted that the intersection layouts were kept unchanged from those analysed in Arup's *Little Bay Cove Transport Assessment (Rev B, 2019-07-18)*. This allowed identification of the impacts of the updated residential trip generation rates.

Table 3: SIDRA Modelling Results – 2029 with development

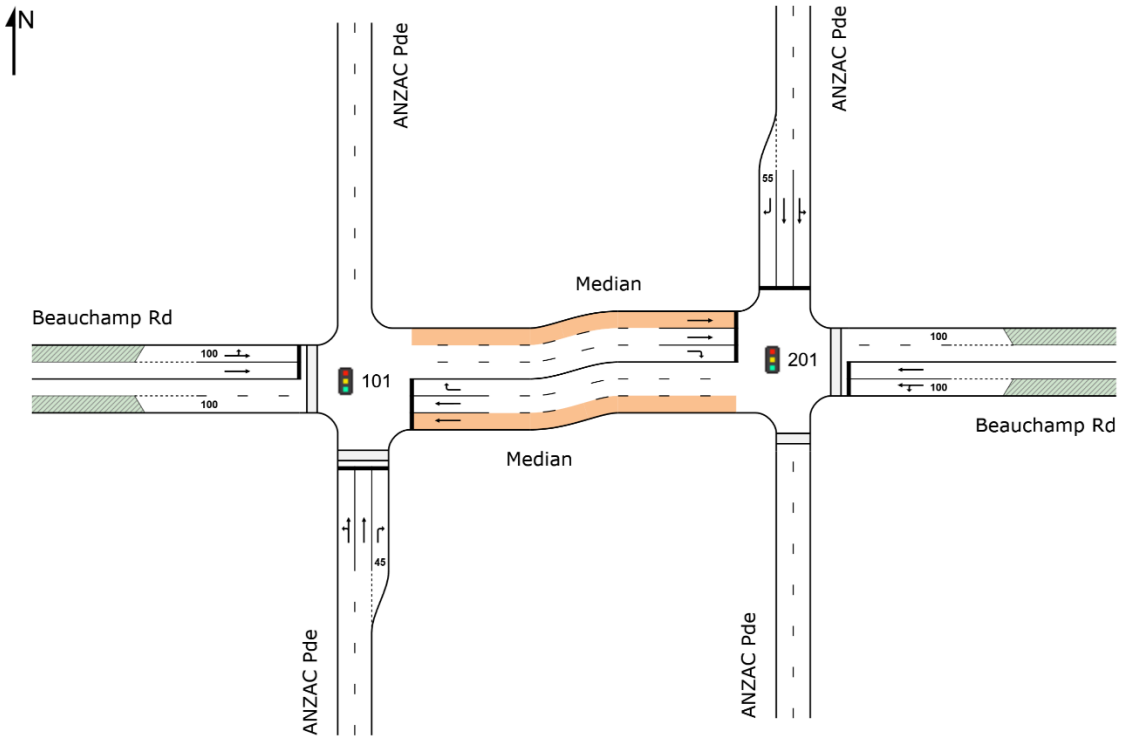
Intersection	Peak	DoS	Avg. Delay	LOS
1.1 Cawood/ Anzac (west intersection)	AM Peak	0.35	3	LOS A
	PM Peak	0.38	4	LOS A
	SAT Peak	0.38	3	LOS A
1.2 Cawood/ Anzac (east intersection)	AM Peak	0.32	3	LOS A
	PM Peak	0.48	4	LOS A
	SAT Peak	0.39	4	LOS A
2 Solarch/ Anzac	AM Peak	0.14	2	LOS A
	PM Peak	0.18	1	LOS A
	SAT Peak	0.19	1	LOS A
3.1 Bilga/ Anzac/ Kenny (west intersection)	AM Peak	0.35	3	LOS A
	PM Peak	0.72	3	LOS A
	SAT Peak	0.63	3	LOS A
3.2 Bilga/ Anzac/ Kenny (east intersection)	AM Peak	0.79	3	LOS A
	PM Peak	0.48	3	LOS A
	SAT Peak	0.7	3	LOS A
4 Anzac/ Little Bay/ Jenner	AM Peak	0.3	7	LOS A
	PM Peak	0.28	6	LOS A
	SAT Peak	0.35	7	LOS A
5 Anzac/ Pine	AM Peak	0.18	5	LOS A
	PM Peak	0.18	5	LOS A
	SAT Peak	0.19	4	LOS A
6.1 Anzac/ Franklin (Signalised)	AM Peak	0.9	27	LOS B
	PM Peak	0.67	13	LOS A
	SAT Peak	0.81	15	LOS B
6.2 Anzac/ Franklin (West, stop sign)	AM Peak	0.66	7	LOS A
	PM Peak	0.5	6	LOS A
	SAT Peak	0.42	5	LOS A
6.3 Anzac/ Franklin (East, stop sign)	AM Peak	0.31	4	LOS A
	PM Peak	0.7	6	LOS A

Intersection	Peak	DoS	Avg. Delay	LOS
	SAT Peak	0.4	4	LOS A
7.1 Anzac/ Beauchamp (west intersection) ** See discussion in Section 1.4*	AM Peak	1.09	115	LOS F *
	PM Peak	0.78	23	LOS B
	SAT Peak	0.94	33	LOS C
7.2 Anzac/ Beauchamp (east intersection) ** See discussion in Section 1.4*	AM Peak	1.12	83	LOS F *
	PM Peak	0.97	44	LOS D
	SAT Peak	0.93	26	LOS B
8 Bunnerong / Beauchamp ** See discussion in Section 1.4*	AM Peak	1.06	102	LOS F *
	PM Peak	1.01	62	LOS E *
	SAT Peak	1.19	99	LOS F *
9 Bunnerong / Little Bay	AM Peak	0.4	6	LOS A
	PM Peak	0.62	5	LOS A
	SAT Peak	0.6	8	LOS A
10 Botany/ Bunnerong	AM Peak	0.78	18	LOS B
	PM Peak	0.89	43	LOS D
	SAT Peak	0.92	50	LOS D
11 Botany / Beauchamp	AM Peak	0.79	16	LOS B
	PM Peak	0.72	16	LOS B
	SAT Peak	0.81	16	LOS B
12 Botany /Foreshore / Penrhyn ** See discussion in Section 1.4*	AM Peak	1.02	62	LOS E *
	PM Peak	0.91	42	LOS C
	SAT Peak	0.82	19	LOS B
13 Bunnerong / Perry / Franklin	AM Peak	0.81	15	LOS B
	PM Peak	0.87	17	LOS B
	SAT Peak	0.79	16	LOS B

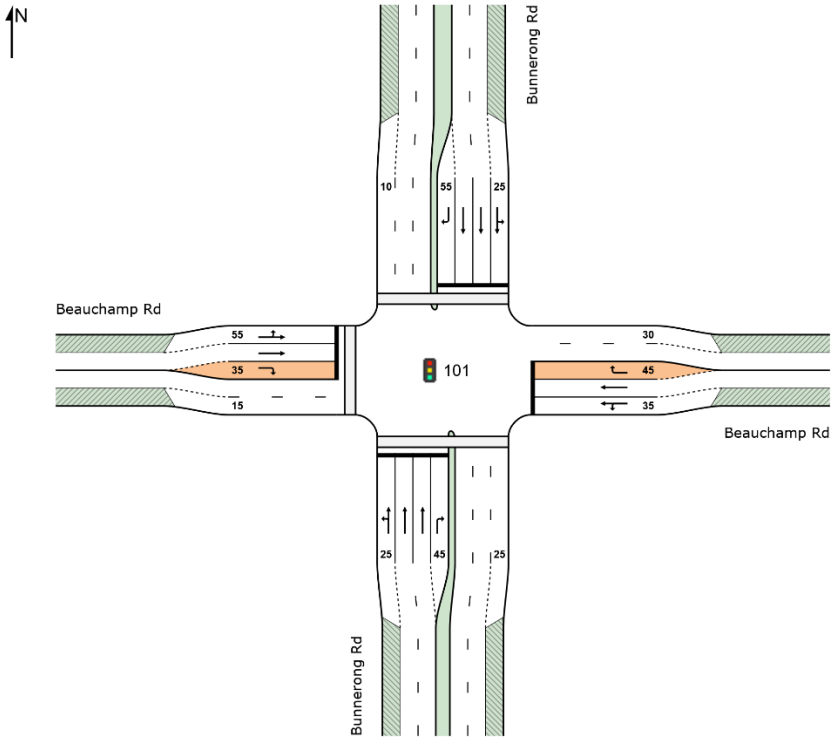
1.4 Identified mitigation measures

The results indicate that capacity is relatively unconstrained except at the following locations:

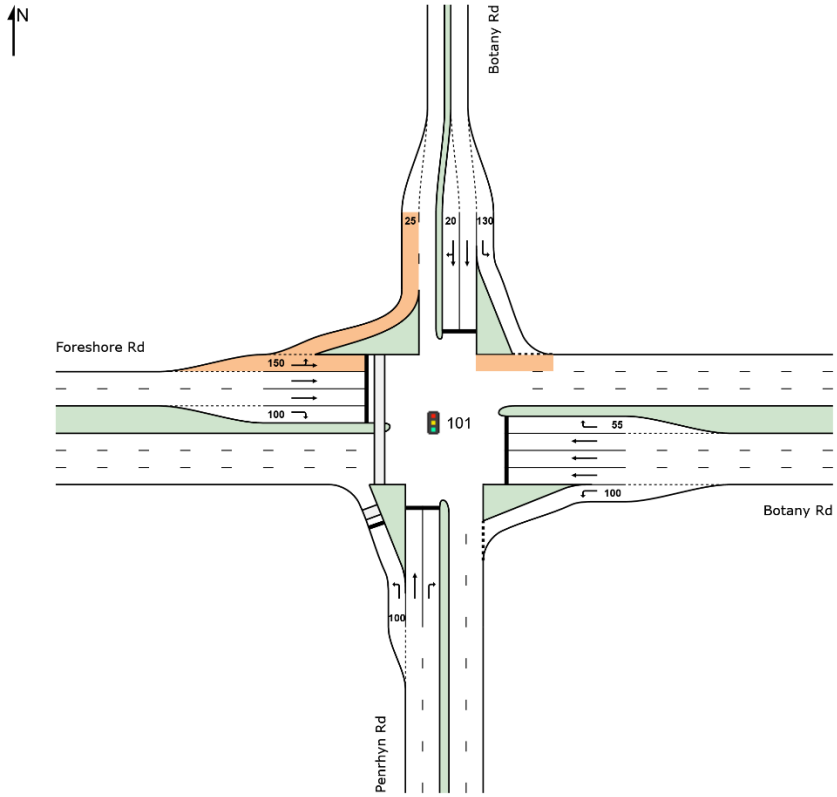
- **Anzac Parade / Beauchamp Road** intersections during the AM peak period. This intersection may require an additional lane in each direction in the median along Beauchamp Road to accommodate separate right-turn lanes, given that the current intersection combination operates poorly with background growth in 2029.



- **Bunnerong Road / Beauchamp Road** during all peak periods. Identified upgrades at this intersection include the addition of separate right-turn pockets along the Beauchamp Road approaches. Due to space constraints, it is unlikely that these upgrades can be accommodated without land acquisition.



- **Botany Road / Foreshore Road / Penrhyn Road** during the AM peak period. The upgrade identified proposes to increase the two through lanes along the western approach to three through lanes and reconfiguring the dedicated left-turn lane to a through-and-left combination. Small downstream reconfigurations will also be required.



The intersection modelling results of the year 2029 with the identified upgrades in place are shown in Table 4.

Table 4: SIDRA Modelling Results – 2029 with development and upgraded layouts

Intersection	Peak	DoS	Avg. Delay	LOS
7.1 Anzac/ Beauchamp (west intersection)	AM Peak	0.96	48	LOS D
	PM Peak	0.61	19	LOS B
	SAT Peak	0.66	20	LOS B
7.2 Anzac/ Beauchamp (east intersection)	AM Peak	0.83	28	LOS B
	PM Peak	0.71	19	LOS B
	SAT Peak	0.65	19	LOS B
8 Bunnerong / Beauchamp	AM Peak	0.92	34	LOS C
	PM Peak	0.87	32	LOS C
	SAT Peak	1.03	36	LOS C
12 Botany / Foreshore / Penrhyn	AM Peak	0.96	51	LOS D
	PM Peak	0.87	28	LOS B
	SAT Peak	0.84	20	LOS B

The results indicate that the mitigation measures identified should be sufficient for the intersections to operate at acceptable levels of service once Little Bay Cove is mature.